

# ESG & Carbon Neutrality Path



# Agenda

1	Rototech ESG Commitments
2	Carbon Neutrality plan

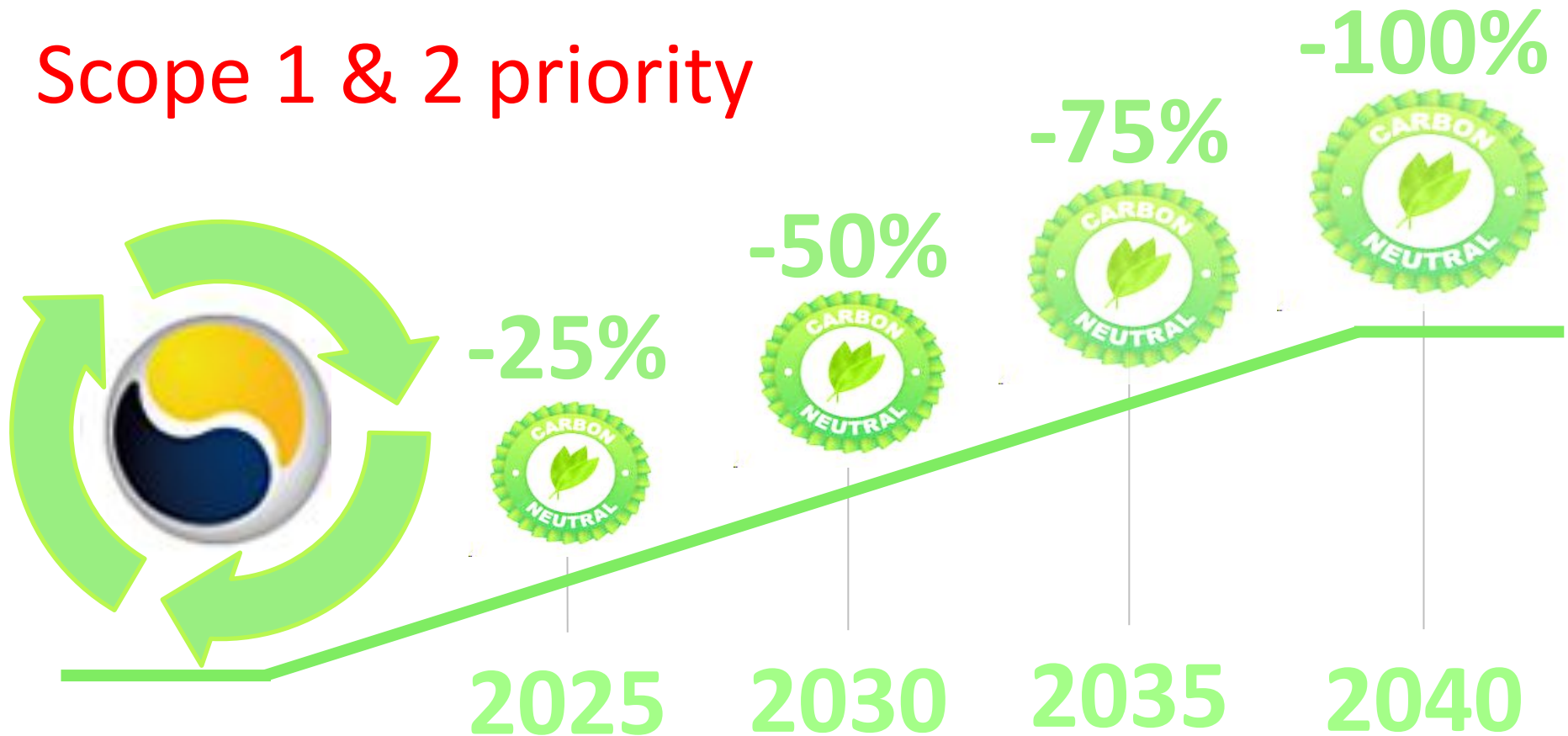
# Rototech Carbon Neutrality path



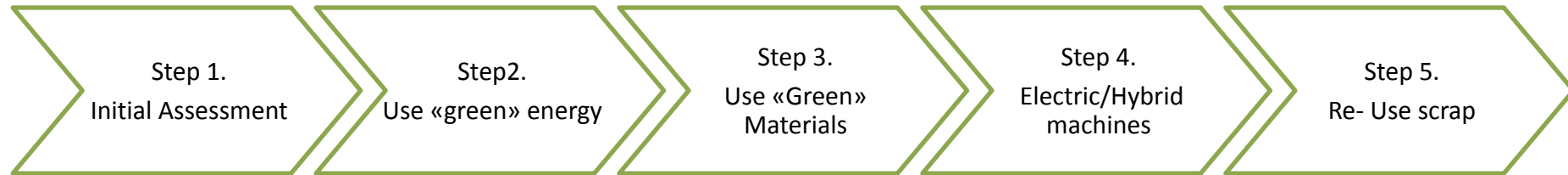
## Scope definitions

- **Scope 1** emissions from sources that an organisation owns or controls directly
- **Scope 2** emissions that a company causes indirectly and come from where the energy is produced
- **Scope 3** emissions that are not produced by the company itself and are not the result of activities from assets owned or controlled, but by those that it's indirectly responsible for up and down its value chain

## Scope 1 & 2 priority

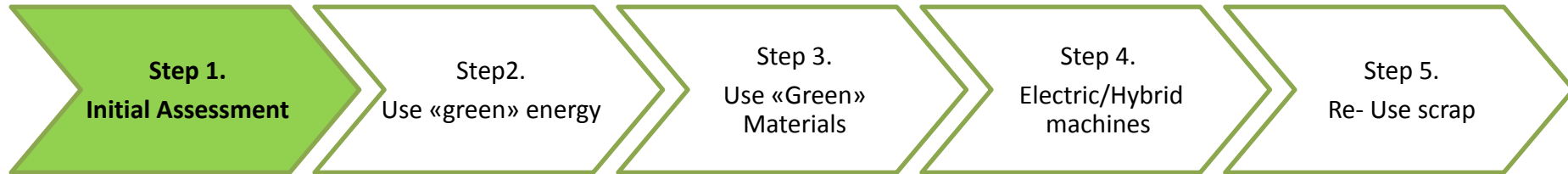


# Rototech Carbon Neutrality path



## 5 Steps process

# Rototech Carbon Neutrality path



## Project Summary – Initial Assessment



*Notified Body for assessment*

Initial assessment on CO2 emission:

- Scope 1: defined as the CO2 produced by internal production
- Scope 2: defined as the CO2 produced by energy provided

In Rototech case, for year 2023, those values are (in CO2 ton)

Scope 1 1.911 CO2 ton

Scope 2 831 CO2 ton

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**2.742 CO2 ton**

LEGNA	ton	
CARBONE DI LEGNA	ton	
BIODIESEL	ton	
RIFIUTI SPECIALI COMBUSTIBILI	ton	
CDR PREVALENTEMENTE DA RIFIUTI SOLIDI URBANI	ton	
GAS DERIVATI DA PETROLIO GREGGIO	m3	
CLINKER DA CEMENTO	ton	
GRAFITE / POLVERE DI GRAFITE O ELETTRODI DI GRAFITE	ton	
TOTALE EMISSIONI SCOPE 1 (TON CO2 EQ)		
<b>CALCOLA</b>		<b>AZZERA</b>

**Scope 1** 1911

Inserisci i dati per il calcolo del valore di Scope2

### SCOPE 2 | Emissioni indirette da energia acquistata (elettrica e/o termica)

Le aziende riportano le emissioni indirette generate dall'acquisto di elettricità o calore o vapore importati e consumati dall'organizzazione. Per molte aziende, l'elettricità acquistata rappresenta una delle maggiori fonti di emissioni di gas a effetto serra.

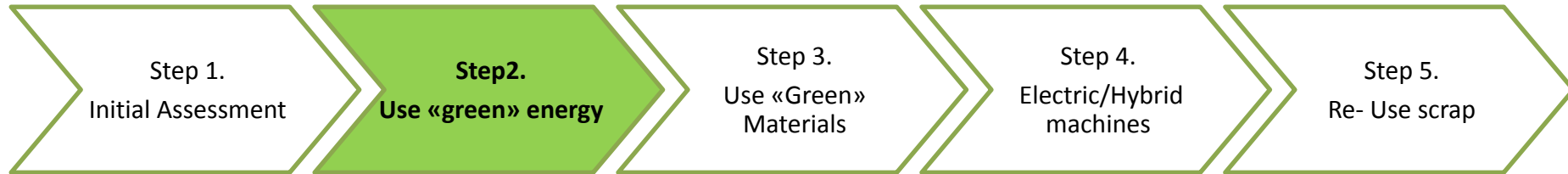
NOTA: \*anche da fonti rinnovabili \*\*autoprodotta mediante impianto di cogenerazione; escludere quantità di energia ceduta in rete;

#### Tipologie fonti

Tipologia fonte energia	Ammontare
ENERGIA ELETTRICA ACQUISTAT*	kWh 3158592
ENERGIA ELETTRICA AUTOPRODOTTA**	kWh
*CALORE*	kWh
VAPORE	kWh
TOTALE EMISSIONI SCOPE 2 (TON CO2 EQ)	
<b>CALCOLA</b>	

**Scope 2** 831

# Rototech Carbon Neutrality path



## Project Summary – Solar panels

Rototech will install solar panels on its plant rooftop (initially in Turin Plant, later to be extended to other plants) in order to produce 1,5 MW of green solar energy. Direct utilisation @Rototech site and sale of excess energy to grid

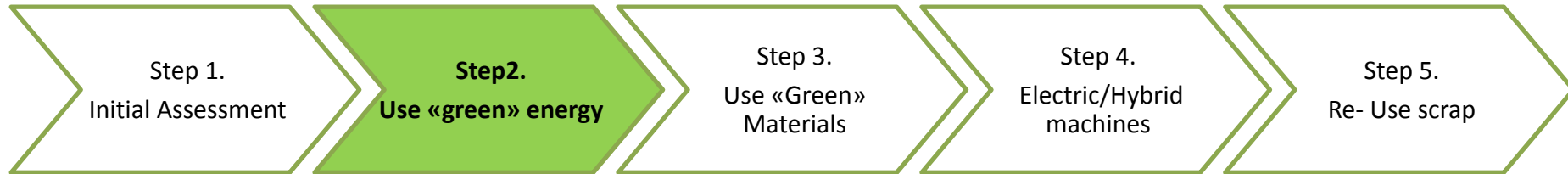
Start date: Q1 2025

End Date: Q4 2025

~~Expected CO2 reduction: - 438 ton of CO<sub>2</sub>/year~~



# Rototech Carbon Neutrality path



## Project Summary – Source “green “ energy

Rototech is going to source electricity from providers that ensure such energy to be made from renewable sources, mainly hydroelectric units based in Piedmont region. Total already available energy: 700 MW.

Start from: Q1 2025

Expected CO<sub>2</sub> reduction: - 400 ton of CO<sub>2</sub>/year





# Rototech Carbon Neutrality path



## Project Summary - ISCC certified plastic material

In partnership with raw material suppliers, Rototech could supply ISCC certified materials produced in specific production sites that ensures polyethylene being generated from bio-ethylene source, still guaranteeing the key performance properties.

### To be managed:

- Excess of cost vs other grades
- Material Re-Validation, Re-homologation

Start from: end 2026

Expected CO<sub>2</sub> reduction: - 300 ton of CO<sub>2</sub>/year

### Mass Balanced Certified Circulen Polymers



- **ISCC PLUS** is a certification system for companies that provide recycled or renewable-based product content using a **mass balance approach**.
- Using the mass balance approach, ISCC PLUS certification verifies that the mass balance accounting follows predefined and transparent rules.
- **ISCC PLUS** is a standard well-recognized by all stakeholders for advanced recycled and renewable materials
- **ISCC PLUS:** now available for our Wesseling, Germany, crackers, European polymer sites and for certain grades of polyethylene and polypropylene produced at four of our U.S. manufacturing sites





# Rototech Carbon Neutrality path



## Project Summary – Reduced cycle time raw materials – LYB 1490

Reduce the carbon emissions by utilising a raw material (i.e. LYB 1490) which allows reduced cycle time thus requiring less energy for transformation

### To be managed:

- Material Re-Validation, Re-homologation

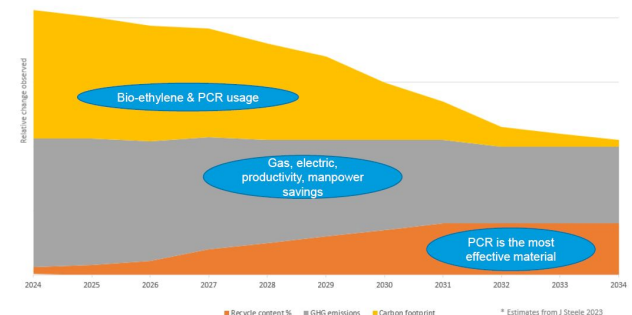
Start from: Q1 2025

Expected CO<sub>2</sub> reduction: - 100ton of CO<sub>2</sub>/year

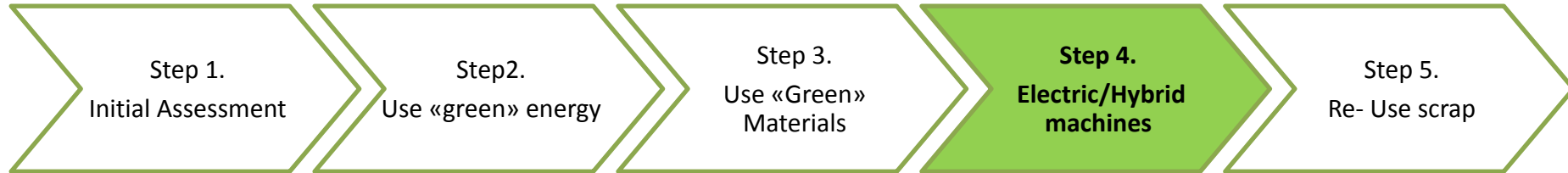


### Future sustainability goals for processing & materials for rotomoulding

Estimated sustainability changes\* to roto processing/materials for the next 10 years



# Rototech Carbon Neutrality path



## Project Summary – Switch to Electric / Hybrid machines

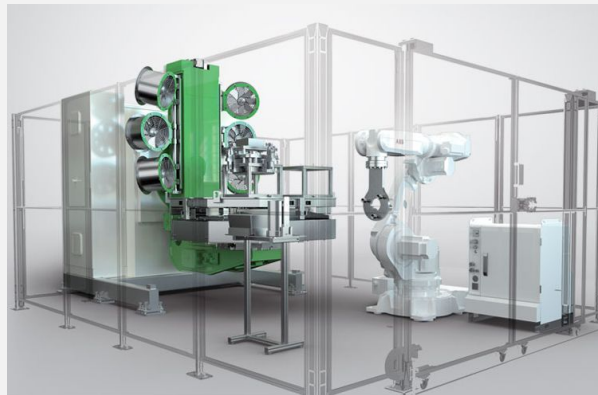
Rototech is investing to reduce dependency and use of natural gas for oven burners by adopting more Full Electric machines and converting Traditional machines to Hybrid. Smart machines are heating directly the mould, so less energy dispersion and if supplied with renewable energy, CO2 emission could be reduced to 0.

Electricity shall be supplied by solar panels installed on roof top

### To be managed:

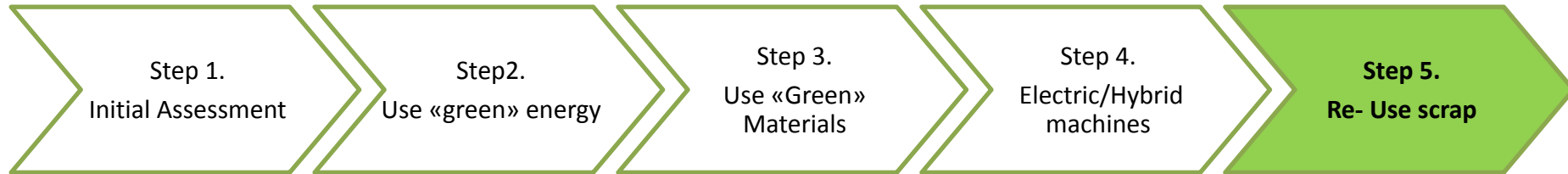
- Payback on machines/molds
- Possible capacity constraints due to machine downtime

Start date: Q3 2025



Expected CO2 reduction: - 400 ton of CO<sub>2</sub>/year

# Rototech Carbon Neutrality path



## Project Summary – Re-Use scrap

Within environment certifications ISO 14001 and ISO 50001 Rototech is promoting its own scrap re-use and circularity.

Re-used raw material can either be sold or utilised for less technical applications (so called PIR - Post Industrial Reuse)

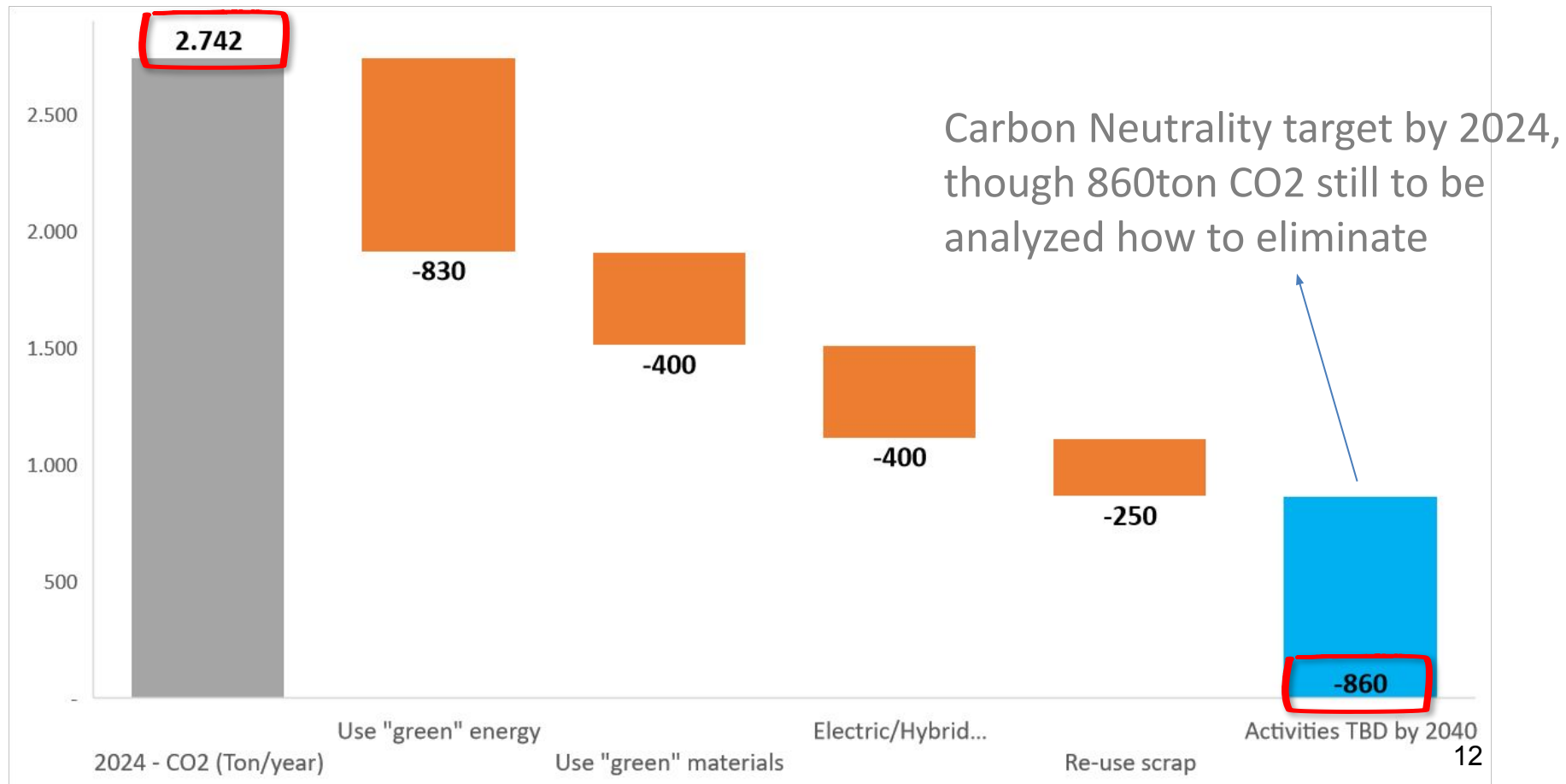
### To be managed:

- Internal Scrap management
- Organize Ecological area
- Organise sub-supplier and auditing

Start date: Q3 2024

Expected CO2 reduction: - 250 ton of CO<sub>2</sub>/year

# Rototech Carbon Neutrality path





rototech  
group

*Thank you*

