We are your decarbonisation partner

We are gen0

The development of a decarbonisation management system for organisations

Liam McLaughlin, CEO

Energy Efficiency in Manufacturing
Athens 13th of June 2024

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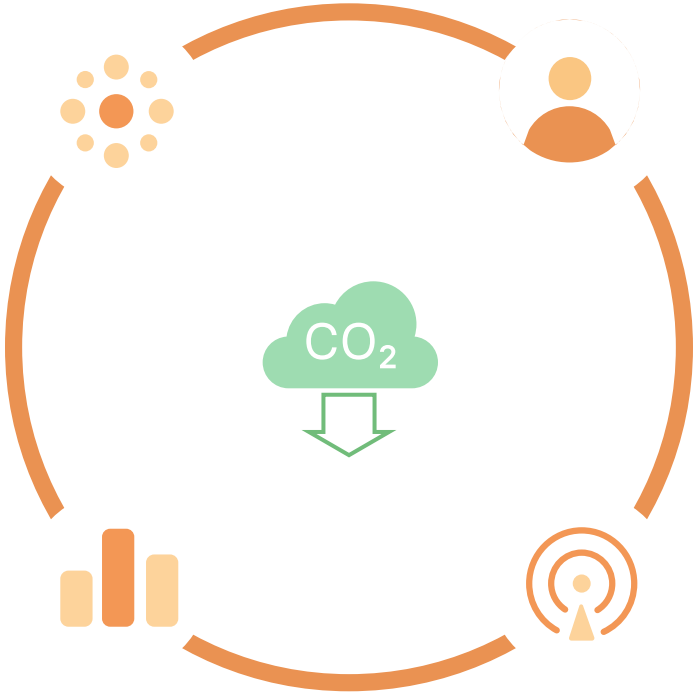
Sustainability Landscape in the EU

CSRD

- Climate ESRS 1
  - Energy consumption
  - Emission factors
  - Mitigation plans
- Other ESG
  - 11 other ESRS

ETS

- Energy consumption
- Emission factors
- External verification
- EED connections



Internal

- Management information
- Sustainability
- Energy costs
- ESG

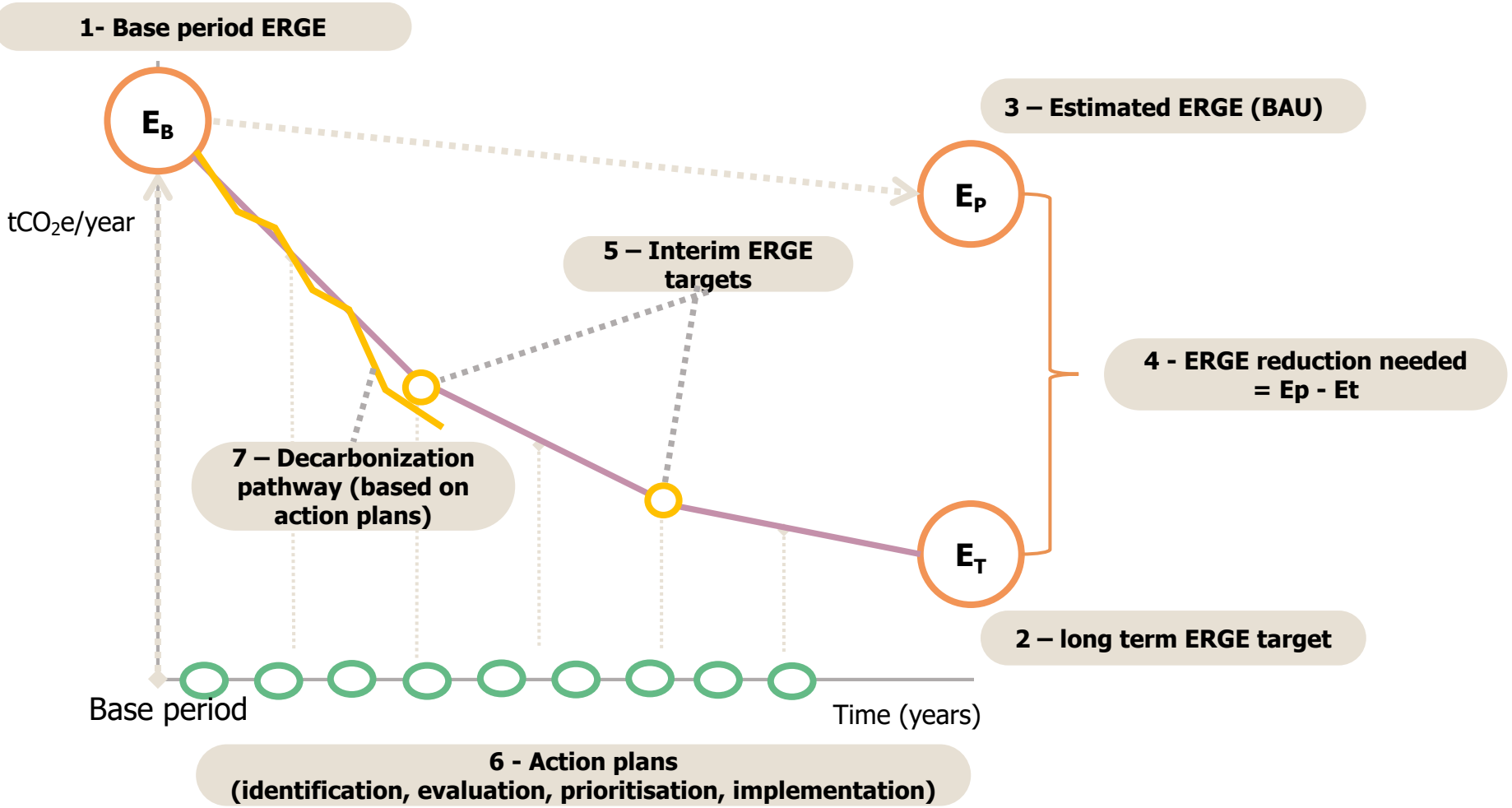
EED

- ISO 50001 >85TJ
- Energy Audit >10TJ

ISO 50001

- Management System
- Commitment
- Data Management
- Continual Improvement Culture

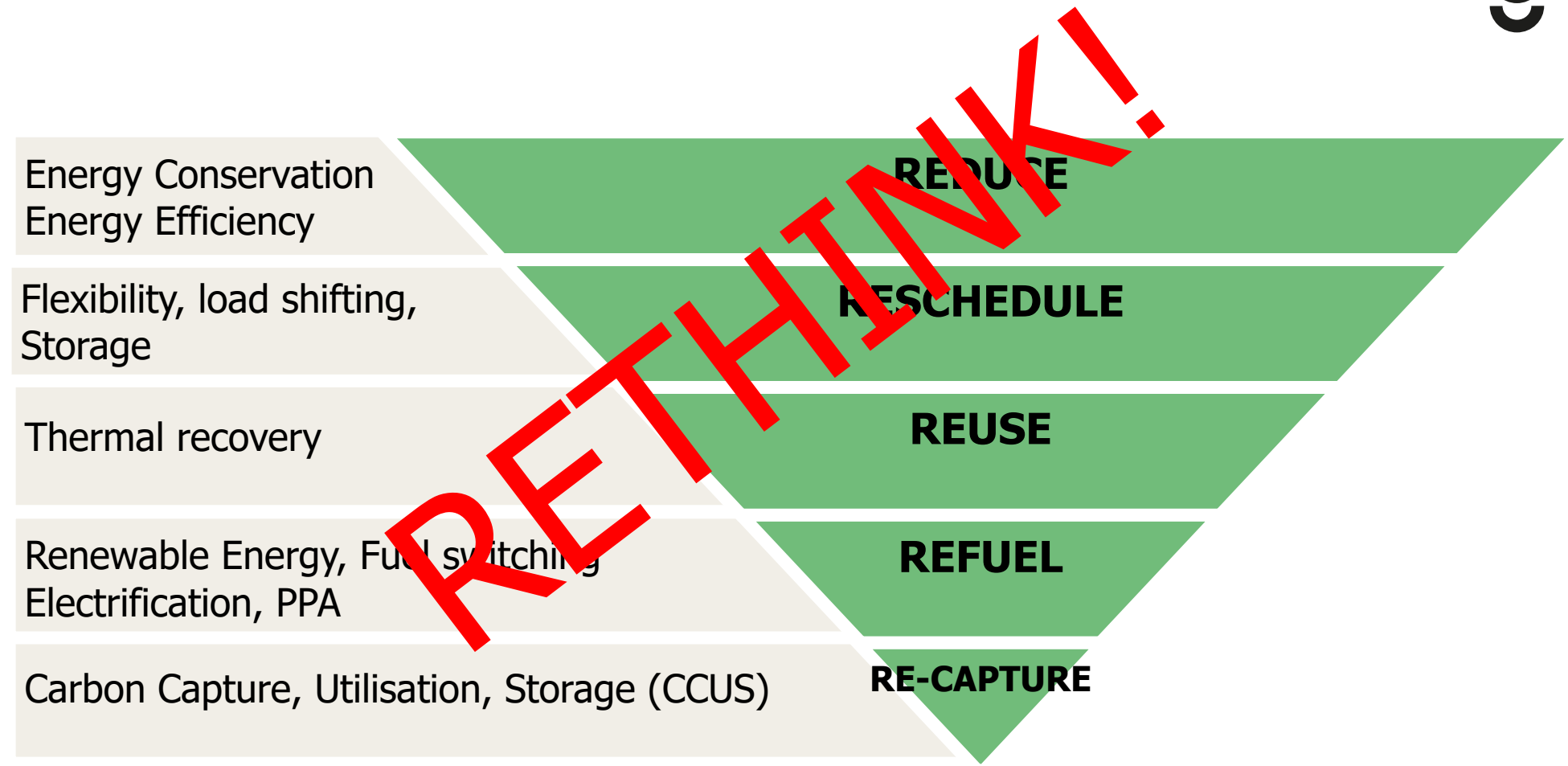
Decarbonisation plan for energy related GHG emissions (ERGE)



The 5 R's of decarbonisation

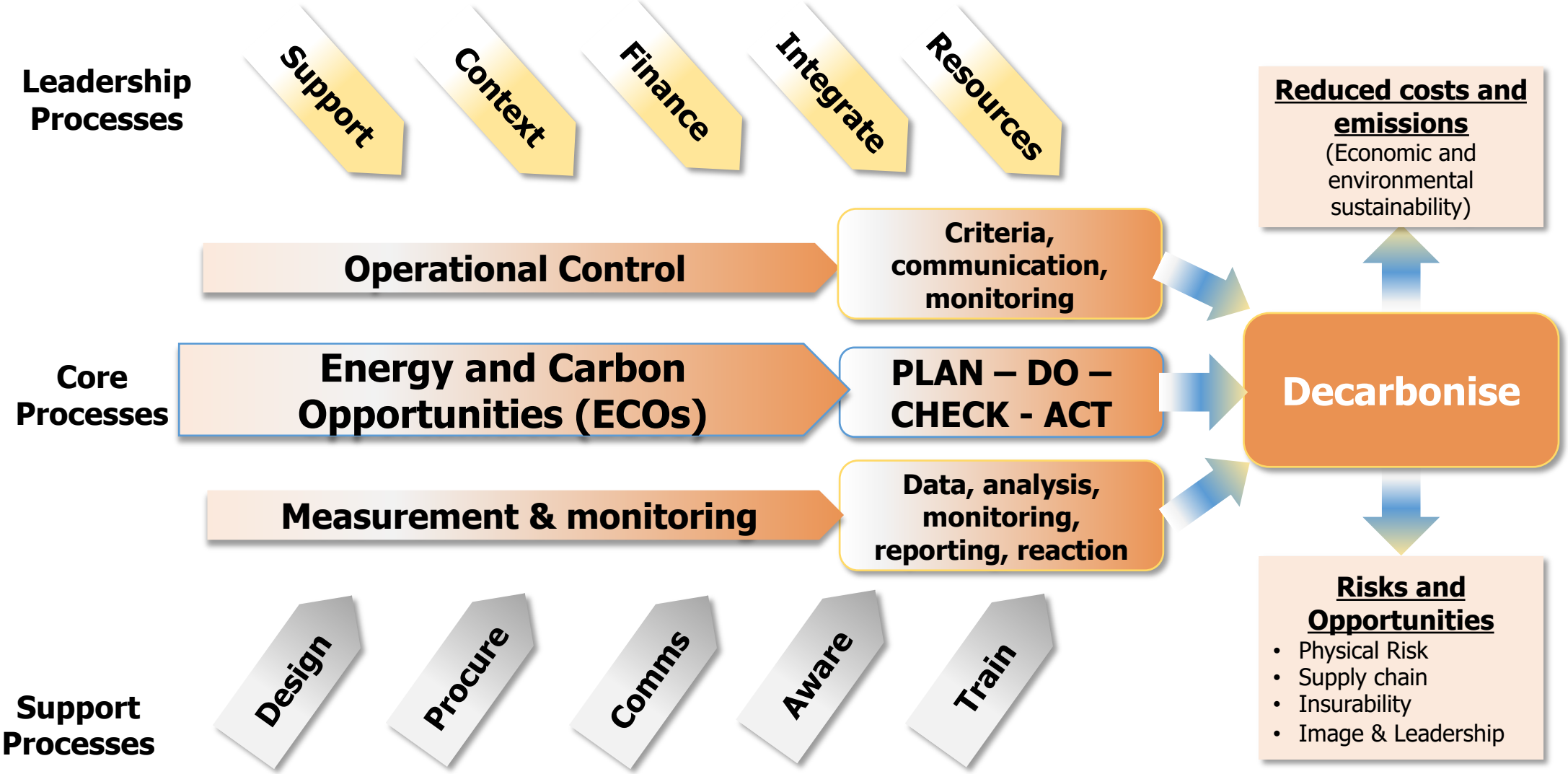
ISO 50001-1

ISO 50001-2



Accounting:
Guarantee of origin
Offsetting

Decarbonisation management processes



Example from Sustainable Energy Authority of Ireland (SEAI)

ENERGY RELATED GHG EMISSIONS

Location Based Method

		Scope 1 (Site)	Scope 1 (Transport)	Scope 2 (Electricity)	Scope 2 (Others)
BASE YEAR	2020	8,393 tCO_2	622 tCO_2	14,262 tCO_2	0 tCO_2
LAST YEAR	2022	8,078 tCO_2	1,245 tCO_2	13,397 tCO_2	0 tCO_2
REPORTING YEAR	2023	9,721 tCO_2	1,516 tCO_2	10,218 tCO_2	0 tCO_2

		Total = Scope 1+2	Scope 1	Scope 2	CO2 Emissions / TFC
BASE YEAR	2020	23,277 tCO_2	9,015 tCO_2	14,262 tCO_2	0.201 tCO_2 /MWh
LAST YEAR	2022	22,720 tCO_2	9,323 tCO_2	13,397 tCO_2	0.199 tCO_2 /MWh
REPORTING YEAR	2023	21,455 tCO_2	11,237 tCO_2	10,218 tCO_2	0.175 tCO_2 /MWh

PROJECTED ENERGY RELATED GHG EMISSIONS (BAU)

*This section reflects the calculated values for the increase/decrease of CO2 emissions as a consequence of changes in the company's activity (e.g. construction of a new building). These data should be expressed in terms of increased consumption of each energy source in the tab "Growth (EEM)" together with the years of execution of the projects that generate this variation. The percentage improvement (decarbonisation) of the electricity grid, which generates a decrease of GHG emissions in the decarbonisation plan, is also included.

	Scope 1 (Site)	Scope 1 (Transport)	Scope 2 (Electricity)	Scope 2 (Others)
Emissions GROWTH	12% 2026 2030	0%	4% 2026 2030	0%
Grid IMPROVEMENT			-75% 2018 2030	

ENERGY RELATED GHG EMISSIONS REDUCTION TARGET

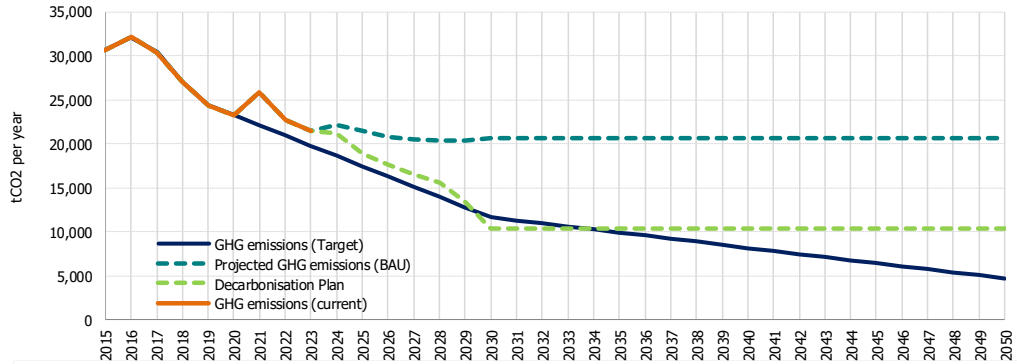
* In this section, the energy-related GHG emissions reduction targets and the year compared to the base year should be entered. For example, if you want to achieve a 55% reduction in CO2 emissions in 2030 compared to the base year, you should write in the first target: 2030 55%. A different target can be used in each scope.

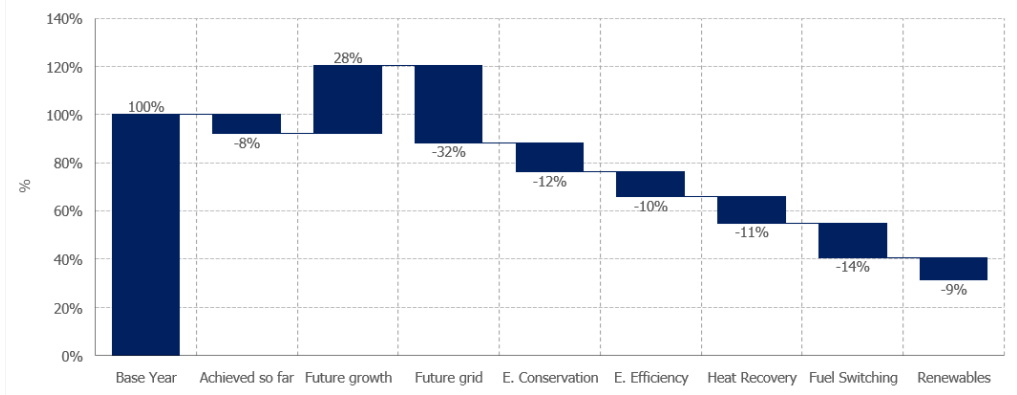
		Scope 1 (Site)		Scope 1 (Transport)		Scope 2 (Electricity)		Scope 2 (Others)	
TARGET 1	2030	50%	4,196 tCO_2	50%	311 tCO_2	50%	7,131 tCO_2	50%	0 tCO_2
TARGET 2	2050	80%	6,714 tCO_2	80%	498 tCO_2	80%	11,410 tCO_2	80%	0 tCO_2

DECARBONISATION ACTION PLAN

*This section shows the expected GHG emissions variations for the coming years based on the information provided in the "Savings (EEM)" tab. For example, for the Reduce (Conservation) projects, the percentage shown in the sum of all the Energy Conservation measures included in the "Savings (EEM)" tab. The years next to the % are showing the initial year and the final year of all the projects inside Energy Conservation category. Below you can see the GAP to target in comparison with the baseline.

	Scope 1 (Site)		Scope 1 (Transport)		Scope 2 (Electricity)		Scope 2 (Others)	
Reduce (Energy Conservation)	0%		0%		-20%	2025 2030	0%	
Reduce (Energy Efficiency)	-15%	2025 2030	0%		-8%	2027 2030	0%	
Recycle (Heat Recovery)	-30%	2023 2030	0%		0%		0%	
Refuel (Fuel Switching)	-40%	2029 2030	0%		0%		0%	
Refuel (Renewable Energy)	0%		0%		-15%	2023 2025	0%	
GAP to Target 2030	-3.1%	-258 tCO_2 eq	193.6%	1,205 tCO_2 eq	-15.9%	-2,273 tCO_2 eq	0.0%	0 tCO_2 eq
GAP to Target 2050	26.9%	2,260 tCO_2 eq	223.6%	1,392 tCO_2 eq	14.1%	2,006 tCO_2 eq	0.0%	0 tCO_2 eq





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