



# Decarbonising F&B Manufacturing Portfolios

Wednesday, 26<sup>th</sup> of June 2024

Internal



Restricted



Secret







## A few housekeeping notes

- This session is being recorded
- You can ask your questions and respond to polls using the 'Q&A box' function
- Let's get started!

# Meet your ENGIE Impact team



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# ENGIE Impact Key Figures



**1,500+**  
clients



**25%**  
of the Fortune 500  
are clients



**1 million**  
client sites under  
management



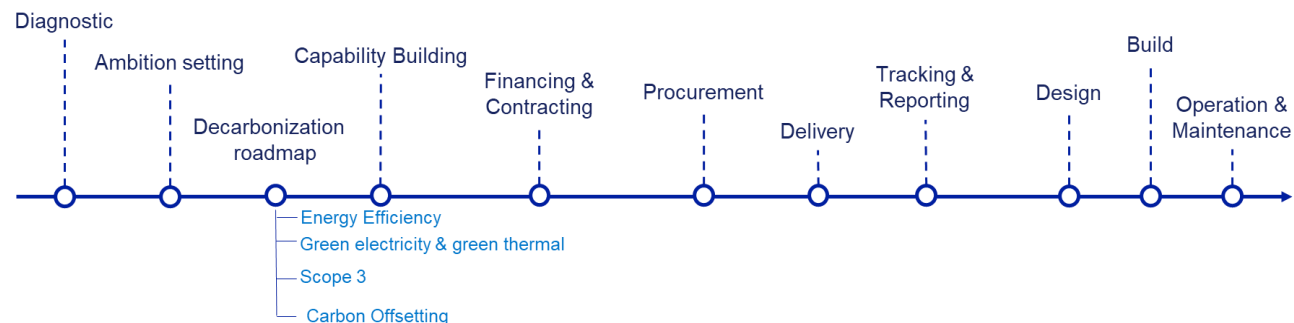
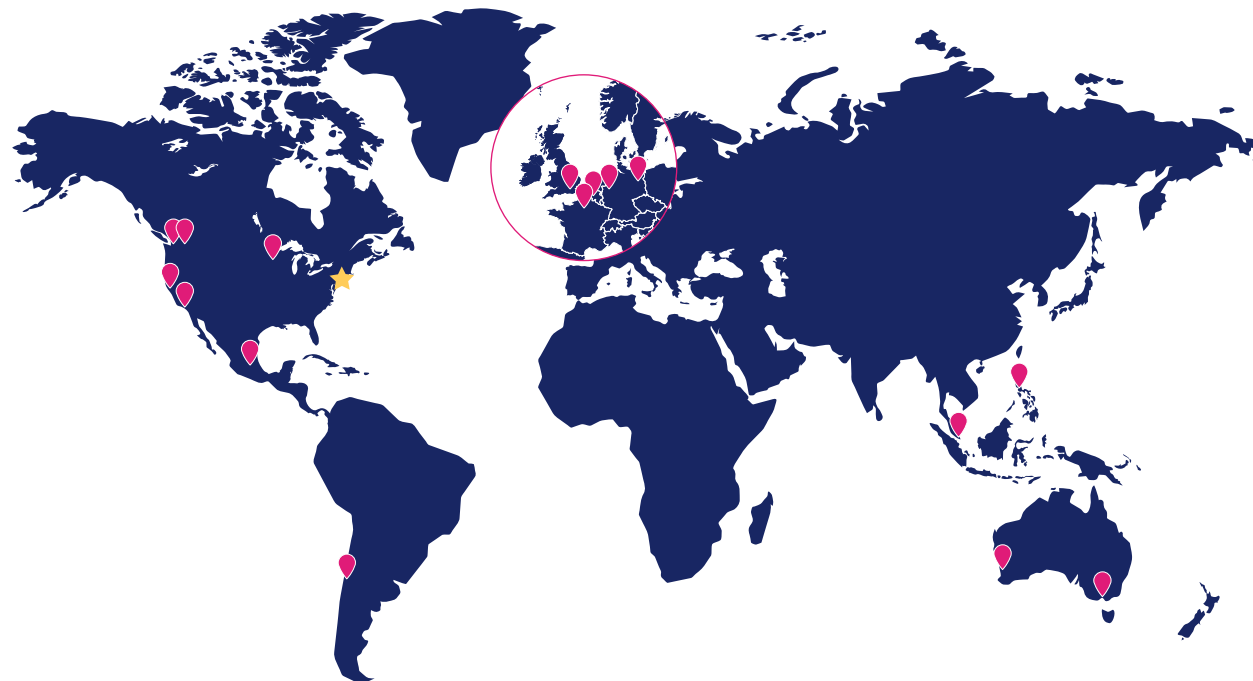
**15%**  
organic growth  
YOY for 3 years



**2,100+**  
employees across  
20 global locations



**500+**  
strategic business  
consultants



# Part of ENGIE Group: Leading the energy transition

## Focused on four core areas

Renewables	Energy Solutions
Infrastructures	Flexible Generation & Retail



ENGIE Impact is a key business within Energy Solutions and leads dialogue and strategy for global clients

**96,400**  
employees

**€93.9 billion**  
revenue

**37.9 GW**  
installed renewables  
capacity

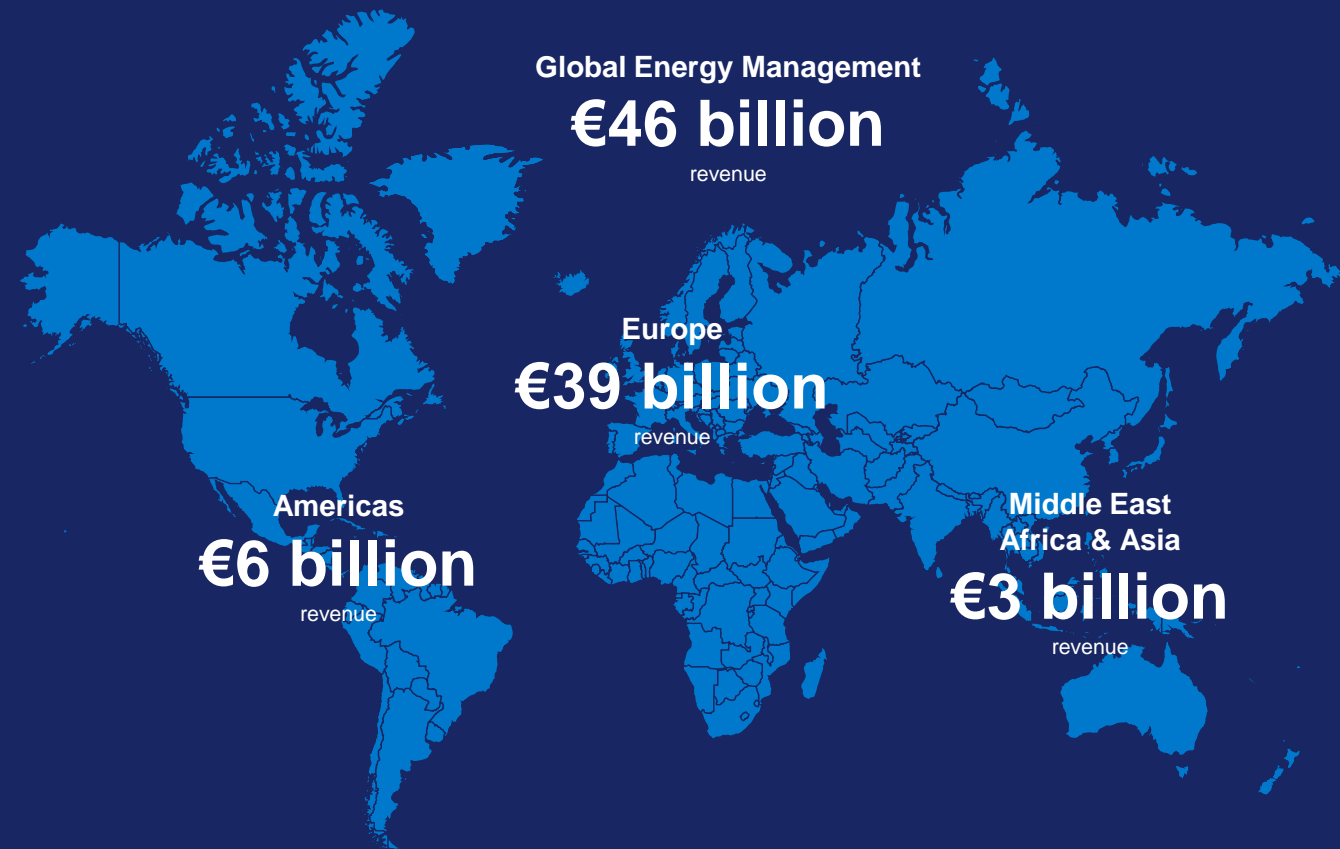
**426 TWh**  
electricity produced

**31 countries**  
operating in

**€5.5 billion**  
growth Capex

**1st**  
in the world for PPAs

**1 GW added**  
in distributed energy  
infrastructure



# Achieving Net Zero targets requires thinking holistically at a company transformation



## 2024 Net Zero Report: Aligning Corporate Vision with Decarbonization Realities

[view.engeiimpact.com/2024-net-zero-report](https://view.engeiimpact.com/2024-net-zero-report)

Surveyed **515 business leaders** responsible for sustainability initiatives at their organisations. Included **leaders across more than 20 countries**, representing companies with **10,000 employees or more** and at least **\$500 million in annual revenue**.

**66%**

Two thirds of companies have made public carbon reduction commitments

**20%**

But only one fifth say they are **meeting or exceeding** their ambitious decarbonization **goals**

**52%**

of companies say they're **already working** to make **fundamental changes** to their operating models to meet Net Zero commitments

**>60%**

Most cited areas of change are:

- Internal **Governance** and **Accountability**
- Team **Skillset, Focus** and **Bandwidth**
- Sourcing / partnering along **supply chains**
- **Data**





## **Poll #1**

**What is the current status of your decarbonisation ambitions across your portfolio of sites?**

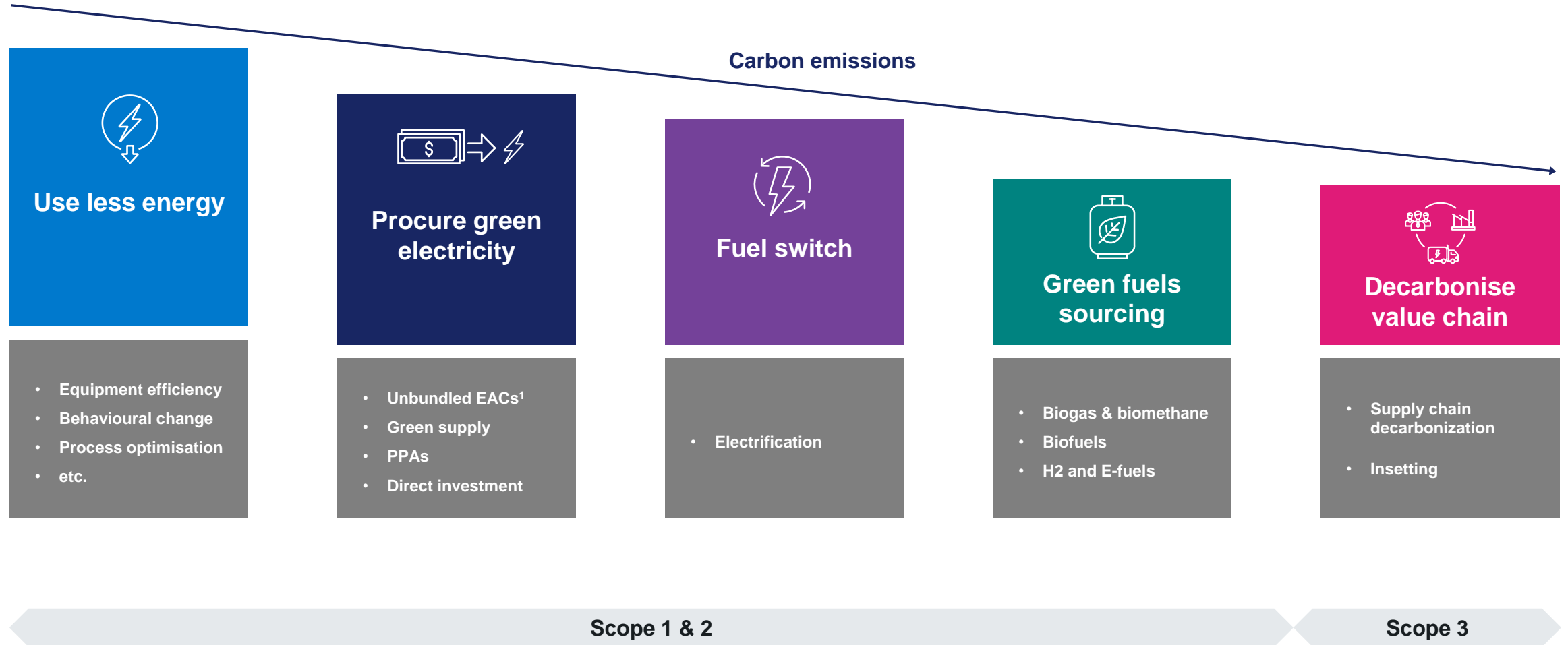
**A) Not started**

**B) Single-site decarbonisation strategy defined**

**C) Portfolio-wide decarbonisation strategy defined**

**D) Portfolio-wide implementation programme being rolled-out**

# Meeting Net Zero targets requires defining the right mix of decarbonisation levers

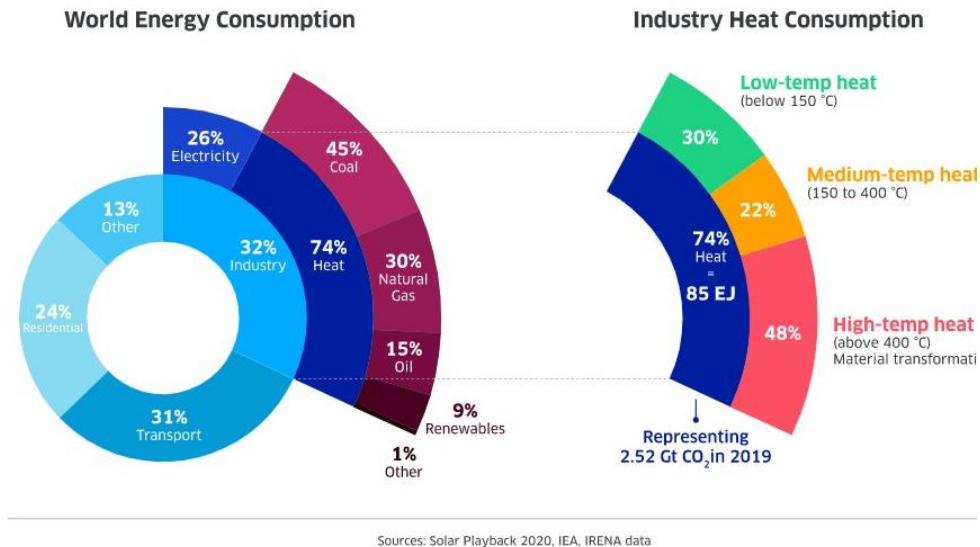


<sup>1</sup> EAC: Energy Attribute Certificate e.g., Guarantee of Origin in Europe



# Industry drives global energy consumption and heat drives industrial energy consumption

The **industrial sector** consumes about **32% of all energy** globally, with **heat representing about 75%** of that consumption.



**Half** of industrial heat demand requires **high temperature heat** and **90% of all industrial heat** is currently generated with **fossil fuels**

**Energy efficiency** and **green electricity** sourcing are typically the **starting point** of a net-zero transformation, but **solving for green thermal** is typically the most **complex challenge**.

## Poll #2

**What decarbonisation levers has your organisation deployed?**

- A) Energy efficiency**
- B) Procurement of renewable electricity (GOs / PPAs)**
- C) Fuel switch: Electrification**
- D) Sourcing of green fuels (e.g. biomethane)**
- E) Engaging value chain (scope 3)**

# Three fundamental shifts in decision-making perspective accelerate emission reduction across production sites

FROM

Individual measures  
& technologies

Project prioritisation  
based on **Return on Investment**

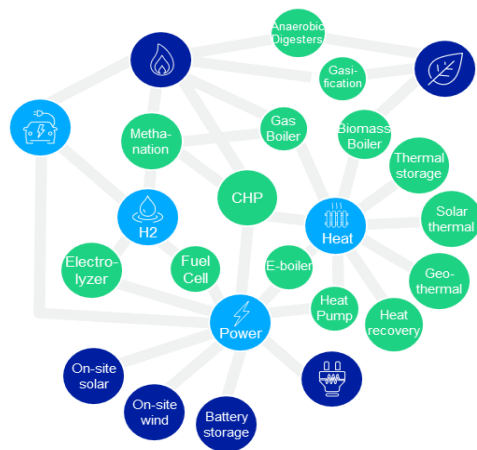
**Bottom-up**  
**site-by-site**  
projects

TO

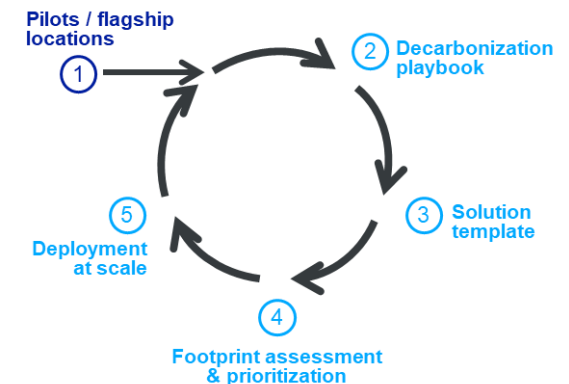
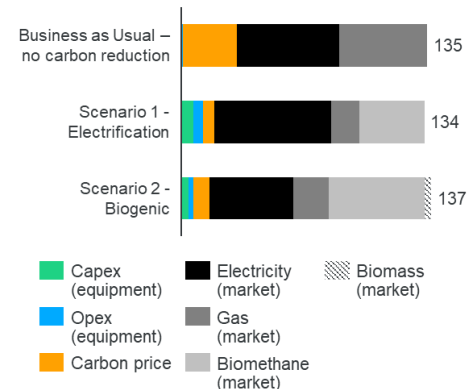
**Integrated pathways  
& solutions**

**Scenario evaluation  
based on Total Cost of Ownership**

**Template-driven  
multi-site program**



*Total Cost of Ownership breakdown,  
million EUR*

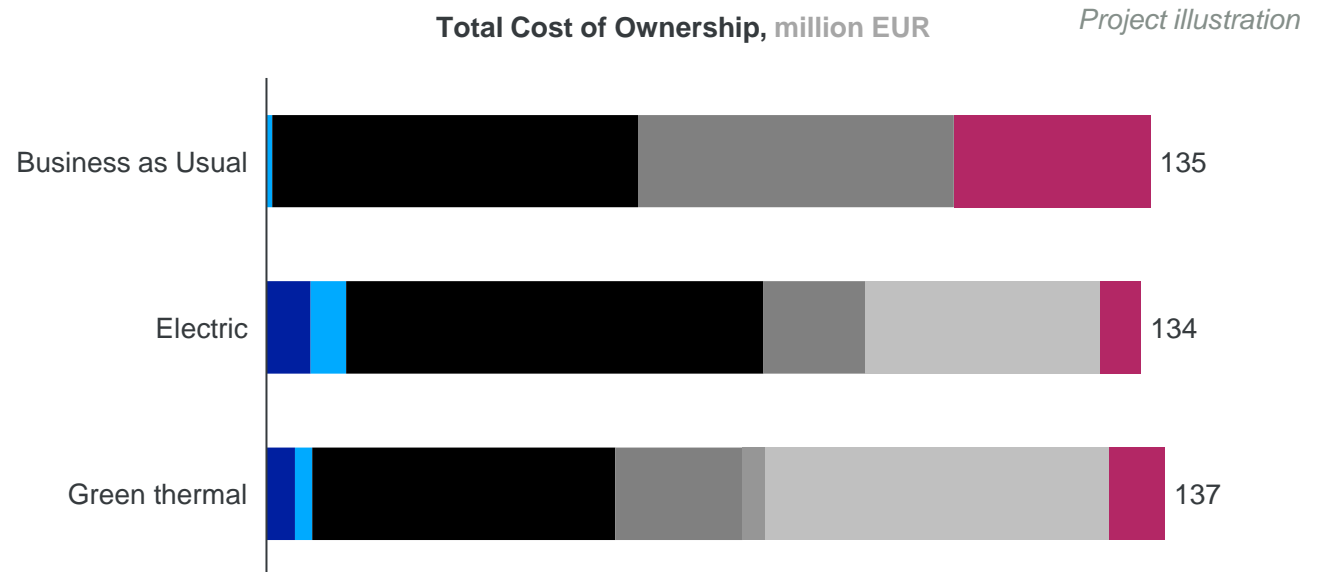
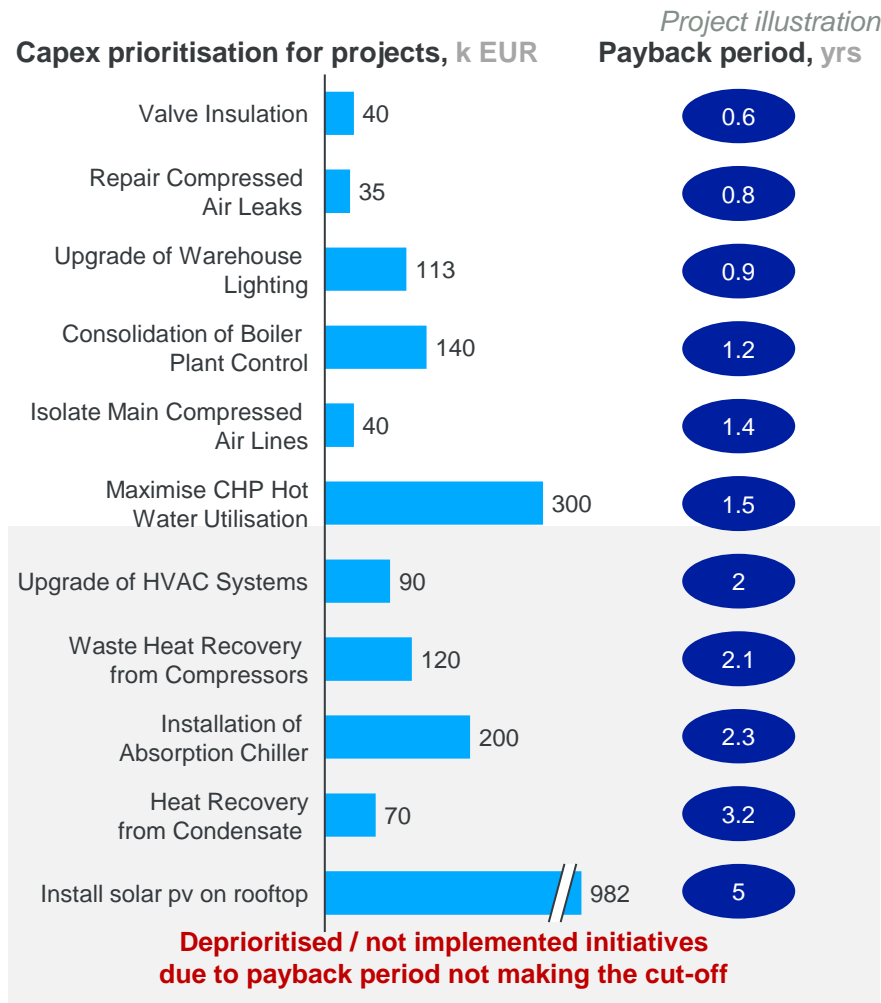




# Shifting from ROI-based prioritisation to Total Cost of Ownership-based scenario evaluation unlocks investments

ROI-based prioritisation leaves many initiatives unfunded even if these are affordable decarbonization measures

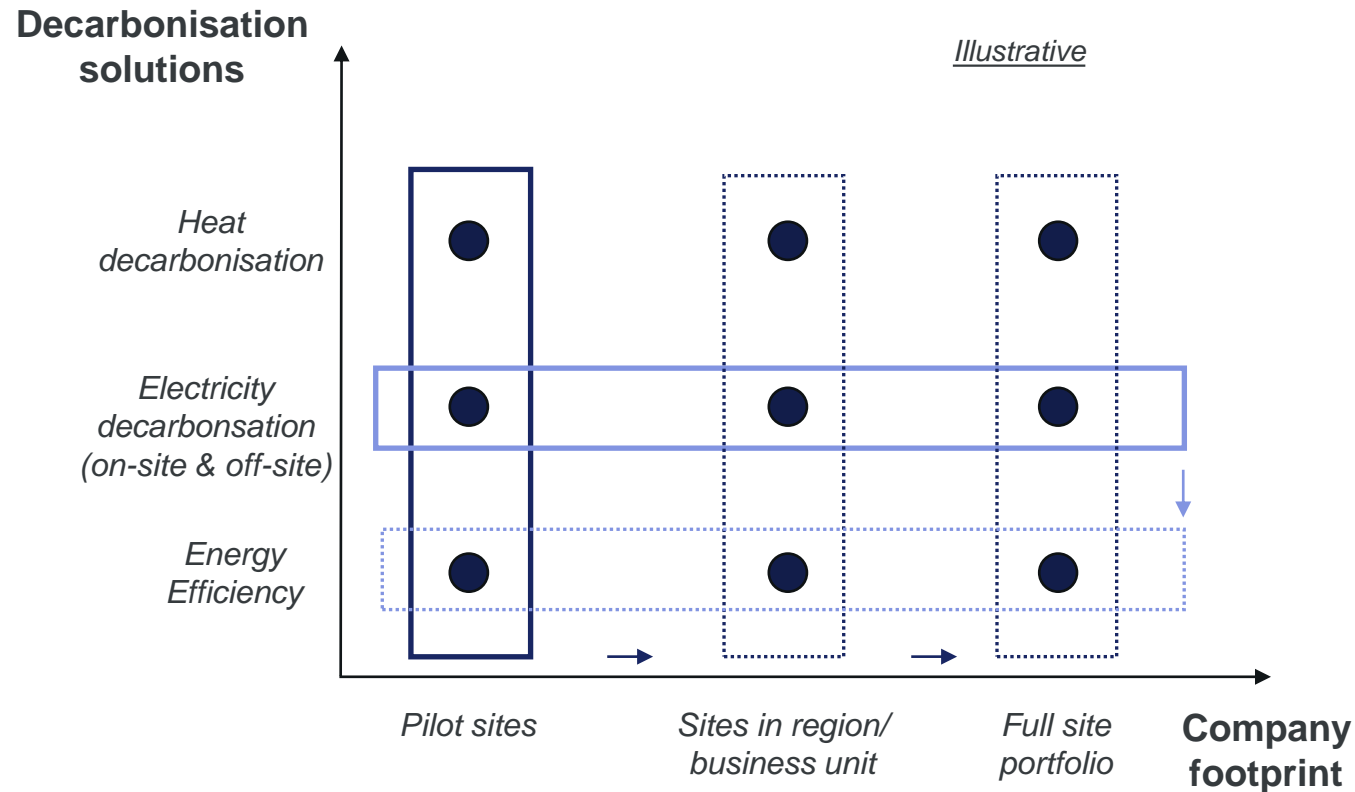
Project selection needs to be done based on an understanding what it takes to get to the end-state ambition, and considering potential cost inflation in the business-as-usual scenario



OPEX is the key contributor to the total cost of ownership, showing the importance of not only focusing on the capital allocation question, but more importantly on sourcing options and related affordability and risk

Capex (equipment) Opex (equipment) Electricity (market) Gas (market) Biomass (market) Biomethane (market) Carbon price

# Organisations typically pursue two types of programmatic approaches to scale up the decarbonization of their site portfolio



**Approach 1**  
Roll-out of solution-oriented programmes

**Approach 2**  
Net Zero sites & scale up

Project ●

# Innovative contracting models are key enablers to accelerate the implementation of decarbonisation solutions

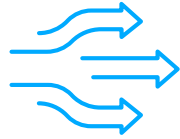
Examples for structuring considerations

Example Structuring Attributes	Typical characteristics of <i>as a service</i> models		Typical characteristics of <i>traditional</i> models
	Trusted Control	Tailored Control	Retained Control
Financing Need	100% finance support required	Partial financing requirement	Capital available for investment
Balance Sheet	Must be structured off balance sheet	Agnostic	Balance sheet impact not considered
Building Ownership	Own entire estate	Mixed portfolio	Short term (<5y) leases
Operation and Maintenance	Fully outsourced	To be discussed	Retained for in-house delivery
Performance Obligation	Full Risk Transfer	Output specification	Ltd to manufacturing specification
Programme Management Office (PMO)	Transformation lead required	Expert Advisory support required	In-house team available
...	...	...	...

← Risk Transfer



# Success factors for global implementation programmes



**Streamlined and replicable** approach across all sites and countries



**Actionable decarbonisation** roadmap for each site building on a **technology-agnostic analysis**



**Stakeholder onboarding & alignment** by central Programme Management team to accelerate decision-making

# Case study – Net Zero roadmap and Energy as-a-Service for multinational F&B actor

- United States
- Mexico
- Germany
- Poland
- France
- Spain
- Belgium

## Net Zero target for scope 1 and 2 by 2030

- Very ambitious sustainability targets, including reduction of Scope 1 and 2 emissions by 100% by 2030, with interim goal to reduce by 80% by 2027, and achieve Net Zero emissions covering Scope 1, 2 and 3 emissions by 2040

## Decarbonisation roadmaps across 14 sites

- ENGIE Impact and the Client have built in a co-construction mode the **decarbonisation roadmap for 14 priority sites in multiple countries: 1.1TWh of electricity consumption, 1.1TWh of natural gas, 200kton of CO<sub>2</sub>eq**
- Assessment of a **wide range of technological options** (Energy Conservation Measures, heat pumps, on-site solar; biomass, off-site biomethane) and identification of the optimal mix of solutions that guarantee **lowest TCO** while **meeting decarbonisation KPIs**

## ‘Energy as a service’ implementation

- **Investment-grade** decarbonisation pathway and **engineering studies**
- Engagement on an **Energy as a Service contracting model** for implementing the selected solutions with CAPEX coming from ENGIE

## Joint Development agreement for a Biomethane purchase agreement

- ENGIE and the Client are co-developing a large scale biomethane plant nearby site with the waste of the plant and from the agriculture ecosystem of the Client



# Case study – F&B actor delivering Net Zero over 150 production sites by 2030

## CEO-driven SBTi commitment

- The company board committed to an ambitious **SBTi target** of reaching **net-zero emissions in production by 2030** and accordingly structured a net-zero program.

## Net Zero team and governance to drive the programme

- The company set up a **Net Zero corporate team** and allocated a **corporate CAPEX** to fund the decarbonisation initiative
- Net Zero team **engaging with decarbonisation partners** to deliver site-level solutions from strategy to implementation and **coordinating with local teams** to drive action and speed

## Define Net Zero pathway for each site and learn along the way to drive synergies

- **Definition of a site-tailored decarbonisation roadmap** to account for variable local conditions (site specifics, regulations, market)
- Identification of recurring solutions across sites to explore **synergies and accelerate scale-up**
- Valorisation of **site biowaste** for **biomass or biomethane** energy production



# Any questions?



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