



# 1H22 | ESG REPORT

Lisbon, July 27<sup>th</sup>

BRASIL  
São Paulo  
Solar Boituva

# Leading on ESG matters at EDP

## Key Highlights

This year continues to be marked by the tragic events in Ukraine. The fallout from the conflict has brought light to the fragility of our energy system, driven by the continued dependence of European economies on fossil fuels. We have also witnessed more regular extreme weather events, such as the droughts and recent wildfires across Europe. In this context, it has never been more important for EDP to deliver on our commitment to lead the energy transition. The Glasgow Climate Pact that emerged from COP26 gave us hope and provided momentum to the commitment we have set in our strategic plan to double our renewable installed capacity and reinforce power grids, investing €24bn up to 2025. We are committed to becoming coal free by 2025 and all green by 2030.

According to IEA, almost half of the reductions in emissions by 2050 will come from technologies that are currently at the prototype phase. This underlines the need to put innovation and digital at the heart of our strategy and operations. As a result, EDP will invest €1bn in Innovation and €1bn in Digital until 2025 to accelerate the development of technologies which will allow us to address climate change.

Our transformative growth over the last 20 years, with our operations now spanning across 28 markets and four continents, demonstrates the steadfast support we have received from investors who believe in our mission. We are determined to maintain our track record of ESG excellence and transparency, to ensure investors have the tools to measure our ESG performance and fit it within their own portfolio analysis. We firmly believe that effective ESG reporting is a way to be held accountable by our stakeholders, including the communities in which we operate and where we aim to generate a positive impact by leaving no one behind.

As regulation evolves, we will continue to be proactive in the adoption of the most recognized reporting standards. The indicators included in this report are selected based on their relevance to investor communities and our business operations. For more sustainability information please see full-year EDP Sustainability report here.

Our annual sustainability report follows other voluntary regulatory reporting frameworks, namely the Task Force on Climate-related Financial Disclosures (TCFD), the Sustainability Accounting Standards Board (SASB) and the Portuguese Securities Market Commission (CMVM).

## Environment

At EDP, we recognize that climate change and biodiversity loss are intertwined crisis.

Climate change adaptation is one of the five main priorities of EDP's climate action. In Spain, we reached an important milestone when we launched Hectárea Zero, our first climate change adaptation project. By planting trees on the slopes of the Tanes reservoir, we will stabilise the slopes and prevent the reservoir from silting up, while also improving the biodiversity of the surrounding ecosystem.

And to promote aquatic biodiversity and minimize the impacts of the barrier effects of dams, in Portugal, we have been developing actions to improve river connectivity, such as characterizing the fish fauna of the Tejo River and promoting river connectivity in the Douro Basin through Borland fish locks installed on dams.

Also on the biodiversity front, in Brazil, we continue to support the Doces Nascentes Capibaixas Project which aims to mobilize rural producers to protect and recover springs by planting native seedlings. And since education is a relevant pillar for environmental preservation, we are engaging with over 11.000 students and 800 public teachers through our EDP nas Escolas Program on a specific theme chosen for this year – the acidification of oceans.

## Social

At EDP, we believe in a just transition, ensuring that we leave no one behind. We are converting our coal power plant sites into green energy hubs, with focus in green

hydrogen, energy storage, renewables and flexibility services.

In Portugal (Sines) and in Spain (Los Barrios, Puente Nuevo, Aboño, Soto de Ribera), EDP has 5 coal plants that are in the process of becoming new industrial sites and thus contributing to the energy transition and development of the regions.

Depending on the decisions of the just transition funds, with these transition plans we expect to create additional jobs. We are already developing a 100 MW electrolysis project in Sines and exploring its potential replication to other sites.

## Governance




At EDP, we firmly believe that diversity must be a key driver of our culture. Among the diversity dimensions, we are committed to increase female representation across the group globally to at least 30% by 2025 from 26,4% today.

Our progress in the area of governance has been recognised by top-tier institutions. EDP belongs to the FTSE4Good Global Index, being awarded with an excellent assessment in the Governance pillar. Our efforts on diversity have also been acknowledged and EDP and EDPR were both selected to be part of the Bloomberg Gender Equality Index.



*Ana Paula Marques*  
Ana Paula Marques  
Executive Board Member

# ESG performance at a glance

Indicator	Unit	1H22	1H21	Δ %	Target		
					2025	2030	
 Environment	Revenues aligned with EU taxonomy	%	54%	69%	-15p.p.	70%	>80%
	Scope 1 & 2 Emissions Intensity	gCO <sub>2</sub> /kWh	162	131	24%	~100	0 ○
	Renewables Generation	%	75%	81%	-6p.p.	85%	100% ○
	Coal Installed Capacity	%	10%	8%	+2p.p.	0	0 ○
	Total Waste	kt	198	123	61%	118	30
 Social	Employee Engagement (top tier company) <sup>1</sup>		✗	✓		✓	✓
	Female Overall	%	26.6%	26.0%	+1p.p.	30%	35%
	Accident Frequency Rate <sup>2</sup>	Fr	1.66	1.78	-7%	1.55	<1
 Governance	Female on Leadership	%	26.4%	25.4%	+1p.p.	30%	35%
	ESG & equity linked compensation for Top Management <sup>3</sup>	.	✓	✓		✓	✓
	Cybersecurity	bitsight rating	810	800	1%	Keep advanced <sup>4</sup>	
	Top quartile in ESG rating Performance <sup>5</sup>	.	✓	✓		✓	✓

During the 1st half of 2022, the conditions of low hydro production in Iberia, led to a significant increase in thermal production, therefore **revenues aligned with the EU Taxonomy decreased to 54%**. **Gross investments**, including Consolidated Capex and Financial Investments, increased more than 2x to €4.0bn in 1H22, of which **98% allocated to renewables and electricity networks activities**, fully aligned with the energy transition.

**Renewables represented 75% of electricity generated** by EDP in 1H22, which compares with 81% in the same period last year.

**Specific CO2 emissions** increased in 1H22 due to the increase in the thermal generation output. On the other hand, Pecém power plant, in Brazil, was not requested to operate.

**Total waste increased by 61% YoY**, to 198 kt, mainly explained by the increase in the operation of the Iberian thermal power plants.

**Accident Frequency rate** decreased to 1.66 in 1H22 (-7%). EDP continues determined to strengthen the culture of Occupational Health and Safety, having started in 2021 a new program, “Playitsafe”, to raise awareness of the importance of building and adopting safe habits at EDP.

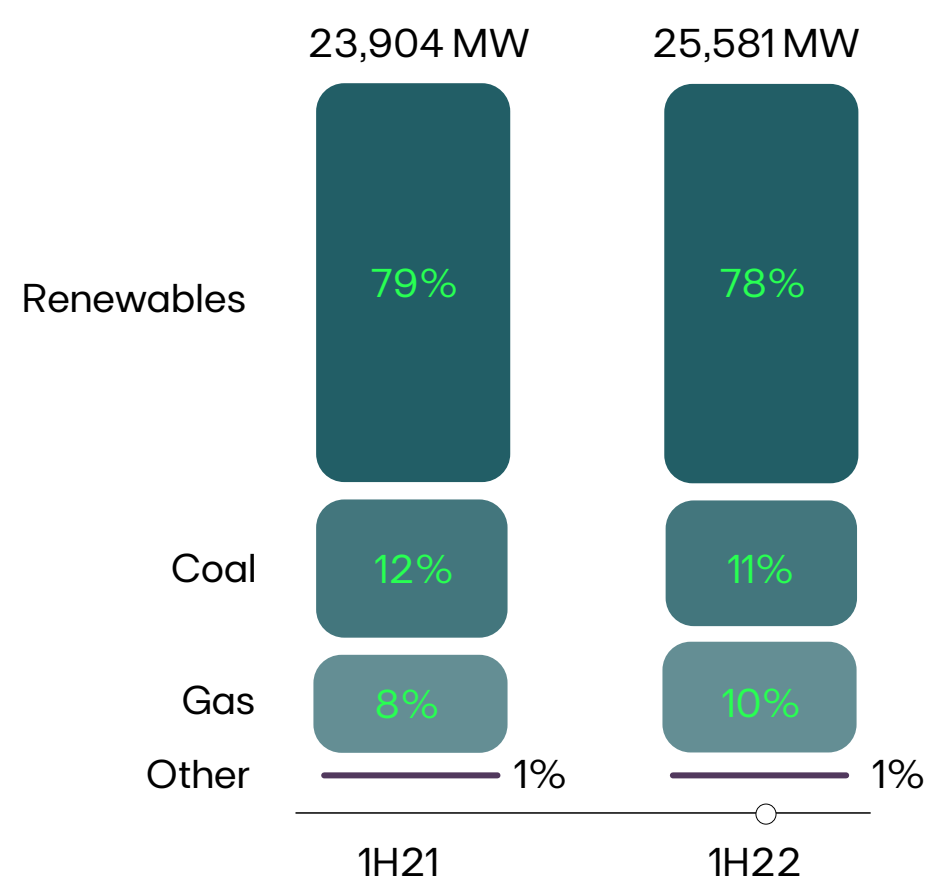
**In 1H22, female representation stood at 26.4%** of EDP’s workforce representing 1p.p. increase versus 1H21.

○ Sustainable Finance Disclosure Regulation (SFDR) Indicator

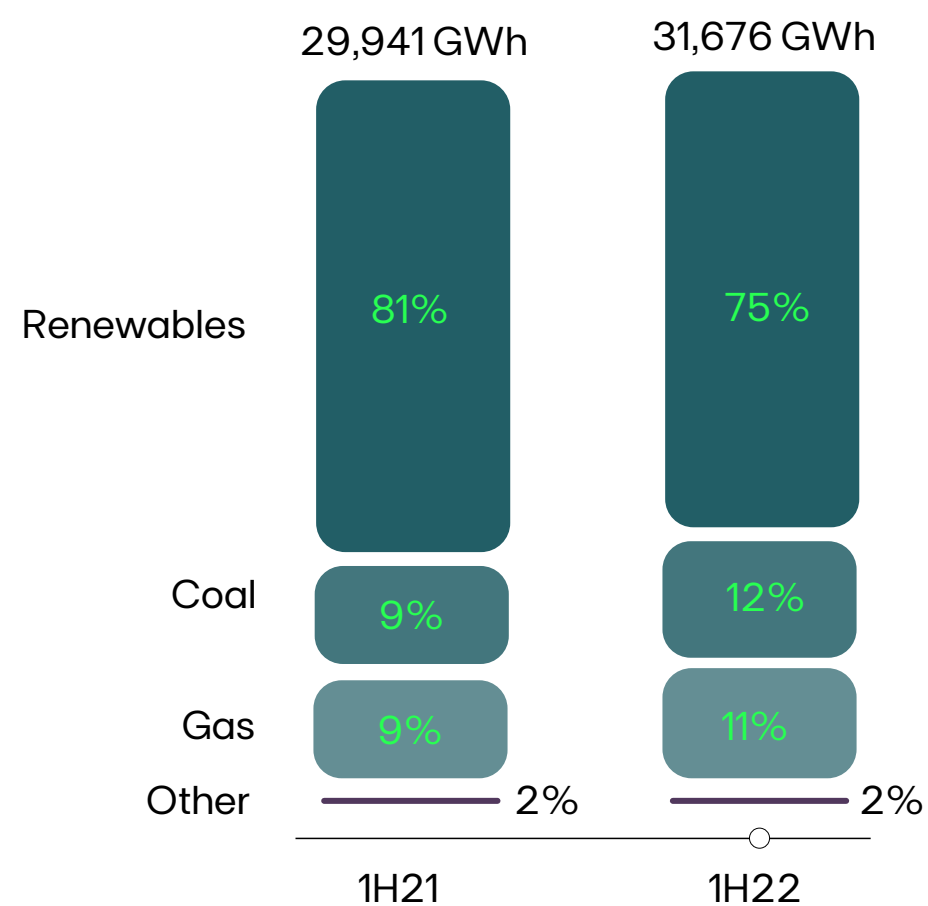
1. Above the high performing norm, including results of surveys done to more than 875,000 employees in 50 high performing organizations and is based on company financial performance and engagement and enablement scores. 2. Number of accidents at work with absence/fatalities, per million hours worked (including employees and contractors); 3. Applicable to Board of Directors and top management; 4. >= 740; 5. Includes DJSI, FTSE4Good, MSCI and Sustainalytics.

# Operational highlights committed to a renewables path

## Installed Capacity (MW)<sup>1,2</sup>



## Electricity Generation (GWh)



HYDRO COEFFICIENT (%)	1H22	1H21	Δ %
Portugal	34%	111%	-77p.p.
Spain	50%	100%	-50p.p.
Brazil <sup>3</sup>	101%	70%	+32p.p.

RENEWABLES INDEX <sup>4</sup> (%)	-5%	-5%
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ELECTRICITY DISTRIBUTED (GWh)	1H22	1H21	Δ %
Portugal	22 764	22 180	3%
Spain	6 819	7 083	-4%
Brazil	13 369	13 057	2%

CUSTOMERS CONNECTED (#Th)	1H22	1H21	Δ %
Portugal	6 398	6 336	1%
Spain	1 380	1 373	1%
Brazil	3 715	3 628	2%

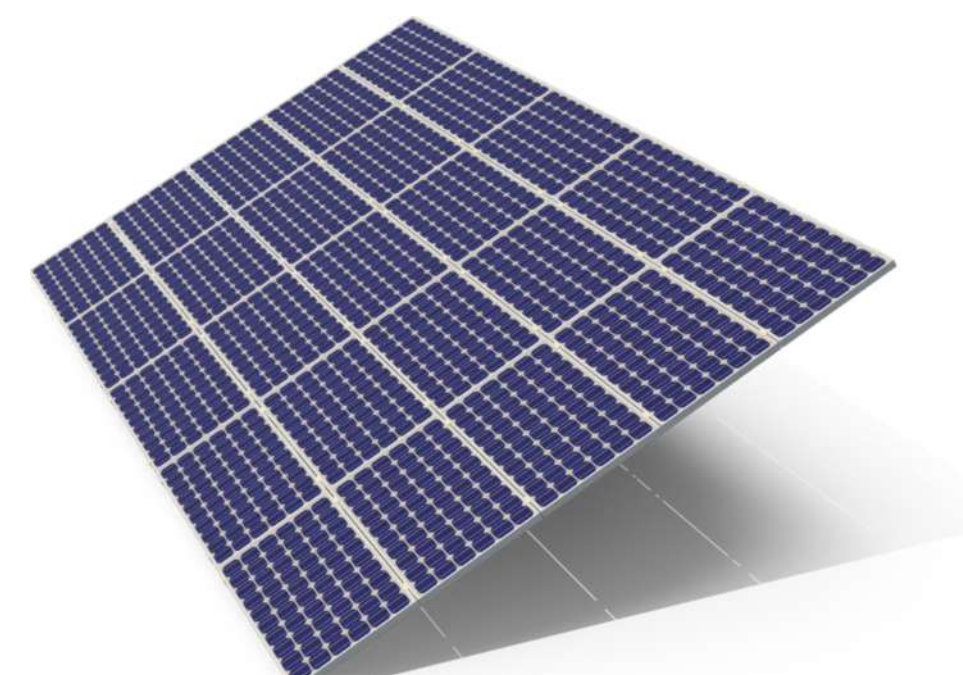
TOTAL ENERGY CONSUMPTION	1H22	1H21	Δ %
<b>Total Renewable consumption (GWh)</b>	<b>798</b>	<b>913</b>	<b>-13%</b>
Fuel	2	2	-2%
Electricity	796	911	-13%
Self-generated non-fuel renewable energy	776	876	-11%
<b>Total Non-Renewable consumption</b>	<b>18 120</b>	<b>12 958</b>	<b>40%</b>
Fuel	17 292	12 394	40%
Electricity	828	564	47%
<b>Energy consumption intensity (MJ/€)</b>	<b>7</b>	<b>8</b>	<b>-18%</b>

○ Sustainable Finance Disclosure Regulation (SFDR) Indicator

1.EBITDA MW; 2. Other includes Nuclear, Cogeneration & Waste; 3. Brazil hydro coefficient refers to ENA index; 4. Renewables Index (vs. LT avg. Gross Capacity Factor).

## New services highlights committed to drive new client solutions and smarter networks

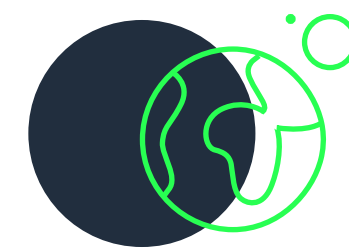
ENERGY EFFICIENCY	UNIT	1H22	1H21	Δ %
Energy Services Revenues / Turnover <sup>1</sup>	%	8.9%	8.1%	+1p.p.
Energy Efficiency Services Revenues	€ m	449	116	288%
DISTRIBUTED SOLAR				
<b>As a service — Installed Capacity <sup>2</sup></b>	MW	<b>498</b>	<b>152</b>	229%
Portugal	MW	77	50	55%
Spain	MW	7	1	674%
Brazil	MW	50	31	63%
US	MW	83		
APAC	MW	277		
Other	MW	3	1	
<b>Secured Capacity <sup>3</sup></b>	MW	<b>434</b>	<b>88</b>	393%
E-MOBILITY				
Light fleet electrification	%	13%	12%	+1p.p.
Electric charging points <sup>4</sup>	#	4 107	2 556	61%
Clients with electric mobility solutions	#	51 121	33 200	54%
SMART METERS				
Iberia	# m	5.7	5.0	14%
Brazil	# m	0.4	0.3	29%
ELECTRICITY GRID LOSSES				
Portugal	%	9.0%	8.6%	+0.4p.p.
Spain	%	5.1%	5.0%	+0.1p.p.
Brazil (São Paulo)	%	8.2%	8.3%	-0.2p.p.
Brazil (Espírito Santo)	%	11.9%	12.9%	-1.0p.p.
<b>CUSTOMERS WITH SUSTAINABLE SERVICES <sup>5</sup></b>	%	33%	13%	+20p.p.
<b>CO<sub>2</sub> SAVINGS DOWNSTREAM <sup>6</sup></b>	ktCO <sub>2</sub>	<b>n.a.</b>	<b>8 950</b>	



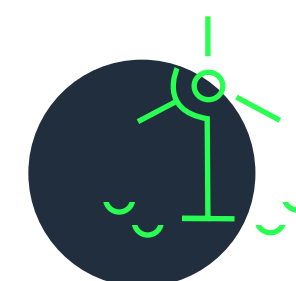
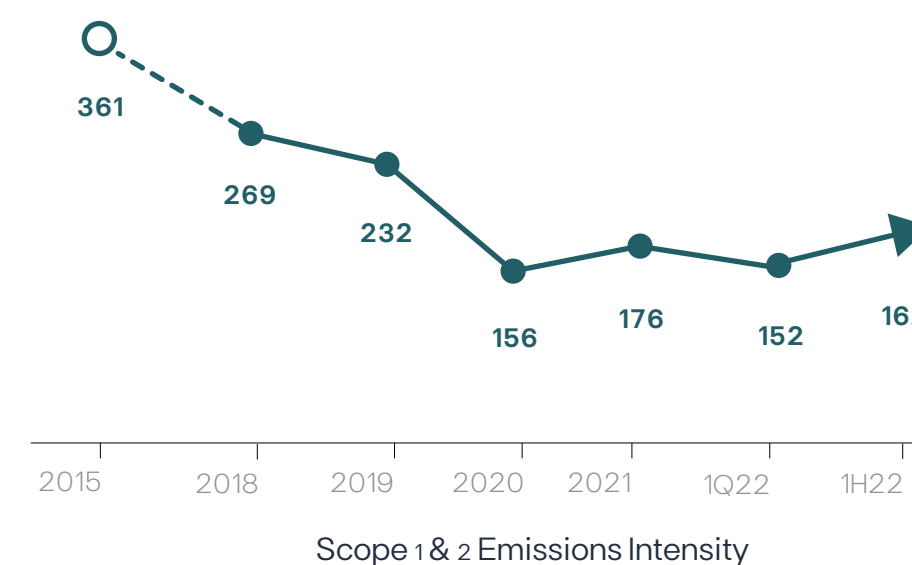
1. Energy service: Services provided under energy supply, installation of more efficient and/or building retrofit, and sustainable mobility, which generate revenues for the company; 2. As a service capacity installed at EOP, including inorganic capacity. 3. Cumulative secured capacity during business plan 21-25 (excludes EDPR). 4. Includes public, private and charging points inside EDP facilities installed; 5. Sustainability Services concept aligned with EU taxonomy. Excludes Health Insurance, Fatura Segura and Gas Certification. Includes only B2C electricity clients; 6. CO<sub>2</sub> avoided by carrying out efficiency improvement measures that lead to a reduction in customer consumption, as well as measures to replace energy sources with other less CO<sub>2</sub>-emitting ones, namely replacing fossil fuels with renewable energy sources or sustainable mobility - 2021 annual value.

# Environmental highlights committed to a carbon-free economy

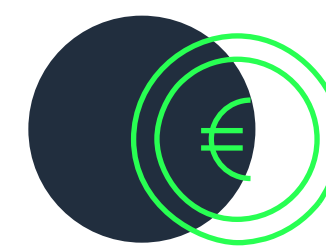
	1H22	1H21	Δ %	
<b>GREENHOUSE GAS EMISSIONS (KtCO<sub>2</sub>EQ)</b>				
Scope 1 & 2 Emissions Intensity (gCO <sub>2</sub> /kWh)	162	131	24%	○
Scope 1 GHG Emissions	4 371	3 571	22%	○
Scope 2 GHG Emissions <sup>1</sup>	450	314	43%	○
Scope 3 GHG Emissions <sup>2</sup>	n.a.	n.a.		○
Avoided emissions	13 428	12 899	4%	
<b>AIR QUALITY (KT)</b>				
NOx emissions	2.32	2.91	-20%	○
SO <sub>2</sub> emissions	1.00	3.93	-75%	○
Particulate matter emissions	0.11	0.56	-80%	○
<b>WATER MANAGEMENT (10<sup>3</sup>M<sup>3</sup>)</b>				
Total freshwater withdrawn	4 726	5 389	-12%	
Total freshwater consumed	4 175	4 801	-13%	
<b>COAL &amp; WASTE MANAGEMENT (T)</b>				
Total waste disposal	173 228	105 913	64%	
Total coal combustion waste disposal (%)	28	12 066	-100%	
Average waste recovery rate	97%	89%	+8p.p.	
Hazourdous waste	2 871	2 520	14%	○
<b>ENVIRONMENTAL MATTERS (€ m)</b>				
Environmental CAPEX	43.4	39.9	9%	
Environmental Expenses <sup>3</sup>	387.8	100.5	286%	
Environmental fines and penalties (€ th)	38	19	97%	
Vegetation management <sup>4</sup>	7.4	10.9	-32%	
ISO 14001 Certification (%)	85%	94%	-8p.p.	
<b>LOW CARBON ECONOMY (%)</b>				
EBITDA in Renewables	53%	60%	-7p.p.	
CAPEX in Renewables	76%	70%	+6p.p.	
Revenues from coal	7%	5%	+2p.p.	○
Revenues aligned with EU taxonomy	54%	69%	-15p.p.	
CO <sub>2</sub> / Revenues <sup>5</sup>	0.47	0.64	-26%	○



-55% (vs. 2015) Scope 1 & 2 Emissions Intensity



+1 GW of Wind and Solar added YoY



54% Revenues aligned with EU taxonomy in 1H22



Sustainable Finance Disclosure Regulation (SFDR) Indicator

1. Scope 2 emissions according with GHG Protocol based location methodology. 2. Annual Indicators - 10 304 in 2021; 3. Includes CO<sub>2</sub> allowances; 4. Vegetation management includes CAPEX and OPEX. 5. Defined as the company's annual GHG emissions (Scope 1 and Scope 2), expressed as metric tons of carbon dioxide equivalent (tCO<sub>2</sub>eq) emissions, divided by revenues for the corresponding year, expressed in millions of euros.



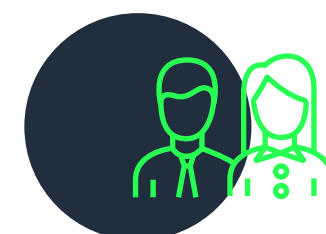
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## Social highlights committed to provide a fair and safe workplace

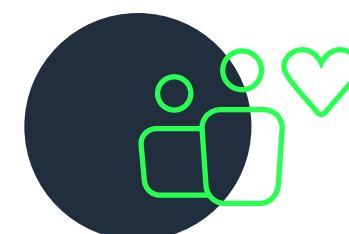
	UNIT	1H22	1H21	Δ %
<b>EMPLOYMENT</b>				
Employees	#	12 909	12 147	6%
Female employees	%	27%	26%	+1p.p.
Female/Male fixed salary	x	0.98	1.04	-6% ○
Employee Engagement <sup>1</sup>	%	76%	80%	-4p.p.
Employee Enablement <sup>1</sup>	%	71%	74%	-3p.p.
Employee Turnover	%	6.5%	7.0%	-1p.p. ○
Absenteeism*	%	3.3%	2.6%	+1p.p.
Disability Hires	#	8	n.a.	
<b>TRAINING</b>				
Total hours of training	h	147 727	168 752	-12%
Employees with training	%	83%	94%	-10p.p.
Direct training investment	€ th	1543	1468	5%
<b>HEALTH AND SAFETY</b>				
Accidents with lost workdays EDP	#	6	11	-45%
Accidents with lost workdays contractors <sup>2</sup>	#	52	71	0%
Fatal work-related injuries EDP	#	0	0	
Fatal work-related injuries contractors	#	4	5	-20%
Frequency rate EDP	Fr	0.5	0.94	-47%
Frequency rate contractors	Fr	2.20	2.07	6%
Total recordable injury rate	RFr	2.4	2.59	-7% ○
Total recordable injury rate EDP	RFr	1.17	1.11	5% ○
Total recordable injury rate contractors	RFr	2.98	3.09	-4% ○
<b>SOCIAL INVESTMENT</b>				
Beneficiary Entities	#	255	230	11%
EDP volunteers	#	1828	1674	9%
EDP time used in volunteering	h	3 291	4 856	-32%

Sustainable Finance Disclosure Regulation (SFDR) Indicator

1. Engagement - reflects the involvement and commitment by employees; Enablement - reflects the the perception of organizational support by employees. 2. Accidents occurred at the place and working time or on a journey, with 1 or more days of absence and fatal accidents.



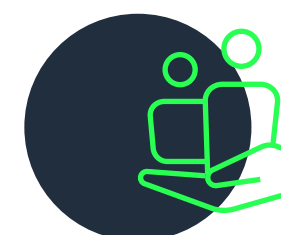
30% female employees by 2025



Top Tier Company in Employee Engagement



Accident Frequency Rate <1



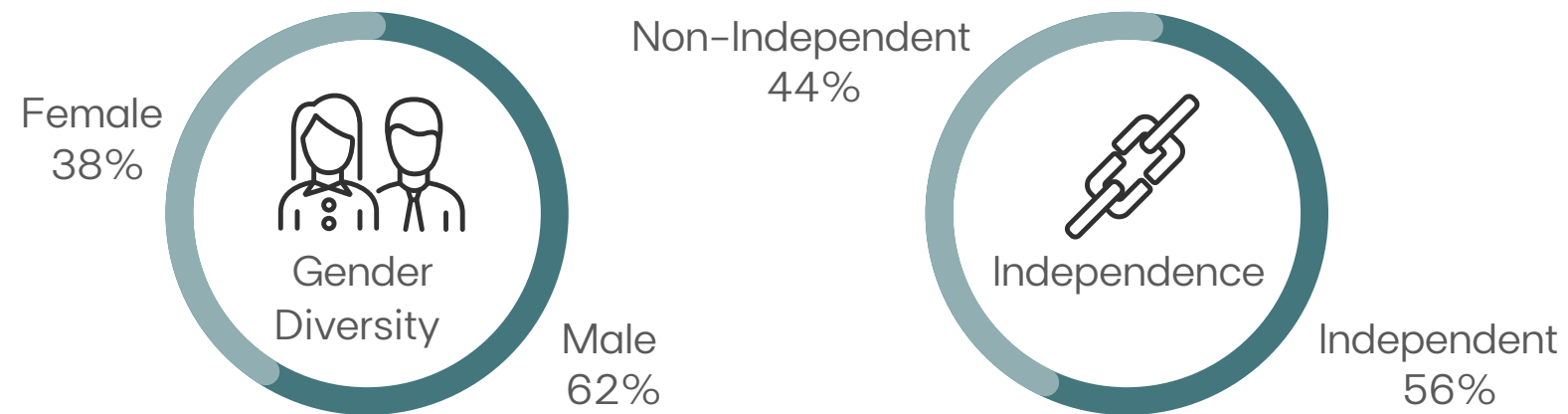
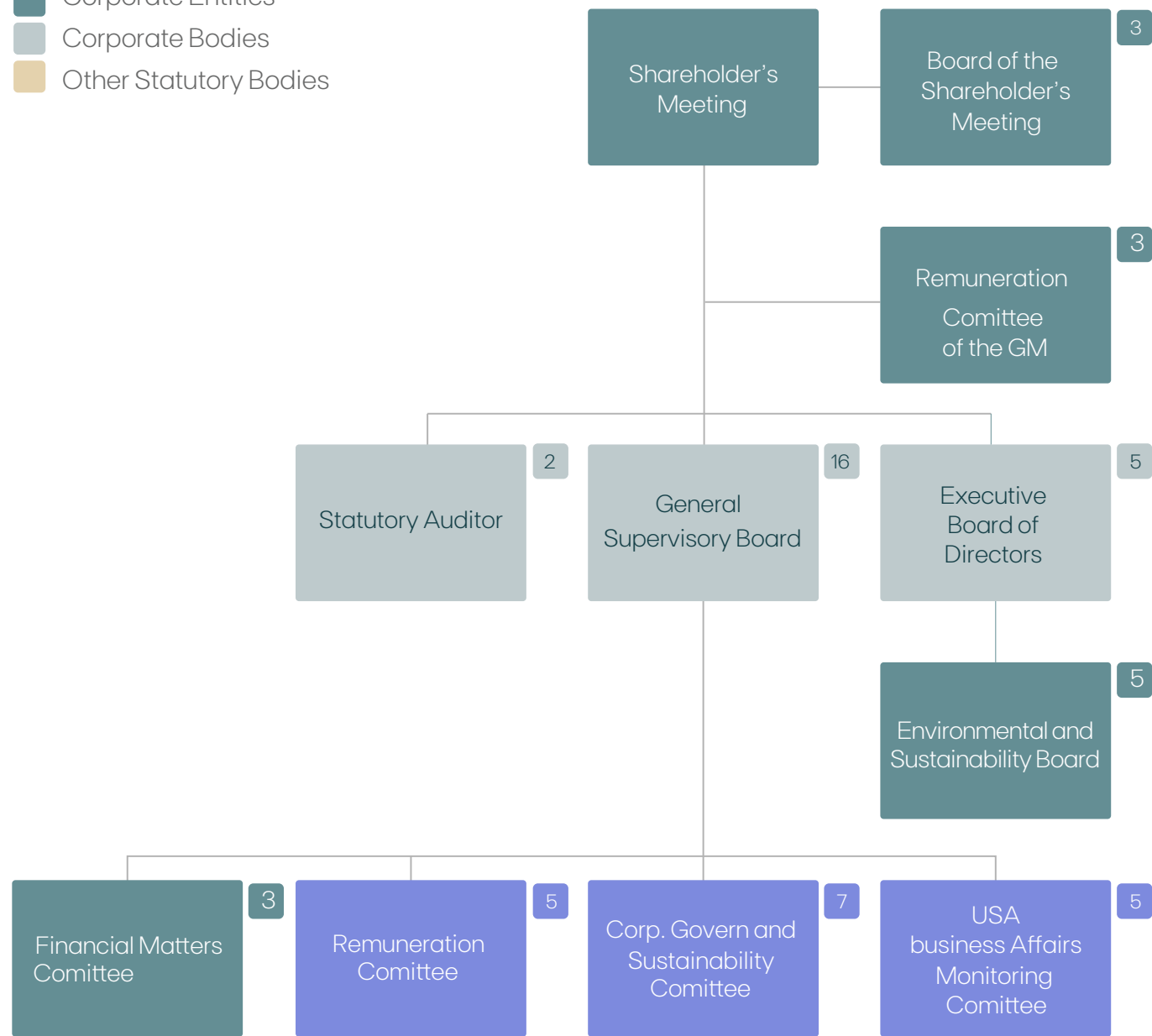
Social Investment €300M by 2030



# Governance highlights committed to the best practices

General and Supervisory Board  
 Approved on the General Shareholders' Meeting on the 14th April 2021  
 Reduced number of members from 21 to 16

- Corporate Entities
- Corporate Bodies
- Other Statutory Bodies



Independent, diverse and experienced General Supervisory Board with a strengthened cohesion  
 Full-time and independent Chairman

- ELECTION OF THE MEMBERS OF THE GSB (1/2)
- ELECTION OF THE MEMBERS OF THE GSB (2/2)
- ANNUAL REPORT OF THE GSB

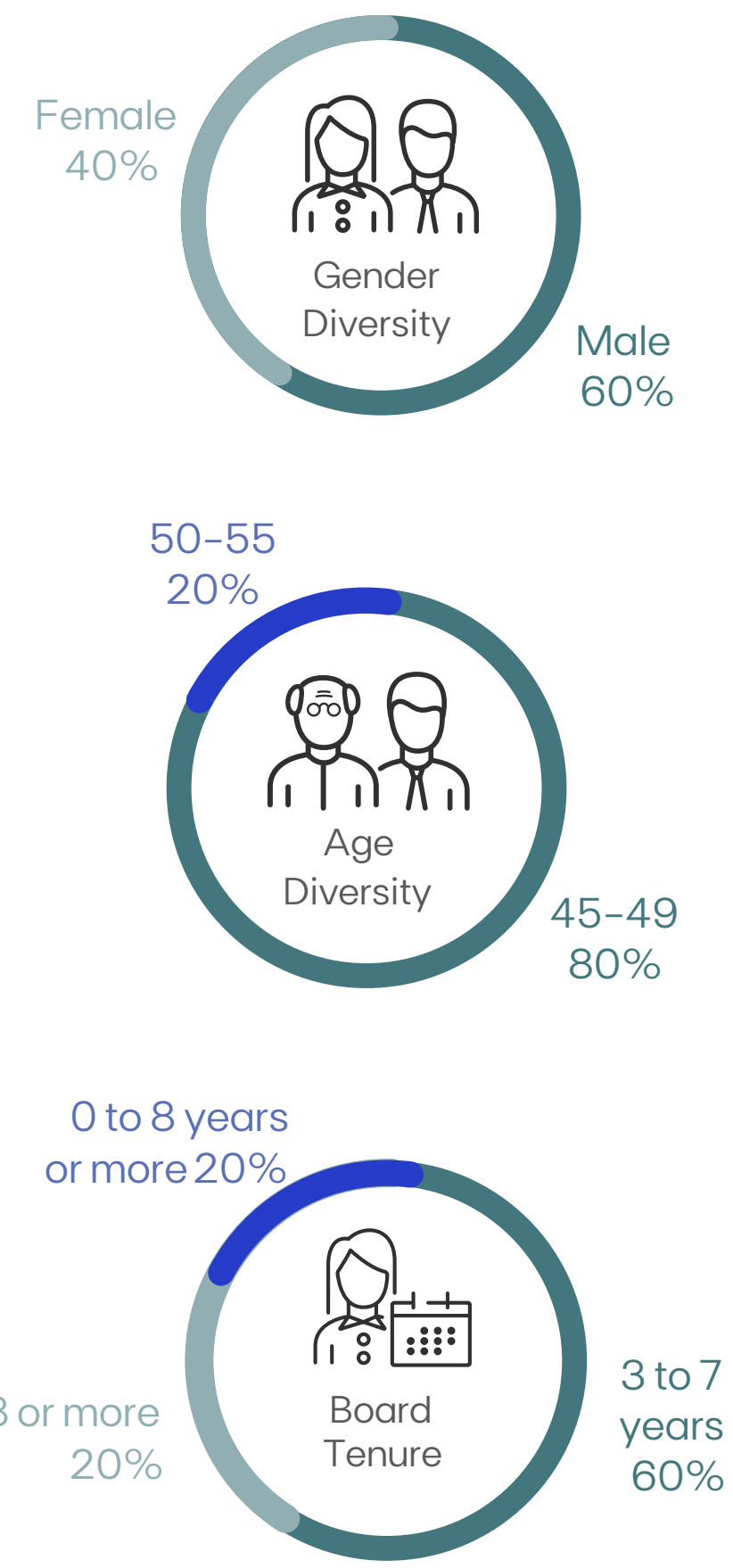


# Governance highlights committed to the best practices

Executive Board of Directors  
 Approved on the Extraordinary General Shareholders' Meeting on the 19th January 2021  
 Reduced number of members from 9 to 5



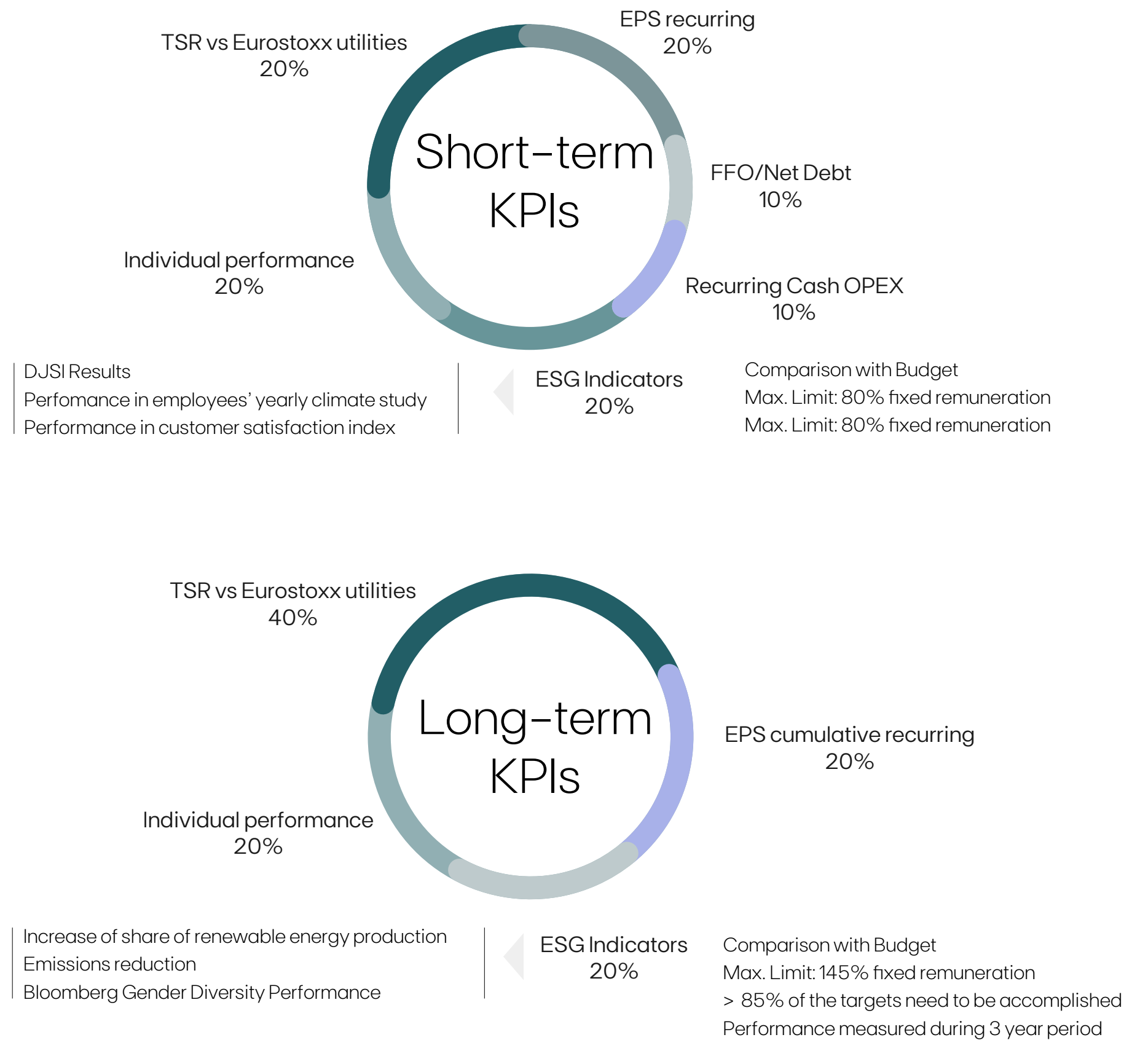
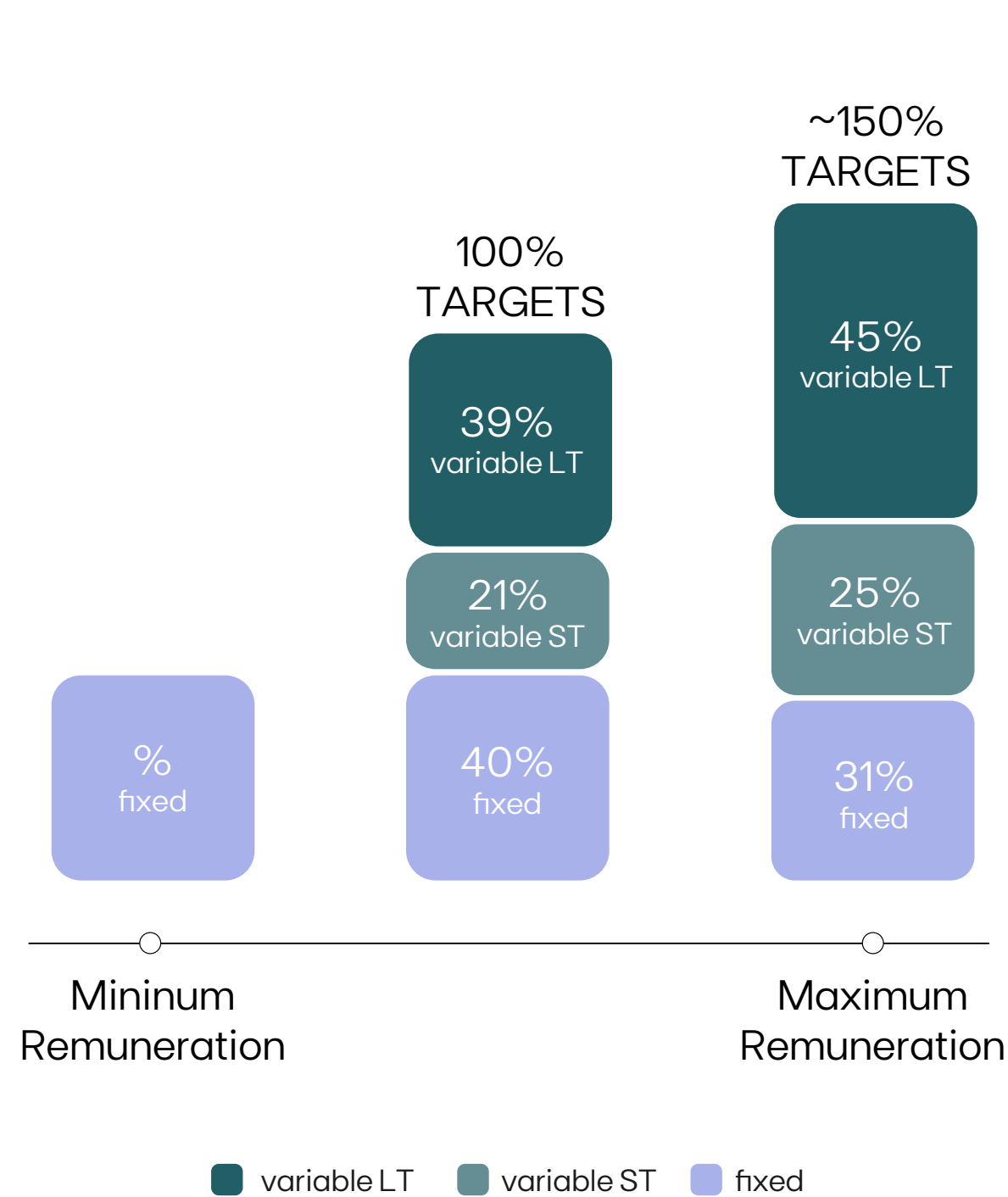
**i** ELECTION OF THE MEMBERS OF THE EBD 2021-2023



# Governance highlights overview of the remuneration policy

New Remuneration Policy aligned with Best Practices

Approved on the General Shareholders Meeting on the 14th April 2021



CODE OF ETHICS

CORPORATE GOVERNANCE

EBD REMUNERATION POLICY 2021 - 2023

## Digitalization & innovation highlights committed to drive transformation

DIGITALIZATION			UNIT	1H22	1H21	Δ %
Global	Global	Digital CAPEX <sup>1</sup>	€ m	332	88	278%
		Cybersecurity	bitsight rating	810	800	1%
Digital Business	Customer	Selfcare Interactions <sup>2</sup>	%	81%	71%	+10p.p.
		Electronic Invoices <sup>2</sup>	%	41%	37%	+4p.p.
	Assets & Operations	Predictive Maintenance <sup>2,3</sup>	%	65%	65%	+0p.p.
	Enterprise	Digitalized Processes <sup>4</sup>	%	81%		
Digital Enablers	Data & Technology	Systems in the cloud <sup>2</sup>	%	62%	56%	+6p.p.
	People & Organization	Employees w/ digital training <sup>2</sup>	%	81%	78%	+3p.p.
		Employees in Collaborative Initiatives <sup>2</sup>	%	25%	17%	+0p.p.
INNOVATION						
Innovation Team		Total investment (TOTEX)	€ Mn	52	37	40%
		Employees <sup>5</sup>	#FTE	644	302	113%
Investment Portfolio		Ongoing investments VC	#	40	36	11%
		VC investment	€ m	4.3	3.2	34%
		VC investment cumulative <sup>6</sup>	€ m	42.5	35.5	20%



EDP was one of the leading partners in the recently concluded R&D project EU-SysFlex. This project aimed to contribute to the acceleration and massification of deployment of renewable energy. For 4 years, the project's 34-partner consortium developed and tested several flexibility tools to help ensure a stable, safe and reliable integration of large shares of variable renewables in the European power system. Pilots of the various solutions created were carried out in 6 different European countries, including Portugal, with EDP taking the lead of the demonstrations of two concepts. One was a utility-scale Virtual Power Plant (VPP), for the joint operation and management of variable (Wind) and controllable renewables units (Hydro). The successful tests in operating EDP's assets established the VPP as a powerful generation portfolio management tool which may prove an alternative option to enable the participation of variable RES in energy markets. The other concept, the Flexibility Hub, is a new market platform to source and integrate flexibility from the various players in the power system – consumers, grid assets – and then use this flexibility to ensure grid stability and reliability.

1. Cumulative digital CAPEX during business plan 21-25; 2. Changes in scope of reporting limits comparability; 3. Generation (PT & SP), EDPR & EDP Brasil; 4. KPI assessed biannually; 5. Only including extended scope of EDP Brasil employees since 1H22; 6. Net of disinvestments;

# ESG ratings committed to excellence


rater	range	score	ranking	last assessment	
 <p>Member of <b>Dow Jones Sustainability Indices</b> Powered by the S&amp;P Global CSA</p>	0-100	91	1 <sup>st</sup>	Nov-21	✓
 <p>FTSE4Good</p>	0/5	4.2	Top 5%	Jun-22	✓
 <p><b>EURONEXT</b> V.E INDICES</p>	0-100	72	3 <sup>rd</sup>	Abr-22	✓
 <p>Corporate ESG Performance ISS ESG Prime</p>	D--A+	B+	n.a.	Dec-21	✓
 <p><b>SUSTAINALYTICS</b> a Morningstar company</p>	100-0	19.4	n.a.	Dec-21	✓
 <p><b>MSCI</b> ESG RATINGS AAA</p>	CCC-AAA	AAA	Top 7%	Apr-21	✓
 <p><b>CDP</b> A LIST 2020 CLIMATE</p>	D--A	A-	n.a.	Dec-21	
 <p><b>CDP</b> A LIST 2020 WATER</p>	D--A	A-	n.a.	Dec-21	




EDPR North America has been recognized as a 2021 Top Workplace USA!



✓ Top quartile in ESG rating performance

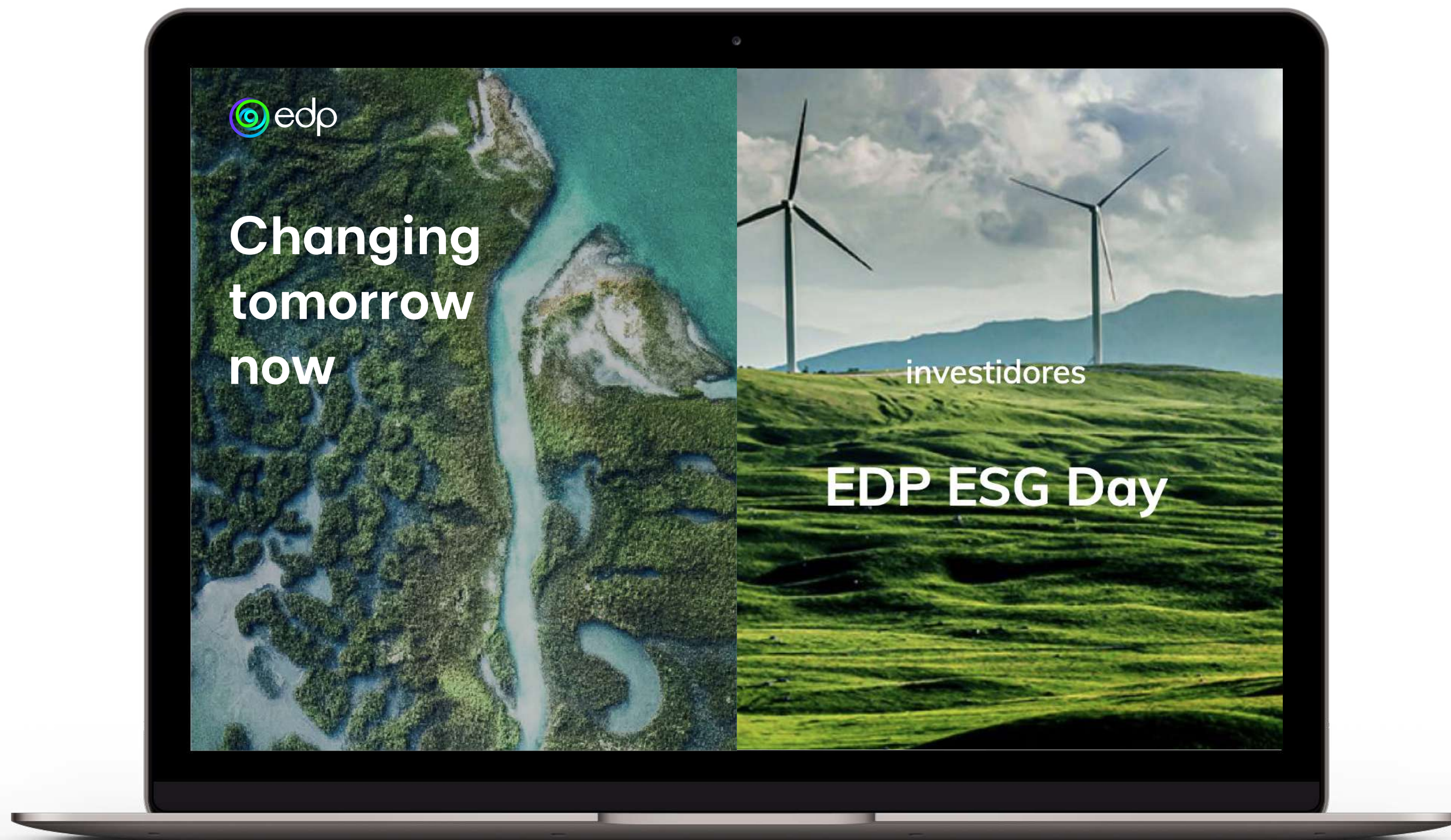


For more information on EDP's sustainability performance please visit our website



For more information on on indicators please visit our online glossary

1. The comparable peers exclude companies that manage transmission grids, only includes the ones that handle throughout the electricity value chain and electricity/gas supply. S&P ranking is considering the members' companies of DJSI World and Europe; 2. The ESG Risk Rating measures a company's exposure to industry-specific material ESG risks and how well a company is managing those risks (opposed to a score). This rating distinguishes five levels ranging from 100 (Severe) to 0 (Negligible). EDP is considered to have a medium level of risk.



For further information please visit our [sustainability report](#) and our ESG DAY page available in our [website](#)