

GRI Standard	Disclosure	Cross reference / page number(s) / url(s)	
GRI 101: Foundation			
General Disclosures			
Organizational profile			
102-1	Name of the organization	ADVA Optical Networking SE Sustainability Report 2017 Annual Report 2017	
102-2	Activities, brands, products, and services	See Sustainability Report 2017, section "About ADVA Optical Networking", page 8 https://www.advaoptical.com/en/about-us	
102-3	Location of headquarters	See Sustainability Report 2017, section "Corporate information", page 50	
102-4	Location of operations	The group operates in 21 countries, an overview is provided on pages 9 and 30 in the Sustainability Report 2017. Significant operations are located in Germany, UK, USA, and China.	
102-5	Ownership and legal form	ADVA Optical Networking SE is a European stock corporation ("Societas Europaea") http://www.advaoptical.com/en/about-us/investor-relations/stock-information/shareholder-structure.aspx	
102-6	Markets served	Information is provided in section "Regions, sales and marketing" of the "Business overview" chapter on page 36 of the Annual Report 2017	
102-7	Scale of the organization	The group operates in 21 countries with 36 sites, see page 9 of the Sustainability Report 2017. Total number of employees and region split are provided on page 30 in the Sustainability Report 2017. Also refer to chapter "Combined management report" of the Annual report 2017, in particular page 48 (revenues by region), page 53 (net assets), page 60 (shareholder structure).	
102-8	Information on employees and other workers	See Sustainability Report 2017, pages 29-30	
102-9	Supply chain	Information is provided in the "DevOps" section on page 38f of the Annual Report 2017. Additionally, see page 27f (sustainability-related supply chain management) of the Sustainability Report 2017.	
102-10	Significant changes to the organization and its supply chain	Acquisition of MRV Communications Inc. in August 2017. Changes within the management board can be found on page 60 of the Annual Report 2017.	
102-11	Precautionary Principle or approach	See Sustainability Report 2017, section "Key impacts, risks and opportunities", page 6. Also see "Risk report" in the Annual Report 2017, starting page 65ff.	
102-12	External initiatives	Science Based Target initiative (SBTi), committed by the end of 2016, targets submitted in 2017. QuEST Forum Sustainability Initiative, an initiative working on sustainability improvements in telecommunications.	
102-13	Membership of associations	QuEST Forum, including QuEST Forum Sustainability initiative, CDP supporter, EcoVadis, Experts' Forum (ExFo) at Fraunhofer IPA, Stuttgart in Germany (a forum working on REACH, RoHS, WEEE and related topics). Also see the Sustainability Report 2017, page 26.	
Strategy			
102-14	Statement from senior decision-maker	See CEO Statement in the Sustainability Report 2017, page 5	
102-15	Key impacts, risks, and opportunities	See Sustainability Report 2017, section "Key impacts, risks and opportunities", page 6. Also see "Risk report" in the Annual Report 2017, starting page 65ff.	
Ethics and integrity			
102-16	Values, principles, standards, and norms of behavior	See Sustainability Report 2017, section "Our values", page 17 https://www.advaoptical.com/en/about-us/corporate-ethics-and-compliance	
Governance			
GRI 102: General Disclosures	102-18	Governance structure	The company has a lean governance structure. The highest level is the management board with four executive officers (CEO, CTO/COO, CFO, CMSO). Then, several large departments (like Engineering, Operations, Sales, Service, etc.) exist that are typically led by SVPs/VPs. The departments are substructured, with the sub-departments typically led by Director level. In addition, a small number of staff positions exists that directly report to the board. Moreover, the company has supervisory board with three members. Further information about board members is provided in the chapter "Management board" (pages 12ff) and "Supervisory board" (pages 19f) of the Annual Report 2017. Committee responsible for decision-making on sustainability topics is outlined in section "Sustainability-related organization" on page 22 of the Sustainability Report 2017. https://www.advaoptical.com/en/about-us/company-overview

102-20 Executive-level responsibility for economic, environmental, and social topics	See Sustainability Report 2017, section "Sustainability-related organization", page 22
102-29 Identifying and managing economic, environmental, and social impacts	See Sustainability Report 2017, pages 6, 10, 12 and 22
Stakeholder engagement	
102-40 List of stakeholder groups	List of our stakeholder groups can be found on page 23 of the Sustainability Report 2017
102-41 Collective bargaining agreements	0%
102-42 Identifying and selecting stakeholders	See Sustainability Report 2017, section "Stakeholder engagement", page 23f
102-43 Approach to stakeholder engagement	
102-44 Key topics and concerns raised	See Sustainability Report 2017, pages 23ff and also pages 4, 6 and 13
Reporting practice	
102-45 Entities included in the consolidated financial statements	The Sustainability Report covers all entities covered in the financial statement (Annual Report)
102-46 Defining report content and topic boundaries	See Sustainability Report 2017, page 7
102-47 List of material topics	See Sustainability Report 2017, pages 12ff and 24
102-48 Restatements of information	Change of (emissions, waste, water consumption) intensity metric from revenue-related to value-added-related. Example: GEVA, GHG Emissions per Value Added. It was changed for the reason that this is required by the Science Based Targets initiative. Some figures (for 2016 and older) were corrected due to identified data inconsistencies. In 2017, MRV Communications Inc. was acquired. MRV is covered (for August-December 2017) for most of the environmental reporting, and also for other sustainability aspects.
102-49 Changes in reporting	None
102-50 Reporting period	From January 1, 2017 to December 31, 2017
102-51 Date of most recent report	Last report, Sustainability Report 2016, was published in May 2017
102-52 Reporting cycle	Annual
102-53 Contact point for questions regarding the report	Dr. Klaus Grobe, ADVA Optical Networking SE, Campus Martinsried, Fraunhoferstr. 9a, 82152 Martinsried, Germany Phone: +49 89 890665 827, e-mail: KGrobe@advaoptical.com
102-54 Claims of reporting in accordance with the GRI Standards	This report has been prepared in accordance with the GRI Standards: Core option
102-55 GRI content index	Specified in this GRI-Content Index
102-56 External assurance	Last external validation and assurance was in 2016 (for the Sustainability Report 2015). Starting in 2018 (for the Sustainability Report 2017), and following the new reporting obligations, it is planned to have annual external assurance.

Material Topics

GRI 200 Economic Standard Series

Economic Performance

GRI 103: Management Approach	103-1 Explanation of the material topic and its boundary	Materiality is identified as described in the report. This includes impact, risks and also weight/ranking. From this, actions (including KPIs, where applicable) are derived. Example: numerical KPIs and dedicated initiative only relate to GWP via SBTi participation, ISO 50001 and some specific actions resulting from the Global Sustainability Challenge, and on behalf of large customers. This includes the related targets and commitment. Other specific actions in non-GWP areas are listed in the report. Results of management are evaluated via external assessments (CDP, EcoVadis, QuEST Forum). In case expectations and KPI-related performance are met, no changes to management approach are conducted. See, in particular, pages 6 (impacts, risks, opportunities), 13-15 (strategy, KPI, performance), 18-20 (compliance), 22-24 (structure, materiality), and 41 (GWP, as the most relevant impact) in the Sustainability Report 2017.
	103-2 The management approach and its components	
	103-3 Evaluation of the management approach	
GRI 201: Economic Performance	201-1 Direct economic value generated and distributed	See ADVA Optical Networking Group's consolidated financial statements on pages 78ff of the Annual Report 2017
	201-2 Financial implications and other risks and opportunities due to climate change	See Sustainability Report 2017, section "Key impacts, risks and opportunities", page 6. Also see "Risk report" in the Annual Report 2017, starting page 65ff.
	201-3 Defined benefit plan obligations and other retirement plans	Does not apply. ADVA Optical Networking has no defined retirement program.
	201-4 Financial assistance received from government	Tax Incentive for TechExport for ADVA Shenzhen was CNY 1,000,000 in 2017. Grants for research projects were 2.08 MEUR in 2017. This splits into ADVA SE EUR 1.46 MEUR for ADVA SE (EU and BMBF projects), and 0.62 MEUR for ADVA Israel. Investment subsidy in 2017 was 90,000 EUR (Germany). No governmental presence in shareholder structure. Also see the Annual Report 2017 for further information.

Indirect Economic Impacts		
GRI 103: Management Approach	103-1 Explanation of the material topic and its boundary	Please see above
	103-2 The management approach and its components	
	103-3 Evaluation of the management approach	
GRI 203: Indirect Economic Impacts	203-2 Significant indirect economic impacts	See Annual Report 2017, section "General economic and market conditions", pages 46
Procurement Practices		
GRI 103: Management Approach	103-1 Explanation of the material topic and its boundary	Please see above
	103-2 The management approach and its components	
	103-3 Evaluation of the management approach	
GRI 204: Procurement Practices	204-1 Proportion of spending on local suppliers	The precise proportion cannot be derived. As an approximation, ~50% of suppliers are local. ADVA Optical Networking operates four significant locations for operation (York, UK, Atlanta, USA, Meiningen, Germany, Shenzhen, China). A "significant locations of operation" is a site which addresses a local supply market or a local demand market or both. "Local" in ADVA defines an operations location which serves the purpose of regional execution of demand or supply activities.
Anti-corruption		
GRI 103: Management Approach	103-1 Explanation of the material topic and its boundary	Please see above
	103-2 The management approach and its components	
	103-3 Evaluation of the management approach	
GRI 205: Anti-corruption	205-1 Operations assessed for risks related to corruption	ADVA Optical Networking analyzes all of its business units and legal entities for risks related to corruption. Bribery risk is discussed on page 70 in the "Risk report" section of the Annual Report 2017.
	205-2 Communication and training about anti-corruption policies and procedures	ADVA Optical Networking provides regular training for <i>all employees</i> on the company's code of conduct and general compliance framework. Details are as outlined on page 18 of the Sustainability Report 2017.
	205-3 Confirmed incidents of corruption and actions taken	No confirmed incidents of corruption have occurred in 2017. Wherever concerns exist, such is immediately reported to the company's compliance department for further investigation and, depending on the outcome, appropriate action. ADVA Group Code of Conduct
Anti-competitive Behavior		
GRI 103: Management Approach	103-1 Explanation of the material topic and its boundary	Please see above
	103-2 The management approach and its components	
	103-3 Evaluation of the management approach	
GRI 206: Anti-competitive Behavior	206-1 Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	Antitrust is an important part of ADVA's compliance framework and covered within the company's code of conduct. No known cases of violations do exist. Details are as outlined on page 18 of the Sustainability Report 2017.
GRI 300 Environmental Standards Series		
Materials		
GRI 103: Management Approach	103-1 Explanation of the material topic and its boundary	Please see above
	103-2 The management approach and its components	
	103-3 Evaluation of the management approach	
GRI 301: Materials	301-1 Materials used by weight or volume	In total, 1,450 t of materials were used in 2017. Most of them were non-renewable, the exact share of renewable and non-renewable currently cannot be specified due to lack of data.
Energy		
GRI 103: Management Approach	103-1 Explanation of the material topic and its boundary	Please see above. In addition, please note that this is one of the key focus areas.
	103-2 The management approach and its components	
	103-3 Evaluation of the management approach	

GRI 302: Energy	302-1 Energy consumption within the organization	See pages 40-41 of the Sustainability Report 2017. In addition: Fuel type of car fleet (owned transport) is diesel. Heating is based on natural gas as stated, and also part of the electricity consumption. No dedicated cooling or steam consumption. No electricity, heating, cooling, steam sold. Conversion factors (sources) as stated.
	302-2 Energy consumption outside of the organization	See page 41 of the Sustainability Report 2017. Energy consumption outside the company is clearly dominated by (Scope 3) sold-products use-phase consumption. Further contributions come from transport, travel and commuting (stated in terms of GWP). Use-phase energy consumption is calculated based on average product lifetime (7 years), energy consumption as specified in our system specifications, and the numbers of respective products (systems, modules) sold.
	302-4 Reduction of energy consumption	For the reasons explained under G305-1/2/3 (in particular the intended SBTi participation), 2016 is the base year for all future considerations. In 2017, the group did not achieve energy-consumption reductions. See page 40 of the Sustainability Report 2017. In terms of absolute consumption, reductions were not achievable due to our acquisition of MRV (substantial growth in terms of sites, car fleet, and products sold). In terms of (value-added-related) intensity consumption, reductions were not achieved due to a related downturn in 2017. We expect that this trend will be reversed in the coming years, supported by our SBTi participation and ISO 50001 and ISO 14001 activities. The ADVA sites <i>not affected by relocation or acquisition</i> achieved an energy-consumption reduction of 2% which is in line with our ISO 50001 activities. The group achieved further improvements of the energy efficiency (measured in [W/(Gb/s)]) of our products, see pages 46f of the Sustainability Report 2017.
	302-5 Reductions in energy requirements of products and services	See Sustainability Report 2017, section "Eco design", pages 45-47
	Emissions	
GRI 103: Management Approach	103-1 Explanation of the material topic and its boundary	Please see above
	103-2 The management approach and its components	
	103-3 Evaluation of the management approach	
GRI 305: Emissions	305-1 Direct (Scope 1) GHG emissions	See Scope 1-3 emissions in terms of GHG (CO ₂ equivalents) reported on page 41 in the Sustainability Report 2017.
	305-2 Energy indirect (Scope 2) GHG emissions	The consolidation approach is operational control.
	305-3 Other indirect (Scope 3) GHG emissions	2016 is the base year: in retrospect, we had to correct/complement some numbers for 2016. Therefore, 2016 now is the base year. This is also in line with our SBTi proposal.
	305-4 GHG emissions intensity	See Sustainability Report 2017, page 41 . We report GWP in absolute terms (tCO ₂ e). In addition, we state certain consumption and emission values as GEVA, GHG Emissions per Value Added (Scope 1, Scope 2). This is also described in the report. We report GHG, or CO ₂ equivalents, i.e., including other gases than just CO ₂ .
	305-5 Reduction of GHG emissions	See G302-4 . All GHGP Scopes are dominated by the respective energy consumptions, also see p. 41 of the Sustainability Report. Since these consumptions did not decrease for the reasons stated (growth of the company but not yet in revenue or value added), the related GHG emissions did not decrease, neither. However, the ADVA sites not affected by relocation and acquisition achieved a GHG emissions reduction of 3%, following the related energy-consumption reduction.
	305-6 Emissions of ozone-depleting substances (ODS)	Zero. ADVA is screening its sites and its suppliers for the use of ODS. As a result, neither we nor our suppliers use substantial amounts of ODS.
Effluents and Waste		
GRI 103: Management Approach	103-1 Explanation of the material topic and its boundary	Please see above
	103-2 The management approach and its components	
	103-3 Evaluation of the management approach	
GRI 306: Effluents and Waste	306-2 Waste by type and disposal method	Waste-disposal method is directly confirmed. Most waste (e-scrap, cardboard, plastics) are recycled correspondingly. See Sustainability Report 2017, section "Environmental management", page 40.
	306-3 Significant spills	None
	306-4 Transport of hazardous waste	Yearly consumption of hazardous substances is less than 10 l. Thus, empty containers for approx. 10 l were transported inland.

Environmental Compliance		
GRI 103: Management Approach	103-1 Explanation of the material topic and its boundary 103-2 The management approach and its components 103-3 Evaluation of the management approach	Please see above. In addition , environmental legal requirements are reviewed on a yearly basis. They are assessed if applicable to the company, and compliance is ensured by taking appropriate actions, if needed. This is (partially) done as part of our work regarding ISO 14001.
GRI 307: Environmental Compliance	307-1 Non-compliance with environmental laws and regulations	Zero. Environmental legal requirements are regularly reviewed and assessed if applicable to ADVA Optical Networking.
Supplier Environmental Assessment		
GRI 103: Management Approach	103-1 Explanation of the material topic and its boundary 103-2 The management approach and its components 103-3 Evaluation of the management approach	Please see above. In addition, see page 27 of the Sustainability Report 2017. Sustainability supply chain management is one of the 10 areas of sustainability that are strategically followed.
GRI 308: Supplier Environmental Assessment	308-1 New suppliers that were screened using environmental criteria	New suppliers are assessed by 100%, including environmental and CSR aspects. The existing supplier base is also re-assessed, where the re-assessment period depends on supplier relevance or specific risks and other issues identified.
GRI 400 Social Standards Series		
Employment		
GRI 103: Management Approach	103-1 Explanation of the material topic and its boundary 103-2 The management approach and its components 103-3 Evaluation of the management approach	Please see above
GRI 401: Employment	401-1 New employee hires and employee turnover	See Sustainability Report 2017, pages 29ff. This is not tracked by gender and age group.
	401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	See Sustainability Report 2017, pages 34 and 36. Note some of these benefits are also available to temporary or part-time employees.
Labor/Management Relations		
GRI 103: Management Approach	103-1 Explanation of the material topic and its boundary 103-2 The management approach and its components 103-3 Evaluation of the management approach	Please see above
GRI 402: Labor/Management Relations	402-1 Minimum notice periods regarding operational changes	2 weeks to 12 months, depending on region and type of change
Occupational Health and Safety		
GRI 103: Management Approach	103-1 Explanation of the material topic and its boundary 103-2 The management approach and its components 103-3 Evaluation of the management approach	Please see above
GRI 403: Occupational Health and Safety	403-1 Workers representation in formal joint management-worker health and safety committees	See Sustainability Report 2017, section "Health & safety", page 35
	403-2 Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	
	403-3 Workers with high incidence or high risk of diseases related to their occupation	
	403-4 Health and safety topics covered in formal agreements with trade unions	None
Training and Education		
GRI 103: Management Approach	103-1 Explanation of the material topic and its boundary 103-2 The management approach and its components 103-3 Evaluation of the management approach	Please see above
GRI 404: Training and Education	404-1 Average hours of training per year per employee	4,428 employees attended trainings in 2017. Average duration per training is ~5h (the company had on average 1,834 permanent employees). Not tracked by gender or employee category.
	404-2 Programs for upgrading employee skills and transition assistance programs	See Sustainability Report 2017, pages 36f
	404-3 Percentage of employees receiving regular performance and career development reviews	100%

Diversity and Equal Opportunity		
GRI 103: Management Approach	103-1 Explanation of the material topic and its boundary 103-2 The management approach and its components 103-3 Evaluation of the management approach	Please see above
GRI 405: Diversity and Equal Opportunity	405-1 Diversity of governance bodies and employees	See Sustainability Report 2017, pages 30f
Non-discrimination		
GRI 103: Management Approach	103-1 Explanation of the material topic and its boundary 103-2 The management approach and its components 103-3 Evaluation of the management approach	Please see above
GRI 406: Non-discrimination	406-1 Incidents of discrimination and corrective actions taken	One age discrimination in the USA. The incident was resolved and closed with corrective action being issued (written warning). The meeting with team and management took place: communication and reminder of company harassment and discrimination policies and recourses. No further known incidents. ADVA Group Code of Conduct
Freedom of Association and Collective Bargaining		
GRI 103: Management Approach	103-1 Explanation of the material topic and its boundary 103-2 The management approach and its components 103-3 Evaluation of the management approach	Please see above
GRI 407: Freedom of Association and Collective Bargaining	407-1 Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	None. This is addressed by our Group CoC and Supplier CoC as stated in the main report. It is validated by self and supplier audits.
Child Labor		
GRI 103: Management Approach	103-1 Explanation of the material topic and its boundary 103-2 The management approach and its components 103-3 Evaluation of the management approach	Please see above
GRI 408: Child Labor	408-1 Operations and suppliers at significant risk for incidents of child labor	None. This is addressed by our Group CoC and Supplier CoC as stated in the main report. It is validated by self and supplier audits.
Forced or Compulsory Labor		
GRI 103: Management Approach	103-1 Explanation of the material topic and its boundary 103-2 The management approach and its components 103-3 Evaluation of the management approach	Please see above
GRI 409: Forced or Compulsory Labor	409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor	None. This is addressed by our Group CoC and Supplier CoC as stated in the main report. It is validated by self and supplier audits.
Local Communities		
GRI 103: Management Approach	103-1 Explanation of the material topic and its boundary 103-2 The management approach and its components 103-3 Evaluation of the management approach	Please see above, in addition, see page 38 (CSR, social engagement / volunteerism) of the Sustainability Report 2017
GRI 413: Local Communities	413-1 Operations with local community engagement, impact assessments, and development programs	All major ADVA sites (i.e., with the exception of small, local sales offices) covering >90% of total headcount, have a local community engagement and development program in place which is run by each site's local HR department. This includes development programs and events (91 total) that address local communities' needs, 1 global and 10 local committees, and a local community grievance process. For further details, please refer to the "Social engagement / volunteerism" section in the Sustainability Report 2017 (page 38).
	413-2 Operations with significant actual and potential negative impacts on local communities	None
Supplier Social Assessment		
GRI 103: Management Approach	103-1 Explanation of the material topic and its boundary 103-2 The management approach and its components 103-3 Evaluation of the management approach	Please see above. In addition, see page 27 of the Sustainability Report 2017. Sustainability supply chain management is one of the 10 areas of sustainability that are strategically followed.

GRI 414: Supplier Social Assessment	414-1 New suppliers that were screened using social criteria	New suppliers are assessed by 100% including environmental and CSR aspects. The existing supplier base is also re-assessed, where the re-assessment period depends on supplier relevance or specific risks and other issues identified.
	414-2 Negative social impacts in the supply chain and actions taken	No respective suppliers (with negative impact) are known, following regular assessments and due diligence
Public Policy		
GRI 103: Management Approach	103-1 Explanation of the material topic and its boundary	Please see above, in addition, please see page 18 (compliance) of the Sustainability Report 2017
	103-2 The management approach and its components	
	103-3 Evaluation of the management approach	
GRI 415: Public Policy	415-1 Political contributions	None. As stated in the ADVA Group Anti-Corruption Policy, ADVA avoids any kind of political donations.
Customer Health and Safety		
GRI 103: Management Approach	103-1 Explanation of the material topic and its boundary	Please see above
	103-2 The management approach and its components	
	103-3 Evaluation of the management approach	
GRI 416: Customer Health and Safety	416-1 Assessment of the health and safety impacts of product and service categories	During the development phase, all products are subject to H&S assessments according to the given standards (TL, ISO, RECh, RoHS, ...) and certification requirements (CE, UL, WEEE, (laser) safety, ...). H&S is continuously monitored across all products and services, and appropriate actions are taken if needed. Our products are labeled regarding CE, WEEE, and laser safety, ESD and others (e.g., hot surfaces), when applicable.
	416-2 Incidents of non-compliance concerning the health and safety impacts of products and services	No known incidents of non-compliance with regulations and voluntary codes concerning the health and safety impacts of our products and services for the reporting period
Marketing and Labeling		
GRI 103: Management Approach	103-1 Explanation of the material topic and its boundary	Please see above, in addition, see page 28 (conflict minerals) of the Sustainability Report 2017
	103-2 The management approach and its components	
	103-3 Evaluation of the management approach	
GRI 417: Marketing and Labeling	417-1 Requirements for product and service information and labeling	All our products are WEEE and CE labeled (compliance with EU WEEE Directive). Safe use is part of our user manuals, examples include laser safety. We also follow the US conflict minerals obligations with our complete supplier base. (however, we do not get 100% of all answers required, see page 28 of the Sustainability Report 2017).
	417-2 Incidents of non-compliance concerning product and service information and labeling	No incidents of non-compliance with regulations and voluntary codes concerning product and service information and labeling are known. ADVA Optical Networking conducts a formal CSAT survey every year including detailed follow-ups with customers on all notable findings (see Net Promoter Score summary on page 26 of the Sustainability Report 2017). This also helps in identifying any potential non-compliances.
Customer Privacy		
GRI 103: Management Approach	103-1 Explanation of the material topic and its boundary	Please see above
	103-2 The management approach and its components	
	103-3 Evaluation of the management approach	
GRI 418: Customer Privacy	418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	No substantiated complaints regarding breaches of customer privacy and losses of customer data ADVA Group Code of Conduct
Socioeconomic Compliance		
GRI 103: Management Approach	103-1 Explanation of the material topic and its boundary	Please see above
	103-2 The management approach and its components	
	103-3 Evaluation of the management approach	
GRI 419: Socioeconomic Compliance	419-1 Non-compliance with laws and regulations in the social and economic area	No known fines of non-compliance with laws and regulations concerning the provision and use of products and services ADVA Group Code of Conduct

