

# GHG emission avoidance potential

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# GHG emission avoidance potential

**Absolute GHG emission avoidance**

**Relative GHG emission avoidance**

**Quality of the GHG emission avoidance calculation and minimum requirements**

- **Application form, Part B, sections:**
  - Section 2: GHG emission avoidance potential
    - 2.1 Absolute GHG emission avoidance
    - 2.2 Relative GHG emission avoidance
    - 2.3 Minimum requirements
- **GHG emissions avoidance calculator** (mandatory annex)

# GHG emission avoidance potential (1)

General project information				
1	General information			
2	Start of operation			
3	End of operation			
4	Electricity			
5	Principal product			
6	Installed capacity (MW)			
7	Type of plant load factor (%)			
8	Capital operating hours (hours)			
9				
10				
11				
12	<b>Absolute GHG Emissions Avoidance</b>			
13	Net absolute GHG emissions avoided due to operation of the project during the first 10 years of operation, in tCO2e			
14	*Proportional emissions NOT included in Small Scale call projects			
15	<b>Experimental GHG Emission Avoidance</b>			
16	GHG <sub>exp</sub>	Ref		Project emissions
17				(Proj <sub>exp</sub> + Proj <sub>ref</sub> )
18	<b>Relative GHG Emissions Avoidance</b>			
19	Relative GHG emissions avoided due to operation of the project during the first 10 years of operation, in percent			
20	Accumulated GHG emission avoidance	Accumulated GHG emissions		Reference emissions
21	GHG <sub>rel</sub>	Ref		Ref
22				
23	<b>Summary of GHG indicators related to the project</b>			
24				
25	<b>Key indicators</b>			
26	Indicator	Description	Value	Data used
27	Relative GHG emission avoidance (LGHV)	Net absolute GHG emissions avoided (in tCO2e) due to operation of the project during the first 10 years of operation	0	ICCDa
28	Relative GHG emission avoidance (LGHV)	Relative GHG emissions avoided due to operation of the project during the first 10 years of operation	%	Application Form (E)
29	GHG emissions in reference scenario (GHG <sub>ref</sub> )	GHG emissions that would occur in the absence of the project during the first 10 years of operation		ICCDa
30	GHG emissions in project scenario (GHG <sub>exp</sub> )	GHG emissions associated with the project activity and site during the first 10 years of operation		ICCDa
31	Average GHG emissions intensity of the reference scenario (GHG <sub>ref</sub> )	Average GHG emissions intensity of the reference scenario in tCO2e per unit of principal product in the reference scenario		ICCDa (unit quantity of principal product 1)
32	Average GHG emissions intensity of the project scenario (GHG <sub>exp</sub> )	Average GHG emissions intensity of the project scenario in tCO2e per unit of principal product in the project scenario		ICCDa (unit quantity of principal product 2)
33	GHG emissions intensity of the project scenario (GHG <sub>exp</sub> )	GHG emissions associated with the project activity and site during the first 10 years of operation		ICCDa (unit quantity of principal product 2)
34				

- Absolute GHG emission avoidance: difference between the expected GHG emissions of the proposed project and the GHG emissions in the reference scenario during 10 years after entry into operation.
- Relative GHG emission avoidance: absolute GHG emission avoidance divided by the GHG emissions in the reference scenario over the same 10 years period

The calculation must be done:

- using the relevant GHG emission avoidance calculator
- following the [Guidance on the GHG emission avoidance methodology](#)



# GHG emission avoidance potential (2)

## ❖ **Quality of the GHG emission avoidance calculation** and minimum requirements:

- external experts will assess the quality and credibility of your calculation of GHG emission avoidance potential;
- in case of issues in the quality of the calculation (including reliability and margin of uncertainty of key parameters and/or key assumptions), points may be reduced;
- in case the calculation methodology is incorrectly applied or in case the Application documents have not been filled correctly, the score for this sub-criterion will be below the minimum threshold and the proposal will be rejected.

# GHG emission avoidance potential (3)

## ❖ Quality of the GHG emission avoidance calculation and **minimum requirements**

Where relevant, the proposal should demonstrate whether the proposed project meets or not the **minimum requirements**:

- For projects producing products with an EU ETS benchmark: the process emissions of the project per unit of product must be below the **EU ETS benchmark(s)** applicable at the call deadline;
- For projects using biomass feedstocks: the biomass used will at least meet the **sustainability requirements** of the Renewable Energy Directive;
- For all projects: the **relative GHG emission** avoidance must be:
  - for **all topics** except INNOVFUND-2023-NZT-PILOTS: **at least 50%**
  - for INNOVFUND-2023-NZT-PILOTS topic: **at least 75%**.



**Proposals not meeting minimum requirements will be rejected!**

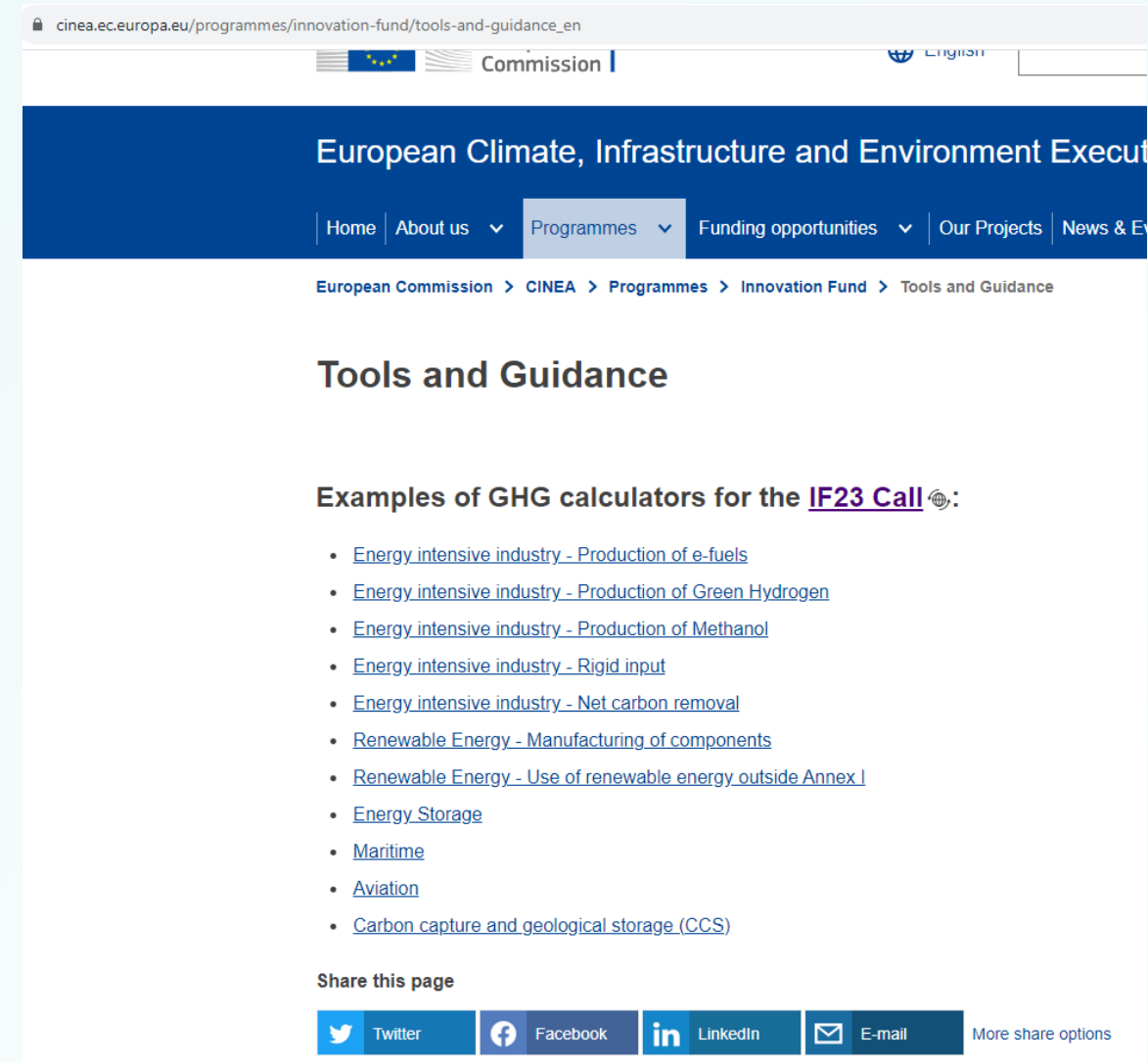
# New features of the GHG Calculation criterion

Two new sections in the GHG calculation methodology and GHG calculators

- Maritime
- Aviation

[A new set of filled examples in the templates](#)

[Tutorial on how to fill in the GHG Calculators](#)



The screenshot shows the website [cinea.ec.europa.eu/programmes/innovation-fund/tools-and-guidance\\_en](https://cinea.ec.europa.eu/programmes/innovation-fund/tools-and-guidance_en). The page is titled "Tools and Guidance" and is part of the "European Climate, Infrastructure and Environment Executive Agency" website. The navigation menu includes "Home", "About us", "Programmes", "Funding opportunities", "Our Projects", and "News & Events". The breadcrumb trail is "European Commission > CINEA > Programmes > Innovation Fund > Tools and Guidance".

**Examples of GHG calculators for the [IF23 Call](#):**

- [Energy intensive industry - Production of e-fuels](#)
- [Energy intensive industry - Production of Green Hydrogen](#)
- [Energy intensive industry - Production of Methanol](#)
- [Energy intensive industry - Rigid input](#)
- [Energy intensive industry - Net carbon removal](#)
- [Renewable Energy - Manufacturing of components](#)
- [Renewable Energy - Use of renewable energy outside Annex I](#)
- [Energy Storage](#)
- [Maritime](#)
- [Aviation](#)
- [Carbon capture and geological storage \(CCS\)](#)

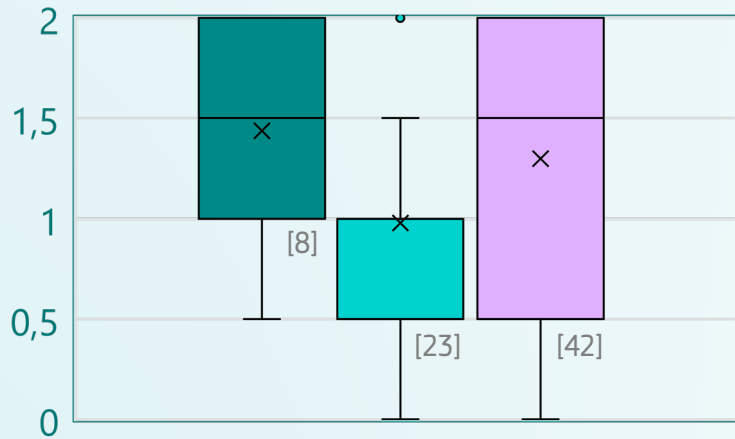
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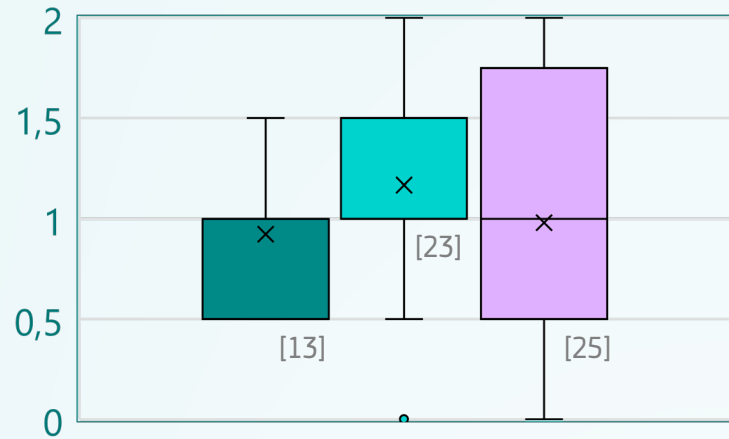
# Absolute GHG Emissions avoidance

## Scores per topic LSG-2022

GENERAL



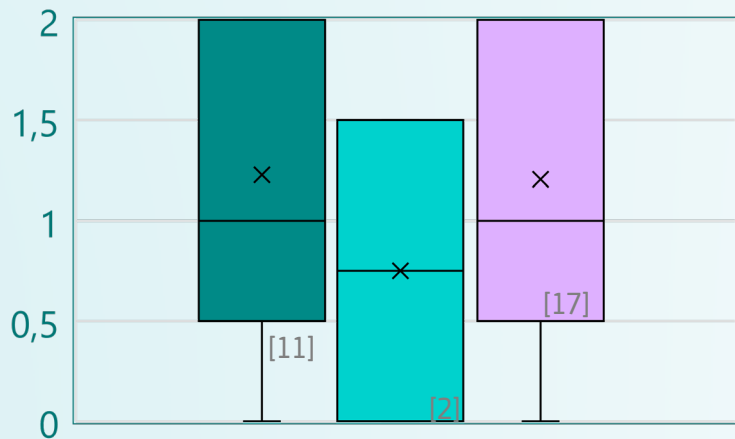
IND.-ELEC.-H2



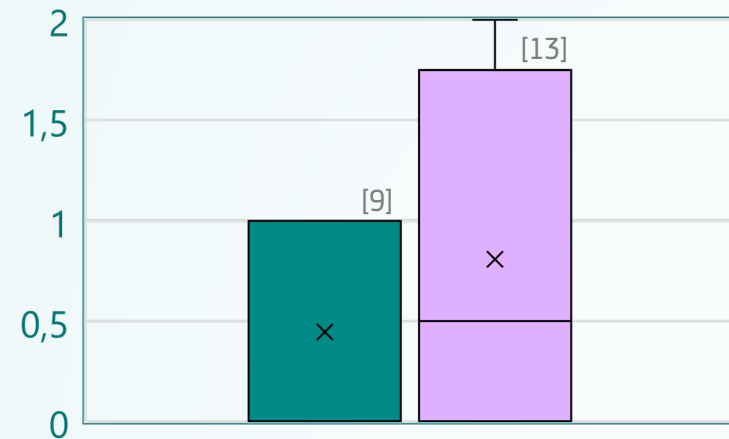
Proposals evaluated

- Pre-selected for grant preparation
- Beyond available budget
- Not meeting minimum thresholds

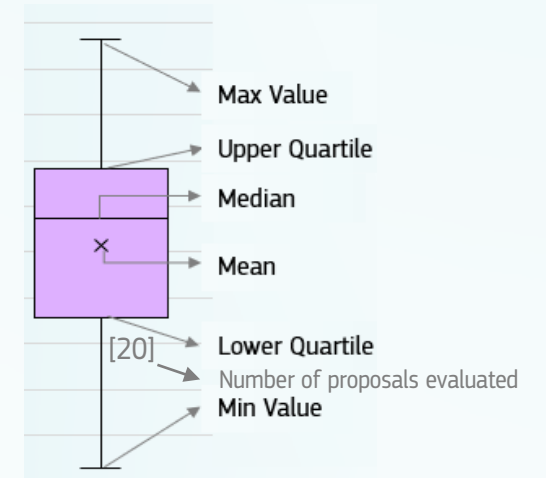
MANUFACTURING



PILOTS



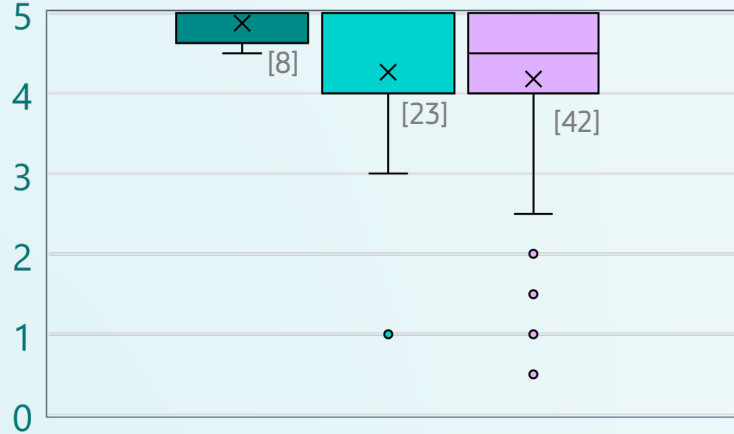
How to interpret these graphs



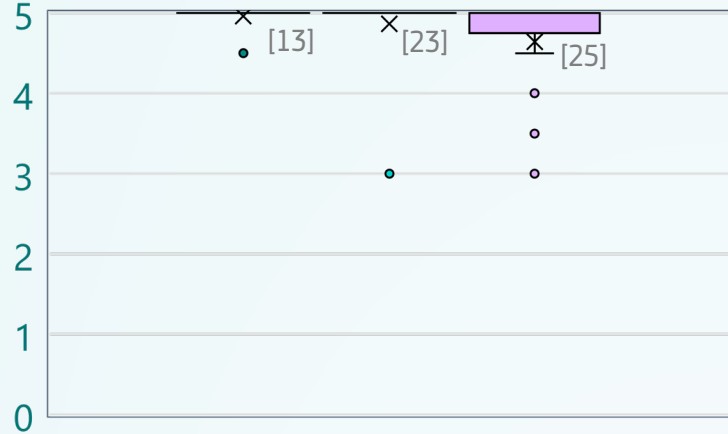
# Relative GHG Emissions avoidance

## Scores per topic LSC-2022

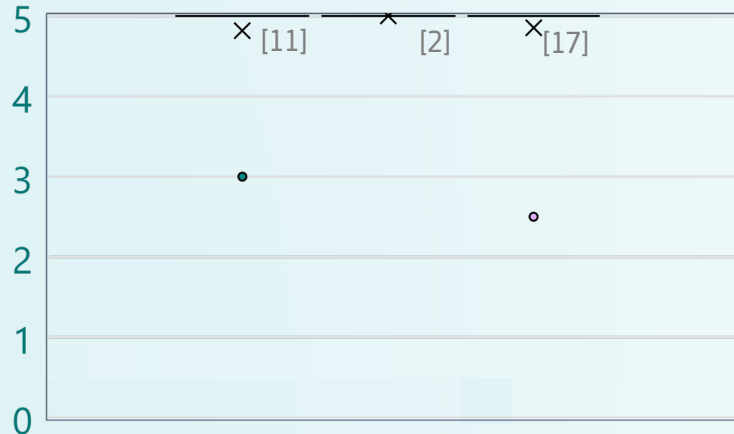
GENERAL



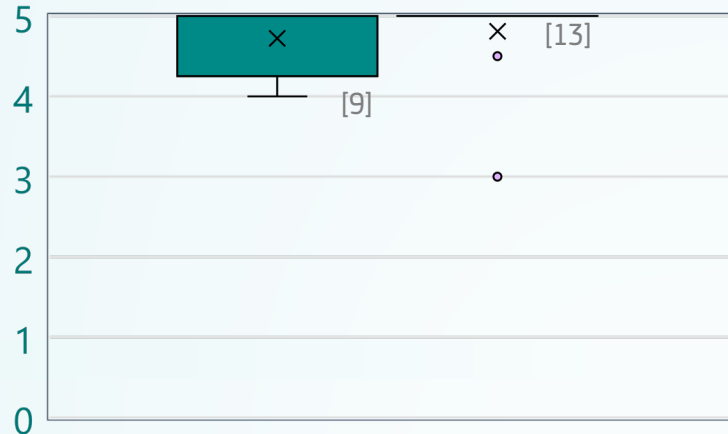
IND.-ELEC.-H2



MANUFACTURING



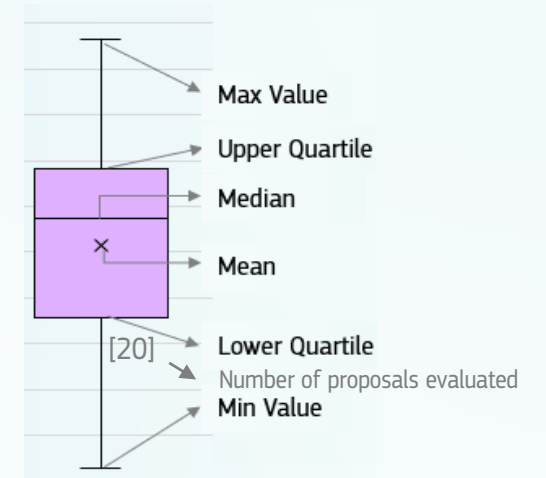
PILOTS



Proposals evaluated

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How to interpret these graphs

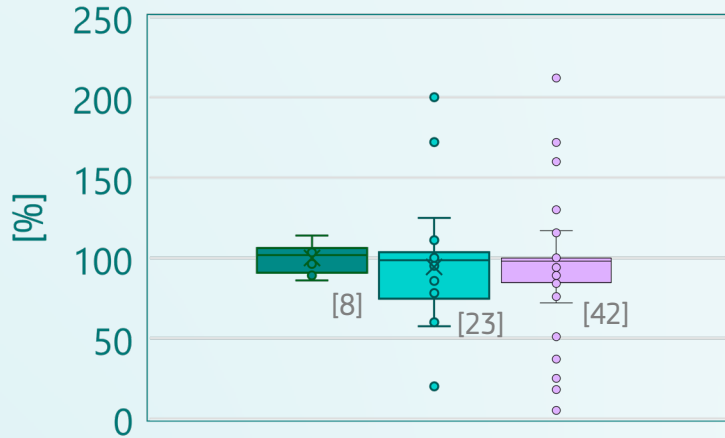




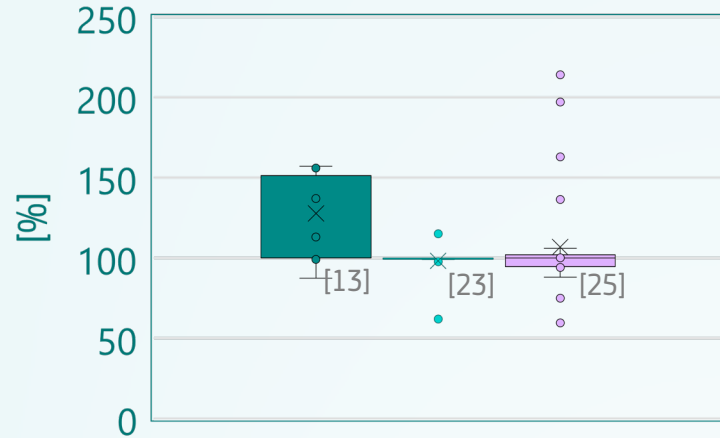
# Relative GHG Emissions avoidance

## Percentage points per topic LSC-2022

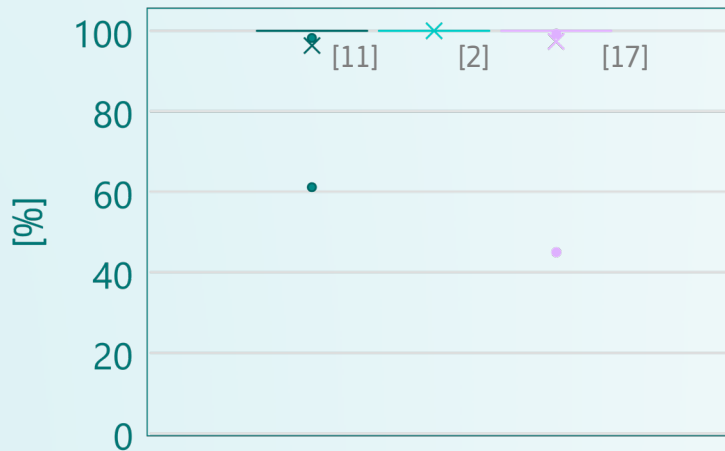
GENERAL



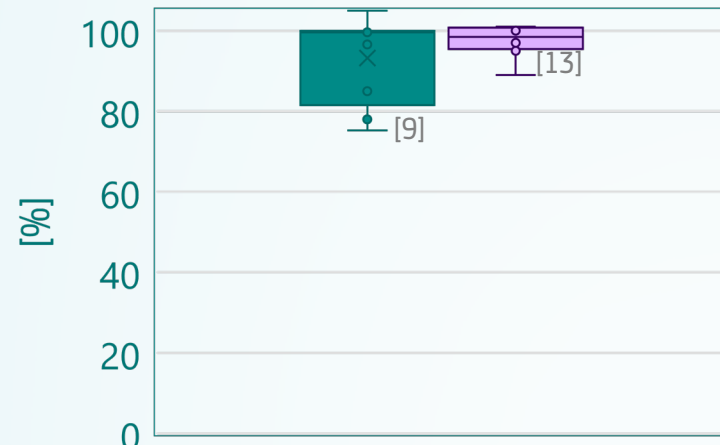
IND.-ELEC.-H2



MANUFACTURING



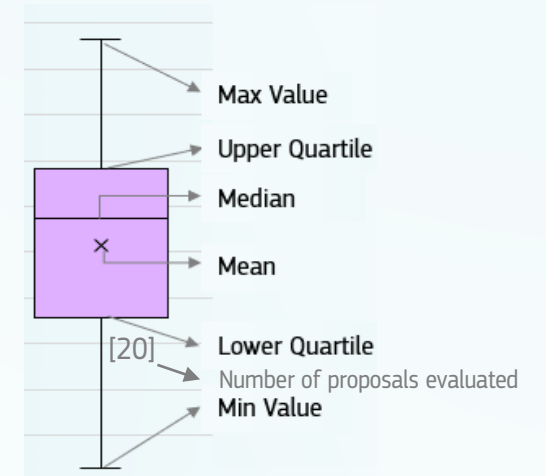
PILOTS



Proposals evaluated

- Pre-selected for grant preparation
- Beyond available budget
- Not meeting minimum thresholds

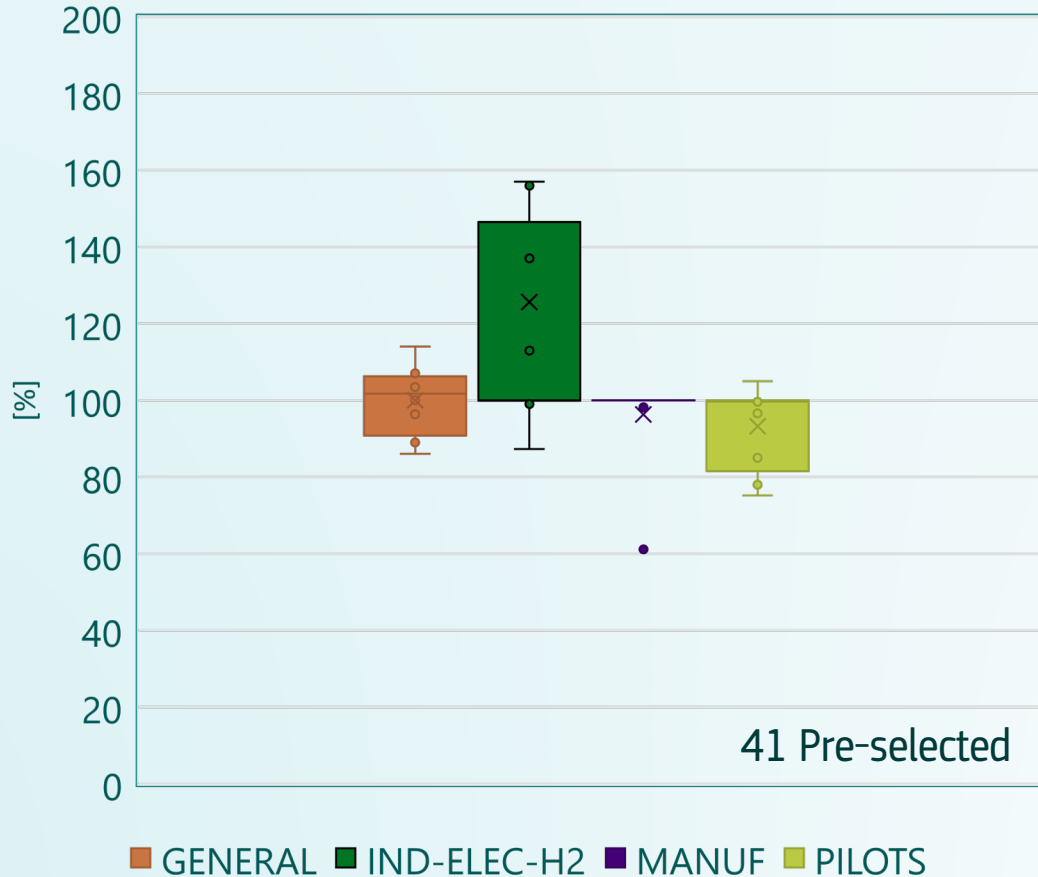
How to interpret these graphs



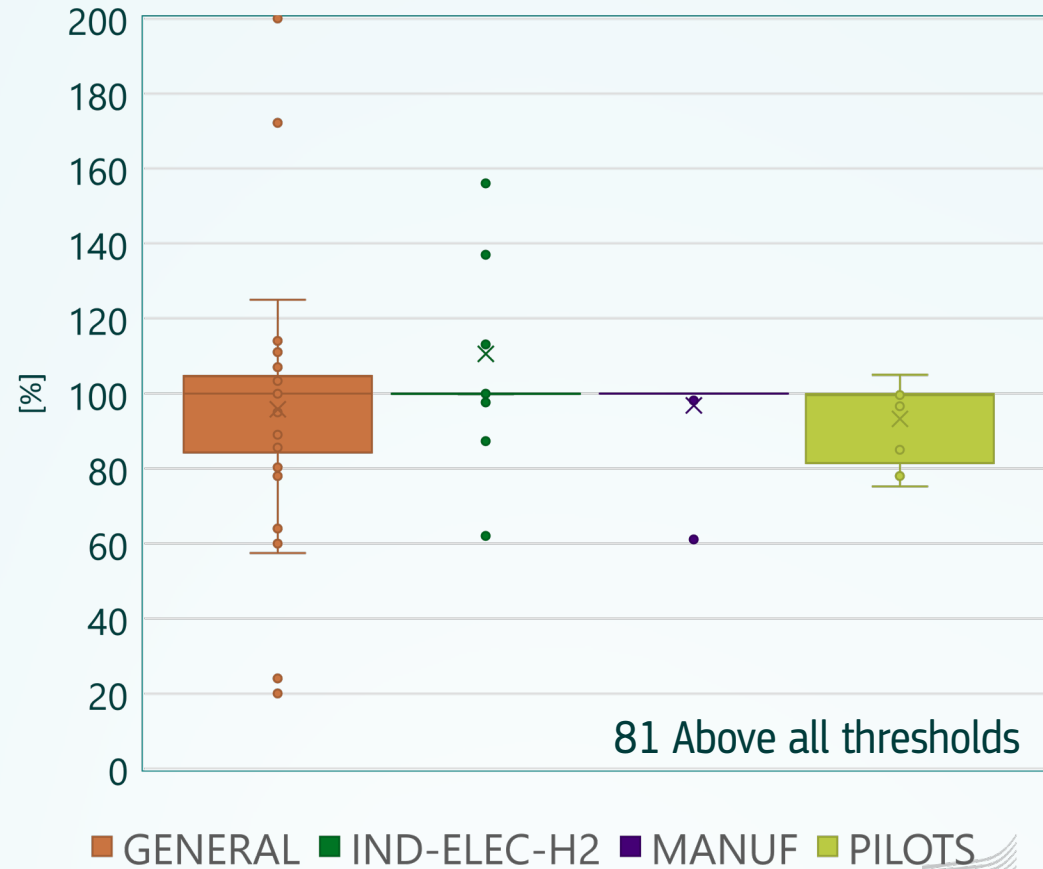
# Relative GHG Emissions avoidance

## Results per topic LSC-2022

PRE-SELECTED projects by TOPIC



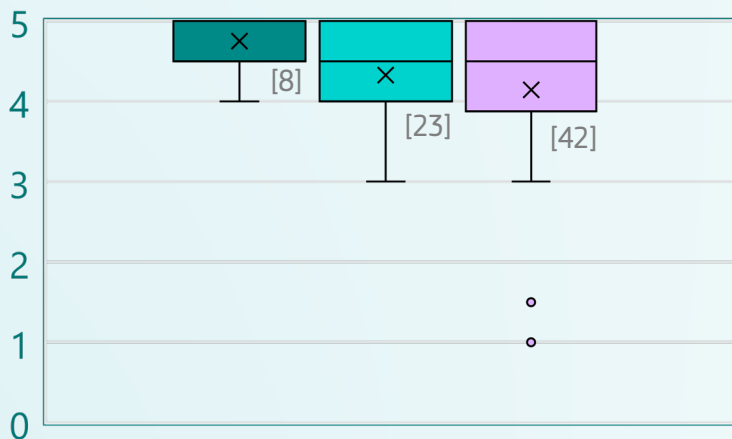
Including: Pre-selected projects and proposals above all thresholds



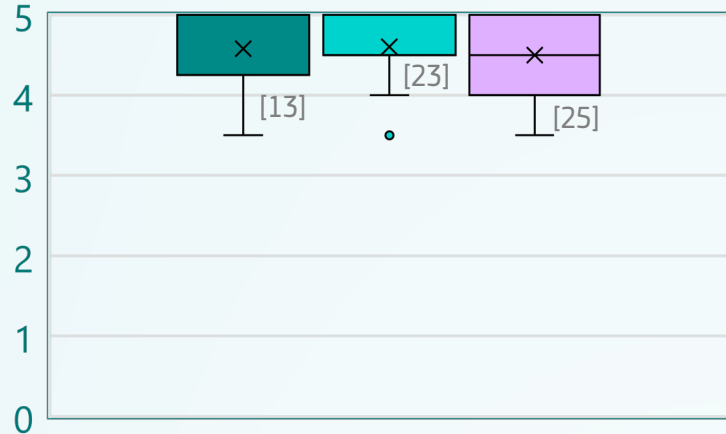
# Quality of GHG calculation

## Scores per topic LSC-2022

### GENERAL



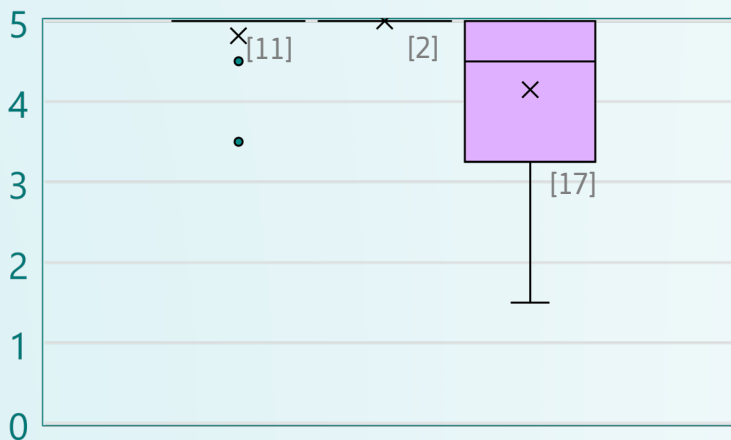
### IND.-ELEC-H2



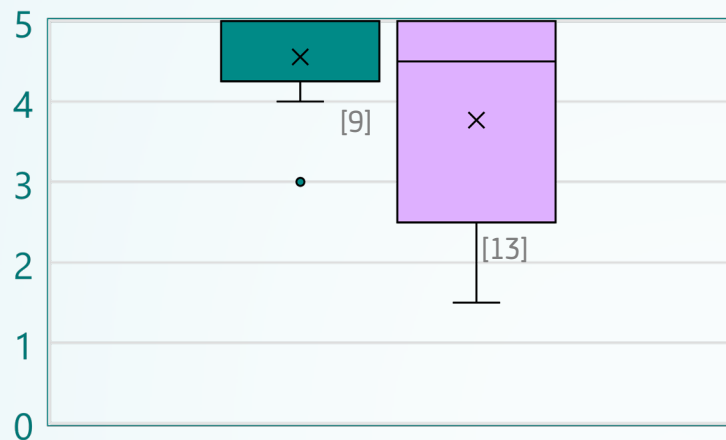
### Proposals evaluated

- Pre-selected for grant preparation
- Beyond available budget
- Not meeting minimum thresholds

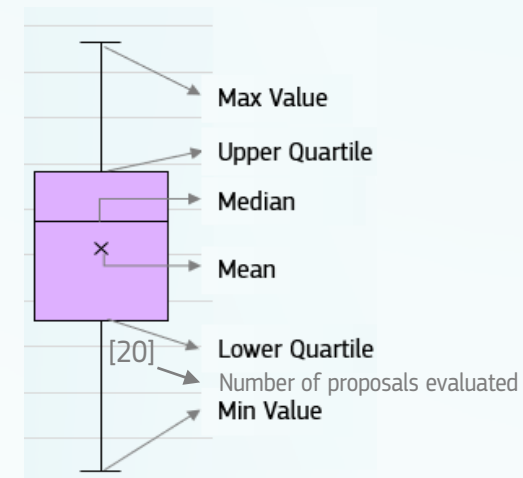
### MANUFACTURING



### PILOTS



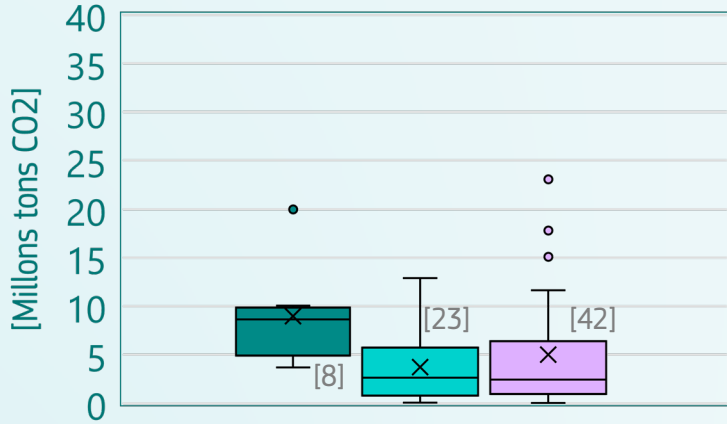
### How to interpret these graphs



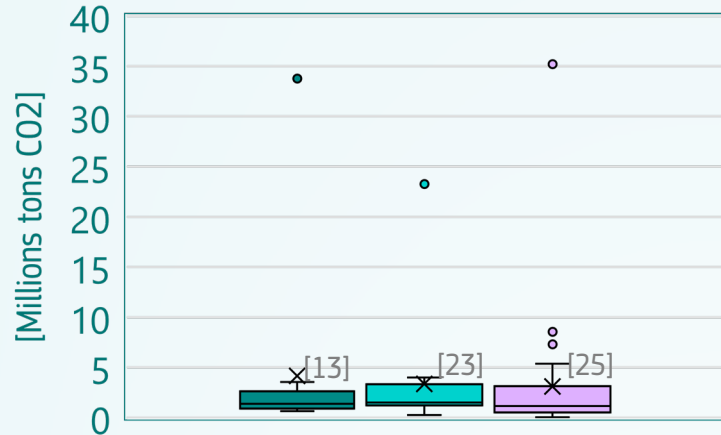
# Absolute GHG Emissions avoidance

## Results tons CO<sub>2</sub>,eq avoidance - LSC-2022

GENERAL



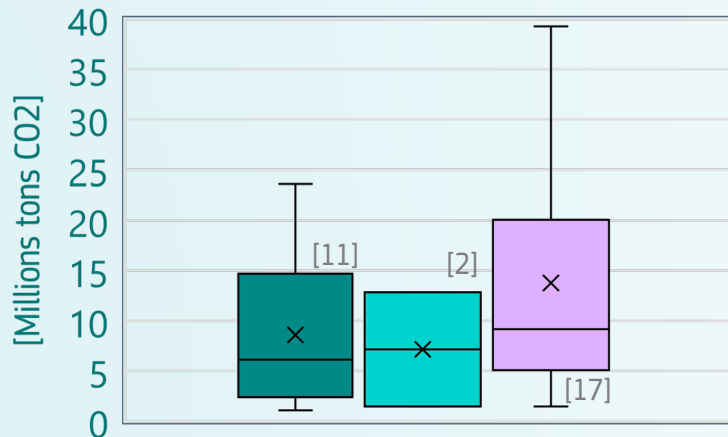
IND.-ELEC.-H2



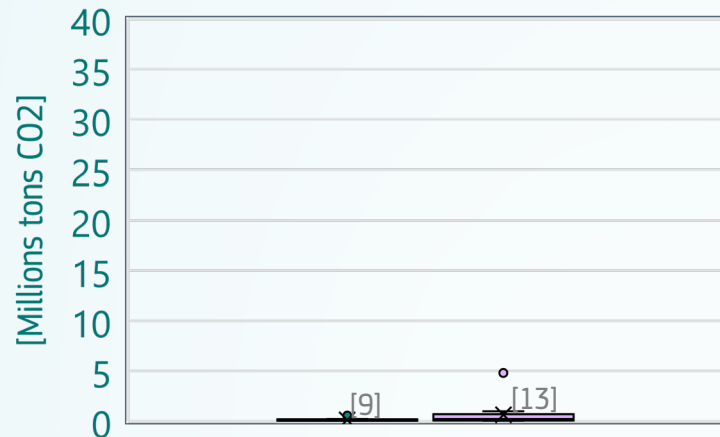
Proposals evaluated

- Pre-selected for grant preparation
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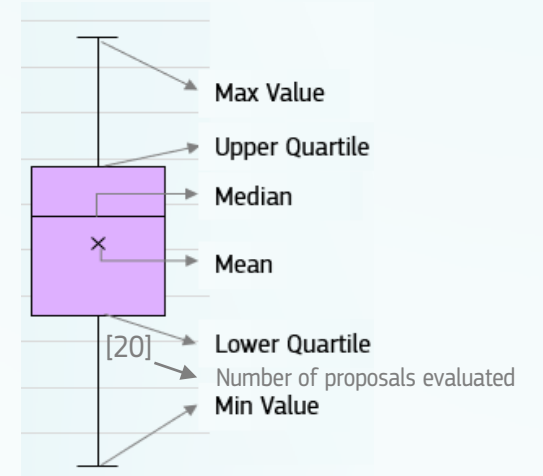
MANUFACTURING



PILOTS



How to interpret these graphs



# Lessons learned - GHG Emissions avoidance potential



Follow the IF GHG emission methodology for calculation and reporting



Identify **principal product(s)**, select sector, scenario and methodology accordingly



Use correct **emissions factor(s)** in line with the methodology

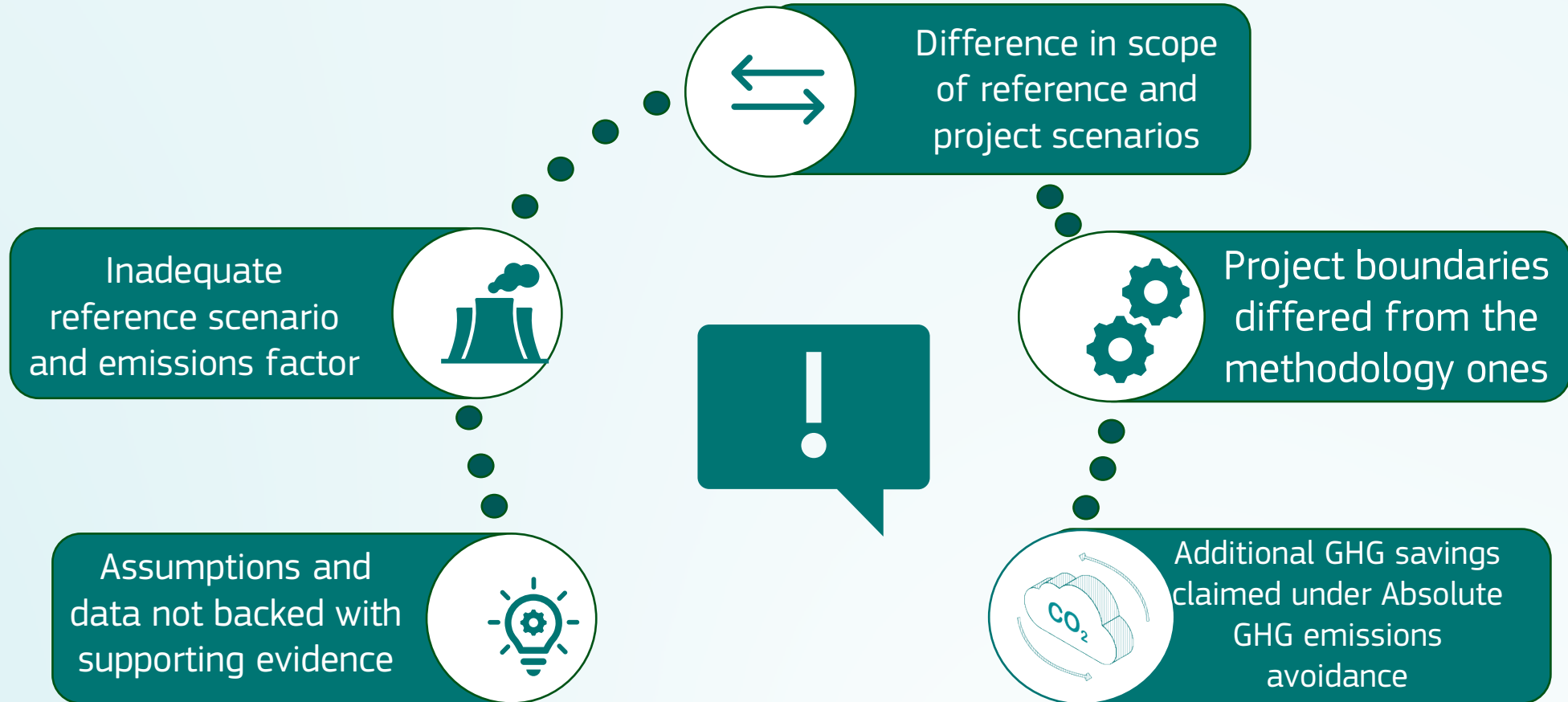


**Justify choices** made in the application of the GHG emissions avoidance methodology, when relevant



**Assumptions** must be **robust and properly justified**

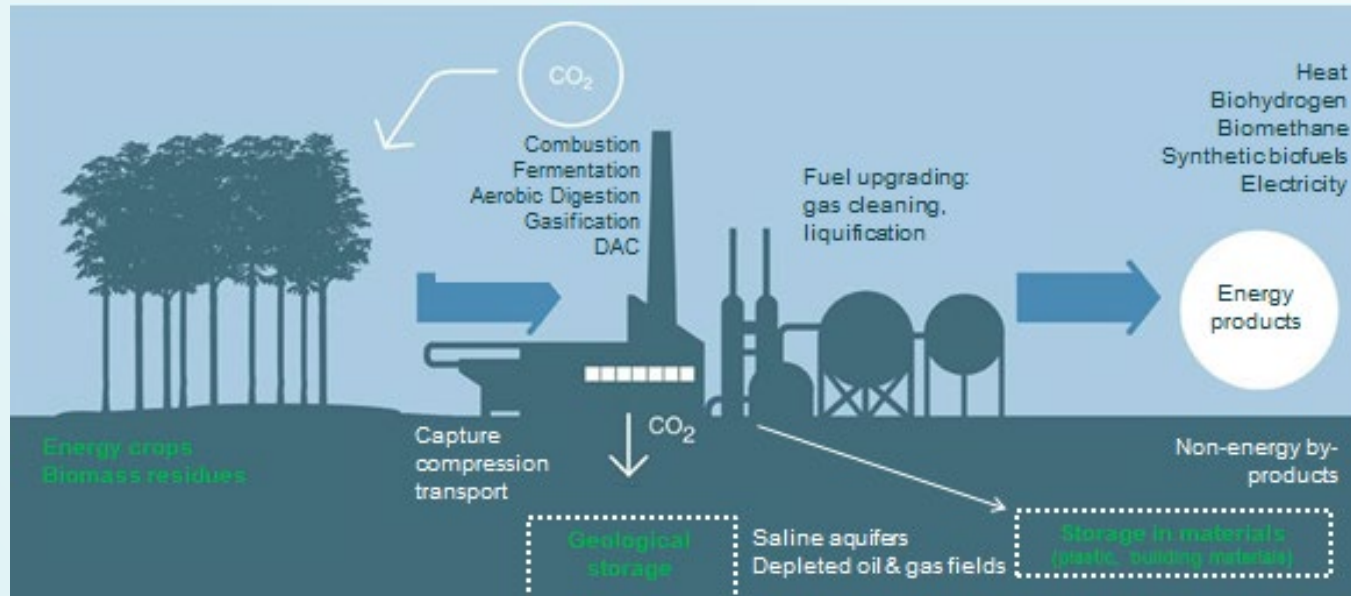
# Lessons learned: Main mistakes on GHG emissions avoidance



# Bonus 1 and 2

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# Bonus Point 1: net carbon removal



Application form, Part B

- Section 6
- Template GHG emission Calculator
- Tab "Net carbon removals"

- The **total project emissions should be negative**
- For EII projects, negative emissions can only be claimed **excluding any credit for timed operation**
- For EII projects: the non-principal products are **not allowed to be the only source** of negative emissions in the projects



# Bonus Point 2: other GHG emission savings

**Other GHG savings** from emissions sources that go **beyond** the boundaries established in the Innovation Fund GHG calculation methodology for the given sector, such as:

- Emissions due to transportation of raw materials or finished products,
- Waste management,
- Upstream emissions of fuels in the project scenario, etc.

Application form, Part B

- Section 6

Template GHG emission Calculator

- Tab "Other GHG emission avoidance"