



UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION



Decarbonisation Management

Decarbonising Cork

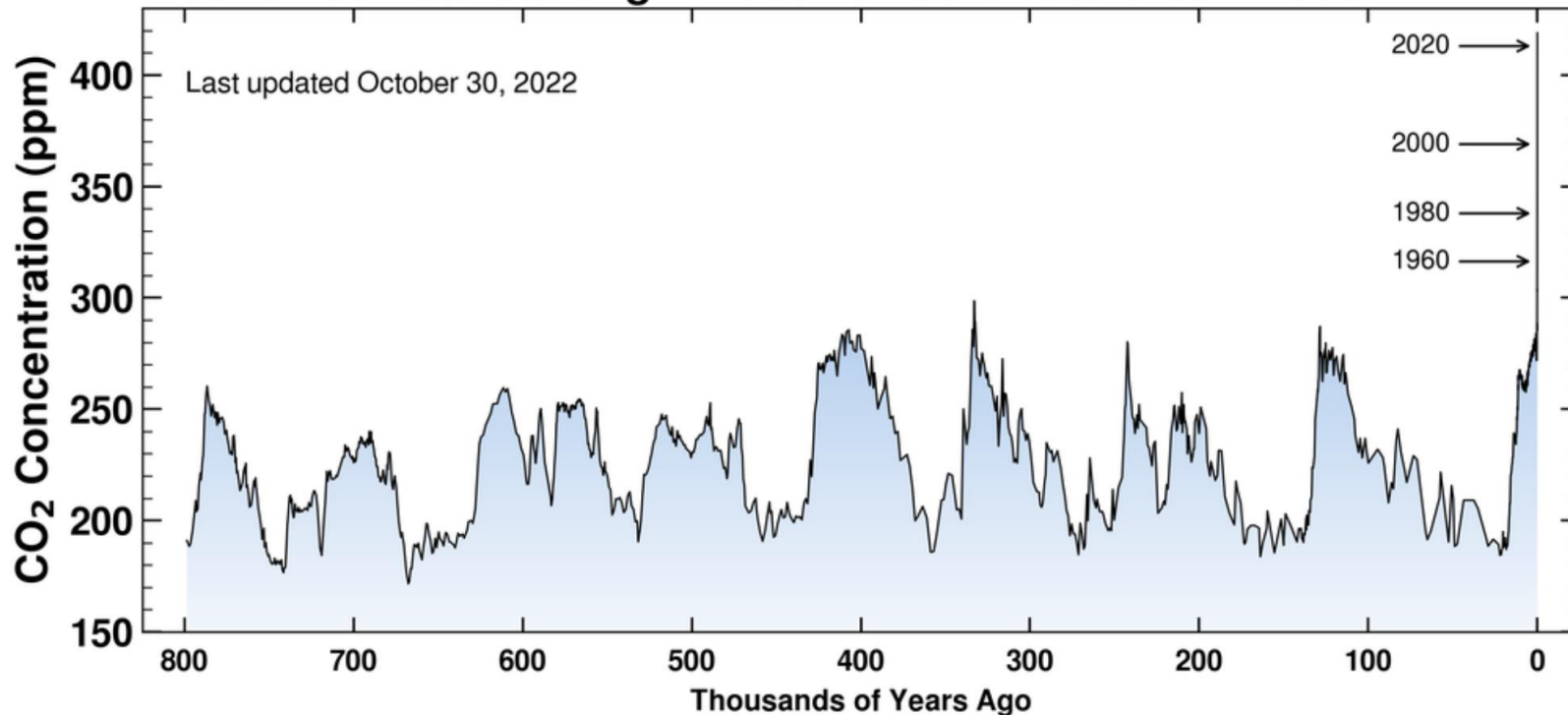
Liam Mc Laughlin, 17 November 2022





The Keeling Curve

Mauna Loa Data starting in 1958. Ice-core data before 1958.

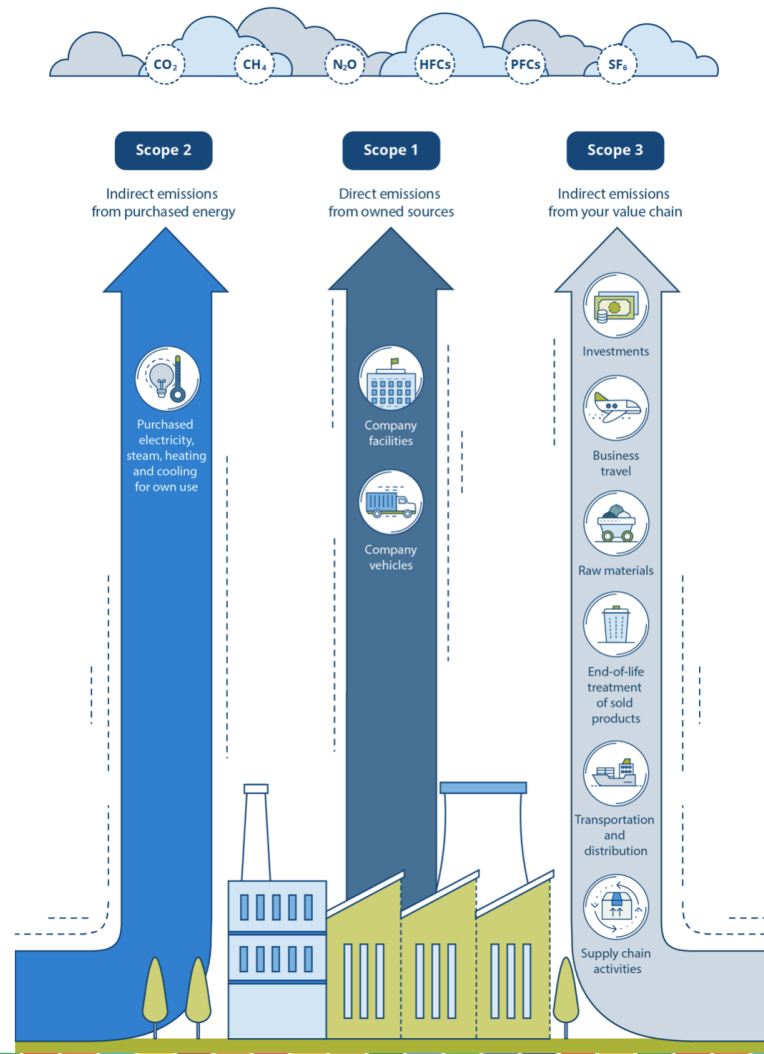




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Carbon footprint (GHGs)

- Scope 1 – Direct emissions
 - Combustion, transport, refrigerants, industrial processes
- Scope 2 – From imported energy
 - Electricity, district heating, etc.
- Scope 3 – Indirect – throughout the value chain
 - Upstream and downstream
- Energy is approx. 73% of total global Greenhouse Gas (GHG) emissions





Impact of UNIDO EnMS-ISO 50001 Programme (2010-2020)

ACHIEVEMENTS



650+
EnMS EXPERTS
QUALIFIED



OVER
3500
COMPANIES TRAINED
in EnMS



MORE THAN
500
COMPANIES
directly supported
throughout EnMS
IMPLEMENTATION



MORE THAN
1,000
DECISION MAKERS, POLICY MAKERS,
FINANCIAL AUTHORITIES, SERVICE
PROVIDERS AND TOP MANAGEMENT
directly engaged in training and related
initiatives



4-15%
OF ENERGY SAVED
per company in the first year of
EnMS implementation with little
or no capital investment



CUMULATIVE
PRIMARY FINAL
ENERGY
savings exceed
25,000 GWh



MORE THAN
\$400 MILLION USD
saved in CUMULATIVE
ENERGY COST
SAVINGS

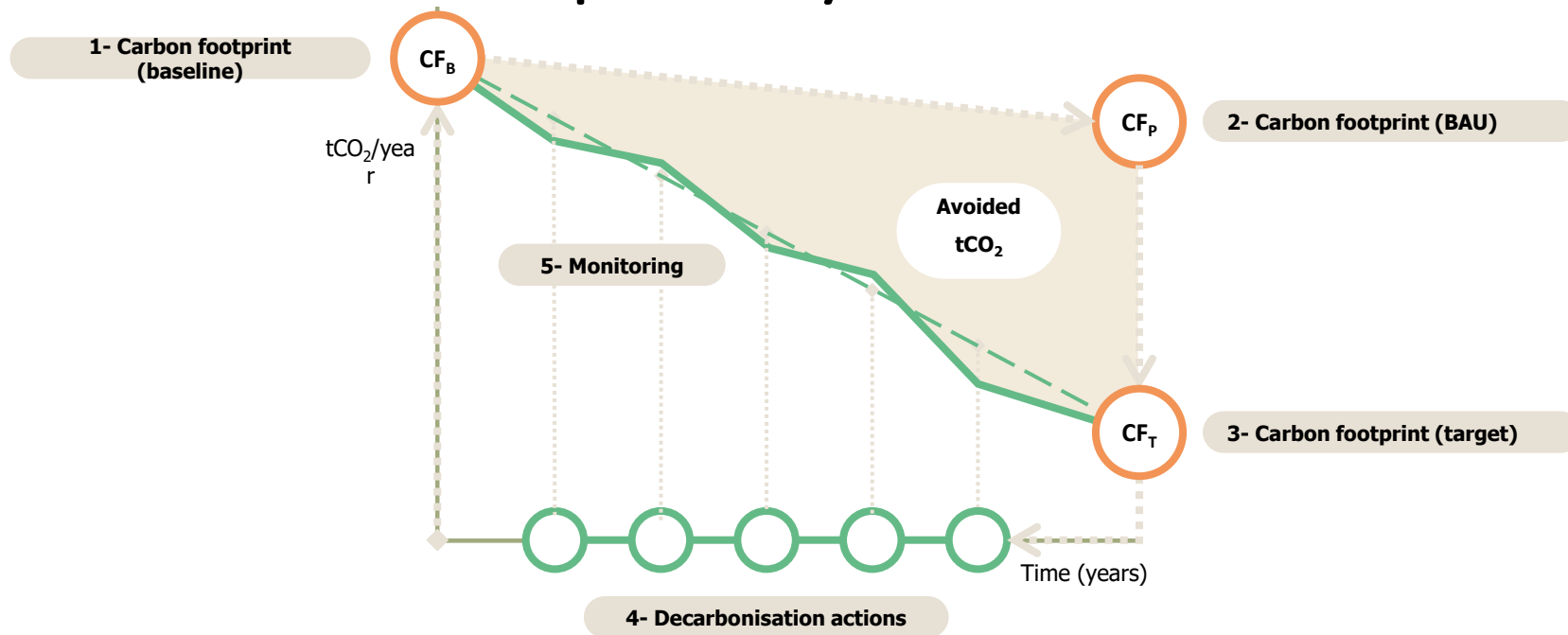


MORE THAN
10 MILLION TONS of
CO₂ EMISSIONS avoided,
roughly equivalent to the
carbon sequestered by
150 million 10-year-old
trees⁵

⁵ United States Environmental Protection Agency, Greenhouse Gas Equivalencies Calculator.



Decarbonisation pathway





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Carbon Sankey Diagram

(source: SEAI)

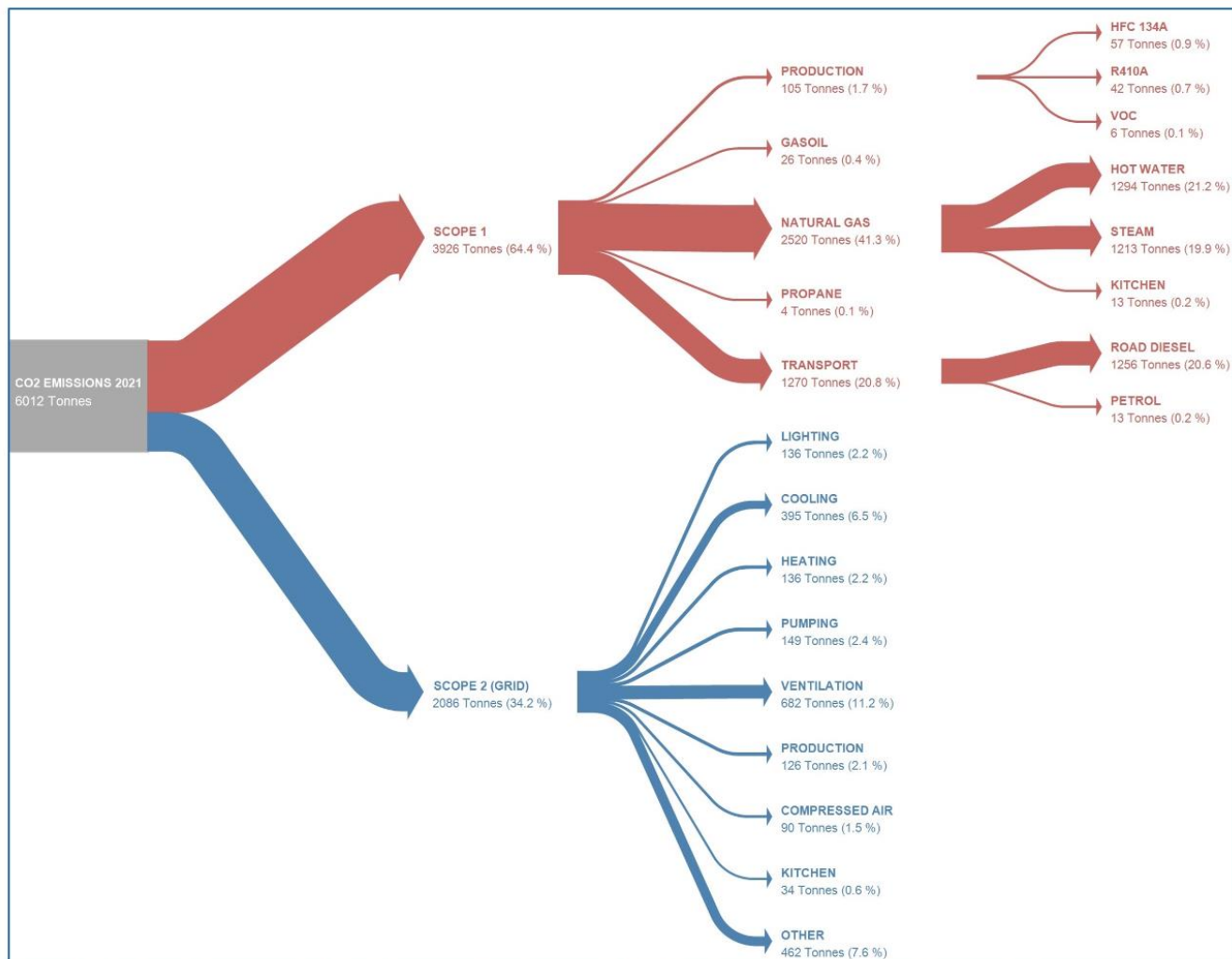
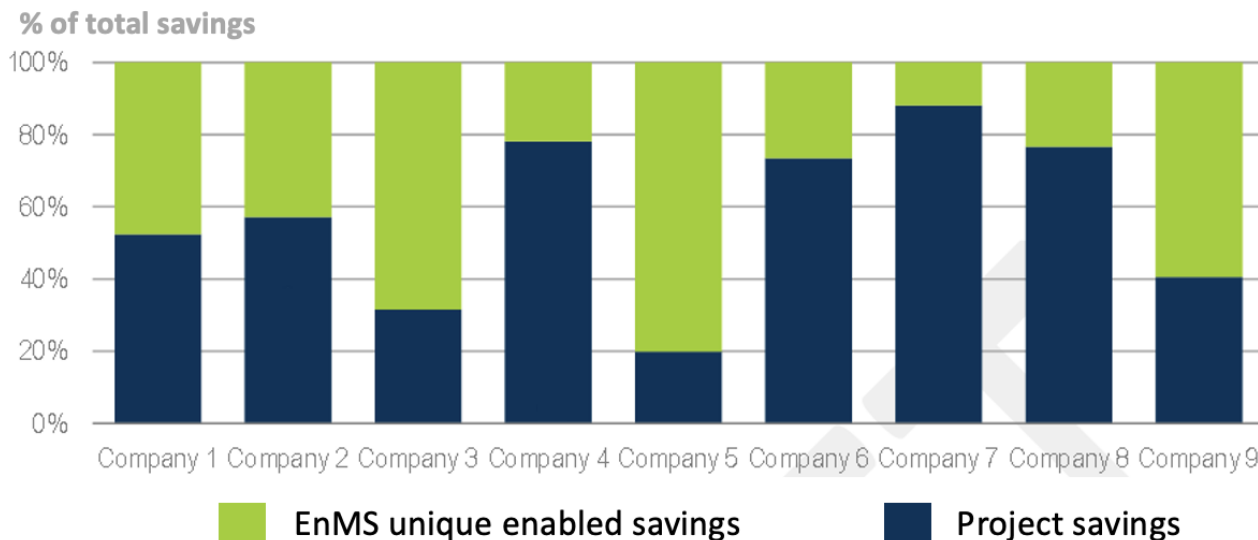


Figure 3 Sankey diagram showing the scope 1 and scope 2 GHG balance of an industrial organisation



Separation of energy savings types

Comparison of project savings and EnMS unique enabled savings

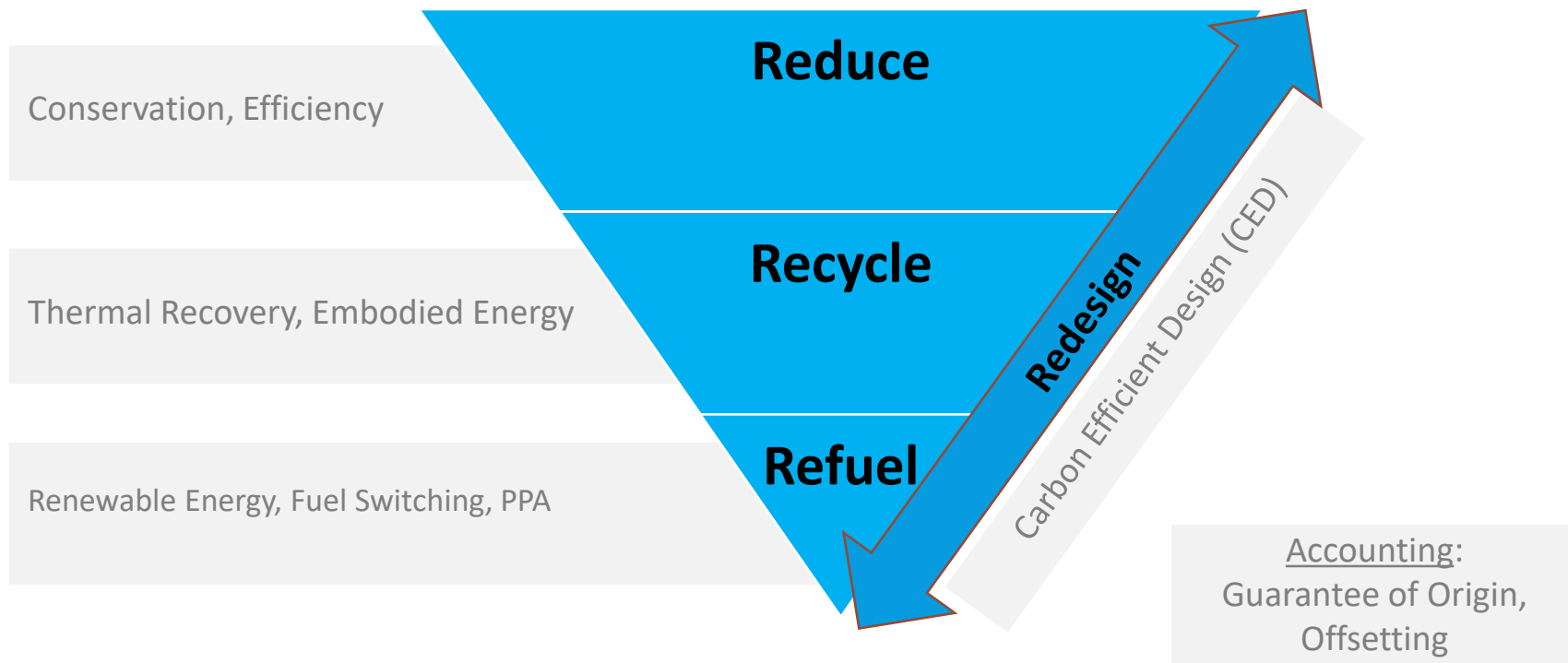


There is evidence that energy management systems unlock energy savings beyond those from technology replacement or process upgrades

Note: Companies 1-9 are medium-sized and large companies from metal processing, chemicals, automotive, construction material and power generation sectors in Egypt, North Macedonia, South Africa and Turkey



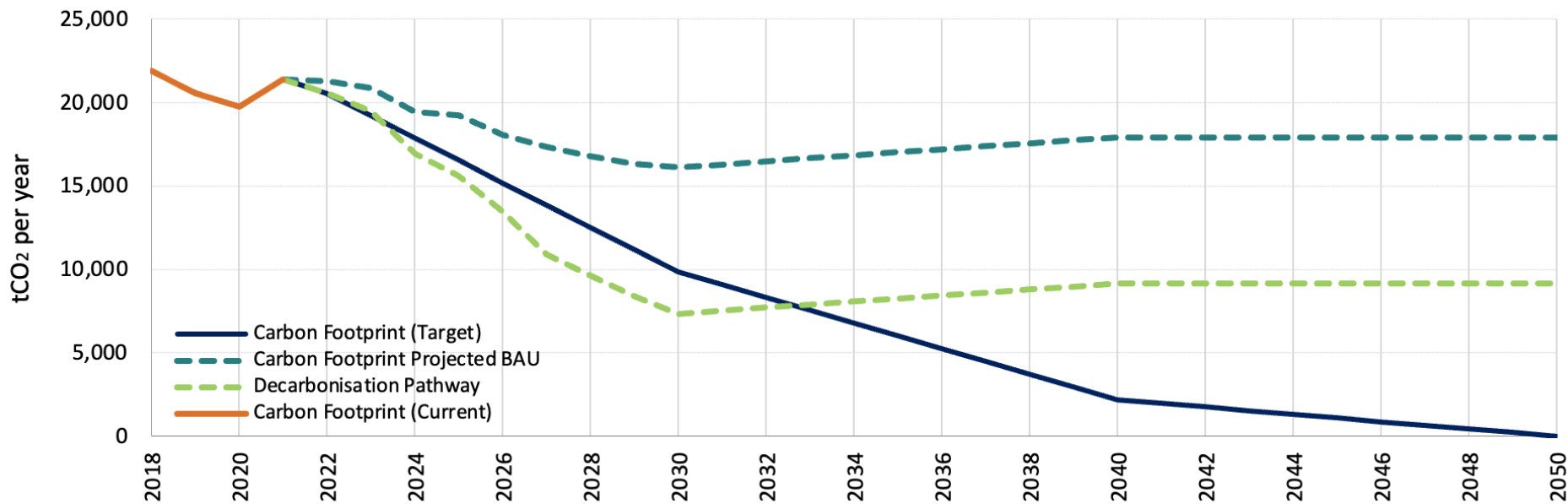
Decarbonisation pyramid – The 4 R's





Skibbieren SEC (source: SEAI LIEN tool and SEC data)

CARBON FOOTPRINT TREND





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Go raibh maith agaibh 😊

