# CREATING MOMENTUM ON OUR WAY TO RESPONSIBLE MANUFACTURING

Sustainability Report 2023





### Sustainability Report EOS GmbH

Date of publication	June 2024
Reporting period	The reporting p financial year 20 October 1, 2022 2023
Indicator set	GRI 1: Foundati
Sector standard	Not yet availabl
Reporting obligation	No
Third-party verification	No
Contact	Björn Hannapp Head of Sustair EOS GmbH Robert Stirling F 82152 Krailling Germany E-Mail: sustaina

period corresponds with the 2022/2023, beginning on 2, and ending on September 30,

ion 2021

le

bel nability

Ring 1

ability@eos.info



## **CONTENTS**

List of Abbreviations Glossary List of Figures Index of Tables Foreword by Marie Niehaus-Langer Foreword by Björn Hannappel

### **1. INTRODUCTION**

- 1.1 Our Path to Responsible Manufacturing
- 1.2 Sustainability as The New Normal
- 1.3 Our Management Structure
- 1.4 The World around Us

### 2. OUR PPP APPROACH

- 2.1 Our Corporate Purpose
- 2.2 Our Priorities
- 2.3 Our Corporate Governance
- 3. PLANET
- 3.1 Overview
- 3.2 Material Origin
- 3.3 Resource Efficiency
- 3.4 Climate Protection
- 3.5 Circular Economy

4	4. PEC	PLE	39
5	4.1	Overview	40
8	4.2.	Attractiveness as An Employer	41
8	4.3	Occupational Health and Safety	43
9	4.4	Stakeholder Involvement	46
10	4.5	Diversity, Equity, and Inclusion	48
11	5. PER	FORMANCE	51
12	5.1	Overview	52
13	5.2	Product Quality & Performance	53
16	5.3	Added Value for Customers & Industrialization	56
19	5.4	Economic Performance	58
21	5.5	Innovation & Digitalization	59
22	6. APP	ENDIX	62
23	6.1	About This Report	63
25	6.2	GRI Index	64
28			
29			
30			
31			

- 33
- 37

## LIST OF **ABBREVIATIONS**

ALM	Advanced Laser Materials	HIP	Hot Isostatic Pressing
AM	Additive Manufacturing	HR	Human Resources
AMGTA	Additive Manufacturer Green Trade Association	ILO	International Labor Organization
ASTM	American Society for Testing and Materials	INATECH	Institute for Sustainable Systems Engineering
BEM	Occupational Integration Management	ISMS	Information Security Management System
BG ETEM	Professional Association for Energy, Textiles, Electrical,	ISO	International Organization for Standardization
	and Media Products	KPI	Key Performance Indicator
CBO	Chief Business Officer	LCA	Life Cycle Assessment
CCA	Chief Customer Advocate	LED	Light-emitting Diode
CDP	Carbon Disclosure Project	LkSG	German Supply Chain Due Diligence Act
CEO	Chief Executive Officer	MEX	Material Extrusion
CLT	Core Leadership Team	MGA	Mobility/Medical Goes Additive
СРО	Chief Performance Officer	MTTR	Mean Time to Repair
CSO	Chief Sales Officer	MWh	Megawatt Hours
CSRD	Corporate Sustainability Reporting Directive	PBF	Powder Bed Fusion
CTrO	Chief Transformation Officer	PDCA	Plan–Do–Check–Act
DEI	Diversity, Equity, and Inclusion	POP	Persistent Organic Pollutants
DIN	German Institute for Standardization	PPP	Planet, People, Performance
GDPR	General Data Protection Regulation	SBT	Science-based Target
EAP	Employee Assistance Program	SBTi	Science Based Targets initiative
EBIT	Earnings before Interest and Taxes	SDG	Sustainable Development Goals
EMEA	Europe, the Middle East, and Africa	SMART	Specific, Measurable, Achievable, Relevant, and Time-
ESG	Environmental, Social, and Governance	UN	United Nations
ESRS	European Sustainability Reporting Standards	UNGC	United Nations Global Compact
EU	European Union	VDA	German Association of the Automotive Industry
GHG	Greenhouse Gas	VPP	Vat Photopolymerization
GRI	Global Reporting Initiative	Wi3DP	Women in 3D Printing

e-bound

## GLOSSARY

Additive manufacturing (AM)	Name f layer b <u>y</u>
Vat Photopolymerization (VPP)	Layereo light so
CO <sub>2</sub> equivalents (CO <sub>2</sub> e)	In addi gases, s global v a comp effect
Corporate Sustainability Reporting Directive (CSRD)	EU dire
Digital Foam Approach	Innovat and inc
Scope 1, 2, and 3 Emissions	Greenh in acco scope 2 all othe
European Sustainability Reporting Standards (ESRS)	Standa reporti
EU Taxonomy	Classifi decisio
Free Jet Binder Application	Selectiv so that
Gender Pay Gap	The page
Global Reporting Initiative (GRI)	Recogn
Greenhouse Gas (GHG) Protocol	Recogn compa

for all manufacturing processes where the material is applied by layer to create a three-dimensional object

ed, selective hardening of thick plastics within a vat using a purce

ition to carbon dioxide (CO2), there are other greenhouse such as methane and nitrous oxide, which contribute to warming. CO2 equivalents are a metric measure that allows parison of how much each gas contributes to the greenhouse

ective on mandatory sustainability reporting

tive 3D printing technology that enables highly adaptable dividualized products to be made from polymer foam

house gas (GHG) emissions are divided into three categories ordance with GHG Protocol. scope 1 includes direct emissions, 2 includes purchased energy emissions, and scope 3 includes er indirect emissions from a company

ard of the CSRD Directive on corporate sustainability ing in the EU

ication of sustainable economic activities for investment

ve application of tiny drops of binder to powder materials t they bond

y gap between women and men

nized global standard for sustainability reporting

nized international greenhouse gas accounting standard for inies and projects

Hot Isostatic Pressing (HIP)	Proces: pressu
Life Cycle Assessment (LCA)	Analysi perforr
Material Extrusion (MEX)	Plastici orifice
Paris Climate Agreement	2015 in and ad 2 °C
PDCA	The Pla continu in-hous
Powder Bed Technology, Powder Bed Fusion (PBF)	Layer-v a heat :
Science-based Target (SBT)	A scien global v
Scrum	Agile pı cycles ( flexibili
Smart Fusion	Smart I power measur justs it
Stereolithography	Layereo a mova
Sustainable Development Goals (SDG)	17 Unit

s for compacting and solidifying materials by applying high ire and temperature

is of the potential environmental impacts and energy mance of products throughout their life cycle

izing thermoplastic filament through a heated nozzle or

nternational agreement to reduce greenhouse gas emissions lapt to climate change to reduce global warming well below

an-Do-Check-Act-Cycle – a four-stage control loop for uous process improvement, which is used to optimize se quality management

wise fusing of powder within a powder bed with the aid of source

ntifically based greenhouse gas reduction target to curb warming

roject management – method consisting of repetitive work (sprints), teamwork, and continuous feedback to promote ity and efficiency

Fusion software solution automatically modifies the laser of the metal EOS AM system in real time. The technology res the laser energy absorbed by the powder bed and adusing advanced algorithms.

d and selective polymerization/curing of thick plastic using able UV laser beam

ted Nations Sustainable Development Goals

### **Definition of "EOS"**

The term "EOS" refers to EOS GmbH. The environmental, social, and performance data is based on internal key figures and information from the three German sites in Krailling, Maisach, and Düsseldorf.

### Form of address

We have chosen to use more gender-inclusive language to express our support for diversity, equity, and inclusion. This is reflected in our use of neutral spellings, words, and formulations, where applicable. This reinforces our ALL IN approach.

## **LIST OF FIGURES**

Responsible Manufacturing – how Figure 1 Planned reduction of greenhouse Figure 2 Figure 3 CO<sub>2</sub>e emissions in the process phase Global total energy consumption Figure 4 Total scope 1 and 2 emissions by u Figure 5 Energy consumption by underlying Figure 6 Figure 7 Scope 1 and scope 2 emissions per Changes in our vehicle fleet since Figure 8 Figure 9 Number of permanent employees Our increased reward for recomm Figure 10 Figure 11 Gender and age distribution of the Figure 12 Our performance in the Pride Char

## **INDEX OF TABLES**

- Table 2Overview of energy consumption for
- Table 3Fuel consumption of our fleet
- Table 4Water consumption and sources
- Table 5Waste generated at our sites

we implement sustainability	12
gas emissions	23
ases of EOS Aluminum AlSi10Mg	31
	34
underlying energy sources	34
g energy sources and by location	34
r site	35
the previous reporting period	36
by gender	41
endations	42
e top management body	48
mpion Audit	50

sustainability agenda	24
or the Krailling and Maisach sites	36
	36
	37
	38



Chief Executive Officer Marie Niehaus-Langer is the second generation to run the company

The market for additive manufacturing (AM) has mathree pillars: the environment, social issues, and retured in recent years. AM is now part of series prosponsible corporate governance. The importance of duction, and sustainability has become an important these three pillars to our sustainable development factor for our customers. Transparency and CO<sub>2</sub>e stems from different requirements: our customers savings are important to us and our customers. With have clear expectations regarding our sustainabili-RESPONSIBLE PRODUCTS, we translate our corpoty and transparency. We, as an owner family, want rate goal of Responsible Manufacturing to the proda forward-looking, modern company. And our emuct level. Sustainability is a part of our strategy: we ployees want to work for an innovative and inclusive want to help ourselves and our customers improve. company.

We can call ourselves pioneers in Responsible Manufacturing. We were also the first in our industry to publish figures on CO<sub>2</sub>e emissions and to conduct a scientific study of our emissions with the Fraunhofer Institute. By publishing an annual sustainability report, we go far beyond what is currently required by law. In doing so, we are leading the way in moving the market towards greater sustainability and environmental protection. This development is part of our DNA: we were already pioneers when my father, Hans J. Langer, founded EOS 35 years ago.

We take a broad view of sustainability, recognizing there is more to sustainability than climate protection and  $CO_2$ e savings. Sustainability is based on Sustainability is, therefore, part of our business model: innovation and technology can contribute to improvements. We want to balance our financial performance with a positive social and environmental impact. This is what our family business is all about. We think in generations, so we think not just about tomorrow but the day after tomorrow.

Han Met G

Marie Niehaus-Langer - CEO



Björn Hannappel, Head of Sustainability, is driving sustainability at EOS forward

We have already taken major steps toward sustainand conducted a Pride Audit for the first time. We able transformation: we are no longer at the beginhave also formulated specific objectives. By 2033, ning but right in the middle. At EOS, sustainability is we aim to have 50% of management positions and a central component of our strategy, anchored in a new appointments held by women. specialized team that addresses current issues and Our RESPONSIBLE PRODUCTS help our customers proactively provides the impetus to make our purachieve their own climate goals. Currently, we offer pose of Responsible Manufacturing a reality. Our climate-neutral and carbon-reduced alternatives efforts go beyond the legal requirements. We are for one metal and two polymer powders, with CO<sub>2</sub>e already preparing intensively for the Corporate footprints calculated according to the Internation-Sustainability Reporting Directive requirements and al Organization for Standardization (ISO) standards the EU taxonomy. and verified externally by TÜV SÜD. Our customers My team and I report to the CEO, Marie Niehausreceive an annual certificate documenting the CO<sub>2</sub>e Langer. The CEO and the Board of Directors are savings from using our RESPONSIBLE PRODUCTS. directly involved in our sustainability strategy. This These savings are also subject to external verificashows that sustainability is more than just meeting tion. In this way, we meet our customers' requireour obligations, it is an integral part of our corporate ments and translate our corporate goal into conculture and vision. An important step towards our crete added value for our customers.

ambitious goals was the measurement and evaluation of our global CO<sub>2</sub>e emissions, as well as participation in important sustainability assessment platforms such as Carbon Disclosure Project (CDP) or EcoVadis.

Our membership of the UN Global Compact underscores our commitment to sustainability and responsible action. We are actively working for greater transparency, especially in CO<sub>2</sub>e-reduction and diversity, equity, and inclusion. We have launched a wide range of initiatives in all areas of the company

We are determined to continue on this path and continually strengthen our efforts to contribute positively to global sustainability through Responsible Manufacturing.

Björn Hannappel - Head of Sustainability

- 1.1 Our Path to Responsible Manufacturing 12
- 1.2 Sustainability as The New Normal 13
- 1.3 Our Management Structure 16
- 1.4 The World around Us 19

# INTRODUCTION



Responsible Manufacturing is our "North Star," our This report covers our German corporate locations in Krailling, Maisach, and Düsseldorf. We show how guiding constant throughout the company. We take a holistic approach that includes environmental, sosustainability shapes our daily life and focus on the cial, and governance factors. Our goal is a new nordevelopments within our comprehensive PPP apmal where sustainability is a natural part of all our proach: Planet, People, Performance. You will learn processes and products. We pursue this goal strahow we integrate responsibility and sustainability tegically in all parts of our organization. Specifically, throughout our organization. this means that we have defined key performance indicators (KPIs) for key areas of our sustainability strategy that are cascaded throughout the entire company. For example, our responsible actions have helped us create the Cost & Carbon Calculator de-RESPONSIBLE veloped by our Additive Minds team (our technical consulting division), and our RESPONSIBLE PROD-UCTS made from climate-neutral or carbon-reduced MANUFACTURING materials. These products, and AM in general, are revolutionary manufacturing technologies that con-HOW WE IMPLEMENT SUSTAINABILITY tribute to more sustainable manufacturing even for our customers.

Our reporting is based on the Global Reporting Initiative (GRI). The EU Directive on Corporate Sustainability Reporting (CSRD) will extend the reporting requirements for companies in the future. We have already started preparing to report under the CSRD as our goal is to more than simply meet the minimum legal and customer requirements. We are securing our future not only in an economic sense. Instead, we are also focusing on sustainable product development, sustainable growth, and long-term profitability. This requires a holistic and far-reaching understanding of sustainability, which we are embedding in our company worldwide.

# 1.1 **OUR PATH TO** RESPONSIBLE MANUFACTURING

### **CREATING MOMENTUM:**

on climate action, on our transparent CO<sub>2</sub>e footprint, and on reducing it

### **OPTIMIZING RESOURCE EFFICIENCY:**

we work on the circularity of raw materials and strive for zero waste in AM

### **IMPROVING THE CUSTOMER EXPERIENCE:**

we offer environmentally friendly products and services and support our customers in achieving their own climate goals

### PROMOTING EMPLOYEE **BELONGING:**

we create an inclusive, fair, and diverse working environment

### **DEMONSTRATING ACCOUNTABILITY:**

we use responsible business practices, with transparent reporting and supply chain and customer management

Figure 1: Responsible Manufacturing – How we implement sustainability



# 1.2 SUSTAINABILITY AS THE NEW NORMAL

Our sustainability goals stem from our responsiity to the planet and our belief that innovation a technology can create a better world for all. How ever, most manufacturing technologies today a associated with inefficiency and high resource of sumption. We believe that AM can be done with these undesirable characteristics. With our Resp sible Manufacturing and innovation, we are wor for the future: to make Responsible Manufacture the new normal.

EOS develops and markets AM systems in industrial 3D printing that integrate software and metal or polymer materials. Our advanced technologies are the result of our research and development. In additive manufacturing, we always act responsibly: each step should conserve resources. That is why we constantly work to optimize the process parameters and keep production efficient.

AM offers considerable advantages, whether through the possibility of flexible individual product customization, the production of integrated components and components with complex structures, or the local or regional production of spare parts.

sibil-	AM is an advanced technology enabling organiza-
and	tions to redefine success in a variety of industries,
W-	from automotive to science, engineering, medicine,
ire	and aerospace. Our customers rely on our techni-
con-	cal advice and comprehensive service. This allows
hout	our technology to be integrated smoothly, and we
pon-	accompany them during commissioning and certi-
rking	fication, maintenance, and calibration. Experienced
ring	experts provide advice and service for systems, ma-
	terials, and processes. Additive Minds, our technical
ctri	consulting division, supports our customers in fully
al or	exploiting the potential of industrial 3D printing.
are	At EOS, we live in a value-oriented culture. To create
addi-	and maintain a collaborative, innovative work envi-
each	ronment, we need principles to guide us. This has
5	led to the creation of our core values: responsibility,
leters	excellence, fairness, and togetherness.

# **99**

"As a global company, it is very important to me that all our colleagues around the world can identify with our values. These values have taken us a long way, so let's take the next steps together."

Marie Niehaus-Langer, CEO

### **Responsibility:**

We make all decisions with the greatest possible awareness not only for our company but also for society. This means that we consider all known circumstances and interests at all times. We see every challenge as a test and an opportunity, and we take pride in finding solutions and implementing them. We believe that the true value of our work lies in the responsibility we assume for our results. We aim to create sustainable benefits not only for ourselves but for all of our stakeholders. After all, we are responsible for our company and the community in which we live and work.

### **Excellence:**

We are a community that strives to excel in everything we do. This is also the attitude we expect from every member of our team. We always seek continuous improvement in our products, processes, or personal skills. We are not overwhelmed by the constant change in our environment but adapt to it and actively shape it. Our motto: take risks, seize new opportunities, and see mistakes as opportunities to learn and grow. Our values, principles, and standards of behavior are not just words on a page but are set out in the <u>EOS Code</u> of Conduct – the heart of our organizational culture. They are the compass that guides us and helps us navigate our way into the future.

### Fairness:

We are respectful and open with each other at EOS. We firmly believe that different opinions are the key to innovative ideas. Our discussions are always constructive and aim to draw the best out of all of us. Our communication, internally and with our partners, is open and honest, and we always respect the dignity of each individual. We believe that everyone should have the opportunity to achieve personal success. That is why we value every achievement and express our appreciation. Because at EOS, each of us is a valuable part of the whole.

### Togetherness:

We know that mutual trust is the foundation of successful cooperation. That is why we attach great importance to clearly defining our objectives and making decision-making processes transparent by documenting them. Every one of us contributes unique skills and talents so that we are a strong team. This team dynamic also extends to our business partners with whom we cooperate. When we succeed, we take pride in our achievements and celebrate them together. Because at EOS, we know that together, we are stronger.







LEGAL NAME: Electro Optical Systems GmbH

FOUNDED IN 1989

HEADQUARTERS: Robert-Stirling-Ring 1, 82152 Krailling, Deutschland



COUNTRIES OF OPERATION:

Chennai (India), Düsseldorf (Germany), Göteborg (Sweden), Incheon (South Korea), Kanagawaken (Japan), Lyon (France), Maisach (Germany), Milano (Italy), Novi (US), Pflugerville (US), Shanghai (China), Singapore, Temple (US), Turku (Finland), Warwick (UK)



# 1.3 **OUR** MANAGEMENT **STRUCTURE**

Our journey began in 1989, when EOS was founded by Dr. Hans J. Langer, who, over the ensuing de-The highest executive body of EOS GmbH is the cades, turned us into the world leader in high-end Management Board of EOS Holding AG, which comindustrial 3D printing solutions that we are today. prises Dr. Hans J. Langer, Marie Niehaus-Langer, and He played a decisive role in determining our strate-Dr. Florian Mes. gic orientation, which is still embedded in our cor-The Supervisory Board oversees the Management porate culture.

In 2019, Marie Niehaus-Langer, the second generation of the owner family, assumed a management position at EOS AG and became CEO of EOS GmbH. This marked the beginning of an internal transition process in which the company management was passed down to the next generation. This generational change has given the company a more youthful and sustainable view of the future, all the while characterized by the family tradition of entrepreneurship.

### **Our Legal Structure**

Board in accordance with § 95 of the German Corporation Law and meets quarterly. Here, we evaluate our performance based on such key figures as sales, order intake, operating expenses, capital expenditure, budget, and liquidity. All strategic issues, such as strategy, finance, compliance, and sustainability, are also presented at these meetings. In the event of deviations between planned and actual KPIs (e.g., cash flow, sales, EBIT), the Management Board and Supervisory Board discuss possible options for action.

If any changes to the composition of the Management Board are deemed necessary, they are implemented in consultation with the Supervisory Board. As a 100% subsidiary of EOS Holding AG, EOS GmbH is managed by three executive directors: Marie Niehaus-Langer, CEO and Chairperson of the Management Board; Dr. Florian Mes, Chief Performance Officer (CPO) and Executive Director; and Nikolai Zaepernick, Chief Sales Officer (CSO) and Executive Director.

### **Our Management Structure**

In addition to the limited liability corporation (GmbH), we have three smaller organizational units, KVS, AMCM, and AM Metals, which are legally part of EOS Holding AG. Together with EOS GmbH, these units are managed by the core leadership team (CLT). This team consists of the three members of the Management Board of EOS GmbH, two of whom are also members of the Management Board of EOS Holding AG, and four other C-level managers of EOS GmbH. CLT meetings occur every two weeks to manage the entire business and make strategic decisions together. The CLT is composed of the following members:



**CEO** - Marie Niehaus-Langer

Since October 2019, Marie Niehaus-Langer has been CEO of EOS and its subsidiaries. Her priorities are the digitalization, industrialization, and sustainability of 3D printing.

Dr. Florian Mes is the CPO. He is responsible for operational efficiency improvement and also cares for finance, IT, quality, legal, and compliance. He has extensive expertise in performance and corporate finance. Dr. Florian Mes is a member of the Management Board of EOS GmbH.



CPO - Dr. Florian Mes



CSO - Nikolai Zaepernick

As CSO, Nikolai Zaepernick is responsible for developing and implementing the EOS sales strategy worldwide. The development of the regional sales and service teams is in his hands, as well as the development of our regional Additive Minds colleagues, an internal AM consulting unit. He is a member of the Management Board of EOS GmbH.



**CBO Polymer Solutions -**Virginia Palacois

As Chief Business Officer (CBO) Polymer Solutions, Virginia Palacios is responsible for the worldwide business of EOS polymer solutions. She has many years of in-depth technical knowledge, knows the market and the needs of our customers, can direct our strategy towards the future and guarantee the success of our customers.



**CBO Metal Solutions -**Joachim Zettler

**CBO** Metal Solutions Joachim Zettler focuses on the worldwide business of EOS metal solutions as well as on global operations. He has extensive knowledge in the fields of industrial engineering, materials science, and production management, as well as experience from the perspective of users. In this way, he can drive innovation in our metal sector and develop our global business.



CTrO - Ruha Reyhani

Ruha Reyhani, as Chief Transformation Officer (CTrO), focuses on customer experience, digital innovation, communication, and storytelling, as well as human resources (HR), team development, and performance. She also leads our cultural and organizational change, promoting collaboration and new ways of working.





President EOS North America and CCA – Glynn Fletcher

Glynn Fletcher, President of EOS North America and Chief Customer Advocate (CCA), drives development in high-growth industries and focuses on customer satisfaction and requirements to improve business performance. In addition to his role as President of EOS North America, he is responsible for the EOS subsidiary Advanced Laser Materials (ALM), a leading provider of high-performance polymers.

### Our Responsible Manufacturing Committee

Our Responsible Manufacturing Committee, which consists of members of the CLT, the Head of Sustainability, and the Head of Global Compliance, is an integral part of our organization. They ensure that we are always up to date with best practices in Responsible Manufacturing and incorporate them into our day-to-day operations. In this way, we ensure that we are not only a leader in our area of operations but also act responsibly towards employees, customers, and the environment.



# 1.4 THE WORLD **AROUND US**

The market situation in the year under review was challenging. High-tech industries, such as additive manufacturing, were particularly affected by a general reluctance to spend and invest. However, EOS has held its own comparatively well in this difficult environment. It turns out that we are well-positioned as a family-owned company with a long-term orientation and strong turnover.

During the reporting period, we saw growth in AM: more and more companies are expanding their traditional manufacturing processes with industrial 3D printing. Among the most important sectors were the aerospace industry and medicine and healthcare. 34% of all global powder-bed-based polymer and metal system turnover is generated in the aerospace industry. Medical technology accounts for only 12% of global sales, but this industry has grown above average in recent years.

At the same time, the AM industry is becoming increasingly aware of our responsibility to provide a sustainable future for future generations. Customers are also placing increasing emphasis on sustainability and environmental awareness. This shows us that we took the right path at EOS early on when we declared Responsible Manufacturing our corporate purpose in 2021 and set out to make our industry more sustainable.

### Polymers

In additive manufacturing, the worldwide market for polymers is divided mainly into four technologies: free-jet binder application, material extrusion (MEX), vat-based photopolymerization (VPP), and powder bed fusion (PBF).

After photopolymerization, PBF has the second largest market share and the best growth forecast – an annual cumulative growth rate of 26% is expected by 2027, compared to only 18% for the other technologies combined. PBF technology is used in many different industries – in 2022, it was mainly used in consumer goods (20%), medicine and health (15%), and research and development (15%).

The difficult global economic situation is reflected in declining system sales for most Western industrial polymer AM companies. Despite these conditions, we were able to demonstrate our quality leadership: we increased our polymer system sales!

New competitors, such as small PBF systems, entered the market at significantly lower price points. Despite the increased competition from these systems, there is also potential for us from these new entry-level systems from competitors. Through them, many new potential customers are learning about powder bed fusion and recognizing the production capabilities it offers.







### Metals

Powder bed technology dominates the metal market in AM: its market share of 85% of system turnover worldwide far exceeds that of other technologies. Following the declines caused by the COVID-19 pandemic, sales of PBF systems have recovered internationally, and further increases are forecast to occur until 2028 based on the AM Power Forecast of 2024 with a 19% cumulated annual growth rate. In terms of sales of the systems sold in 2023, we are the market leader worldwide. We are strong in the medium-sized systems segment, which is essential for industrial production. With excellent processes and software solutions, we offer innovative solutions in the additive manufacturing of metals far beyond classic mechanical engineering.

An example of this is Smart Fusion, a unique process monitoring software program. It intervenes in the AM process to create precise temperature management. The benefits to our customers are varied and different depending on the application. Thus, a reduction of the construction time by >60% is possible for complex structures. Another possible advantage is the buildability of parts that could not previously be built, as well as specific, regionally controllable material properties.





# OUR

2.1 Our Corporate Purpose 22

- 2.2 Our Priorities 23
- 2.3 Our Corporate Governance 25

# PPP APPROACH





# 2.1 OUR CORPORATE PURPOSE

We are convinced that innovation and technology innovation. Sustainable production cannot be sepcontribute to creating a better world for everyone. arated from sustainable management. Our actions Manufacturing techniques currently tend to be renot only serve our business, but also follow the PPP approach: for the environment (Planet), for employstrictive, wasteful, and inefficient. With AM, we can ees and society (People), and for our business and overcome these drawbacks. That is why we have tasked ourselves with accelerating the transition to customers (Performance). In all these areas, we find Responsible Manufacturing. At EOS, we are pushing solutions that increase energy efficiency, reduce the boundaries of manufacturing ingenuity to enwaste, and conserve resources throughout the life sure that the future of manufacturing is less damagcycle. Our journey and values are supported by our strong partnership network of shareholders and ing to our planet. This is pioneering work in the field of additive manufacturing and offers unprecedented stakeholders. At the heart of it all are our people. solutions for existing and future challenges in pro-They are the experts and talents who support us, and we support them. We value the diversity of our duction processes. Our employees are constantly working to increase energy efficiency, reduce waste, people. We believe that diversity enables progress and use resources sparingly at every step of the and sustainability. Accordingly, we are committed to inclusion and equitable opportunity and to creating process. All of this serves our clear goal: to establish a work environment that values empathy, respect, Responsible Manufacturing as the new normal. and fairness. Only in this way can everyone contrib-We are leading the way, leveraging our expertise as ute to Responsible Manufacturing.

We are leading the way, leveraging our expertise as a leader in industrial 3D printing to shape the entire industry's future responsibly with sustainability and



"Sustainable thinking has always been part of our DNA. As a family-owned company, we take our responsibility to the environment and society very seriously. This is the basis for our sustainability strategy and, of course, our purpose of Responsible Manufacturing. Corporate values and sustainability are also increasingly important to our customers. With our innovative solutions, we can create added value for them. And together, we create added value for the world."

Marie Niehaus-Langer, CEO



# 2.2 OUR PRIORITIES

The priorities for the development of our organization are based on our PPP approach. In the Planet area, our focus is on recording our greenhouse gas emissions and reducing them. To this end, a science-based target (SBT) is being developed. In the People section, we focus on diversity, equity, and inclusion. Here, too, in addition to the qualitative that already exist, quantitative objectives are being developed.

### **RESPONSIBLE PRODUCTS**

We are setting up a RESPONSIBLE PRODUCTS management system to support our customers with more environmentally friendly products. We rely on the external preparation of LCAs per ISO 14040/44 and external verification by a certification body. This enables us to fulfill our customer promise of more environmentally friendly products with the highest quality standards. We have introduced the first RESPONSIBLE PRODUCTS in the polymer sector. We are constantly developing more environmentally friendly products. The focus is on products that are carbon-reduced or climate-neutral.

### **Carbon Accounting & Controlling**

We want to measure, manage, and ultimately reduce our global greenhouse gas emissions. Our Greenhouse Gas Accounting & Controlling system

niza-	makes this possible. With this system, we create
net	internal transparency. It also enables us to meet
gas	external reporting requirements for our customers
i-	and regulators. Our greenhouse gas balance pro-
the	vides the basis for the SBT and all measures to re-
nd	duce greenhouse gas emissions.
/e	

### **Climate Protection Targets**

### **Overall objective:**

reducing greenhouse gas emissions
2024 target: development of the SBT
2025 target: SBT submitted and accepted
2030 target: SBT achieved



Figure 2: Planned reduction of greenhouse gas emissions



### Diversity, Equity, and Inclusion

Through inclusive leadership and clear strategic direction, we ensure that our employees feel seen and engaged. We collect data on diversity in our company and continuously improve our processes to make them more inclusive. Our goal is to have 50% women as new hires and in management positions by 2033. At EOS, we promote an ongoing dialog to raise awareness of diversity, equity, and inclusion, as well as to create an inclusive working environment. We also network internally and externally to share, learn, and advocate for a fairer working environment.

### **Responsible Manufacturing**

We embed our purpose of Responsible Manufa ing in our organization-wide goals every year. P ability and growth are taken into account, as we the customer experience and, last but not least products. In the area of Responsible Manufactu our objectives for the reporting period are:

- Supporting our customers with more environ mentally friendly products
- Calculating our CO<sub>2</sub>e footprint by introducing an accounting & controlling system
- Working towards a more diverse, equitable, and inclusive working environment and striving for a better gender balance

actur-
Profit-
ell as
t, our
uring,

Concrete Measures	
Concrete measures and KPIs to implement our sustainability agenda	we are accelerating the global transition to Responsible Manufacturing with industrial 3D printing
Reducing emissions – climate protection	introducing carbon accounting & controlling, developing a science-based target; developing future measures to reduce greenhouse gas emissions
Optimizing resource use – circular economy	increasing the circularity of raw materials towards zero waste expanding the environmental management system according to ISO 14001, and increasing transparency and understand- ing through life cycle assessments
Improving customer experience – RESPONSIBLE PRODUCTS	introducing management in this regard, developing sustain- able products and services, and providing certificates for the customers
Promoting community among employees – diversity, equity, and inclusion	building trust and dynamism through inclusive leadership, eliminating discrimination, ensuring staff health and safety, and providing equitable opportunities
Living responsibility – responsible business practices	developing responsible management of supply chains, en- suring external reporting under the forthcoming regulation, a clearly positioned Responsible Manufacturing policy, and improving the results of EOS in customer reviews

Table 1: Concrete action to implement our sustainability agenda



# 2.3 **OUR** CORPORATE GOVERNANCE

### Integrity, Compliance, Corporate Citizenship – Internal and with Our Partners

Responsible behavior and excellent performance are the foundation of our corporate culture and business thinking and actions. We want to create trust and be an ethical example – both in additive manufacturing and social terms. Our corporate governance is based on our values: responsibility, excellence, fairness, and togetherness. We want these values to shape our actions as an organization and for our employees and business partners to stand up for these values.

At EOS, it goes without saying that we comply with all applicable national and international laws, standards, and guidelines. We respect human rights in accordance with the United Nations (UN) Universal Declaration of Human Rights. We are also guided by the principles of the United Nations Global Compact (UNGC), the fundamental principles and conventions of the International Labor Organization (ILO) on labor and social standards, the Charter of Fundamental Rights of the European Union (EU), the Minamata Convention on Mercury (Minamata Convention), the Stockholm Convention on Persistent Organic Pollutants (POP Convention) and the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal (Basel Convention).

### **Compliance: High Standards** in All Areas

Part of our compliance and governance approach is compliance with laws and regulations. They are the starting point for us to become more responsible, ethical, fair, and transparent as a company. We always comply with all legal regulations and with our internally defined guidelines.

### ESG

Regulatory compliance concerns environmental, social, and governance standards – ESG.

From GRI to ESRS: The GRI has so far been our framework for corporate sustainability reporting. With the entry into force of the CSRD, we are preparing our reporting in accordance with the European Sustainability Reporting Standard (ESRS) and the EU taxonomy.

German Act on Corporate Due Diligence Obligations in Supply Chains, also known as the Supply Chain Due Diligence Act, has been implemented in the company since the beginning of 2024.

**ISO:** we are compliant with VDA ISA (TISAX®), ISO 9001:2015, and ISO 14001:2015. We are also involved in developing the next guidelines for safety in the AM industry (ISO/TC 261 IG 78) and aim for early certification according to ISO/IEC 27001.

### Transparency

Transparency is very important to us. This is why we also disclose our sustainability activities through international ratings and rankings, such as the Carbon Disclosure Project (CDP) and EcoVadis, and through our participation in the UNGC.

### **Compliance Management**

Our Global Compliance team is responsible for the compliance management system, risk management, occupational and product safety, regulatory affairs, data protection, and information security. For continuous development and a coordinated company-wide strategy, all members of the team report to our Head of Global Compliance. In cooperation with local managers, the department has implemented a compliance management system that follows the principle of "prevent, recognize, and react" and that is oriented to current international standards and norms. The Head of Global Compliance reports regularly to the CPO and quarterly to the Supervisory Board. The goals of our compliance department are:

- To systematically prevent violations of the law
- To minimize reputational risk
- To establish compliance as a corporate value



### Risk Management

Risk management plays an important role in systematically capturing and assessing risks at EOS. Our risk management helps us use resources in a targeted and sensible way. All departments, locations, and subsidiaries follow the same procedure and report on risks quarterly. Furthermore, we regularly conduct a top-down risk analysis to identify strategic risks that could significantly impact our company's success. Cyber incidents, business disruption, and volatile markets are our three most critical risks. We address these with a particular focus on our IT security, our information security management system (ISMS), our emergency and business continuity plans, and tight control and monitoring of market dynamics in sales and the supply chain.

### **Personal Behavior**

The EOS <u>Code of Conduct</u> sets high standards of compliance, integrity, and ethics that are binding for all employees worldwide. EOS takes a zero-tolerance approach to compliance violations. If non-compliance is confirmed, corrective action is implemented promptly, and disciplinary action is taken depending on the seriousness of the non-compliance.

### **Speak Up!:** Our Whistleblower Hotline



which requires compliance with all applicable laws, industry regulations, and EOS standards. On the We advocate a working envisales side, we carry out risk-based know-your-cusronment in which open and tomer checks to ensure that our products are used honest communication is the in accordance with our corporate purpose of Reexpectation, not the exception. sponsible Manufacturing. The Committee on Re-That's why we have set up our sponsible Manufacturing particularly decides upon Speak Up! Whistleblowing horisky transactions.

tline, which provides a safe (and, if desired, anonymous) space to raise concerns or report incidents. This digital platform allows to anonymously report issues such as discrimination and harassment, environmental hazards, health and safety concerns, unauthorized business partner activities, or other instances of non-compliance with our standards, rules, and regulations. Whistleblowers can use Speak Up! to view the status of their report and contact the person responsible for the hotline. The <u>Speak Up!</u> platform is available around the clock worldwide for our employees and external parties.

### **Dealing with Our Partners**

The high standards we have at EOS are also what we expect from our partners. All partners and suppliers are subjected to a risk-based due diligence process to rule out collaboration with corrupt or anti-competitive organizations. At the same time, our business partners and external service providers must adhere to our **Business Partner Code of Conduct**,

### **Conflicts of Interest and Corruption**

We manage potential conflicts of interest and corruption risks with transparency. In accordance with our <u>Code of Conduct</u>, conflicts of interest must be reported to the compliance department so that appropriate action can be taken to avoid the conflict of interest.

We avoid conflicts of interest with our business partners by conducting our business with integrity and professionalism and adhering to our internal guidelines.

The entire Management Board of EOS Holding AG and the Management Board of EOS GmbH regularly take part in training courses on anti-corruption policies and procedures. In addition, during the reporting period, we informed all our managers and all other employees, including temporary staff, about the anti-corruption policies and procedures at EOS.

### **Data Protection & Information Security**

Data protection and information security are part of our daily responsibility. We comply with the European General Data Protection Regulation (GDPR) and worldwide applicable data protection laws and regulations. We protect the personal data of our customers, prospective customers, business partners, and employees.

EOS has implemented a Data Protection and Information Security Management System (ISMS) in accordance with the requirements of the VDA ISA (TI-SAX®) and the international standard ISO/IEC 27001. This standard takes into account internationally recognized best practices. This way, we handle data and information responsibly, ensure continuous operation, and simultaneously ensure the supply of goods and services to our customers. In 2024, we will be fully certified according to ISO/IEC 27001.







### PLANET

ISO 14001 certified since 2017

more than half of our electricity

German locations already 100%

from renewable energy sources

consumption comes from

renewable sources, at all

Total global scope 1 & 2 emissions amount **3,040t CO<sub>2</sub>e** 



**11 colleagues LCA-trained**,

LCA of four metal materials and one polymer material already carried out and externally TÜV verfied

### 40% weight reduction

of the housing of the EOS P 500



### PEOPLE

Parental re-entry rate at 92.5%,



general fluctuation rate at 6.02%

### 50% target set for women

in management and new hires by 2033 Gender pay gap certified at only 3.37%

Passed the **Pride Champion Audit** with 74% (silver champion) **45% less CO<sub>2</sub>e** regarding PA 2200 CarbonReduced



## KaJo powder recycling program since 2017:

almost 40 customers, 400 transports, almost 200t of powder recycled



### **14% less CO<sub>2</sub>e emissions** thanks to new metal powder packaging

Already **>132 t CO<sub>2</sub>e** saved in the first year through PA 1101 ClimateNeutral & PA 2200 CarbonReduced sales

### PERFORMANCE



### Recognized as a **Top 100 Innovator** for the 7th time

### New AL5X1 aluminum has a strength

of 410 MPa and an elongation at break of 14%

### Triple award at the annual AMGTA conference

(sustainability report, environmental management system, research on environmental sustainability)





 $\overline{\nearrow}$ 



# PLANET

3.1 Overview 29 3.2 Material Origin 30 3.3 Resource Efficiency 31 3.4 Climate Protection 33 3.5 Circular Economy 37





# 3.1 OVERVIEW

Responsible Manufacturing means creating tangible value for our planet and employees by pursuing strategic and sustainable goals. Our contribution to sustainability in additive manufacturing goes beyond compliance with regulations and is much more than a way to save costs. Sustainable AM is our goal. We are working with our customers, suppliers, partners, scientific organizations, regulators, and many other stakeholders to achieve this goal.

The EOS environmental management system has been certified according to the international standard ISO 14001:2015 for many years. This certification underlines our commitment to environmentally friendly action and the effective management of environmental impacts. ISO 14001:2015 is a globally recognized standard. It supports organizations in identifying environmental risks, minimizing environmental impacts, and continuously improving their environmental performance. With the certification according to ISO 14001:2015, EOS demonstrates the commitment to sustainability and helps strengthen stakeholders' confidence in our responsible environmental management.



# 3.2 MATERIAL ORIGIN

Due diligence with regard to our suppliers is a matter of course for us. It is part of our corporate responsibility and, from January 2024, part of our legal obligations. By January 2024, we had fully implemented the German Supply Chain Due Diligence Act (LkSG) in the cross-functional team and integrated the regulations in compliance, legal, purchasing, and sustainability. In concrete terms, this means that we have appointed a human rights officer from our sustainability team, and we ensure that our direct suppliers observe social standards in working conditions and protect the environment.

A purchase from a new supplier prompts a review by our compliance department and export control even before the business relationship begins. We only enter into a business relationship after receiving a positive decision from our colleagues. Basically, our suppliers must accept our <u>Business Partner</u> <u>Code of Conduct on a risk basis or have a compara-</u> ble code of conduct that articulates or incorporates our human rights and environmental protection requirements. If we work with new suppliers and the annual purchase volume is expected to be more than €100,000, they fill in our supplier self-disclosure. This is a minimum requirement for us.

The self-disclosure includes environmental and compliance questions. It is assessed by our purchasing
 and compliance departments. We are working to
 supplement the self-disclosure with other aspects
 that go beyond the minimum requirements. Our
 <u>Business Partner Code of Conduct</u> requires that
 people working in our supply chains are paid a fair
 wage and are safe at work.

For our existing suppliers, we have developed sustainability criteria that align with our rules and values against which we evaluate them. We also review indirect areas such as transportation, packaging, and cleaning. Our traffic light system helps us analyze risks within the supply chain. With the traffic light system, we make abstract assessments based on country, industry, and purchase volume. On this basis, we can analyze the risk in detail and, if necessary, take control and/or remedial measures. To this end, we have implemented an emergency management process that enables us to respond effectively and efficiently.

Of the suppliers with whom we already had a relationship, we assessed 45 for their environmental management. These 45 suppliers cover more than 90% of our direct purchasing volume. We have also developed a policy statement (available in German only) and report regularly to the German Federal Office of Economics and Export Control. We have revised our Business Partner Code of Conduct once again and will establish closer contact with our suppliers. We already have our Speak Up! whistleblowing hotline, where incidents relating to environmental protection, anti-discrimination, occupational safety, non-compliance with rules and regulations, unauthorized activities by business partners, etc., can be reported to us anonymously (see Section 2.3).

# 3.3 RESOURCE **EFFICIENCY**

Energy consumption and material use are just two aspects to consider when using resources efficiently. Maintenance-friendliness and recyclability are also part of this. With life cycle assessments (LCA), i.e., a systematic analysis of the potential environmental impacts of products and their energy balance over the entire life cycle, we can determine the environmental impact of products, collect data, and make scientifically sound assessments.

### LCA

### **Environmental Impact of Our Material Products**

The LCA of four metal and one polymer materials was the first of several measures for a more sustainable product portfolio. An LCA can be used to calculate the environmental impact of a specific product, e.g., in terms of its climate impact. It takes into account all emissions, from the procurement of raw materials to packaging and transport. With this understanding of the CO<sub>2</sub>e footprint of our material products, we can make more sustainable decisions in the future. Therefore, the LCA helps us develop a more environmentally friendly product portfolio.

We carried out the LCAs on five materials. They are among our bestsellers and stand as examples for their material family: EOS MaragingSteel MS1, EOS StainlessSteel 316L, EOS NickelAlloy IN718, EOS Aluminum AlSi10Mg, and EOS PA 3200 GF. The Institute for Sustainable Systems Engineering (INATECH) supports the project. The institute is a partnership between the University of Freiburg and the five Fraunhofer Institutes. All material, energy, and waste streams are included in the LCA process for our materials so that the CO<sub>2</sub>e footprint can be accurately calculated using LCA software. This process is demanding: the raw material for metal materials, for example, is procured and traded via several dealers, there are various powder production methods, and energy and gas consumption is very high.

In addition, some metal materials are reactive, and the packaging in our portfolio varies. However, we were able to simulate the manufacturing processes very well.

For EOS Aluminum AlSi10Mg, we analyzed, e.g., the following processes: primary production and secondary production (raw material for AlSi10Mg),

atomization, post-processing, and transport to the warehouse. We determined the CO<sub>2</sub>e emissions, among other influencing factors, for the individual steps in these process phases. Figure 3 shows how the emissions are distributed during the process phases:







### LCA Training

Life cycle assessments give us transparency about the environmental impact of our products and provide our customers with relevant information. Above all, LCAs are the basis for developing our RESPON-SIBLE PRODUCTS. They enable us to offer our customers more environmentally friendly solutions and to set us apart from the competition. It is, therefore, very important to us that our employees understand the principles of LCA. This also includes being able to perform the calculations independently. We are training them and preparing for the future because while this knowledge is important now, it will be fundamental in the future.

INATECH's LCA training contains the basic concepts of creating a life cycle assessment and presents the essential elements of system design and calculation with the software GaBi. This is backed up by comprehensive life cycle databases, which provide a basis for assessing the LCA. Participants explore this in more depth with relevant exercises. For us, establishing a life cycle assessment regarding the special features of AM is particularly relevant. The "Life Cycle Assessment of Additive Manufacturing" section is devoted to them separately. During the reporting period, 11 employees from material development, purchasing, and application were able to participate.

### **Resource Efficiency**

### **Improved Packaging**

We pay attention to the efficient use of materials in packaging. We improved the product packaging for our metal powders by introducing smaller drums for EOS steel, nickel, cobalt-chromium alloys, and EOS tungsten W1. The smaller drums contain the same amount of powder as before, but unnecessary airspace during shipping is reduced. This has enabled us to reduce annual CO<sub>2</sub>e emissions by 14% compared to the larger drums used previously. For our customers, the smaller drums also have advantages: they have less waste and, thanks to their lower height, they can stack the drums more efficiently for transport.

We also achieved greater resource efficiency in the packaging of the 2200-4366 Mink brushes by switching them from classic plastic (PP) to BIO HDPE. We worked closely with our supplier, August Mink GmbH & Co. KG. The changeover will affect around 1,600 packaging units per year and will be cost-neutral. We improved sustainability and also increased component protection.

### **Improved Material Use**

At our machines, we are also working intensively on increased resource efficiency. Thus, we reduced the weight of the housing of the EOS P 500 from 762 kilograms to 454 kilograms, corresponding to a weight saving of 308 kilograms or 40%. This was made possible by a more efficient use of resources: we saved weight on the machine cladding using

a thinner sheet metal. We were able to reduce the original 2.5 millimeters to 1.5 millimeters. Despite this significant saving in sheet metal material, we still improved the stiffness of many parts by skillful changes to the design.

### **RESPONSIBLE PRODUCTS**

Our RESPONSIBLE PRODUCTS focus on reducing CO<sub>2</sub>e and on climate neutrality. Our RESPONSIBLE PRODUCTS currently comprise two different categories:

**ClimateNeutral:** For climate-neutral products such as our polymer material PA 1101 ClimateNeutral, we have worked with our suppliers to significantly increase production efficiency in manufacturing and processing, thereby significantly reducing the  $CO_2$ e footprint. We offset all remaining greenhouse gas emissions from the production, processing, and transportation of PA 1101 ClimateNeutral by purchasing carbon credits.

CarbonReduced: Our CarbonReduced products significantly reduce greenhouse gas emissions, for example, thanks to green electricity in the production process. In the case of the PA 2200 CarbonReduced polymer, it is also the greatly improved production efficiency that significantly reduces the CO<sub>2</sub>e footprint by almost 45%.

Certificates: 18 customers have purchased our PA 1101 ClimateNeutral and PA 2200 CarbonReduced. When purchasing RESPONSIBLE PRODUCTS, our customers receive a declaration of participation

and an additional yearly certificate. This verifies the amount of emissions saved by purchasing our **RESPONSIBLE PRODUCTS.** 

**AUDITING:** In September 2023, TÜV SÜD audited our EOS RESPONSIBLE PRODUCTS Management System. The successful audit is the basis for all future **RESPONSIBLE PRODUCTS**, including necessary definitions, responsibilities, data, documents, and processes.

I am delighted we have passed the audit with some minor findings. In addition, TÜV SÜD has commended us because EOS takes the matter seriously and sets standards in the AM industry. No competitor can offer anything close to our RESPONSIBLE **PRODUCTS.**"

Björn Hannappel, Head of Sustainability





# විංද් CLIMATE PROTECTION

### CO<sub>2</sub>e-Emissions

We are working intensively in an international team to calculate the first global EOS Company Carbon Footprint (CCF) (emissions from scopes 1 to 3). We use the internationally recognized standard of the Greenhouse Gas (GHG) Protocol for the calculation. The GHG Protocol is a standard for the uniform calculation of greenhouse gas emissions for companies, institutions, cities, and countries. It takes into account direct and indirect emissions along the entire value chain. We aim to create transparency, identify any emissions of the individual scopes, and build a basis for future annual calculations. Our so-called base year (financial year 2021/2022) also provides us with the basis to define a science-based target (SBT), i.e., a science-based reduction target, and to define effective measures for reducing our emissions. By submitting our SBT, we want to confirm our ambitious reduction targets officially.

### Science-based Target

A science-based target is a concept that enables companies to set their emission reduction targets. It is different from traditional potential-based targets. Instead, SBTs take a top-down approach: companies focus on the amount of emissions that must be reduced to meet the Paris climate targets. In the Paris Agreement, it was agreed to limit global warming

to well below two degrees Celsius above pre-industrial levels. Organizations with an SBT commit to reducing their greenhouse gas emissions to avoid the most serious impacts of climate change. The Science-based Targets Initiative (SBTi) provides the appropriate scientific framework and well-founded criteria for companies to develop and validate their targets to make a meaningful contribution to global efforts to tackle climate change.

### **GHG** Protocol

5, The main objective of the GHG Protocol is to establish a standardized method for measuring greenhouse gas emissions that is internationally recognized and serves as a reference for reporting. By taking a comprehensive approach, the GHG Protocol takes into account all of an organization's impacts. The company's greenhouse gas emissions are divided into three areas: scope 1 (direct emissions from the company), scope 2 (indirect emissions from purchased energy), and scope 3 (indirect emissions from upstream and downstream activities).



### Our Company Carbon Footprint (Base Year)

We had the results from the scope 1 and 2 calculations (for EOS AG) at the cut-off date for this report. The results of the scope 3 calculations will be submitted in due course.

We have captured our global total energy consumption to determine our global scope 1 and scope 2 emissions.<sup>1</sup> The result can be seen in Figure 4: our total global energy consumption amounts to 17,543 MWh, of which electricity accounts for the largest share (55%). More than half of electricity consumption already comes from renewable sources.



Figure 4: Global total energy consumption

<sup>2</sup> Market-based approach

Based on this, Figure 5 breaks down the global total emissions (3,040 t  $CO_2e$ ) by underlying energy sources.



Figure 5: Total scope 1 and 2 emissions by underlying energy sources  $(tCO_2e)^2$ 



I to- Figure 6 shows the energy consumption related to the underlying energy sources by location.



*Figure 6: Energy consumption by underlying energy sources and by location (MWh)* 

<sup>&</sup>lt;sup>1</sup> For the calculation, the emission factors according to VDA and DBEIS from the year 2022 were used.

Figure 7 shows the scope 1 and scope 2 emissions for each of our sites.



Figure 7: Scope 1 and scope 2 emissions per site  $(tCO_2e)^3$ 

<sup>3</sup> Market-based approach

We can use this data to develop effective and efficient measures to reduce our energy consumption and emissions sustainably.

### **Optimizing On-site Energy Consumption**

Using less energy and emitting fewer greenhouse gases: we are improving energy efficiency at our sites. The technologically advanced buildings at our headquarters in Krailling have high energy standards. This is part of a comprehensive energy concept for the site based on an intelligent building management system. Further optimization measures can also be derived from our recent energy audit, which identified and disclosed the main energy flows and sources. For example, we replaced energy-intensive light bulbs with more energy-efficient light-emitting diodes (LEDs).

In addition to optimizing consumption, we rely on renewable energy sources and make our own contribution to the energy transition: 100% of electricity at our German EOS sites comes from renewable energy sources.

At the Krailling site, we also use renewable sources of heat energy – and have been doing so since 2001. We use heat recovery processes to utilize the waste heat from our system technology and, therefore, only need to obtain a small proportion of our heat energy externally. The so-called "Zortström" distributor has a multi-stage construction with several temperature zones. Heating and cooling layers are used efficiently, and the temperatures can be adjusted to the needs of individual business units. We also use a wood-chip plant nearby to heat the office rooms in very cold periods. In the newer buildings, groundwater is utilized in summer for cooling and in winter to support heat output, using concrete core activation.

### How we also save energy:

- Intelligent building automation with wind rain guards, the external blinds are automatically closed in high sunlight
- Low-energy LED lighting in all buildings
- Building roofs and plant technology are up to date

Table 2 gives an overview of our energy consumption at the Maisach and Krailling sites for the current reporting year.

### **Our Fleet**

Our vehicles are also responsible for emissions. That's why we are redesigning our fleet. In the reporting period, we were able to reduce the number of gasoline and diesel vehicles further while increasing the number of electric and hybrid cars. In 2022, we installed two charging points in the parking garage in Krailling, and in 2023, two more charging points were added in the main building. This has allowed us to expand the number of charging points that have been available to employees for several years in our underground parking garage. As more and more of our employees drive e-cars, an active community has emerged among them to coordinate the utilization of the e-charging stations in the underground garage in Krailling.

Energy source	Total	Proportion of renewable			
	Krailling	Krailling Maisach Total		energy	
Electricity	3,984.00	1,312.00	5,296.00	100%	
Natural gas	N/A	916.00	916.00		
District heating	1,000.74	N/A	1.000.74	84 %	
	4,984.74	2,228.00	7,212.74		

Table 2: Overview of energy consumption for the Krailling and Maisach sites (preliminary values in MWh)



*Figure 8: Changes in our vehicle fleet since the previous reporting period:* company cars by type of fuel/power

Table 3 shows the fuel consumption of our fleet. We do not currently have any specific data on the consumption of hybrid and electric cars.

Fuel	Consumption in liter
Gasoline	46,326
Diesel	173,336
Total	219,662

Table 3: Fuel consumption of our fleet (in l)

In 2023, we also converted the lighting in the underground car park to LED.

### **AOK Cycling Campaign**

The "Cycle to Work" campaign is a major participatory effort. It combines greater fitness in everyday life with environmental relief. Our team consisted of 67 participants during the reporting period. They covered 9,605 kilometers, saving 1,890 kilograms of  $CO_2e$ .







# 3.5 CIRCULAR ECONOMY

A circular economy can prevent waste and con-Our wastewater is returned to the municipal wastewater network. We organize adequate disposal in serve raw materials and resources. Responsible Manufacturing, reduced consumption, and efficoordination with the local authorities for special cient waste management are also economically cases, such as the dyeing water we produce. We set advantageous - for our performance and our poup filter systems for our cleaning water to improve sition as a sustainable producer on the market. the water quality in our halls. We also use new soft-For these reasons, out of responsibility and for ware to collect our environmental data. This gives us economic efficiency, we have been strengthening a transparent basis for determining where we stand our circular thinking since 2021 – we regard used and making progress visible. products and raw materials as resources and try to give them a second life cycle.

### Water System

We measure our water consumption precisely. We distinguish between process water and well water consumption and consider our locations separately. Process water is used as tap water for sanitary and household-like purposes, with a total of 7,177 cubic meters in the reporting period. The well water in Maisach and Krailling is used to cool buildings. It goes through a closed loop. In Krailling, we pumped 417,971 cubic meters of well water during the reporting period. The cooling effect is primarily produced by a heat exchanger, not by evaporation. The refrigeration system will only come into play when the well power has been exhausted.

Water consumption in m <sup>3</sup>				
	Krailling	Maisach	Düsseldorf	sum
Process water	5,978	919	280	7,177
Well water	417,971	296,784	N/A	714,755
Total				721,932

Table 4: Water consumption and sources (in m<sup>3</sup>)



### Responsible Waste Management

At all our locations, we ensure that waste is as close as possible to zero. Our attitudes towards waste can be summarized in three principles: prevention, recycling, and disposal. The best thing, of course, is to reduce the amount of waste. In our company, various teams are working to extend components' running times, increase the system filters' efficiency, and use biodegradable materials. In addition, we are continuously increasing the efficiency rate of raw materials through intensive research in order to reduce the amount of waste to a minimum.

Here, too, we want to create transparency and understand how things are developing. We, therefore, collect waste-related data on the waste balance of our waste disposal service provider at our sites. Waste generation and waste-related impacts can be divided into two areas. On the one hand, waste is generated at our sites through packaging waste from the upstream value chain, such as shipping cartons. The activities of our employees also generate waste that is similar to average household waste. The second relevant area is the waste generated by our development and production activities. Most of this waste is classified as hazardous and is disposed of separately. Hazardous waste consists mainly of sludge containing metal powder residues

Around 257 tons of non-hazardous waste were genand absorbent and filter material. We are working hard to continuously reduce these hazardous erated during the reporting period. We dispose of wastes, which are normal in our industry. these responsibly in cooperation with certified disposal companies.

Table 5 gives an overview of the waste generated in the different waste categories.

Waste in tons					
	Krailling	Maisach	Düsseldorf	sum	
Plastic	15.10	14.03	N/A	29.13	
Wood	12.50	11.12	N/A	23.62	
(Scrap) metal	41.41		N/A	41.41	
Paper/paperboard/cardboard (PPC)	8.98	77.25	1.98	88.21	
Residual waste	32.00	39.00	2.60	73.60	
Organic waste	1.44	N/A	N/A	1.44	
Non-hazardous waste (total)				257.41	
Hazardous waste	19.26	14.22	1.50	34.98	

Table 5: Waste generated at our sites (in t)

When it comes to waste, we also want to think in terms of cycles that are as efficient as possible. Circular thinking means we want to recycle materials and raw materials. That is why we have internal circular concepts.

### Our Return Cycle

Our customers can take advantage of our return cycle: they can return EOS systems that have reached the end of their useful life. Our Sustainability Services department processes the returns so that the used systems can be reused. The return cycle also includes our Powder Cycle Program, through which our customers in Germany, Austria, and Switzerland can return used powder. Specifically, this means that we have the used powder collected from our customers and pay the transportation costs of our partner <u>KaJo Plastic GmbH & Co. KG</u>. They reprocess the polymer powder. The collected used powders thus form a material that, although no longer suitable for industrial 3D printing, becomes a raw material for other products and applications.

What do we do with the proceeds of the used powder? We give them to social projects. This is how we support the organizations Teach First Germany and Thinking Huts (see also Section 4.4), which are involved in education.



# PEOPLE

- 4.1 Overview 40
- 4.2 Attractiveness as An Employer 41
- 4.3 Occupational Health and Safety 43
- 4.4 Stakeholder Involvement 46
- 4.5 Diversity, Equity, and Inclusion 48



# 4.1 OVERVIEW

EOS brings together clever and creative minds who are passionate about innovation, additive manufacturing and share common values. The EOS team consists of more than 1,300 employees in 15 countries worldwide, with almost 900 in Germany. Together, we work every day to secure our company's leading position, continually drive EOS to exceptional performance, and secure our success and growth. We push boundaries because AM is an innovative technology. Only in this way can we move our industry to Responsible Manufacturing.

### **Value Orientation**

We want to shape the future with Responsible Manufacturing. Every day, we work to find the best solutions for our customers. Our innovative strength is based on the close cooperation of our employees and on a working environment that is guided by values. The core values of our corporate philosophy are responsibility, excellence, fairness, and togetherness. This is the basis on which we meet each other and our customers. This is why we support our employees in a variety of ways, starting with health management and occupational safety and extending to our focus on diversity, equity, and inclusion (DEI).

### ALL IN as A Principle

In terms of DEI, our guiding principle is that we are ALL IN. This enables us to create an environment where all employees are seen, heard, and included –

regardless of gender, sexual identity, ethnicity, re ligion or belief, disability, age, or other factors. We
 do this by systematically making our structures and
 processes more inclusive and by living our culture
 of belonging every day.

### Objectives and Proactive Implementation

Our world is diverse. We are sure that diversity contributes to progress and forward-looking change.
That is why we at EOS have decided to promote inclusion and equitable opportunities. These are not just empty words; we live them every day: empathy, respect, and fairness are a matter of course in our working environment. Because only in this way can each and every individual contribute.

Diversity in the team promotes – well managed –
innovation, creativity, and better cooperation. That
is why we have set ourselves DEI targets as well; we
want to be an attractive employer for more women
and other under-represented groups and be more
diverse in executive positions. Therefore, one of
our KPIs is that by 2033, we will reach 50% of women in management positions and new hires.





۵.2 ATTRACTIVENESS AS AN EMPLOYER At EOS, we share a passion for additive manufacturing, innovative products, and our common values. Our caring and nurturing environment is reflected in our comprehensive health management program, which includes training, sports and fitness opportunities, as well as workplace safety. We also support the development of our employees with training and other offers. Our commitment to diversity, equity, and inclusion is derived from our values.

During the reporting period, EOS employed 891 people in Germany (265 female, 626 male, 0 diverse) and 233 other people who worked for EOS temporarily and/or externally. Figure 9 shows the number of permanent employees by gender. In the relevant period, EOS recruited 97 employees (31 female, 62 male, 4 undeclared, 0 diverse). During the same period, 167 employees left the company (54 female, 113 male, 0 diverse). The labor turnover rate is **6.02%**.

At EOS, we have a standardized procedure for eval-During the reporting period, all 891 employees were uating all positions based on Baumgartner & Parteligible for parental leave (265 female, 626 male). Meanwhile, 89 of them went on parental leave ner's proven methodology. The assessment is based on the tasks and requirements of the position. This (51 female, 36 male), and 61 (35 female, 26 male) returned from parental leave. A total of 55 employleads to a classification into grades. A salary band is defined for each grade group. The relevant external ees returned to their jobs after the end of parental leave and were still employed by us twelve months market benchmarks are considered. Salary bands are reviewed each year and adjusted according to later (32 female, 23 male). Six employees left EOS during their parental leave in the reporting period. the official inflation rate. The return rate is 92,5%.

4. People

5. Performance

6. Appendix





### Internal Grade System: Fair Pay

### **Continuous Training**

We support the lifelong learning of our employees: we provide various learning opportunities through our Learning Management System and external platforms. They range from technical skills, working methods and tools, ESG, compliance, and leadership to communication and languages. We have expanded our portfolio with so-called learning snacks. In these short training sessions, employees share their expertise or methodological knowledge with other employees. In this way, a collegial exchange of knowledge and experience can take place.

It is also important to us that up-to-date information is easy to find and that our employees can quickly gain knowledge of various processes and new IT tools. We have worked hard on this, and access to content has improved considerably. We also offer onboarding and special courses in technical training for machine operators, technical consultants, developers, and other specialized professionals. During the reporting period, 100% of our employees received regular performance and career appraisals. All employees accounted for a total of 27,952 hours of further training.

### Working Flexibly and Digitally

In addition to continuous training, we offer our employees flexible working time models, mobile working, and personal leave time. We also support them with learning and development plans to find the best position for their skills. We organize our regular company-wide communication formats in such a way that all employees can participate in the best possible way. For example, channels are available for virtual town halls in German and English. There is an option for sign language interpreting or transcription in Microsoft Teams to promote the inclusion of deaf employees in the organization.

It has been possible for employees to take a personal leave time since the beginning of 2023. Those who take it reduce their working hours to 20% over one to a maximum of four months – this corresponds to one weekly working day of eight hours. This day is taken as a day of annual leave. During this time, employees are covered by health and social security insurance and receive 20% of their salary. The personal leave time can vary between employees, for example, who may choose to make a long-planned trip or become socially involved. With our flexible working time models, we support working parents and employees with family members to care for in reconciling the often-hectic everyday life with children or a special private situation with their employment.

### **Additional Benefits**

### Voluntary additional benefits

Our employees make our success possible. That is why their well-being is very important to us. We, therefore, offer various additional benefits depending on their life situation. These benefits are independent of whether they work full-time or part-time. For example, we offer a one-off payment for the birth of a child or a civil marriage.

### Grants

We subsidize the company pension scheme by 20% – the law stipulates a 15% subsidy under the German Company Pension Strengthening Act. We have a mobility concept in which our employees can choose between the payment of the mobility subsidy for public transport, the "Jobrad" leasing scheme, or a co-payment for the establishment of a work carpool. We also contribute to the childcare costs (nursery, kindergarten, or daycare worker) and support preventive travel (extra payment and one day of special leave).

### **Healthcare Services**

In addition, all our employees are covered by the group accident insurance, both professionally and privately. In addition, we offer a variety of health courses and activities, such as the AOK "Cycle to

Work" campaign (see Section 3.4), Tabata, back fitness, and nutrition courses. Our company doctor can book various preventive examinations or vaccinations, such as flu vaccination.

### Bonuses

We reward each successful, new employee recommendation by our colleagues with a bonus of €2,000 after a probationary period has been completed. We increased this amount during the reporting period.

What?

2.000 € brut for the successful recruitment of your recommendation! (payout after the successful probationary period).

### How?

candidate" in the search line and follow the steps.



In Workday! Enter "refer a



**Questions?** Scan the QR code or contact recruiting@eos.info.



### Refer employees now and get a bonus.

Figure 10: Our increased reward for recommendations





# Q.3 OCCUPATIONAL HEALTH AND SAFETY

Nothing is more important than our health. That is why we pay attention to the occupational safety of all employees and have a health management system that we are constantly expanding. These include basic occupational safety measures, compulsory and voluntary occupational health care, workplace integration management program, support for mental health through an external Employee Assistance Program (EAP) – hotline, health training, and sports and fitness programs.

### Safe Working Environment

Occupational safety means occupational health and safety and accident prevention. We regularly review our safety standards based on risk assessments. In this way, we can prevent workplace accidents and protect our employees. We analyze new work equipment, activities, and work processes in structured cooperation with the responsible and affected employees before work begins, take possible errors into account, and define suitable protective measures. During the reporting period, there were no deaths from work-related injuries and no work-related injuries with serious consequences. The number of work-related injuries reportable was 28. Hand injuries were the most common; accidents were mainly caused by tripping and falling.

### Hazard Assessment: Our PDCA Procedure

Hazard assessment is central to occupational health
and safety. It forms the basis for systematic hazard
analysis and identifying appropriate protective measures. At EOS, we assess the risk by job and workplace, as well as by hazardous materials and for employees with disabilities. The risk assessments are
prepared by the responsible managers with advice
from occupational safety and security and published
centrally on the intranet. All working conditions are
subject to the PDCA procedure: plan, do, check, act.
After analyzing all possible risk factors, we define
measures to reduce and keep risks to a minimum.
Performance reviews and regular updates of risk
assessments ensure effectiveness and support our
preventive approach.

### **Hazardous Materials**

To handle hazardous materials, we draw up operating procedures and safety data sheets per the legal regulations and train the employees concerned accordingly. Wherever necessary, we provide personal protective equipment. We reduce the risk of fire through effectively organized fire protection. The processes are implemented by trained specialists – such as safety experts and hazardous materials or fire protection officers. We regularly train employees on occupational safety. Operating instructions prohibit hazardous work and require employees to report any defects they identify directly at any time. All employees are obliged to take care of their own safety and the safety of those affected by their actions to the best of their ability and in accordance with EOS instructions. Our Health and Safety Committee meets once a quarter and is attended by representatives from management, the workforce, and the safety officers.

When designing workstations, we observe the applicable technical rules. When procuring new systems or work equipment or planning new work processes, we consider aspects of occupational health and safety as well as economic efficiency. We only use hazardous substances when other or less hazardous substances cannot be used for the same purpose. We regularly inspect and maintain technical equipment and systems based on manufacturer specifications and/or statutory regulations. We implement the principles of German statutory accident insurance, Provision 3, for testing electrical equipment across the board. In addition, our company-wide emergency management helps to prevent or minimize damage.

### **Emergency Management:** Contacts, First Aid, Fire Protection

Our emergency management documents all relevant telephone numbers to be contacted during and outside operating hours in the event of an emergency. For emergencies, we have an overview of all first responders in the various buildings and provide training and information material on first aid. Fire protection includes escape and rescue plans for all buildings. Meeting points are shown both in the plans and in the buildings. We are equipped with sufficient fire extinguishers, which are regularly maintained and adapted to the possible fire scenario according to location. We regularly conduct fire safety and evacuation exercises to raise awareness among our employees and to increase safety.

### **EOS Health Management**

At EOS, we want to create health awareness in order to strengthen and promote the health of our employees. Healthy employees are the foundation of our sustainable and successful company. EOS health management aims to ensure their performance and motivation in the long term and encourage them to take responsibility for their own actions so that employees are fit for the demands of a modern and mobile working environment and, above all, stay fit. Through a variety of training courses and programs, we provide active and preventive health

interviews and the occupational integration manmanagement covering topics such as exercise, nuagement procedure and supports the planning trition, relaxation, ergonomics, healthy leadership, of appropriate reintegration measures with the and resilience. In this way, we aim to maintain and strengthen physical and mental well-being, as well employee(s), the employer, and other internal and as satisfaction and enjoyment at work. We also offer external stakeholders. a comprehensive range of occupational health services. With ergonomic workplaces, intelligent space concepts, barrier-free access to our buildings, and sufficient technical aids, we ensure a permanently healthy working environment in all office spaces and technical areas. In addition, we operate an Employee Assistance Program (EAR) under a separate emergency hotline number, where EOS employees can seek professional advice from external experts in mental and health emergencies.

### **Occupational Integration (BEM)**

Since June 2023, occupational integration management has been part of EOS health management. With occupational integration management, we have established a procedure for systematically reintegrating long-term sick employees. Occupational integration management is our legal duty as an employer. The aim is to ensure that we find a way to retain the employees in the long term.

Occupational integration management is a voluntary process between employees and an external occupational integration management case manager. The case manager conducts the information



*"It is very important to us that EOS* offers occupational integration management to its affected employees and jointly develops measures to maintain physical and mental well-being as well as job satisfaction and performance in the long term. There is a legal framework for occupational integration management, and the procedure was agreed in the new works agreement."

Horst Geisler, Chairman of the Works Council

"The aim of the occupational integration management is to promote the health of employees after prolonged illness and to support them in creating awareness and personal responsibility for their own health to prevent secondary diseases and learn how to deal with new requirements."

Silvia Fernitz, HR Manager People Development and Occupational Integration Management Officer





### Health Courses

At EOS, many employees participate in sports and health activities – not only as participants but also in the organization or implementation. Our health and sports events included suggestions for mental well-being, the immune system, and a healthy back. This further included the B2Run sports activities and the Generali Munich Marathon, where many employees successfully represented EOS. In addition, there were numerous regular workouts from the staff and with the support of external fitness trainers, such as Move Your Back, Tabata, Yoga, bi-weekly runs, and hula hoop sessions. A colleague with a certified diploma training as a holistic nutrition trainer was also very committed throughout the year by offering seminars for all interested people at EOS, for example:

- Brainfit How do we feed ourselves in a way that is appropriate for our brains so that we can concentrate and stay focused?
- Fit with fat How healthy are fats, which are essential and important, and which are better left alone?

Since the beginning of 2023, our employees have also been able to use various digital services in the "My ias" portal as part of our new corporate medical care offering. The portal contains occupational health and safety content and offers from the ias campus. These include for example, different open health lectures and seminars, which can be used free of charge for all employees throughout Germany. The portal also offers a personal health check, allowing employees to participate voluntarily.





# **STAKEHOLDER INVOLVEMENT**

**External and Internal Formats** Only with our stakeholders can we effectively implement our sustainability strategy. The discussion Outside of our company, we engage in dialog via with them takes various forms: the owner family, various events and channels. At trade fairs such as through CEO Marie Niehaus-Langer, sets out the Formnext, we meet international experts in AM. We company's strategy and sustainability goals. We hold intensify our contact with our customers through regular company-wide meetings with employees to events such as the so-called Xcellence Days. We inform them about sustainable development in the present ourselves to applicants at various fairs, such company. They can also suggest topics at any time as HR fairs, the herCareer Expo for women, and rethrough different communication channels. Our cuscruiting fairs for apprentices, technicians, students, tomers and our partners have high expectations for or professionals. We use webinars and mailings on sustainability at EOS. We make these requirements specific topics as external channels, and under #rean integral part of our further development and incruitingmonday, we are present on LinkedIn with novations. Through the supplier rating process, our images, texts, and videos on HR-relevant topics. suppliers are required to demonstrate sustainability Within the company, we communicate with each aspects that are verified through audits. We conother at regular events. These include the kick-off tinue to work closely with them to make our supply event at the beginning of the new fiscal year, the chains more sustainable. We maintain a proactive exchange with relevant authorities on current asevent for the half-year review, and our monthly town hall meetings. Exchanges with the CLT also pects of sustainability, particularly on the basis of take place regularly so that employees can ask our legal obligations. These have a significant impact on management questions. The CLT also communicates our sustainability management activities. We mainwith employees by email. Our employees receive tain a lively dialog with the scientific community on current research and potential collaborative retechnical training, advice and can take advantage of offers on learning and development. Communicasearch projects in additive manufacturing. We also tion between the individual departments and busiaddress the public through numerous channels, ness partners is ongoing, e.g., between sales and such as social media or our <u>BLUEPRINT Vlog</u> on the customers or between purchasing, technology, and EOS website, where we inform about current topics suppliers. in our sustainability management.

### **Communication with Employees**

Contact between employees and managers is a process that extends over the entire fiscal year. In the annual reviews, employees and executives set the personal goals of the employees – against the background of the company's goal(s) and according to the SMART logic (specific, measurable, achievable, relevant, and time-bound). The annual reviews on objectives take place at the beginning of the financial year. In addition, there are six-monthly target-tracking and growth discussions. These six-monthly meetings review the status of personal objectives. The collaboration is reflected upon, and the employees discuss further work-related learning measures with their managers.

In year-end reviews, employees and managers evaluate personal objectives and how they are achieved. They reflect the cooperation and highlights of the financial year. Employees can give feedback to their colleagues or managers to express appreciation and gratitude. We have a new function for sending Kudo cards – small, written thank you's to colleagues.



### Memberships: Together, We Are Stronger

EOS participates in various ISO, American Society for Testing and Materials (ASTM), and DIN committees, where standards for AM are developed and revised, including ISO TC 261 JG 78, the DIN Additive Manufacturing Methods Advisory Committee (DIN NA 145-04 FBR) or Joint Group 78 for the safety of AM machines. An EOS employee is the Chair of the ISO Technical Committee TC 261 Additive Manufacturing, which works very closely with the ASTM International Technical Committee F42 Additive Manufacturing Technologies.

### Our Memberships

• United Nations Global Compact



• The Sustainability Competence Program by econsense is a German industry sustainability network.

### econsense

• The Professional Association for Energy, Textiles, Electrical, and Media Products (BG ETEM)



 Additive Manufacturer Green Trade Association (AMGTA), a global trade organization that promotes the environmental benefits of additive manufacturing



 Mobility/Medical goes Additive (MGA), an international network for industrial additive manufacturing in the field of mobility and medicine



### **Corporate Citizenship:** Social Engagement

In 2015, the United Nations set 17 policy goals for sustainable development. They form the strategic context for our social engagement. These sustainable development goals (SDGs) are an action plan in social, economic, and environmental terms. The road map envisages that by 2030, decent living will be possible worldwide while preserving the natural foundations of life: peace and less inequality, better health and education, without poverty and hunger. At EOS, we are particularly involved in SDG 4 – quality education. We commit ourselves above all to subgoals 4.3 to 4.5, i.e., equal and inclusive access to all levels of education. By 2030, gender-specific differences should be reduced, more socially disadvantaged people should receive education, and decent work should be promoted through education.

### We support the following international education projects with donations:

Teach First Germany: this non-profit education initiative improves equity in education. CEO Marie Niehaus-Langer is a former fellow and is particularly attached to the initiative: "The initiative is doing excellent work. As part of a strong network, it advocates for quality education so that all children and young people can develop their full potential. Equal education is the basis for social integration and participation despite poor starting opportunities. And it is the cornerstone for meeting the challenges of the future in a more equal society."

**<u>Thinking Huts</u>**: the American non-profit organization improves access to schools and education worldwide. In 2022, it built its first school in Madagascar using 3D printing technology.

Sawabona Africa e.V.: the Munich-based organization supports hand-picked, closely monitored projects in South Africa. In the previous reporting year, we linked our customer satisfaction survey request to a good cause. We were able to donate to a project in Soweto, a township in Johannesburg. This will support learning and career development in mathematics and science, especially for young girls.





### **Key Topics at EOS**

Our values and purpose are why we promote diversity, equity, and inclusion. This support also has a positive impact on our company. Research has shown that companies with a diverse workforce are not only more likely to do better financially and drive innovation. They can also count on greater loyalty among their staff. Like any company, EOS has to deal with prejudice and discrimination. We want to prevent this by actively promoting diversity, equity, and inclusion in all areas of the company.

# 22

"At EOS, we strive to continuously integrate diversity, equity, and inclusion within our organization. On the way, we want to learn and be in regular dialog. We work together to create an *inclusive environment where everyone* feels valued and respected."

Lea Stegemann, Sustainability Manager

Structure of the top management body (Executive Board of EOS Holding AG):



*Figure 11: Gender and age distribution of the top* management body

### **Diversity in Our Annual Goals**

In the year under review, we set diversity for the first time as part of our annual objectives. In addition, the diversity team developed a more structured approach to work on the DEI pillars. Our employees and teams achieved their annual DEI target with a wide range of activities:

- · General workshops on diversity, equity, and inclusion
- · Workshops on privileges, prejudices, microaggressions, and allyship
- Launch of the Business Resource Group Leading Women in Krailling
- Privilege walks

**77** 

"The privilege walk has allowed me to understand my privileges based on my origins. I am not responsible for having these privileges, but I am responsible for recognizing them when interacting with others – by being even more empathetic and supportive."

Martin Steuer, Senior Vice President of Software

### Inclusive Leadership

At EOS, we recognize that the leadership team's commitment builds trust in our DEI goals. In this way, we can advance DEI strategically. Our aspiration for our managers is an inclusive style of leadership. On the one hand, this is derived from our stated objectives: 50% women in management positions and new hires by 2033. Our CLT is already more than 40% female. On the other hand, inclusive leadership is part of the DEI activities within the teams every year, and requires substantive engagement with the matter.







### Equal Pay

In the 2022/23 financial year, women earned only 3.37% less than men at EOS if all other parameters remained the same. These data are based on a gender pay gap analysis of employee data as of April 30, 2023. The company received a certificate of fair remuneration. We continue to work towards closing the remaining wage gap and achieving full wage equality.



### Anti-discrimination Work with Speak Up!

uations in which we do not meet with the necessary respect, and our colleagues are discriminated against. The first training course, therefore, looked We have begun to collect data that can be used to at how we can respond in situations like this when assess the status quo and improve employee satthey affect us. The second training course was isfaction. In addition, our global reporting system, aimed at all employees who are not directly affected Speak Up!, helps us collect information about incibut who want to act as allies in such situations. dents. In this way, we can take measures to prevent discrimination. We encourage employees to use **Obacht!** Campaign <u>Speak Up!</u> to report discrimination and harassment. In addition, we raise awareness of the topic through with mindful and appreciative communication at training courses, workshops, and campaigns.

In the year under review, there were 13 incidents of discrimination or harassment, the resolution of which was completed, with one exception, along with corrective measures taken. This single follow-up action will be completed in the first quarter of 2024. The 13 incidents could be categorized as discrimination four times, harassment three times, and salary comparison six times. In two cases, the information came from anonymous persons; in the remaining cases, the whistleblowers are known.

### **Awareness Raising and Dialog**

We promote exchange within EOS to raise awareness among all employees about power and privileges, unconscious biases, microaggressions, and allyship. The first step was a mandatory introduction to the DEI basics.

In two further voluntary training sessions, we discussed the topics of microaggression and allyship again in detail. At EOS, too, there are recurrent sit-

We want to create an inclusive working environment EOS. The German word "Obacht!" serves as a friendly, tongue-in-cheek hint to others that a formulation was inappropriate. In the future, we want to raise awareness of emotional injuries and discrimination.

### Girls' Day

April 27 was called "Clear the Stage" for 16 children and teenagers who participated in Girls' Day at EOS. The enthusiastic and motivated participants went straight into practice after a brief introduction to our technology and training opportunities. The young people got to know the wide range of possibilities at EOS in the lab, workshop, and electrical training workshop and were able to build their own Girls' Day souvenirs.



### Celebrating Women in Science

The International Day of Women and Girls in Science on February 11 is a perfect opportunity for us to highlight some of our technical colleagues.

### **Religious Diversity**

At EOS, we raise awareness of our various religions: we celebrate Yom Kippur, Vesakh, Diwali, Christmas, and Ramadan, offer prayer and contemplation rooms in Krailling and Maisach, and our canteen prepares special food for these holidays.



"After studying management and technology with a focus on mechanical engineering, I have been a process developer at EOS for a year. I work directly on a machine to optimize the laser sintering process for different materials. In the beginning, I learned a lot from my colleagues and expanded my expertise. One of the most exciting projects has been the process optimization for new materials on the EOS systems. This gave me an even deeper insight into the technology."

Svitlana Sapishchuk

### **Community and Networks**

Our employees set up so-called internal resource groups to promote the exchange of information and mutual support. EOS is also an international sponsor of <u>Women in 3D Printing</u> (Wi3DP). We have signed the German Diversity Charter and are, therefore, part of an external network of companies that support each other on the path to a diverse, fair, and inclusive work culture. We have also joined Employers 4 Equality, a program to promote equality and diversity management in companies.

### Pride Champion Audit

EOS achieved 74% in the Pride Champion Audit. That makes us a silver champion. For the Pride Champion Audit, experts review the diversity management of companies in general and in terms of sexual and gender identity. A detailed catalog of criteria guides the extensive procedure. It makes it possible to assess the current situation and to indicate in concrete terms where improvements are possible.



Category	Points	in Percen
1. Organizational Structure	71/94	75.53 %
2. Human Resources	99/150	66.00 %
3. Communication & Visibility	81/122	66.39 %
4. Legal Frame & Regulations	82/84	97.62 %
Total	333/450	74 %

*Figure 12: Our performance in the Pride Champion Audit* 





# PERFORMANCE

- 5.1 Overview 52
- 5.2 Product Quality & Performance 53
- 5.3 Added Value for Customers & Industrialization 56
- 5.4 Economic Performance 58
- 5.5 Innovation & Digitalization 59



# 5.1 OVERVIEW

We want to take the path to greater sustainability Together, we are working on the future: together and responsibility throughout our company. For with research and development, our customers, our performance, it is, therefore, particularly imand strong partners in the field of AM, we are deportant to us that we link quality and environmenveloping our solutions and products in the field of tal management with the quality of our products industrial 3D printing and thus creating added value. and processes. In addition, we are striving to create Our purpose of Responsible Manufacturing is also added value for our customers in industrialization. supported by innovations such as greener materi-We stand for economic performance as well as inals or projects to make technologies and processes novation and digitalization. We aim to continuously more productive and precise while at the same time enhance our performance and meet the demands making production more material- and energy-effiof our stakeholders. Our customers' satisfaction cient. In addition, digitalization and remote support and success are essential to our business's sucexpansion help reduce our environmental impact cess. Among other things, we are certified accordand make our service more efficient. Our innovative strength has been recognized again – successful ing to ISO 9001:2015 (quality management) and ISO 14001:2015 (environmental management) and audits and awards are a tribute to our work and enoffer our customers high-quality products. courage us on our path.





EOS quality and environmental management are over the entire process from raw material extraction, production, and use to disposal or recycling. closely linked to our product quality and performance and pursue common goals.

### Product quality and durability

A common goal is to manage our company sustainably and to produce long-lasting, high-quality products. We, therefore, need fewer spare parts or other measures – this saves resources and reduces environmental pollution.

### Life cycle analysis

Our environmental and quality management systems consider the entire life cycle of a product or service – benefits.



# **PRODUCT** QUALITY & PERFORMANCE

### **Resource efficiency**

Efficient use of resources is central to both management systems. We avoid negative environmental impacts through the optimal use of materials and energy.

### Cost savings

If we optimize the use of resources and processes, costs can be saved. With efficient processes, we reduce waste, which has economic and environmental

### **Customer satisfaction**

We want to know the needs of our customers and the future market requirements. To achieve this goal while remaining cost-efficient and competitive, we have defined the following (quality) principles:

- Customer satisfaction is our measure of quality.
- We strive to provide above-average quality in all of our products and services.
- Our robust technical and organizational processes enable us to guarantee our high-quality standards at cost-efficient price points.
- All employees strive to perform work of flawless quality and avoid errors.
- All employees contribute to achieving the company's goals and improving quality through personally responsible, quality-conscious actions.
- We promote quality awareness among all employees by providing training courses and information events.
- The decisive factor in the implementation of our quality policy is the example set by the management in following these principles.

This enables us to meet the legal and regulatory requirements, the expectations of our customers, and our corporate goals efficiently and effectively.













### Innovation

Quality and environmental management promote innovation and continuous improvement. We can improve the environmental impact and quality by researching and developing more environmentally friendly materials or more efficient processes.

### **Process optimization**

Environmental and quality management play a key role in continuously improving our processes: we analyze and optimize work processes and can thus increase our quality and environmental friendliness.

### Audit: Re-certification of Quality and Environmental Management and VDA ISA (TISAX<sup>®</sup>)

In October 2022, we completed the re-certification audit (ISO 9001:2015, ISO 14001:2015) without any deviations. Our certificates were renewed for three years, an essential prerequisite for further business with our customers. The auditors of TÜV Rheinland confirmed that we have further improved significantly in many areas and, at the same time, pointed out the useful potential for future improvements. We are examining their implementation options and taking appropriate measures.

In EOS, information confidentiality, availability, and integrity are highly valued. We have, therefore, taken extensive measures to protect our confidential information. We follow the questionnaire on information security of the German Association of the Automotive Industry (VDA ISA). The test was carried out in November 2022 by a test service provider, in this case, the TISAX test service provider TÜV Rheinland. The result is only available via the ENX portal. The basis is the international standard ISO/IEC 27001 Information Security, Cybersecurity and Data Protection – Information Security Management Systems.

# **99**

"The organizational and technical implementation of information security measures closely related to IT security are comprehensive, meaningful, and at a high level."

Auditors TÜV Rheinland



### **Information Security**

At EOS, all employees need to be aware of our information security policy, which describes the basic principles and objectives of information security at EOS. For this reason, all new employees receive our information security policy before their first working day, together with their employment contract.

### **Customer Satisfaction**

World-class customer experience is one of our strategic pillars. This means that we measure the customer experience continuously and at the decisive contact points. To this end, we have introduced a closed-loop process. It ensures that we can effectively receive customer feedback and – where necessary – improve our products and processes.

### Remote Support: RemoteFIRST

With fewer trips and optimized spare parts supp we can significantly reduce our environmental impact and that of our customers – thanks to remote support. During the year, we launched the RemoteFIRST initiative. We want to further expand our remote service and fully exploit the potential of remote analysis and diagnostics. We are reducing the number of on-site service calls and the associated travel, as well as shortening service times. Four of our twelve service KPIs introduced during the year are directly related to the use of remote support and are part of our strategic goals:

- Reducing travel time and ecological footprint
- Increase the proportion of remote analysis and diagnosis
- Increased remote resolution of incidents
- Shortening the mean time to repair (MTTR)

ply,
------



# 5.3 **ADDED VALUE** FOR CUSTOMERS & INDUSTRIAL-**IZATION**

With innovations, we can reach a new level in products and for our customers: our digital foam approach integrates 3D printing in sports articles, and our innovative aluminum alloy Al5X1 combines high strength and elongation with competitive costs. Future-oriented products and new applications are indispensable for the development of our industry. And our customers benefit in particular from the usual high quality and sound expertise in our networks as well as from the development of technology.

### EOS Aluminum Al5X1 – EOS Expands **Metal Materials Portfolio**

We developed EOS Aluminum AI5X1 especially for additive manufacturing. The new, innovative aluminum alloy combines outstanding performance and material properties. The strength is about 410 MPa, and the elongation at break is 14%.

With EOS Aluminum AI5X1, companies can produce components faster and at lower total cost because only single-stage heat treatment without hot isostatic pressing (HIP) is required. 3D printed applications with EOS Aluminum AI5X1 can also be electropolished and anodized (Type II and Type III) – for corrosion-resistant and cosmetic, colored protection properties. Important for consumer products: there are no limits to the possible color selection.

### The aluminum alloy

- is light, high-strength, stretchable, and corrosion-resistant,
  - requires only a single-stage heat treatment without water quenching,
  - suitable for the aerospace, electronics, and transport industries.



### Can I 3D Print This?

We at EOS are speeding up the answer to the question: Can I make this additive? Admittedly, additive manufacturing has proven advantages and is widespread. However, some companies still struggle to expand their traditional manufacturing processes. For the first decision-making process, interested newcomers can discover how AM can become a reality in their company. An online analysis tool for this is "Can I 3D Print This?".

The free analysis tool helps companies to answer the most frequently asked questions about AM. The tool is accessible via a user-friendly platform. It lets companies enter applications, current manufacturing, and part design information.

"Can I 3D Print This?" was developed for metal and polymer 3D printing and is tailored to industrial 3D printing. Once entered, a comprehensive analysis and an application report are generated.

Each report contains:

- Analysis of application geometry
- Recommended AM system (3D printer) and material
- Suitable material qualities compared to the current material

- Analysis of break-even point and production time compared to the current procedure
- Cost comparison with current manufacturing process and product life cycle
- Analysis of the part price adapted to the part orientation

The web-based tool is currently available for the North American market, but we are working on a global offering.

### Partnerships and cooperations

### Network for AM Contract Manufacturing: Quality and Expertise

Our new network for contract manufacturing connects end customers with established AM production partners to produce high-quality parts quickly and reliably. We are expanding the network internationally with seven partners from Europe, the Middle East, and Africa: FKM, Erpro, Volum-E, Pankl, Materialise, Oerlikon, and Hasenauer & Hesser. Customers looking for a trusted service provider can contact the network for rapid prototyping or small series. Companies that want to be part of the Contract Manufacturer Network are subject to a thorough evaluation. They must meet certain criteria, e.g., serve customers in the whole Europe, Middle

East, and Africa (EMEA) region, have a quality management system according to ISO 9001:2015, and meet KPIs in areas such as customer satisfaction, rejection rate, and delivery reliability. Experienced partners must have installed at least five of the latest generation EOS systems and process EOS material. This is the only way to ensure that the quality promise of the network is kept. EOS provides all the necessary tools for remote service so that EOS production partners can deliver the highest levels of performance and system availability. EOS Contract Manufacturing Network partners can increase their reach in the MakerVerse Partner Hub. It also answers questions and handles payment, orders, and invoicing.

### **Technology Development and Customer** Identification

EOS and Doosan Enerbility plan to expand their technology development and customer identification cooperation. Doosan Enerbility has the largest 3D printing production plant in Korea at its headquarters in Changwon and has completed the development of the first Korean 3D printing process for cobalt alloys in cooperation with us. At EOS, as a world leader in metal 3D printing, we want to bring our 3D printing software, materials, and new process technologies into the partnership. Doosan En-

erbility shares the collected feedback and technology needs. Doosan will also help us beta-test new products.

### **Rocket Launches Using Our 3D Printing** Technology

The Australian company Gilmour Space Technologies has chosen us as a partner for additive manufacturing. The Queensland-based company is a leading Australian space company that develops Eris launchers and G-Sat microsatellite platforms and launches them from Bowen Orbital Spaceport in northern Queensland. The project is part of the Australian Space Manufacturing Network, which the Australian government financially supports as part of its Modern Manufacturing Strategy.



# 5.4 ECONOMIC PERFORMANCE

The market situation in the year under review was challenging. High-tech industries such as additive manufacturing were particularly affected by a general reluctance to spend and invest. However, as a family-owned company with a long-term perspective, EOS performed relatively well and achieved its economic goals for the financial year. EOS Holding AG is the top management body of EOS GmbH. Consolidated financial statements in accordance with the German Commercial Code are prepared and published annually for these companies, which look back on past performance and provide a decision-making basis for the future management of the company. As EOS GmbH, we, therefore, do not publish our own annual financial statements.







# INNOVATION & DIGITALIZATION

### EU project InShaPe

### **Innovations in Metal-based AM**

The InShaPe research and innovation project aims to make a decisive contribution to the further development of industrial 3D printing using so-called laser beam shaping. Since 2022, EOS has been conducting research with project partners to adapt the laser beam shape. The EU is funding InShaPe with a total of €7.2 million.

A few years earlier, our innovation team began to work on adapting the laser beam shape to the respective application. Metal-based additive manufacturing is now faster, cheaper, and more sustainable, while certain properties and robustness can be achieved: the production rate is seven times higher, costs are more than half lower, energy consumption fell by 60%, waste is 30% less, and material usage is reduced.

### Faster, More Sustainable, Lower Costs

InShaPe started on June 1, 2022 and will run until the end of May 2025. The EU project aims to develop metal-based additive manufacturing further. The consortium aims to develop this form of AM into a commercially diversified manufacturing technology that will provide an attractive alternative to conventional manufacturing processes in the future: By adapting the shape of the laser beam and the new exposure options, the manufacturing process is more productive and can be optimized for each application. It is also more energy and material efficient. As a result, the adjustments also ensure greater sustainability.

At the same time, the innovation InShaPe aims to demonstrate the competitiveness of additive manufacturing compared to traditional manufacturing in terms of unit costs, flexibility, and production volume. Al-based operation and control are also intended to allow non-highly skilled workers to use the new procedures efficiently.

InShaPe is about further developing and practically demonstrating the innovative powder bed melting process for metals (PBF-LB/M). It is targeting four industrial applications in the energy, automotive, and aerospace industries.

### Awards for Our Innovative Strength

## Top Innovator 2023: EOS Is Honored for the 7th Time

EOS was once again awarded the seal of approval as a Top 100 Innovator. We received the seal for the seventh time in a row. The recognition we have received over the years is a tribute to our continuous efforts and innovations. At EOS, we can think ahead and develop ideas. This enables us to manufacture products that put our customers ahead of the competition.



UNTERNEHMENSPORTRAIT

### EOS GmbH Electro Optical Systems



### KONTAKT

Robert-Stirling-Ring 1 82152 Krailling

T 089 89336-0 info@eos.info https://www.eos.info



Our products and services contribute to this, and we continue to innovate and develop them further, for example, antennas – our Fine Detail Resolution technology (Golden Devices FDR project) or new software for EOSPrint and EOSConnect.

The innovation competition for the Top 100 is decided on the basis of a scientific evaluation. To this end, researchers examine more than 100 criteria from five categories: top management that promotes innovation, the innovation climate, innovative processes and organization, external orientation/open innovation, and innovation success. At EOS, we have received recognition for our innovation strategy, innovation processes, and continuously innovative approach – ultimately for our success. This recognition confirms our ability to react to changes in the market, attract and retain customers, and thus remain successful in the long term.

The award is also a stimulus for the future: we not only want to maintain this level, but we also want to continue to expand our horizons. That is why we focus on continuous learning and interdisciplinary teamwork. We want to continue developing our portfolio of innovations systematically, deepen our creative cooperation with our customers, and strengthen our innovation culture, where ideas are welcomed and considered.



### **Triple Recognition by AMGTA**

At the annual conference of AMGTA, EOS was awarded in three categories: for our sustainability report, for our environmental management system according to ISO 14001:2015, and in the field of research on environmental sustainability.

"

"We were the only member company to receive awards in all three categories. This underlines our leading role in the industry in sustainability and Responsible Manufacturing. It is also an honor for all our colleagues who are driving these issues forward every day."

### Björn Hannappel, Head of Sustainability

### Software Open-jam Hackathon

Our regular hackathons show the innovative spirit of our employees. Innovative ideas for EOS products are presented at the beginning of the two-day software open jams. Participants then select the topic of greatest interest to them. Teams are formed to transform the ideas into prototypes within the two days. As a result of this process, the composition of the teams is cross-functional in terms of hierarchy, technical expertise, and departmental affiliation. Should a team lack the expertise to develop its innovative idea into a prototype, its members will try to attract colleagues to work with them. At the end of the first day, the teams give feedback on each other's intermediate sessions and bring their knowledge to the table. At the end of the second day, the teams present their results, and all participants vote for the best idea. The best three ideas receive a small prize. After the hackathon, we decide which ideas will become part of our product portfolio and which ideas will be developed further at the next software open jam.





### **No Feature Day**

At No Feature Day, development teams work on new topics that interest them. They use new technologies and development tools to do this and can experiment with smaller innovations to improve products. The participating scrum teams work on ideas outside the product backlog on a day in the sprint. This allows them to innovate their ideas for added product value. They regularly present their progress. This allows them to decide whether the idea should be continued or whether they should work on another, possibly better idea. Once the idea has been developed into a prototype, a decision is made as to whether it will be integrated into the product.

### **Digitalization: Internal**

Sustainability and longevity are issues that also affect working in the digital workplace. We introduced Windows Autopilot, our automated registration process, in the year under review. It has greatly improved the notebook installation process: Windows Autopilot offers a number of benefits for EOS as a company that will have a positive impact on our work and environment:

- Reduction in the number of trips: Windows Autopilot makes remote support for devices easier and makes remote management more efficient. This reduces on-site visits and trips for setup and maintenance.
- Efficient device life cycle management: Windows Autopilot makes redistributing and repurposing devices easier. This extends the life of the hardware, reduces new purchases, and reduces the environmental impact of manufacturing and disposal.

- Cloud-based management: Windows Autopilot uses cloud-based services to deploy and manage devices. This reduces the dependence on physical infrastructure, e.g., local servers.
- Optimized resource utilization: Windows Autopilot simplifies deployment so organizations can allocate resources more efficiently. As time and effort for equipment setup and configuration are reduced, IT teams can focus on strategic initiatives that contribute to sustainability goals.



# APPENDIX

6.1 About This Report 63 6.2 GRI Index 64



# ිං1 ABOUT THIS REPORT

We are conscious of our responsibility as a company, which impacts society, our stakeholders, the environment, and the business climate. Corporate responsibility is thus a field of action that runs through all areas of our company.

For the year under review, a public sustainability report was again prepared with reference to the Global Reporting Initiative (GRI) standards. Data will be reported by financial year unless clearly stated otherwise. This report includes environmental, social, and performance data based on internal indicators and information for the period from October 1, 2022, to September 30, 2023, and the three EOS sites in Krailling, Maisach, and Düsseldorf.



# **GRI INDEX**

GRI Standard 2021	Disclosure	Chapter	Reason for Omission
GRI 2:	2-1 Organizational details	1.2	
General Disclosures	2-2 Entities included in the organization's sustainability report	1.1	
2021	2-3 Reporting period, frequency and contact point	(p.2)/6.1	
	2-4 Restatements of information		Not applicable
	2-5 External assurance		Not applicable
	2-6 Activities, value chain and other business relationships	1.2	
	2-7 Employees	4.2	
	2-8 Workers who are not employees	4.2	
	2-9 Governance structure and composition	1.3	
	2-10 Nomination and selection of the highest governance body	1.3	
	2-11 Chair of the highest governance body	1.3	
	2-12 Role of the highest governance body in overseeing the management of impacts	1.3	
	2-13 Delegation of responsibilities for managing impacts	1.3	
	2-14 Role of the highest governance body in sustainability reporting	1.3	
	2-15 Conflict of Interest	2.3	
	2-16 Communication of critical concerns	2.3	
	2-17 Collective knowledge of the highest governance body	1.3	
	2-18 Evaluation of the performance of the highest governance body	1.3	
	2-19 Remuneration policies		Confidentiality constraints
	2-20 Process to determine the remuneration		Confidentiality constraints
	2-21 Annual total compensation ratio		Confidentiality constraints
	2-22 Statement on sustainable development strategy	1.1	
	2-23 Policy commitments	2.3	Information unavailable / incomp
	2-24 Embedding policy commitments	2.3	Information unavailable / incomp
	2-25 Processes to remediate negative impacts	2.3	Information unavailable / incomp
	2-26 Mechanisms for seeking advice and raising concerns	2.3	
	2-27 Compliance with laws and regulations	2.3	
	2-28 Membership associations	4.4	
	2-29 Approach to stakeholder engagement (with reference to material topic selection)	4.4	
	2-30 Collective bargaining agreements	4.2	



GRI 3: Material Topics 2021	<ul><li>3-1 Process to determine material topics</li><li>3-2 List of material topics</li><li>3-3 Management of material topics</li></ul>	2.2 2.2 2.2	
GRI 201: Economic Performance 2016	201-1 Direct economic value generated and distributed 201-2 Financial implications and other risks and opportunities due to climate change 201-3 Define benefit plan obligations and other retirement plans 201-4 Financial assistance received from government		Confidentiality constraints Confidentiality constraints Confidentiality constraints Confidentiality constraints
GRI 205: Anti-corruption 2016	205-1: Operations assessed for risks relation to corruption 205-2: Communication and training about anti-corruption policies and procedures 205-3: Confirmed incidents of corruption and actions taken	2.3 2.3 2.3	
GRI 301: Materials 2016	301-1 Materials used by weight or volume 301-2 Recycled input materials used 301-3 Reclaimed products and their packaging materials	3.3 3.3 3.3	Information unavailable / incomple Information unavailable / incomple Information unavailable / incomple
GRI 302: Energy 2016	<ul> <li>302-1 Energy consumption within the organization</li> <li>302-2 Energy consumption outside of the organization</li> <li>302-3 Energy intensity</li> <li>302-4 Reduction of energy consumption</li> <li>302-5 Reductions in energy requirements of products and services</li> </ul>	3.4 3.4 3.4 3.4 3.4	Information unavailable / incomplet Information unavailable / incomplet Information unavailable / incomplet Information unavailable / incomplet
GRI 303: Water and Effluents 2018	<ul> <li>303-1 Interactions with water as a shared resource</li> <li>303-2 Management of water discharge-related impacts</li> <li>303-3 Water withdrawal</li> <li>303-4 Water discharge</li> <li>303-5 Water consumption</li> </ul>	3.5 3.5 3.5 3.5 3,5	Information unavailable / incomple Information unavailable / incomple Information unavailable / incomple Information unavailable / incomple
GRI 305: Emissions 2016	<ul> <li>305-1 Direct (scope 1) GHG emissions</li> <li>305-2 Energy indirect (scope 2) GHG emissions</li> <li>305-3 Other indirect (scope 3) GHG emissions</li> <li>305-4 GHG emissions intensity</li> <li>305-5 Reduction of GHG emissions</li> <li>305-6 Emissions of ozone-depleting substances (ODS)</li> <li>305-7 Nitrogen oxides, sulfur oxides, and other significant air emissions</li> </ul>	3.4 3.4 3.4 3.4 3.4	Information unavailable / incomplet Information unavailable / incomplet Information unavailable / incomplet Information unavailable / incomplet Information unavailable / incomplet Not applicable Not applicable



GRI 306: Waste 2020	<ul> <li>306-1 Waste generation and significant waste-related impacts</li> <li>306-2 Management of significant waste-related impacts</li> <li>306-3 Waste generated</li> <li>306-4 Waste diverted from disposal</li> <li>306-5 Waste directed to disposal</li> </ul>	3.5 3.5 3.5 3.5 3.5	Information unavailable / incomplete Information unavailable / incomplete Information unavailable / incomplete Information unavailable / incomplete
GRI 308: Supplier Env. Assessment 2016	308-1 New suppliers that were screened using environmental criteria 308-2 Negative environmental impacts in the supply chain and actions taken	3.2 3.2	Information unavailable / incomplete
GRI 401: Employment 2016	401-1 New employee hires and employee turnover 401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees 401-3 Parental leave	4.2 4.2 4.2	
GRI 403: Occup. Health and Safety 2018	<ul> <li>403-1 Occupational health and management system</li> <li>403-2 Hazard identification, risk assessment, and incident investigation</li> <li>403-3 Occupational health services</li> <li>403-4 Worker participation, consultation and communication on occupational health and safety</li> <li>403-5 Worker training on occupational health and safety</li> <li>403-6 Promotion of worker health</li> <li>403-7 Prevention and mitigation of occupational health and safety impacts directly linked by</li> <li>business relationships</li> <li>403-8 Workers covered by an occupational health and safety management system</li> <li>403-9 Work- related injuries</li> <li>403-10 Work-related ill health</li> </ul>	<ul> <li>4.3</li> </ul>	Information unavailable / incomplete Legal prohibitions Legal prohibitions
GRI 404: Training and Education 2016	404-1 Average hours of training per year per employee 404-2 Programs for upgrading employee skills and transition assistance programs 404-3 Percentage of employees receiving regular performance and career development reviews	4.2 4.2 4.2	
GRI 405: Diversity and Equal Opport. 2016	405-1 Diversity of governance bodies and employees 405-2 Ratio of basic salary and remuneration of women to men	4.5 4.5	Information unavailable / incomplete Information unavailable / incomplete



GRI 406: Non-discrimination 2016	406-1 Incidents of discrimination and corrective actions taken	2.3 / 4.5	Information unavailable / incomple
GRI 414: Supplier Social Assessment 2016	414-1 New suppliers that were screened using social criteria 414-2 Negative social impacts in the supply chain and actions taken	3.2 3.2	Information unavailable / incomple Information unavailable / incomple
GRI 416: Customer Health & Safety 2016	416-1 Assessment of the health and safety impacts of products and service categories 416-2 Incident of non-compliance concerning the health and safety impacts of products and services	4.3 4.3	Information unavailable / incomple Information unavailable / incomple

