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# ESG Report 2022

Portugal  
Hybrid Sabugal



# Leading on ESG matters at EDP

## Key highlights

2022 was a challenging year for the energy sector. We have had to navigate a global energy crisis. Extreme climate events have intensified, affecting communities around the world. These serve as a stark reminder that a faster deployment of renewables and electrification of energy consumption are urgently needed.

This last year was a period of significant restrictions on natural gas sourcing in Europe, exacerbated by the Ukraine conflict and by one of the worst droughts in Europe since the 30’s. This implied that we had to keep a higher-than-expected level of utilization of our remaining coal plants in Brazil and in Spain, as key contributions to energy security in these markets.

We brought 2.2 GW of renewable installed capacity on stream in 2022 and added 4.0 GW to the construction phase, delivering 74% of our electricity generation from renewable sources. We are on track to be coal-free by 2025 and 100% of renewable generation by 2030, in line with our strategic plan.

We have taken important steps last year across all our Environmental, Social and Governance (“ESG”) metrics, namely as follows:

### Environment

Demonstrating our focus on innovative technologies, EDP Brasil produced the first molecule of green hydrogen (H2V) in December, in a pilot project integrated in our Pecém Thermoelectric plant in the State of Ceará in Brazil, as part of the just transition.

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).

We celebrated two decades of the Avifauna Program of EDP electricity networks company in Portugal (E-Redes), which has seen 5 million euros invested in biodiversity as well as the remodeling of 1,178 km of electricity networks to protect bird life in classified areas.

### Social

The social impact of our work remains a key pillar of our ESG strategy. We launched the fourth edition of the A2E (Access to Energy) Fund, supporting nine projects which provide renewable energy to remote and vulnerable communities. The project will focus on four African countries: Mozambique, Nigeria, Angola and Malawi. The total investment of one million euros will have a direct impact on priority areas such as health, agriculture, education and access to drinking water, benefiting more than one million individuals.

### Governance

Reflecting EDP’s commitment to ensure a more diverse and inclusive workplace, we began adopting the acronym DEIB (Diversity, Equity, Inclusion, and Belonging) in 2022. This was reflected in our DEIB Global Policy, which encompasses a set of actions to make EDP a more human and innovative company. Separately, we have published an updated Gender Equality Plan (2022/2023) and an Equal Pay Project within our Global Compensation Framework.

## Sustainability across our organization

In the last quarter of 2022, EDP’s excellence in sustainability continued to be recognized by leading ESG analysts. We are once again present in the S&P Dow Jones Sustainability Index and have also reached the highest score among Integrated Electric Utilities globally at S&P Corporate Sustainability Assessment 2022. Furthermore, CDP Water security and Climate Change recognized EDP as one of the world's leading companies in the fight against climate change for the sixth year.

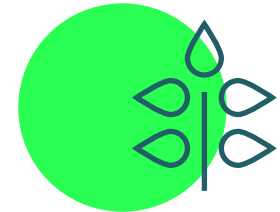


Finally, EDP is proud to have joined the Executive Committee of the World Business Council for Sustainable Development (WBCSD), the largest international business organization promoting sustainable development.

We set ourselves ambitious goals for sustainability and want to continue to be a reference in this aspect across the energy sector.



Miguel Stilwell d’Andrade  
CEO

# ESG performance at a glance

	Indicator	Unit	2022	2021	Δ %	Target	
						2025	2030
 Environment	Renewables Generation	%	74%	76%	-3p.p.	85%	100%
	Capex aligned with EU taxonomy	%	96%	94%	+2p.p.	96%	97%
	Scope 1 & 2 Emissions Intensity	gCO <sub>2</sub> /kWh	160	176	-9%	100	0
	Scope 3	%	-37%	-30%	23%	-30%	-50%
	Coal Installed Capacity	%	10%	8%	+2p.p.	0	0
 Social	Employee Engagement (top tier company) <sup>1</sup>		✗	✗		✓	✓
	Female Overall	%	27.5%	26.7%	+1p.p.	30%	35%
	Accident Frequency Rate <sup>2</sup>	Fr	1.84	1.79	3%	1.55	<1
 Governance	Female on Leadership	%	28.4%	26.5%	+2p.p.	30%	35%
	ESG & equity linked compensation for Top Management <sup>3</sup>	.	✓	✓		✓	✓
	Cybersecurity	bitsight rating	810	790	3%	Keep advanced <sup>4</sup>	
	Top quartile in ESG rating Performance <sup>5</sup>	.	✓	✓		✓	✓

**Renewables represented 74% of electricity generated** by EDP in 2022, which compares with 76% in the same period last year.

**Specific CO<sub>2</sub> emissions** decreased in 2022, Pecém power plant, in Brazil, was not requested to operate, due to the recovery of the reservoirs level.

**Gross investments** increasing more than 2x to €6.7 bn in 2022, of which 96% allocated to renewables and electricity networks activities. This concurred for the **96% capex alignment with EU Taxonomy**.

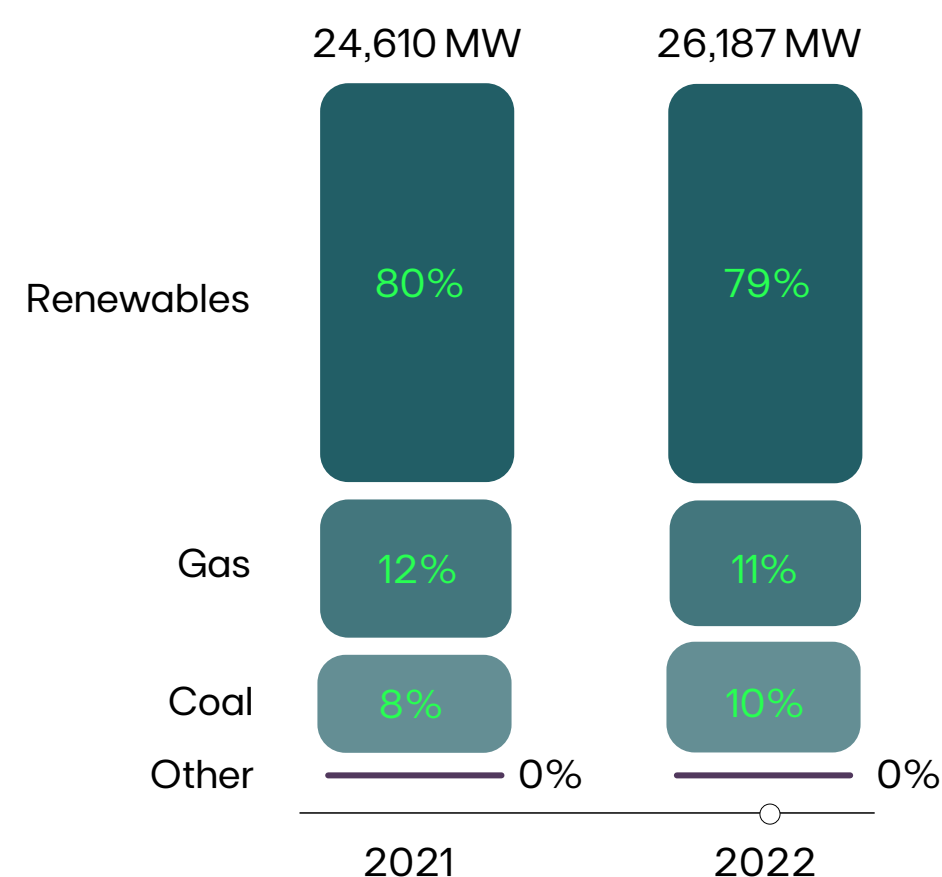
**Accident Frequency rate** increased to 1.84 in 2022 (+3%). EDP continues determined to strengthen the culture of Occupational Health and Safety, having started in 2021 a new program, “Playitsafe”, to raise awareness of the importance of building and adopting safe habits at EDP.

**In 2022, female representation stood at 28%** of EDP’s workforce representing 1p.p. increase versus 2021.

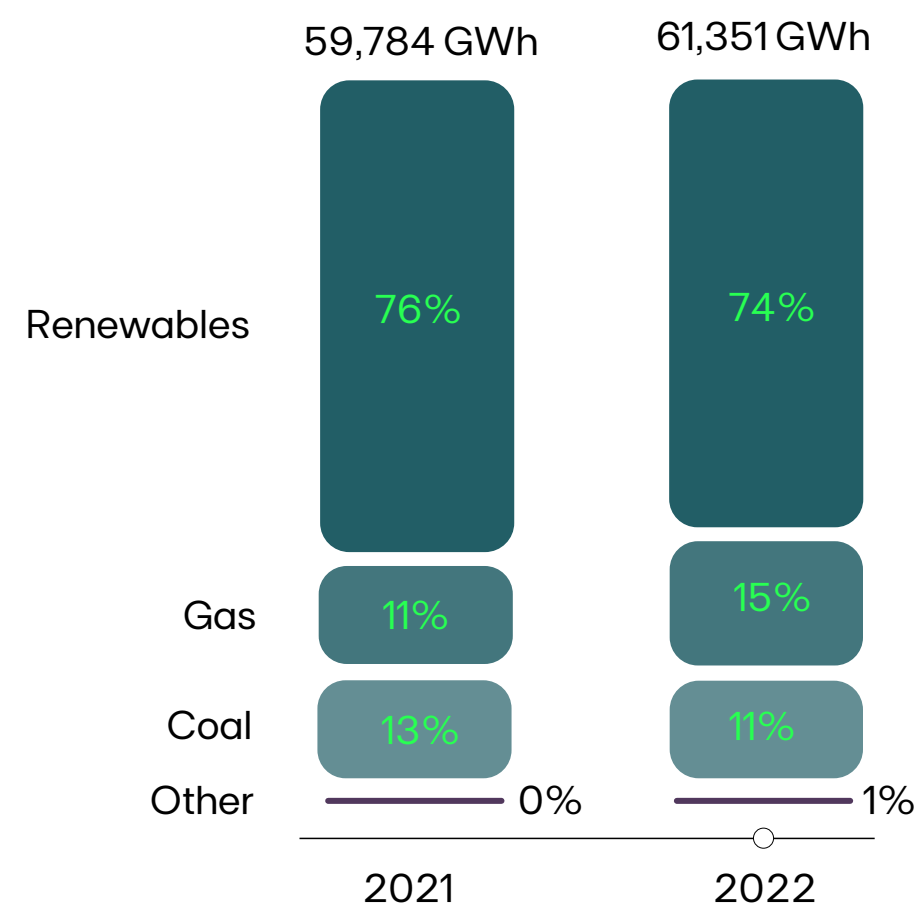
● Sustainable Finance Disclosure Regulation (SFDR) Indicator  
1. Above the high performing norm, including results of surveys done to more than 875,000 employees in 50 high performing organizations and is based on company financial performance and engagement and enablement scores. 2. Number of accidents 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 (%)

	2022	2021	Δ %
Portugal	63%	93%	-30p.p.
Spain	70%	90%	-20p.p.
Brazil <sup>3</sup>	97%	72%	+25p.p.

### RENEWABLES INDEX<sup>4</sup> (%)

-2%	-4%	+2.5p.p.
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### ELECTRICITY DISTRIBUTED (GWH)

	85 271	84 885	0%
Portugal	45 494	44 752	2%
Spain	13 286	14 117	-6%
Brazil	26 491	26 016	2%

### CUSTOMERS CONNECTED (#TH)

	11 583	11 427	1%
Portugal	6 425	6 370	1%
Spain	1 383	1 376	0%
Brazil	3 775	3 680	3%

### TOTAL ENERGY CONSUMPTION

	39 925	38 432	4%	●
<b>Total Renewable consumption (GWh)</b>	<b>1 743</b>	<b>1 556</b>	<b>12%</b>	●
Fuel	5	5	-2%	●
Electricity	1 738	1 550	12%	●
Self-generated non-fuel renewable energy	1 687	1 494	13%	●
<b>Total Non-Renewable consumption</b>	<b>38 182</b>	<b>36 876</b>	<b>4%</b>	●
Fuel	36 889	35 522	4%	●
Electricity	1 294	1 355	-4%	●
<b>Energy consumption intensity (MJ/€)</b>	<b>7</b>	<b>9</b>	<b>-25%</b>	●

● Sustainable Finance Disclosure Regulation (SFDR) Indicator

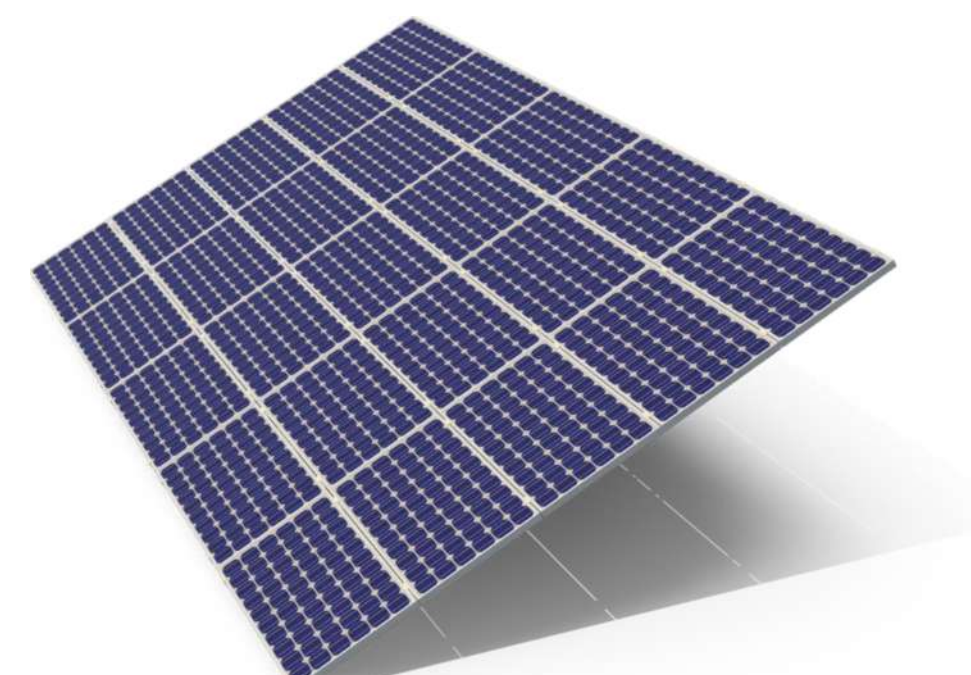
<sup>1</sup>. EBITDA MW; <sup>2</sup>. Other includes Nuclear, Cogeneration & Waste; <sup>3</sup>. Brazil hydro coefficient refers to ENA index; <sup>4</sup>. Renewables Index (vs. LT avg. Gross Capacity Factor).



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

ENERGY EFFICIENCY	UNIT	2022	2021	Δ %
Energy Services Revenues / Turnover <sup>1</sup>	%	9.9%	8.6%	+1p.p.
Energy Efficiency Services Revenues	€ m	491	261	88%
DISTRIBUTED SOLAR				
<b>As a service — Installed Capacity <sup>2</sup></b>	MWac	<b>700</b>	<b>202</b>	<b>246%</b>
Portugal	MWac	103	58	76%
Spain	MWac	11	5	131%
Brazil	MWac	57	50	13%
US	MWac	186	88	111%
APAC	MWac	338	–	
Other	MWac	5	1	573%
<b>Secured Capacity <sup>3</sup></b>	MWac	<b>631</b>	<b>214</b>	<b>194%</b>
E-MOBILITY				
Light fleet electrification	%	15%	13%	+1.4p.p.
Electric charging points <sup>4</sup>	#	6 010	3 804	58%
Clients with electric mobility solutions	#	76 455	43 500	76%
SMART METERS				
Iberia	# m	6.0	5.4	11%
Brazil	# m	0.5	0.3	39%
ELECTRICITY GRID LOSSES				
Portugal	%	8.7%	8.6%	+0.1p.p.
Spain	%	4.8%	4.7%	+0.2p.p.
Brazil (São Paulo)	%	7.9%	8.3%	–0.4p.p.
Brazil (Espírito Santo)	%	11.9%	12.4%	–0.5p.p.
<b>CUSTOMERS WITH SUSTAINABLE SERVICES<sup>5</sup></b>	%	<b>38.2%</b>	<b>16%</b>	<b>+22p.p.</b>
<b>CO<sub>2</sub> SAVINGS DOWNSTREAM<sup>6</sup></b>	ktCO <sub>2</sub>	<b>11 901</b>	<b>8 950</b>	<b>33%</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 – annual value.



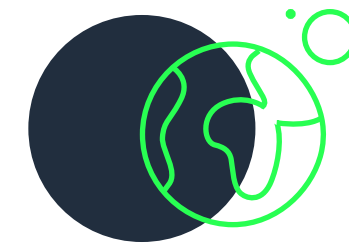
# Environmental highlights committed to a carbon-free economy

	2022	2021	Δ %
<b>GREENHOUSE GAS EMISSIONS (ktCO<sub>2</sub>eq)</b>			
Scope 1 & 2 Emissions Intensity (gCO <sub>2</sub> /kWh)	160	176	-9%
Scope 1 GHG Emissions	9 405	9 805	-4%
Scope 2 GHG Emissions <sup>1</sup>	469	792	-41%
Scope 3 GHG Emissions <sup>2</sup>	9 279	10 304	-10%
Avoided emissions	22 749	23 752	-4%
<b>AIR QUALITY (kt)</b>			
NO <sub>x</sub> emissions	4.79	8.89	-46%
SO <sub>2</sub> emissions	2.35	12.14	-81%
Particulate matter emissions	0.232	1.26	-82%
<b>WATER MANAGEMENT (10<sup>3</sup>m<sup>3</sup>)</b>			
Total freshwater withdrawn	11 275	14 527	-22%
Total freshwater consumed	9 964	13 045	-24%
Total water discharge	661 362	343 836	92%
<b>COAL &amp; WASTE MANAGEMENT (t)</b>			
Total waste	383 634	216 164	77%
Total waste disposal	335 157	173 769	93%
Total coal combustion waste disposal	10 068	28 843	-65%
Average waste recovery rate (%)	95%	83%	-
Hazourdous waste	5 019	6 728	-25%
<b>ENVIRONMENTAL MATTERS (€ m)</b>			
Environmental CAPEX	105.5	88.2	20%
Environmental Expenses <sup>3</sup>	1006.1	334.2	201%
Environmental fines and penalties (€ th)	99	40.1	147%
Vegetation management <sup>4</sup>	18.8	18.0	5%
ISO 14001 Certification (%)	87%	90%	-3p.p.
<b>LOW CARBON ECONOMY (%)</b>			
EBITDA in Renewables	56%	62%	-6p.p.
CAPEX in Renewables	76%	73%	+3p.p.
Revenues from coal	9.8%	7%	+3p.p.
Revenues aligned with EU taxonomy	49%	63%	-14p.p.
CO <sub>2</sub> / Revenues (tCO <sub>2</sub> eq/€m) <sup>5</sup>	0.48	0.71	-32%

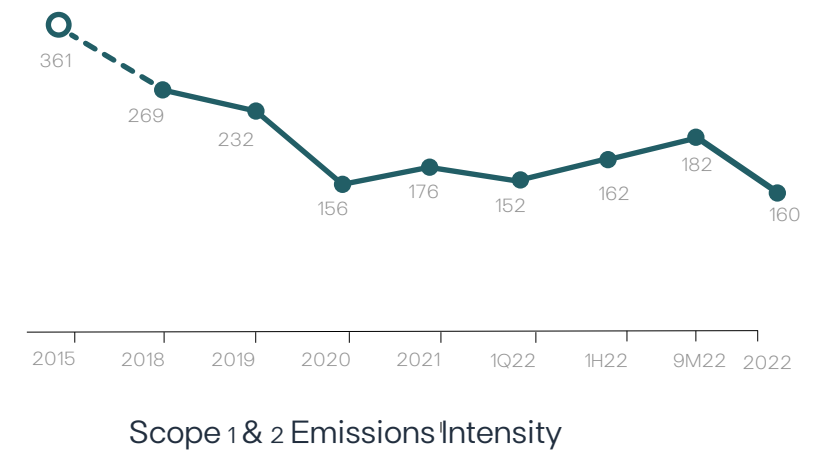
● Sustainable Finance Disclosure Regulation (SFDR) Indicator

1. Scope 2 emissions according with GHG Protocol based location methodology. 2. Annual Indicator; 3. Includes CO<sub>2</sub> allowances.

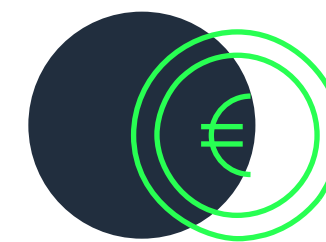
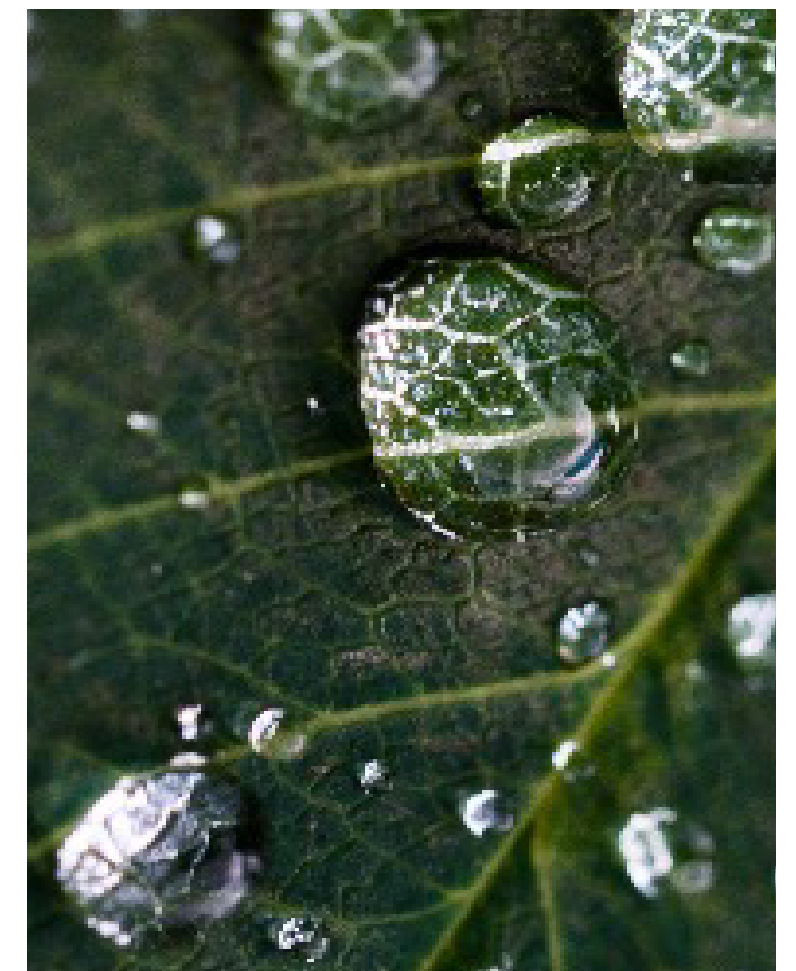
4. Vegetation management includes CAPEX and OPEX. 5. Defined as the company's annual GHG emissions (Scope 1 and Scope 2), expressed as metric tons of carbon dioxide equivalent (tCO<sub>2</sub>eq) emissions, divided by revenues for the corresponding year, expressed in millions of euros.



-56% (vs. 2015) Scope 1 & 2 Emissions Intensity



+2.2 GW of Wind and Solar added YoY



49% Revenues aligned with EU taxonomy in 2022



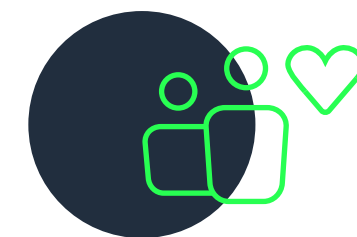
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BIODIVERSITY REPORT

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

	UNIT	2022	2021	Δ %
<b>EMPLOYMENT</b>				
Employees	#	13 211	12 236	8%
Female employees	%	27.5%	27%	+1p.p.
Female/Male fixed salary	x	1.05	1.06	0% ●
Employee Engagement <sup>1</sup>	%	84%	76%	11%
Employee Empowerment <sup>2</sup>	%	72%	71%	1%
Employee Turnover	%	11.8%	12.6%	-1p.p. ●
Absenteeism	%	3.0%	2.7%	+0p.p.
Disability Hires	#	18	25	-0p.p.
<b>TRAINING</b>				
Total hours of training	h	309 935	337 295	-8%
Employees with training	%	100%	100%	-0p.p.
Direct training investment	€ th	3 788	3 704	2%
<b>HEALTH AND SAFETY</b>				
Accidents with lost workdays EDP	#	28	21	33%
Accidents with lost workdays contractors <sup>3</sup>	#	105	132	-20%
Fatal work-related injuries EDP	#	0	0	-
Fatal work-related injuries contractors	#	5	7	-29%
Frequency rate EDP	Fr	1.13	0.92	23%
Frequency rate contractors	Fr	2.18	2.09	4%
Total recordable injury rate	RFr	2.82	2.45	15% ●
Total recordable injury rate EDP	RFr	2.07	1.40	48% ●
Total recordable injury rate contractors	RFr	3.19	2.82	13% ●
<b>SOCIAL INVESTMENT</b>				
Beneficiary Entities	#	634	994	-36%
EDP volunteers	#	4 121	3 681	12%
EDP time used in volunteering	h	10 551	11 307	-7%
Total investment	€ th	31 630	21 275	49%



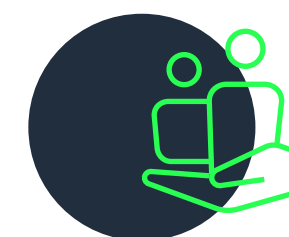
30% female employees by 2025



Top Tier Company in Employee Engagement



Accident Frequency Rate <1



Social Investment  
€300M by 2030

● Sustainable Finance Disclosure Regulation (SFDR) Indicator

1. Engagement – reflects the involvement and commitment by employees. 2. Empowerment – reflects the perception of organizational support by employees. Within the scope of the Organizational Climate, the "Empowerment" dimension started to be evaluated in 2022, replacing the "Enablement" dimension previously evaluated, as part of the evolution of the employee consultation model at EDP 3.

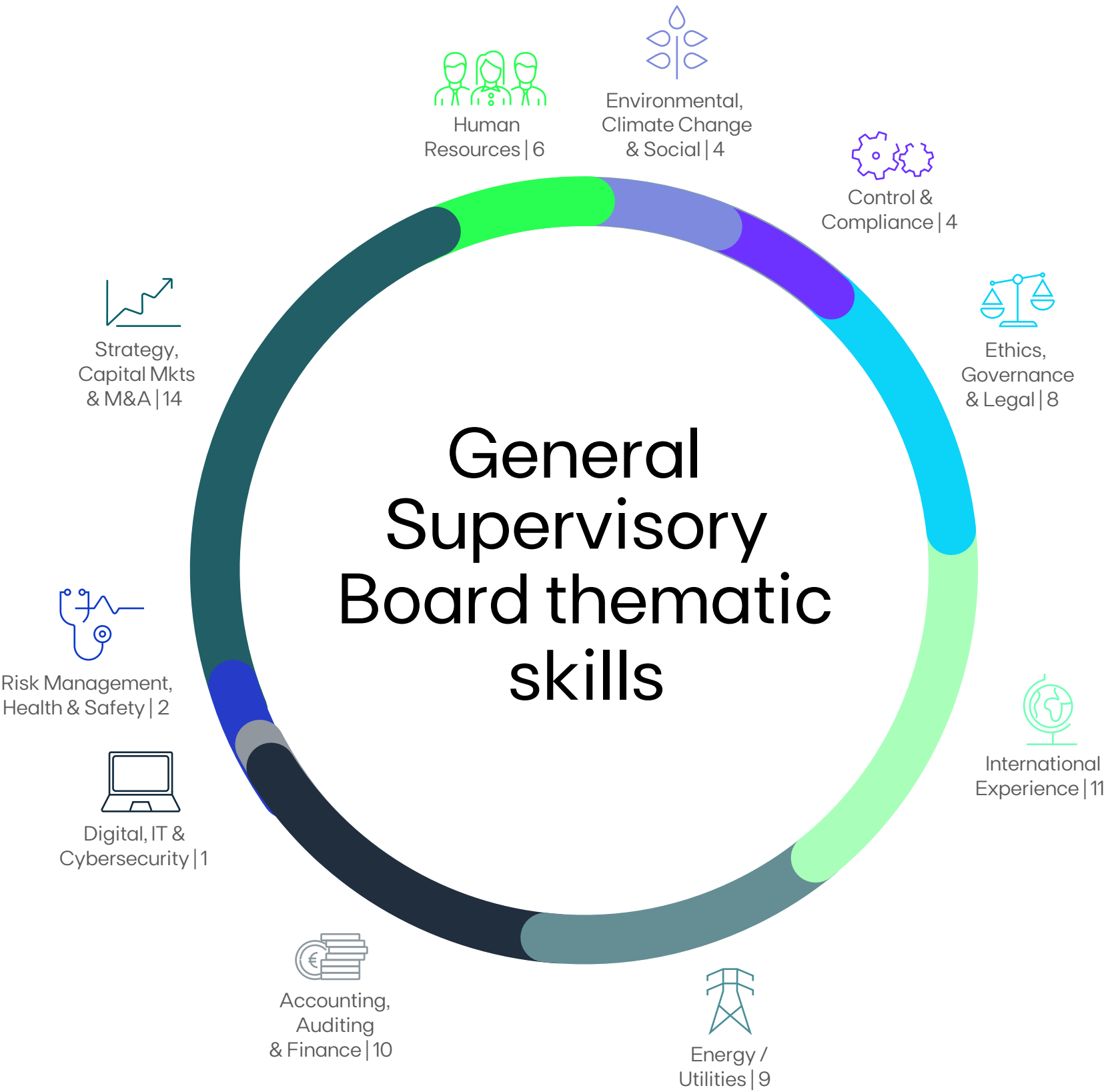
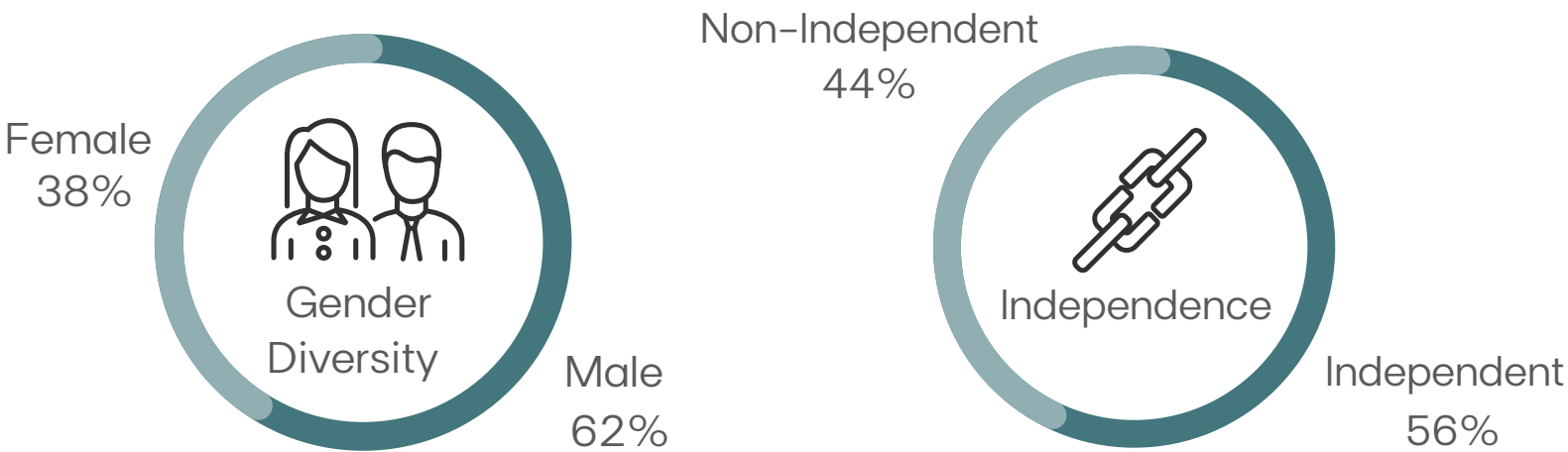
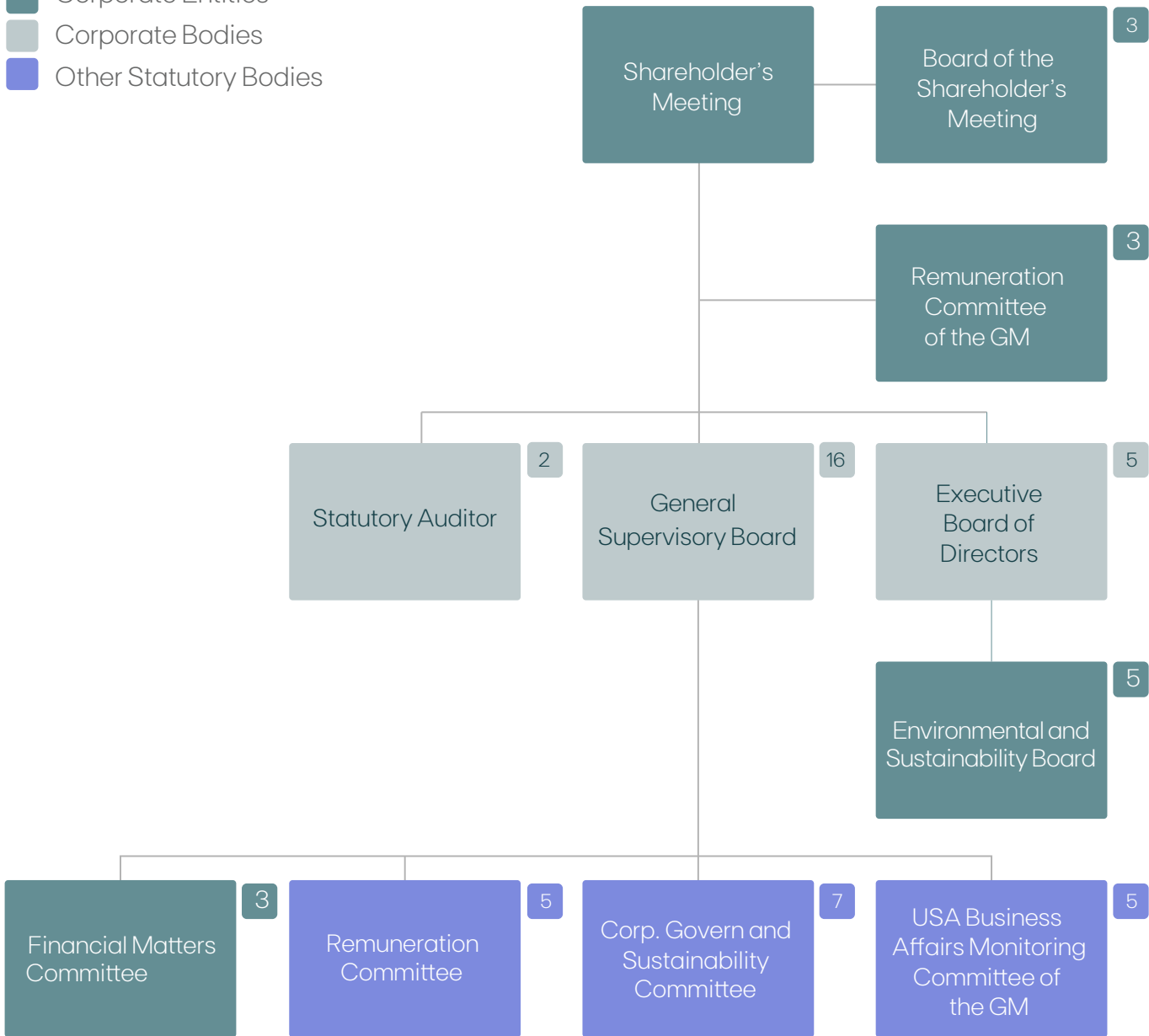
Accidents occurred at the place and working time or on a journey, with 1 or more days of absence and fatal accidents.



# Governance highlights committed to the best practices

General and Supervisory Board  
Elected 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 Chairman



ELECTION OF THE MEMBERS OF THE GSB (1/2)



ELECTION OF THE MEMBERS OF THE GSB (2/2)

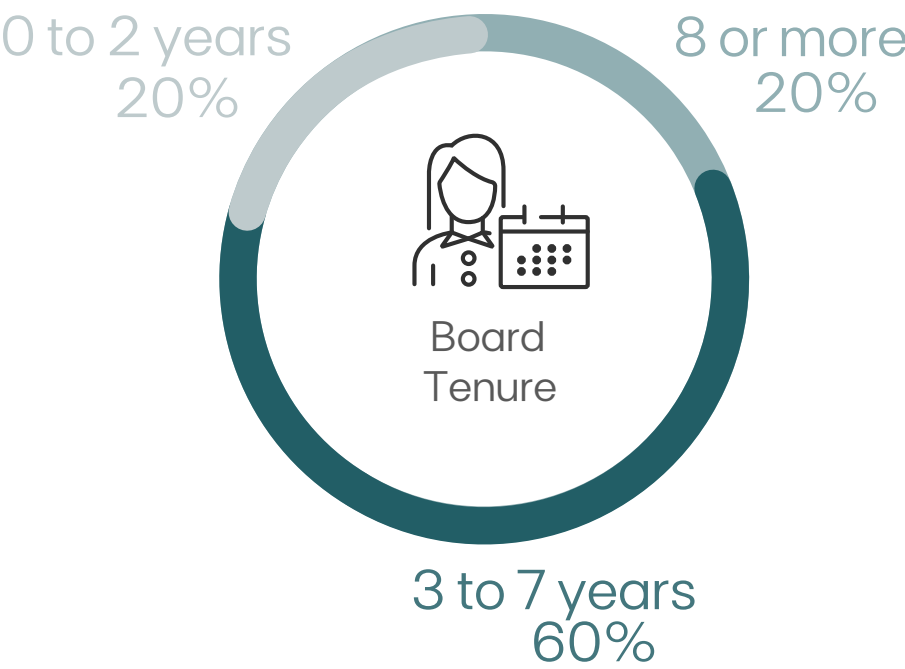
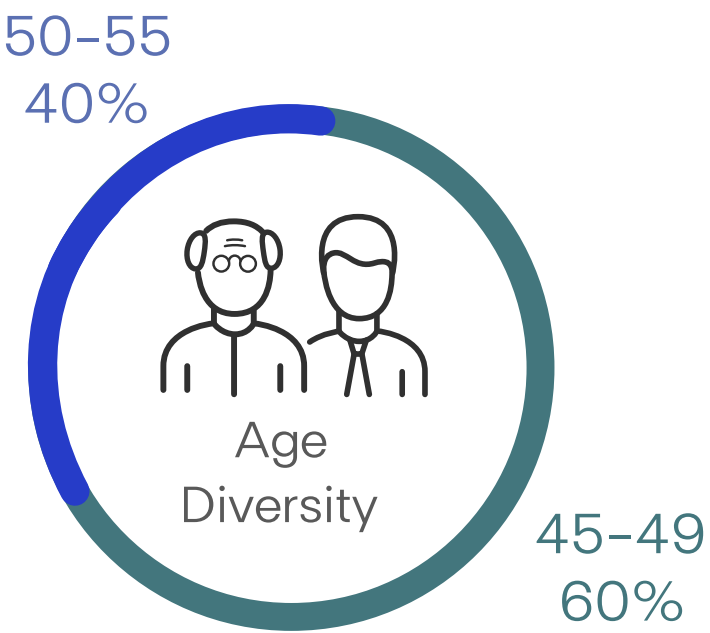


ANNUAL REPORT OF THE GSB



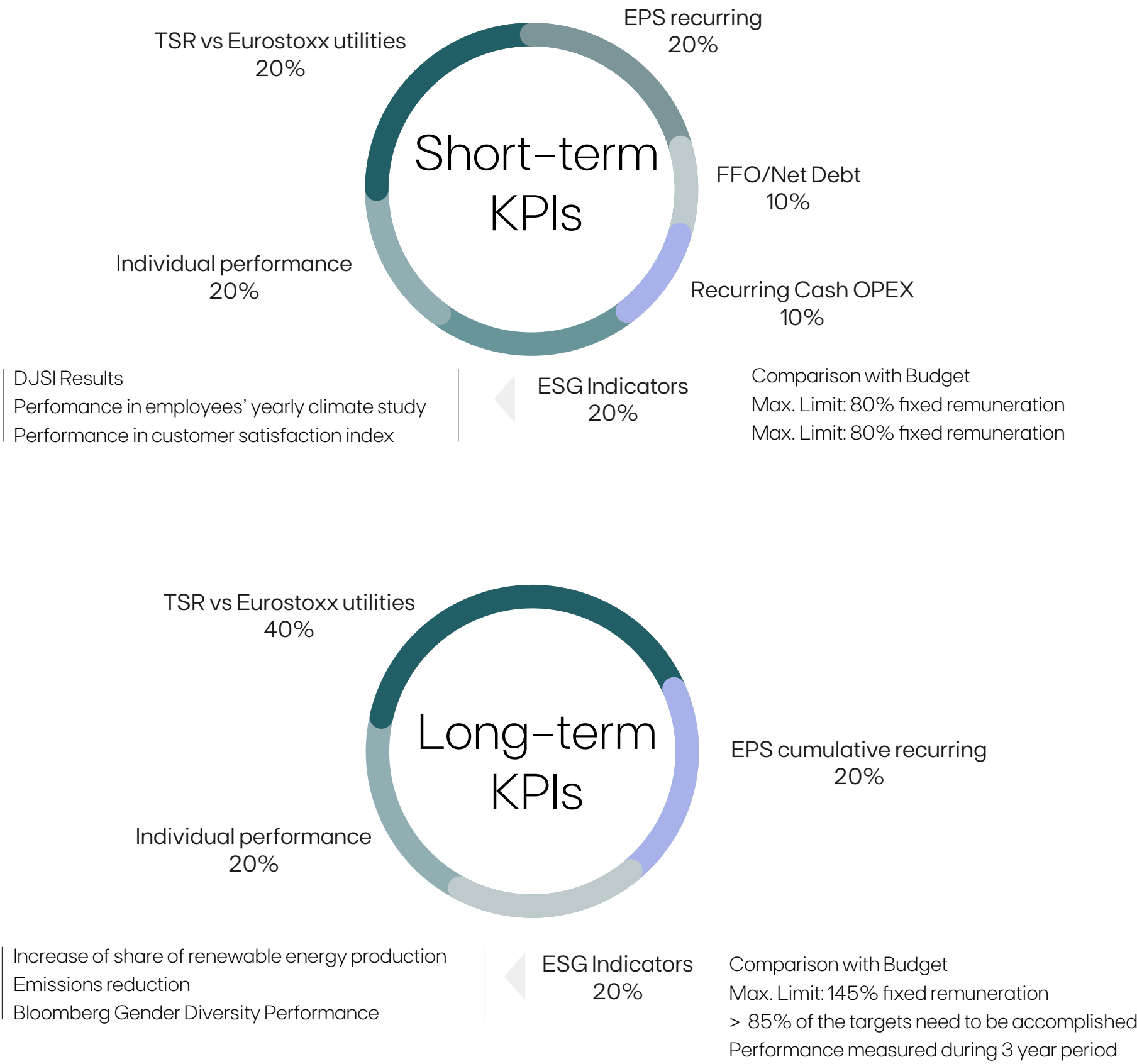
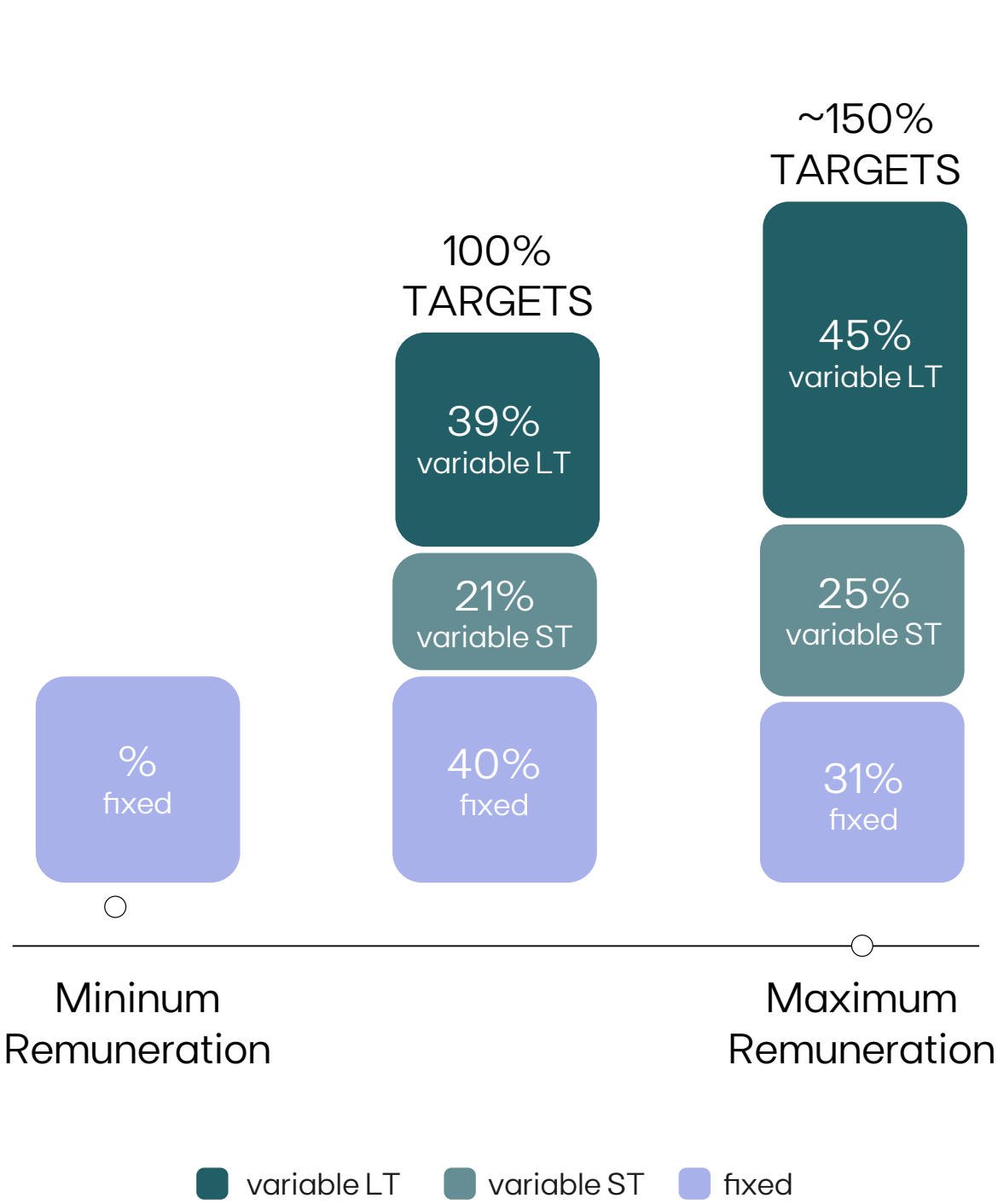
# Governance highlights committed to the best practices

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



# 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	2022	2021	Δ %
		Digital CAPEX <sup>1</sup>	€m	532	229	
Global	Global	Cybersecurity	bitsight rating	810	790	3%
Digital Business	Customer	Selfcare Interactions <sup>2</sup>	%	72%	80%	-8p.p.
		Electronic Invoices <sup>2</sup>	%	43%	39%	+4p.p.
	Assets & Operations Enterprise	Predictive Maintenance <sup>2,3</sup>	%	65%	64%	+1p.p.
		Digitalized Processes <sup>4</sup>	%	83%	84%	-0p.p.
Digital Enablers	Data & Technology	Systems in the cloud <sup>2</sup>	%	63%	54%	+9p.p.
	People & Organization	Employees w/ digital training <sup>2</sup>	%	85%	84%	+1p.p.
		Employees in Collaborative Initiatives <sup>2</sup>	%	36%	23%	+1p.p.

### INNOVATION

Innovation Team	Total investment (TOTEX)	€ Mn	175	96	83%
	Employees <sup>5</sup>	#FTE	591	321	84%
Investment Portfolio	Ongoing investments VC	#	42	38	11%
	VC investment	€ Mn	10,7	7,2	49%
	VC investment cumulative <sup>6</sup>	€ Mn	46,1	39,5	17%



EDP coordinates the ROMAIN project, an R&D project for wind turbine blades robotic maintenance. The main objective is to demonstrate that robotic inspection solutions, coupled with AI/ML and repair systems, can identify and repair subsurface damages. Firstly, we will integrate innovative sensor and monitoring for in-situ inspection of both surface and subsurface defects within the wind turbine blades. Secondly, a compact and efficient robotic system will be developed. When defects are detected and deemed repairable, the robotic system will be activated to rapidly repair the faulty area of composite components by advanced repair solutions that will be developed within the project. The ROMAIN project system will be demonstrated and validated in the field trials at an EDP Renewables wind farm.

1. Cumulative value since 2021; 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 divestments.

# ESG ratings committed to excellence

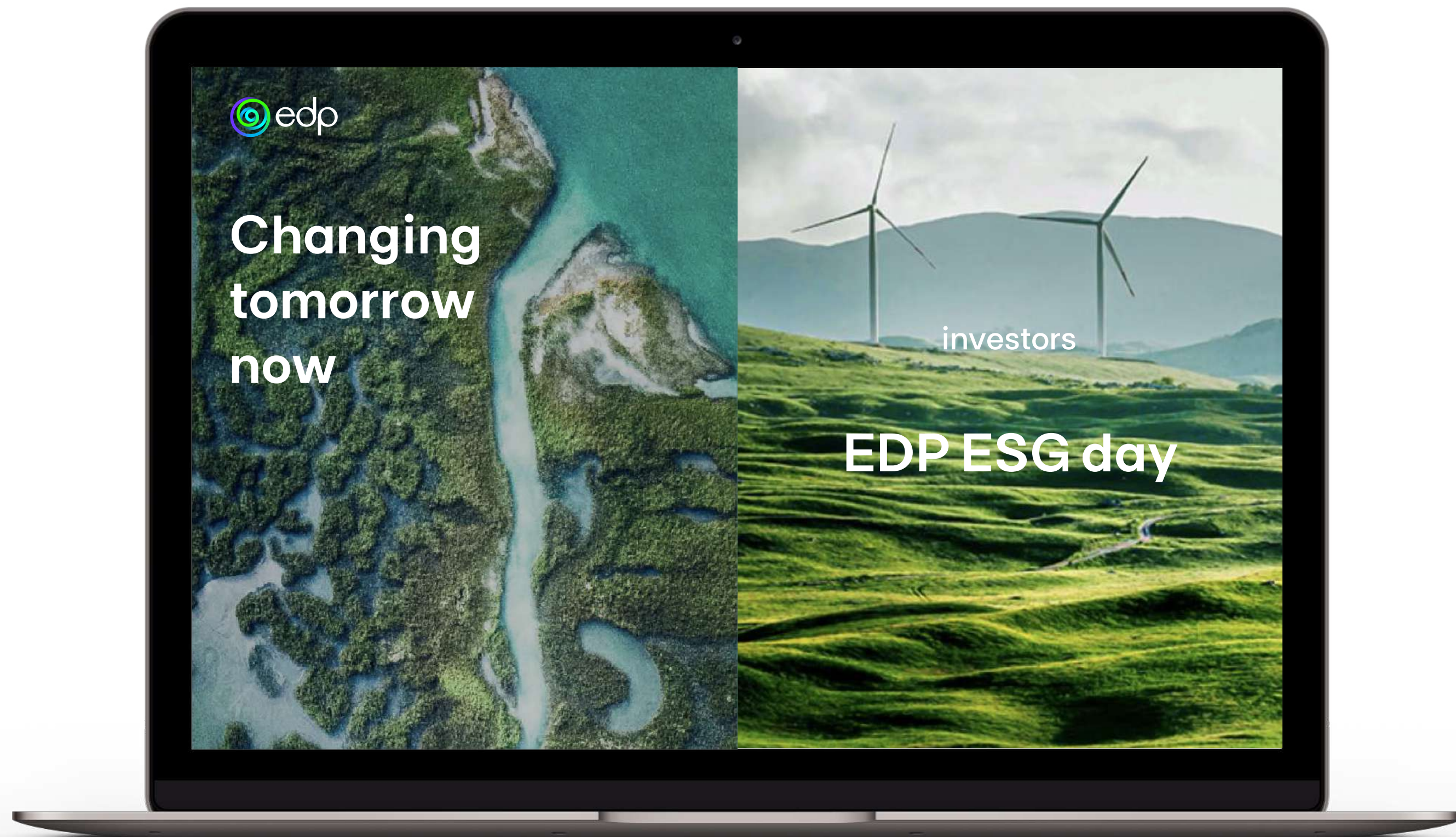
rater	range	score	ranking	last assessment	
<div><div>Member of</div><div><b>Dow Jones Sustainability Indices</b></div><div>Powered by the S&amp;P Global CSA</div></div> <sup>1</sup>	0-100	90	1 <sup>st</sup>	(TOP QUARTILE IN ESG RATING PERFORMANCE)	Dec-22
	0/5	4.5	Top 5%	(TOP QUARTILE IN ESG RATING PERFORMANCE)	Sep-22
	0-100	72	3 <sup>rd</sup>	(TOP QUARTILE IN ESG RATING PERFORMANCE)	May-22
	D--A+	B+	n.a.	(TOP QUARTILE IN ESG RATING PERFORMANCE)	Jan-22
 a Morningstar company	100-0	20.0	n.a.	(TOP QUARTILE IN ESG RATING PERFORMANCE)	Jan-23
	CCC-AAA	AAA	Top 12%	(TOP QUARTILE IN ESG RATING PERFORMANCE)	Jan-23
	D--A	A	n.a.	(TOP QUARTILE IN ESG RATING PERFORMANCE)	Dec-22
	D--A	A	n.a.	(TOP QUARTILE IN ESG RATING PERFORMANCE)	Dec-22

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. 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](#)