



Annual Report 2016

Connecting, Extending and Assuring the Cloud

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1 WELCOME

Right across the globe, our team is unified by a shared vision, a shared passion. Our challenge each and every day is to help our customers achieve more.

Karsten Geise, Business Development



PROFILE

ADVA Optical Networking is a company founded on innovation and driven to help our customers succeed.

For over two decades, our technology has empowered networks across the globe. We're continually developing breakthrough hardware and software that leads the networking industry and creates new business opportunities.

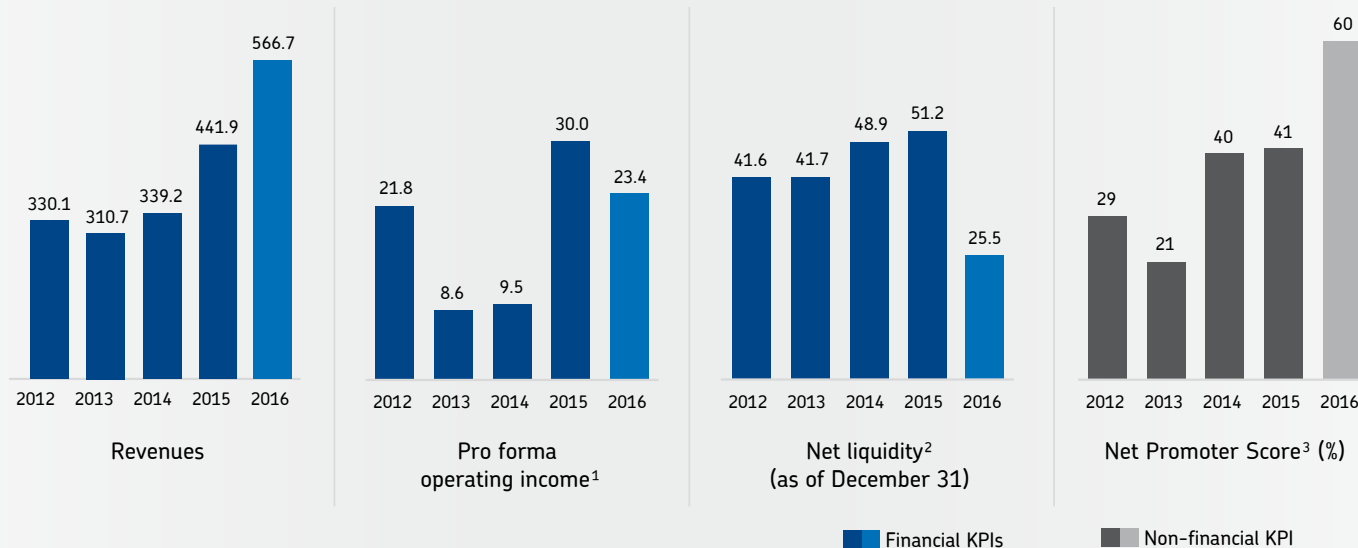
It's these open connectivity solutions that enable our customers to deliver the cloud and mobile services that are vital to today's society and for imagining new tomorrows.

Together, we're building a truly connected and sustainable future.

MISSION

ADVA Optical Networking enables next-generation networks. The Group's mission is to be the trusted partner for connecting, extending and assuring the cloud.

2016 KEY PERFORMANCE INDICATORS (in millions of EUR, except net promoter score)



¹ Pro forma operating income is calculated prior to non-cash charges related to the stock compensation programs and amortization and impairment of goodwill and acquisition-related intangible assets.

² Net liquidity is calculated by subtracting current and non-current financial liabilities as well as current and non-current finance lease obligations from cash and cash equivalents.

³ The Net Promoter Score is obtained by asking customers a single question on a 0 to 10 rating scale: "How likely is it that you would recommend our company to a friend or colleague?" Based on their responses, customers are categorized into one of three groups: promoters (9–10 rating), passives (7–8 rating), and detractors (0–6 rating). The percentage of detractors is then subtracted from the percentage of promoters to obtain a Net Promoter Score.

ADVANTAGES

FOCUS ON GROWTH MARKETS

- ADVA Optical Networking focuses on growth markets in the telecom space that have one thing in common: a strong and sustainable demand for innovative connectivity solutions.
- These markets are driven by the global megatrends “cloud” and “mobility” demanding more and better connectivity in all areas of the network.
- The total addressable market for ADVA Optical Networking was estimated to be USD 12.6 billion in 2016 and will, according to industry analysts, grow to USD 16.8 billion by 2021.⁴

INNOVATIVE CONNECTIVITY SOLUTIONS

- ADVA Optical Networking’s industry-leading engineering force is exclusively focused on innovative connectivity solutions for cloud and mobile services, outperforming the engineering departments of other vendors in this space.
- Focus on innovation drives market success and has made ADVA Optical Networking the global leader for data center interconnect solutions for private enterprises with a market share of greater than 27%⁵ and ...
- ... the global market leader for metro data center interconnect solutions for internet content providers and carrier neutral providers with a market share of greater than 20%.⁵

⁴ Industry analyst estimates for metro and long-haul WDM equipment (“Optical”) and access switching & routing (“Ethernet”) relevant to ADVA Optical Networking. Sources: Ovum, Optical Networks Forecast 2016-2021 and service provider switching and routing forecast 2016-2022, published January 2017

⁵ Source: Ovum, market share report 3Q16 for data center interconnect, published December 2016

SPEED FOR CUSTOMERS

- ADVA Optical Networking has a strong track record of being first to market with new functionality that adds value for customers.
- A responsive team serves customers around the globe, with 49.3% of ADVA Optical Networking's 2016 revenues generated in the Americas, 44.4% in EMEA (Europe, Middle East and Africa) and 6.3% in Asia-Pacific.
- ADVA Optical Networking's innovative networking solutions have been deployed by several hundred service providers and thousands of enterprises around the globe.

TRUSTED PARTNER

- ADVA Optical Networking's unique combination of innovation and speed has seen the Group build close partnerships with customers, resulting in repeat purchases and strong cross-selling opportunities for its innovative networking solutions.
- As a trusted partner for two decades, ADVA Optical Networking provides high-quality solutions with lowest cost of ownership and best user experience.
- ADVA Optical Networking is led by a dynamic, international, experienced and highly-motivated management team with many years of senior management background, making it a dependable partner when it comes to building long-term business relationships.

2016 BUSINESS HIGHLIGHTS

Substantial revenue growth and new customer wins

Significant market share gains in relevant categories

Several major industry awards highlighting innovation leadership

CUSTOMER ACHIEVEMENTS

2016 was a year of major customer success. ADVA Optical Networking's solutions brought new efficiencies and revenue opportunities to enterprises in all industries. The Company's scalable, highly efficient technology was also deployed in mission-critical service provider networks across every continent. And, with the Company's intrinsic understanding of how to help customers succeed, ADVA Optical Networking was able to exceed many expectations. Here are a few of the highlights from the last 12 months:

January 26

City of Cape Town uses ADVA FSP 3000 CloudConnect™ for 400G metro network trial
Advanced connectivity links townships and paves way for local community development

February 10

Telia Eesti deploys ADVA 100G core throughout national backbone network
Simplicity of ADVA Optical Networking's technology key to selection

February 11

Oscilloquartz synchronizes Mobile TeleSystems' network
Innovative PTP frequency and phase synchronization solution addresses growing demand for next-generation LTE services

February 19

Accessbolaget uses ADVA FSP 150 to deliver Carrier Ethernet services throughout Sweden
Intelligent, scalable Ethernet access solution key to new provider's service offering

February 23

DartPoints deploys ADVA Ensemble for pure-play NFV

ADVA Optical Networking's high-performance virtualization solution creates new revenue streams

March 15

Telecom Italia uses ADVA FSP 3000 in major metro deployments

100Gbit/s solution with multi-degree ROADM technology delivers fast, flexible service provisioning

July 6

KOSC Telecom selects ADVA FSP 3000 for 100G connectivity throughout France

Combination of ADVA Optical Networking's metro and long-haul technology key to scalable national network

July 12

Bahnhof selects ADVA FSP 3000 100G core technology for national network

ADVA Optical Networking ROADM technology utilized to address Sweden's phenomenal bandwidth boom

July 14

MEDIA BROADCAST deploys ADVA FSP 3000 in nationwide connectivity backbone

ADVA Optical Networking's unique solution enables native HD video transport and data services over optical fiber

September 6

Globe Telecom deploys Oscilloquartz timing technology throughout Philippine network

New solution for frequency and phase delivery addresses booming demand and prepares for future growth

October 3

DataNet Africa and ADVA Optical Networking build first MEF-certified Carrier Ethernet service in East Africa
ADVA FSP 150 lays foundation for NFV and SDN

October 4

Oscilloquartz and Arcadiz Telecom synchronize Belgium's emergency services network
ASTRID deploys rubidium access solution with advanced holdover algorithm for ultimate sync assurance

November 15

186 Communications deploys ADVA FSP 3000 across Northeast United States
Scalability of ADVA Optical Networking technology vital to 1,000-mile network

November 24

Oscilloquartz synchronizes Indian defense's national transport network
Next-gen sync supply unit and advanced cesium clock technology vital to world's largest purpose-built defense network

December 6

Columbia College Chicago builds e-learning network on ADVA FSP 3000
ADVA Optical Networking 100G solution connects citywide hubs

INNOVATION AND CORPORATE EVENTS

In 2016, ADVA Optical Networking continued its mission to identify and develop new solutions for cloud and mobile, always focusing on increasing simplicity, flexibility and efficiency. The strategic purchase of Overture helped establish the Company as the NFV powerhouse. Other advances included the Company's SmartWAN, its ALM fiber monitoring solution and ONE Network Edge portfolio. These were some of the supporting announcements:

January 13

ADVA Optical Networking acquires Overture to create NFV powerhouse
Strategic purchase further strengthens company's cloud access solution

February 17

ADVA Optical Networking unveils strategic Ensemble Division to drive NFV success
New product suite provides unprecedented customer choice and the industry's most comprehensive NFV solutions

March 11

ADVA Optical Networking successful in EANTC interoperability tests
Multi-vendor showcase highlights openness of NFV and synchronization technology

March 21

ADVA Optical Networking launches MicroMux™ module for ultimate DCI scalability
New technology expands client port flexibility of the ADVA FSP 3000 CloudConnect™ with no loss of data or power density

September 15

ADVA Optical Networking and Saguna Networks to showcase future of mobile edge computing with Bezeq International
New mobile enterprise services architecture to be demonstrated at first ETSI MEC PoC Zone

September 22

ADVA Optical Networking plays key role in COMBO project to create fixed-mobile convergence
Showcase successfully demonstrates access technology essential to 5G

October 18

ADVA Optical Networking transforms fiber monitoring with the launch of ALM
New fiber assurance technology provides compact and cost-efficient advanced link monitoring

October 26

Oscilloquartz to unveil key new synchronization technology at ITSF 2016
Demonstrations will highlight new functionality for improved accuracy, reliability and cost efficiency

November 3

China Unicom successfully trials ADVA Optical Networking G.metro technology for mobile fronthaul
Prototype network utilizes self-tuning transponders to radically reduce complexity and cost

November 7

ADVA Optical Networking introduces One Network Edge
ADVA FSP 150 product family provides customers with industry's most comprehensive range of edge functions and devices

December 1

ADVA Optical Networking introduces Ensemble SmartWAN to accelerate virtualized SD-WAN
Ensemble's open virtualized networking platform enables service providers to realize new business opportunities

INTEROPERABILITY AND ALLIANCE PARTNERSHIPS

ADVA Optical Networking is a strong believer in the importance of open architecture and the value of cross-industry collaboration. In 2016, the Company played a central role in several joint innovation projects. Among these were initiatives to optimize DCI transport and to create the new 5G mobile standard. The Company also expanded its Ensemble Harmony partner ecosystem of NFV-based innovators and announced its commercial support for Voyager, the Facebook-designed white box solution developed by the Telecom Infra Project. Here's a selection of relevant 2016 headlines:

March 2

ADVA Optical Networking plays key role in 5G-XHaul research and development network
International consortium aims to revolutionize fronthaul and backhaul to enable LTE-Advanced

March 23

ADVA Optical Networking pioneers new silicon photonics consortium
SPEED project establishes value chain for development of electro-photonics integrated circuits in Germany

May 24

ADVA Optical Networking joins Telecom Infra Project
Key initiative to focus on developing open packet DWDM technology

June 9

ADVA Optical Networking joins consortium to create revolutionary data center technology
DIMENSION project forms complete value chain for integrated optical circuits with active photonics

July 25

ADVA Optical Networking announces major expansion of Ensemble Harmony ecosystem
Extended partner program gives customers access to industry's most comprehensive library of VNFs

November 1

ADVA Optical Networking announces commercial support of Facebook-designed Voyager white box solution
Open optical packet transport system will help customers rapidly respond to new business opportunities

November 11

SC16 uses ADVA Optical Networking 100G technology to support SCinet
Compact, low-power transport solution plays key role in unique research and education network

INDUSTRY AWARDS AND ACCOLADES

As well as collecting seven major industry awards for innovative solutions and financial success, 2016 saw ADVA Optical Networking named Light Reading's Public Company of the Year. ADVA Optical Networking was also recognized in Ovum's global DCI report for unrivalled gains in market share. These were some of the awards and honors:

May 10

ADVA Optical Networking wins 2016 Pipeline Innovation Award for network technology
Ensemble Connector garners critical acclaim for NFV achievements

May 12

Ensemble Connector wins NFV Innovation of the Year Award at 5G World MENA
ADVA Optical Networking pure-play technology applauded for openness, simplicity and vision

May 16

ADVA Optical Networking selected as finalist for multiple Light Reading Awards
Leading Lights Awards recognize company's leadership in business and solution innovation

May 24

ADVA Optical Networking wins Light Reading's Company of the Year (Public) Award
Leading Lights honor recognizes company's spectacular financial success and key technology innovations

June 7

ADVA Optical Networking wins Celtic-Plus Award for key role in SASER project
SASER ADVAntage-Net consortium succeeds in improving DCI bandwidth efficiency

July 18

ADVA Optical Networking and DartPoints win GTB Innovation Award for NFV deployment
ADVA Ensemble enables virtualized micro data center services at the network edge

September 13

ADVA Optical Networking scores #1 position in Ovum's DCI global market share report
Rapid growth throughout 2016 drives the company ahead of the competition

November 9

ADVA Optical Networking wins two MEF Excellence Awards
Ensemble Connector virtualization platform and ADVA FSP 150 ProVMe recognized by Third Network Technology Solutions of the Year Panel

December 19

ADVA Optical Networking achieves largest QoQ gain in global DCI market share, says Ovum report
Company named number 1 for enterprise and metro ICP/CNP market share

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Helping customers transform their businesses is just one side of what we do. We're also making the world more open and connected. Our innovation creates new possibilities; it expands people's horizons. And that's what drives us.

Christoph Glingener, Brian Protiva and Ulrich Dopfer

MEMBERS AND THEIR BACKGROUNDS

ADVA Optical Networking is led by a dynamic, international, experienced and highly-motivated team. Leading, directing and managing the Group's growth are three executive officers:

Brian Protiva, Chief Executive Officer
Christoph Glingener, Chief Technology Officer,
Chief Operating Officer
Ulrich Dopfer, Chief Financial Officer

BRIAN PROTIVA, CHIEF EXECUTIVE OFFICER (CEO)

born in 1964
Bachelor of Science in Electrical Engineering, Stanford University, USA

Brian Protiva co-founded ADVA Optical Networking in 1994. As the CEO, he is responsible for overall strategy, human resources, quality management and marketing. Under Brian's leadership, ADVA Optical Networking advanced to become a global market leader in Ethernet access devices and one of the top players in metro Wavelength Division Multiplexing (WDM) worldwide. To date, ADVA Optical Networking's innovative networking solutions have been deployed in more than 10,000 enterprises and more than 300 carrier networks around the world. Prior to leading ADVA Optical Networking, Brian was managing director at AMS Technologies (now the EGORA Group), which he joined in 1987 and where he focused on co-managing its subsidiaries.





CHRISTOPH GLINGENER,
CHIEF TECHNOLOGY OFFICER (CTO),
CHIEF OPERATING OFFICER (COO)

born in 1968
Ph.D. in Electrical Engineering,
University of Dortmund, Germany

Dr. Christoph Glingener joined ADVA Optical Networking in April 2006, assuming responsibility for all global research and development activities and was appointed CTO in 2007. Since that time, he also leads ADVA Optical Networking's product management and advanced technology teams. Christoph has focused on streamlining ADVA Optical Networking's product portfolio, defining the product strategy and building the Group's standing as a global innovator in optical networking. Strategic partnerships and mergers & acquisitions are an integral part of this strategy. Additionally, in January 2015, Christoph took on responsibility for global operations, enabling ADVA Optical Networking to integrate research and development, new product introduction and global operations into a unified development operations team. Christoph's activities at ADVA Optical Networking build on a long and successful industry career with experience gained in both academic and corporate roles. These include leading positions at Marconi Communications (now Ericsson) and Siemens Communications (now Coriant).

ULRICH DOPFER, CHIEF FINANCIAL OFFICER (CFO)

born in 1973

Graduate in Business Administration, Verwaltungs- und Wirtschaftsakademie
Munich, Germany

Ulrich Dopfer joined ADVA Optical Networking in March 2004 and led the Group through some key financial initiatives taking on increasing responsibility over time. In 2006 Ulrich moved to Norcross, Georgia, where he is still based today. Prior to his appointment as CFO in January 2015, Ulrich served as vice president of financial planning & analysis and corporate services where he strategically optimized major processes, systems and support infrastructure, enabling ADVA Optical Networking to maintain the right balance between vision and execution. Combining his operational expertise with his vast financial skills and strong leadership style, Ulrich provides ADVA Optical Networking with the ability to flexibly steer the Group in a volatile high-growth environment, to ensure profitable growth. In addition to his CFO role, Ulrich was appointed president of the Company's North American subsidiary in January 2015, assuming full legal responsibilities for the region. As of January 2017 he is also responsible for the global sales organization. Ulrich's activities at ADVA Optical Networking build on more than 20 years' experience of designing and implementing financial reporting, performance measurements, policies and standards to maintain strong internal controls in corporate roles including positions at ESCADA AG and FJH AG.



LETTER TO SHAREHOLDERS

Dear shareholders and friends,

2016 was a year full of surprises. Above all was the result of the United Kingdom's referendum on leaving the European Union, as well as the election of Donald Trump as the 45th President of the USA. The political climate appears to have become rougher. In many places, populists take the floor and promote intolerance and exclusion as a means of protecting national interests. The impact of social media on opinion formation is increasing, and the fear that these media can be manipulated and used for political interests is growing. Personally, this development saddens me. At ADVA Optical Networking, we are a globally operating, multicultural company with talented and motivated employees on all continents. With our technology, we make an important contribution to making global communication networks safer and more efficient. The Internet, the largest machine in the world, is based on fiber-optic data transport, providing access to news, education, culture and entertainment. With our optical networking technology, enormous amounts of data are being transmitted – ultimately to connect people. The global megatrends cloud and mobility promise an unprecedented availability of information at any time and place, as well as a more just and transparent world.

AWARD-WINNING INNOVATION

As a technology company, we are proud to be a strategically important contributor to the creation of a secure, digital information society. We invest in innovation and in people. In

January, we acquired Overture to strengthen our product portfolio and development team. With our division Ensemble, we accelerated our development of software solutions for network virtualization, which have already been presented in numerous test environments. Throughout 2016, we won seven prestigious awards that recognize our innovative strength, including the prestigious "Company of the Year" Award from Light Reading.

GROWTH AND MARKET LEADERSHIP

After a record year in 2015, which gave us revenue growth of over 30% compared to the previous year, we once again showed significant top-line growth in 2016. For the first time in the history of our company, we recorded annual revenues of more than half a billion euros. According to the industry analysts at Ovum, these record sales have given us global market leadership in several areas of the rapidly growing data center interconnect (DCI) market and made us one of the fastest growing companies in this space worldwide. Much of the growth in 2016 came from the growing demand of internet content providers for optical transmission technology. On the downside, we only achieved low margins with this customer group. Due to the delayed market introduction of our FSP 3000 CloudConnect™, a product specifically developed for the DCI application, we can only improve our margin position here in 2017. Furthermore, the acquisition of Overture, the devaluing of the British pound after the Brexit vote in Great Britain, as well as the strengthening dollar weighed on our profitability. The stock markets have penalized this with painful price drops, and our market capitalization shrank considerably. A decline, which we want to make up for in 2017. The prerequisites for this are promising.



POSITIVE PROSPECTS FOR THE FUTURE

The major growth drivers, cloud and mobility, are fully intact. Globally, the demand for more bandwidth in the networks is growing rapidly, and the economic power of most network operators is developing positively. After the investments of the past years in long-haul networks, there is now a need to introduce 100G technology in the metro – an area of the network infrastructure that we serve very well. Furthermore, the trend towards network functions virtualization (NFV) is gaining momentum. Cloud services are the fastest growing business for communication service providers and through NFV these services can be deployed more quickly, flexibly and cost-effectively. In 2016, we carried out extensive and successful tests with more than 20 network operators. Applications such as “virtual customer premise equipment (vCPE)” and “software defined wide area network” (SD-WAN) are changing the business models of the operators and promising better customer loyalty. The most important scenarios were successfully demonstrated with numerous partners and operators of different profiles and sizes in all our sales regions. In this context, first additional revenue streams can be expected for 2017. What’s more, after years of conservative spending, we’re now seeing regional demand rebounding in Europe and additional impetus from internet content providers. These opportunities support our goal of being the trusted partner for open networking solutions for existing and new customers. The combination of cost-effective innovation, short development and delivery times, a broad and growing customer base and a well-balanced distribution model differentiates ADVA Optical Networking from its peers and will further fuel our profitable business model for the benefit of our customers, shareholders and employees.

I would like to thank our dedicated employees for their consistent and valuable contributions. Their combined talents have made ADVA Optical Networking a strong company with bright prospects for the future. Thank you! In times of cloud and mobility, expertise in the areas of connecting, extending and assuring the cloud is strategically significant and valuable. ADVA Optical Networking is the leader in this field.

Let’s ADVANCE!

21 February 2017

Brian Protiva
Chief Executive Officer

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3 SUPERVISORY BOARD



I'm inspired every day by the people I work with. Their imagination and dedication motivates me to go further. The talent, diversity and spirit in our team shows me that what we've achieved so far is only the start.

Roland Nwancha, Commercial Management

MEMBERS

ADVA Optical Networking's Supervisory Board consists of a diverse and international group of seasoned experts in their respective fields:

[Nikos Theodosopoulos - Chairman](#)

Chairman since January 9, 2015

Member since 2014

- Chairman of the Compensation and Nomination Committee
- Member of the Audit Committee
- Founder and Managing Member of NT Advisors LLC, Manhasset, New York, USA

[Johanna Hey - Vice Chairwoman](#)

Vice Chairwoman since June 4, 2013

Member since 2011

- Chairwoman of the Audit Committee
- Professor for tax law, University of Cologne, Cologne, Germany

[Hans-Joachim Grallert - Member](#)

Appointed by the court on February 17, 2016, elected by the Annual Shareholders' Meeting on May 11, 2016

- Member of the Compensation and Nomination Committee
- Professor for Communications Engineering, Technical University of Berlin, Berlin, Germany

REPORT OF THE SUPERVISORY BOARD

In 2016, the Supervisory Board once again performed its duties under the law and the Company's articles. It carefully and continuously monitored the Management Board and supported it in all strategic matters. The Supervisory Board has been directly involved in the early stages of all important strategic decisions of the Company. During a total of six ordinary meetings, in which all members of the Supervisory Board and the members of the Management Board regularly participated, the Management Board consistently, promptly and extensively informed the Supervisory Board about the business situation of the Company and the Group. In particular, the Supervisory Board was informed on matters regarding strategic orientation, market development and prospects for growth, as well as on the development of net assets, financial position and profitability, including budgeting, investments, personnel, compliance, internal audit and risk management. The Supervisory Board extensively discussed all important business issues on the basis of the Management Board's reports. Any deviations of the actual business development from the Group's plans and objectives were thoroughly explained by the Management Board and reviewed by the Supervisory Board. The Supervisory Board gave its approvals to all important decisions, after thorough examination and consultation, where required by law or the Company's articles and acting in the best interest of the Company and the Group. In addition to the six ordinary Supervisory Board meetings, the Supervisory Board held one extraordinary Supervisory Board meeting in which the budget for the business year 2017 was approved. Furthermore, on urgent matters resolutions were passed outside of meetings during the year. Moreover, especially the Chairman and the Vice Chairwoman of the Supervisory Board maintained regular contact with individual members of the Management Board outside of scheduled meetings and were kept up-to-date with respect to current business developments, important transactions and forthcoming decisions.

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Main Management Board Activities Covered and Examined by the Supervisory Board

In 2016, as in the prior year, the Supervisory Board focused mainly on the business development and strategic direction of the Company and the Group, particularly its revenue, earnings and headcount development, and ADVA Optical Networking's financial situation. In this context, new opportunities for revenue growth and the development of margins were discussed.

The Supervisory Board closely monitored and supported the activities of the Management Board, including discussions on mergers and acquisitions, and approved the acquisition of the US-based Overture Networks, Inc. It discussed the Group's organization and key business processes with the Management Board and assured itself of the efficiency of this organization and these processes. The Management Board submitted to the Supervisory Board all transactions and decisions requiring approval according to the Company's articles. The Supervisory Board approved all such transactions and decisions.

Committees

In order to perform its tasks efficiently, the Supervisory Board continued to maintain two committees during 2016, the Audit Committee and the Compensation and Nomination Committee. Members of the Audit Committee were Johanna Hey (Chairwoman) and Nikos Theodosopoulos, members of the Compensation and Nomination Committee were Nikos Theodosopoulos (Chairman) and Hans-Joachim Grallert (from July 19, 2016 on).

The Audit Committee held five meetings during the reporting period, in which all members regularly participated. In addition to reviewing the consolidated annual and three quarterly financial statements and Group management reports as well as the Company's annual financial statements and management report, the Audit Committee discussed the financial position and performance of the Group, the appointment of the external auditor, the audit scope for 2016, the development of tax positions and risks, internal audit activities, as well as the effectiveness of the internal controls related to financial reporting and of the risk management system.

The Compensation and Nomination Committee sat two times during the past year. The Committee's discussions focused in particular on the remuneration and the contract extensions of the chief officers.

Reports on the work of the Supervisory Board committees were regularly presented and discussed during the subsequent Supervisory Board plenary meeting.

Corporate Governance Code

The Supervisory Board welcomes the German Corporate Governance Code and supports its objectives. The Supervisory Board has agreed to comply with most of the recommendations and proposals of the Corporate Governance Code within the ADVA Optical Networking organization. In its meeting on November 15, 2016, the Supervisory Board and the Management Board discussed deviations from the Code and jointly approved an updated declaration of compliance in accordance with section 161 of the German Stock Corporation Law (Aktiengesetz, AktG). This declaration is published on the Group's website and is accessible for all shareholders.

Annual Financial Statements and Management Reports

ADVA Optical Networking's consolidated annual financial statements for the year ended December 31, 2016, and ADVA Optical Networking SE's annual financial statements for the year ended December 31, 2016, as well as the Group management report and the management report of ADVA Optical Networking SE for the fiscal year 2016 were audited by the Company's appointed auditor for 2016, Pricewaterhouse Coopers Aktiengesellschaft Wirtschaftsprüfungsgesellschaft, Munich, who issued unqualified audit opinions. Pursuant to section 315a of the German Commercial Code (Handelsgesetzbuch, HGB), the consolidated annual financial statements have been prepared according to International Financial Reporting Standards (IFRS) as enacted in the EU. All management letter points issued by the auditor were taken up, discussed with the Management Board, and their consideration was ensured.

All relevant accounting documents, financial reports and audit reports were submitted to the Supervisory Board members prior to the meeting of the Supervisory Board dealing with the Company's and Group's 2016 financial statements. On February 16 and 20, 2017, these documents were discussed and examined in detail jointly by the Audit Committee and the auditor and in consideration of the auditor's long-form report. The Audit Committee reported its findings to the entire Supervisory Board in its meeting on February 21, 2017. Furthermore, the auditor, who was present in all three meetings, reported on the material results of the audit, explained net assets, the financial position and the results of operations of the Company and the Group, and was available to answer additional questions from the members of the Supervisory Board.

In view and consideration of these audit reports and on the basis of the additional information provided by the auditor, the Supervisory Board discussed and examined in detail the financial statements and management reports in its meeting on February 21, 2017. It unanimously approved ADVA Optical Networking SE's annual financial statements and management report, as well as ADVA Optical Networking's consolidated annual financial statements and Group management report. The annual financial statements of ADVA Optical Networking SE for the fiscal year 2016 are thereby adopted.

Changes Within the Management and Supervisory Boards

On February 17, 2016 the competent municipal court Jena appointed Hans-Joachim Grallert member of the supervisory board until the end of the next upcoming Shareholders' Meeting that took place on May 11, 2016 and elected Mr. Grallert as member of the supervisory board until the end of the Shareholders' Meeting resolving on his discharge for the business year 2016.

In its meeting on February 21, 2017, the Supervisory Board approved the proposals of the Compensation and Nomination Committee to re-appoint Brian Protiva, Christoph Glingener and Ulrich Dopfer as members of the Management Board until December 31, 2018. It was agreed that corresponding contractual provisions would be superimposed with the individual members of the Management Board in writing.

The Supervisory Board would like to express its appreciation for the personal dedication, performance and the ongoing commitment of the Management Board and all employees of the Company and the Group during 2016.

February 21, 2017

On behalf of the Supervisory Board:



Nikos Theodosopoulos
Chairman of the Supervisory Board

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We're all about the cloud. We believe in its power to unleash potential, to make a positive difference in communities and individual lives. When people are connected there's no limit to what they can do.

Ashley Quigles, Legal

ADVA OPTICAL NETWORKING STOCK

After a dynamic performance in 2015, the share price lost some of its gains in 2016

In 2016, ADVA Optical Networking was not able to continue the dynamic share price performance of 271.9%, which was achieved in 2015. Despite sustained revenue growth, a decrease in profitability unsettled investors. Besides internal events, like the acquisition of Overture and the delayed roll-out of the FSP 3000 CloudConnect™, there were also external factors, like the declining British pound after the Brexit decision in the UK as well as the stronger US dollar, which had a negative impact on ADVA Optical Networking's financial figures. With a share price of slightly below EUR 8 on December 31, 2016, the stock still traded well above the level from January 2015, but had given up some of its previous gains. ADVA Optical Networking finished the 2016 trading year with a decrease of -30.6% (TecDAX: -1.0%).

Nominal share capital as of December 31, 2016: EUR 49,498,934

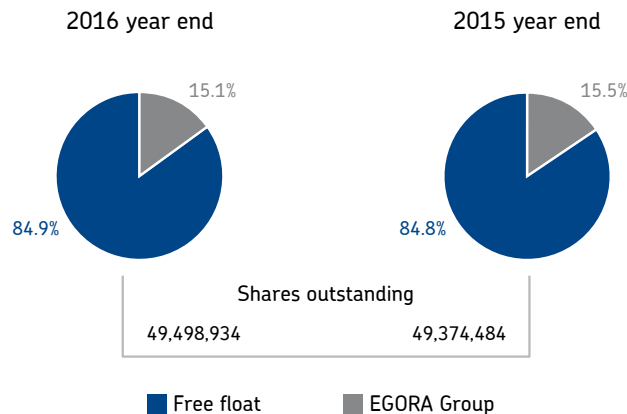
On December 31, 2016, the Company's nominal share capital totaled EUR 49,498,934, an increase of EUR 124,450 compared to December 31, 2015. The higher share capital is fully attributable to the issuance of ordinary shares from conditional capital following the exercise of employee options throughout 2016. As for the shareholder structure of ADVA Optical Networking at the end of 2016, free float equaled 84.9%, including 0.8% of outstanding ADVA Optical Networking stock held directly by members of the management and supervisory boards, while the Company's sole major shareholder EGORA Group held the remaining 15.1%. Compared to the end of 2015, the free float of 84.5% increased to 84.9%. During the year, the Company did not utilize the share buyback authorized at the Annual Shareholders' Meetings in June 2010 and May 2012.

STOCK INFORMATION¹

Trade name	ISIN DE0005103006/ WKN 510300
Symbol	ADV
Exchange	Prime Standard Segment Frankfurt Stock Exchange
Sector	Technology
Industry	Communications Technology
Number of shares outstanding at year-end 2016	49,498,934
2016 high/low price	EUR 10.87 / EUR 6.84
2016 year-end price	EUR 7.72
2016 year-end market capitalization	EUR 382.13 Millionen
2015 year-end price	EUR 11.12
2016 share price performance	- 30.6%

¹ Price information is based on Xetra closing prices.

SHAREHOLDER STRUCTURE



Overture acquisition
in January 2016

ADVA Optical Networking started the calendar year 2016 with a share price of more than EUR 10. The acquisition of Overture on January 13 was initially received neutrally by the market. However, the share price deteriorated in the following weeks and temporarily traded below EUR 8. On February 25, the Company published record revenues for fiscal year 2015 together with good profitability and accompanied by a positive outlook for the current quarter. As a result, the share price recovered to over EUR 10 by April 2016.

Strong revenue
outlook for Q2

During investor meetings, the Company's IR team continued to inform investors about the relationship between the megatrend "cloud" and the underlying expansion of data centers, as well as the strategic importance of optical transmission technology for interconnecting these data centers. The integration cost for the Overture acquisition and its expected impact on profitability in the first half of 2016 was also clearly outlined. With the publication of the Company's Q1 numbers in April, the Company reported another strong outlook for the following quarter Q2. Nevertheless, in summer the stock depreciated again and temporarily declined to around EUR 7.

With the publication of record revenues for Q2 in July, the share price recovered over the following months. However, the weak profitability in the booming business with internet content providers led to another decline. In addition, two of the biggest vendors for mobile network infrastructure solutions generated negative headlines. The slower demand from mobile network operators caused a decline in their revenues as well as share prices and unjustly cast a shadow over the entire network equipment vendor industry.

ADVA Optical Networking's positive revenue development also continued in the third quarter, which ended with a record revenue growth of more than 30% compared to Q3 of the previous year. As in the previous year, the outlook for the remaining fourth quarter was rather cautious. The predicted decline in revenues compared to Q3 reflected the seasonal shift in demand from internet content providers, which has an even stronger impact in 2016 due to the higher revenue contribution from that community. Following a decline in the share price, the stock only slightly recovered and ultimately ended the trading year at EUR 7.72.

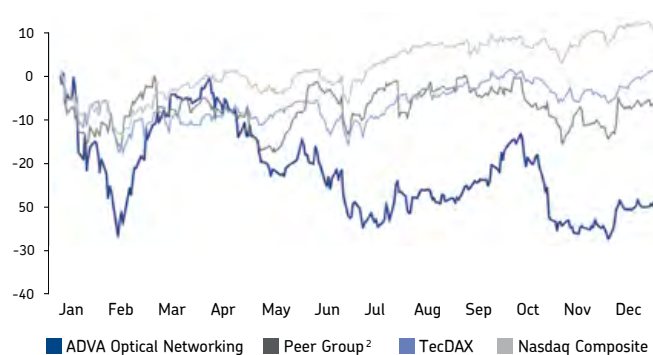
With a market capitalization of EUR 382.13 million on December 31, 2016, the valuation of ADVA Optical Networking was comparably low.

Share price recovery
for several months
thanks to record
revenues in Q2

Stock price ended trad-
ing year at EUR 7.72

PRICE DEVELOPMENT 2016 COMPARISON

(in %, indexed)



² Peer group data are calculated with the arithmetic average of Ciena, Cisco, Infinera and MRV Communications stock prices.

INVESTOR RELATIONS REVIEW

Investor relations work was driven by the following priorities in 2016:

- Overture acquisition and strong revenue growth with weak profitability
- Growth drivers for optical transmission equipment from the internet economy and the introduction of the FSP 3000 CloudConnect™
- Intensified roadshow activities and direct investor communications with specific emphasis on the USA

The megatrends “cloud” and “mobility” have also driven the demand for optical transmission technology and Ethernet access solutions in 2016. The demand for additional bandwidth in communication networks around the globe continues to grow rapidly and drives the addressable markets for ADVA Optical Networking. In the fiscal year 2016, the Company once again showed solid double-digit revenue growth and achieved market leadership in important sub-segments of the market.

To address the demand from the investor community for more details about market dynamics and ADVA Optical Networking’s exposure, the Company continued the high level of IR engagement of the previous year. The Company conducted a total of ten roadshows (2015: 17) in Frankfurt, London, Dublin, Warsaw, Zurich, Paris and Boston and organized over 160 individual meetings (2015: 150). ADVA Optical Networking was present in a total of six investor conferences for institutional investors (2015: six), including four cross-sector conferences and two events with technology focus. These conferences were organized by Berenberg / Goldman Sachs, Deutsche Bank, Jefferies, Needham and Northland Capital Markets.

In addition, with a total of 46 press releases, three quarterly reports and regular conference calls, the financial community was kept informed about any significant developments within ADVA Optical Networking. Further, throughout the year, the Company continued to provide comprehensive and up-to-date information relevant to the financial community on the investor relations pages of its website at www.advaoptical.com, including full transcripts of archived conference calls.

At the end of 2016, five financial analysts (end of 2015: five) provided research coverage of ADVA Optical Networking’s stock.

Revenue growth and market leadership

Ten roadshows and more than 160 one-on-one meetings

Publication of 46 press releases

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FINANCIAL ANALYST COVERAGE

(as of December 31, 2016)

Institution	Financial Analyst Name	Location
Oddo Seydler Bank	Dr. Oliver Pucker	Frankfurt am Main, Germany
Deutsche Bank	Rob Sanders	Frankfurt am Main, Germany
Hauck & Aufhäuser	Leonhard Bayer	Hamburg, Germany
LBBW	Mirko Maier	Stuttgart, Germany
Northland Capital Markets	Tim Savageaux	Minneapolis, USA

The annual shareholders' meeting took place on May 11, 2016, in Meiningen, Germany. All items on the agenda were approved by a majority, including the election of a new supervisory board member, the expansion of authorization to issue stock option rights (stock option program 2011) and the creation of additional conditional capital. Furthermore, the annual shareholders' meeting appointed Pricewaterhouse Coopers Aktiengesellschaft Wirtschaftsprüfungsgesellschaft as the auditor for the 2016 financial results.

All agenda items at shareholders' meeting approved by a majority

Further improvement of liquidity

Overall trading liquidity in ADVA Optical Networking's shares significantly increased in 2016. The positive revenue development and the broader interest of investors in the networking industry driven by the dynamics of the internet economy (cloud) led to higher liquidity. The average Xetra trading volume was at 405 thousand shares per day during 2016, following 381 thousand shares per day during the previous year. Free float in the Company's shares remained high in 2016, at levels between 84.5% and 84.9% throughout the year.

Free float still on a high level with 84.9%

INVESTOR RELATIONS CONTACT

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Every day, our technology makes cloud connectivity more efficient. That doesn't just help our customers. It's also central to our commitment to tackling climate change. Our innovation and determination is helping to build a healthy, sustainable future.

Joseph Phelan, Service

MISSION

Trusted partner
for open connec-
tivity solutions

ADVA Optical Networking develops next-generation networking technology that enables the creation of high-performance cloud and mobile services. Its mission is to be the trusted partner for connecting, extending and assuring the cloud.

TECHNOLOGY

ADVA Optical Networking develops, manufactures and sells networking solutions for a modern telecommunication infrastructure. Its products are based on fiber-optic transmission technology combined with Ethernet functionality and intelligent software for network management and virtualization. Furthermore the portfolio includes timing and synchronization solutions for networks.

OPTICAL

Wavelength division
multiplexing (WDM)
multiplies the transmis-
sion capacity of fiber

Fiber is the optimum physical medium to transmit large amounts of data over long distances. The bandwidth-over-distance capabilities of fiber by far exceed those of any other physical medium such as copper or wireless technologies. Therefore, fiber-optic transport is the unchallenged foundation for all high-speed networks. ADVA Optical Networking's optical transmission solutions are based on wavelength division multiplexing (WDM) technology. With WDM, multiple data streams are transmitted simultaneously over a single optical fiber by assigning each stream to a different wavelength (i.e. color) of laser light. Every wavelength (more than 100 in total) can carry a different application such as voice, video, data or storage traffic. Combining (i.e., multiplexing) these wavelengths at one end of the fiber, transmitting them over distance and then separating (i.e., de-multiplexing) them at the far end multiplies the fiber capacity and makes transmission more efficient. WDM supports all data protocols and transmission speeds and is a natural foundation for all high-capacity networks.

ETHERNET

Ethernet is the dominant data-link protocol for today's networks supporting a multitude of communication applications. ADVA Optical Networking provides Ethernet-optimized transmission solutions for fiber-based networks used to interconnect enterprises and mobile network base stations with carrier networks. Ethernet is also one of the key protocols used to carry applications in high-speed optical networks for data backhaul and the interconnection of routers (see "Optical" above).

Ethernet is the domi-
nant data-link protocol
for advanced networks

SOFTWARE

The importance of software in networking technology is increasing rapidly. On the one hand, network operation is automated by means of intelligent software, which increases user friendliness and simplifies network control and maintenance. On the other hand, more and more network functions are virtualized (network function virtualization, NFV). With NFV, the tight coupling between hardware and software in network elements is dissolved, and individual network functions can be developed and provided independently of the underlying hardware. The acquisition of Overture in 2016 significantly expanded the technology portfolio of ADVA Optical Networking in the area of NFV software.

Software to manage
networks and virtualize
networking functions

SYNCHRONIZATION

Reference sources that deliver stable frequency and time-of-day information are crucial to the effective transmission of digital signals. Especially in mobile networks, the availability of highly accurate synchronization and timing information is crucial for best end-user experience. With a complete end-to-end solution portfolio sold under the Oscilloquartz brand, ADVA Optical Networking can offer a smooth evolution across multiple generations of synchronization technologies.

Accurate timing and
synchronization become
increasingly important
in telecommunica-
tions networks

INNOVATIVE CONNECTIVITY

The combination of fiber-optic transmission technology and Ethernet-optimized data processing, complemented by intelligent management and virtualization software, is an ideal solution to deliver high-speed connectivity for data, storage, voice and video applications.

ADVA Optical Networking creates innovative connectivity solutions from inception through manufacturing and into service. The following paragraphs describe important market dynamics that drive growth for the Group's business.

MARKET, TARGET CUSTOMERS AND GROWTH DRIVERS

Growth drivers:
cloud and mobility

ADVA Optical Networking's addressable market encompasses several applications for optical transmission technology, Ethernet access technology and solutions for network virtualization and synchronization. The demand for the Group's solutions is driven by the global megatrends "cloud" and "mobility", fueling the demand for universally available bandwidth. Within the market, ADVA Optical Networking deals with different customers and target groups that are described in the following paragraphs.

CLOUD – THE AGE OF THE DATA CENTER

The internet has profoundly changed the world. We are in the middle of a global transformation process that redefines the characteristics of our society, the way we interact and the way we work. Access to information, regardless of its specific nature, has been accelerated by many orders of magnitude. Things have become a lot more transparent – and global. Not a day goes by without a new idea being born, creating new business in our digital economy.

The basis for the rapid development of our digital society is a powerful communications network that spans the globe. This network is highly available and provides fast access to a wide range of data and applications. The cornerstones of this network are data centers equipped with gigantic server farms and large capacity for data storage. These data centers are in turn connected by high-performance, fiber-based communication networks that enable data exchange between the sites and provide enormous transmission bandwidth.

Data centers – the cornerstones of today's networked society

There are different actors that perform an important role in the interconnection of data centers (data center interconnect, DCI) and the provision of the required transmission capacity. All of these actors have their own requirements and collectively define ADVA Optical Networking's addressable market for that application.

DATA CENTER INTERCONNECT FOR LARGE ENTERPRISES

In a digitally networked world, enterprises depend more than ever on the integrity of their data and the availability of digital resources. There is a growing need to develop more reliable and efficient IT infrastructures, which not only protect against data loss, but also ensure that all processes run smoothly and at all locations. The loss of mission-critical information is a big threat to enterprises. System failures can result in idle staff, damage to reputation and, ultimately, lower revenues.

Loss of data and application downtime are a big threat to enterprises

Due to the criticality of data and application availability, many large enterprises, research and educational institutions as well as health care providers have gone down the path of operating their own data centers connected via private fiber optic networks. Such private enterprise networks

Geographically dispersed business continuity solutions provide maximum protection

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purely serve the business processes of an individual company or organization and offer a high degree of security and control. The network operation is either in the hands of the in-house IT department, or a specialized communication service provider (CSP) or network operator. The private IT infrastructure (private cloud) is often complemented by a partial outsourcing of less critical functions and data in external data centers, operated by a third party (public cloud). Such a hybrid scenario (hybrid cloud) has already been implemented in many places and will continue to spread rapidly in the corporate world.

ADVA Optical Networking has over 20 years of experience in the development and deployment of innovative transmission technology for data center interconnect. Many major companies from the so-called Fortune 500 league rely on ADVA Optical Networking's transmission technology for their business continuity and disaster recovery applications. ADVA Optical Networking offers a highly innovative product feature set in this market segment. The ADVA FSP 3000 supports native transmission for all data center protocols, guarantees low latency and provides additional security through the Company's ConnectGuard™ encryption technology. Furthermore, ADVA Optical Networking has built a strong partner landscape supporting the go-to-market process.

Market-leading position
for data center inter-
connect with Fortune
500 enterprises

DATA CENTER INTERCONNECT FOR INTERNET CONTENT PROVIDERS

Internet content providers (ICPs) are companies whose principal business is the creation and dissemination of digital content. The ICP community includes, for example, large internet companies such as Apple, Amazon, Facebook, Google, HP, IBM and Microsoft. These companies operate data centers of enormous proportions and are often referred to as "hyper-scale" or "cloud-scale" operators. ICP data centers contain huge server farms. The main asset of an ICP is its digital content and the associated services.

The ICP community is focused on innovation, has much experience in developing software and a pronounced do-it-yourself mentality. ICPs' main objective is optimizing costs and strengthening the performance of their portfolios. For

Internet content
providers inject
additional growth op-
portunities for optical
transmission solutions

wide-area connections between their data center sites, they mainly resort to leased lines from CSPs. However, there is a trend toward more and more scenarios where ICPs rent dark fiber and equip it with their own transmission technology. Because of their size and purchasing power, ICPs are not only a relatively new, but also interesting target group in the market for optical transmission equipment, promising high growth potential.

ADVA Optical Networking, thanks to its extensive experience in the field of data center interconnect for enterprise networks, offers many compelling product features and solutions for DCI applications (see previous section). Furthermore, the Company developed a new version of the FSP 3000 platform specialized for the ICP community. The FSP 3000 CloudConnect™ further enhances fiber utilization and scales to a capacity of more than 25Tbit/s per fiber. The new version also takes key performance parameters such as space and power efficiency to a new level. Thus the platform delivers a highly compelling feature set for interconnecting hyper-scale data centers in the ICP market. ADVA Optical Networking's highly agile and innovative corporate culture makes the Company an attractive partner for the ICP target group.

The ADVA FSP 3000
CloudConnect™ – high-
est performance for in-
ternet content providers

CARRIER INFRASTRUCTURE

Carriers are companies that are in the business of building and operating large-scale networks that they use to offer communication services to end-users or other CSPs. The demand from enterprises and ICPs for more bandwidth to interconnect data centers is a key growth driver for this target group. In addition, carriers need to satisfy the increasing demand from residential users for more bandwidth to their homes, driving upgrades to carriers' infrastructure.

The rapid growth of video-on-demand offerings from so called "over-the-top" providers like Netflix or Amazon Prime is creating huge traffic loads in carrier networks. In order to guarantee good signal quality, carriers need to deliver several Mbit/s of bandwidth per household. Building and operating a network that delivers such capacity is no trivial task. Moreover, due to the adoption of higher resolution video standards

Video-streaming,
social networks and
cloud applications
continue to drive
bandwidth demand in
residential households
to unprecedented levels

Different carriers use different access technologies in the first mile of the network

and 3D technology, bandwidth demand will continue to grow relentlessly for the foreseeable future. The first examples of so-called gigabit cities have emerged, where the available bandwidth per household reaches 1Gbit/s. This is more than a factor of 10,000 higher than the bandwidth required for a traditional phone service. Hence, a network node that serves households in a gigabit city handles 10,000 times the bandwidth of a comparable site in an old telephony network.

There are several ways for service providers to deliver broadband connectivity to their customers. Traditional telecommunications companies often rely on digital subscriber line (DSL) technology to increase the capacity of their phone lines (i.e., twisted pairs of copper wires), which are typically available to every household. Coaxial cables are a good alternative, typically owned by cable TV companies that are expanding their offerings to become multiple service operators (MSOs). New initiatives for fiber-to-the-home (FTTH) or fiber-to-the-building (FTTB) are rolling out, providing the ultimate bandwidth pipe. Last but not least, there are wireless technologies in the mix. Currently the fourth generation (4G) of mobile network technology is being deployed, mostly in the form of Long Term Evolution (LTE) standards. All these access technologies deliver significantly higher bandwidth per end user than legacy technology.

For carriers, the challenge is to provide market competitive connectivity to as many customers as possible at the lowest possible cost. That means making good use of existing infrastructure, especially in the last mile, and intelligent investment in new technology to support growth and emerging applications. The prevalence of flat-rate-based pricing models, the rising cost of labor and other resources as well as the dramatic increase of end-user bandwidth require new and more powerful network concepts. The underlying network infrastructure needs to scale by many orders of magnitude and be simpler to operate, pushing fiber optic transmission technology closer to the end customer and making it the only viable choice for the backhaul and core of the network.

ADVA Optical Networking helps carriers to simplify their networks and build a scalable network infrastructure that is future proof. By deploying the Group's networking solutions, carriers can combine various traffic streams from different access technologies onto a single transport platform. Backhaul for copper, coax, fiber and wireless access technologies on a single platform eliminates the costly operation of parallel systems. In addition, ADVA Optical Networking offers with the FSP 3000 one of the most scalable platforms on the market, allowing seamless transport from the customer premises to the core of the network. Thus, carriers can bypass some of the small access nodes, eliminating the expense of operating these locations.

The ability to deliver more bandwidth to more customers from fewer sites located farther back in the network enables operators to streamline their networks while simultaneously improving the end-user experience. Energy-hungry devices, which are needed for data processing, can be concentrated in fewer network locations, leading to a network architecture that is more energy-efficient and easier to operate.

More bandwidth to more customers from fewer network sites using less energy

THE NETWORK EDGE

Serving residential customers is, in most regions around the world, a highly competitive business with low margins for service providers. The providers are therefore keen to offer telecommunications services to business customers. Serving enterprise customers is typically more lucrative as this clientele has more stringent requirements for quality of service, network performance, network availability and security. The CSP can charge a premium for these quality attributes but needs to back the service offerings with service level agreements.

Enterprise customers require bandwidth, quality of service, network availability and security

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CSPs increasingly rely on fiber-based Ethernet access solutions to serve their business customers. With this technology, they can provide very scalable and cost-effective connectivity to buildings and business parks. Many operators deploy Carrier Ethernet today as a unified, data-optimized transmission technology in the access area of their infrastructure. Business customers appreciate a wide-area connectivity service, which looks like a simple extension for their in-house networking solutions.

Mobile backhaul – fiber-based Carrier Ethernet solutions to connect mobile base stations

In addition to connecting business customers, CSPs also use fiber-based Ethernet access solutions to backhaul traffic from mobile base stations. The success of smart phones and the associated high-speed mobile services created a bandwidth explosion. Mobile operators are now challenged to provide significantly higher bandwidth via their mobile networks without compromise on geographic coverage. Operators consequently upgrade their mobile base stations and introduced 4G (LTE) technology. And the next step to LTE-Advanced is already on the horizon. While 4G technology allows the delivery of more bandwidth over the air interface to the mobile device, operators also need to solve the backhaul challenge from base stations to their core networks. Higher-speed backhaul, however, needs to be data-optimized and relies to a large extent on fiber. In the context of 4G, mobile operators further increase the density of their cell sites with both macro and small cells. The higher density of antennae requires better synchronization between these cell sites. In summary, the build-out of mobile broadband networks leads to a new generation of fiber-based Carrier Ethernet solutions that deliver and assure high data throughput and accurate timing information.

Mobile operators benefit from data-optimized high-speed backhauling

A higher density of radio heads improves spectral efficiency and requires accurate synchronization

The popularity of Ethernet with enterprise customers, the increasing demand of mobile operators for data-optimized backhaul and the trend towards network functions virtualization (NFV) create new market dynamics at the network edge.

Carrier Ethernet becomes increasingly important

ADVA Optical Networking offers a highly competitive solution set in this space. The acquisition of Overture in January 2016 further strengthened the Company's FSP 150 product portfolio and service providers can now offer their customers intelligent Ethernet services in all application scenarios faster than ever before. Furthermore, the portfolio is already perfectly positioned for the dawning age of NFV. In combination with the ADVA Ensemble software framework, which evolved from the Overture acquisition, network functions can be reliably hosted and orchestrated. In mobile backhaul applications the ADVA FSP 150 excels by delivering and assuring precise synchronization information in addition to powerful data plane performance.

PRODUCTS

ADVA Optical Networking's portfolio strategy is built on a foundation of innovative connectivity solutions that combine the strengths of optical transmission and Carrier Ethernet technologies with intelligent software and programmability for NFV.

SCALABLE OPTICAL TRANSPORT

The FSP 3000 is a modular WDM system designed to maximize the bandwidth and service flexibility of access, metro and core networks. The unique optical layer design is highly scalable and currently supports data rates of up to 400Gbit/s.

The ADVA FSP 3000: scalable optical transport



The ADVA FSP 3000 - The scalable optical transport solution

ADVA FSP 3000 Cloud-Connect™ – highest performance for inter-net content providers

In 2016 ADVA Optical Networking started shipping a new variant of the platform, the ADVA FSP 3000 CloudConnect™. This new release further enhances fiber utilization and scales to a capacity of more than 25Tbit/s per fiber.



The FSP 3000 – CloudConnect™

ONE NETWORK EDGE

Overture acquisition further strengthens the FSP 150 portfolio at the network edge

The ADVA FSP 150 product family is a programmable, universal network access solution based on Carrier Ethernet technology for the so-called network edge. Through the

acquisition of Overture in January 2016, ADVA Optical Networking once again significantly expanded the FSP 150 product family and further strengthened its competitiveness. With the FSP 150 Pro Series and the new virtualization software from ADVA Ensemble, the portfolio is optimally positioned for the next generation of NFV-based services and can also take over functions from higher network levels. With this expansion, ADVA Optical Networking significantly expands the addressable market for its One Network Edge solution.



The ADVA FSP 150 – One solution for the Network Edge

VIRTUALIZATION OF NETWORK FUNCTIONS

With the introduction of NFV, more and more network functions will be defined and developed as software applications, independent of the underlying hardware. These software applications can then be deployed centrally in a data center, or alternatively can be installed on a network termination device with integrated server functionality, such as the FSP 150 ProVM. With ADVA Ensemble, the Company provides a software architecture that enables network operators to quickly and efficiently generate, deploy and administer value-added services, regardless of specific hardware. For the first time, functions from higher network levels can now also be mapped. As a result, the addressable market for the Company is once again significantly expanded.

Programmability and disrupt the service creation model

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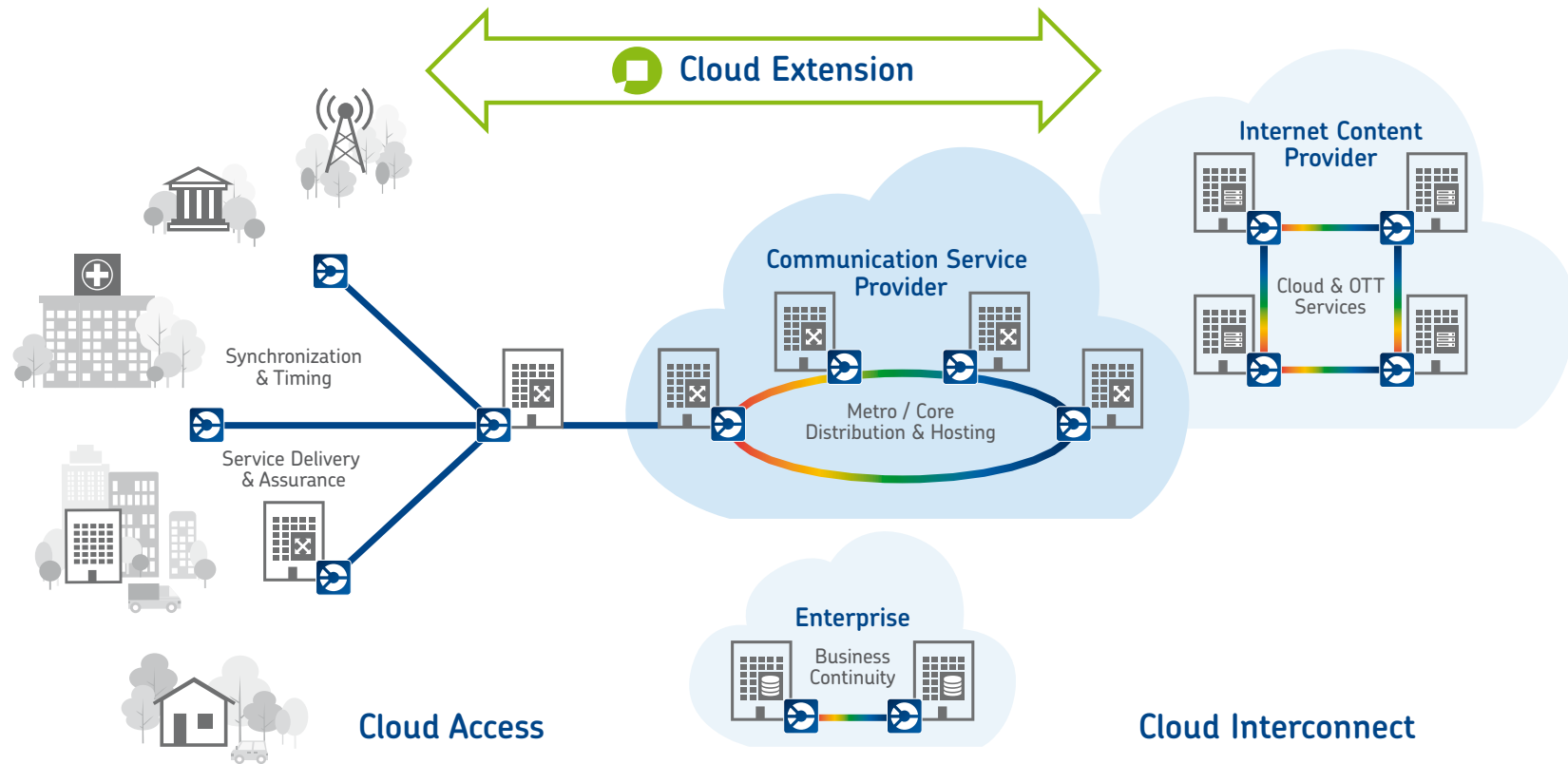
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The following image provides an overview of the application space for ADVA Optical Networking's product portfolio.



NETWORK SYNCHRONIZATION

Under the Oscilloquartz brand, ADVA Optical Networking develops, manufactures and distributes a broad product portfolio for the synchronization of distributed network elements. This portfolio covers all necessary functions and includes:

- Highly accurate, self-contained frequency sources (e.g., cesium clocks)
- Synchronization supply units (SSU)
- End-to-end solutions to synchronize 3G, 4G and LTE networks via a packet-based infrastructure
- Global Navigation Satellite System (GNSS) receivers
- Network Timing Protocol (NTP) solutions (standalone or integrated in SSUs)
- Network management solutions

While the demands on the precision of time and frequency information keep increasing, there is also a trend towards miniaturization. With the introduction of the OSA 5400 product family in 2016, Oscilloquartz launched the first ever plug-in reference device in the industry in the so-called SFP form factor.

PROFESSIONAL SERVICES

In addition to programmable networking technology, ADVA Optical Networking offers a variety of services that help the Company's customers plan, operate and maintain their networks. This service portfolio includes a network operation center (NOC) from which experts handle network operations for customers.

REGIONS, SALES AND MARKETING

ADVA Optical Networking sells its products to a broad customer base worldwide, either through distribution partners or its own direct sales force. In 2016, the Group continued to increase its global end-customer base with several wins across all regions.

The Americas region covers North America and Latin America. For the first time in the history of ADVA Optical Networking, America was the strongest revenue-generating region in 2016. Specifically the US-based internet content providers (ICPs) drove the demand for optical transmission technology. ADVA Optical Networking is well positioned in this application. The success with this customer group also increases the percentage of ICP business in the Company's total turnover.

The second-strongest region was EMEA. EMEA covers Europe, the Middle East and Africa. In this region, ADVA Optical Networking has a very balanced mix of customers of various sizes and can rely on a powerful network of value-added reseller partners to support the sales.

The Asia-Pacific region followed in third place. APAC includes Australia, New Zealand, Greater China, India, Japan and Southeast Asia. In this region, ADVA Optical Networking has a focused sales approach with only a few large customers, who guarantee sustainable and repeatable business. The region is dominated by project business and the development of sales revenues will continue to fluctuate.

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TOTAL NUMBERS AT YEAR-END 2016 (2015 in brackets)



Employees: **1,764** (1,524)



Revenues: EUR **566.7** (441.9) million



Americas



416 (313)



EUR 279.6 (143.9) Millionen

EMEA



1,096 (1,038)



EUR 251.6 (262.4) Millionen

Asia-Pacific



252 (173)



EUR 35.4 (35.6) Millionen

Well balanced approach between direct and indirect sales

SALES

ADVA Optical Networking continues to employ a well-balanced sales distribution strategy to maximize customer reach around the world:

Direct sales is particularly important in the Ethernet access market and for internet content providers

Direct Sales

The Group continues to focus on its direct-touch initiative as well as its direct sales force to win new customers. Establishing direct contact with enterprises and carriers enables ADVA Optical Networking to work more closely and better understand customers' specific requirements, which in turn helps to develop the right products and solutions. A direct sales approach is required in particular to address ICPs and the evolutionary nature of the Ethernet access market.

VAR partners mostly provide access to carrier and large enterprise customers

Partner Sales

Sales partners of ADVA Optical Networking include global system integrators such as IBM, OEM partners such as Fujitsu Network Communications (FNC) and so-called value-added resellers (VARs). Especially in the case of large enterprise networks and carriers, the Company works closely with the sales partners during the planning and consulting phase and is intensively involved in the development of an optimal solution for the customer. Technical support after commissioning is generally performed by the partners. ADVA Optical Networking's Partner Ecosystem Program (PEP) ensures that sales partners have intensive training courses for their staff, quick and easy access to equipment, engineering and high-quality support for projects.

MARKETING

Direct-touch efforts are proactively supported by the marketing team to build the ADVA Optical Networking brand and to expand visibility of the entire product portfolio. Specific marketing activities include regular participation in trade-shows and conferences, tactical online advertising, news coverage and bylined articles in trade publications. ADVA Optical Networking supports co-marketing efforts with its partners and delivers a quarterly e-newsletter to customers and partners. The Group also maintains a dynamic and active online presence, including a blog and social media outreach on multiple platforms.

In addition, ADVA Optical Networking has continued to engage in marketing alliances with various global network solution providers such as Brocade, IBM and Juniper Networks. Of particular importance are the numerous interoperability tests, especially in the field of NFV, which ADVA Optical Networking is conducting with its technology partners in order to demonstrate the seamless interaction of the different systems. The new Ensemble division, launched by ADVA Optical Networking, established a global network of technology partners to ensure the seamless operation of virtualized network functions.

ADVA Optical Networking's brand promise can be summarized by three headlines: "Innovation", "Speed" and "Trusted Partner". The combination of these three elements makes ADVA Optical Networking a unique and differentiated player in the industry.

Focus on online presence and live communication at events

Marketing alliances with other system vendors

Brand promise to customers: "Innovation", "Speed" and "Trusted Partner"

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DEVOPS

ORGANIZATIONAL SETUP

Research, development and operations are tightly aligned with the business life cycle process

ADVA Optical Networking is taking an advanced approach to development and operations. In order to further optimize product quality, manufacturability and time to market these traditionally separate areas are tightly integrated with cross-functional teams working closely across the entire system. DevOps and the business life cycle (BLC) organizations form the two main units in the organizational setup.

The DevOps team covers products from cradle to the grave. Its goal is to ensure consistently high quality and to routinely deliver the right product to the customer in the shortest possible time.

The BLC organization is ADVA Optical Networking's move into next-generation, automated manufacturing, supply chain management, sales and operations planning (S&OP), logistics and reverse logistics.

A third unit, the Advanced Technology Team, continues to identify new areas of innovation. It explores research possibilities and potential avenues for feasibility analysis and proofs of concept.

DEVOPS

DevOps – value streams create speed, quality and efficiency for the full product life cycle

As the term suggest, DevOps refers to a combined approach to development and operations. DevOps is a model that has successfully been used in software development firms. ADVA Optical Networking has translated this model into a combined hardware plus software R&D environment. By adopting this model ADVA Optical Networking is encouraging communication, collaboration and shared goals across cross-functional teams in all business areas. With a set of practices and poli-

cies being adopted by the whole team the aim is to improve quality at all stages of the development lifecycle by enabling fast feedback loops and rapidly changing systems.

ADVA Optical Networking implemented a fully integrated, value-stream oriented DevOps model of organization involving product-line management, R&D, new product introduction, life cycle engineering and quality management. It also developed a merged approach to system verification testing, network engineering and customer application testing. This setup allowed a smooth and efficient integration of the Overture product portfolio, which was fully integrated with the ADVA FSP 150 family in less than six months after the acquisition of Overture in January 2016.

To further foster agile, iterative DevOps processes, ADVA Optical Networking expanded its activities in the photonic integration area and launched development projects for highly integrated optical components and modules with the objective of reducing product cost and increasing differentiation.

Photonic integration helps to reduce product cost and increases differentiation

The Company's market-leading product offering is the result of its DevOps set up. New innovation ensures the Company's position as a global technology leader in important growth markets. ADVA Optical Networking continues to evolve its leading intellectual property rights portfolio, which currently includes more than 150 granted patents.

As a member of all key industry standardization groups, ADVA Optical Networking makes a significant contribution to the development of standards. It also demonstrates technology leadership through multiple publications and presentations. Through new technology trials and the development of early prototypes, ADVA Optical Networking plays a significant role in validating innovative ideas and concepts. Strategies are developed in close cooperation with partners, including suppliers and colleagues in research centers and universities. Many collaborative projects are conducted in conjunction with partner organizations.

Advanced technology team drives innovative, forward looking concepts

DevOps teams innovate in the areas of optics, Ethernet, network management software, fiber assurance as well as network virtualization (under the Ensemble brand) and network synchronization (under the Oscilloquartz brand). The development processes are completely agile and iterative, targeted to reinforce ADVA Optical Networking's position as a leader in the field of programmable networking on a secure yet flexible infrastructure.

ADVA Optical Networking is also developing its own differentiated optical components, which will enable it to tailor solutions more closely to individual customer needs for a more vertically integrated value chain. The new MicroMux™ module, which was launched in March 2016, is a first tangible result of these activities and significantly expands the capabilities of the FSP 3000 CloudConnect™.

The Company continuously evolves its organization further by embracing DevOps strategies for both hardware and software, always with the customer as the central focus. In 2016 a new team was formed with the sole purpose of enhancing customer and user experience from an end-to-end perspective.

BLC ORGANIZATION

As technology and the demands of customers change over time, business approaches need to constantly evolve and adapt. ADVA Optical Networking's business lifecycle planning involves identifying the wishes and needs of current and future customers. Requirements for product features, as well as delivery and service activities, are then determined. Challenges are reviewed prior to giving a final commitment to supply products and/or services. This approach ensures that requirements are clearly defined and understood, potential issues are resolved and ADVA Optical Networking is able to meet and exceed customer expectations. The BLC organization is clearly centered on the customer.

Business life cycle process takes holistic approach to product definition

"Speed for customers" is a key promise of the ADVA Optical Networking brand. This promise is directly reflected in the way the Company aligns its supply chain management and sales & operations teams. Intelligent IT tooling creates full transparency along the entire value chain, leading to better forecasting, material planning, shorter delivery times and higher inventory turnover.

In the areas of manufacturing, logistics & reverse logistics ADVA Optical Networking developed a tightly integrated approach with a set of best-in-class EMS partners. These partners handle board-level assembly and volume manufacturing tasks, provide regional launch pads close to ADVA Optical Networking's R&D centers for rapid prototype development and testing and also play a key role in freight consolidation and logistics. ADVA Optical Networking keeps increasing transactional efficiency through automation and robotics wherever possible, both in house as well as at the EMS sites.

ADVA Optical Networking's in house experts focus on creating customer value in the areas of network staging, quality and the expansion of the award-winning portfolio of logistics services. This portfolio is founded on a groundbreaking supply chain model where materials are dispatched to installation sites precisely when needed; the refurbishment and recycling of materials returned by customers; and ADVA Optical Networking's radical approach to collaborating with customers on planning to maximize flexibility.

The strategic procurement team of ADVA Optical Networking established rigorous processes for supplier onboarding, supplier performance and stringent component cost management. Procurement is closely integrated with the R&D teams to negotiate volume pricing in the product design phase and assure lowest product cost later in the product life cycle.

Transactional efficiencies include network of partners

Award winning logistics services create customer value

Close alignment between R&D and procurement guarantees optimum product cost

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QUALITY MANAGEMENT

Quality management is crucial to fulfilling our brand promise of being a "trusted partner"

Ensuring world class quality is inherent in all of ADVA Optical Networking's business processes. From research and development to post-sales support, quality management is crucial to maintaining the Company's reputation as a trusted partner and its position as a quality leader in the market place. The Company's quality management system is based on well-controlled business processes and dynamic improvement. It takes a top-down approach to ensuring high-quality products, customer satisfaction and sustainability, and its quality management team reports directly to the chief executive officer. To eliminate weaknesses in all areas the quality management team also focuses on cross-functional monitoring and quality planning.

Successful recertification and inclusion of new sites

In 2016, ADVA Optical Networking achieved recertification in accordance with the international telecommunications quality management practices TL 9000/ISO9001, the unified set of quality system requirements and metrics designed specifically for the telecommunications industry. The Company also underwent its triennial extensive assessment according to the ISO 14001 standard for general environmental management and was successfully recertified as well. In 2016, facilities acquired as part of ADVA Optical Networking's purchase of Overture located in Raleigh, USA and Bangalore, India were included in the Company's TL 9000 certification. Oscilloquartz, the time and frequency synchronization wing of ADVA Optical Networking, was also fully integrated into the Company's quality management certification, including its new premises in Neuchâtel, Switzerland.

As part of ADVA Optical Networking's long-standing commitment to the environment and energy efficiency, the Company volunteered to be audited according to the energy management standard ISO 50001, which operates in combination with the ISO 14001 environmental management system. ADVA Optical Networking was found to meet the full framework of energy efficiency requirements and so successfully achieved the new certification.

ADVA Optical Networking takes an end-to-end approach to quality assurance, beginning with a clear focus on excellence in product development, continuing into operations, through into shipping products to customers and support by technical service. With regard to operations activities, supplier quality is a vitally important component of quality management. Compliance with stringent quality standards and continued improvement are ensured through thorough selection of suppliers, periodic evaluation through audits and systematic inspection of incoming goods. This is also supported by cross-functional commodity teams and the ever-increasing involvement of ADVA Optical Networking's suppliers in the development process.

Holistic approach including suppliers

The complaint management process is driven by the quality management team, which takes a proactive approach to problem solving as well as the development and optimization of business processes. The quality management process is underpinned by strong customer orientation and a clear focus on customer experience. This results in greater efficiency and high customer satisfaction ratings. For 2016, ADVA Optical Networking's Net Promoter Score¹ was +60% (a +19% increase in 2016 compared to the 2015 score of +41%). This result underlines the Company's focus on customer satisfaction and its commitment to continuous improvement.

Excellent customer satisfaction ratings

¹ The Net Promoter Score is obtained by asking customers a single question on a 0 to 10 rating scale: "How likely is it that you would recommend our company to a friend or colleague?" Based on their responses, customers are categorized into one of three groups: promoters (9-10 rating), passives (7-8 rating), and detractors (0-6 rating). The percentage of detractors is then subtracted from the percentage of promoters to obtain a Net Promoter Score.

All product line quality KPIs above industry average at new record high levels

To identify weaknesses and opportunities in order to optimize cross-functional business processes, ADVA Optical Networking analyzes outcomes based on Lean Six Sigma methodologies. This ensures all aspects of the business can be measured and analyzed so that waste can be eliminated from every process. In order to strengthen its drive for continuous quality improvement, ADVA Optical Networking also incorporated a new approach to development and operations in 2016. The Company's new approach is designed to further optimize product quality, manufacturability and time to market. In 2016, these traditionally separate areas became tightly integrated with cross-functional teams working closely across the entire system. DevOps and the business life cycle organization formed the two main units in the organizational realignment.

In 2016, all key performance indicators (KPIs) for product-line quality such as early return indicator (ERI), yearly return rate (YRR) and long-term return rate (LTR) continue to be comfortably below the industry average. These metrics also improved on previous years giving the Company its best KPIs to date. QuEST Forum, the global organization dedicated to quality and sustainability in the ICT community, has praised ADVA Optical Networking for having "developed a culture of continuous improvement in many areas". Members of ADVA Optical Networking's quality management team continue to share best practices at QuEST Forum events around the world.

COMPLIANCE AND SUSTAINABILITY

CORPORATE ETHICS AND COMPLIANCE

Integrity and ethical decision making are central requirements for the sustainable success of ADVA Optical Networking. The Group recognizes its responsibility to comply with national and international laws and regulations, internal policies and ethical standards – otherwise known as compliance. The commitment to compliance is represented by the Management Board and all (line) managers of the Group. It is based on ADVA Optical Networking's core values, which translate into a holistic code of conduct and a range of Group-wide policies that govern the Group's business operations and are mandatory for all employees to follow.

ADVA Optical Networking's code of conduct and Group-wide policies are embedded into a robust compliance management system, which is structured according to the legal requirements and best practices of the Group's key countries of operation, as well as common international standards. The following elements are covered:

- Strong "tone from the top"
- Periodic risk assessments
- Proportionate risk-mitigating processes
- Periodic compliance trainings and regular communication
- Means for in-person as well as anonymous reporting
- Proportionate responses to compliance violations
- Continuous improvement of all compliance procedures

The Group's compliance management system is supported by a central compliance department and currently six regional compliance officers. Activities are coordinated by ADVA Optical Networking's Chief Compliance Officer who reports to the Chief Executive Officer and the Supervisory Board. Whenever employees have questions or suggestions related to

Code of conduct embedded in a robust compliance management system

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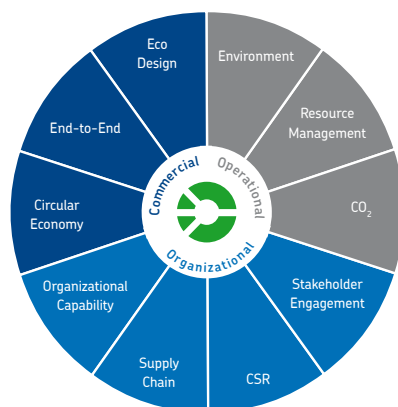
compliance or suspect incidents of non-compliance, they are encouraged to speak-up. Besides a variety of clearly defined and actively communicated internal points of contact, an external ombudsman (this role is currently covered by Frank Fischer, tax lawyer and former member of ADVA Optical Networking's Supervisory Board) and an externally operated ethics and compliance helpline enable confidential and anonymous reporting.

SUSTAINABILITY

ADVA Optical Networking's commitment to ethical decision making extends to the Group's operations and products. Related activities are typically referred to as sustainability. The importance of sustainability for ADVA Optical Networking is best illustrated by the Group's successful track record in many of the concerned areas. To maintain and further strengthen the Group's focus on sustainability, a dedicated Sustainability Department directly reports to the Chief Technology Officer.

ADVA Optical Networking's sustainability program is based on a holistic model covering the broad range of all related aspects. It is shown in the following diagram:

Holistic sustainability model




Besides being used for sustainability assessments by large operators like British Telecom, the outlined model is also applied by QuEST Forum, the body which defines the TL9000 as the telecommunication industry's version of the international quality standard ISO9001. It integrates a variety of different standards, which cover largely the same areas, and is divided into the three super-segments: 'Operational', 'Organizational' and 'Commercial' sustainability aspects.

In 2016, the sustainability model was further enhanced by a joint effort involving British Telecom and the QuEST Forum Sustainability Initiative, whereby a web-based sustainability assessment tool was introduced. Its use in the Group's supply-chain management, which began in late 2016, supports increased transparency and robust reporting on aspects of sustainability. Furthermore, the Group is regularly assessed regarding its sustainability performance by QuEST Forum, large customers and independent bodies like the Carbon Disclosure Project. The latest results from the end of 2016 showed a strong "High Silver" ranking across all segments of the described sustainability model.

Sustainability performance ranked highly by international bodies

In order to further strengthen the Group's sustainability efforts, ADVA Optical Networking has recently joined the Science-Based Targets Initiative (SBTi) as one of the first 200 companies worldwide. SBTi is a joint initiative by CDP, UN Global Compact, the World Resources Institute and the WWF. Its key aim is to support the restriction of global warming to within two degrees Celsius compared to pre-industrial temperatures.

Finally, details regarding the Group's sustainability program, performance and indicators are also summarized in ADVA Optical Networking's code of conduct and its annual Sustainability Report which is compiled according to the Global Reporting Initiative's G4 guidelines. Both resources can be found on the Group's website www.advaoptical.com (About Us / Corporate Responsibility).



Across every campus, there's such an amazing buzz about our team. It's because we know we're building the future. By connecting the cloud, we're creating tomorrow's opportunities.

Doreen Deakin, Sales

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FORWARD-LOOKING STATEMENTS

This Group management report of ADVA Optical Networking SE contains forward-looking statements using words such as “believes”, “anticipates” and “expects” to describe expected revenues and earnings, anticipated demand for optical networking solutions and anticipated liquidity from which internal estimates may be inferred. These forward-looking statements are based on the beliefs of the Management Board and respective assumptions made, and involve a number of unknown risks, uncertainties and other factors, many of which are beyond ADVA Optical Networking’s control. If one or more of these uncertainties or risks materializes, or if the underlying assumptions of the Management Board prove incorrect, actual results can differ materially from those described in or inferred from forward-looking statements and information. Unknown risks and uncertainties are discussed in the “risk report” section further below.

In the following, ADVA Optical Networking SE as a company is labeled “the Company” or “ADVA Optical Networking SE”, “ADVA Optical Networking” or “the Group” always refers to the ADVA Optical Networking Group.

BASIS OF PREPARATION

This Group Management Report of ADVA Optical Networking SE was prepared in accordance with sections 315 and 315a of the German Commercial Code (Handelsgesetzbuch, HGB) and German Accounting Standards (Deutsche Rechnungslegungs-Standards) No. 17 and 20 (DRS 17 and 20).

All information contained in this report relates to the status on December 31, 2016, or the financial year ending on that date, unless stated otherwise.

STRATEGY AND CONTROL DESIGN

ADVA Optical Networking's strategic goals are focused around growth & profitability, innovation, operational excellence and our employees. The strategic goals are reviewed by both the Management Board and the Supervisory Board on a yearly basis and amended where appropriate. Each of these goals is defined in detail and then broken down into specific departmental and individual targets. The strategic goals are traced to each individual employee, so that each employee can focus and be evaluated on his/her individual performance and contribution to ADVA Optical Networking's overall performance.

Revenues, pro forma operating income, net liquidity and Net Promoter Score operationalize strategic goals and represent ADVA Optical Networking's key performance indicators

ADVA Optical Networking measures the accomplishment of its strategic goals against revenues, pro forma operating income¹, net liquidity² and as a non-financial criterion customer satisfaction as measured by the Net Promoter Score³. These metrics represent the Group's key performance indicators. The Management Board sets target values for all four metrics for the coming year and measures actual values against the target values on a monthly basis for revenues and pro forma operating income, on a quarterly basis for net liquidity and on a yearly basis for the Net Promoter Score. In case of deviations from plan, corrective action can be taken quickly. This information is summarized and communicated to the Management Board in monthly, quarterly and yearly reports.

¹ Pro forma operating income is calculated prior to non-cash charges related to the stock compensation programs and amortization and impairment of goodwill and acquisition-related intangible assets.

² Net liquidity is calculated by subtracting current and non-current financial liabilities as well as current and non-current finance lease obligations from cash and cash equivalents.

³ The Net Promoter Score is obtained by asking customers a single question on a 0 to 10 rating scale: "How likely is it that you would recommend our company to a friend or colleague?" Based on their responses, customers are categorized into one of three groups: promoters (9-10 rating), passives (7-8 rating) and detractors (0-6 rating). The percentage of detractors is then subtracted from the percentage of promoters to obtain a Net Promoter Score.

GENERAL ECONOMIC AND MARKET CONDITIONS

THE GLOBAL ECONOMY IN 2016

In its October 2016 edition of the World Economic Outlook the International Monetary Fund (IMF) stated that "Global growth is projected to slow to 3.1% in 2016 before recovering to 3.4% in 2017. The forecast, revised down by 0.1 percentage point for 2016 and 2017 relative to April, reflects a more subdued outlook for advanced economies following the June UK vote in favor of leaving the European Union (Brexit) and weaker-than-expected growth in the United States." Furthermore, the report states that "Although financial market reaction to the result of the UK referendum has been contained, the increase in economic, political, and institutional uncertainty and the likely reduction in trade and financial flows between the United Kingdom and the rest of the European Union over the medium term is expected to have negative macroeconomic consequences, especially in the United Kingdom. As a result, the 2016 growth forecast for advanced economies has been marked down to 1.6%."

While macroeconomic changes do not necessarily have a direct impact on the market for communications infrastructure technology, it is important to acknowledge that ADVA Optical Networking generated the majority of its 2016 revenue in developed countries, and more than 10% in the UK.

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MARKET ENVIRONMENT FOR ADVA OPTICAL NETWORKING

The addressable market for ADVA Optical Networking is dominated by the market for optical networking hardware. The increasing demand for cloud applications, the rapid adoption of digital processes across all industry sectors and the ubiquitous consumption of high-definition video via fixed and mobile networks are the most important growth drivers for the market. Optical networking technology satisfies the rapidly increasing demand for more bandwidth in networks around the globe. It is the foundation for the digital economy and supports the internet content community including its base of smartphone user customers.

ADVA Optical Networking addresses important growth applications inside this market including transmission technology for data center interconnect (DCI) and carrier infrastructure. The Group is well positioned in the WDM market, the core segment of the overall optical networking market, and the adjacent market for Carrier Ethernet-based network access solutions. Additionally, ADVA Optical Networking offers solutions for network synchronization and for network virtualization. The total addressable market for ADVA Optical Networking is estimated to be USD 12.6 billion⁴ in 2016, growing to USD 16.8 billion by 2021 at a CAGR (2016-2021) of 6%.

BUSINESS DEVELOPMENT AND OPERATIONAL PERFORMANCE

REVENUES

Revenues represent one of the four key performance indicators for ADVA Optical Networking. In 2016, the Group generated revenues of EUR 566.7 million, an increase of 28.2% on revenues of EUR 441.9 million in 2015. This increase in revenues mainly relates to improved enterprise business specifically driven by Internet content providers (ICPs) and the related business in the Americas. This growth is reflecting the continued network traffic growth due to increased adoption of cloud based services. The business with Carrier Ethernet access solutions was also up compared to the previous quarter, showing first cross-selling success with the expanded product and customer portfolio from the acquisition of Overture Networks.

⁴ Industry analyst estimates for metro and long-haul WDM equipment (optical) and access switching & routing (Ethernet) relevant to ADVA Optical Networking. Sources: Ovum, Optical Networks Forecast 2016-2021 and service provider switching and routing forecast 2016-2022, published January 2017

REVENUES BY REGION (in millions of EUR and relative to total revenues)



Americas

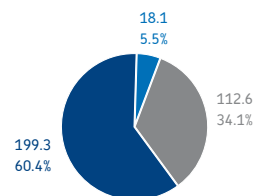


EMEA

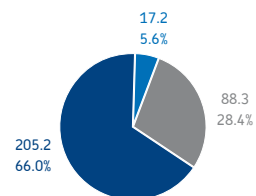


Asia-Pacific

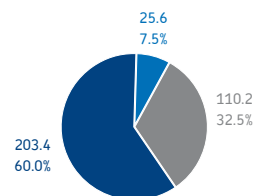
2012
330.1



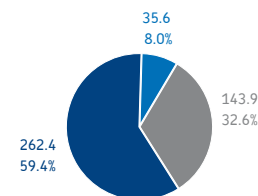
2013
310.7



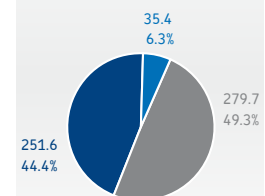
2014
339.2



2015
441.9



2016
566.7



In 2016, the Americas is the strongest region for the first time

Since ADVA Optical Networking only operates in a single segment, which is the development, production and marketing of innovative connectivity solutions, a further breakdown of revenues is not relevant.

In 2016, for the first time the Americas were the strongest region, ahead of EMEA (Europe, Middle East and Africa), followed by Asia-Pacific.

Year-on-year, the Americas revenue increased substantially by EUR 135.7 million or 94.3% from EUR 143.9 million in 2015 to EUR 279.7 million in 2016, representing 49.3% of total revenues in 2016 after 32.6% of total revenues in 2015. This increase was mainly driven by the strong demand from Internet content providers (ICPs) showing their demand for additional transmission capacity required for connection of data processing centers. At the same time, revenues in EMEA at EUR 251.6 million or 44.4% of total revenues in 2016 were down from EUR 262.4 million or 59.4% of total revenues in 2015 reflecting the weakness of the GBP after the Brexit vote in the UK on June 23, 2016. In the Asia-Pacific region, revenues remained fairly stable at EUR 35.4 million in 2016 after EUR 35.5 million in 2015 with solid sales of Carrier Infrastructure and Enterprise solutions to existing and new customers.

RESULTS OF OPERATIONS

(in millions of EUR, except earnings per share)	2016	Portion of revenues	2015	Portion of revenues
Revenues	566.7	100.0%	441.9	100.0%
Cost of goods sold	-400.4	70.7%	-285.0	64.5%
Gross profit	166.3	29.3%	156.9	35.5%
Selling and marketing expenses	-60.0	10.6%	-56.5	12.8%
General and administrative expenses	-32.2	5.7%	-30.4	6.9%
Research and development expenses	-60.5	10.6%	-47.6	10.7%
Other operating income and expenses, net	5.8	1.0%	4.4	1.0%
Operating income	19.4	3.4%	26.8	6.1%
Interest income and expenses, net	-0.1	0.0%	-0.8	0.2%
Other financial gains and losses, net	-0.3	0.0%	2.1	0.5%
Income before tax	19.0	3.4%	28.1	6.4%
Income tax benefit (expense), net	2.5	0.4%	-1.2	0.3%
Net income	21.5	3.8%	26.9	6.1%
Earnings per share in EUR				
basic	0.44		0.55	
diluted	0.43		0.55	

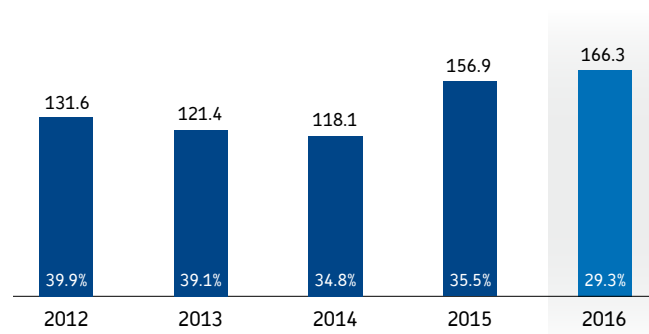
Cost of goods sold increased from EUR 285.0 million in 2015 to EUR 400.4 million in 2016, primarily due to the rise in revenues and increased personnel expenses partly due to the integration of Overture. Cost of goods sold includes amortization charges for capitalized development projects of EUR 25.2 million in 2016 after EUR 26.4 million in 2015.

Decline of gross profit is mainly a result of lower margin

Gross profit increased from EUR 156.9 million in 2015 to EUR 166.3 million in 2016, comprising 35.5% and 29.3% of revenues, respectively. The absolute increase in gross profit compared to the prior year is predominantly due to the increase in revenues. At the same time, cost of goods sold increased at a higher rate, resulting in a decrease of gross margin to 29.3%. The development of the Group's gross margin in general is impacted by variations in regional revenue distribution and in product and customer mix.

GROSS PROFIT

(in millions of EUR and relative to total revenues)

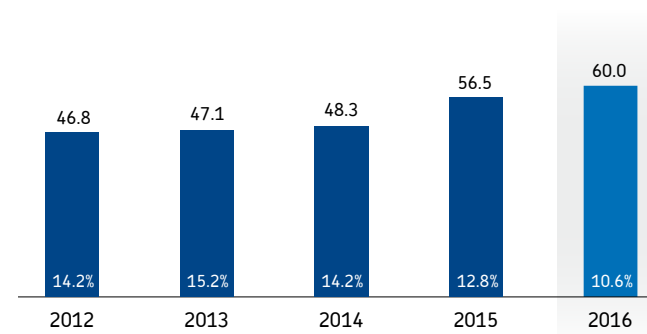


Selling and marketing expenses of EUR 60.0 million in 2016 were up from EUR 56.5 million in 2015, and comprised 10.6% and 12.8% of revenues, respectively. This absolute increase is mainly attributable to increased personnel expense predominantly effected by the first-time inclusion of the Overture Networks Group. ADVA Optical Networking continues to invest in post-sales customer service and intensified direct-touch activities with those key customers served via indirect distribution channels. Establishing direct contact enables the Group to work more closely with its end customers and better understand their specific requirements, which in turn helps in developing market-relevant products.

Increase in selling and marketing expenses due to higher personnel cost related to higher revenues

SELLING AND MARKETING EXPENSES

(in millions of EUR and relative to total revenues)

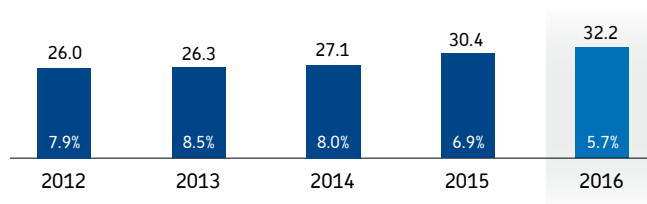


Further decreasing share of general and administrative expenses

General and administrative expenses at EUR 32.2 million in 2016 were up from EUR 30.4 million recorded in 2015. However, the share of total revenues further decreased from 6.9% in 2015 to 5.7% in 2016. This relative decrease reflects ADVA Optical Networking's focus to increase revenues while keeping operating expenses at low level.

GENERAL AND ADMINISTRATIVE EXPENSES

(in millions of EUR and relative to total revenues)



ADVA Optical Networking's research and development activities are driven by the distinct emphasis on differentiating its innovative connectivity solutions for cloud and mobile services and working with customers and partners to identify and meet their current and future needs. The resulting key technologies and products profoundly simplify complicated network structures and supplement existing solutions. During 2016, research and development activities focused on enhancements to the scalable optical transport platform, timing delivery and synchronization features for Ethernet access as well as the virtualization of networks.

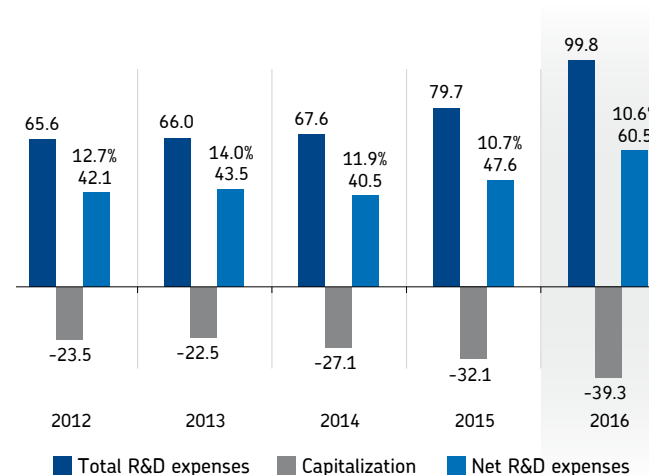
At EUR 60.5 million in 2016, net research and development expenses were significantly up from the EUR 47.6 million in 2015, thereby constituting a stable 10.6% of revenues in 2016 after 10.7% in the prior year. Capitalization of development expenses of EUR 39.3 million in 2016, was up from EUR 32.1 million seen in 2015. The capitalization rate in 2016 amounted to 39.4% (prior year: 40.2%). The increase in R&D expenses mainly relates to integration of the R&D team of Overture Networks Group, additional headcount for development of the future product platform for innovative productivity solutions and further investment in the introduction of new products.

Net R&D expenses considerably increased

Absolute increase in capitalization of development expenses

RESEARCH AND DEVELOPMENT EXPENSES

(in millions of EUR and relative to total revenues)



Net other operating income and expenses amounted to positive EUR 5.8 million in 2016, up from positive EUR 4.4 million in the prior year. This item is mainly impacted by subsidies received for specific research activities and release of provisions created in earlier periods.

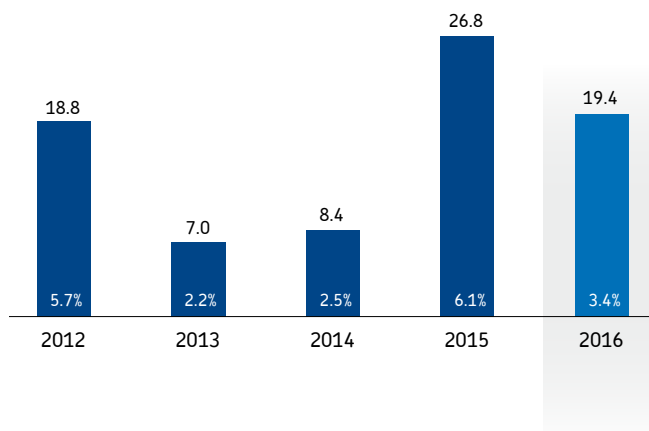
Total operating expenses increased by EUR 16.8 million, from EUR 130.1 million in 2015 to EUR 146.9 million in 2016. Operating expenses increased disproportionally to revenues, representing 25.9% of revenues in 2016 after 29.4% in the prior year.

Decrease of operating income

Overall, ADVA Optical Networking reported a decreased operating income of EUR 19.4 million in 2016 after an operating income of EUR 26.8 million in the prior year. The decrease in operating result is largely due to decline of gross margin. This decline was only partly compensated by a decrease in operating expenses.

OPERATING INCOME

(in millions of EUR and relative to total revenues)



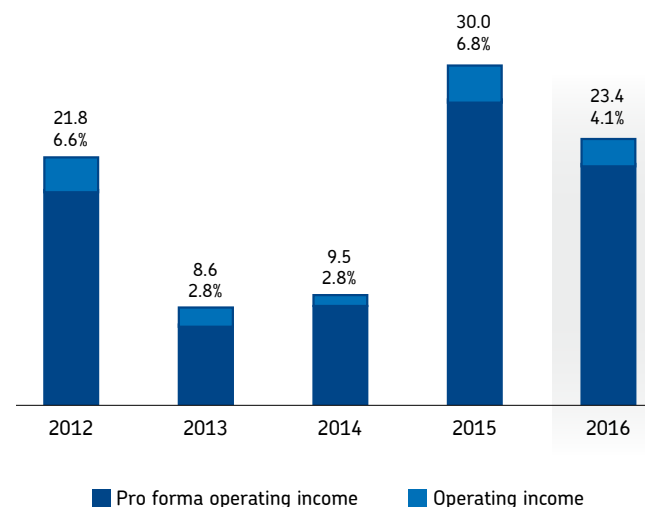
Pro forma operating income¹ represents one of the four key performance indicators for ADVA Optical Networking. This metric is derived from operating income by excluding non-cash charges related to stock compensation and acquisitions. The Management Board of ADVA Optical Networking believes that pro forma operating income is the more appropriate measure than operating income when comparing the Group's operational performance with the operational performance of other telecommunications equipment providers.

The decrease of pro forma operating income from EUR 30.0 million in 2015 to EUR 23.4 million in 2016 is mostly due to the lower operating income discussed above.

Decline of pro forma operating income

PRO FORMA OPERATING INCOME

(in millions of EUR and relative to total revenues)



■ Pro forma operating income ■ Operating income

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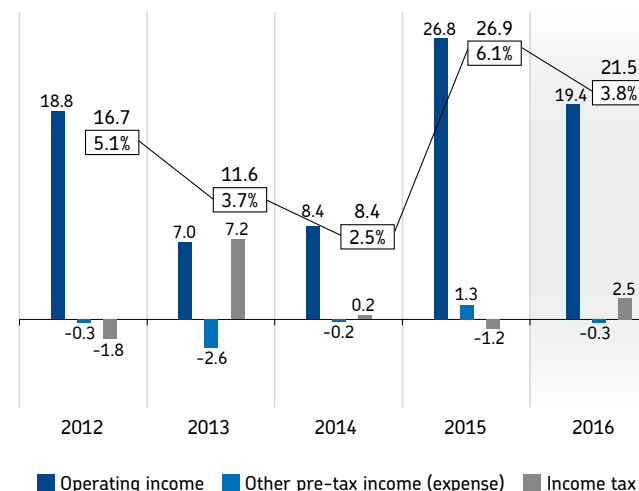
Additional Information

Net income is mainly driven by operating income

Given the unfavorable development of operating income ADVA Optical Networking still reported net income of EUR 21.5 million for 2016, after EUR 26.9 million in 2015. Beyond operating income, the net result in 2016 included net interest expenses of EUR 0.1 million (prior year: EUR 0.8 million) and net other financial losses of EUR 0.3 million (prior year: net other financial gains of EUR 2.1 million) relating to the translation of foreign currency assets and liabilities and to gains and losses on hedging instruments.

In 2016, the Group reported an income tax benefit of EUR 2.5 million after an income tax expense of EUR 1.2 million in 2015. In 2016, the tax benefit was mainly due to the recognition of deferred tax assets on tax-loss carry forwards. The 2015 tax expense mainly results from increased current tax expenses related to the positive development of taxable income only partly offset by recognition of deferred tax assets on temporary differences.

NET INCOME (in millions of EUR and relative to total revenues)



Basic and diluted earnings per share were EUR 0.44 and EUR 0.43, respectively, in 2016 after both EUR 0.55 in the prior year. Basic average shares outstanding increased by 0.1 million to 49.4 million in 2016, due to capital increases from the exercise of stock options. Diluted weighted average shares outstanding increased by 0.9 million to 50.1 million in 2016.

Summary: Business Development and Operational Performance

Notwithstanding the significant increase in revenues operational performance in 2016 declined when compared to 2015. This was predominantly a result of the unfavorable development of gross margin. As a result operating income and net income decreased in 2016 compared to prior year.

NET ASSETS AND FINANCIAL POSITION

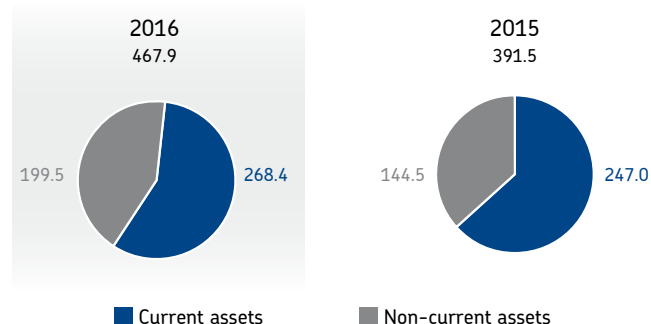
BALANCE SHEET STRUCTURE

Total assets increased with higher portion of non-current assets

ADVA Optical Networking's total assets increased by EUR 76.4 million or 19.5%, up from EUR 391.5 million at year-end 2015 to EUR 467.9 million at the end of 2016.

ASSETS

(on December 31, in millions of EUR)



Current assets rose by EUR 21.4 million or 8.6% from EUR 247.0 million on December 31, 2015 to EUR 268.4 million on December 31, 2016, and comprised 57.4% of the balance sheet total after 63.1% at the end of the prior year. The increase in current assets was mainly driven by a rise in inventories and trade accounts receivable. Inventories of EUR 92.8 million at the end of 2016 were EUR 19.9 million higher than at the end of December 2015, while inventory turns increased to 5.2x in 2016 after 4.4x in 2015.

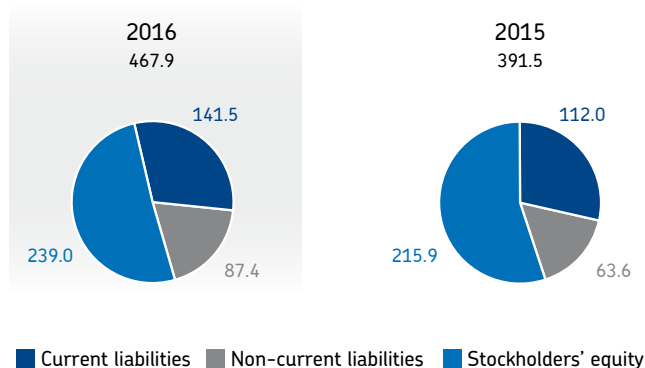
Trade accounts receivable increased by EUR 8.1 million to EUR 78.5 million, with day's sales outstanding at 60 days in 2016 after 58 days reported in 2015. At the same time, cash and cash equivalents were down from EUR 93.9 million at year-end 2015 to EUR 84.9 million at the end of December 2016, mainly due to higher net cash bound in working as well as increased investments. This development was only partly offset by cash inflows due to higher revenues.

Non-current assets increased by EUR 55.0 million from EUR 144.5 million at year-end 2015 to EUR 199.5 million on December 31, 2016. Within non-current assets, capitalized development projects grew by EUR 13.8 million to EUR 76.3 million at year-end 2016. The increase was largely driven by developments of the future product platform for innovative connectivity solutions. Due to the acquisition of Overture goodwill increased by EUR 16.7 million to EUR 41.5 million and intangible assets increased by EUR 12.2 million to EUR 16.4 million at the end of 2016 mainly due to capitalization of technologies, customer relationships and a trade name. In addition, deferred tax assets rose by EUR 6.9 million to EUR 36.0 million at year-end 2016, mainly related to recognition of tax loss carry-forwards.

Meaningful additional assets belonging to ADVA Optical Networking are the broad and global customer base of several hundred service providers and thousands of enterprises, the ADVA Optical Networking, Oscilloquartz and Ensemble brands, the vendor and partner relationships and a highly motivated and skilled global team. These assets are not included in the balance sheet. Customer satisfaction as measured by the Net Promoter Score³ represents one of the Group's four key performance indicators.

Additional off-balance-sheet assets

LIABILITIES (on December 31, in millions of EUR)



Increased portion
of liabilities

With respect to equity and liabilities, current liabilities increased by EUR 29.5 million from EUR 112.0 million at year-end 2015 to EUR 141.5 million at the end of 2016, primarily due to increases in trade accounts payable. Trade accounts payable rose from EUR 43.7 million at the end of 2015 to EUR 73.3 million at year-end 2016, with day's payable outstanding stable at 62 days in both years. The increase in trade accounts payable is driven by higher material purchases related to increased revenues as well as the timing of material purchases. Moreover, current provisions increased by EUR 1.9 million mainly due to inclusion of additional warranty obligations. At the same time, other current liabilities were down EUR 3.7 million to EUR 23.1 million at the end of 2016.

Non-current liabilities at EUR 87.4 million at year-end 2016 were up EUR 23.8 million compared to prior year end. Within non-current liabilities, non-current financial liabilities increased by EUR 16.3 million to EUR 40.7 million at the end of 2016 mainly due to new bank loans raised for financing of the acquisition of Overture. Furthermore, deferred tax liabilities were up by EUR 8.2 million to EUR 30.3 million on December 31, 2016 based on temporary differences.

Stockholders' equity increased by EUR 23.1 million from EUR 215.9 million at year-end 2015 to EUR 239.0 million at the end of 2016, mainly due to net income of EUR 21.5 million reported in 2016. In 2016, capital increases totaling EUR 0.4 million from the exercise of stock options, and stock compensation expenses totaling EUR 1.4 million, were reported.

Equity ratio at 51.1%

BALANCE SHEET RATIOS

The equity ratio stood at 51.1% at the end of 2016, after 55.1% at year-end 2015. The non-current assets ratio amounted to 119.8% on December 31, 2016, with stockholders' equity fully covering the non-current assets and a portion of the current assets.

(on December 31, in %)		2016	2015
Equity ratio	Stockholders' equity	51.1	55.1
	Total assets		
Non-current asset ratio	Stockholders' equity	119.8	149.4
	Non-current assets		
Liability structure	Current liabilities	61.8	63.8
	Total liabilities		

CAPITAL EXPENDITURES

Capital expenditures for property, plant and equipment are mainly related to investments in test equipment

Capital expenditures for additions to property, plant and equipment in 2016 amounted to EUR 12.9 million, up from EUR 7.9 million in 2015, largely reflecting higher investments in test equipment.

Capital expenditures for intangible assets are mainly related to capitalized development projects

Capital expenditures for intangible assets of EUR 41.3 million in 2016 were significantly up from EUR 33.1 million in the prior year. This total consists of capitalized development projects of EUR 39.4 million in 2016 after EUR 32.1 million in 2015, and investments in software licenses and other intangible assets of EUR 1.9 million in 2016 after EUR 1.0 million in 2015. Investments in capitalized development projects are mainly driven by development activities for the new FSP 3000 CloudConnect™.

CASHFLOW

(in millions of EUR)	2016	Portion of cash	2015	Portion of cash
Operating cash flow	61.4	72.3%	39.4	42.0%
Investing cash flow	-86.4	101.8%	-41.3	44.0%
Financing cash flow	15.8	18.6%	9.7	10.3%
Net effect of foreign currency translation on cash and cash equivalents	0.2	0.3%	2.2	2.3%
Net change in cash and cash equivalents	-9.0	10.6%	10.0	10.6%
Cash and cash equivalents at the beginning of the period	93.9	110.6%	83.9	89.4%
Cash and cash equivalents at the end of the period	84.9	100.0%	93.9	100.0%

Cash flow from operating activities at EUR 61.4 million in 2016 was up EUR 22.0 million from EUR 39.4 million in 2015. This development was largely due to an increase of total net cash bound in working capital in 2016 compared to 2015. This effect was partly offset by the declined income before tax.

Increased operating cash flow mainly due to higher net cash bound in working capital

Cash flow from investing activities was EUR -86.4 million in 2016 after EUR -41.3 million in the prior year. The increased use of funds for investing activities is largely due to the acquisition of Overture. At the same time, significantly higher capital expenditures for property, plant and equipment as well as capitalized development projects drove this increase.

Increased use of funds for investing activities

Acceptance of new financial debt

Finally, cash flow from financing activities at positive EUR 15.8 million in 2016 was significantly up compared to the 2015 level of positive EUR 9.7 million. The net cash inflow in 2016 was mainly impacted by the acceptance of two new loans used for financing of the acquisition of the Overture Networks Group. This inflow was only partly compensated by the servicing of existing debt. In 2015, these cash inflows mainly included the increase in financial liabilities due to a new loan contract signed in December 2015.

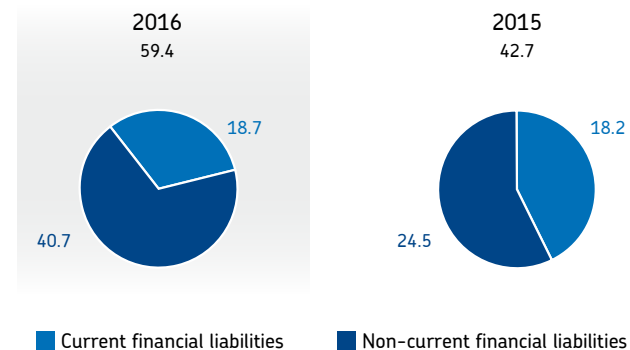
Overall, including the net effect of foreign currency translation on cash and cash equivalents of EUR 0.2 million (2015: EUR 2.2 million), cash and cash equivalents decreased by EUR 9.0 million in 2016, from EUR 93.9 million at year-end 2015 to EUR 84.9 million at the end of 2016, after an increase of EUR 10.0 million in the prior year.

Strong equity base

FINANCING AND LIQUIDITY

ADVA Optical Networking's financial management objective is to provide sufficient funds to ensure ongoing operations and to support the Group's projected growth. Beyond the strong equity base appropriate for the business, ADVA Optical Networking finances its business by means of liabilities with maturities typically exceeding the life of the assets being financed. For any liability taken, ADVA Optical Networking is focused on minimizing related interest cost, as long as access to funds is not at risk. Excess funds are generally used to redeem.

FINANCIAL LIABILITIES (on December 31, in millions of EUR)



Mainly due to two new loan totaling EUR 35.0 million drawn in January 2016, total financial liabilities increased from EUR 42.7 million at year-end 2015 to EUR 59.4 million at the end of 2016. The loans have fixed interest rates and will be repaid in 16 equal installments of EUR 2.2 million in total per quarter commencing Q1 2017. At the same time, a variable rate loan of EUR 11.5 million has been repaid in January 2016 prior to maturity. While the current portion at EUR 18.7 million remained fairly stable compared to EUR 18.2 million reported at year-end 2015, the non-current portion increased from EUR 24.5 million on December 31, 2015, to EUR 40.7 million at the end of December 2016. All financial liabilities were exclusively denominated in EUR at the end of 2015 and 2016.

Increase in non-current financial liabilities

On December 31, 2016, the Group had available EUR 8.0 million (on December 31, 2015: EUR 8.0 million) of undrawn committed borrowing facilities in respect of which all conditions had been met.

Further details about the Group's financial liabilities can be found in note (13) to the consolidated financial statements.

NET LIQUIDITY

Strong liquidity position

Net liquidity² represents one of the four key performance indicators for ADVA Optical Networking. Due to the decrease in cash and cash equivalents and increase in financial liabilities in 2016, ADVA Optical Networking's net liquidity at EUR 25.5 million on December 31, 2016, decreased by EUR 25.7 million compared to year-end 2015. Cash and cash equivalents of EUR 84.9 million on December 31, 2016, and of EUR 93.9 million on December 31, 2015, were invested mainly in EUR, USD and in GBP. At year-end 2016 and 2015, access to EUR 0.1 million and EUR 0.1 million of cash and cash equivalents was restricted, respectively.

(on December 31, in millions of EUR)	2016	2015
Cash and cash equivalents	84.9	93.9
- financial liabilities		
current	-18.7	-18.2
non-current	-40.7	-24.5
Net liquidity	25.5	51.2

ADVA Optical Networking's liquidity ratios reflect the healthy balance sheet structure of the Group.

Financing ratios (on December 31)		2016	2015
Cash ratio	$\frac{\text{Cash and cash equivalents}}{\text{Current liabilities}}$	0.60	0.84
Quick ratio	$\frac{\text{Monetary current assets*}}{\text{Current liabilities}}$	1.15	1.47
Current ratio	$\frac{\text{Current assets}}{\text{Current liabilities}}$	1.90	2.20

* Monetary current assets are defined as the sum of cash and cash equivalents, short-term investments and securities and trade accounts receivable.

Return on capital employed in 2016 was at 6.3%, down from 10.4% reported in 2015. This development is largely due to the decreased operating result reported in 2016.

Return on capital employed at 6.3%

Return on capital employed (ROCE) (base data in millions of EUR)	2016	2015
Operating income	19.4	26.8
Average total assets*	441.3	363.6
Average current liabilities*	133.6	105.8
ROCE	6.3%	10.4%

* Arithmetic average of five quarterly period-end values (Dec. 31 of the prior year and Mar. 31, Jun. 30, Sep. 30 and Dec. 31 of the year).

TRANSACTIONS WITH RELATED PARTIES

Transactions with related individuals and legal entities are discussed in notes (34) and (35) to the consolidated financial statements.

DIVIDEND PAYMENTS

In 2016 there were no dividend payments for 2015 (prior year: nil for 2014). ADVA Optical Networking does not plan to pay out a dividend for 2016.

SUMMARY:

NET ASSETS AND FINANCIAL POSITION

Disregarding the decrease in cash and cash equivalents and net liquidity the net assets and financial position of ADVA Optical Networking remains healthy in 2016.

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EVENTS AFTER THE BALANCE SHEET DATE

There were no events after the balance sheet date that materially impacted the net assets and financial position of the Group on December 31, 2016, or its financial performance for 2016. Similarly, there were no events considered material for disclosure.

SHARE CAPITAL AND SHAREHOLDER STRUCTURE

On December 31, 2016, ADVA Optical Networking SE had issued 49,498,934 no par value bearer shares (December 31, 2015: 49,374,484). No other class of shares had been issued during the reporting period.

At year-end 2016, EGORA Holding GmbH held a total of 7,456,749 shares or 15.1% of all ADVA Optical Networking SE shares outstanding (at year-end 2015: 7,656,749 shares or 15.5% of all shares outstanding). 5,930,902 of these shares or 12.0% of all shares outstanding (at year-end 2015: 5,930,902 shares or 12.0% of all shares outstanding) were held by EGORA Ventures GmbH, a 100% subsidiary of EGORA Holding GmbH, and the remaining 1,525,847 shares or 3.1% of all shares outstanding (at year-end 2015: 1,725,847 shares or 3.5% of all shares outstanding) were held directly by EGORA Holding GmbH. Both EGORA companies have their registered offices in Fraunhoferstrasse 22, 82152 Martinsried/Munich, Germany. No other shareholder has filed with the Company to have held more than 10% of the Company's shares outstanding on December 31, 2016. Further details on share capital and shareholder structure are disclosed in note (17) to the consolidated financial statements.

RESTRICTION OF VOTING RIGHTS AND SHARE TRANSFERS

At year-end 2016, the Management Board of ADVA Optical Networking SE had no knowledge of any restrictions related to voting rights or share transfers.

APPOINTMENT AND DISMISSAL OF MANAGEMENT BOARD MEMBERS

The appointment and dismissal of members of the Management Board of ADVA Optical Networking SE follows the direction of the German Stock Corporation Act (Aktiengesetz, AktG), the German SE Implementation Act (SE-Ausführungsgesetz, SEAG) as well as the provisions in section 6 of the Company's current articles of association as of May 26, 2016. According to these articles, in principle the Supervisory Board appoints the members of the Management Board and does so for a maximum period of five years. However, it is the Company's practice to appoint the members of the Management Board for two years only. Repeated appointment is possible. According to the Company's articles of association, the Management Board of ADVA Optical Networking SE shall regularly consist of two individuals and the Supervisory Board shall have the right to determine and appoint a higher number of individuals. If the Management Board consists of more than one individual, the Supervisory Board may appoint one member of the Management Board Chief Executive Officer or Speaker of the Management Board, and another member his or her deputy. The Supervisory Board may recall an al-

ready-effective appointment for important reasons. In 2016, no appointments or dismissals of Management Board members have been made. ADVA Optical Networking SE's Management Board consisted of Brian Protiva (Chief Executive Officer), Christoph Glingener (Chief Technology Officer & Chief Operating Officer) and Ulrich Dopfer (Chief Financial Officer) throughout the year.

CHANGES TO ARTICLES OF ASSOCIATION

Changes to ADVA Optical Networking SE's articles of association follow section 179 of the German Stock Corporation Act (Aktiengesetz, AktG) in conjunction with section 133 AktG, as well as the provisions in section 4 paragraph 6 and section 13 paragraph 3 of the Company's current articles of association as of May 26, 2016. Accordingly, in principle any changes to the articles of association other than purely formal amendments need to be resolved by the Shareholders' Meeting. However, the Shareholders' Meeting has authorized the Supervisory Board to change the version of the articles of association in accordance with capital increases from authorized capital and conditional capital.

ISSUANCE AND BUY-BACK OF SHARES

The rights of the Management Board to issue new shares are regulated in section 4 paragraphs 4 to 5k of the articles of association as of May 26, 2016 of ADVA Optical Networking SE. According to ADVA Optical Networking SE's current articles of association the Management Board is authorized with approval of the Supervisory Board to increase the capital stock by up to 24,048,215 new shares from authorized capital, amounting to a total of EUR 24,048,215 against cash or contribution in kind with possible exclusion of subscription rights (Authorized Capital 2015/I). As of December 31, 2016, the authorized capital amounted to EUR 24,048,215, so that at that time the Management Board have been capable of issuing up to 24,048,215 shares, commensurate to 48,6% of total shares outstanding. In addition, as of December 31, 2016, a total of two tranches of conditional capital amounting to a total of EUR 4,937,446 were recorded in the commercial register (Conditional Capitals 2003/2008 and 2011/I). The conditional capitals can only be used for granting stock option rights to members of the Management Board, to employees of the Company and to management and employees of affiliated companies. The conditional capital increase is put into effect only if, when and insofar the holders of the option rights exercise these rights. 124,450 new shares were already created in 2016 as a result of the exercise of stock options, but will only be registered in the trade register after the balance sheet date. Thus, the number of shares that can be issued by the Management Board from the two tranches of conditional capital is reduced to 4,812,996.

At year-end 2016, the Management Board was authorized to buy back up to a total of 10.0% of the existing share capital at the time of resolution by the Annual General Meeting or – if this value is lower – at the time the authorization will be exercised. This right was granted to the Management Board by a resolution of the Shareholders' Meeting on May 20, 2015 until May 19, 2020. Shares bought back may be used for all legally permitted purposes, in particular as consideration for the acquisition of companies, parts of companies or investments in companies, for issuing stock to employees of the Company or affiliated companies, for serving share subscription rights from the Company's stock option plans, and for redeeming the shares pursuant to the legal provisions.

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TAKEOVER BID-DRIVEN CHANGE OF CONTROL PROVISIONS

At year-end 2016, a loan with redemption value of nominally EUR 9.4 million (repayable in 16 equal quarterly installments since September 2014), a loan with redemption value of nominally EUR 15.0 million (repayable in 16 equal quarterly installments from March 2017), a loan with redemption value of nominally EUR 10.0 million (repayable in 16 equal quarterly installments from March 2017) and a loan with redemption value of nominally EUR 25.0 million (repayable in 16 equal quarterly installments from March 2017), respectively, are part of ADVA Optical Networking SE's financial liabilities. In the event of a potential takeover bid-driven change in control of ADVA Optical Networking SE, the creditors have the right to terminate these loans with immediate effect.

As of December 31, 2016, for the event of a takeover bid-driven change in control there have been no recourse agreements in place with any of the members of the Management Board or with any of the Group's employees.

DECLARATION ON CORPORATE GOVERNANCE AND CORPORATE GOVERNANCE REPORT

Compliance with the rules of proper corporate governance is of great importance to ADVA Optical Networking, it is the foundation for the Group's success. According to section 289a of the German Commercial Code (Handelsgesetzbuch, HGB), ADVA Optical Networking SE is obliged to publish a "declaration on corporate governance", and section 161 of the German Stock Corporation Act (Aktiengesetz, AktG) in connection with section 3.10 of the German Corporate Governance Code as amended on May 5, 2015 recommends that Management Board and Supervisory Board shall prepare a "corpo-

rate governance report". In order to facilitate public access to all respective data, ADVA Optical Networking integrates the "declaration on corporate governance" and the "corporate governance report" into one single publication on its website www.advaoptical.com (About Us / Investor Relations / Corporate Governance / Declaration on Corporate Governance and Corporate Governance Report).

DEFINITION OF AIMS AND TERMS FOR THE RISE OF THE WOMEN PORTION IN THE SUPERVISORY BOARD, THE MANAGEMENT BOARD AND IN BOTH LEADERSHIP LEVELS BELOW THE MANAGEMENT BOARD

In 2016, ADVA Networking SE fulfilled the legal regulation for a gender rate of 33% in the Supervisory Board with one female Supervisory Board member out of three. All three Management Board members are male. As of December 31, 2016, the women's portion in ADVA Optical Networking SE at the first management level amounts to 7% (prior year: 7%) and at the second management level to 32% (prior year: 35%). On account of the low portion of female university graduates in relevant fields of study it is difficult for ADVA Optical Networking to achieve a desirable high women's portion in management. Therefore, the Management Board and Supervisory Board took the decision that until June 30, 2017, the portion of female Supervisory Board members should stay stable at 33% and the portion in the Management Board as well as in the top two levels of management should be at least maintained at current status.

REMUNERATION OF THE MANAGEMENT AND THE SUPERVISORY BOARD

The compensation of ADVA Optical Networking's Management Board members consists of fixed and variable components. In addition to a fixed salary, the members of the Management Board receive two kinds of variable compensation which are assessed based either on short-term aspects or on long-term criteria focusing on the sustainable development of the Group. As additional long-term variable compensation, the Management Board members receive stock options within the scope of ADVA Optical Networking's stock option program. The maximum amount of compensation for the members of the Management Board is capped, both overall and for its variable compensation components (annual bonus, long term bonus, newly issued options).

In 2016, the fixed salaries of the CEO and CTO remained unchanged, while the fixed salary of the CFO has been converted from USD to EUR and matched with the fixed salary of the other two members of the Management Board. The short-term variable compensation was based on the Group's pro forma operating income¹ (40%), the Group's revenues (20%), and the Group's net liquidity² (20%) as well as individual goals agreed with each member of the Management Board at the beginning of the year (20%). The short-term variable compensation is determined annually as compensation for the current year at the discretion of the Supervisory Board. Furthermore, a long-term variable compensation focusing on the sustainable development of the Group was agreed in 2015 which will be paid to the members of the Management

Board after three years, provided that minimum Group pro forma operating income margins, increasing year-by-year, are met for each of the three years. All members of the Management Board additionally receive a company car or a car allowance. Moreover, ADVA Optical Networking bears the costs of pecuniary damage liability insurance for the Management Board members, taking into account the statutory deductible amount. These benefits are partially taxable by the members of the Management Board as non-cash benefits. In addition, ADVA Optical Networking grants stock options to members of the Management Board. These option rights authorize the members of the Management Board to purchase a set number of shares in the Company once a fixed vesting period has elapsed and the goal to increase the share price by at least 20% has been reached.

Total Management Board compensation payable for 2016 and 2015 was EUR 2,429 thousand and EUR 1,764 thousand, respectively. During both years, there were no long-term service contracts in the sense of IAS 19 for any member of the Management Board. In 2016 and 2015, no loans were granted to the members of the Management Board. At December 31, 2015, ADVA Optical Networking reports a receivable of EUR 62 thousand from Brian Protiva relating to payroll tax on exercised stock options. The receivable has been offset from remuneration paid in January and February 2016. At December 31, 2016, no receivables outstanding from members of the management board have been reported.

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VALUE OF BENEFITS GRANTED FOR THE REPORTING PERIOD

	Brian Protiva Chief Executive Officer				Christoph Glingener Chief Technology Officer & Chief Operating Officer				Ulrich Dopfer Chief Financial Officer			
(in thousands of EUR)	2016	2015	(Min) 2016	(Max) 2016	2016	2015	(Min) 2016	(Max) 2016	2016	2015	(Min) 2016	(Max) 2016
Fixed compensation	253	253	253	253	253	253	253	253	253	230	253	253
Fringe benefits	15	14	15	15	11	11	11	11	15	17	15	15
Total	268	267	268	268	264	264	264	264	268	247	268	268
Short-term variable compensation (1 year)	226	314	-	536	152	213	-	360	135	118	-	320
<i>Multi-year variable compensation:</i>												
Long-term variable compensation (3 years)	-	89	-	-	-	60	-	-	-	37	-	-
Stock option plans (7 years)	417	-	-	3,000	403	-	-	2,900	296	341	-	2,133
Total	911	670	268	3,804	819	537	264	3,524	699	743	268	2,721

ACTUAL CONTRIBUTION FOR THE REPORTING PERIOD

	Brian Protiva Chief Executive Officer				Christoph Glingener Chief Technology Officer & Chief Operating Officer				Ulrich Dopfer Chief Financial Officer			
(in thousands of EUR)	2016	2015	(Min) 2016	(Max) 2016	2016	2015	(Min) 2016	(Max) 2016	2016	2015	(Min) 2016	(Max) 2016
Fixed compensation	253	253	253	253	253	253	253	253	253	230	253	253
Fringe benefits	15	14	15	15	11	11	11	11	15	17	15	15
Total	268	267	268	268	264	264	264	264	268	247	268	268
Short-term variable compensation (1 year)	226	314	226	226	152	213	152	152	135	118	135	135
<i>Multi-year variable compensation:</i>												
Long-term variable compensation (3 years)	-	-	-	-	-	-	-	-	-	-	-	-
Stock option plans (7 years)	-	1,183	-	-	-	893	-	-	-	35	-	-
Total	494	1,764	494	494	416	1,370	416	416	403	400	403	403

Prior year information has been adjusted to reflect the current disclosure structure.

EMPLOYEES

On December 31, 2016, ADVA Optical Networking had 1,764 employees, including 21 apprentices (prior year: 1,524 including 16 apprentices).

On average, ADVA Optical Networking had 1,731 employees during 2016, up from 1,491 during 2015. Furthermore, there were 19 and 22 temporary employees working for ADVA Optical Networking at year-end 2016 and 2015, respectively. During 2016, the increase in employees largely relates to the Group's expansion in Poland and to the acquisition of Overture Networks Inc. headquartered in Research Triangle Park, NC, USA with maintained offices in Westford, MA, USA and Bangalore, India in January 2016.

Personnel expenses increased from EUR 135.3 million in 2015 to EUR 157.2 million in 2016, representing 27.7% of revenues in 2016 compared to 30.6% in 2015.

The employee compensation packages comprise fixed and variable elements, and also include stock options. These compensation packages enable employees to participate appropriately in the success of the Group and support employee retention, while at the same time rewarding individual efforts, teamwork, innovation and productivity. Furthermore, employees who perform exceptionally well or who make suggestions for significant improvements are recognized through the Group's Spot Award program. In addition, the Group is committed to offering all employees comprehensive on-the-job training, as well as specific continuing education opportunities in order to advance their personal and professional development.

The compensation of the members of ADVA Optical Networking's Supervisory Board, beyond the reimbursement of out of pocket expenses, only consists of fixed compensation paid out quarterly.

The total compensation payable to the members of the Supervisory Board of ADVA Optical Networking for 2016 amounted to EUR 229 thousand, after EUR 215 thousand for 2015.

Furthermore, ADVA Optical Networking bears the cost of pecuniary damage liability insurance for all members of the Supervisory Board. During 2016, no loans or advance payments were granted to members of the Supervisory Board.

Detailed information on the compensation structure of the individual members of the Management and Supervisory Boards can be found in note (35) to the consolidated financial statements.

The Group offers different types of continuing education programs through the ADVA Optical Networking University, based on employee development needs. These needs are identified, documented and reviewed semi-annually within an electronic performance appraisal and competency management system.

Within ADVA Optical Networking, all relevant local regulations for health and safety in the workplace are complied with and for the Group's sites in some countries are regularly monitored by independent engineering offices for safety in the workplace. An efficient employee representation without trade union ties is in place on a global basis, reflecting the international employee base and overall orientation of the Group.

ADVA Optical Networking is committed to the creation of a workplace free of discrimination and harassment. The Group recruits, hires, trains and promotes individuals on all job levels without regard to race, religion, ancestry, sexual orientation, marital status, national origin, age, gender and physical or mental disability. ADVA Optical Networking is committed to a fair and equitable workplace where everyone is a respected and valued member of the team. The Group's core values (teamwork, excellence, accountability and motivation) and leadership principles (integrity & honesty, decisiveness and respect) guide employees and managers in all business activities.

At its main production and development facility in Meiningen, Germany, ADVA Optical Networking currently provides 20 apprenticeship positions, which lead to professions as electronic technicians for devices and systems and as office management assistant. In Meiningen, Germany, the Company is among the most recognized apprenticeship providers for industrial electronics professions in its region. In addition, ADVA Optical Networking offers an active university student trainee program in Germany that provides on-the-job work experience to students pursuing degrees.

In October 2015, the Group conducted an employee survey with the support of an independent human resources consultancy. Based on the results of the 2015 survey, the Management Board derived an action plan to further improve employee satisfaction which has been implemented in 2016.

RISK REPORT

The future development offers many opportunities, but is also subject to risks

ADVA Optical Networking's future development offers a broad variety of opportunities. It is, however also subject to various risks, which in certain cases could endanger the Group's continued existence. The Management Board has implemented a comprehensive risk management and internal control system that enables the Management Board to detect risks in a timely manner, to take corrective actions and to benefit from identified opportunities. An integral aspect of the Group's strategy is its ability to anticipate developments in the marketplace and future customer needs. Special emphasis is given to product development, the quality of the Group's products and the validation, selection and oversight of key business partners.

RISK MANAGEMENT SYSTEM

Since ADVA Optical Networking was founded in 1994, its business has become more diversified. The Group markets its products and solutions in part via a variety of distribution partners but has become less dependent on these partners over the years due to continued investment in a direct distribution model in core geographies. Beyond focusing on enhancing revenue predictability, a comprehensive risk management system has been established, enabling the Group to detect risks in a timely manner and to take appropriate preventive and corrective actions. The risk management system is subject to scheduled reviews by the Group's internal audit function. The Management Board recognizes that a risk management system cannot in all cases prevent the occurrence of events that may cause material damage to the Group.

Interdepartmental decision support and reporting system

ADVA Optical Networking is organized according to functional areas across all international locations. This is also reflected in the Management Board's split of responsibilities, in particu-

lar as related to risk management. The Management Board continuously analyzes the potential risks and implements the necessary measures to guard against them to the greatest extent possible. In recent years, ADVA Optical Networking has significantly improved its results-driven decision support and reporting system. The Group has established an appropriate risk management system across all departments with the purpose of quickly uncovering potential risks and taking corrective actions in a timely manner. These measures allow the Management Board to evaluate the present and future situation of the Group at all times. A combination of regular and ad-hoc reports present a thorough picture of current and future business developments. In order to support the Group's growing business operations and to ensure continuous improvement, relevant risk management processes and structures were reassessed in 2016.

ADVA Optical Networking's strategic goals are the basis for its risk management system. These goals are growth and profitability, innovation, operational excellence and employees. The strategic goals are reviewed by both the Management Board and the Supervisory Board on a yearly basis and amended where appropriate. They also constitute the basis for the Group's three-year business plan, which is reviewed and updated annually. Each of these goals is defined in detail and then broken down into specific departmental and individual targets. The strategic goals are traced to each employee, so that every individual can focus and be evaluated on his/her own performance and contribution to ADVA Optical Networking's overall performance.

ADVA Optical Networking measures the accomplishment of its strategic goals against revenues, pro forma operating income¹, and net liquidity² as well as the non-financial criterion customer satisfaction measured by the Net Promoter Score³. These metrics represent the Group's key performance indicators. The Management Board sets target values for all four metrics for the year to come and measures actual values against the target values: revenues and pro forma operating income on a monthly basis, net liquidity on a quarterly basis and the Net Promoter Score on an annual

The risk management system is based on strategic goals

Periodic and timely monitoring of key performance indicators

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basis. Corrective action is taken quickly should a deviation from the plan occur or be reasonably predicted to occur. This information is summarized and communicated to the Management Board in monthly, quarterly and yearly reports.

Monthly budget reviews and tight controls

Moreover, budgets are reviewed on a monthly basis and adjustments are made if necessary. The Group's accounting, controlling and treasury departments provide globally consolidated reports on available cash funds and the development of margins and current assets (e.g. inventories and receivables) on a monthly and quarterly basis. These reports also include budgeted/forecasted and actual revenues and expenditures. Structure and content of these reports must be adapted continuously to meet information requirements. ADVA Optical Networking regularly monitors the credit worthiness of all customers and updates credit limits as needed. Material expenditures and investments must be approved in advance through an electronic purchase order system. In conjunction with continuously updated revenue and cash forecasts, a detailed monthly preview of anticipated Group developments within the next three to twelve months is produced and communicated to the Management Board. Moreover, the Group's accounting, controlling and legal departments review potential legal and litigation risks on a quarterly basis in order to obtain a reliable estimate of the potential loss taking into account all relevant information and expectations. In addition, ADVA Optical Networking's Management Board regularly analyzes the financial position and profitability of the Group, as well as potential legal and litigation risks, discusses all significant business transactions with the Supervisory Board and obtains its approval if necessary.

Comprehensive compliance management and code of conduct

In order to ensure observance of all applicable laws and regulations, ADVA Optical Networking has a code of conduct and a range of Group-wide policies in place which govern the Group's business operations and are mandatory for all employees to follow. The code of conduct is an extension of the Group's core values, and employees are actively encouraged

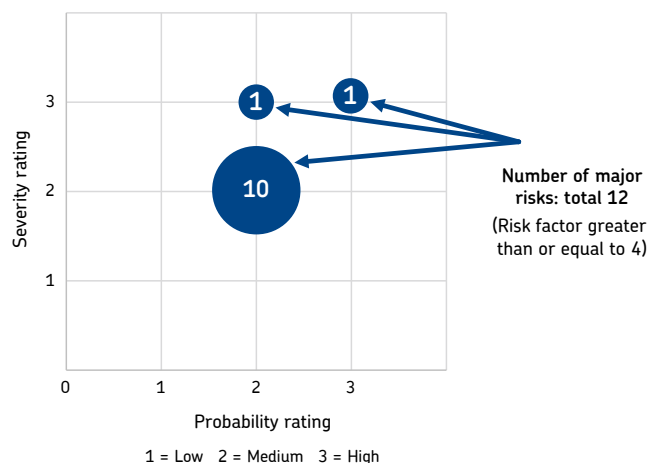
to report suspected incidents of non-compliance and to seek support when having questions or suggestions. An external ombudsman (this role is currently covered by Frank Fischer, tax lawyer and former member of ADVA Optical Networking's Supervisory Board) and an externally operated ethics and compliance helpline enable confidential and anonymous reporting. Enforcement of compliance with all applicable laws and regulations and deriving internal policies is coordinated by ADVA Optical Networking's Chief Compliance Officer who reports to the Chief Executive Officer and the Supervisory Board.

The analytical tools and processes described above secure a constant and transparent reporting system across the Group. In regular monthly reports and multiple webinars per year, the Management Board informs the extended worldwide management team about the current business development, business outlook, Group and departmental goals.

In addition, ADVA Optical Networking systematically describes all major risks which may cause material harm to the Group or may even threaten its existence, as well as the internal controls, processes and tools that are used to mitigate these risks. A risk is classified as major if its severity and its probability of occurrence on a high-medium-low scale are each ranked "medium" or "high". The list of major risks is subject to change, driven by input from within the organization and annual reviews by the Management Board. For each major risk identified, the Group assigns a dedicated risk owner who is responsible to report risk-related information periodically and to inform the Management Board immediately should the risk materialize. Adherence to this process is monitored by the Group's compliance department which conducts quarterly risk reviews with each risk owner. Independent of specific risk ownership, all employees of ADVA Optical Networking are asked to escalate additional obvious risk items directly and informally to the Chief Financial Officer and the compliance department.

Risk awareness and methodical mitigation

At the end of 2016, ADVA Optical Networking ranked 12 risks as major risks (end of 2015: 12), which are discussed in detail below. The rating of those risks is based on probability and severity (p;s).



COMPETITIVE AND PRODUCT RISKS

Technology Leadership Risk (2;2)

The market for innovative connectivity solutions for cloud and mobile services is highly competitive and subject to rapid technological change. Competition in this market is characterized by various factors, such as price, functionality, service, scalability and the ability of systems to meet customers' immediate and future network requirements. Should ADVA Optical Networking be unable to adapt to changing market

conditions, customer requirements or industry standards, the Group's development would be impacted negatively. Since most of the Group's competitors operate in a broader market and have considerably more resources available due to their greater size, ADVA Optical Networking must continue to leverage its competitive advantage in terms of the functionality and efficiency of its solutions, as well as in terms of total cost for the customer. Preventive actions to achieve this include running advanced technology projects, running a team of navigators to decide on strategic direction, industry and competitor analysis, keeping the Group's development roadmap up-to-date, testing product visions with customers, driving the evolution of intellectual property rights, monitoring and influencing standardization, minimizing dependency on legacy products, maximizing R&D efficiency and staying close to customers in order to identify differentiating technology opportunities.

Cost Leadership Risk (2;2)

ADVA Optical Networking achieves cost leadership by its ability to scale economically and through the optimization of product design. The loss of cost leadership would drastically reduce the Group's success in winning new business and would have a negative effect on gross and operating margins. The significant pricing pressure for innovative connectivity solutions must be met strategically by improving processes, controls and technology as well as updating existing products, while maintaining adequate R&D budgets. Preventive actions to achieve this include running focused cost reduction programs on existing products by redesign of product parts or by improving the component price versus efficiency ratio. A dedicated team identifies competitive price and cost targets for new products, monitors product cost development throughout the development process, negotiates, tracks and forecasts product and related component costs. Additionally, the Group seeks to transfer manufacturing and distribution to the most efficient location around the world.

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Product Quality Risk (2;2)

The deterioration of the quality of ADVA Optical Networking's products could lead to delays in installation, return of products or cancellation of orders, and could result in additional costs for warranty and repair services. In addition, the Group could face penalties and lawsuits, contract terminations and liability claims, which ultimately could lead to lower market shares and harm ADVA Optical Networking's overall reputation. Preventive actions to avoid quality deterioration include continuously improving the Group's development processes, enhancing product testing, closely monitoring product return and customer complaint rates as well as analyzing respective root causes, optimizing complaint handling and supplier quality and measuring and analyzing customer satisfaction on a regular basis.

Major Dependency on a Few Suppliers or a Single-Source Supplier (2;2)

Reliance on a single source supplier is a risky situation. This may happen due to many reasons but the Group has a detailed action plan to mitigate this risk. Otherwise, the consequences can be severe and include: longer time to market, customer dissatisfaction, loss of customers and a negative impact on ADVA Optical Networking's reputation as high-tech company.

CYBER SECURITY RISKS (2;2)

Stolen credit card information, personal data and business data from major companies have become the topic of frequent business headlines. To protect against reputational, financial and legal risks, ADVA Optical Networking entered into a Cyber Security Insurance policy to cover damages up to a significant amount. The integrity and availability of the Group's IT-systems is assured through the careful implementation of a so called "business continuity" solution.

FINANCIAL RISKS

Foreign Currency Risks (2;2)

Due to a major portion of the Group's revenues and costs being generated in foreign currencies, ADVA Optical Networking's margin is particularly subject to fluctuations in the EUR/USD, GBP/USD, EUR/CHF and USD/CHF exchange rates.

In 2016, on a net basis, the Group saw significant GBP inflows and USD outflows. To combat fluctuations, the USD net cash flows in part are hedged against EUR using forward exchange agreements, based on the Group's forecasted EUR/USD exposure for the current year and the next year, and taking into account ongoing fundamental analysis provided by a bank-independent foreign currency consultancy. As part of consolidation effort, ADVA reduced relationships to five banks by the end of 2016 versus seven banks in 2015 and only considers highly rated instituts for hedging purposes.

Information on the sensitivity of the Group's net income to fluctuations in foreign exchange rates is provided in note (28) to the consolidated financial statements.

Customer Payment Terms Risk (2;2)

In ADVA Optical Networking's competitive market for innovative connectivity solutions, customers may ask to extend payment terms. The extension of the Group's weighted-average payment terms would have an adverse impact on working capital and cash levels. In order to mitigate this risk, there is a three-step process in place governing the escalation of payment terms extension requests. In addition, at the end of 2016, the Group had a frame contract in place to sell receivables from one customer (at the end of 2015: from one customer) to financial institutions.

Loss of Key Customers (2;3)

The loss of key customers would have significant impact on ADVA Optical Networking's business especially key customer with strategic value. This risk may originate to some extent from changes in customer demands and the Group's ability to meet these requirements reliably and in a timely manner. For key customers, the Group constantly ensures performance and customer satisfaction through a dedicated team of professionals.

Intensifying Price Pressure Resulting in Lower Margins (3;3)

In today's economic environment customers are squeezing every purchase for savings and therefore looking for lower pricing. Customers are conditioned towards paying less and less for high-tech products each year, especially when there are many vendors vying for their business. Large customers attempt to negotiate a scheduled price reduction into long-term agreements. Parts of ADVA Optical Networking's product line are essentially commoditized, further eroding pricing power. The Group has many preventive action plans in place. To successfully defend higher prices, the Group communicates value, reliability, scalability, cost-effectiveness and performance to all of its customers.

OPERATIONAL RISKS

Poor Inventory Management Resulting in Either Lack of Material Availability or Obsolescence (2;2)

Technological obsolescence, as well as short-term changes in customer demand and manufacturing processes may trigger significant inventory depreciation. Preventive measures to

minimize inventory depreciation include an integrated sales and operations planning process and quarterly reviews of inventory depreciation at item levels involving the finance and operations departments. In 2016, inventory depreciation and cost related to scrapping amounted to EUR 5.1 million versus EUR 3.0 million in 2015.

Warranty Liability or Epidemic Failures (2;2)

Mass field recalls due to epidemic failures can cause a significant strain on operational and financial functions. Therefore ADVA Optical Networking monitors field defects for alarming trends, watches for supplier defects and problems with their components, and monitors internal factory yields for unusual occurrences.

LEGAL RISKS

Intellectual Property Risk (2;2)

ADVA Optical Networking relies on a combination of copyright and trademark laws, contractual rights, patents and trade secrecy laws to protect its intellectual property. Unauthorized parties may attempt to copy or otherwise obtain and use the Group's products or technology. Monitoring unauthorized use of products and technology is difficult, and the Group cannot be certain that steps taken will prevent it. If competitors are able to use the Group's products and technology, ADVA Optical Networking's ability to compete effectively could be harmed. Counter measures may prove insufficient in the future and result in conflicts regarding the usage of property rights and technologies. The continued expansion of the Group's presence in China carries the risk that less stringent regulations for intellectual property rights could lead to an infringement on ADVA Optical Networking's patents and other intellectual property. Such infringement of intellectual property rights could take the

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form of the production of illegal copies of the Group's products and solutions, and could cause considerable damage to the Group. Third parties may also assert that ADVA Optical Networking has violated their own intellectual property rights and copyright laws, and may claim license fees, indemnities or discontinuation of production and marketing of the relevant products. Related disputes could result in considerable cost to ADVA Optical Networking in its efforts to protect intellectual property, while also diverting considerable management resources. This could result in a negative impact on the Group's business activities. In order to mitigate the intellectual property risk, the Group uses a systematic approach to document inventions and to decide which of these inventions are filed with the relevant authorities in order to obtain intellectual property rights.

MAJOR RISK CLASSIFICATION CHANGES DURING 2016

During 2016, no changes of classifications for risks considered as major compared to 2015 took place. The general risk situation thus remains unchanged.

OTHER MINOR RISKS

Beyond the 12 risks discussed above, there is a broad range of minor risks which can also have a negative impact on ADVA Optical Networking. These uncertainties include financial risks such as the inability to secure financing, the risk of early maturity of loans due to the breach of material contractual obligations in connection with loan agreements and committed borrowing facilities totaling EUR 67.4 million (financial covenants), impairment of intangible assets and changes in interest rate levels, time risks related to carrier investment cycles and to distribution partnerships, legal risks pertaining to potential claims under product and warranty liabilities, risk from unauthorized access to confidential data, customer concentration risk, general

macro-economic risk and risks related to acquisitions. However, the Management Board of ADVA Optical Networking does not consider any of these or other uncertainties to be likely or to have a major impact on the Group.

OPPORTUNITY IDENTIFICATION

The identification of opportunities is largely identical to the processes, tools and concepts as described in the "risk management system" section above. The annual definition of the Group's opportunities are supported by the Management Board which has regular discussions with key customers and industry thought leaders in order to identify new opportunities and technological trends. Throughout the Group, agile processes maximize the Group's ability to take advantage of newly identified trends. Current opportunities are ranked as follows:

Internet Content Provider Demand (3;3)

The demand for cloud and mobile services continues to grow at a relentless pace, leading to a permanent expansion of the target market for innovative transmission technology. Internet content providers in particular continue to build new and larger data centers to offer their digital content and services at a global level. Optical transmission technology is strategically important for interconnecting these data centers as well as for accessing the cloud. Without additional bandwidth in the connectivity networks, internet content providers' business models will not scale. ADVA Optical Networking has strong traction with this customer group and a highly competitive product offering. The Company expects additional revenue growth and margin improvement from data center interconnect business, with high probability and high impact.

New Enterprise Verticals (3;2)

Large companies worry about the security of their data and business processes, and build new data protection and storage solutions. These require transmission technology for connecting geographically dispersed locations. ADVA Optical Networking's security portfolio ConnectGuard™ brings competitive advantage and increased customer loyalty. The Group expects solid growth in this segment with better than average margins.

Metro Core Upgrade Cycle (3;2)

"On demand" high-definition video content is extremely popular forcing carriers to expand the capacity of their network infrastructure aggressively. This is true particularly in metro areas where a lot of the streaming content is buffered and where new data centers for content caching are being built and connected to the carrier infrastructure. Most carriers have completed the introduction of new-generation 100Gbit/s technology in their long-haul networks, and the investment focus is now shifting towards the metro core. Their metro networks often run on optical transmission technology that is no longer state-of-the-art. ADVA Optical Networking has a differentiated feature set, a significant installed base and a strong reputation as a solution provider for this part of the infrastructure. The Group expects additional growth.

Network Function Virtualization "NFV" (3;2)

With more and more enterprise applications and data moving into the cloud, service providers are re-thinking their strategies at the network edge. They are the ones that provide connectivity into the cloud and see the opportunity to convert some of the enterprise IT-spend into revenue for managed services. The virtualization of network functions helps them to seize that opportunity. Thanks to NFV, service providers can create and deliver new services quickly anywhere on the globe. In 2016, ADVA Optical Networking finalized a comprehensive update of its solution portfolio at the network

edge. The FSP 150 portfolio, which includes fully integrated elements of the Overture hardware portfolio, is highly competitive. Combined with the ADVA Ensemble software suite, the Company has one of the most powerful, comprehensive and differentiated solutions on the market. 2016 was a year of trials and testing for many NFV applications. ADVA Optical Networking engaged with more than 20 carriers in proof-of-concept activities worldwide. The Group expects that some of these efforts will materialize in 2017 and will bring additional revenue streams.

Mobile Network Expansion (3;2)

There are additional market opportunities driven by the build-out of mobile networks, the upgrade to LTE-Advanced and the need for more accurate and precise synchronization solutions. ADVA Optical Networking's Oscilloquartz portfolio is gaining traction at strategic customers and will provide an increasing contribution to the Group's revenue in 2017.

OVERALL OPPORTUNITY AND RISK ASSESSMENT

Based on careful inspection of the Group's opportunity and risk profile at the time of the preparation of the Group management report, the Management Board of ADVA Optical Networking believes that the Group's opportunities in the market for innovative connectivity solutions for cloud and mobile services clearly outweigh the risks identified. The Management Board has not identified any risks that pose a danger to ADVA Optical Networking's survival or endanger the future of the Group. ADVA Optical Networking's overall balance between opportunity and risk is at about the same level as it was at the time of the publication of the 2016 Group Management Report. The general macro-economic risk nevertheless appears to be somewhat higher than it was in 2015 due to the unknown impact of changes to trade rules and regulations in particular in the UK and the U.S.

Opportunities outweigh the identified risks; no current risks for going concern of the Group

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INTERNAL CONTROLS RELATED TO FINANCIAL REPORTING

Internal controls related
to financial reporting
designed around
COSO framework

The Management Board of ADVA Optical Networking is responsible for establishing and maintaining an adequate system of internal controls. It has implemented an internal control system that enables the Management Board to ensure completeness, accuracy and reliability of financial reporting at Group and legal entity level. When designing its internal control system, ADVA Optical Networking used the COSO framework⁵ as a key reference and source of guidance. The internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting. No system of internal control over financial reporting, including one determined to be effective, may prevent or detect all misstatements.

Control Environment

Leadership principles
built on integrity,
honesty, decisiveness
and respect

The control environment is the foundation of the internal control system in every organization. ADVA Optical Networking fosters an environment of openness and integrity with a clear commitment to excellence, competence and the development of its employees. The Group's leadership principles of integrity/honesty, decisiveness and respect are based on this philosophy, and the culture is reflected in the overall tone set by the Management Board. ADVA Optical Networking has a clear organizational structure with well-defined authorities and responsibilities. The bodies charged with the governance and control of the Group (Management Board, Supervisory Board) actively participate in the running and steering of the business. The business is managed on a global basis and run via functional areas. Financial steering of the Group and financial stewardship for individual legal entities is handled by the Chief Financial Officer, under the Audit Committee's control.

Risk Assessment

As part of the internal controls related to financial reporting, the risk assessment follows the process described in the "risk management system" section.

Control Activities

At an individual entity level, ADVA Optical Networking's larger and more complex business units use an integrated enterprise resource planning solution, which also serves as general ledger system. Information technology controls have been implemented to restrict user access, ensure proper authorization of changes to the system and efficient handling of user help desk requests. Specific processes are defined and applied for the following reporting cycles in these business units: cash reporting, revenue recognition, accounts payable, capitalization of development expenses and recognition of subsidies for research, inventory reporting, fixed assets, payroll and provisions. ADVA Optical Networking carries out monthly analytical reviews and quarterly balance sheet reviews based on a four-eye principle between the local accounting and the consolidation functions.

Information technology controls and
four-eye principle

For the consolidated financial statements, the balance sheet and income statement positions requiring a significant degree of judgment and estimation when being valued are determined and analyzed with the involvement of management. This is the case for impairment testing reviews (annual or when a triggering event occurs), capitalization of development projects (when the industrialization stage is reached) and tax reporting and review, specifically deferred taxes (quarterly). ADVA Optical Networking additionally carries out monthly intercompany reconciliations as part of the consolidation process and analytical reviews of actual vs. expected results based on a four-eye principle between the financial planning and the consolidation functions.

⁵ Five major accounting organizations formed a group known as COSO (Committee of Sponsoring Organizations of the Treadway Commission) to provide guidance on evaluating internal control. They issued this guidance as the COSO Internal Control Framework.

All business units follow a set of global accounting policies and reporting guidelines. The financial statements preparation process is monitored globally via a calendar that is communicated to all involved parties on a monthly basis. Checklists are completed both in the individual business units as well as at the consolidation level to ensure completeness of all closing steps. Periodic reviews by Group management are conducted to detect errors and omissions.

Information and Communication Tools

Fast and effective communication with Management Board

The internal control system at ADVA Optical Networking is supported by tools to store and exchange information, enabling the Management Board to make informed business decisions about financial reports and disclosures. The following components ensure proper information and communication for financial reporting:

- Accounting systems for individual entities are matched to the degree of complexity of the business unit. For most entities, an integrated enterprise resource planning system which also serves as general ledger system is in place. All local accounts are mapped to the Group chart of accounts, which is used Group-wide.

- The Group consolidation is supported by a database tool which is linked to the enterprise resource planning and financial planning systems via interfaces. The global financial planning system is used extensively in analyzing actual vs. expected results and thus monitoring the results of the consolidation.
- There are global accounting policies for the more complex financial statement positions of the Group and a Group chart of accounts for all other financial guidance. Accounting policies are updated regularly and are implemented only after a thorough internal review and training.

Internal Monitoring

As part of the ongoing monitoring, the Chief Financial Officer is informed about all material misstatements and control breakdowns at Group and business unit level on a quarterly basis in the executive summary to the financial statements. The reporting of deficiencies follows the principles of open and transparent communication, and follow-up is ensured through regular calls where corrective actions are presented.

Transparent reporting and corrective action

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INTERNAL FINANCIAL AUDIT

Internal audit function
for financial processes

ADVA Optical Networking maintains an internal audit function to regularly assess financial processes and systems.

Based on an annual risk assessment, the internal audit function develops an audit plan proposal for the upcoming year. The proposed plan is presented to, aligned with, and finally ratified by the Audit Committee. The internal audit function performs internal audit reviews throughout the year according to the audit plan. Audit results are discussed with responsible managers. In case of identified process or system weaknesses, the internal audit makes recommendations and improvement actions are defined and agreed with responsible managers. The progress of these and their success on removing the identified weaknesses is reviewed by the audit function. The state of internal auditing is reported quarterly to the Audit Committee and includes feedback about the progress of audits performed versus the audit plan, about the results of terminated audit reviews and about improvements resulting from actions taken.

ADVA Optical Networking's risk management system is part of the internal audit universe and as such subject to recurring internal audit reviews.

OUTLOOK

Based on the macroeconomic framework described above and analyst estimates Group's addressable core market⁴, ADVA Optical Networking anticipates an annual market growth rate of 8% for the Group's addressable core market between the years 2016 – 2021. Internet content providers represent the customer group with the greatest growth potential due to their demand for data center interconnect solutions.

The global megatrends cloud and mobility still drive sustainable growth for the Group's addressable market. The market for cloud and mobile services is driving demand for more bandwidth, and thus also the demand for more transmission technology that accelerate and improve access to the cloud.

Further details on the projected market environment up to the year 2021 as well as the resulting opportunities can be found in the section "General Economic and Market Conditions" and in the section "Business Overview".

In order to ensure sustainable corporate success, ADVA Optical Networking focuses on the following long-term strategic objectives:

- Grow global revenues and profitability through extensive sales and marketing activities focusing on large customers, new customer acquisition and the service and software business.
- Expand the Group's proven innovation leadership and increase market share by meeting strategic customers' demand for innovative connectivity solutions.
- Maintain operational excellence by further focusing on industry-leading processes and best-in-class execution, which will result in product and service quality leadership, improved efficiency and increased overall customer satisfaction.
- Recruit, retain, motivate, educate and nurture the Group's employees to sustainably achieve high levels of performance, personal growth and job satisfaction, while keeping employee turnover low.

Looking back at 2016, ADVA Optical Networking made good progress in meeting all of these strategic elements:

2016 revenues were up 28.2% compared to 2015. This exceeded the Management Board's expectations of moderately growing revenues as announced in the 2015 management report. The strong revenue growth was mainly driven by internet content providers (ICPs). In addition, the growth also includes revenues resulting from the acquisition of Overture. At EUR 23.4 million or 4.1% of sales in 2016, the pro forma operating result¹ of the Group was EUR 6.6 million below the EUR 30.0 million or 6.8% of sales reported in 2015. This was below the expectations of the Management Board announced in the group management report 2015, to further increase the pro forma operating result moderately. Operating profit in 2016 was with EUR 19.4 million, or 3.4% of sales, also lower than the EUR 26.8 million or 6.1% of sales generated in 2015. The decline is attributable to the integration costs of Overture, the weak margins in the business with ICPs and the decline of the British pound.

As for innovation leadership, ADVA Optical Networking was able to make further progress in 2016. The integration of the Overture portfolio and the associated expansion of the FSP 150 product family have significantly strengthened the Company's competitiveness. Under the "One Network Edge" campaign, an advanced solution set for cloud access applications was introduced to the market. In addition, the software development efforts around Network Function Virtualization (NFV) were bearing fruit. The solutions, which are marketed under the "Ensemble" brand, have already been commercially implemented by several customers. Furthermore, the Ensemble portfolio won numerous innovation awards in 2016 and is currently being tested in more than 20 proof-of-concept environments by service providers around the world. In optical transmission technology, the FSP 3000 CloudConnect™ was successfully introduced to customers and the platform's feature set was enhanced by launching the innovative MicroMux™ module. Overall, the Company's solution portfolio is more versatile and competitive than before. The Group is thus well positioned to serve new network builds and expansions of its customers driven by cloud and mobile services and to capitalize on these mega trends.

Furthermore, ADVA Optical Networking boosted operational excellence in 2016. In an environment of continued price pressure, the Group remained disciplined in controlling its operational costs, thereby enabling it to significantly grow revenues whilst fully integrating the acquired Overture operation within six months. With strict controls in place and tight working capital management, ADVA Optical Networking maintained a strong cash position throughout the year and reached a solid net liquidity² position of EUR 25.5 million at the end of 2016. This was EUR 25.7 million below the EUR 51.2 million recorded at the end of 2015. Taking into account the acquisition price for Overture, this was in line with the 2015 projection that net liquidity will grow moderately.

As for customer satisfaction, ADVA Optical Networking uses the Net Promoter Score³ metric to track progress. For 2016, the Group was able to further improve upon record levels of 2015. This development clearly exceeded the expectations of the Management Board. Significantly improved scores were achieved in all eight NPS categories. In the group management report 2015, the Management Board predicted a continued high value of the NPS ratio.

ADVA Optical Networking selectively hired additional employees in 2016. In addition, the number of employees grew through the acquisition of Overture. With attractive compensation programs and a rewarding work environment with comprehensive education opportunities, the Group maintained the high motivation of its employees and moderate turnover rates in 2016.

In 2017 the Company aims once again to achieve revenue growth above average market growth. In addition, the profitability of the Group is expected to be improved and returned to the level of 2015. The following factors, which are also described in the "Risk Report" section under "Opportunities", will play a decisive role:

- Internet content providers build new and larger data centers that need to be connected with optical transmission technology. The FSP 3000 CloudConnect™ has been specifically designed for this target group and ADVA Optical Networking expects additional growth and margin improvement in this application due to an improved cost structure.

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- Large companies build geographically dispersed data protection and storage solutions, requiring optical transmission technology. The security package ConnectGuard™ and the BSI-certification in Germany bring competitive advantages and increased customer loyalty. ADVA Optical Networking expects solid growth in this application with good profitability.
- Carrier infrastructure upgrades will continue in 2017. The investment focus is shifting further towards metro networks, where ADVA Optical Networking is particularly well positioned.
- The expansion of the ADVA FSP 150 portfolio as well as the expansion of the relevant customer base, due to the acquisition of Overture strengthen ADVA Optical Networking's position in the cloud access market. The Company expects new customer wins and an expansion of existing business relationships in all regions.
- High-precision synchronization technology is rapidly gaining strategic importance. Specifically mobile operators, who are expanding existing LTE networks and preparing for upcoming 5G standards, are asking for network-based solutions to deliver and assure highly accurate time and frequency information. The Oscilloquartz solution portfolio is industry-leading and promises an above-average contribution to revenue growth and margins for 2017.

Despite the current uncertainty caused by the Brexit decision in the UK and the protectionist tendencies of the new US government, the global megatrends Cloud and Mobility continue to drive the growth for the network equipment industry. ADVA Optical Networking's commitment to being a trusted partner for Connecting, Extending and Assuring the Cloud, is positioning the company as an attractive supplier in important growth markets. The combination of application-optimized innovation, short development and delivery times, a broad and growing customer base, and a balanced distribution model distinguish ADVA Optical Networking from comparable companies and leads to a profitable business model.

Based on these factors, and taking into account planning parameters such as personnel and currency exchange rates, the Management Board of ADVA Optical Networking expects the Group to grow faster than the average market and increase revenues in a moderate double digit percentage range. Under this assumption, the Management Board also expects its 2017 pro forma operating income¹ to increase significantly, even exceeding the 2015 level. Net liquidity² in 2016 was reduced through the acquisition of Overture, compared to the highs of 2015. The Management Board expects an increase from the new level in the lower double digit million Euro range by the end of 2017. The Group will continue to selectively invest in product development, technology and revenue-generating opportunities. In addition, the Management Board of ADVA Optical Networking expects, due to the continued focus on innovation, quality and service that customer satisfaction measured by Net Promoter Score³ in 2017 will once again be at high positive levels of minimum 40%. Actual results may differ materially from expectations if risks materialize or the underlying assumptions prove unrealistic. The major risks facing ADVA Optical Networking are discussed in the "Risk Report" section.

Meiningen, February 21, 2017

Brian Protiva

Christoph Glingener

Ulrich Dopfer



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Connecting businesses to their clients, connecting families and friends – every moment of every day, our technology equips our customers for success and brings people together.

Hannah Forshaw, Sales

CONSOLIDATED STATEMENT OF FINANCIAL POSITION

(in thousands of EUR)			
Assets	Note	Dec. 31, 2016	Dec. 31, 2015
Current assets			
Cash and cash equivalents	(8)	84,871	93,850
Trade accounts receivable	(9)	78,474	70,379
Inventories	(10)	92,800	72,950
Tax assets	(22)	1,474	1,092
Other current assets	(11)	10,742	8,747
Total current assets		268,361	247,018
Non-current assets			
Property, plant and equipment	(12)	25,126	19,955
Goodwill	(12)	41,538	24,881
Capitalized development projects	(12)	76,263	62,439
Intangible assets acquired in business combinations	(12)	14,284	2,316
Other intangible assets	(12)	2,145	1,922
Deferred tax assets	(22)	35,999	29,133
Other non-current assets	(11)	4,176	3,871
Total non-current assets		199,531	144,517
Total assets		467,892	391,535

(in thousands of EUR)			
Equity and liabilities	Note	Dec. 31, 2016	Dec. 31, 2015
Current liabilities			
Financial liabilities	(13)	18,648	18,220
Trade accounts payable	(14)	73,290	43,721
Advance payments received		352	314
Other provisions	(16)	11,789	9,891
Tax liabilities	(22)	2,957	2,227
Deferred revenues		11,347	10,802
Other current liabilities	(14)	23,143	26,859
Total current liabilities		141,526	112,034
Non-current liabilities			
Financial liabilities	(13)	40,717	24,449
Provisions for pensions and similar employee benefits	(15)	4,705	4,048
Other provisions	(16)	1,507	1,632
Deferred tax liabilities	(22)	30,256	22,026
Deferred revenues		6,971	7,721
Other non-current liabilities	(14)	3,263	3,704
Total non-current liabilities		87,419	63,580
Total liabilities		228,945	175,614
Stockholders' equity entitled to the owners of the parent company	(17)		
Share capital (Conditional capital EUR 4,813 thousand; prior year EUR 3,531 thousand)		49,499	49,374
Capital reserve		312,305	310,645
Accumulated deficit		-148,502	-175,350
Net income		21,532	26,848
Accumulated other comprehensive loss		4,113	4,404
Total stockholders' equity		238,947	215,921
Total equity and liabilities		467,892	391,535

CONSOLIDATED INCOME STATEMENT

(in thousands of EUR, except earnings per share and number of shares)	Note	2016	2015
Revenues	(18)	566,686	441,938
Cost of goods sold		-400,397	-285,027
Gross profit		166,289	156,911
Selling and marketing expenses		-60,014	-56,493
General and administrative expenses		-32,252	-30,398
Research and development expenses		-60,468	-47,657
Other operating income	(19)	6,613	5,000
Other operating expenses	(19)	-801	-608
Operating income		19,367	26,755
Interest income	(20)	382	49
Interest expenses	(15), (20)	-442	-887
Other financial gains and losses, net	(21)	-292	2,159
Income before tax		19,015	28,076
Income tax (expense) benefit, net	(22)	2,517	-1,228
Net income entitled to the owners of the parent company		21,532	26,848
Earnings per share in EUR	(25)		
basic		0.44	0.55
diluted		0.43	0.55
Weighted average number of shares for calculation of earnings per share			
basic		49,409,011	48,567,501
diluted		50,075,063	49,199,331

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CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

(in thousands of EUR)	Note	2016	2015
Net income entitled to the owners of the parent company		21,532	26,848
<i>Items that possibly get reclassified to profit or loss in future periods</i>			
Exchange differences on translation of foreign operations		2,253	9,959
<i>Items that will not get reclassified to profit or loss in future periods</i>			
Remeasurement of defined benefit plans	(15)	-2,544	-2,009
Total comprehensive income entitled to the owners of the parent company	(17)	21,241	34,798

Items in the statement above are disclosed net of tax. The income tax relating to each component of other comprehensive income is disclosed in note (17).

In 2016 and 2015, no items were reclassified (recycled) from comprehensive income to profit or loss.

CONSOLIDATED CASH FLOW STATEMENT

(in thousands of EUR)	Note	2016	2015
Cash flow from operating activities			
Income before tax		19,015	28,076
Adjustments to reconcile income before tax to net cash provided by operating activities			
Non-cash adjustments			
Amortization of non-current assets	(12)	39,575	37,309
Loss from disposal of property, plant and equipment and intangible assets	(12)	78	332
Stock compensation expenses	(33)	1,051	2,876
Other non-cash expenses		492	911
Foreign currency exchange differences		-833	1,066
Changes in assets and liabilities			
Decrease (increase) in trade accounts receivable		-1,018	-16,349
Decrease (increase) in inventories		-14,099	-25,963
Decrease (increase) in other assets		-1,861	-2,659
Increase (decrease) in trade accounts payable		26,301	10,693
Increase (decrease) in provisions		-1,066	-1,418
Increase (decrease) in other liabilities		-5,686	5,637
Income tax paid		-599	-1,096
Net cash provided by operating activities		61,350	39,415

Details on the preparation of the consolidated cash flow statement are included in note (24).

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(in thousands of EUR)	Note	2016	2015
Cash flow from investing activities			
Proceeds from disposal of property, plant and equipment and intangible assets		-	127
Proceeds from government grants	(12)	-	126
Investments in property, plant and equipment	(12)	-12,889	-7,892
Investments in intangible assets	(12)	-41,325	-33,109
Net cash paid in acquisition of affiliated companies	(6)	-32,509	-605
Interest received		350	42
Net cash used in investing activities		-86,373	-41,311
Cash flow from financing activities			
Proceeds from capital increase and exercise of stock options	(17)	421	3,217
Cash repayment of liabilities related to share-based compensation instruments		-	-76
Payments for finance leases		-	-1
Payments received from financial liabilities	(13)	35,000	15,000
Cash repayment of financial liabilities	(13)	-18,324	-7,398
Interest paid		-1,318	-1,092
Net cash provided by financing activities		15,779	9,650
Net effect of foreign currency translation on cash and cash equivalents		265	2,219
Net change in cash and cash equivalents		-8,979	9,973
Cash and cash equivalents on January 1		93,850	83,877
Cash and cash equivalents on December 31		84,871	93,850

CONSOLIDATED STATEMENT OF CHANGES IN STOCKHOLDERS' EQUITY

(in thousands of EUR, except number of shares)	Share capital			Net income and accumulated deficit	Accumulated other comprehensive loss	Total stockholders' equity entitled to the owners of the parent company
	Number of shares	Par value	Capital reserve			
Balance on January 1, 2015	48,096,431	48,096	307,914	-175,350	-3,546	177,114
Capital increase, including exercise of stock options	1,278,053	1,278	1,939			3,217
Stock options outstanding			792			792
Net income				26,848		26,848
Exchange differences on translation of foreign operations					9,959	9,959
Remeasurement of defined benefit plans					-2,009	-2,009
Total comprehensive income				26,848	7,950	34,798
Balance on December 31, 2015	49,374,484	49,374	310,645	-148,502	4,404	215,921
Capital increase, including exercise of stock options	124,450	125	296			421
Stock options outstanding			1,364			1,364
Net income				21,532		21,532
Exchange differences on translation of foreign operations					2,253	2,253
Remeasurement of defined benefit plans					-2,544	-2,544
Total comprehensive income				21,532	-291	21,241
Balance on December 31, 2016	49,498,934	49,499	312,305	-126,970	4,113	238,947

Details on changes in stockholders' equity are presented in note (17).

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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

GENERAL INFORMATION

(1) Information about the Company and the Group

ADVA Optical Networking SE (hereinafter referred to as “the Company”), Märzenquelle 1-3, 98617 Meiningen, Germany is a Societas Europaea, registered as HRB 508155 at the commercial register in Jena. The Management Board authorized the consolidated financial statements for the year ended December 31, 2016 for issuance on February 21, 2017.

The ADVA Optical Networking Group (hereinafter referred to as “ADVA Optical Networking” or “the Group”) develops, manufactures and sells optical and Ethernet-based networking solutions to telecommunications carriers and enterprises to deliver data, storage, voice and video services.

Telecommunications service providers, private companies, universities and government agencies worldwide use the Group’s systems. ADVA Optical Networking sells its product portfolio both directly and through an international network of distribution partners.

SIGNIFICANT ACCOUNTING POLICIES

(2) Basic Principles for the Preparation of the Consolidated Annual Financial Statements

The Group's consolidated annual financial statements for the financial years ended December 31, 2016, and December 31, 2015, are prepared in accordance with the International Financial Reporting Standards (IFRS) published by the International Accounting Standards Board (IASB), as applicable in the European Union (EU) in consideration of Interpretations of the Financial Reporting Interpretations Committee (IFRIC) and the applicable additional German statutory regulations according to § 315a Abs. 1 HGB. The consolidated financial statements have been prepared under the historical cost convention, as modified by the valuation of certain derivative financial instruments and share-based compensation transactions at fair value through profit and loss.

The financial year correlates with the calendar year. The consolidated annual financial statements are presented in EUR. Unless otherwise stated, all amounts quoted are in thousands of EUR. The balance sheet is separated into current and non-current assets and liabilities. The classification of income and expenses in the income statement is based on their function within the entity. When items on the balance sheet and in the income statement are summarized in the interest of clarity, this is explained in the notes to the consolidated financial statements.

The annual financial statements of the individual subsidiaries of the holding company ADVA Optical Networking SE, as subsumed in the consolidated annual financial statements, are all prepared using the same accounting and valuation policies and the same balance sheet date.

(3) Effects of New Standards and Interpretations

The accounting policies followed are consistent with these of the prior financial year, except for the adoption of new and amended IFRSs and interpretations (IFRICs) during the year.

Standards, amendments and interpretations applicable for the first time in 2016

In 2016, following standards and interpretations have been adopted for the first time.

Standard	Topic	First-time adoption*	Expected impact on the financial position and performance
IFRS 14	Regulatory Deferral Accounts	Jan. 1, 2016	none
Amendments to IAS 1	Disclosure initiative	Jan. 1, 2016	none
Amendments to IAS 16 and IAS 38	Clarification of acceptable methods of depreciation and amortization	Jan. 1, 2016	none
Amendments to IFRS 11	Accounting for Acquisitions of Interests in Joint Operations	Jan. 1, 2016	none
Amendments to IAS 28 and IFRS 10	Sale or Contribution of Assets between an Investor and its Associate or Joint Venture	Jan. 1, 2016	none
Annual improvements 2014	The improvements include changes to: IFRS 5 – Non-current assets held for sale and discontinued operations IFRS 7 – Financial Instruments: Disclosure IAS 19 – Employee Benefits IAS 34 – Interim Financial Reporting	Jan. 1, 2016	none

* To be applied in the first reporting period of a financial year beginning on or after this date.

New accounting requirements not yet applicable for first-time adoption

The IASB and the IFRIC have issued further Standards and Interpretations in 2016 and previous years that are not applicable for the financial year 2016. In addition, the first-time adoption is partly still subject to endorsement by the EU.

Standard	Topic	First-time adoption*	Expected impact on the financial position and performance
IFRS 9 (2014)	Financial Instruments	Jan. 1, 2018	under review
IFRS 15 including relevant clarifications	Revenue from Contracts with Customers	Jan. 1, 2018	none
IFRS 16	Leases	Jan. 1, 2019	under review
Amendments to IAS 12	Recognition of Deferred Tax Assets Related to Unrealized Losses	Jan. 1, 2017	none
Amendments to IAS 7	Disclosure Initiative	Jan. 1, 2017	none
Amendments to IFRS 2	Share-based Payment	Jan. 1, 2018	none
Amendments to IFR 4	Insurance Contracts	Jan. 1, 2018	none
Amendments to IAS 40	Investment Property	Jan. 1, 2018	none
Annual improvements 2016	The improvements include changes to: IAS 28 – Investments in Associates and Joint Ventures IFRS 12 – Disclosure of Interests in Other Entities as well as editorial amendments to IFRS 1	Jan. 1, 2017 and 2018, respectively	under review
IFRIC 22	Foreign Currency Transactions and Advance Considerations	Jan. 1, 2018	under review

* To be applied in the first reporting period of a financial year beginning on or after this date.

IFRS 9 (2014) in its final version replaces IAS 39 Financial Instruments: Recognition and Measurement. It supersedes all regulations previously published. The Standard includes requirements for classification and valuation of financial assets. In addition, a new impairment model based on expected payment defaults is implemented. Furthermore, IFRS 9 contains new hedge accounting rules. ADVA Optical Networking will apply the new standard in the financial year 2018 for the first time. The application will presumably result in changes to the calculation of impairment of financial assets. However, ADVA Optical Networking does not expect significant impact on its financial position and performance of the Group.

IFRS 15 specifies how and when revenues will be recognized based on a single, principles based five-step model to be applied to all contracts with customers. Additionally, the standard defines comprehensive disclosure requirements. ADVA Optical Networking has started a global project for the implementation of the new standard. The first-time adoption will apply prospectively for financial periods starting January 1, 2018. Currently, ADVA Optical Networking does not expect significant impact on its financial performance.

On January 13, 2016, the IASB published IFRS 16 Leases regarding accounting of lease contracts. The new standard will replace IAS 17 Leases and all related interpretations and implements a consistent lease accounting model. Hence, lessees will have to recognize assets (right to use) and lease liabilities for all lease contracts with terms over 12 months. At present, ADVA Optical Networking reviews the potential impact of the application of IFRS 16 on its consolidated financial statements. The standard will be applied for financial years starting January 1, 2019.

Besides the described standards, the adoption of new or revised standards and interpretations – from today's perspective – will not have a material impact on the financial position and performance of the Group. The Group does not plan an early adoption of these standards.

(4) Recognition and measurement

Inventories

Inventories are valued at the lower of cost or net realizable value. The cost of purchase is determined by the average method. Production costs include direct unit costs, an appropriate portion of necessary manufacturing overheads and production-related depreciation that can be directly assigned to the production process. Administrative and social insurance charges that can be assigned to production are also taken into account. Financing charges are not classified as part of the at-cost base. The net realizable value is the estimated selling price that could be realized on the closing date in the context of ordinary business activity, less estimated costs of completion and costs necessary to make the sale.

Inventory depreciation covers risks relating to slow-moving items or technical obsolescence. Where the reasons for previous write-downs no longer apply, these write-downs are reversed.

Property, plant and equipment

Property, plant and equipment is stated at historic cost less accumulated depreciation and accumulated impairment losses, if any. The present value of the expected cost for the decommissioning of the asset after its use is included in the cost of the respective asset if the recognition criteria for a provision are met.

Subsequent costs are included in the asset's carrying amount or recognized as separate asset only when it is probable that future economic benefits associated with this item will flow to the group and the cost can be measured reliably. All other repairs and maintenance are charged to the income statement during the financial period in which they are incurred.

Depreciation on property, plant and equipment is calculated on a straight-line basis over the estimated useful economic lives of the assets as follows:

· Buildings	20 to 25 years
· Technical equipment and machinery	3 to 4 years
· Factory and office equipment	3 to 10 years

No regular depreciation applies for land and similar rights.

Leasehold improvements and other subsidies received under new or renewed operating lease contracts are accounted for according to SIC 15 (Operating leases – incentives). The benefit is recognized as a reduction of the rental expense over the contractual lease term. Leasehold improvements are capitalized as tangible assets and depreciated over the term of the lease on a straight-line basis.

An item of property, plant and equipment is derecognized upon disposal or when no future economic benefits are expected from its use or disposal. Any gain or loss arising on derecognition of the asset (calculated as the difference between the net disposal proceeds and the carrying amount of the asset) is included in the income statement when the asset is derecognized.

The assets' residual values, useful economic lives and methods of depreciation are reviewed at each financial year-end and adjusted prospectively, if appropriate.

Intangible assets

Intangible assets acquired separately are measured on initial recognition at cost. The cost of intangible assets acquired in a business combination is their fair value on the date of acquisition. Following initial recognition, intangible assets are carried at cost less any accumulated amortization and any accumulated impairment losses. Internally generated intangible assets, excluding capitalized development costs, are not capitalized, and expenditure is reflected in profit or loss in the year in which the expenditure is incurred.

The useful economic lives of intangible assets are assessed to be either finite or indefinite.

Intangible assets with finite lives are amortized on a straight-line basis over the expected useful economic lives of the assets as follows:

· Capitalized development projects	3 to 5 years
· Intangible assets acquired in business combinations	4 to 9 years
· Software and other intangible assets	3 to 6 years

Intangible assets with finite useful economic lives are assessed for impairment whenever there is an indication that the intangible asset may be impaired. The amortization period and the amortization method for an intangible asset with a finite useful life is reviewed at each financial year-end. The amortization expense on intangible assets with finite lives is recognized in profit or loss in the expense category consistent with the function of the intangible asset.

Intangible assets with an indefinite useful life are not amortized. An impairment loss is recognized for the amount by which the asset's carrying amount exceeds its recoverable amount. The recoverable amount is the higher of an asset's fair value less costs of disposal and value in use. The useful life of an intangible asset with an indefinite life is reviewed at least annually to determine whether the indefinite life assessment continues to be applicable. If not, the change in the useful life assessment from indefinite to finite is made on a prospective basis. There are no intangible assets with indefinite lives other than goodwill and development projects in progress.

Gains or losses arising from derecognition of an intangible asset are measured as the difference between the fair value less costs to sell and the carrying amount of the asset, and they are recognized in the income statement when the asset is derecognized.

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Goodwill

An unlimited useful life is assumed for goodwill acquired in the context of business combinations. Impairment reviews are performed at the cash generating unit level on the balance sheet date or when there is an indication that the goodwill may be impaired in accordance with IAS 36. Impairment losses on goodwill recognized in prior periods are not reversed. See note (12).

Intangible assets acquired in business combinations

Intangible assets acquired in business combinations have a finite useful life. They are recognized at cost and amortized on a straight-line basis over estimated useful economic lives of five to nine years. They are tested for impairment if an indication exists that the recoverable amount of the asset may have decreased.

Capitalized development projects

Development expenses for new products are capitalized as development projects if

- they can be unambiguously assigned to these products,
- the products under development are technically feasible and can be marketed,
- there is reasonable certainty that the development activity will result in future cash inflows,
- ADVA Optical Networking intends and is able to complete and use the development project and
- there is the availability of adequate technical, financial and other resources to complete the development and to use or sell the intangible asset.

Capitalized development projects include all costs that can be directly assigned to the development process. Financing charges are capitalized if the development project represents a qualifying asset in the sense of IAS 23.

After initial recognition of a development project as an asset, measurement is at historical cost, less accumulated amortization and impairment. The straight-line method of amortization is used from the start of production through the estimated selling periods for the products developed (generally between three and five years). Completed as well as ongoing development projects are tested for impairment on the balance sheet date or when there is an indication of potential impairment. Impairment losses are recognized if appropriate.

Research costs are expensed as incurred according to IAS 38.

Impairment of non-financial assets

Intangible assets with indefinite useful economic lives are tested for impairment annually and whenever there is an indication for potential impairment, either individually or at the cash generating unit level.

Intangible assets with finite useful economic lives are tested for impairment if an indication exists that the assets may have been impaired. An impairment loss is recognized for the amount by which the asset's carrying amount exceeds its recoverable amount. The recoverable amount is the higher of an asset's fair value less costs of disposal and value in use. Prior impairments of non-financial assets (other than goodwill) are reviewed for possible reversal at each reporting date.

Government grants

Government grants are recognized where there is reasonable assurance that the grant will be received and all attached conditions will be met. When the grant relates to an expense item, it is recognized as income over the period necessary to match the grant on a systematic basis to the costs that it is intended to compensate. Where the grant relates to an asset, it is recognized as a reduction of purchase costs and released as a reduction of depreciation expense over the expected useful life of the related asset.

Borrowing Costs

Borrowing costs directly attributable to the acquisition, construction or production of an asset that necessarily takes a substantial period to get ready for its intended use or sale (qualifying asset) are capitalized as part of the cost of the respective assets. If borrowing costs cannot be directly attributed to the acquisition, construction or production of an asset, an assessment is made on whether general borrowing costs should be recognized that would have been avoided if the asset was not acquired, constructed or produced. All other borrowing costs are expensed in the period they occur. Borrowing costs consist of interest and other costs that an entity incurs in connection with the borrowing of funds.

Leasing

Leasing contracts are classified as finance leases if substantially all risks and rewards, and with it the economic ownership, are transferred to the lessee. All other leasing transactions are classified as operating leases.

Property, plant and equipment acquired by ADVA Optical Networking through finance lease contracts is stated at the fair value of the leased property or, if lower, the present value of the future minimum lease payments when the contract commences. Finance lease contracts are then amortized using the straight-line method over the shorter of the leasing period or the estimated useful life of the assets. The correspondent liability is shown as finance lease obligation. The lease payment to the lessor is apportioned between finance charge and the reduction of the outstanding liability. The finance charge is allocated to each period during the lease term to produce a constant periodic rate of interest on the remaining liability.

Operating lease payments are recognized as an expense in the income statement on a straight-line basis over the lease term.

Employee benefits

ADVA Optical Networking maintains defined benefit plans in three countries based on the pensionable compensation of its employees and their length of service. Some of these pension plans are financed through external pension funds. Provisions for pensions are actuarially measured using the projected unit credit method for defined benefit pension plans, taking into account not only the pension obligations and vested pension rights known at the reporting date, but also expected future salary and benefit increases. The interest rate used to determine the present value of the obligations is generally set based on the yields on high-quality corporate bonds or government bonds in the respective currency area. The return on existing plan assets and expenses for interest added to obligations are reported in finance costs. Service cost is classified as operating expenses.

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Past service cost not recognized due to a change in the pension plan shall immediately be recognized in the period in which the change took effect. Gains and losses arising from adjustments and changes in actuarial assumptions are recognized immediately and in full in the period in which they occur within other comprehensive income. Further details on recognition and measurement of employee benefits is included in note (15).

In addition, ADVA Optical Networking grants defined contribution plans to employees of some Group entities in accordance with statutory or contractual requirements. The payments are made to state or private pension insurance funds. Under defined contribution plans, the employer does not assume any other obligations beyond the payment of contributions to an external fund. The amount of the future pension payments will exclusively depend on the contribution made by the employer (and their employees, if applicable) to the external fund, including income from the investment of such contributions. The amounts payable are expensed when the obligation to pay the amounts is established, and classified as operating expenses.

Share-based compensation transactions

Employees (including senior executives) of ADVA Optical Networking receive remuneration in the form of share-based compensation transactions, whereby employees render services as consideration for equity instruments (equity-settled transactions) or they are granted stock appreciation rights, which are settled in cash (cash-settled transactions). Share-based compensation transactions are reported and valued in accordance with IFRS 2.

Share-based compensation transactions between different entities of ADVA Optical Networking are considered as either equity-settled or cash-settled share-based compensation transactions in the individual financial statements of ADVA Optical Networking SE. The Group entities employing the beneficiaries measure the received services as an equity-settled share-based compensation transaction. No repayment arrangements have been set up between the entities of ADVA Group.

Equity-settled transactions

The cost of equity-settled transactions with employees is measured by reference to the fair value on the grant date. The fair value is determined by an external expert using an appropriate pricing model. See note (33) for further details.

The cost of equity-settled transactions is recognized, together with the corresponding increase in equity, straight-line over the period in which the relevant employees become fully entitled to the award (vesting date). Vesting date ends with the first exercise possibility. From that day, the employee is entitled to benefit. No expense is recognized for awards that do not ultimately vest, except for awards where vesting is conditional upon market condition, which are treated as vesting irrespective of whether or not market condition is satisfied, if all other performance conditions are satisfied.

Where the terms of an equity-settled transaction award are modified, the minimum expense recognized is the expense as if the terms had not been modified, if the original terms of the award are met. An additional expense is recognized for any modification that increases the total fair value of the share-based compensation transaction, or is otherwise beneficial to the employee as measured on the date of modification.

Where an equity-settled award is cancelled, it is treated as if it vested on the date of cancellation, and any expense not yet recognized for the award is recognized immediately. This includes any award where non-vesting conditions within the control of either the entity or the employee are not met. However, if a new award is substituted for the cancelled award, and designated as a replacement award on the date that it is granted, the cancelled and new awards are treated as if they were a modification of the original award, as described in the previous paragraph. All cancellations of equity-settled transactions are treated equally.

The dilutive effect of outstanding options is reflected in the computation of earnings per share. See note (25).

Cash-Settled Transactions

The cost of cash-settled transactions is measured initially at fair value on the grant date. The fair value is expensed straight-line over the vesting period with recognition of a corresponding provision. The provision is re-measured on each balance sheet date up to and including the settlement date, with changes in the fair value recognized in profit or loss.

Provisions

Provisions are recognized when the Group has a present obligation (legal or constructive) as a result of a past event, when it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation and a reliable estimate can be made of the amount of the obligation. The amount recognized as a provision represents the best estimate of the expenditure required to settle the present obligation.

Where the Group expects some or all of a provision to be reimbursed, for example under an insurance contract, the reimbursement is recognized as a separate asset but only when the reimbursement is virtually certain. The expense relating to any provision is presented in profit or loss, net of any reimbursement. If the effect of the time value of money is material, provisions are discounted using a current pre-tax rate that reflects, where appropriate, the risks specific to the liability. Where discounting is used, the increase in the provision over time is recognized in other financial gains and losses, net.

Common stock

Common stock is disclosed in stockholder's equity.

Incremental costs directly attributable to the issuance of new ordinary shares or options are shown in equity as a deduction, net of tax, from the proceeds.

Where any Group company purchases the Company's equity share capital (treasury shares), the consideration paid, including any directly attributable incremental costs, is deducted from equity until the shares are cancelled or reissued. Where such shares are subsequently reissued, any consideration received, net of any directly attributable incremental transaction costs, is included in equity.

Financial instruments

Financial assets

Financial assets within the scope of IAS 39 are either classified as financial assets at fair value, affecting the income statement, loans and receivables, investments held to maturity, financial assets available for sale or as derivatives designated as hedging instruments in an effective hedge, as appropriate. The Group determines the classification of its financial assets at initial recognition.

Cash and cash equivalents as reported in the consolidated cash flow statement include short-term liquidity, i.e. cash and cash equivalents and short-term investments and securities with an initial time to maturity not exceeding three months. Bank overdrafts are disclosed in financial liabilities.

All regular purchases and sales of financial assets are recognized on the trade date, i.e., the date ADVA Optical Networking committed to purchase the asset. Investments recognized at fair value are initially recognized at fair value plus transaction costs for all financial assets not carried at fair value through profit or loss. Financial assets carried at fair value through profit or loss are initially recognized at fair value, and transaction costs are expensed in the income statement.

The Group's financial assets include cash and short-term deposits, trade and other receivables, investments and derivative financial instruments.

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Subsequent measurement

The subsequent measurement of financial assets depends on their classification as follows:

Financial assets at fair value through profit or loss

Financial assets at fair value through profit or loss include financial assets designated upon initial recognition at fair value through profit or loss. This category includes derivative financial instruments entered into by the Group that are not designated as hedging instruments in hedge relationships as defined by IAS 39. Derivatives, including separated embedded derivatives, are also classified as held for trading unless they are designated as effective hedging instruments. Financial assets at fair value through profit or loss are carried in the statement of financial position at fair value with changes in fair value recognized in other financial gains and losses, net, in the income statement.

For its financial assets at fair value through profit or loss, ADVA Optical Networking evaluates whether the intention to sell them in the near-term is still appropriate or not. When the Group is unable to trade these financial assets due to inactive markets and management intends to sell them in the near future significantly changes, in rare circumstances the Group may elect to reclassify these financial assets. The reclassification to loans and receivables, available-for-sale or held to maturity depends on the nature of the asset. This reclassification does not affect the evaluation of financial assets designated at fair value through profit or loss using the fair value option at designation.

Loans and receivables

Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. After initial measurement, loans and receivables are subsequently carried at amortized cost using the effective interest rate method less allowances for impairment. Amortized cost is calculated considering any discount or premium at the time of the purchase. The amortized cost includes any fees that are an integral part of the effective interest rate and of the transaction costs. Gains and losses are recognized in the income statement at the time the loans and receivables are written off or impaired.

Held-to-maturity investments

Non-derivative financial assets with fixed or determinable payments and fixed maturities are classified as held-to-maturity when the Group has the positive intention and ability to hold them to maturity. After initial measurement, held-to-maturity investments are measured at amortized cost using the effective interest method, less impairment. Amortized cost is calculated by taking into account any discount or premium on acquisition and fees or costs that are an integral part of the effective interest rate. The effective interest rate amortization and losses arising from impairment are recognized in the income statement in other financial gains and losses, net.

Available-for-sale assets

The category available-for-sales assets includes all non-derivative financial assets that are not classified as "loans and receivables" or "held-to-maturity investments" or as items measured "at fair value through profit or loss".

Derecognition

ADVA Optical Networking derecognizes a financial asset (or, where applicable, a part of a financial asset or part of a group of similar financial assets) when:

- The rights to receive cash flows from the asset have expired.
- The Group has transferred its rights to receive cash flows from the asset or has assumed an obligation to pay the received cash flows in full without material delay to a third party under a “pass-through” arrangement; and either (a) the Group has transferred substantially all the risks and rewards of the asset, or (b) the Group has neither transferred nor retained substantially all the risks and rewards of the asset, but has transferred control of the asset.

When the Group has transferred its rights to receive cash flows from an asset or has entered into a “pass-through” arrangement, and has neither transferred nor retained substantially all the risks and rewards of the asset nor transferred control of the asset, the asset is recognized to the extent of the Group’s continuing involvement in the asset. In that case, the Group also recognizes an associated liability. The transferred asset and the associated liability are measured on a basis that reflects the rights and obligations that the Group has retained. Continuing involvement that takes the form of a guarantee over the transferred asset is measured at the lower of the original carrying amount of the asset and the maximum amount of consideration that the Group could be required to repay.

Impairment of financial assets

On each balance sheet date, ADVA Optical Networking assesses whether a financial asset is impaired. If there is objective evidence that an impairment loss on loans and receivables has been incurred, the amount of the loss is determined as the difference between the carrying amount of the financial asset and the present value of expected future cash flows. Impairment losses are recognized in the income statement. No financial assets were impaired in 2016 and 2015, respectively.

If the amount of the impairment loss decreases in subsequent periods, and if the decrease relates to an event that had occurred after the impairment was recognized, the previously recognized impairment loss is reversed. The loss can only be reversed to the extent that the carrying value of the asset does not exceed its amortized cost on the date of impairment. Any subsequent reversal of an impairment loss affects the income statement.

For trade accounts receivable, a provision for impairment is made, if there is objective evidence that ADVA Optical Networking will not be able to collect the full amount due under the original terms of the invoice. The carrying amount of the receivable is reduced through use of an allowance account. Impaired trade receivables are derecognized when they are assessed as uncollectible.

Financial liabilities

Initial recognition and measurement

Financial liabilities within the scope of IAS 39 are classified as financial liabilities at fair value through profit or loss, loans and borrowings, or as derivatives designated as hedging instruments in an effective hedge, as appropriate. The Group determines the classification of its financial liabilities at initial recognition. All financial liabilities are recognized initially at fair value. Loans and borrowings are recognized net of directly attributable transaction costs.

ADVA Optical Networking's financial liabilities include trade and other payables, bank overdrafts, loans and borrowings and derivative financial instruments.

Subsequent measurement

The measurement of financial liabilities depends on their classification as follows:

Financial liabilities at fair value through profit or loss

Financial liabilities at fair value through profit or loss include financial liabilities designated as at fair value through profit or loss upon initial recognition. Financial liabilities are classified as held for trading if they are acquired for selling in the near-term. This category includes derivative financial instruments entered into by the Group that are not designated as hedging instruments in hedge relationships as defined by IAS 39. Separated embedded derivatives are also classified as held for trading unless they are designated as effective hedging instruments. Gains or losses on liabilities held for trading are recognized in the income statement. ADVA Optical Networking has not designated any financial liabilities upon initial recognition as at fair value through profit or loss.

Loans and borrowings

After initial recognition, interest-bearing loans and borrowings are subsequently measured at amortized cost using the effective interest rate method. Gains and losses are recognized in the income statement when the liabilities are derecognized as well as through the effective interest rate method (EIR) amortization process. Amortized cost is calculated by taking into account any discount or premium on acquisition and fees or costs that are an integral part of the EIR. The EIR amortization is included in interest expenses in the income statement.

Derecognition

A financial liability is derecognized when the obligation under the liability is discharged, cancelled or expires. When an existing financial liability is replaced by another from the same lender on substantially different terms, or the terms of an existing liability are substantially modified, such an exchange or modification is treated as a derecognition of the original liability and the recognition of a new liability. The difference in the respective carrying amounts is recognized in the income statement.

Derivative financial instruments and hedging activities

The Group entered into forward rate agreements to hedge foreign currency exposure of expected future cash flows. These derivatives are initially recognized at fair value on the date a derivative contract is entered into and are subsequently re-measured at their fair value through profit or loss.

The Group did not apply hedge accounting rules according to IAS 39 during the years ended December 31, 2016 and 2015.

Revenue recognition

Revenue is recognized to the extent that it is probable that the economic benefits will flow to the Group and the revenue can be reliably measured. Revenue is measured at the fair value of the consideration received or receivable, net of discounts, rebates and other sales taxes or duty. The following specific recognition criteria must also be met before revenue is recognized:

Sale of goods

Revenue from the sale of goods is recognized when the significant risks and rewards of ownership of the goods have passed to the buyer, usually on delivery of the goods.

Product returns that are estimated according to contractual obligations and past revenues statistics are recognized as a reduction of revenues.

Rendering of services

Revenues arising from the sale of services primarily derive from training, maintenance and installation services and are recognized when these services have been rendered. Installation services are recognized as revenue if the customer has approved the final installation. Generally, maintenance services are reported as deferred revenue and recognized as revenue straight-line over the contract period. Training is recognized as revenue immediately after rendering of the service.

In arrangements with a customer that include delivery of goods as well as rendering of services, the shipment of the goods is separated from the rendering of the services if the goods have a stand-alone value for the customer and the fair value of the service can be reliably determined. Both components of the transaction are measured at their respective fair value.

Cost of goods sold

The cost of goods sold comprises the costs incurred in the production and rendering of services. This item subsumes both the direct cost of materials and production directly assignable to a product and indirect (overhead) costs, including the depreciation of production equipment, amortization of production related intangible assets and write-downs on inventories. The cost of goods sold also includes appropriation to the warranty provision. Income from the reversal of write-downs on inventories reduces the cost of goods sold, which also includes amortization of purchased technologies.

Interest income and expenses

For all financial instruments measured at amortized cost and interest-bearing financial assets classified as available-for-sale, interest income or expenses are recorded using the effective interest rate, which is the rate that exactly discounts the estimated future cash payments or receipts through the expected life of the financial instrument or a shorter period, where appropriate, to the net carrying amount of the financial asset or liability.

Taxes

Current income tax

Current income tax assets and liabilities for the current and prior periods are measured at the amount expected to be recovered from or paid to the taxation authorities. The tax rates and tax laws used to compute the amount are these that are enacted or substantively enacted on the respective balance sheet date.

Deferred income tax

Deferred tax is provided using the liability method on temporary differences at the balance sheet date between the tax bases of assets and liabilities and their carrying amounts for financial reporting purposes.

Deferred tax liabilities are recognized for all taxable temporary differences, except:

- where the deferred income tax liability arises from the initial recognition of goodwill or of an asset or liability in a transaction that is not a business combination and, at the time of the transaction, affects neither the accounting profit nor taxable profit or loss; and
- in respect to taxable temporary differences associated with investments in subsidiaries, where the timing of the reversal of the temporary differences can be controlled and it is probable that the temporary differences will not reverse in the near future.

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Deferred tax assets are recognized for all deductible temporary differences, carry forward of unused tax credits and unused tax losses, to the extent that it is probable that taxable profit will be available against which the deductible temporary differences, and the carry forward of unused tax credits and unused tax losses can be utilized, except:

- where the deferred tax asset relating to the deductible temporary difference arises from the initial recognition of an asset or liability in a transaction that is not a business combination and, at the time of the transaction, affects neither the accounting profit nor taxable profit or loss; and
- in respect of deductible temporary differences associated with investments in subsidiaries, deferred tax assets are recognized only to the extent that it is probable that the temporary differences will reverse in the foreseeable future and taxable profit will be available against which the temporary differences can be utilized.

The carrying amount of deferred tax assets is reviewed on each balance sheet date and reduced to the extent that it is no longer probable that sufficient taxable profit will be available to allow all or part of the deferred tax asset to be utilized. Unrecognized deferred tax assets are reassessed on each balance sheet date and are recognized to the extent that it has become probable that future taxable profit will allow the deferred tax asset to be utilized.

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply to the year when the asset is realized or the liability is settled, based on tax rates (and tax laws) that have been enacted or substantively enacted on the balance sheet date. Future changes in tax rates are recognized on the balance sheet date if their impact is materially certain as part of the tax legislation process.

Earnings per share

The Group calculates basic and diluted earnings per share in accordance with IAS 33. Basic earnings per share are calculated based on the weighted average number of no-par value shares outstanding during the reporting period. Diluted earnings per share are calculated based on the weighted average number of no-par value shares outstanding during the reporting period, but also including the number of no-par value shares that could come into existence if all stock options were exercised on the balance sheet date.

(5) Significant Accounting Judgments, Estimates and Assumptions

The preparation of the Group's financial statements requires management to make judgments, estimates and assumptions that affect the reported amounts of revenues, expenses, assets and liabilities and the disclosure of contingent liabilities on the reporting date. However, uncertainty about these assumptions and estimates could result in outcomes that could require a material adjustment to the carrying amount of the asset or liability affected in the future. Assumptions used to make estimates are regularly reviewed. Changes in estimates only affecting one accounting period are only taken into account in that accounting period. In the case of changes in estimates that affect the current and future accounting periods, these are taken into account appropriately in the current and subsequent accounting periods.

Discussed below are the key judgments and assumptions concerning the future and other key sources of estimation and uncertainty on the balance sheet date that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year.

Development expenses

Development expenses are capitalized in accordance with the accounting policy described in note (4). Initial capitalization of costs is based on management's judgment that technological and economic feasibility is confirmed, usually when a product development project has reached a defined milestone according to an established project management model. In determining the amounts to be capitalized, management makes assumptions regarding the expected future cash generation of the assets, discount rates to be applied and the expected period of benefits. See note (12) for the carrying amounts involved.

Impairment of non-financial assets

The Group assesses whether there are any indicators of impairment for all non-financial assets on each reporting date. Goodwill and other indefinite life intangibles are tested for impairment annually and at other times when such indicators exist. Other non-financial assets are tested for impairment when there are indicators that the carrying amounts may not be recoverable. When value-in-use calculations are undertaken, management must estimate the expected future cash flows from the asset or cash generating unit and choose a suitable discount rate in order to calculate the present value of these cash flows. See note (12) for the carrying amounts involved.

Pension obligations

Pension and similar post-employment obligations as well as the related expenses are recognized based on actuarial calculations. The actuarial valuation of the present value of pension obligations depends on a number of assumptions regarding the discount rate, the expected salary increase rate, the

expected pension trend, and life expectancy. In the event that changes in the assumptions regarding the valuation parameters are required, the future amounts of the pension obligations as well as the pension benefit costs may be affected materially. For further details on the valuation of pension obligations, see note (15).

Share-based compensation transactions

The Group measures the cost of equity-settled and cash-settled transactions with employees by reference to the fair value of the equity instruments on the date at which they are granted or on the balance sheet date. Estimating fair value requires determining the most appropriate valuation model for a grant of equity instruments, which is dependent on the terms and conditions of the grant. This also requires determining the expected life of the option, volatility and dividend yield, as well as further assumptions. See note (33) for the carrying amounts involved.

Provisions

Significant estimates are involved in the determination of provisions related to warranty costs and legal proceedings. The estimate of warranty claims is based on historic data and is extrapolated into the future. Legal proceedings often involve complex legal issues and are subject to substantial uncertainties. Accordingly, management exercises considerable judgment in determining whether there is a present obligation as a result of a past event at the end of the reporting period, whether it is more likely than not that such a proceeding will result in an outflow of resources and whether the amount of the obligation can be reliably estimated. Other provisions are described in note (16).

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Uncertainties exist with respect to the interpretation of complex tax regulations and the amount and timing of future taxable income. Given the wide range of international business relationships and the long-term nature and complexity of existing contractual agreements, differences arising between the actual results and the assumptions made, or future changes to such assumptions, could necessitate future adjustments to tax income and expenses already recorded. The Group establishes provisions, based on reasonable estimates, for possible consequences of audits by the tax authorities of the respective countries in which it operates. The amount of such provisions is based on various factors, such as experience of previous tax audits and differing interpretations of tax regulations by the taxable entity and the responsible tax authority. Such differences of interpretation may arise on a wide variety of issues depending on the conditions prevailing in the respective Group Company's domicile.

Deferred tax assets are recognized for all unused tax losses to the extent that it is probable that taxable profit will be available to utilize these losses. Significant management judgment is required to determine the amount of deferred tax assets that can be recognized, based upon the likely timing and level of future taxable profits together with future tax planning strategies. See note (22) for the carrying amounts involved.

(6) Principles of Consolidation, Scope of Consolidation and Shareholdings

Subsidiaries are all entities over which ADVA Optical Networking SE directly or indirectly has control. Subsidiaries are fully consolidated from the date on which control is transferred to the Group. ADVA Optical Networking SE controls an entity when it is exposed to or has the rights to variable returns from its involvement and has the ability to affect those returns through its power to direct the activities of the entity.

Intercompany revenues, expenses, income, receivables and payables within the Group are netted.

Intercompany profits that arise from deliveries of products and services provided within the Group are eliminated.

Business combinations

Business combinations from January 1, 2010 are accounted for using the acquisition method. The cost of an acquisition is measured as the aggregate of the consideration transferred, measured at acquisition date fair value and the amount of any non-controlling interest in the acquiree. For each business combination, the acquirer measures the non-controlling interest in the acquiree either at fair value or at the proportionate share of the acquiree's identifiable net assets. Acquisition costs incurred are expensed.

When a Group company acquires a business, it assesses the financial assets and liabilities acquired for appropriate classification and designation in accordance with the contractual terms, economic circumstances and relevant conditions on the acquisition date. This includes the separation of embedded derivatives in host contracts by the acquiree.

If the business combination is achieved in stages, the acquisition date fair value of the acquirer's previously held equity interest in the acquiree is re-measured to fair value on the acquisition date through profit and loss.

Any contingent consideration to be transferred by the acquirer will be recognized at fair value on the acquisition date. Subsequent changes to the fair value of the contingent consideration that is deemed an asset or liability will be recognized in accordance with IAS 39 either in profit or loss or as a change to other comprehensive income. If the contingent consideration is classified as equity, it shall not be re-measured until it is finally settled within equity.

Goodwill is initially measured at cost being the excess of the consideration transferred over the Group's net identifiable assets acquired and liabilities assumed. If this consideration is lower than the fair value of the net assets of the company acquired, the difference is recognized in profit or loss after reassessment.

After initial recognition, goodwill is measured at cost less any accumulated impairment losses. For the purpose of impairment testing, goodwill acquired in a business combination is, from the acquisition date, allocated to each of the Group's cash generating units that are expected to benefit from the combination, irrespective of whether other assets or liabilities of the acquiree are assigned to those units.

Where goodwill forms part of a cash-generating unit and where part of the operation within that unit is disposed of, the goodwill associated with the operation disposed of is included in the carrying amount of the operation when determining the gain or loss on disposal of the operation. Goodwill disposed of in this circumstance is measured based on the relative values of the operation disposed of and the portion of the cash-generating unit retained.

Investments in associates and in joint ventures

The equity method according to IAS 28 (Investments in Associates) is used to account for investments in entities in which ADVA Optical Networking SE holds 20% to 50% of the voting rights, either directly or indirectly, and over whose operating and financial policy decisions ADVA Optical Networking SE exercises significant influence (associated companies). The investment is initially recognized at cost, and the carrying amount is increased or decreased to recognize the investor's share of the profit or loss generated. The Group share of the profit or loss of investments accounted for by the equity method is recognized in the consolidated income statement, whereas the share of changes in the equity of investments accounted for by the equity method that has not been recognized in profit or loss is shown in the reserves of the consolidated equity. In case the Group share of losses exceeds the carrying amount of the investment accounted for by the equity method, no further losses are recognized at Group level. Goodwill relating to an investment accounted for by the equity method is included in the carrying amount of the investment. Upon loss of significant influence over an associate, the Group measures and recognizes any retaining investment at its fair value. Upon loss of significant influence, any difference between the carrying amount of the associate and the fair value of the retaining investment and proceeds from disposal are recognized in profit or loss.

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Scope of Consolidation

The consolidated financial statements for the year ended on December 31, 2016, include the financial statements of ADVA Optical Networking SE plus all of the 16 (15 on December 31, 2015) wholly-owned subsidiaries listed below (hereafter collectively referred to as "the Group companies"):

(in thousands)			Equity	Net income (loss)	Share in equity	
					owned directly	owned in-directly
ADVA Optical Networking North America, Inc., Norcross/Atlanta (Georgia), USA (ADVA Optical Networking North America)	USD	*	59,794	5,768	-	100%
ADVA Optical Networking Ltd., York, United Kingdom (ADVA Optical Networking York)	GBP	**	12,250	3,839	100%	-
Oscilloquartz SA, Saint-Blaise, Switzerland (OSA Switzerland)	CHF	*	7,247	-70	100%	-
ADVA Optical Networking sp. z o.o., Gdynia, Poland (ADVA Optical Networking Gdynia)	PLN	**	5,073	-5,195	100%	-
ADVA Optical Networking Israel Ltd., Ra'anana/Tel Aviv, Israel (ADVA Optical Networking Tel Aviv)	ILS	*	-9,997	-11,356	100%	-
ADVA Optical Networking (Shenzhen) Ltd., Shenzhen, China (ADVA Optical Networking Shenzhen)	CNY	**	45,381	3,112	100%	-
Oscilloquartz Finland Oy, Espoo, Finland (OSA Finland)	EUR	*	9	39	100%	-
ADVA IT Solutions Pvt. Ltd., Bangalore, India (ADVA IT Solutions)	INR	***	43,651	19,853	-	100%
ADVA Optical Networking Trading (Shenzhen) Ltd., Shenzhen, China (ADVA Optical Networking Trading)	USD	*	798	152	-	100%
ADVA Optical Networking Singapore Pte. Ltd., Singapore (ADVA Optical Networking Singapore)	SGD	**	2,999	323	100%	-
ADVA Optical Networking Hong Kong Ltd., Hong Kong, China (ADVA Optical Networking Hong Kong)	HKD	**	2,017	477	-	100%
ADVA Optical Networking (India) Private Ltd., Gurgaon, India (ADVA Optical Networking Gurgaon)	INR	***	15,869	6,631	1%	99%
ADVA Optical Networking Serviços Brazil Ltda., São Paulo, Brazil (ADVA Optical Networking São Paulo)	BRL	*	1,202	229	99%	1%
ADVA Optical Networking Corp., Tokyo, Japan (ADVA Optical Networking Tokyo)	JPY	*	81,954	2,606	100%	-
ADVA Optical Networking AB, Kista/Stockholm, Sweden (ADVA Optical Networking Stockholm)	SEK	**	1,537	175	100%	-
ADVA NA Holdings Inc., Atlanta (Georgia), USA (ADVA NA Holdings)	USA	*	60,687	-2	100%	-

* Prepared in accordance with the International Financial Reporting Standards (IFRS) for the financial year ended December 31, 2016.

** Prepared in accordance with local commercial law for the financial year ended December 31, 2015.

*** Prepared in accordance with local commercial law for the financial year ended March 31, 2016.

Changes in the scope of consolidation

Acquisition of Overture Networks Inc.

On January 13, 2016 ADVA NA Holdings Inc., Atlanta, Georgia, USA, a new established 100% subsidiary of ADVA Optical Networking SE, acquired 100% of the shares of Overture Networks Inc., Morrisville, North Carolina, USA, for a preliminary cash consideration due at the same date of USD 39,516 thousand (EUR 36,535 thousand, translated at the relevant foreign currency exchange rate at the date of payment). In addition, an earn-out payment of USD 5,000 thousand in cash was agreed if specified sales volumes are reached within in the first 12 months after the acquisition. Furthermore, additional expenses of the acquisition amounting to EUR 293 thousand have been recognized immediately in operating expense.

At the date of the acquisition, the Overture Networks Group included Overture Networks Inc. together with its three 100% subsidiaries Overture International Inc., Morrisville, North Carolina, USA, Overture Networks Ltd., Bristol, United Kingdom und Overture Networks India Private Ltd. (renamed to ADVA IT Solutions Pvt. Ltd.), Bangalore, India and employed a total number of 180 employees. The Overture Networks Group mainly focusses on the development of cloud access solutions. The acquired technologies and know-how will further expand ADVA Optical Networking's cloud access solution portfolio. Additionally, the Overture Networks Group successfully sells Carrier Ethernet Access products predominantly in North America. In 2016, Overture Networks Inc. and Overture International Inc. have been merged to ADVA Optical Networking North America. The main business activities of Overture Networks Ltd. have been transferred to ADVA Optical Networking York and the entity has been liquidated subsequently.

The final purchase price allocation according to IFRS 3 performed on January 13, 2016, included in the consolidated report for 2016 incorporates the cash consideration as already paid, the fair value of the stipulated contingent consideration at the date of the acquisition amounting to USD 850 thousand (EUR 786 thousand, translated at the relevant foreign currency exchange rate at the date of acquisition) as well as opening balances of assets and liabilities of the Overture Networks Group according to IFRS. During the course of the consolidation purchased technologies, a trade name and acquired customer relationships were recognized. Moreover, fair value adjustments regarding inventories, property, plant and equipment, deferred tax assets and liabilities as well as deferred revenues have been considered. The remaining excess purchase price is classified as goodwill and represents the fair value of anticipated synergies from the acquisition as well as the assembled workforce of the Overture Networks Group.

The expected remaining useful lives of the acquired intangible assets are as follows:

Hardware technology	4 years
Software technology	6 years
Trade name	5 years
Acquired customer relationships	8 years

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The fair values of acquired assets and liabilities at the date of the acquisition and carrying amounts immediately prior to the date of the acquisition comprise as follows:

(in thousands of EUR)	Carrying amount	Fair value at the date of the acquisition
Cash and cash equivalents	4,581	4,581
Trade accounts receivable	7,077	7,077
Inventory	3,868	5,751
Property, plant and equipment and other intangible assets	1,317	2,270
Purchased technologies	-	8,679
Trade name	-	222
Acquired customer relationships	-	5,751
Deferred tax asset	-	899
Other current and non-current assets	785	785
Trade accounts payable	-3,268	-3,268
Provision for contingent consideration	-786	-786
Other provisions and other current and non-current liabilities	-2,878	-2,878
Deferred revenues	-	-1,627
Deferred tax liabilities	-	-6,871
Net assets	10,696	20,585
Goodwill	-	16,736
Purchase price	-	37,321

The net cash outflow from the acquisition comprises as follows:

(in thousands of EUR)	
Cash and cash equivalents acquired from the Overture Networks Group	4,581
Cash paid in acquisition	-36,535
Cash outflow from acquisition	-31,954

In 2016, the Overture Networks Group from the date of the acquisition has contributed EUR 36,460 thousand to revenues and negative EUR 1,201 thousand to the net income of ADVA Optical Networking. Due to the merger of Overture Networks Inc. with ADVA Optical Networking North America as of July 1, 2016, a separate evaluation of the complete share of revenues and net income of Overture Networks Group is no longer feasible. Therefore the relevant information has been extrapolated based on the results as of June 30, 2016. If the acquisition would have been effective on January 1, 2016, additional EUR 1,689 thousand would have further increased the Group's revenues while net income of the Group would have been EUR 306 thousand lower.

The specified sales volumes required for the earn-out payment have not been reached and the recognized provision for contingent consideration of USD 850 thousand has been released in the income statement in 2016.

Cash outflow related to the acquisition of a development division of FiSEC GmbH

In Q1 2016, the second instalment of the FiSEC acquisition purchase price amounting to EUR 455 thousand was due and paid out. In Q3 2016, a further purchase price instalment of EUR 100 thousand has been paid out.

Liquidation of ADVA Optical Networking Oslo

In 2016, the liquidation of the company already closed in 2014 has been finalized. The deconsolidation resulted in expenses of EUR 380 thousand recognized in other operating expenses.

Liquidation der Overture Networks Ltd.

In December 2016, the company has been liquidated. Previously, its main business activities have been transferred to ADVA Optical Networking York. The deconsolidation resulted in income of EUR 19 thousand.

Investments in associates and joint ventures

ADVA Optical Networking North America has a 44.5% share in OptX-Con Inc., Raleigh (North Carolina), USA. The Company has concluded operations in 2002 but has not yet been deregistered. The investment is fully depreciated. There are no local financial statements available.

(7) Foreign currency translation

The functional currency of each Group company is the currency of the main economic environment in which the company operates. The reporting currency of ADVA Optical Networking's consolidated financial statements is the functional currency of the parent company, ADVA Optical Networking SE (EUR).

Transactions in foreign currencies are initially recorded by the Group entities at their respective functional currency rates prevailing on the date of the transaction. Monetary assets and liabilities denominated in foreign currencies are retranslated at the functional currency spot rate of exchange ruling on the reporting date. Non-monetary items that are measured in terms of historical cost in a foreign currency are translated using the exchange rates on the dates of the initial transactions. Non-monetary items measured at fair value in a foreign currency are translated using the exchange rates on the date when the fair value is determined.

The assets and liabilities of foreign operations are translated into EUR at the rate of exchange prevailing on the reporting date, and their income statements are translated at the average rate for the reporting period. The exchange differences arising from the translation are recognized in accumulated other comprehensive income. On disposal of a foreign operation, the component of accumulated other comprehensive income relating to that particular foreign operation is recognized in the income statement.

Any goodwill arising on the acquisition of a foreign operation and any fair value adjustments to the carrying amount of assets and liabilities arising on acquisition are treated as assets and liabilities of the foreign operation and translated at the closing rate.

The relevant currency translation rates to EUR are listed below:

	Closing rate on Dec. 31, 2016	Closing rate on Dec. 31, 2015	Average rate for the period Jan. 1 to Dec. 31, 2016	Average rate for the period Jan. 1 to Dec. 31, 2015
USD	1.0541	1.0926	1.1071	1.1113
GBP	0.8562	0.7380	0.8185	0.7268
CHF	1.0739	1.0814	1.0901	1.0742
PLN	4.4103	4.2400	4.3625	4.1824
ILS	4.0477	4.2606	4.2495	4.3191
CNY	7.3202	7.0912	7.3502	6.9808
SGD	1.5234	1.5449	1.5278	1.5267
HKD	8.1751	8.4688	8.5937	8.6155
INR	71.5935	72.5163	74.3713	71.2758
BRL	3.4305	4.2589	3.8645	3.6919
JPY	123.4000	131.5790	120.3335	134.4086
SEK	9.5525	9.1878	9.4668	9.3580
NOK	9.0863	9.6163	9.2971	8.9486

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(8) Cash and Cash Equivalents

Cash and cash equivalents on December 31 include the following amounts to which ADVA Optical Networking has only limited access:

(in thousands of EUR)	2016	2015
Amounts pledged as security	146	148

On December 31, 2016, cash of EUR 3,436 thousand (December 31, 2015: EUR 2,841 thousand) is held in China and is subject to local exchange control regulations. These local exchange control regulations provide for restrictions on exporting capital from the country, other than through normal dividends.

Cash at banks earns interest at floating rates based on daily bank deposit rates.

Cash equivalents are invested for varying periods of between one day and three months, depending on the immediate cash requirements of the Group, and earn interest at the respective short-term deposit rates.

On December 31, 2016, the Group had EUR 8,000 thousand (on December 31, 2015: EUR 8,000 thousand) of undrawn committed borrowing facilities available in respect of which all conditions had been met.

(9) Trade Accounts Receivable

Trade accounts receivable are non-interest-bearing and are due within 30 to 120 days in general. For specific projects, other payment terms may be agreed.

Gross trade accounts receivable and depreciation of trade accounts receivable have developed as follows:

(in thousands of EUR)	2016	2015
Gross trade accounts receivable	79,489	71,962
Depreciation		
On January 1	1,583	1,786
Increase	635	607
Usage	-461	-16
Release	-751	-937
Exchange rate differences	9	143
On December 31	1,015	1,583
Net trade accounts receivable	78,474	70,379

On December 31, 2016 and 2015, there was no material off balance sheet credit risk.

Depreciation of trade accounts receivable bases on an assessment of balances past their due date. On December 31, trade accounts receivable past due analyzes as follows:

(in thousands of EUR)	2016 gross value	2016 depreciation	2015 gross value	2015 depreciation
Less than 3 months	11,228	-	9,954	-
3 to 6 months	1,056	-	633	55
6 to 12 months	1,088	550	864	433
More than 1 year	465	465	1,095	1,095
	13,837	1,015	12,546	1,583

On December 31, 2016, EUR 12,822 thousand of trade receivables are past due but not impaired (prior year: EUR 10,963 thousand). Trade accounts receivable that are not overdue were not impaired in 2016 and 2015, respectively.

A Group company entered into a supplier finance agreement, whereby it can finance receivables from a specific customer for a period of up to 120 days. Credit risks and settlement risks are transferred to the financing institution. The Group paid an annual fee amounting to LIBOR plus 0.92% for transactions until August 31, 2014 and LIBOR plus 0.75% from September 1, 2014 on the volume of receivables transferred. In 2016, the Group incurred interest expenses of EUR 216 thousand pertaining to this arrangement (prior year: EUR 230 thousand).

On September 24, 2014, the Group entered into a new agreement on the sale of accounts receivable. The agreements entitled the Group Company to finance receivables from specific customers for a period of up to 45 or 60 days. ADVA Optical Networking paid annual interest amounting to EURIBOR plus 3% on the volume of the receivables transferred. In addition, a service charge of EUR 500 per transaction applied. The agreement applied to receivables that were due latest on December 31, 2015. In 2016, ADVA Optical Networking incurred no interest expenses (prior year: EUR 2 thousand).

(10) Inventories

The table below summarizes the composition of inventories on December 31:

(in thousands of EUR)	2016	2015
Raw materials and supplies	21,764	14,479
Work in progress	4,179	5,306
Finished goods	66,857	53,165
	92,800	72,950

In 2016, depreciation of inventories amounting to EUR 5,053 thousand (prior year: EUR 3,028 thousand) was recognized as an expense within cost of goods sold. This amount includes reversals of earlier write-downs amounting to EUR 298 thousand (prior year: EUR 475 thousand) due to higher selling and input prices.

In 2016 and 2015, material costs of EUR 321,499 thousand and EUR 217,718 thousand, respectively, have been recognized.

(11) Other Current and Non-Current Assets

On December 31, other current assets analyze as follows:

(in thousands of EUR)	2016	2015
Non-financial assets		
Prepaid expenses	2,707	1,596
Receivables due from tax authorities	3,632	1,617
Other	703	1,459
Total current non-financial assets	7,042	4,672
Financial assets		
Government grant allowances for research projects	2,478	1,800
Positive fair values of derivative financial instruments	903	1,833
Other	319	442
Total current financial assets	3,700	4,075
	10,742	8,747

Other current assets are non-interest-bearing and are generally due within 0 to 60 days.

Further disclosures on derivative financial instruments are given in note (21).

On December 31, other non-current assets analyze as follows:

(in thousands of EUR)	2016	2015
Financial assets		
Investments	1,374	1,198
Government grant allowances for research projects	1,567	1,453
Other	1,235	1,220
Total non-current financial assets	4,176	3,871

On December 31, 2016 and 2015, no non-current non-financial assets have been recognized.

Investments relate to 9% of the shares of Saguna Networks Ltd. Neshet, Israel, held by ADVA Optical Networking SE (prior year: 11% of the shares).

On December 31, 2016, government grants for fourteen research projects are recognized (December 31, 2015: twelve research projects). These public grants relate to programs promoted by the EU and national governments.

The classification of financial instruments according to IAS 39 is included in note (27).

(12) Fixed Assets

The following changes in fixed assets were recorded in 2016 and 2015:

(in thousands of EUR)								Accumulated depreciation						Net book values	
	Jan. 1, 2016	Additions	Disposals/retirements	Reclassifications	Currency translation adjustments	Change in scope of consolidation	Dec. 31, 2016	Jan. 1, 2016	Depreciation of the period	Depreciation on disposals/retirements	Reclassifications	Currency translation adjustments	Change in scope of consolidation	Dec. 31, 2016	Dec. 31, 2015
Finance leases	2,549	-	-5	-	-1	-	2,543	2,549	-	-5	-	-1	-	2,543	-
Property, plant and equipment															
Land and buildings	14,067	1,902	-265	-	-10	446	16,140	7,244	1,062	-233	-	-2	-	8,071	8,069
Technical equipment and machinery	68,695	8,852	-1,205	78	-87	-503	75,830	58,097	6,900	-1,168	-	-60	-1,646	62,123	13,707
Factory and office equipment	12,489	1,787	-261	13	-326	262	13,964	10,173	1,548	-246	-	-265	-148	11,062	2,902
Assets under construction	218	348	-	-121	3	-	448	-	-	-	-	-	-	-	448
	95,469	12,889	-1,731	-30	-420	205	106,382	75,514	9,510	-1,647	-	-327	-1,794	81,256	25,126
Intangible assets															
Goodwill	77,177	-	-	-	-4,301	16,206	89,082	52,296	-	-	-	-4,222	-530	47,544	41,538
Capitalized development projects	189,635	39,412	-4,095	-	-2,338	-	222,614	127,196	25,165	-4,100	-	-1,910	-	146,351	76,263
Intangible assets acquired in business combinations	39,596	-	-	-	1,423	14,651	55,670	37,280	2,997	-	-	1,109	-	41,386	14,284
Other intangible assets	55,637	1,913	-255	30	-2	-1,069	56,254	53,715	1,903	-256	-	87	-1,340	54,109	2,145
	362,045	41,325	-4,350	30	-5,218	29,788	423,620	270,487	30,065	-4,356	-	-4,936	-1,870	289,390	134,230
Financial investments															
Investments in associates and joint ventures	1,165	-	-	-	43	-	1,208	1,165	-	-	-	43	-	1,208	-
	1,165	-	-	-	43	-	1,208	1,165	-	-	-	43	-	1,208	-
	461,228	54,214	-6,086	-	-5,596	29,993	533,753	349,715	39,575	-6,008	-	-5,221	-3,664	374,397	159,356

(in thousands of EUR)								Historical cost								Accumulated depreciation								Net book values	
	Jan. 1, 2015	Additions	Disposals/retirements	Reclassifications	Currency translation adjustments	Change in scope of consolidation	Dec. 31, 2015	Jan. 1, 2015	Depreciation of the period	Depreciation on disposals/retirements	Reclassifications	Currency translation adjustments	Change in scope of consolidation	Dec. 31, 2015	Dec. 31, 2015	Dec. 31, 2014									
Finance leases	2,583	-	-37	-	3	-	2,549	2,572	2	-28	-	3	-	2,549	-	11									
Property, plant and equipment																									
Land and buildings	12,795	1,018	-48	-	302	-	14,067	6,303	804	-35	-	172	-	7,244	6,823	6,492									
Technical equipment and machinery	63,084	4,985	-2,122	48	2,673	27	68,695	50,744	7,220	-1,957	11	2,079	-	58,097	10,598	12,340									
Factory and office equipment	11,978	1,426	-1,414	-6	502	3	12,489	10,008	1,190	-1,401	-13	389	-	10,173	2,316	1,970									
Assets under construction	148	369	-259	-53	13	-	218	-	-	-	-	-	-	-	218	148									
	88,005	7,798	-3,843	-11	3,490	30	95,469	67,055	9,214	-3,393	-2	2,640	-	75,514	19,955	20,950									
Intangible assets																									
Goodwill	73,720	-	-	-	3,340	117	77,177	50,139	-	-	-	2,157	-	52,296	24,881	23,581									
Capitalized development projects	156,143	32,071	-	-	1,421	-	189,635	99,705	26,396	-	-	1,095	-	127,196	62,439	56,438									
Intangible assets acquired in business combinations	34,858	-	-	-	2,795	1,943	39,596	34,203	346	-	-	2,731	-	37,280	2,316	655									
Other intangible assets	54,420	1,038	-6	11	174	-	55,637	52,214	1,351	-6	2	154	-	53,715	1,922	2,206									
	319,141	33,109	-6	11	7,730	2,060	362,045	236,261	28,093	-6	2	6,137	-	270,487	91,558	82,880									
Financial investments																									
Investments in associates and joint ventures	1,047	-	-	-	118	-	1,165	1,047	-	-	-	118	-	1,165	-	-									
	1,047	-	-	-	118	-	1,165	1,047	-	-	-	118	-	1,165	-	-									
	410,776	40,907	-3,886	-	11,341	2,090	461,228	306,935	37,309	-3,427	-	8,898	-	349,715	111,513	103,841									

Property, plant and equipment

The classification and changes in property, plant and equipment are shown in the analysis of changes in fixed assets.

In 2016 and 2015, there were neither impairments nor write-backs of property, plant and equipment impaired in prior years.

In 2016, the Group received no government grants for property, plant and equipment (prior year: EUR 126 thousand). Based on grant allowances no allowances have been deducted from historical costs in 2016 (prior year: EUR 94 thousand).

Goodwill

The table below shows the composition of goodwill on December 31, as well as the cash-generating unit to which the goodwill is allocated for impairment testing:

(in thousands of EUR)	2016	2015
FirstFibre Ltd. (ADVA Optical Networking York)	6,841	6,841
Cellware GmbH (ADVA Optical Networking SE plus)	481	481
Covaro Networks Inc. (ADVA Optical Networking SE plus)	10,150	10,150
Movaz Networks Inc. (ADVA Optical Networking North America)	4,448	4,448
Gryfsoft sp. z o.o. (ADVA Optical Networking SE plus)	130	130
Biran High-Tech Advisors Ltd. (ADVA Optical Networking SE plus)	277	277
Oscilloquartz SA (OSA Switzerland)	2,801	2,801
Time4 Systems Oy (ADVA Optical Networking SE plus)	89	89
FiSEC GmbH (ADVA Optical Networking SE plus)	28	28
Overture Networks Inc. (61% ADVA Optical Networking SE plus and 39% ADVA Optical Networking North America)	16,736	-
Effect of foreign currency translation	-443	-364
	41,538	24,881

Impairment of goodwill

In 2016 and 2015, no impairment of goodwill was recognized.

Key assumptions used in impairment testing

Since 2015, all technologies are concentrated in ADVA Optical Networking SE. The transfer pricing contracts, definition of cash generating units as well as allocation of relevant goodwill to these units considers the centralization of technology ownership in the Group. All entities, which are largely capable to generate revenues independently based on own customer relationships and own distribution channels are considered as separate cash-generating units. All dependent development service providing and sales service providing entities are considered together with the ADVA Optical Networking SE in one combined cash-generating unit going forward (ADVA Optical Networking SE plus) as ADVA Optical Networking as owner of all technologies is responsible for future developments and utilization. For impairment test purposes goodwill is generally allocated to the cash-generating unit in which the subsidiary is included, on which acquisition the goodwill has been recognized. The cash-generating units are ADVA Optical Networking SE plus, ADVA Optical Networking York, ADVA Optical Networking North America and OSA Switzerland.

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On December 31, 2016 and 2015, the value in use of the goodwill was calculated based on future cash flows (discounted-cash-flow-method). The calculation is most sensitive to the following assumptions:

- Gross margins
- Discount rates
- Raw material prices
- Market share expected

Cash flows include the projected cash flows for the three subsequent years as per the approved budget and three-year planning for gross margins, market share and raw material prices. For further periods, a perpetual income is estimated based on nil growth with inflation offset. The discount rate used for the calculation is a pre-tax rate. It considers the specific risk of each Group company and is calculated according to the Capital Asset Pricing Model (CAPM). The cost of equity is composed of a risk-free interest rate and a specific risk mark-up calculated as the difference of the average market rate of return and the risk-free interest rate multiplied with the specific risk related to the Company (beta coefficient). The beta coefficient is calculated on a peer group basis.

The calculation uses pre-tax discount rates depending on the different cash generating units.

· Pre-tax discount rate	6.75% to 8.34%
· Risk-free interest rate	0.33% on average
· Risk mark-up	6.5%
· Re-levered Beta coefficient (weighted average of the peer group)	1.10

Sensitivity analysis

The implications of adverse changes on the key assumptions for the recoverable amount are discussed below. Each key assumption is considered in turn, even though there are dependencies between the assumptions:

- Gross margin – a reduction of more than 4.3 percentage points of the expected average gross margin over the planning period would result in an impairment loss in the unit ADVA Optical Networking SE plus.
- Discount rate – an increased pre-tax discount rate of more than 8.2 percentage points would result in an impairment loss in the unit ADVA Optical Networking North America.
- Growth rate – a growth reduction of more than 44.9% would result in an impairment loss in the unit ADVA Optical Networking SE plus.

Capitalized development projects, intangible assets acquired in business combinations and other intangible assets

The table below summarizes the carrying amounts:

(in thousands of EUR)	Dec. 31, 2016	Dec. 31, 2015
Capitalized development projects	76,263	62,439
Intangible assets acquired in business combinations	14,284	2,316
Other intangible assets	2,145	1,922
	92,692	66,677

In 2016, borrowing costs of EUR 908 thousand (2015: EUR 360 thousand) were capitalized related to development projects with an expected duration of more than 12 months. Borrowing costs were capitalized at the weighted average rate of the financial liabilities of 2.7%.

Other intangibles assets mainly include licenses and software.

Intangible assets acquired in business combinations analyze as follows:

(in thousands of EUR)	Dec. 31, 2016	Dec. 31, 2015
Purchased technology Biran	111	210
Purchased technology Time4 Systems	456	584
Purchased technology FiSEC	993	1,283
Purchased hardware technology Overture	3,260	-
Purchased software technology Overture	3,919	-
Brand Ensemble	185	-
Purchased customer relationships OSA	166	239
Purchased customer relationships Overture	5,194	-
	14,284	2,316

Amortization of intangible assets

Amortization of intangible assets with a finite useful life comprises:

(in thousands of EUR)	2016	2015
Capitalized development projects	25,165	26,396
Intangible assets acquired in business combinations	2,997	346
Other intangible assets	1,903	1,351
	30,065	28,093

Amortization of intangible assets acquired in business combinations analyze as follows:

(in thousands of EUR)	2016	2015
Purchased technology Covaro	-	91
Purchased technology Biran	105	104
Purchased technology Time4 Systems	127	53
Purchased technology FiSEC	291	24
Purchased hardware technology Overture	1,020	-
Purchased software technology Overture	666	-
Brand Ensemble	42	-
Purchased customer relationships OSA	73	74
Purchased customer relationships Overture	673	-
	2,997	346

Purchased technology Covaro has been fully depreciated in 2015.

In the income statement, amortization of capitalized development projects and amortization of purchased technology is included in cost of goods sold. Amortization of purchased customer relationship assets is included in selling and marketing expenses.

In 2016 and 2015, no impairment of intangible assets with finite useful economic lives was recognized.

The methodology for calculating impairment is the same as the one used for goodwill impairment testing. The key assumptions and key sensitivities are also the same.

(13) Financial Liabilities

The tables below detail financial liabilities and their maturity:

(in thousands of EUR)	Dec. 31, 2016	Interest terms	Maturity		
			≤12 months	13-36 months	> 36 months
IKB Deutsche Industriebank loans*	9,365	Fixed rate, subsidized***	6,148	3,217	-
	25,000	Fixed rate, subsidized***	6,250	12,500	6,250
	10,000	Fixed rate, subsidized***	2,500	5,000	2,500
HSBC loan*	15,000	Fixed rate, subsidized***	3,750	7,500	3,750
Total financial liabilities	59,365		18,648	28,217	12,500

The interest rate charged for interest-bearing financial liabilities during 2016 ranged between 1.40% and 2.55% p.a. on average.

In January 2016, ADVA Optical Networking SE negotiated two loan contracts with IKB Deutsche Industriebank amounting to EUR 35,000 thousand in total. The loans have a 5-year maturity and a fixed interest rate of 1.40% per annum each. The loan principals will be repaid in 16 equal instalments of EUR 2,188 thousand in total per quarter commencing Q1 2017.

In December 2015, ADVA Optical Networking SE entered into a EUR 15,000 thousand-loan agreement with HSBC. The loan has a 5-year maturity and a fixed interest rate of 1.40% per annum. The loan principal will be repaid in 16 equal instalments of EUR 938 thousand per quarter commencing Q1 2017.

In December 2015, ADVA Optical Networking SE terminated the bonded loan of Portigon AG amounting to EUR 11,500 thousand prior to maturity. The loan has been fully repaid in January 2016.

The fair value of the financial liabilities is stated in note (27).

(in thousands of EUR)	Dec. 31, 2015	Interest terms	Maturity		
			≤12 months	13-36 months	> 36 months
IKB Deutsche Industriebank loans*	156**	Fixed rate, subsidized***	156	-	-
	417	Fixed rate, subsidized***	417	-	-
	15,596	Fixed rate, subsidized***	6,147	9,449	-
HSBC loan*	15,000	Fixed rate, subsidized***	-	7,500	7,500
Portigon AG bonded loan*	11,500	Floating rate based on 3M EURIBOR	11,500	-	-
Total financial liabilities	42,669		18,220	16,949	7,500

* Key covenants refer to the Group's year-end debt / equity ratio and to the quarter-end net liquidity.

** At the end of 2015, the IKB Deutsche Industriebank loan was secured by a registered land charge without certificate amounting to EUR 5,581 thousand on the production and development site in Meiningen. Due to full redemption of the underlying loan the land charge has been deleted from the register in 2016.

*** Subsidized by the German Reconstruction Loan Company (Kreditanstalt für Wiederaufbau, KfW).

(14) Trade Accounts Payable and Other Current and Non-Current Liabilities

The trade accounts payable are non-interest-bearing and generally due within 30 to 90 days.

Other current liabilities on December 31 analyze as follows:

(in thousands of EUR)	2016	2015
Non-financial liabilities		
Liabilities to employees for vacation	2,048	1,093
Liabilities due to withheld wage income tax and social security contribution	1,777	2,220
Liabilities due to tax authorities	1,139	2,385
Obligations from subsidized research projects	2,256	1,714
Other	1,004	1,562
Total current non-financial liabilities	8,224	8,974
Financial liabilities		
Liabilities to employees for variable compensation and payroll	14,008	16,133
Negative fair values of derivative financial instruments	-	41
Other	911	1,711
Total current financial liabilities	14,919	17,885
	23,143	26,859

On December 31, other non-current liabilities include:

(in thousands of EUR)	2016	2015
Non-financial liabilities		
Obligations from subsidized research projects	1,594	1,681
Other	1,469	1,265
Total non-current non-financial liabilities	3,063	2,946
Financial liabilities		
Other	200	758
Total non-current financial liabilities	200	758
	3,263	3,704

On December 31, 2016, other non-current non-financial liabilities primarily include deferred rental expense of EUR 1,377 thousand (prior year: EUR 1,247 thousand).

The classification of financial instruments according to IAS 39 is included in note (27).

(15) Provisions for pensions and similar employee benefits

Post-employment benefit plans are classified as either defined contribution or defined benefit plans.

Plan assets related to defined contribution plans are managed separately from the assets of the relevant company by a trustee. For such plans, the company pays fixed contributions into a separate entity or a fund and does not assume any other obligations. Payment obligations to defined contribution plans are recognized in profit or loss when they occur. Payment to government managed pension plans with fixed contributions are considered as defined contribution plans. ADVA Optical Networking maintains defined contribution plans in different Group companies. In 2016, total expenses related to defined contribution plans amount to EUR 1,384 thousand (prior year: EUR 1,133 thousand).

Under defined benefit plans the company is required to pay agreed benefits granted to present and past employees. Defined benefit plans may be funded or unfunded. The Group maintains defined benefit plans in Switzerland, Italy and India.

The defined benefit plans in Switzerland are final salary related plans with a guaranteed minimum rate of return. Benefits paid in conjunction with these plans comprise old-age retirement pensions as well as invalidity and surviving dependents' benefits. Trustees according to local statutory regulations administer the assets of these pension plans. The Italian and Indian defined benefit plans are unfunded and consider final salary assumptions.

On December 31, 2016, ADVA Optical Networking reports provisions for pensions amounting to EUR 4,705 thousand (December 31, 2015: EUR 4,048 thousand). At year-end, the carrying amount analyzes as follows:

(in thousands of EUR)	2016	2015
Present value of defined benefit obligations	15,232	14,529
Fair value of plan assets	-10,527	-10,481
Provisions for pensions and similar employee benefits	4,705	4,048

The change in the net defined benefit liability for pension plans derives as follows:

(in thousands of EUR)	Defined benefit obligations	Fair value of plan assets	Total
Jan. 1, 2016	14,529	-10,481	4,048
Expenses and income			
Current service cost	686	-	686
Interest expense (+)/income (-)	157	-109	48
Past service cost	-252	-	-252
Remeasurements			
Gains (-)/losses (+) arising from changes in financial assumptions	845	-	845
Gains (-)/losses (+) arising from changes in demographical assumptions	-89	-	-89
Gains (-)/losses (+) arising from experience	-256	-	-256
Gains (-)/losses (+) on plan assets, excluding amounts included in interest income	-	44	44
Employee contributions	323	-323	-
Transfers to funds	-	-452	-452
Benefits paid through plan assets for employees leaving the company	-844	844	-
Disbursements of ADVA Optical Networking	-34	-	-34
Exchange rate differences and other changes	167	-50	117
Dec. 31, 2016	15,232	-10,527	4,705

On December 31, 2016, EUR 14,501 thousand of the defined benefit obligations relate to active employees and EUR 731 thousand relate to pensioners. The average remaining period of service for employees in Switzerland, Italy and India is 10.9, 18.3 and 10.0 years, respectively. In general, the monthly payment of pensions starts if an employee in Switzerland reaches the retirement age, while in Italy and India a lump sum payment of the relevant accrued amount applies with retirement or resignation of an employee.

Employer contributions in 2017 are expected to amount to EUR 436 thousand.

The defined benefit obligations are calculated on actuarial basis considering the following material assumptions for valuation parameters:

	2016			2015	
	Switzerland	Italy	India	Switzerland	Italy
Discount rate	0.65%	1.75%	6.50%	1.05%	2.19%
Inflation rate	1.00%	1.75%	n/a	0.75%	1.75%
Salary level trend	1.00%	2.00%	7.00%	1.00%	2.00%

Discount rates have been determined considering the weighted average duration of the obligations. The evaluation for Switzerland and Italy is based on high-quality corporate bonds with AA-rating. For India, the discount rate is based on government bond rates.

The weighted average duration of the obligations in Switzerland, Italy and India on December 31, 2016, is 19.3, 14.6 and 8.6 years, respectively.

ADVA Optical Networking is exposed to risks arising from defined benefit plans. Changes in actuarial parameters, especially in discount rates, may have significant influence on the pension obligations.

The sensitivity analysis provided below shows the extent to which the defined benefit obligation would have been affected by changes in the relevant assumptions:

(in thousands of EUR)		Change in defined benefit obligation
Discount rate	Increase by 0.25%	-651
	Decrease by 0.25%	706
Salary level trend	Increase by 0.25%	107
	Decrease by 0.25%	-105

Sensitivities for discount rate and salary level trend have been considered in turn disregarding any potential dependencies between these assumptions. Separate actuarial computations have been performed for increase and decrease of the assumptions.

ADVA Optical Networking assumes inflation rate and pension entitlement trend to have minor impact on the amount of defined benefit obligations.

On December 31, 2016, plan assets split to major asset categories as follows:

	Quoted market prices	Other than quoted market prices
Equity instruments	23.52%	-
Bonds	27.74%	-
Real estate	20.42%	-
Qualified insurance policies	-	14.54%
Cash and cash equivalents	-	3.41%
Other	-	10.37%

Pension fund assets are monitored continuously and managed from a risk-and-yield perspective by the external trustee.

(16) Other Provisions

The table below lists changes in the composition of the Groups other provisions in the reporting period:

(in thousands of EUR)	Jan. 1, 2016	Usage	Release	Appropriation	Transfer	Currency translation difference	Changes in scope of consolidation	Dec. 31, 2016
Current provisions								
Warranty provision	815	-309	-35	1,802	-108	22	394	2,581
Personnel provisions	461	-363	-42	459	-	-3	18	530
Other short-term provisions	8,615	-4,568	-3,027	6,880	-	1	777	8,678
	9,891	-5,240	-3,104	9,141	-108	20	1,189	11,789
Non-current provisions								
Warranty provision	882	-167	-	431	108	10	-	1,264
Personnel provisions	735	-339	-180	-	-	-	-	216
Other long-term provisions	15	-15	-	27	-	-	-	27
	1,632	-521	-180	458	108	10	-	1,507
Provisions total	11,523	-5,761	-3,284	9,599	-	30	1,189	13,296

The estimated expenses related to warranty claims reflect both past experience and current developments and are based on a percentage of sales revenues. Any differences between actual amounts and anticipated amounts are treated as changes in accounting estimates and affect earnings in the period in which the change occurs.

Current personnel provisions mainly include expenses for severance payments as well as employee's accident insurance and other expenses resulting from legal requirements.

Other current provisions primarily include provisions for outstanding invoices of uncertain amount and timing and provisions for potential obligations from existing contracts.

Non-current personnel provisions mainly include liabilities from share-based compensation transactions.

(17) Stockholders' Equity

Common stock and share capital

On December 31, 2016, ADVA Optical Networking SE had issued 49,498,934 (prior year: 49,374,484) no par value bearer shares (hereinafter "common shares"), each representing a notional amount of share capital of EUR 1.00.

The common shares entitle the holder to vote at the Annual Shareholders' Meeting and to receive dividends in case of a distribution. No restrictions are attached to the common shares.

Capital transactions

In connection with the exercise of stock options, 124,450 shares were issued to employees of the Company and its affiliates out of conditional capital in 2016 (in 2015 in connection with the exercise of stock options 1,278,053 shares). The par value of EUR 125 thousand (prior year: EUR 1,278 thousand) was appropriated to share capital, whereas the premium resulting from the exercise of stock options as well as the exercise of option bonds in prior periods of EUR 296 thousand (prior year: EUR 1,939 thousand) was recognized within capital reserve.

Other information on the share option programs is included in note (33).

Authorized capital

According to the Company's articles of association, the Management Board is authorized, subject to the consent of the Supervisory Board, to increase subscribed capital until May 19, 2020, only once or in successive tranches by a maximum of EUR 24,048 thousand by issuing new common shares in return for cash or non-cash contributions (conditional capital 2015/I). Subject to the consent of the Supervisory Board, the Management Board is further authorized to decide whether to exclude stockholders' subscription rights. Stockholders' subscription rights can be excluded for capital increases for cash contributions as well as contributions in kind if during the term of this authorization and in exclusion of shareholder subscription rights, the shares issued against contributions in cash or in kind do not exceed 20% of the share capital.

Conditional capital

The Annual Shareholders' Meeting on May 11, 2016, resolved to decrease the conditional capital 2003/2008 by EUR 104 thousand to EUR 179 thousand. In addition, the conditional capital 2011/I has been increased by EUR 1,511 thousand to EUR 4,759 thousand. The resolutions were registered in the commercial register on May 26, 2016.

Considering the above described capital transactions, the total conditional capital on December 31, 2016 amounts to EUR 4,813 thousand.

The changes in share capital, authorized and conditional capital are summarized below:

(in Tausend EUR)	Share capital	Authorized capital 2015/I	Conditional capital 2003/2008	Conditional capital 2011/I
Jan. 1, 2016	49,374	24,048	283	3,248
Changes due to Annual Shareholders' Meeting resolutions	-	-	-104	1,511
Stock options exercised	125	-	-83	-42
Dec. 31, 2016	49,499	24,048	96	4,717

Capital reserve

The capital reserve includes premium payments from the issuance of shares, as well as additional contributions to the Company's equity associated with the exercise of stock options. Additionally, the capital reserve contains the correspondent accumulated compensation expenses related to stock option rights issued amounting to EUR 18,535 thousand (prior year: EUR 17,171 thousand).

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Accumulated other comprehensive income or loss

Accumulated other comprehensive income or loss is used to record exchange differences arising from the translation of the financial statements of foreign operations. In addition, the result from remeasurement of defined benefit obligations is included in this line item.

The tax effect related to components of other comprehensive income or loss is as follows:

(in thousands of EUR)	pre tax	2016 tax effect	after tax
Remeasurement of defined benefit obligations	-2,636	92	-2,544
	-2,636	92	-2,544

(in thousands of EUR)	pre tax	2015 tax effect	after tax
Remeasurement of defined benefit obligations	-2,091	82	-2,009
	-2,091	82	-2,009

Changes in stockholders' equity are summarized in the consolidated statement of changes in stockholders' equity.

Voting Rights

According to section 21 paragraph 1, section 25 paragraph 1 and section 26 of the German Securities Trading Law (Wertpapier-Handelsgesetz, WpHG) the Company published the following information on the ADVA Optical Networking homepage in 2016:

Date of change in investment	Name of investment owner	Threshold limit	Share of voting rights
Dec. 30, 2016	Ministry of Finance on behalf of the State of Norway, Oslo, Norway	above 3%	4.40%
Dec. 27, 2016	Ministry of Finance on behalf of the State of Norway, Oslo, Norway	above 3%	4.01%
Nov. 11, 2016	Ministry of Finance on behalf of the State of Norway, Oslo, Norway	above 3%	4.39%
Nov. 10, 2016	Ministry of Finance on behalf of the State of Norway, Oslo, Norway	above 3%	4.37%
Nov. 4, 2016	Ministry of Finance on behalf of the State of Norway, Oslo, Norway	above 3%	4.50%
Nov. 1, 2016	Ministry of Finance on behalf of the State of Norway, Oslo, Norway	above 3%	3.33%
Oct. 26, 2016	Ministry of Finance on behalf of the State of Norway, Oslo, Norway	above 3%	3.25%
Oct. 13, 2016	Ministry of Finance on behalf of the State of Norway, Oslo, Norway	below 3%	2.77%
Oct. 12, 2016	Ministry of Finance on behalf of the State of Norway, Oslo, Norway	above 3%	3.33%
Sep. 27, 2016	Ministry of Finance on behalf of the State of Norway, Oslo, Norway	below 3%	2.79%
Sep. 26, 2016	Ministry of Finance on behalf of the State of Norway, Oslo, Norway	above 3%	3.11%
Jul. 15, 2016	Deutsche Asset Management Investment, Frankfurt, Germany	above 3%	5.00%
Jul. 11, 2016	Deutsche Asset Management Investment, Frankfurt, Germany	above 3%	5.46%
Jan. 11, 2016	Morgan Stanley, Wilmington, Delaware, USA	below 3%	1.63%
Jan. 8, 2016	Morgan Stanley, Wilmington, Delaware, USA	above 3%	6.93%

NOTES TO THE CONSOLIDATED INCOME STATEMENT

(18) Revenues

In 2016 and 2015, revenues included EUR 60,250 thousand and EUR 54,005 thousand for services, respectively. The remaining revenues relate mainly to product sales.

A segmentation of revenues by geographic region is provided in the section on segment reporting under note (26).

(19) Other Operating Income and Expenses

Other operating income and expenses analyze as follows:

(in thousands of EUR)	2016	2015
Other operating income		
Government grants received	2,011	1,869
Reimbursement for joint development by a strategic partner	80	229
Release of bad debt allowances	746	942
Release of provisions	3,284	904
Other	492	1,056
	6,613	5,000
Other operating expenses		
Impairments on trade accounts receivable	-150	-350
Deconsolidation result	-361	-
Other	-290	-258
	-801	-608
Other operating income and expenses, net	5,812	4,392

(20) Interest Income and Expenses

Interest income primarily includes interest from daily bank deposits and from other short-term deposits with maturities between one day and three months.

Interest expenses are primarily incurred on financial liabilities and on the sale of receivables. In addition, net interest expenses from valuation of defined benefit plans are included. For further details, refer to notes (9), (13) and (15).

(21) Other Financial Gains and Losses, net, and Derivative Financial Instruments

Other financial gains and losses, net, comprise the following:

(in thousands of EUR)	2016	2015
Foreign currency exchange gains	16,699	13,799
<i>thereof: gains from forward rate agreements</i>	3,735	3,872
Foreign currency exchange losses	-16,991	-11,640
<i>thereof: losses from forward rate agreements</i>	-1,615	-506
	-292	2,159

Forward rate agreements

The Group entered into two forward rate agreements to hedge foreign currency exposure of expected future cash flows between January 28 and March 18, 2016. These agreements mature on March 29 and June 28, 2017. In 2016, unrealized profits amounted to EUR 903 thousand.

Between June 18, 2015, and September 19, 2016, the Group entered into fifteen forward rate agreements that matured in 2016. A net result of positive EUR 1,217 thousand was realized on these transactions.

Fair value disclosures

On December 31, the Group held the following financial instruments measured at fair value through profit or loss:

(in thousands of EUR)	Fair value		Nominal value	
	2016	2015	2016	2015
Forward rate agreements	903	1,792	16,075	66,590

The nominal value is the accounting value from which payments are derived (underlying transaction). Since the nominal value itself is not at risk, the potential for changes in foreign exchange rates, interest rates and prices is hedged.

The fair value reflects the credit risk of the instrument. Since the Group only uses standard instruments for its hedges, the fair value is determined using market prices and is not netted against any contrary trend in the value of underlying transactions.

The fair value of these transactions is presented within other current assets and other current liabilities in the statement of financial position.

(22) Income Taxes

Income taxes in Germany consist of corporate income tax, the solidarity surcharge and trade taxes. The tax calculation in foreign countries is based on the applicable local tax rates. They vary between 15% and 37% (prior year: between 15% and 37%).

The table below shows the components of the Group's total income tax expenses:

(in thousands of EUR)	2016	2015
Current taxes		
Current income tax charge	-3,214	-2,097
Adjustments in respect of current income tax for prior years	1,695	167
	-1,519	-1,930
Deferred taxes		
Temporary differences and tax loss carry-forwards	4,409	679
Changes in tax rates	-373	23
	4,036	702
Income tax benefit (expense), net	2,517	-1,228

A reconciliation of income taxes based on the accounting profit and the expected domestic income tax rate for the parent company of 28.57% (prior year: 27.73%) to effective income tax (expense) benefit, net, is presented below:

(in thousands of EUR)	2016	2015
Accounting profit before tax	19,015	28,076
Expected statutory tax expense	-5,433	-7,785
Tax rate adjustments	-373	23
Tax for prior periods	1,695	167
Foreign tax rate differential	421	418
Non-tax-deductible stock option expenses	-222	-3
Differences from foreign branch offices	-31	-39
Non-taxable income and other non-tax-deductible expenses	11,330	-194
Other adjustments to recognition of deferred tax assets	-12,737	1,600
Recognition previously unrecognized losses carried forward	8,189	4,657
Not capitalized deferred tax assets for tax losses	-324	-74
Other differences	2	2
Income tax benefit (expense), net	2,517	-1,228
Effective tax rate	-13.24%	4.4%

The net income effect from the recognition of previously unrecognized tax loss carry-forwards is mainly related to the increase of deferred tax assets for tax losses in ADVA Optical Networking SE of EUR 3,322 thousand (prior year: EUR 1,818 thousand), and ADVA Optical Networking North America of EUR 684 thousand for recognition before 2016 (prior year: increase of EUR 1,988 thousand) as well as usage of previously unrecognized losses of ADVA Optical Networking North America of EUR 3,319 thousand (prior year: nil) and Oscilloquartz SA of nil (prior year: EUR 1,055 thousand).

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The deferred tax assets and deferred tax liabilities on December 31, 2016 and 2015 relate to the following:

(in thousands of EUR)	2016		2015	
	Deferred tax assets	Deferred tax liabilities	Deferred tax assets	Deferred tax liabilities
Current assets				
Cash and cash equivalents	1	-	1	-
Trade accounts receivable	14	-31	49	-15
Inventories	3,004	-1,109	2,557	-1,052
Other current assets	-	-258	2	-511
Total current assets	3,019	-1,398	2,609	-1,578
Non-current assets				
Leasing of assets	1	-	2	-
Property, plant and equipment	404	-482	504	-284
Goodwill	-	-2,249	-	-1,994
Capitalized development projects	731	-22,311	709	-17,743
Intangible assets acquired in business combinations	1,826	-3,448	743	-214
Other intangible assets	20	-4	22	-
Other non-current assets	363	-326	600	-93
Total non-current assets	3,345	-28,820	2,580	-20,328

(in thousands of EUR)	2016		2015	
	Deferred tax assets	Deferred tax liabilities	Deferred tax assets	Deferred tax liabilities
Current liabilities				
Trade accounts payable	5	-	495	-77
Provisions	2,235	-	2,044	-11
Deferred revenues	1,630	-	1,110	-
Other current liabilities	449	-	521	-
Total current liabilities	4,319	-	4,170	-88
Non-current liabilities				
Other non-current liabilities	1,801	-38	1,803	-32
Total non-current liabilities	1,801	-38	1,803	-32
Tax loss carry-forwards				
German tax loss carry-forwards	15,675	-	11,990	-
<i>thereof: current</i>	-	-	-	-
<i>thereof: non-current</i>	15,675	-	11,990	-
Foreign tax loss carry-forwards	7,840	-	5,981	-
<i>thereof: current</i>	2,829	-	1,940	-
<i>thereof: non-current</i>	5,011	-	4,041	-
Total tax loss carry-forwards	23,515	-	17,971	-
Deferred tax assets (liabilities)	35,999	-30,256	29,133	-22,026
<i>thereof: current</i>	10,167	-1,398	8,719	-1,666
<i>thereof: non-current</i>	25,832	-28,858	20,414	-20,360

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Temporary differences are differences between the carrying amount of an asset or liability in the balance sheet according to IFRS and its tax base.

Deferred tax assets have been recognized for German and foreign tax loss carry-forwards since there exist net deferred tax liabilities arising from temporary differences respectively a positive tax planning, which are relevant for the recognition of tax loss carry-forwards as reported.

The German and foreign tax loss carry-forwards on December 31 comprise:

(in thousands of EUR)	2016	2015
ADVA Optical Networking SE	129,289	130,515
ADVA Optical Networking North America	124,962	129,104
OSA Switzerland	16,229	16,551
ADVA Optical Networking Tel Aviv	1,839	391
ADVA Optical Networking Gurgaon	-	7
ADVA Optical Networking Gdynia	698	-
OSA Finland	21	-
ADVA NA Holdings	1	-
	273,039	276,568

Deferred tax assets have been recognized in respect of tax losses in the amount of EUR 54,865 thousand (prior year: EUR 43,238 thousand) due to a reasonable assurance that taxable profits will be recognized in the near future that can be offset against tax loss carry-forwards.

The ADVA Optical Networking North America has not reported further tax losses over an aggregated four-year-period and taking into account the following restrictions there is a reasonable assurance that taxable profits will be recognized in the near future that can be offset against tax loss carry-forwards.

Pursuant to the U.S. Tax Act, federal tax loss carry-forwards in the U.S. expire after twenty years. Furthermore, the utilization of a portion of tax loss carry-forwards is subject to annual limitations. Consequently, deferred tax assets have not been recognized in respect of tax loss carry-forwards in ADVA Optical Networking North America in the amount of EUR 98,613 thousand (prior year: EUR 112,790 thousand).

Furthermore, deferred tax assets for tax loss carry-forwards for state and local purposes expire in between five and twenty years. The utilization of these tax loss carry-forwards for state and local purposes is also subject to annual limitations. Consequently, deferred tax assets for EUR 3,292 thousand (prior year: EUR 3,349 thousand) have not been recognized in ADVA Optical Networking North America in respect of tax losses for state and local purposes.

Whether or not deferred tax assets are realized depends on the generation of future taxable income during periods in which these temporary differences are deductible. The Group has considered the scheduled reversal of deferred tax liabilities and projected future taxable income in making this assessment.

On December 31, 2016 and 2015, no deferred tax liabilities on retained earnings of group companies have been recognized. ADVA Optical Networking committed that there will be no distribution of currently undistributed earnings from the Company's major subsidiaries in the near future. The amount of temporary differences for which no deferred tax liabilities have been recognized totals EUR 11,842 thousand (prior year: EUR 5,786 thousand).

Deferred tax assets for pensions and similar employee benefits in the amount of EUR 92 thousand are recognized in accumulated other comprehensive loss (prior year: EUR 82 thousand).

(23) Employees and personnel expenses

In 2016 and 2015, respectively, the ADVA Optical Networking Group had an average of 1,716 and 1,477 permanent employees and an average of 15 and 14 apprentices on its payroll, respectively. The breakdown of employees by department is as follows:

	2016	2015
Purchasing and Operations	375	335
Sales and Marketing	311	304
General and Administration	150	149
Research and Development	880	689
Apprentices	15	14
	1,731	1,491

Furthermore, ADVA Optical Networking employs 19 and 22 people on a temporary basis effective December 31, 2016 and 2015, respectively.

Personnel expenses for 2016 and 2015 totaled EUR 157,167 thousand and EUR 135,328 thousand, respectively:

(in thousands of EUR)	2016	2015
Wages and salaries	131,955	113,241
Social security costs	22,354	19,133
Expenses for post-employment benefits	1,808	78
Share-based compensation expenses	1,050	2,876
	157,167	135,328

Expenses for retirement benefits include expenses related to defined contribution plans as well as service costs for defined obligation plans. The low expenses for post-employment benefits in 2015 relate to a change of the defined benefit plan of OSA that resulted in a reduction of pension provision directly recognized in profit or loss in 2015.

Further details on expenses for post-employment benefits are included in note (15).

Details regarding share-based compensation expenses are shown in note (33).

OTHER DISCLOSURES

(24) Consolidated Cash Flow Statement

The consolidated cash flow statement has been prepared in accordance with IAS 7.

Cash and cash equivalents disclosed in the cash flow statement coincide with the position "cash and cash equivalents" presented in the statement of financial position. This item merely includes short-term disposable cash at banks.

Cash flows from investing and financing activities are determined directly, whereas the cash flow from operating activities is derived indirectly from the consolidated income before tax. When cash flow from operating activities is calculated, the changes in assets and liabilities are adjusted for the effects of currency translation. As a result, it is not possible to reconcile the figures to the differences in the published consolidated statement of financial position.

Cash and cash equivalents to which the Group only has restricted access are explained in note (8).

(25) Earnings per Share

In accordance with IAS 33, basic earnings per share are calculated by dividing consolidated net income by the weighted average number of shares outstanding.

There were no material dilution effects in the current fiscal year. Diluted earnings per share are calculated by adjusting the weighted average number of shares outstanding by the number of potential shares arising from granted and exercisable stock options on the balance sheet date.

No effects of dilution had to be considered in net income in 2016 and 2015.

The following table reflects the number of shares used in the computation of basic and diluted earnings per share:

	2016	2015
Weighted average number of shares (basic)	49,409,011	48,567,501
Effect of dilution from stock options	666,052	631,830
Weighted average number of shares (diluted)	50,075,063	49,199,331

There have been no other material transactions involving ordinary shares or potential shares between the balance sheet date and the date of authorization for issue of these financial statements.

(26) Segment Reporting

In accordance with IFRS 8, operating segments are identified based on the way information is reported internally to the chief operating decision maker, i.e. the Management Board, and regularly reviewed to make decisions about resources to be assigned to the segment and assess its performance. The internal organizational and management structure and the structure of internal financial reporting activities are the key factors in determining what information is reported. For making decisions about resource allocation and performance assessment, management does not monitor the operating results separately on the level of business units. The Group operates in one business segment only, namely the development, marketing and sale of optical networking solutions.

Within the ADVA Optical Networking Group, management decisions are based on pro forma operating income. Pro forma financial information excludes non-cash charges related to share-based compensation plans and amortization and impairment of goodwill and acquisition-related intangible assets. Income from capitalization of development expenses is shown as a separate line item and not deducted from research and development expenses.

Segment information on December 31, 2016 presents as follows:

(in thousands of EUR)	Pro forma financial information	Intangible assets from acquisitions	Goodwill	Compensation expenses	Disclosure of R&D expenses	Consolidated financial information
Revenues	566,686	-	-	-	-	566,686
Cost of goods sold	-398,161	-2,210	-	-26	-	-400,397
Gross profit	168,525	-2,210	-	-26	-	166,289
Gross margin	29.7%					28.4%
Selling and marketing expenses	-58,969	-788	-	-257	-	-60,014
General and administrative expenses	-31,974	-	-	-278	-	-32,252
Research and development expenses	-99,261	-	-	-489	39,282	-60,468
Income from capitalization of development expenses	39,282	-	-	-	-39,282	-
Other operating income	6,613	-	-	-	-	6,613
Other operating expenses	-801	-	-	-	-	-801
Operating income	23,415	-2,998	-	-1,050	-	19,367
Operating margin	4.1%					3.4%
Segment assets	412,070	14,284	41,538	-	-	467,892

Segment information on December 31, 2015 presents as follows:

(in thousands of EUR)	Pro forma financial information	Intangible assets from acquisitions	Goodwill	Compensation expenses	Disclosure of R&D expenses	Consolidated financial information
Revenues	441,938	-	-	-	-	441,938
Cost of goods sold	-284,521	-272	-	-234	-	-285,027
Gross profit	157,417	-272	-	-234	-	156,911
Gross margin	35.6%					35.5%
Selling and marketing expenses	-55,296	-74	-	-1,123	-	-56,493
General and administrative expenses	-30,114	-	-	-284	-	-30,398
Research and development expenses	-78,493	-	-	-1,235	32,071	-47,657
Income from capitalization of development expenses	32,071	-	-	-	-32,071	-
Other operating income	5,000	-	-	-	-	5,000
Other operating expenses	-608	-	-	-	-	-608
Operating income	29,977	-346	-	-2,876	-	26,755
Operating margin	6.8%					6.1%
Segment assets	364,338	2,316	24,881	-	-	391,535

Additional information by geographical regions:

(in thousands of EUR)	2016	2015
Revenues		
Germany	90,413	78,689
Rest of Europe, Middle East and Africa	161,213	183,731
Americas	279,637	143,937
Asia-Pacific	35,423	35,581
	566,686	441,938

(in thousands of EUR)	Dec. 31, 2016	Dec. 31, 2016
Non-current assets		
Germany	94,209	82,068
Rest of Europe, Middle East and Africa	17,273	18,626
Americas	45,720	9,473
Asia-Pacific	2,154	1,346
	159,356	111,513

Deferred tax assets		
Germany	19,141	14,303
Rest of Europe, Middle East and Africa	1,178	2,173
Americas	15,226	12,389
Asia-Pacific	454	268
	35,999	29,133

Revenue information is based on the shipment location of the customers.

In 2016, the share of revenues allocated to major customers was EUR 186,493 thousand (prior year: EUR 78,617 thousand). In 2016, revenues with two major customer exceeded 10% of total revenues (2015: revenues with one major customer).

Non-current assets and deferred tax assets are attributed based on the location of the respective Group company. Non-current assets for segment reporting consist of property, plant and equipment, intangible assets and finance lease equipment.

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(27) Financial Instruments

The following tables analyze carrying amounts, amortized costs and fair values according to valuation categories. Only assets and liabilities, which fall into the categories defined by IFRS 7, are presented, so that the total amounts disclosed do not correspond to the balance sheet totals of each year.

(in thousands of EUR, on Dec. 31, 2016)	Valuation category in accordance with IAS 39	Carrying amount	Amounts recognized according to IAS 39		Fair value	Hierarchy
			Amortized cost	Fair value recognized in profit and loss		
Assets						
Cash and cash equivalents	LaR	84,871	84,871	-	84,871	Level 2
Trade accounts receivable	LaR	78,474	78,474	-	78,474	Level 2
Other current and non-current financial assets	LaR	6,502	6,502	-	6,502	Level 2
Derivatives without a hedging relationship	FVTPL	903		903	903	Level 2
Investments	AfS	1,374	1,374	-	1,374	Level 2
Total active financial instruments		172,124	171,221	903	172,124	
Liabilities						
Current and non-current financial liabilities (bank loans)	FLAC	59,365	59,365	-	59,453	Level 2
Trade accounts payable	FLAC	73,290	73,290	-	73,290	Level 2
Other current and non-current financial liabilities	FLAC	15,119	15,119	-	15,119	Level 2
Total passive financial instruments		147,774	147,774	-	147,862	
Of which aggregated by category in accordance with IAS 39:						
Loans and receivables (LaR)		169,847	169,847	-	169,847	
Financial assets at fair value through profit or loss (FVTPL)		903	-	903	903	
Financial assets available for sale (AfS)		1,374	1,374	-	1,374	
Financial liabilities at amortized cost (FLAC)		147,774	147,774	-	147,862	

			Amounts recognized according to IAS 39			
(in thousands of EUR, on Dec. 31, 2015)	Valuation category in accordance with IAS 39	Carrying amount	Amortized cost	Fair value recognized in profit and loss	Fair value	Hierarchy
Assets						
Cash and cash equivalents	LaR	93,850	93,850	-	93,850	Level 2
Trade accounts receivable	LaR	70,379	70,379	-	70,379	Level 2
Other current and non-current financial assets	LaR	4,915	4,915	-	4,915	Level 2
Derivatives without a hedging relationship	FVTPL	1,833	-	1,833	1,833	Level 2
Investments	AfS	1,198	1,198	-	1,198	Level 2
Total active financial instruments		172,175	170,342	1,833	172,175	
Liabilities						
Current and non-current financial liabilities (bank loans)	FLAC	42,669	42,669	-	42,853	Level 2
Trade accounts payable	FLAC	43,515	43,515	-	43,515	Level 2
Derivatives without a hedging relationship	FVTPL	41	-	41	41	Level 2
Other current and non-current financial liabilities	FLAC	18,602	18,602	-	18,602	Level 2
Total passive financial instruments		104,827	104,786	41	105,011	
Of which aggregated by category in accordance with IAS 39:						
Loans and receivables (LaR)		169,144	169,144	-	169,144	
Financial assets at fair value through profit or loss (FVTPL)		1,833	-	1,833	1,833	
Financial liabilities at fair value through profit or loss (FVTPL)		41	-	41	41	
Financial assets available for sale (AfS)		1,198	1,198	-	1,198	
Financial liabilities at amortized cost (FLAC)		104,786	104,786	-	104,970	

The fair value of financial liabilities has been calculated based on future cash flows by using arm's length interest rates. On December 31, 2016 and 2015, respectively, no financial instruments were measured at cost or at fair value through other comprehensive income.

Investments relate to equity instruments of Saguna Networks Ltd. with no quoted prices in active markets. This investment is accounted for at cost. On December 31, 2016, ADVA Optical Networking does not intend to sell the investment.

The Group uses the following hierarchy for determining the fair value of financial instruments:

Level 1: Quoted prices in active markets for identical assets or liabilities.

Level 2: Techniques for which all inputs that have a significant effect on the recorded fair value are observable, either directly or indirectly. Forward rate agreements are measured using quoted forward exchange rates and yield curves derived from quoted interest rates according to the maturities of the contract.

Level 3: Techniques, which use inputs that are not based on observable market data.

Fair values of assets and liabilities at fair value through profit or loss are calculated using level 2 valuation techniques. On December 31, 2016, no valuations were made according to levels 1 or 3. In 2016 and 2015, no transfers between hierarchy levels occurred.

The Group has not used the option to designate financial assets as "at fair value through profit or loss" on initial recognition of financial assets. The Group has neither used the option to designate financial liabilities as "at fair value through profit or loss" on initial recognition of these liabilities.

Gains and losses as well as interest income and expenses from financial instruments are analyzed in the table below:

(in thousands of EUR)	Note	2016	2015
Gains and losses			
Financial assets and liabilities at fair value through profit or loss	(21)	2,120	3,366
Loans and receivables	(9, 19)	-34	-20
Interest income and expenses	(20)		
Interest income from loans and receivables		382	49
Interest expense related to financial liabilities measured at amortized cost		-1,086	-940

(28) Financial Risk Management

Due to ADVA Optical Networking's business activities financial risks arise in essence from fluctuations in international currencies, payment term extension and payment delay of customers as well as loss of key customers and intensifying price pressure resulting in lower margins. The positions with respect to these risks are analyzed below. Goals, guidelines and processes of the Group's risk management system are discussed in detail in the risk report within the Management Report. ADVA Optical Networking's capital management is described in note (29).

The compliance department is responsible for Group-wide monitoring of observance of the processes and guidelines of the risk management system defined by the ADVA Optical Networking Management Board.

Foreign currency risks

Foreign currency risks arise from unfavorable changes in foreign currency exchange rates and according to IFRS affect monetary financial instruments denominated in currencies other than the functional currency of the respective Group entity.

Due to a major portion of the Group's revenues and costs being generated in foreign currencies, ADVA Optical Networking's margin is particularly subject to fluctuations in the EUR/USD, GBP/USD, EUR/CHF and USD/CHF exchange rates. In 2016, on a net basis, the Group saw significant GBP inflows and USD outflows.

To combat fluctuations, the USD net cash flows in part are hedged against EUR using forward exchange agreements, based on the

Group's forecasted EUR/USD exposure for the current year and the next year, and taking into account ongoing fundamental analysis provided by a bank-independent foreign currency consultancy. ADVA Optical Networking targets to achieve a natural hedge scenario for the CHF cash flows but expansion in non-EUR regions of the world is likely to raise the Group's foreign exchange cash flow exposure as well. As part of a consolidation effort, ADVA reduced relationships to five banks by the end of 2016 versus seven banks in 2015, for hedging purposes.

Sensitivity analysis

The following table summarizes the foreign currency exposure on the net monetary positions on December 31, 2016, and illustrates the effect on 2016 profit or loss of a 10% change in the relevant exchange rates:

(in thousands of EUR)	EUR/USD	USD/GBP	EUR/CHF	USD/CHF
ADVA Optical Networking SE	12,981	-	-323	-
ADVA Optical Networking York	-	3,278	-	-
ADVA Optical Networking North America and ADVA NA Holdings	7,141	-3	-	-
ADVA Optical Networking Hong Kong	110	-	-	-
ADVA Optical Networking Trading	297	-	-	-
OSA Switzerland	-	-	-4,978	2,549
Net exposure in consolidated financial statements	20,529	3,275	-5,301	2,549
Appreciation of USD vs. EUR, of GBP vs. EUR and USD and of CHF vs. EUR and USD	10%	10%	10%	10%
Total effect on net income	2,053	328	-530	255

A depreciation of the currencies of 10% would have an equal and opposite effect.

In addition, a weakening of foreign currencies, especially of the USD and the GBP, can have a significant financial impact on the ability to price ADVA Optical Networking's products competitively.

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Customer payment terms risk

In ADVA Optical Networking's competitive market for innovative connectivity solutions, customers may ask to extend payment terms. The extension of the Group's weighted-average payment terms would have an adverse impact on working capital and cash levels. In order to mitigate this risk, there is a three-step process in place governing the escalation of payment terms extension requests. In addition, at the end of 2016, the Group had a frame contract in place to sell receivables from one customer (at the end of 2015: from one customer) to financial institutions.

Loss of Key Customers

The loss of key customers will have significant impact on ADVA Optical Networking's business especially key customer with a strategic value. This risk may originate to some extent from changes in customer demands and the Group's ability to meet these requirements reliably and in a timely manner. For key customers, the Group constantly ensures performance and customer satisfaction through a dedicated team of professionals.

Intensifying price pressure resulting in lower margins

In today's economic environment customers are squeezing every purchase for savings and therefore looking for lower pricing. Customers are conditioned to paying less and less for high-tech products each year, especially when there are many vendors vying for their business. Large customers attempt to negotiate a scheduled price reduction into long-term agreements. Parts of ADVA Optical Networking's product line are essentially commoditized, further eroding pricing power. The Group has many preventive action plans in place. To successfully defend higher prices, the Group communicates value, reliability, scalability, cost-effectiveness and performance to all of its customers.

The table below analyzes the Group's non-derivative financial liabilities according to their maturity based on the remaining time at the balance sheet date to the contractual maturity date:

(in thousands of EUR, on Dec. 31, 2016)	Note	Carrying value	Future cash flows					
			≤ 12 months		13 – 36 months		> 36 months	
			Redemption	Interest	Redemption	Interest	Redemption	Interest
Financial liabilities	(13)	59,365	18,648	814	28,217	774	12,500	109
Trade accounts payable and other financial liabilities	(14)	93,593	93,393	-	200	-	-	-
		152,958	112,041	814	28,417	774	12,500	109

(in thousands of EUR, on Dec. 31, 2015)	Note	Carrying value	Future cash flows					
			≤ 12 months		13 – 36 months		> 36 months	
			Redemption	Interest	Redemption	Interest	Redemption	Interest
Financial liabilities	(13)	42,669	18,220	619	16,949	537	7,500	119
Trade accounts payable and other financial liabilities	(14)	62,158	61,400	-	758	-	-	-
		104,827	79,620	619	17,707	537	7,500	119

(29) Capital management

The goal of ADVA Optical Networking's capital management is to provide sufficient funds to ensure ongoing operations and to support the Groups projected growth at any time. The Group defines capital as the total of stockholders' equity and financial liabilities. On December 31, 2016, stockholders' equity was at EUR 238,947 thousand or at 51.1% of the balance sheet total (prior year: EUR 215,921 thousand or 55.1% of the balance sheet total). Financial liabilities were at EUR 59,365 thousand on December 31, 2016 (prior year: EUR 42,669 thousand), with maturities typically exceeding the life of the assets being financed. The loan contracts require the compliance with specific key financial covenants. Financial covenants relate to the debt/equity-ratio and net liquidity per quarter-end. If financial covenants are not met, early redemption of financial liabilities may be requested. In 2016, ADVA Optical Networking complied with all financial covenants. In managing its capital, ADVA Optical Networking focusses on minimizing interest expenses, as long as access to funds is not at risk. Excess funds are generally used to redeem debt.

Cash pooling is implemented for USD bank accounts. The respective cash balances are transferred to a pooling account on a daily basis. Interest is calculated based on the consolidated balances.

(30) Other Financial Obligations and Financial Commitments

Lease commitments

The Group has non-cancellable operating leases, primarily for buildings and cars. There are no sub-lease agreements.

The future minimum lease payments due on operating leases are listed in the table below:

(in thousands of EUR)	Dec. 31, 2016	Dec. 31, 2015
Up to one year	9,253	6,125
One to five years	13,113	12,176
More than five years	5,704	795
	28,070	19,096

Lease payments for buildings including parking spaces amount to EUR 5,252 thousand and EUR 4,617 thousand in 2016 and 2015, respectively. Lease payments for cars consisting of monthly installments plus servicing charges and road tax totaled EUR 1,140 thousand and EUR 1,129 thousand in 2016 and 2015, respectively.

Other obligations

On December 31, 2016, the Group had purchase commitments totaling EUR 44,799 thousand (on December 31, 2015: EUR 7,288 thousand) in respect to suppliers.

Guarantees

Group entities have issued guarantees in favor of customers. On December 31, 2016, performance bonds with a maximum guaranteed amount of EUR 3,819 thousand were issued. At year-end 2016, ADVA Optical Networking does not expect claims from these guarantees.

(31) Contingent Liabilities

In the normal course of business, claims may be asserted or lawsuits filed against the Company and its subsidiaries from time to time. On December 31, 2016, ADVA Optical Networking does not expect that potential titles or litigations in detail or in total will have a material impact on its financial position or operating performance.

(32) Auditor's Fees

In 2016 and 2015, the following fees charged by the legal auditor were recognized as expenses:

(in thousands of EUR)	2016	2015
Year-end audit	301	301
Other consulting services	86	3
	387	304

(33) Stock Option Programs

To date, the Company has issued stock options (Plan IX and Plan XIV) and stock appreciation rights for employees (Plan XI, Plan XIII, Plan XV and Plan XVI). On December 31, 2016, three share-based compensation programs for the Management Board and employees of the Company and its subsidiaries were still available for issuance of share-based compensation instruments.

On October 1, 2008, stock options from Plan IX and stock appreciation rights from Plan XI were offered to be exchanged for new rights. All rights of these plans issued before January 1, 2008, were allowed for exchange on the due date, whereby three old rights were exchanged for two new rights of the respective option program. The calculation of the strike price and vesting period of the new options and stock appreciation rights is based on the latest contracts. The new options and stock appreciation rights are listed as Plan IXa and Plan XIa in this report. On December 31, 2015, all options from these plans were either exercised or forfeited.

In December 2010, the Supervisory Board approved a profit limitation for all options granted to members of the Management Board out of Plan IX. The options issued with these changed conditions are referred to as Plan IXb.

In February 2011, the Management Board set up a stock appreciation rights program listed as Plan XIII. These stock appreciation rights could have been exercised until December 31, 2015.

In August 2011, the Management Board set up two new programs for the issuance of option rights and stock appreciation rights. Both contracts stipulate a four-year vesting period and a total contractual life of seven years for the respective rights issue. The rights may only be exercised if the volume weighted average of the Company share closing prices on the ten stock exchange trading days before the first day of each exercise period in which the option is exercised is at least 20% of the purchase price. In addition, the calculation of the maximum bonus for stock appreciation rights is based on the share price at the date of exercise, with the share price being capped at EUR 20.00. Consecutively, the new program for issuance of option rights is referred to as Plan XIV and the program for issuance of stock appreciation rights is referred to as Plan XV. In addition, options issued to the Management Board from Plan XIV include a profit limitation. They are referred to as Plan XIVa.

Due to legal reasons, the existing option bonds program (Plan X) has been revoked in 2013. All outstanding option bonds from this plan have been either exchanged into stock appreciation rights or settled in cash. A new stock appreciation rights plan (Plan XVI) has been established that includes contractual terms corresponding to Plan X. On December 31, 2015, all stock appreciation rights from Plan XVI were either exercised or forfeited.

All option rights are non-transferable. They may only be exercised as long as the entitled person is employed on a permanent contract by the Company or by a company in which ADVA Optical Networking SE has direct or indirect interest. Option rights issued to apprentices may only be exercised if the apprentices are hired by the Company or by an affiliated company on a permanent contract. All option rights expire upon termination of the employment contract. In the event that the person entitled dies, becomes unable to work or retires, special provisions come into force.

The group of people to whom option rights can be issued is defined separately for each stock option program. According to the resolution on May 11, 2016, 25.34% of option rights authorized pursuant to Plan XIV can be issued to members of the Management Board, 4.78% to the management of affiliated companies, 29.54% to Company employees, and 40.34% to employees of affiliated companies. The Management Board specifies the exact group of people entitled to exercise rights and the scope of each offer.

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Subject to the conditions under which option rights are issued, each option right entitles the individual to purchase one common share in the Company. The stock appreciation rights entitle the recipient to receive a bonus for difference between the defined strike price and the stock market price on the date of exercise (cash settlement). The Company may opt to replace the granted stock appreciation rights with other participation rights as long as such other participation right economically equals the replaced stock appreciation right. The conditions of issue specify the term, the exercise price (strike price), any qualifying periods and the defined exercise periods.

Apart from these rights referred to as Plan XIII all option rights can be exercised over a total period of seven years. One-third of the option rights granted pursuant to Plan IX and XI may not be exercised until two years after the grant date, another one-third three years after the grant date and the final one-third four years after the grant date. The new option plans XIV und XV comprise a uniform vesting period of four years for all options and stock appreciation rights issued. The strike price equals the average stock price of the last ten trading days prior to the grant date. The minimum strike price is defined as the final auction price on the day when the option rights are issued. To exercise the options, certain exercise hurdles per tranche are to be considered. Exercise hurdles comprise a surplus on the strike price of 10%, 20% and 30% for the first, second and third tranche of Plan IX. The exercise hurdle on Plan XIV comprises a surplus on the strike price of 20%.

Exercise periods are regularly linked to key business events in the Company's calendar and each have a defined term. Certain other business events can lead to blocking periods, during which option rights cannot be exercised. Insofar as regular exercise periods overlap with such blocking periods, the exercise deadline shall be extended by the corresponding number of exercise days immediately after the end of such a blocking period. Option rights may be exercised only on days on which commercial banks are open in Frankfurt am Main, Germany.

The fair value of stock options and stock appreciation rights is estimated by simulation (Monte Carlo method) using a program that was especially adjusted to the underlying plans and based on the assumed strategy for the exercise (earliest possible date).

The following computation parameters apply for option rights issued in 2016:

	Plan XIV	Plan XIVa
Weighted average share price (in EUR)	8.07	8.56
Weighted average strike price (in EUR)	8.17	8.70
Weighted expected volatility (in % per year)	45.69%	46.61%
Term (in years)	7	7
Weighted risk-free interest rate (in % per year)	-0.36%	-0.33%

The volatility is specified as fluctuation of the share price compared to the average share price of the period. In each case, expected volatility is calculated based on historic share prices (historic volatility). The risk-free interest rate is based on information on risk-free investments with corresponding terms.

For the calculation of the fair value of options, ADVA Optical Networking assumed that no dividends will be paid to stockholders.

The tables below present changes in the number of option rights outstanding.

Stock Option Program 2003 (Plan IX)

	Number of options	Weighted average strike price (in EUR)
Options outstanding on Jan. 1, 2015	599,617	2.83
Granted options	-	-
Exercised options	-424,277	2.64
Forfeited options	-47,200	4.59
Expired options	-24,334	1.60
Options outstanding on Dec. 31, 2015	103,806	3.13
Granted options	-	-
Exercised options	-82,950	2.71
Forfeited options	-	-
Expired options	-	-
Options outstanding on Dec. 31, 2016	20,856	4.83
Of which exercisable	20,856	4.83

The weighted average remaining contractual life for option rights outstanding on December 31, 2016, was 0.73 years (December 31, 2015: 1.23 years). The strike price for these options is between EUR 4.62 and EUR 5.04 (in 2015: between EUR 2.26 and EUR 5.04).

Stock options exercised in 2016 had an average share price of EUR 7.57 on the exercise date (in 2015: EUR 8.51).

Stock Option Program 2003 for the Management Board (Plan IXb)

	Number of options	Weighted average strike price (in EUR)
Options outstanding on Jan. 1, 2015	220,000	3.40
Granted options	-	-
Exercised options	-145,000	2.55
Forfeited options	-	-
Expired options	-	-
Options outstanding on Dec. 31, 2015	75,000	5.04
Granted options	-	-
Exercised options	-	-
Forfeited options	-	-
Expired options	-	-
Options outstanding on Dec. 31, 2016	75,000	5.04
Of which exercisable	75,000	5.04

The weighted average remaining contractual life for option rights outstanding on December 31, 2016, was 0.85 years (December 31, 2015: 1.85 years). The strike price for these options is EUR 5.04 (in 2015: EUR 5.04).

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Stock Appreciation Rights (Plan XI)

	Number of stock appreciation rights	Weighted average strike price (in EUR)
Stock appreciation rights outstanding on Jan. 1, 2015	57,000	4.02
Granted stock appreciation rights	-	-
Exercised stock appreciation rights	-28,000	2.70
Forfeited stock appreciation rights	-20,000	5.00
Expired stock appreciation rights	-	-
Stock appreciation rights outstanding on Dec. 31, 2015	9,000	5.96
Granted stock appreciation rights	-	-
Exercised stock appreciation rights	-	-
Forfeited stock appreciation rights	-	-
Expired stock appreciation rights	-	-
Stock appreciation rights outstanding on Dec. 31, 2016	9,000	5.96
Of which exercisable	9,000	5.96

The weighted average remaining contractual life for stock appreciation rights outstanding on December 31, 2016, was 1.05 years (December 31, 2015: 1.97 years). The strike price for these stock appreciation rights is between EUR 4.62 and EUR 6.13 (in 2015: between EUR 4.62 and EUR 6.13).

Stock Option Program 2011 (Plan XIV)

	Number of options	Weighted average strike price (in EUR)
Options outstanding on Jan. 1, 2015	1,114,200	4.11
Granted options	788,000	9.26
Exercised options	-264,023	3.59
Forfeited options	-79,500	4.31
Expired options	-	-
Options outstanding on Dec. 31, 2015	1,558,677	6.79
Granted options	365,700	-
Exercised options	-41,500	4.75
Forfeited options	-29,200	-
Expired options	-	-
Options outstanding on Dec. 31, 2016	1,853,677	7.11
Of which exercisable	499,177	4.48

The average fair value of option rights granted in 2016 is EUR 3.17 (December 31, 2015: EUR 3.79).

The weighted average remaining contractual life for option rights outstanding on December 31, 2016, was 4.88 years (December 31, 2015: 5.40 years). The strike price for these options is between EUR 2.87 and EUR 10.16 (in 2015: between EUR 2.87 and EUR 10.16).

Stock appreciation rights exercised in 2016 had an average share price of EUR 7.79 on the exercise date.

Stock Option Program 2011 for the Management Board (Plan XIVa)

	Number of options	Weighted average strike price (in EUR)
Options outstanding on Jan. 1, 2015	290,000	4.15
Granted options	150,000	5.15
Exercised options	-	-
Forfeited options	-	-
Expired options	-	-
Options outstanding on Dec. 31, 2015	440,000	4.49
Granted options	401,667	8.70
Exercised options	-	-
Forfeited options	-	-
Expired options	-	-
Options outstanding on Dec. 31, 2016	841,667	6.50
Of which exercisable	100,000	5.05

The average fair value of option rights granted in 2016 is EUR 2.78 (December 31, 2015: EUR 2.27).

The weighted average remaining contractual life for option rights outstanding on December 31, 2016, was 5.32 years (December 31, 2015: 5.27 years). The strike price for these options is between EUR 3.19 and EUR 8.70 (in 2015: EUR 3.19 and EUR 5.15).

Stock Appreciation Rights (Plan XV)

	Number of stock appreciation rights	Weighted average strike price (in EUR)
Stock appreciation rights outstanding on Jan. 1, 2015	136,800	3.57
Granted stock appreciation rights	-	-
Exercised stock appreciation rights	-68,400	3.57
Forfeited stock appreciation rights	-9,000	3.57
Expired stock appreciation rights	-	-
Stock appreciation rights outstanding on Dec. 31, 2015	59,400	3.57
Granted stock appreciation rights	-	-
Exercised stock appreciation rights	-4,000	3.57
Forfeited stock appreciation rights	-	-
Expired stock appreciation rights	-	-
Stock appreciation rights outstanding on Dec. 31, 2016	55,400	3.57
Of which exercisable	55,400	3.57

The weighted average remaining contractual life for stock appreciation rights outstanding on December 31, 2016, was 1.73 years (December 31, 2015: 2.66 years). The strike price for these stock appreciation rights is EUR 3.57 (in 2015: EUR 3.57).

Stock appreciation rights exercised in 2016 had an average share price of EUR 7.63 on the exercise date.

Compensation expenses arising from share-based compensation programs included in operating income were as follows:

(in thousands of EUR)	2016	2015
Plan XI	-44	191
Plan XIa	-	88
Plan XIII	-	510
Plan XIV	1,278	756
Plan XIVa	86	105
Plan XV	-270	861
Plan XVI	-	245
Expense from cash settlement of stock options and stock appreciation rights	-	120
	1,050	2,876

The liability arising from stock appreciation rights is included in non-current provisions and amounts to EUR 216 thousand and EUR 545 thousand on December 31, 2016 and 2015, respectively. The decrease of the provision results from the revaluation of STARs at year-end 2016 and is mainly due to the decrease in relevant share price compared to year-end 2015. The intrinsic value of these liabilities amounts to EUR 246 thousand on December 31, 2016 (prior year: EUR 479 thousand).

The expense from cash settlement of stock options and stock appreciation rights in 2015 is due to the cancellation of the plans in 2015.

(34) Related Party Transactions

EGORA Holding GmbH, Martinsried/Munich, and its subsidiaries (the EGORA Group), Saguna Networks Ltd. and all members of the Company's governing bodies and their relatives qualify as related parties to ADVA Optical Networking on December 31, 2016, in the sense of IAS 24.

All transactions with the related parties listed above are conducted on an arm's-length basis.

On December 31, 2016, the EGORA Group held a 15.1% equity stake in ADVA Optical Networking.

In 2016, ADVA Optical Networking acquired components with an amount of EUR 27 thousand from the EGORA Group (2015: nil). In 2016 and 2015, ADVA Optical Networking did not sell any products to the EGORA Group.

ADVA Optical Networking has entered into several agreements with the EGORA Group under which ADVA Optical Networking is entitled to make use of certain facilities and services of the EGORA Group. In 2016 and 2015, these agreements were not utilized.

ADVA Optical Networking SE holds 9% of the shares of Saguna Networks Ltd., Nesher, Israel. A service agreement with Saguna Networks Ltd. exists regarding the provision of development services for the companies of ADVA Optical Networking Group. In 2016, Saguna Networks Ltd. did not perform any development services for the Group (2015: nil).

On December 31, 2016 and 2015, respectively, no trade receivables, provisions and trade payables in respect to related parties existed.

See note (35) for detailed information about compensation of the Management Board and the Supervisory Board.

(35) Governing Boards and Compensation

Management Board

	Resident in	External mandates
Brian Protiva Chief Executive Officer	Berg, Germany	Member of the Board of Directors of AMS Technologies AG, Martinsried, Germany
Christoph Glingener Chief Technology Officer & Chief Operating Officer	Jade, Germany	Member of the Board of Trustees of Fraunhofer Heinrich Hertz Institute, Berlin, Germany
Ulrich Dopfer Chief Financial Officer	Alpharetta (Georgia), USA	-

Supervisory Board

	Resident in	Occupation	External mandates
Nikos Theodosopoulos Chairman	Manhasset (New York), USA	Founder and Managing Member, NT Advisors LLC, Manhasset, New York, USA	Member of the Board of Directors of Arista Networks, Inc., Santa Clara, CA, USA Member of the Advisory Board of Columbia Engineering Entrepreneurship, New York, NY, USA Member of the Board of Directors of Harmonic, Inc., San Jose, CA, USA Member of the Board of Directors of Gadget Software, Inc., Newark, New Jersey, USA
Johanna Hey Vice Chairwoman	Cologne, Germany	Professor for Tax Law, University of Cologne, Cologne, Germany	Director of the Institut Finanzen und Steuern e.V., Berlin, Germany Member of the Supervisory Board of Gothaer Versicherungsbank VVaG, Cologne, Germany Member of the Supervisory Board of Gothaer Finanzholding AG, Cologne, Germany Member of the Supervisory Board of Cologne Executive School GmbH, Cologne, Germany
Hans-Joachim Grallert (since February 19, 2016)	Gröbenzell, Germany	Professor for Telecommunication Systems, University of Technology Berlin, Berlin, Germany	Chairman of the Management Board "Eduard Rhein Foundation", Hamburg, Germany
Eric Protiva (until July 27, 2015)	Palo Alto (California), USA	Managing Director, EGORA Holding GmbH, Martinsried/Munich, Germany	Member of the Supervisory Board of AMS Technologies AG, Martinsried/Munich, Germany Member of the Board of Directors of Elforlight Ltd., Daventry, United Kingdom

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Compensation of the Management Board

The total Management Board compensation according to § 314 Abs. 1 No. 6a HGB (German statutory regulations) was EUR 2,429 thousand in 2016 and EUR 1,764 thousand in 2015.

The value of benefits granted analyzes across the individual Board members as follows:

(in thousands of EUR)	Fixed	Variable	Total 2016	Total 2015
Brian Protiva Chief Executive Officer	268	643	911	581
Christoph Glingener Chief Technology Officer & Chief Operating Officer	264	555	819	477
Ulrich Dopfer Chief Financial Officer	268	431	699	706

The fixed compensation includes non-performance based considerations and fringe benefits (company car allowances). The variable compensation considers components related to short-term performance goals that are reported as current liabilities on December 31, 2016, as well as components based on long-term performance goals amounting to EUR 1,116 thousand (prior year: EUR 341 thousand). Prior year information has been adjusted to reflect the current disclosure structure.

The total Management Board compensation according to IFRS amounts to EUR 1,693 thousand (prior year: EUR 1,802 thousand) and includes current considerations (fixed compensation, fringe benefits and current variable compensation) totaling EUR 1,329 thousand (prior year: EUR 1,439 thousand) as well as long-term incentive components amounting to EUR 364 thousand (prior year: EUR 363 thousand).

The Group paid pecuniary damage liability insurance premiums on behalf of members of the Management Board totaling EUR 12 thousand both in 2016 and 2015 (in equal amounts for each Management Board member), respectively.

In 2016 and 2015, no loans were granted to the members of the Management Board. At December 31, 2015, ADVA Optical Networking had a receivable of EUR 62 thousand outstanding from Brian Protiva regarding payroll tax related to stock option exercises. The

receivable has been offset against the remuneration paid in January and February 2016. At December 31, 2016, no receivables outstanding from members of the management board have been reported.

On December 31, the members of the Management Board held the following shares and stock options:

	Shares		Stock options	
	2016	2015	2016	2015
Brian Protiva Chief Executive Officer	401,030	401,030	335,000	185,000
Christoph Glingener Chief Technology Officer & Chief Operating Officer	-	-	325,000	180,000
Ulrich Dopfer Chief Financial Officer	500	500	259,667	153,000

The options to members of the Management Board were granted out of Plan IXb, Plan XIV and Plan XIVa. These option rights authorize the Management Board to purchase the said number of common shares in the Company once the qualifying period has elapsed. Plan IXb and Plan XIVa include a profit limit of EUR 20.00 per option, whereas Plan XIV has no profit limitations.

The strike price for these option rights is

- EUR 5.04 for 75,000 options granted on October 1, 2010,
- EUR 5.05 for 103,000 options granted on August 15, 2012,
- EUR 3.90 for 130,000 options granted on November 15, 2013,
- EUR 3.19 for 60,000 options granted on May 15, 2014,
- EUR 5.15 for 150,000 options granted on May 15, 2015,
- EUR 8.70 for 401,667 options granted on May 15, 2016, respectively.

Further information on compensation of the Management Board is included in the remuneration report in the Group Management Report.

Compensation of the Supervisory Board

The fixed compensation to be paid to the Supervisory Board for 2016 and 2015 totaled EUR 229 thousand and EUR 215 thousand, respectively. This amount analyzes across the individual Board members as follows:

(in thousands of EUR)	2016	2015
Nikos Theodosopoulos Chairman	100	100
Johanna Hey Vice Chairwoman	90	90
Hans-Joachim Grallert (since February 19, 2016)	39	-
Eric Protiva (until July 27, 2015)	-	25

The compensation for the Supervisory Board of ADVA Optical Networking SE is paid out in quarterly installments. The fixed compensation for Q4 2016 amounting to EUR 59 thousand was paid out in January 2017. In the consolidated financial statements, this amount is recognized in other current liabilities.

The Group paid pecuniary damage liability insurance premiums on behalf of members of the Supervisory Board totaling EUR 12 thousand in both 2016 and 2015, respectively.

On December 31, members of the Supervisory Board held the following shares:

	Shares	
	2016	2015
Nikos Theodosopoulos Chairman	-	-
Johanna Hey Vice Chairwoman	-	-
Hans-Joachim Grallert (since February 19, 2016)	620	-
Eric Protiva (until July 27, 2015)	-	-

Further information on compensation of the Supervisory Board is included in the remuneration report in the Group Management Report.

(36) Events after the Balance Sheet Date

There were no events after the balance sheet date that materially affected the net assets and financial position of the Group on December 31, 2016, or its financial performance for 2016. Similarly, there were no events considered material for disclosure.

DECLARATION OF COMPLIANCE WITH THE GERMAN CORPORATE GOVERNANCE CODE

Pursuant to Section 161 of the German Stock Corporation Law (AktG), the Management Board and the Supervisory Board have issued a declaration of compliance with the German Corporate Governance Code. This declaration is published on the Group's website (www.advaoptical.com).

Meiningen, February 21, 2017

Brian Protiva

Christoph Glingener

Ulrich Dopfer

AFFIRMATIVE DECLARATION OF THE LEGAL REPRESENTATIVES

We, the members of the Management Board of ADVA Optical Networking SE, to the best of our knowledge affirm that, in accordance with the applicable reporting principles, the management report and the consolidated financial statements of the ADVA Optical Networking Group represent a true and fair view of the net assets, financial position and performance of the Group, together with a description of the principal opportunities and risks associated with the expected development of the Group.

Meiningen, February 21, 2017

Brian Protiva

Christoph Glingener

Ulrich Dopfer

AUDITOR'S REPORT

We have audited the consolidated financial statements prepared by the ADVA Optical Networking SE, Meiningen, comprising the consolidated statement of financial position, the consolidated income statement, the consolidated statement of comprehensive income, consolidated statement of changes in equity, consolidated cash flow statement and the notes to the consolidated financial statements, together with the group management report for the business year from January 1 to December 31, 2016. The preparation of the consolidated financial statements and the group management report in accordance with the IFRSs, as adopted by the EU, and the additional requirements of German commercial law pursuant to § (Article) 315a Abs. (paragraph) 1 HGB ("Handelsgesetzbuch": German Commercial Code) is the responsibility of the parent Company's Board of Managing Directors. Our responsibility is to express an opinion on the consolidated financial statements and on the group management report based on our audit.

We conducted our audit of the consolidated financial statements in accordance with § 317 HGB and German generally accepted standards for the audit of financial statements promulgated by the Institut der Wirtschaftsprüfer (Institute of Public Auditors in Germany) (IDW). Those standards require that we plan and perform the audit such that misstatements materially affecting the presentation of the net assets, financial position and results of operations in the consolidated financial statements in accordance with the applicable financial reporting framework and in the group management report are detected with reasonable assurance. Knowledge of the business activities and the economic and legal environment of the Group and expectations as to possible misstatements are taken into account in the determination of audit procedures. The effectiveness of the accounting-related internal control system and the evidence supporting the disclosures in the consolidated financial statements and the group management report are examined pri-

marily on a test basis within the framework of the audit. The audit includes assessing the annual financial statements of those entities included in consolidation, the determination of the entities to be included in consolidation, the accounting and consolidation principles used and significant estimates made by the Company's Board of Managing Directors, as well as evaluating the overall presentation of the consolidated financial statements and the group management report. We believe that our audit provides a reasonable basis for our opinion.

Our audit has not led to any reservations.

In our opinion based on the findings of our audit the consolidated financial statements comply with the IFRSs as adopted by the EU, and the additional requirements of German commercial law pursuant to § 315a Abs. 1 and give a true and fair view of the net assets, financial position and results of operations of the Group in accordance with these requirements. The group management report is consistent with the consolidated financial statements, complies with the legal requirements, and as a whole provides a suitable view of the Group's position and suitably presents the opportunities and risks of future development.

Munich, February 21, 2017

PricewaterhouseCoopers
Aktiengesellschaft
Wirtschaftsprüfungsgesellschaft

sgd. Holger Graßnick
Wirtschaftsprüfer
(German Public Auditor)

sgd. ppa. Sonja Knoesch
Wirtschaftsprüferin
(German Public Auditor)

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Our drive to go further, to extend the boundaries of what's possible – that's what excites our team. It's at the heart of everything we do.

Ashley White, System Consultant

QUARTERLY OVERVIEW 2015-2016

(IFRS, in thousands of EUR, except stated otherwise)	2016				2015			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
INCOME STATEMENT								
Revenues	121,962	157,243	159,453	128,028	95,604	112,260	122,322	111,752
Pro forma cost of goods sold	-81,569	-114,276	-116,636	-85,680	-60,985	-73,592	-79,969	-69,975
Pro forma gross profit	40,393	42,967	42,817	42,348	34,619	38,668	42,353	41,777
Pro forma selling and marketing expenses	-15,498	-15,230	-13,842	-14,400	-13,368	-13,936	-13,825	-14,167
Pro forma general and administrative expenses	-7,719	-7,756	-7,917	-8,582	-7,271	-7,433	-7,905	-7,505
Pro forma research and development expenses	-24,663	-24,831	-25,139	-24,627	-18,724	-19,129	-19,991	-20,649
Income from capitalization of development expenses	7,872	7,817	11,635	11,958	7,526	8,432	8,186	7,927
Other operating income and expenses, net	1,565	1,246	741	2,260	921	1,069	781	1,621
Pro forma operating income	1,950	4,213	8,295	8,957	3,703	7,671	9,599	9,004
Amortization of intangible assets from acquisitions	-671	-771	-770	-785	-134	-45	-67	-100
Stock compensation expenses	-285	-362	-354	-50	-234	-204	-1,057	-1,381
Operating income (loss)	994	3,080	7,171	8,122	3,335	7,422	8,475	7,523
Interest income and expenses, net	-191	53	-27	105	-265	-235	-187	-151
Other financial gains and losses, net	-6,045	2,011	-1,143	4,885	2,106	-1,621	179	1,495
Income (loss) before tax	-5,242	5,144	6,001	13,112	5,176	5,566	8,467	8,867
Income tax benefit (expense), net	79	4,662	-2,740	516	-912	-440	110	14
Net income (loss)	-5,163	9,806	3,261	13,628	4,264	5,126	8,577	8,881
Earnings per share in EUR								
basic	-0.10	0.20	0.07	0.28	0.09	0.11	0.18	0.18
diluted	-0.10	0.20	0.07	0.27	0.09	0.11	0.17	0.18
BALANCE SHEET (as of period end)								
Cash and cash equivalents	73,402	82,521	81,238	84,871	73,358	78,819	79,269	93,850
Inventories	75,902	67,720	72,236	92,800	59,000	65,912	78,521	72,950
Goodwill	37,609	38,051	40,093	41,538	24,955	25,028	24,680	24,881
Capitalized development projects	62,908	64,739	70,453	76,263	57,945	60,082	61,542	62,439
Other intangible assets	17,278	16,567	16,584	16,429	2,527	2,439	2,992	4,238
Total intangible assets	117,795	119,357	127,130	134,230	85,427	87,549	89,214	91,558
Other assets	159,109	185,247	185,178	155,991	134,928	132,289	137,583	133,177
Total assets	426,208	454,845	465,782	467,892	352,713	364,569	384,587	391,535
Total stockholders' equity	207,450	218,062	220,550	238,947	190,036	195,513	203,011	215,921
Net liquidity	9,362	20,039	20,315	25,506	40,489	47,507	50,080	51,181
CASH FLOW STATEMENT								
Cash flow from operating activities	2,032	22,383	15,698	21,237	-1,493	18,135	12,038	10,735
Gross capital expenditures for property, plant and equipment and other intangible assets	-2,642	-3,419	-3,931	-4,810	-1,610	-3,004	-1,686	-2,536
EMPLOYEES (as of period end)	1,724	1,730	1,731	1,764	1,466	1,476	1,509	1,524

Pro forma financial numbers exclude non-cash charges related to the stock compensation programs and amortization and impairment of goodwill and acquisition-related intangible assets.

MULTI-YEAR OVERVIEW 2006-2016

(in thousands of EUR except stated otherwise)	2006 IFRS	2007 IFRS	2008 IFRS	2009 IFRS	2010 IFRS	2011 IFRS	2012 IFRS	2013 IFRS	2014 IFRS	2015 IFRS	2016 IFRS	Change 2016 vs. 2015
INCOME STATEMENT												
Revenues	192,709	251,486	217,672	232,808	291,725	310,945	330,069	310,702	339,168	441,938	566,686	+28%
Pro forma cost of goods sold	-110,849	-158,774	-128,854	-140,041	-181,874	-191,560	-196,820	-188,561	-220,408	-284,521	-398,161	+40%
Pro forma gross profit*	81,860	92,712	88,818	92,767	109,851	119,385	133,249	122,141	118,760	157,417	168,525	+7%
Pro forma general, administrative, selling and marketing expenses	-46,721	-59,685	-60,385	-60,005	-66,224	-67,418	-71,984	-72,942	-75,154	-85,410	-90,944	+6%
Pro forma research and development expenses	-28,054	-41,372	-40,682	-40,714	-49,391	-60,083	-65,055	-65,649	-67,461	-78,493	-99,260	+26%
Income from capitalization of development expenses	5,852	10,039	12,056	12,404	15,291	23,648	23,529	22,490	27,108	32,071	39,282	+22%
Restructuring expenses	-	-	-2,251	-	-	-	-	-	-	-	-	-
Other operating income and expenses, net	185	86	1,736	1,650	3,761	1,751	2,059	2,531	6,214	4,392	5,812	+32%
Pro forma operating income (loss)	13,122	1,780	-708	6,102	13,288	17,283	21,798	8,571	9,467	29,977	23,415	-22%
Amortization of intangible assets from acquisitions excluding goodwill	-6,681	-10,727	-4,574	-2,443	-2,141	-2,493	-1,620	-683	-733	-346	-2,997	+766%
Impairment of goodwill	-	-6,581	-	-	-	-	-	-	-	-	-	-
Stock compensation expenses	-5,526	-3,186	-1,761	-1,378	-1,848	-1,583	-1,344	-913	-382	-2,876	-1,051	-63%
Operating income (loss)	915	-18,714	-7,043	2,281	9,299	13,207	18,834	6,975	8,352	26,755	19,367	-28%
Interest income and expenses, net	-490	-853	-1,005	-1,215	-1,439	-1,531	-1,163	-1,144	-1,267	-838	-60	-93%
Other financial gains and losses, net	-1,443	-1,734	-1,103	543	3,130	2,328	834	-1,475	1,142	2,159	-292	-114%
Income (loss) before tax	-1,018	-21,301	-9,151	1,609	10,990	14,004	18,505	4,356	8,227	28,076	19,015	-32%
Income tax benefit (expense), net**	-9,325	-8,154	275	-289	-3,983	2,935	-1,783	7,279	148	-1,228	2,517	-305%
Net income (loss)**	-10,343	-29,455	-8,876	1,320	7,007	16,939	16,722	11,635	8,375	26,848	21,532	-20%
Earnings per share in EUR**												
basic	-0.26	-0.64	-0.19	0.03	0.15	0.36	0.35	0.24	0.17	0.55	0.44	-20%
diluted	-0.26	-0.64	-0.19	0.03	0.15	0.35	0.34	0.24	0.17	0.55	0.43	-22%
BALANCE SHEET (as of December 31)												
Cash and cash equivalents	32,181	41,576	46,560	50,882	54,085	59,110	70,625	80,934	83,877	93,850	84,871	-10%
Inventories	42,034	31,029	26,961	25,400	39,588	36,536	41,339	40,074	46,982	72,950	92,800	+27%
Goodwill	24,247	20,006	18,854	19,103	19,653	19,842	19,876	19,875	23,581	24,881	41,538	+67%
Capitalized R&D expenses	10,198	12,238	19,829	25,449	29,571	39,231	47,497	52,080	56,438	62,439	76,263	+22%
Other intangible assets	28,107	18,178	12,926	9,991	7,467	5,541	3,586	2,699	2,861	4,238	16,429	+288%
Total intangible assets	62,552	50,422	51,609	54,543	56,691	64,614	70,959	74,654	82,880	91,558	134,230	+47%
Other assets**	95,918	80,769	70,670	66,172	83,758	99,636	101,172	103,544	111,098	133,177	155,991	+17%
Total assets**	232,685	203,796	195,800	196,997	234,122	259,896	284,095	299,206	324,837	391,535	467,892	+20%
Total stockholders' equity**	138,322	109,026	97,998	101,270	115,414	135,986	153,909	163,948	177,114	215,921	238,947	+11%
Net liquidity	347	4,549	12,378	22,534	24,650	31,163	41,600	41,724	48,885	51,181	25,506	-50%
CASH FLOW STATEMENT												
Cash flow from operating activities	-7,899	25,150	23,343	29,105	21,100	39,736	45,156	31,413	46,186	39,415	61,350	+56%
Gross capital expenditures for property, plant and equipment and other intangible assets	-10,245	-11,900	-5,800	-6,783	-8,468	-9,507	-11,123	-7,707	-8,954	-8,836	-14,802	+68%
EMPLOYEES (as of December 31)	853	1,040	1,042	1,100	1,203	1,304	1,378	1,425	1,491	1,524	1,764	+16%

Pro forma financial numbers exclude non-cash charges related to the stock compensation programs and amortization and impairment of goodwill and acquisition-related intangible assets.

* From 2012, amortization for capitalized development projects is presented as cost of goods sold; prior period information has been adjusted accordingly.

** In a retrospective restatement, deferred tax assets as of December 31, 2013, were increased by EUR 6,128 thousand. As a result, the line items "income tax benefit (expense), net", "net income" and "basic and diluted earnings per share" in the consolidated income statement in 2013 were increased accordingly.

GLOSSARY

A

ALM (Advanced Link Monitoring)

ALM is a device that provides non-intrusive monitoring of fiber access networks independent of the services running over that fiber.

C

Carriers

Carriers, in general, are companies that build and maintain communications networks for commercial use. Beyond incumbent telephony companies, these also include new alternative carriers, which were established during the deregulation of the telecommunications market, and special service providers, which offer outsourced services (e.g. software applications or data storage) for enterprise customers.

Cesium Clocks

Many network services and applications require the availability of a highly accurate primary frequency reference. This can be achieved using Cesium clocks. Unlike off-air receivers, Cesium clocks are autonomous, self-contained primary references immune to external influences.

Cloud

Cloud in the context of IT describes a concept where applications no longer run on the user's in-house IT infrastructure (for example, a server) but are outsourced to a service provider whose IT infrastructure is not visible or known in detail – as if it was hidden in a cloud. A typical example is the use of software as a service, where the software is not stored on the user's machine, but on servers of the software service provider.

CloudConnect™

FSP 3000 CloudConnect™ a version of the FSP 3000 platform, specifically designed for hyper-scale data center interconnect.

ConnectGuard™

Brand name for ADVA Optical Networking's encryption technology, implemented in the FSP 3000 and FSP 150 product families.

D

DevOps (Development and Operations)

The term DevOps has its origins in software development. It describes a methodology that stresses communication, collaboration and cooperation between software developers and other information-technology (IT) professionals. In a broader sense DevOps refers to the tight alignment between product development teams and operational teams responsible for product introduction.

DSL (Digital Subscriber Line)

DSL is a technology that provides fast digital data transmission over the copper wires of a local telephone network. The advantage of DSL is that broadband services like fast Internet access and Internet television signals can be delivered over the same twisted pair of copper wires that was originally deployed for phone service only.

DWDM (Dense Wavelength Division Multiplexing)

DWDM is a standardized WDM technology that uses up to 192 different wavelengths for data transmission over a single fiber. DWDM uses a "dense" wavelength grid that requires high-precision optical components, maximizing the bandwidth per fiber. See also WDM (Wavelength Division Multiplexing).

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E

Ensemble

A strategic division of ADVA Optical Networking focused on the development of software solution for network function virtualization.

Ensemble Connector

Ensemble Connector is a family of software packages that enables communication service providers to provide the data path and virtual hosting functionality at a location of their choice.

Ethernet

Ethernet is a packet-based data transmission protocol with a data rate of 10Mbit/s. Fast Ethernet provides a data rate of 100Mbit/s, Gigabit Ethernet 1Gbit/s and 10 Gigabit Ethernet 10Gbit/s. Today also 40 and 100 Gigabit Ethernet solutions are commercially available with data rates of 40Gbit/s and 100Gbit/s, respectively.

F

Fronthaul

Umbrella term for transmission solutions in mobile broadband networks that connect baseband units with remote radio heads.

FSP (Fiber Service Platform)

The Fiber Service Platform is ADVA Optical Networking's comprehensive product portfolio that provides carriers and enterprises with innovative connectivity solutions for access, metro and long-haul networks.

FTTx (Fiber-To-The-x)

FTTx is an umbrella term for fiber-based access networks, where x defines the end point of the fiber network. One example is FTTC (Fiber-To-The-Curb) where the fiber network is terminated in a street cabinet (at the curb) and the remaining distance to the end user is bridged by some other – in most cases existing – media, such as copper. Many network operators see FTTH (Fiber-To-The-Home) as the ultimate solution. In a FTTH scenario the fiber is deployed all the way to individual homes.

Gbit/s or G (Gigabit per second)

Bits are binary symbols of zero or one and are the standard unit by which data is stored and processed by computers. "Giga" stands for one billion (1,000,000,000). Bit/s is the basic unit of a data rate, which describes how many bits per second are being transmitted. One Gbit/s or G is therefore a data rate that transmits one billion bits of data per second.

GNSS (Global Navigation Satellite System)

GNSS refers to a constellation of satellites transmitting positioning and timing data from space. GNSS receivers determine their location by using that data. By definition, a GNSS provides global coverage.

ICP (Internet Content Provider)

Internet content providers are entities whose primary business is the creation, storage and dissemination of digital information. ICPs are also commonly referred to as over-the-top (OTT), Web 2.0 and digital media companies.

IP (Internet Protocol)

IP is a packet-based method by which data is sent from one computer to another on the Internet.

ISO 14001 and ISO 22301

ISO 14001 is a standard developed and published by the International Organization for Standardization. This standard defines, establishes and maintains an environmental management system for the manufacturing and service industries. 22301 describes a standard for business continuity management.

L

LAN (Local Area Network)

A LAN is a computer network covering a small physical area, like an office or small group of buildings. There are several technologies available for setting up a LAN. Today, Ethernet is the most commonly used technology in LAN environments. See also Ethernet.

LTE (Long Term Evolution) / LTE-Advanced / LTE-TDD

LTE is the project name of a high-performance air interface for cellular mobile communication systems. It is often used as the synonym for the 4th generation (4G) of radio technologies designed to increase the capacity and speed of mobile networks. LTE-Advanced provides further enhancements to the LTE technology, enabling operators to deliver even more bandwidth to more mobile users. The TDD (Time Division Duplex) version of the standard uses a single frequency for uploading and downloading data, alternating between the two through time.

M

Mbit/s (Megabit per second)

Bits are binary symbols of zero or one and are the standard unit by which data is stored and processed by computers. "Mega" stands for one million (1,000,000). Bit/s is the basic unit of a data rate, which describes how many bits per second are being transmitted. One Mbit/s is therefore a data rate that transmits one million bits of data per second.

MSO (Multiple Service Operator)

The term MSO emerged in the 1990s when cable television companies, mainly in the U.S., started to offer telecom services in addition to their traditional television and video offerings. Technically, most telecom service providers today could be called multiservice operators, but the term MSO still implies the historical roots in the cable television space.

N

NFV (Network Functions Virtualization)

NFV is an alternative design approach for building complex IT applications, particularly in the telecommunications and service provider industries. NFV virtualizes entire classes of functions into building blocks that may be connected, or chained, together to create services. With the introduction of NFV the architecture of service provider networks will change. Functions that were previously tied to a particular network element can now be hosted centrally leading to a new distribution of hardware and software functionality across networks.

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NTP (Network Timing Protocol)

NTP is a networking protocol for clock synchronization between computer systems over packet-switched, variable-latency data networks.

O

OEM (Original Equipment Manufacturer)

OEM partners purchase products from other companies to fill gaps in their portfolio and offer an end-to-end solution. They typically re-label and market the products under their own brand name.

P

PLM (Product Line Management)

PLM is a business term to describe the orchestration of activities that contribute to the output of a product line. In ADVA Optical Networking, product line managers are part of the CTO organization and have authority over a particular product line.

Protocol

A protocol defines the “language” elements that networks use to communicate with each other.

PTP Grandmaster

The Precision Time Protocol (PTP) is a protocol used to synchronize clocks throughout a network. The grandmaster is a reference point that delivers precise synchronization. See also: IEEE 1588v2 Mini-Grandmaster Clock

R

Rack Unit (RU)

A rack unit describes the height dimension of electronic equipment designed to mount in a standard rack. One rack unit is 1.75 inches (44.45 mm) high.

RAN (Radio Access Network)

The RAN is part of a mobile telecommunication system connecting a mobile communication device such as a mobile phone or smart phone via an air interface to the network of the communication service provider. The most current RAN technology is LTE, a high-speed and low-latency RAN for mobile broadband services. See also LTE (Long Term Evolution) / LTE-Advanced.

ROADM (Reconfigurable Optical Add/Drop Multiplexing)

ROADM is an innovative functionality in optical networks that enables cost-effective switching of wavelengths.

S

SDN (Software-Defined Networking)

SDN is an approach to building networks where the control function is separated from the forwarding engine. I.e., SDN decouples the system that makes decisions about where traffic is sent from the underlying hardware that forwards traffic to the selected destination. SDN has the potential to be disruptive to the networking industry and is seen as a key enabler on the road to network virtualization. See also Control Plane and OpenFlow.

SFP (Small Form-Factor Pluggable)

The SFP is a standardized, compact, pluggable transceiver used for both telecommunication and data communications applications.

SSU (Synchronization Supply Unit)

Many services running on digital telecommunication networks require accurate synchronization for correct operation. Telecommunication networks rely on the use of highly accurate primary reference clocks (see also Cesium Clocks), which are distributed network wide using synchronization links and synchronization supply units.

T

TL 9000

TL 9000 is a quality management system standard defined specifically for the telecommunications industry. It standardizes the quality system requirements for the design, development, delivery, installation and maintenance of telecommunication products and services, and it also defines the performance metrics required to measure the situation at the time of the implementation of the standard as well as progress made.

Triple Play Services

Triple play services refer to bundled offerings of data, voice and video services to end customers. These services are offered in a bundle of three, and may include Internet and e-mail access, Internet telephony, Internet television and video-on-demand.

V

VAR (Value Added Reseller)

VAR partners combine products from a number of different vendors together with their own services to offer customers a complete and comprehensive solution.

VNF (Virtual Network Function)

Implementation of a network function using software that is decoupled from the underlying hardware.

vCPE (Virtual Customer Premise Equipment)

A CPE is a terminal unit located at a subscriber's premises and connected with a carrier's telecommunication network. The CPE provides demarcation functionality between the network domains of the service provider and his client (see also ProNID). In the context of NFV, certain functions of the CPE can be virtualized and hosted centrally in the service provider network. This software package defining the CPE function is called virtual CPE (vCPE).

W

WDM (Wavelength Division Multiplexing)

WDM expands the capacity of networks by allowing a greater number of signals to be transmitted over a single fiber. WDM enables numerous channels of data to be multiplexed into unique color bands, and then to be combined and transmitted over a single fiber and de-multiplexed at the other end.

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CORPORATE INFORMATION

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ADVA Optical Networking on the Web

More information about ADVA Optical Networking, including solutions, technologies and products, can be found on the Company's website at www.advaoptical.com.

PDF files of this annual report, as well as quarterly reports, presentations and general investor information, are also located on the Company's website and can be downloaded in both English and German. Conference calls at quarter- and year-end are conducted on the day of earnings announcements. Related PDF, audio and transcript files are available for download in the investor relations section of the Group's website, www.advaoptical.com.

Auditor

- PricewaterhouseCoopers Aktiengesellschaft
Wirtschaftsprüfungsgesellschaft, Munich, Germany

Legal Counsels

- Hogan Lovells, Munich, Germany

Tax Advisers

- Deloitte, Munich, Germany

FINANCIAL CALENDAR 2017



APRIL 27, 2017

MARTINSRIED/MUNICH, GERMANY

PUBLICATION OF THREE-MONTH REPORT 2017



MAY 17, 2017

MEININGEN, GERMANY

ANNUAL SHAREHOLDERS' MEETING



JULY 20, 2017

MARTINSRIED/MUNICH, GERMANY

PUBLICATION OF SIX-MONTH REPORT 2017



OCTOBER 26, 2017

MARTINSRIED/MUNICH, GERMANY

PUBLICATION OF NINE-MONTH REPORT 2017

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