# CO-PROCESSING WEBINAR

# OUR TEAM TODAY

**Nicolas Martinez**

*Sustainability Project Manager at 2BS*

nicolasmartinez@2bsvs.com

**Conrado Gattoni**

*Senior Project manager*

conradogattoni@2bsvs.com

**Marine Caffiaux**

*Content Assistant*

*marinecaffiaux*@2bsvs.com

# REMINDER

## Registration

This webinar is recorded. The transcript will be available on our website.


## Q&A

You can send your questions at any time by clicking on the Q&A button. We will have time at the end of the webinar to answer as many questions as possible.

# AGENDA

01

2BS Presentation

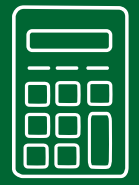
02

Introduction

03

Scope of certification

04



Technical part

05

Questions & answers

**Before getting to the heart of the matter,**

## LET’S GET TO KNOW EACH OTHER BETTER!

8303161

# Are you certified for co-processing already under another voluntary scheme ?

# Who are you ?

# European framework for Renewable Energies and Sustainable biomass

**TARGET: Moving from fossil fuels to cleaner energy!**

European Commission

- In a global objective to **reduce greenhouse gas emissions**, fuels (biofuels, bioliquids, and biomass fuels) produced from **sustainable and eligible materials** are used as an alternative to fossil fuels
- To boost this movement, in 2009, the European commission published its Renewable Energy Directive (RED): the European Union targets **20% renewables by 2020** and national binding targets. The RED also defines what is a **sustainable and eligible raw materials** and a **sustainable product**.
- In 2018, the RED II is published, with a revised target: **32% renewables target for 2030**.
- In 2021, the Fit for 55 Package proposes to revise EU legislation and ensure meeting the GHG **net emissions reduction of 55% by 2030**.
- The RED III will be coming soon, with **renewable energy** possibly being targeted for **42.5%**.

# 2BS

## BIOMASS, BIOFUELS SUSTAINABILITY

### in some key facts and figures

**30K+**
Farmers affected through the certified first collection points

**1100+**
Certifications in Europe and Latin America

**20+**
countries around the world

**10+**
years of experience

**900+**
customers

**8**
referenced and trained certification bodies

**Get to know us:**

- **2BS is a non-profit organization** created in 2011, when leading experts from the agricultural and biofuels industries joined forces to develop a sustainability certification aimed at promoting virtuous agricultural practices.
- **We work with industry representatives** to develop and validate our guidelines, in co-construction.
- **Our guidelines cover the entire chain from the first collection points to traders and processing units.** We support our customers in demonstrating their compliance, giving them access to different markets! Field of application: biogas, biofuels, food and feed…!

# 2BS VOLUNTARY SCHEME

## Certification

2BS has developed the 2BSvs certification, based on the RED II Directive.

This certification is applicable to all organizations in the production and distribution chain of biofuels, bioliquids and biogas, worldwide, who want to sell their products in the European Union

## Our certificate

2BS works with referenced certification bodies trained by our team to carry out accreditation audits.

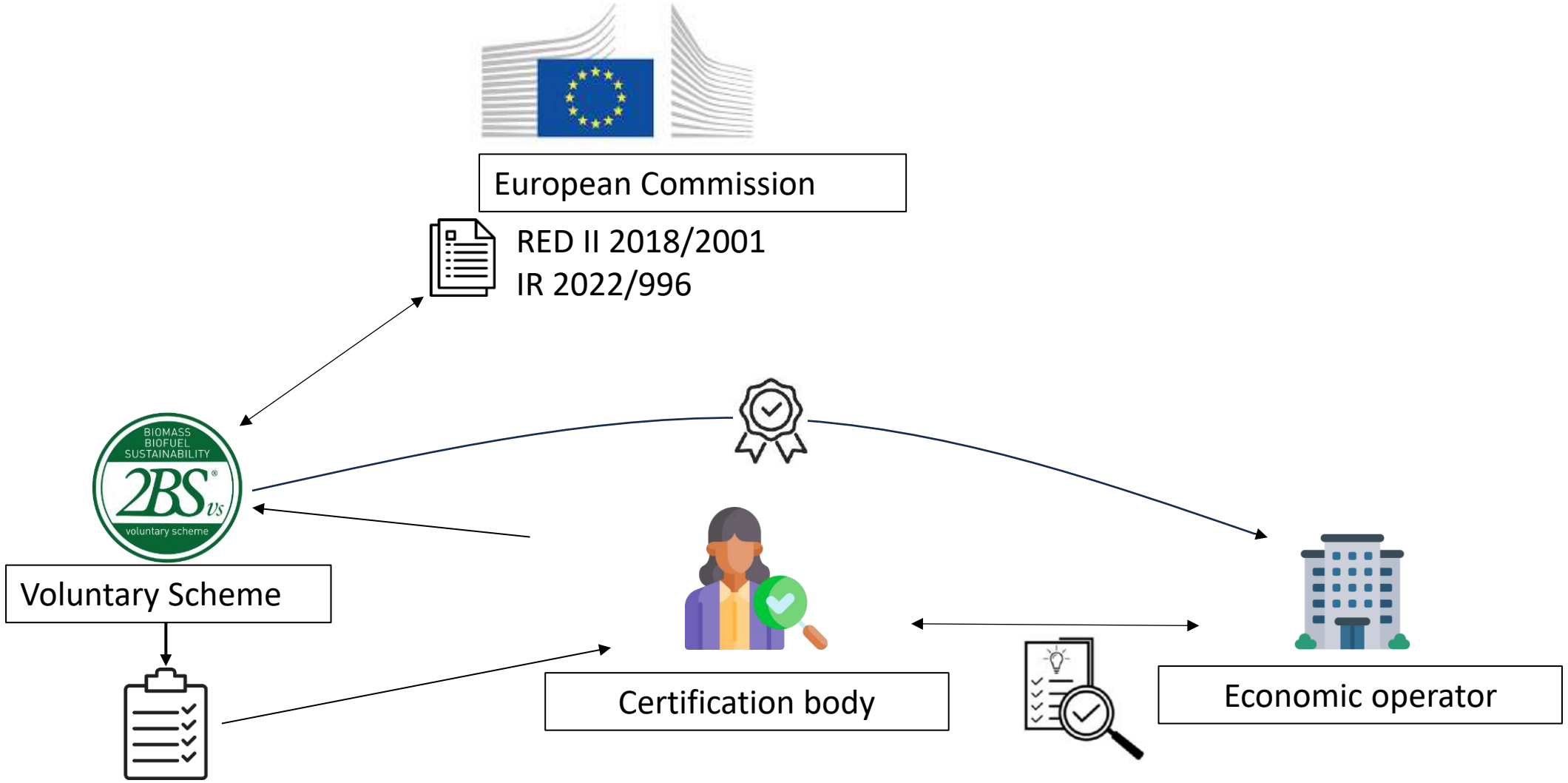
The 2BSvs certificate is valid for 5 years, provided that annual audits are organized.

## Recognition

Our sustainability certification is recognized by the European Commission, enabling products to be marketed under the "sustainable" label.

The 2BS certificate is equivalent to and enforceable against all Voluntary Schemes recognized by the European Commission.

# RENEWABLE ENERGY DIRECTIVE (RED II)



# 2BSVS Certification

## Certification scope:

**BIOMASS FUEL & BIOENERGY PRODUCTION**

- Agriculture Biomass
- Wastes and Residues

**BIOFUELS, BIOLIQUIDS & CO-PROCESSING**

- Agriculture Biomass
- Wastes and Residues

## Waiting for recognition for:

**WOOD ENERGY**
Forest biomass, residues from the forestry industry

**RED III (RED II révised)**
Application on May 21st 2025

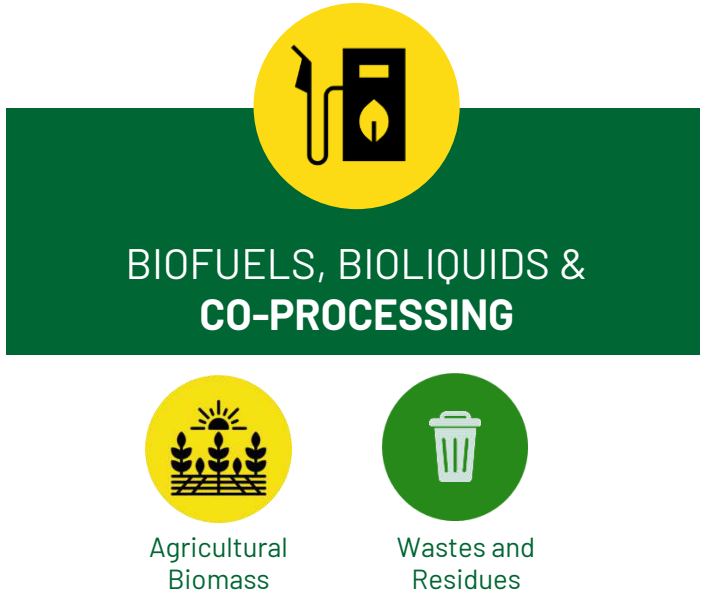
# CO-PROCESSING

## 2BS-STD-02 v11

| | | |
|---|---|---|
| 2BS Voluntary Scheme<br>**REVISED RED EU/2018/2001 (RED III) - Audit requirements for the Production and Trading of Fuels and Trading of biomass** | Doc.: 2BS-STD-02<br>Version :<br>Approved on: |

## 2BS-PRO-06 v4

| | |
|---|---|
| 2BS Voluntary Scheme<br>**REVISED RED EU/2018/2001 (RED III) - Requirements for the co-processing** | Doc: 2BS-PRO-06<br>Version: 1 (en)<br>Approved on: 13/01/2025 |

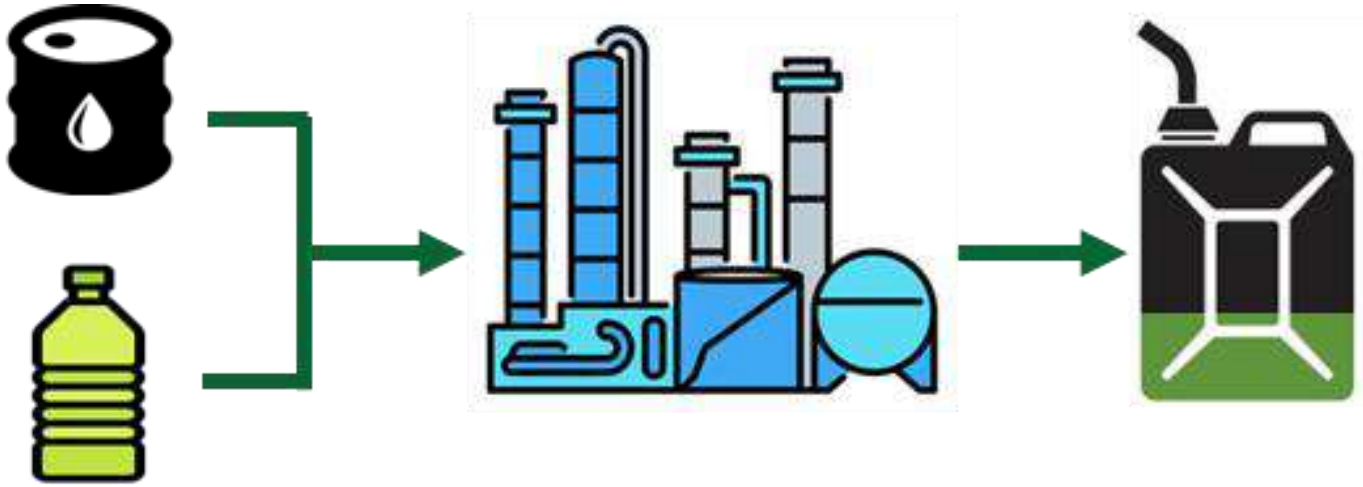



## The procedure incorporates the following provisions of:

- Art. 23 of the Implementing Regulation (EU) 2022/996 adopted on **"Specific rules for co-processing"** as detailed in
- the Implementing Regulation 2023/1640 of 5 June 2023

# CO-PROCESSING, DEFINITION

***« Co-processing typically refers to an oil refinery unit processing biomass feedstock together with fossil feedstock and transforming them into final fuels, containing a portion derived from biogenic sources, such as biofuels, bioliquids, and biogas.”***



NOTE: RCF and RFNBO are mentioned in relation to this process, but additional methodology is required to address these two types of fuels.

# RENEWABLE ENERGY DIRECTIVE (RED II)

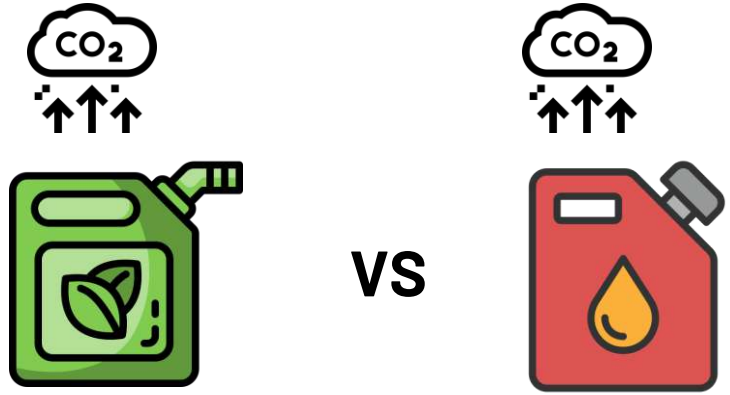
## SUSTAINABILITY

### Eligibility of raw materials to be part of the supply chain

- Energy crops must come from **sustainable land**
- The collection of agricultural waste and residues must not have a negative impact on **soil quality and soil carbon stock**
- Waste and residues must meet the definition of Directive **2008/98** on waste and comply with the **waste treatment hierarchy.**

### Greenhouse gas (GHG) emissions savings

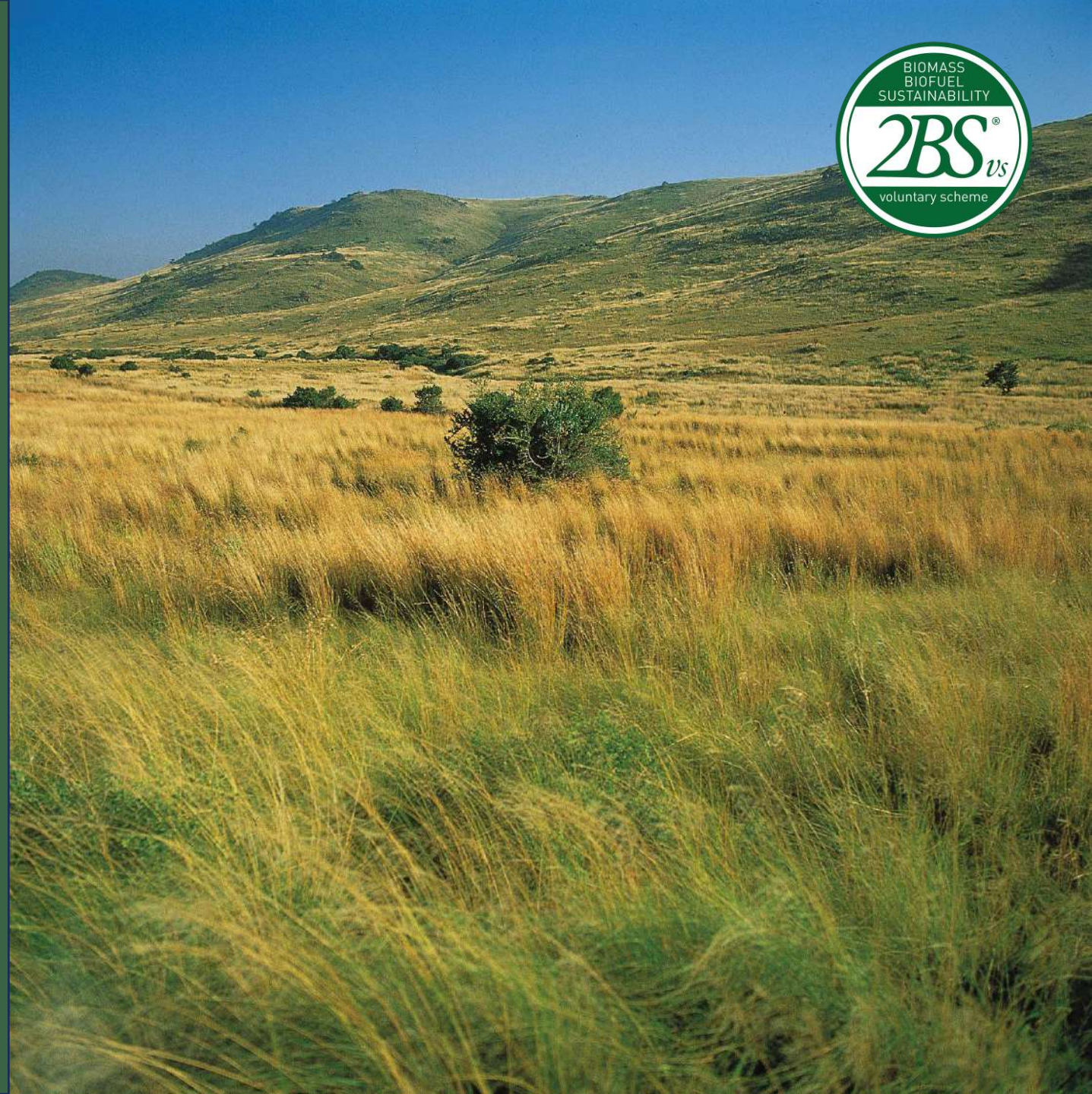
- The **production and use** of biofuels, bioliquids and biomass fuels (solid, gaseous) **must reduce GHG emissions (%)** compared to the fossil reference for **transport, electricity or heat.**



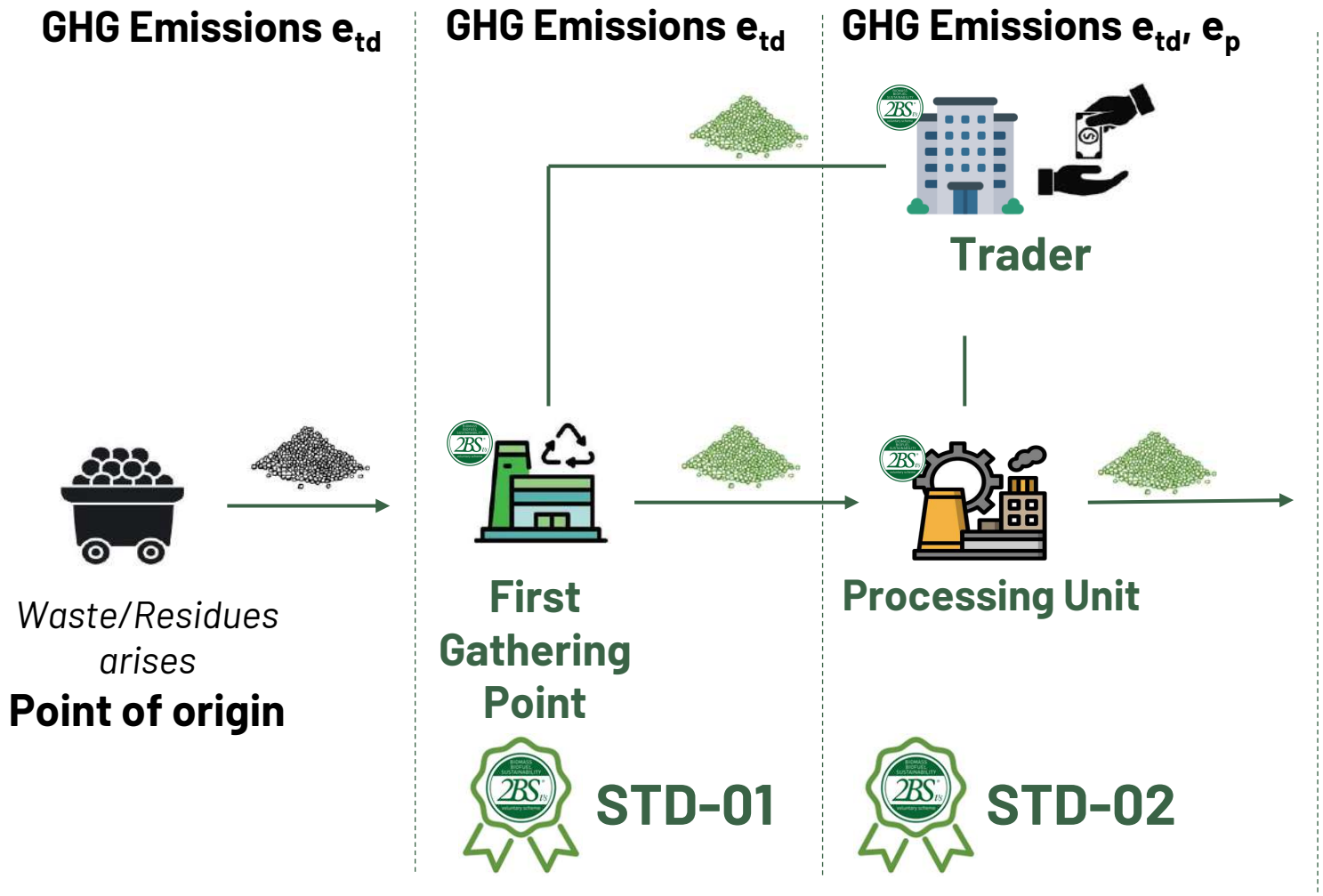
# 02

## SCOPE

Nicolas Martinez



# SUPPLY CHAIN. CERTIFICATION SCOPE




**STD 01 (FGP)**

- Collection of **noncertified materials**
- Audit of the central office (administration of logistical sites)
- 1 certificate par **legal entity**

**STD 02 (Trader/Processing unit)**

- Collection of **certified materials**
- On-site audit per processing site
- 1 certificate per **processing site**

**RED 2018/2001, Annexe VI, pt 18:** Wastes and residues shall be considered to have zero life-cycle greenhouse gas emissions up to the process of collection of those materials irrespectively of whether they are processed to interim products before being transformed into the final product.

# POINTS OF ORIGIN

**Point of origin**

Households

Agriculture

Restaurants

Industry

Eco-organisms

Wastewater

Municipalities

***Self-Declaration***

**FGP**

Cooperatives

Treatment and storage (sedimentation, filtration, shredding, ...)

***Sustainability Declaration***

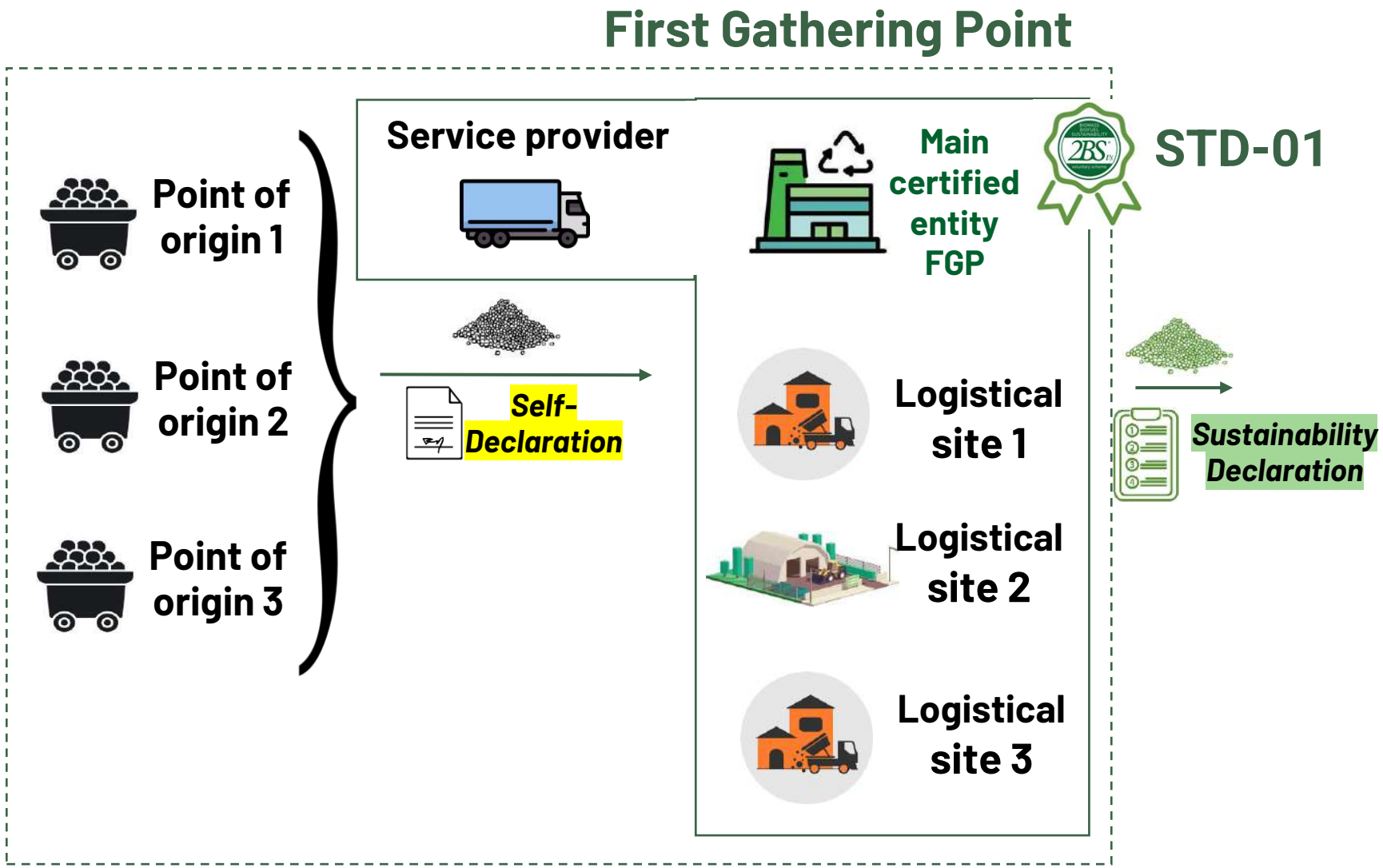
**Traders/ Processing units**

***Sustainability Declaration***

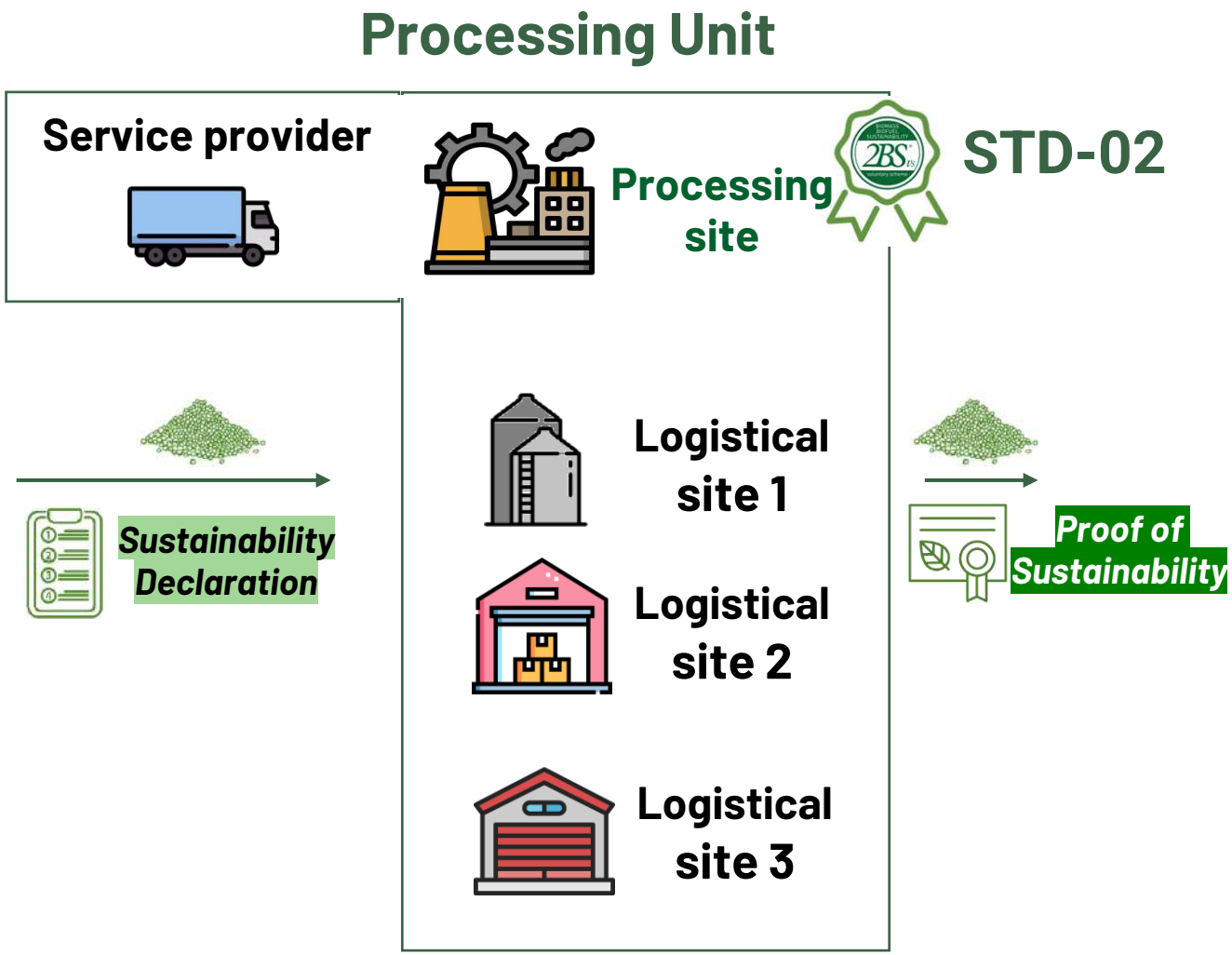
**Co-processing site**

Certified STD 02
Certified STD 01 if applicable

# CERTIFICATION SCOPE.



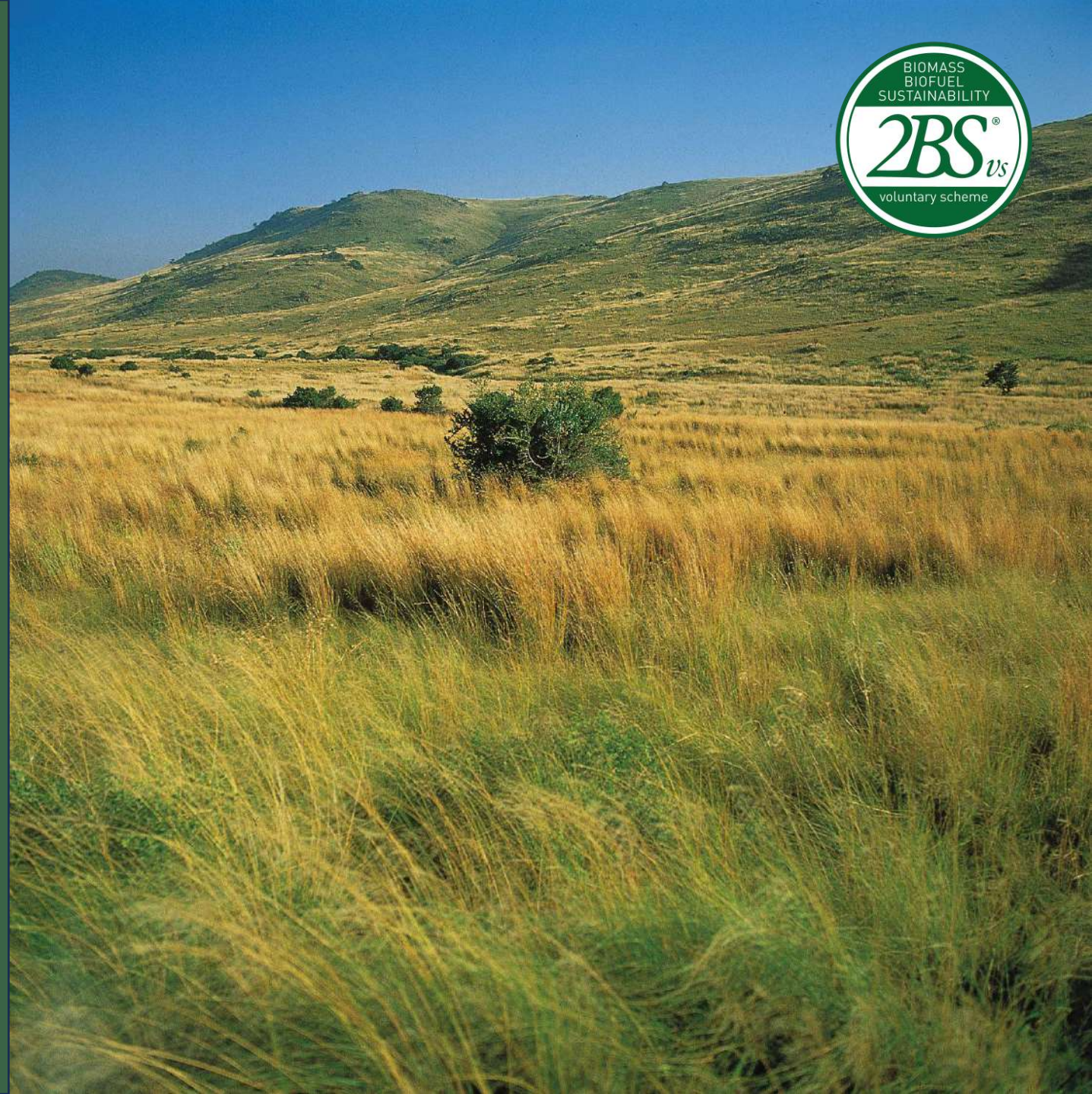
# CERTIFICATION SCOPE.



03

# RAW MATERIALS REQUIREMENTS & MANAGEMENT SYSTEM

Conrado Gattoni



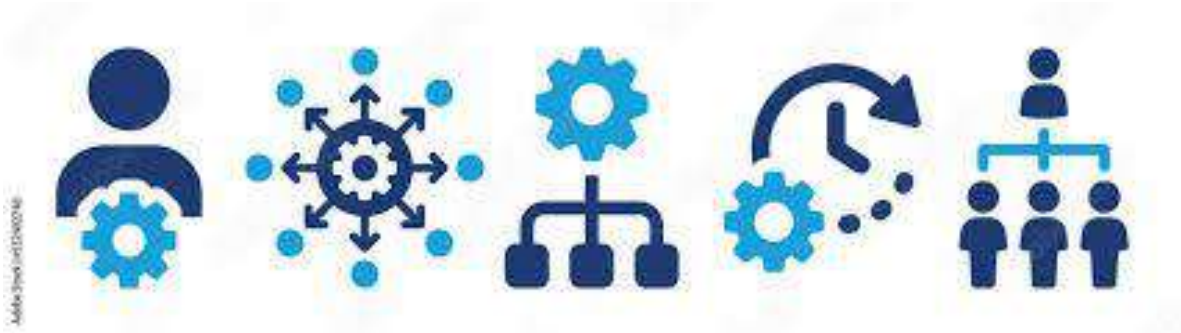
# MANAGEMENT SYSTEM

The **Management System chapter (Principle 3, Criterion 3.1)** defines the essential requirements and procedures that economic operators must implement to ensure compliance with the 2BS voluntary scheme. This includes:

1) Documented Procedure

2) Eligibility Review of Biogenic Feedstock

3) Inspection of Records



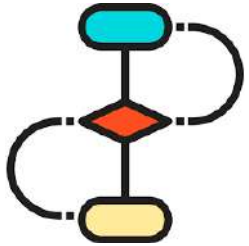
| Requirements for co-processing *(The audit concerns only the biogenic portion of the blend)* | | |
|---|---|---|
| **Criterion 3.1 : Sustainability of biogenic feedstock** | **STD-02 3.1.1** | Implementation of a **procedure** to describe the co-processing application. |
| | **STD-02 3.1.2** | Review of the **sourcing and eligibility of raw material**, inputs |
| | **STD-02 3.1.3** | **Inspection of records** ensuring that **non-compliant materials are excluded** from the biofuel production process. |

# 1. DOCUMENTED PROCEDURE

The economic operator must have a documented procedure describing the co-processing approach in order to ensure the sustainability and regulatory compliance of their co-processing activities, thereby contributing to a transparent and accountable production system.

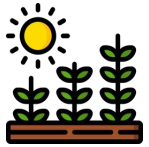
The EO shall develop:

- A mapping of processes and facilities.
- The specified start date of operations
- A provided list of all covered sites.



*<u>NOTE:</u> conversion factor (methodology) must be declared and described in the procedure. It cannot be modified unless previously authorized by the auditor.*

# 2. RAW MATERIALES REQUIREMENTS. DEFINITIONS OF WASTE & RESIDUES



## *Raw materials*

*(Agricultural biomass: corn, rapeseed, sunflower, etc)*

- ☑ **Sustainability**
- ☑ **GHG savings**

## *Primary Residues*

*(agriculture, aquaculture, fishery, forestry)*

- ☑ **Sustainability**
- ☑ **GHG savings**
- ☑ **Definition of "residue"**

## *Nonprimary Waste and residues*

*(Industrial waste and residues, household waste, municipal solid waste)*

- ☑ **GHG savings**
- ☑ **Definition of "waste" and "residue"**

- ➢ Waste hierarchy established in the directive 2008/98 must be respected.
- ➢ The waste must not have been deliberately modified or contaminated to meet the definition of waste. (critical NC)


RED 2018/2001, Annex VI, pt 18: Waste and residues are considered materials that do not emit greenhouse gases over their life cycle until their collection, regardless of whether they are processed into intermediate products before being converted into final products.

# 3. INSPECTION OF RECORDS

The Economic Operator shall implement **continuous monitoring activities** to track compliance with sustainability criteria and regulatory requirements. This includes monitoring the eligibility of biogenic feedstocks and ensuring non-compliant materials are excluded from the production process.

**Samples** related with the co-processing quota claims **shall be kept for at least 2 years**, along with the associated measurement records and calculations.

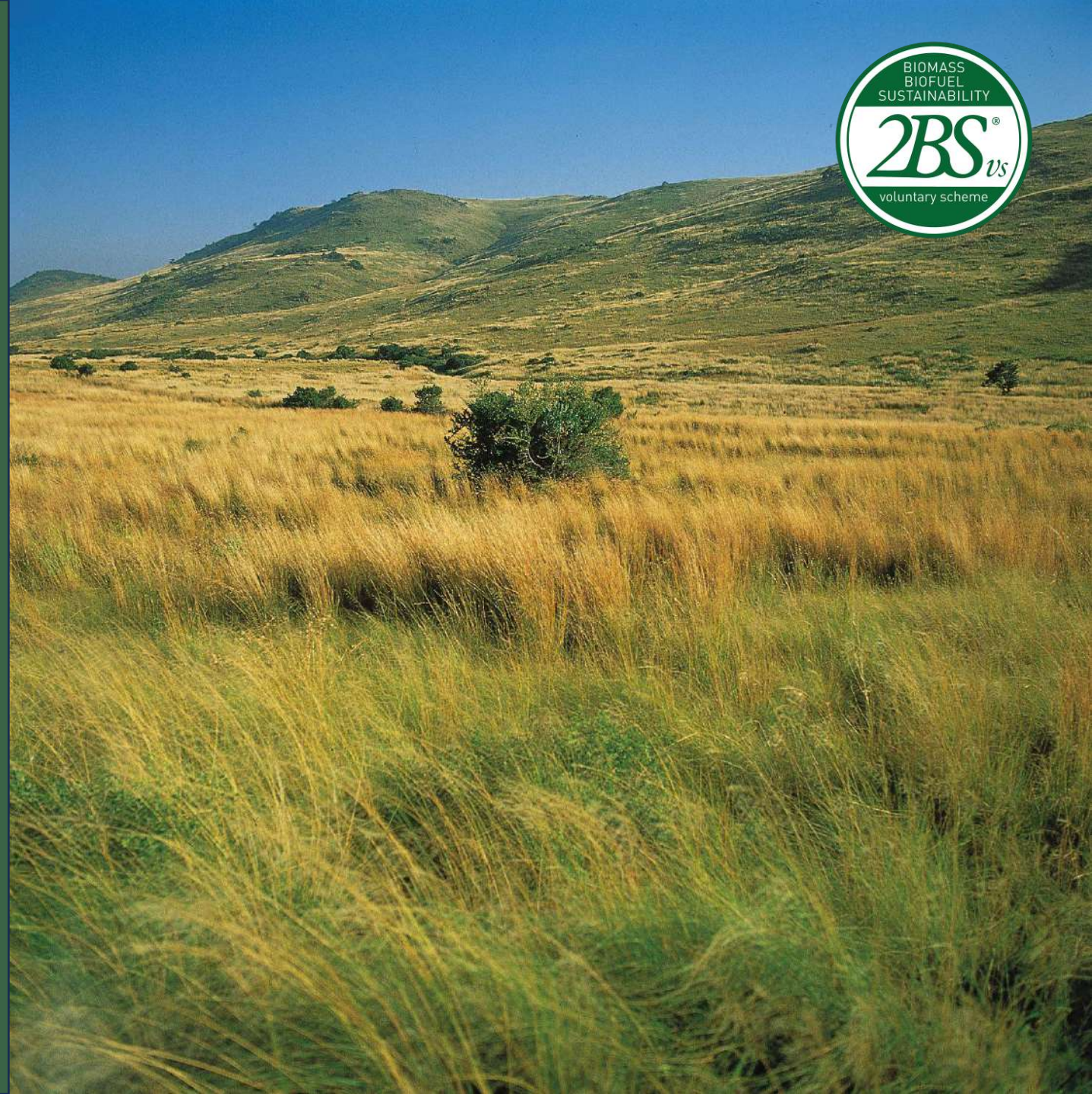
*The auditor shall verify that the assessment includes maintaining detailed records of biogenic feedstocks, test results, and mass balance calculations.*

***NOTE:* in any case, the radiocarbon (14C) method must be applied at least once every 4 months.**

# 04

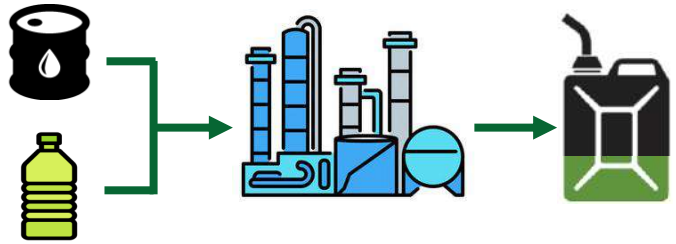
# CONVERSION FACTORS, MASS BALANCE AND TRACEABILITY

Nicolas Martinez



# DETERMINING BIOGENIC PART OF THE CO-PROCESSED FUEL

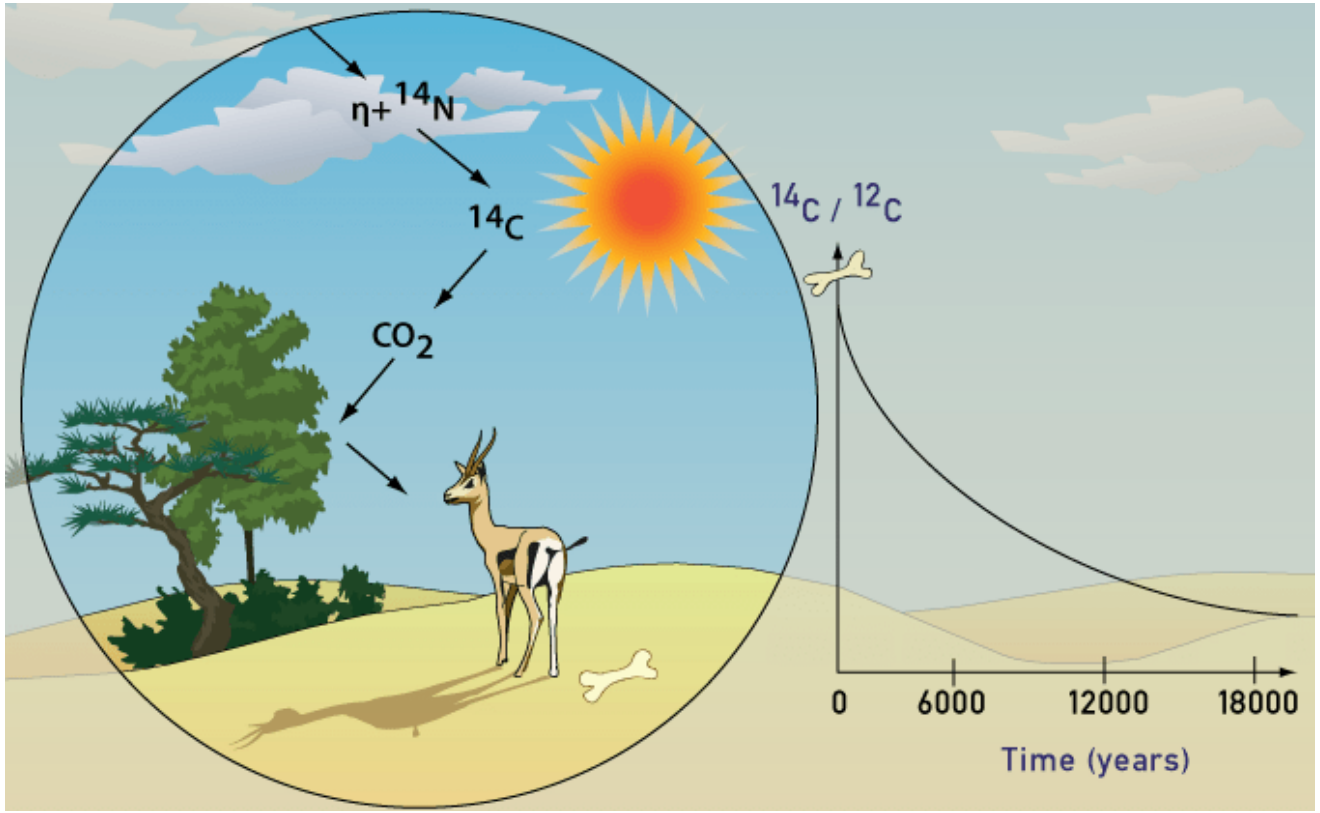
**How to determine the share of biogenic carbon?**




- **Expensive:** $^{14}C$ analysis requires specialized labs and equipment, making it costly compared to other carbon tracking methods.

- **Time-Consuming:** The process takes days to weeks, which is impractical for routine certification.

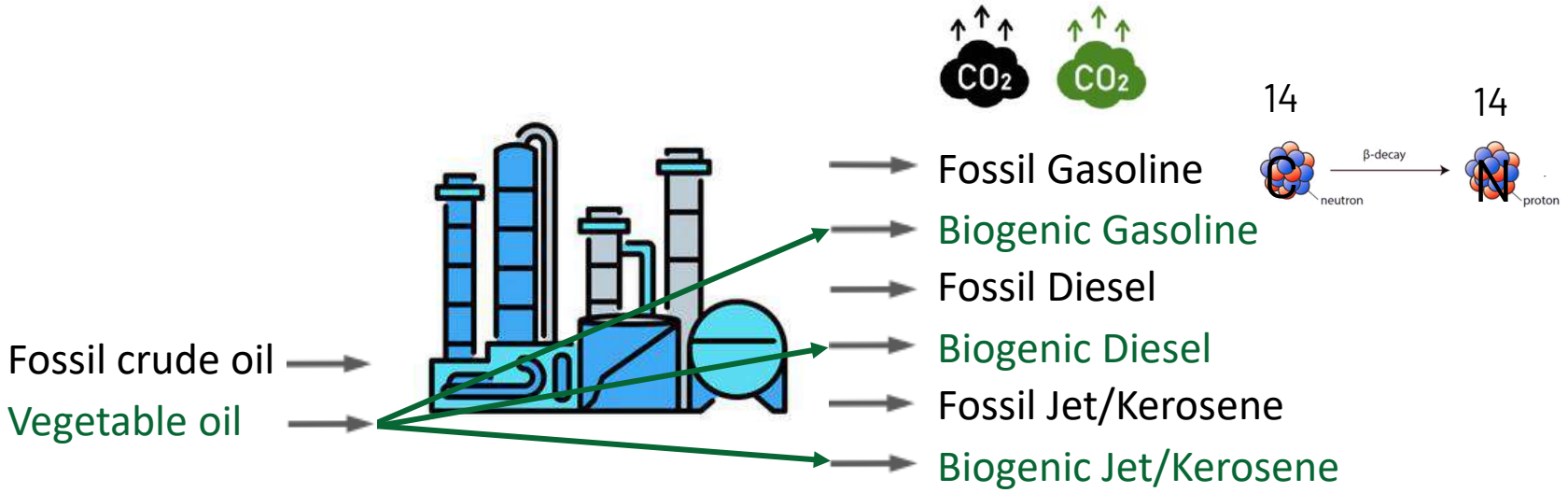
**RADIOCARBON DATING**




**MANDATORY**

# DETERMINING BIOGENIC PART OF THE CO-PROCESSED FUEL

## How to determine the share of biogenic carbon?







- Specific **conversion factors** for each product from each input.
- Specific attribution of **CO2, CO and H2O** to the biogenic part

*Free allocation of biomass content to products is prohibited!*

In cases where multiple products are generated from the process, a **distinct conversion factor** must be established **for each product** derived from **each raw material**.

For instance, if the raw material consists of a blend of used cooking oil and fossil diesel, **separate conversion factors** should be determined for converting **used cooking oil** into **biodiesel, bio-propane, and any other resulting products**.

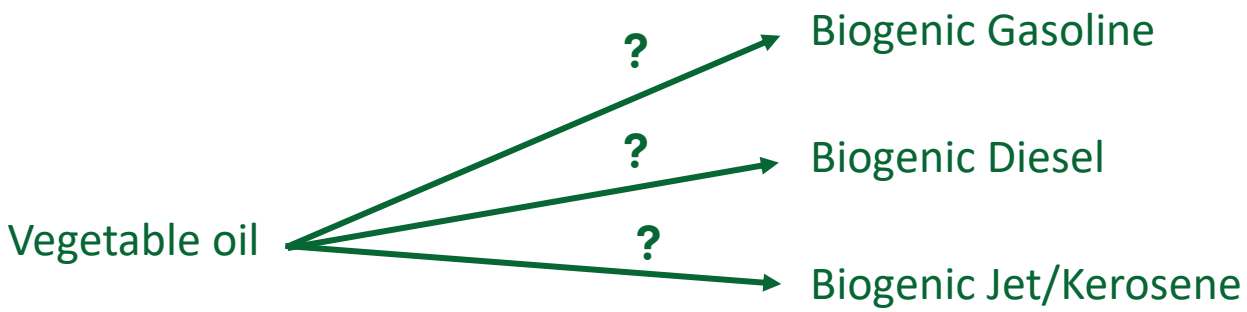
Additionally, biomass must be attributed to all products, including carbon monoxide, carbon dioxide, and water, with justification provided for the quantities allocated to each product.

Conversion factors may be specified in **national legislation**. For example, in Italy, reference conversion factors for different vegetable oils to HVO in a diesel hydro-desulfurization plant are provided. It's important to note that nationally set conversion factors always **take precedence** for operators and facilities in the respective country.

# DETERMINING BIOGENIC PART OF THE CO-PROCESSED FUEL

**How to determine the share of biogenic carbon?**

**We need conversion factors!**



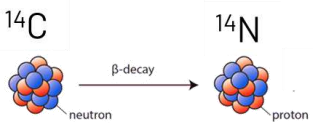

- Mass balance (+C14 analysis)
- Energy balance (+C14 analysis)
- Yield methods (+C14 analysis)
- Radiocarbon C14 testing of the outputs.

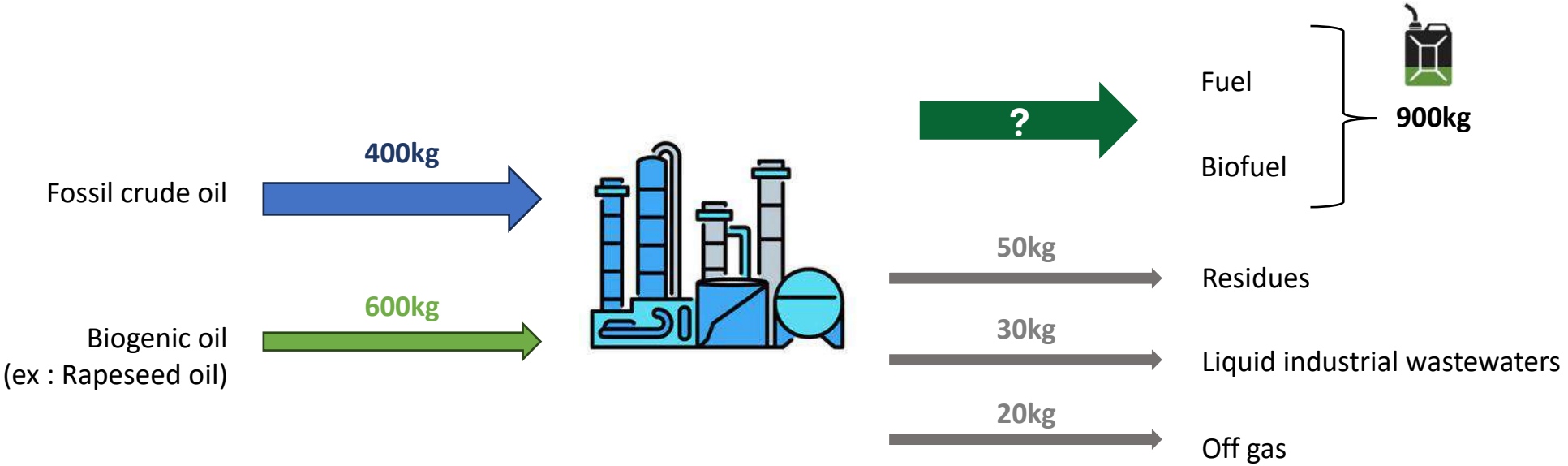
In the case of mass balance, energy balance or yield methods, a C14 radiocarbon testing of all outputs must be conducted to corroborate the correctness of the method as well as its results.

# DETERMINING BIOGENIC PART OF THE CO-PROCESSED FUEL

## MASS BALANCE METHODOLOGY

*NB : the economic operators shall take into account in the calculation the moisture and other non-fuel impurities in their feedstock as well as in the outputs of their production process.*



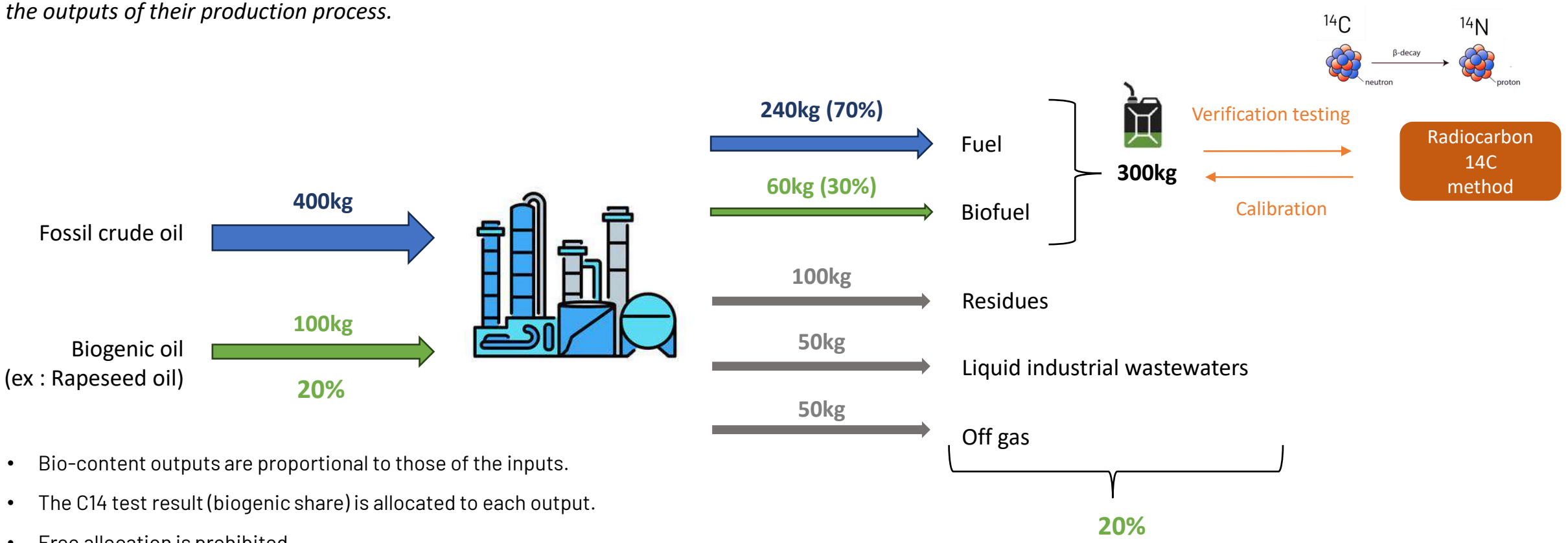

- Bio-content outputs are proportional to those of the inputs.
- The C14 test result is allocated to each output.
- Free allocation is prohibited.

This method involves tracking the mass of inputs and outputs throughout the process. The bio-content of all outputs is proportional to the bio-content of all inputs. The share of biogenic material identified by the radiocarbon 14C testing results is allocated to each output. (No free allocation possible).

# DETERMINING BIOGENIC PART OF THE CO-PROCESSED FUEL

## MASS BALANCE METHODOLOGY

*NB : the economic operators shall take into account in the calculation the moisture and other non-fuel impurities in their feedstock as well as in the outputs of their production process.*

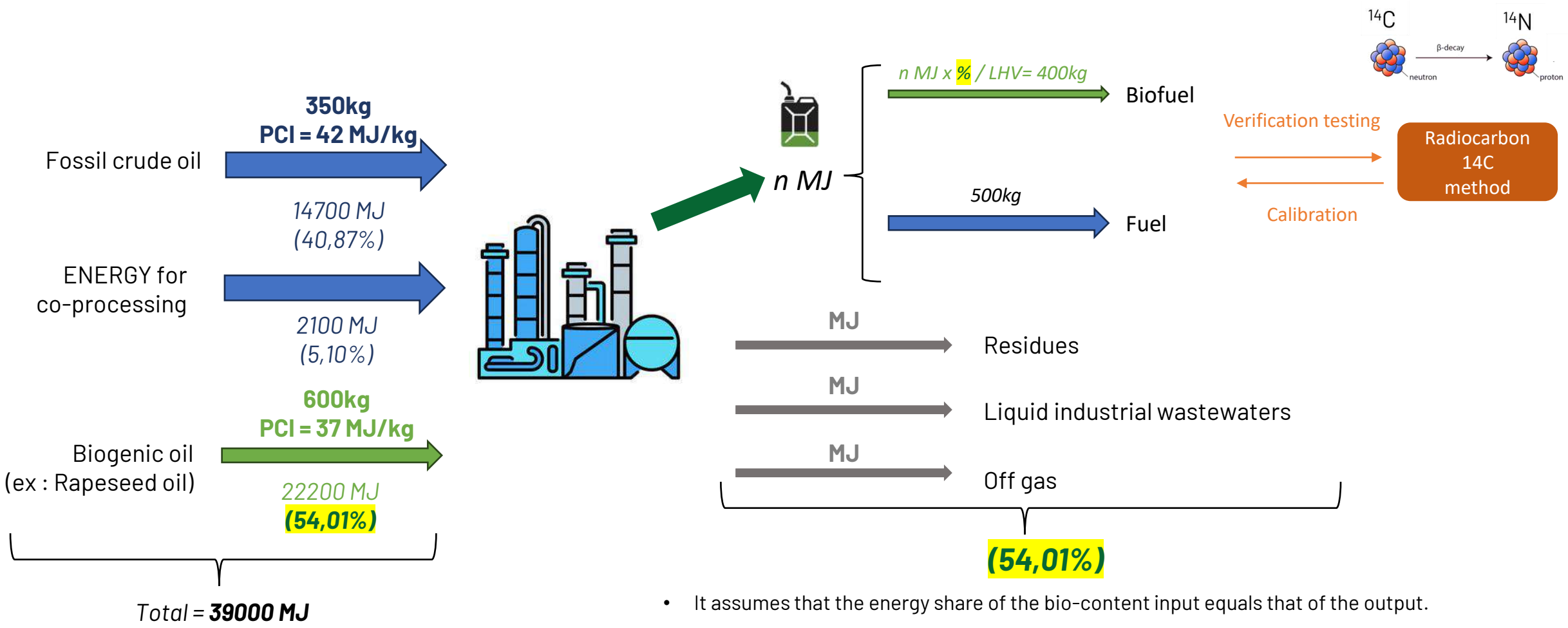



- Bio-content outputs are proportional to those of the inputs.
- The C14 test result (biogenic share) is allocated to each output.
- Free allocation is prohibited.

This method involves tracking the mass of inputs and outputs throughout the process. The bio-content of all outputs is proportional to the bio-content of all inputs. The share of biogenic material identified by the radiocarbon 14C testing results is allocated to each output. (No free allocation possible).

# DETERMINING BIOGENIC PART OF THE CO-PROCESSED FUEL

## ENERGY BALANCE METHODOLOGY




- It assumes that the energy share of the bio-content input equals that of the output.

This approach assesses the energy content of inputs and outputs to calculate the conversion factor. The Energy share of biogenic content in all outputs to be determined as being equal to the energy share of the biogenic content at the input.

# DETERMINING BIOGENIC PART OF THE CO-PROCESSED FUEL

## YIELD METHODOLOGY (Based on experimental conversion factors)

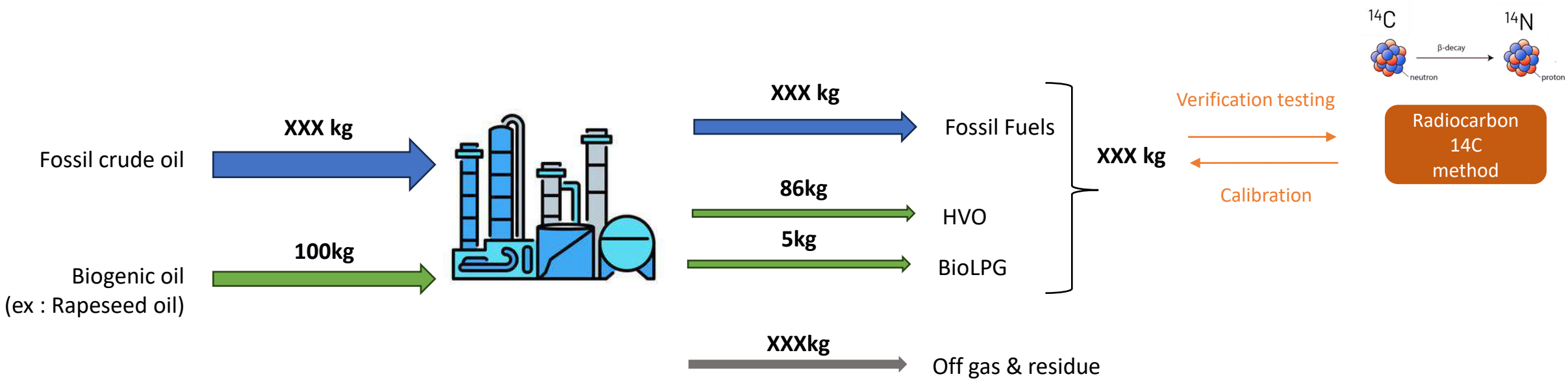
*Process yield defined by a Member States*

*Yields are fix, relevant only to biogenic part and depend on the kind of feedstock*

- It is mainly based on the final output yield to estimate renewable energy quantities through process efficiency.

*Example for Hydrodesulfurization plant in Italy*

| Bio-Input | Conversion Factor | Bio-Output |
|---|---|---|
| Rapeseed Oil | 86% | HVO |
| Used Cooking Oil | 5% | BioLPG |
| Total Biogenic Feed | 91% | Various Outputs |

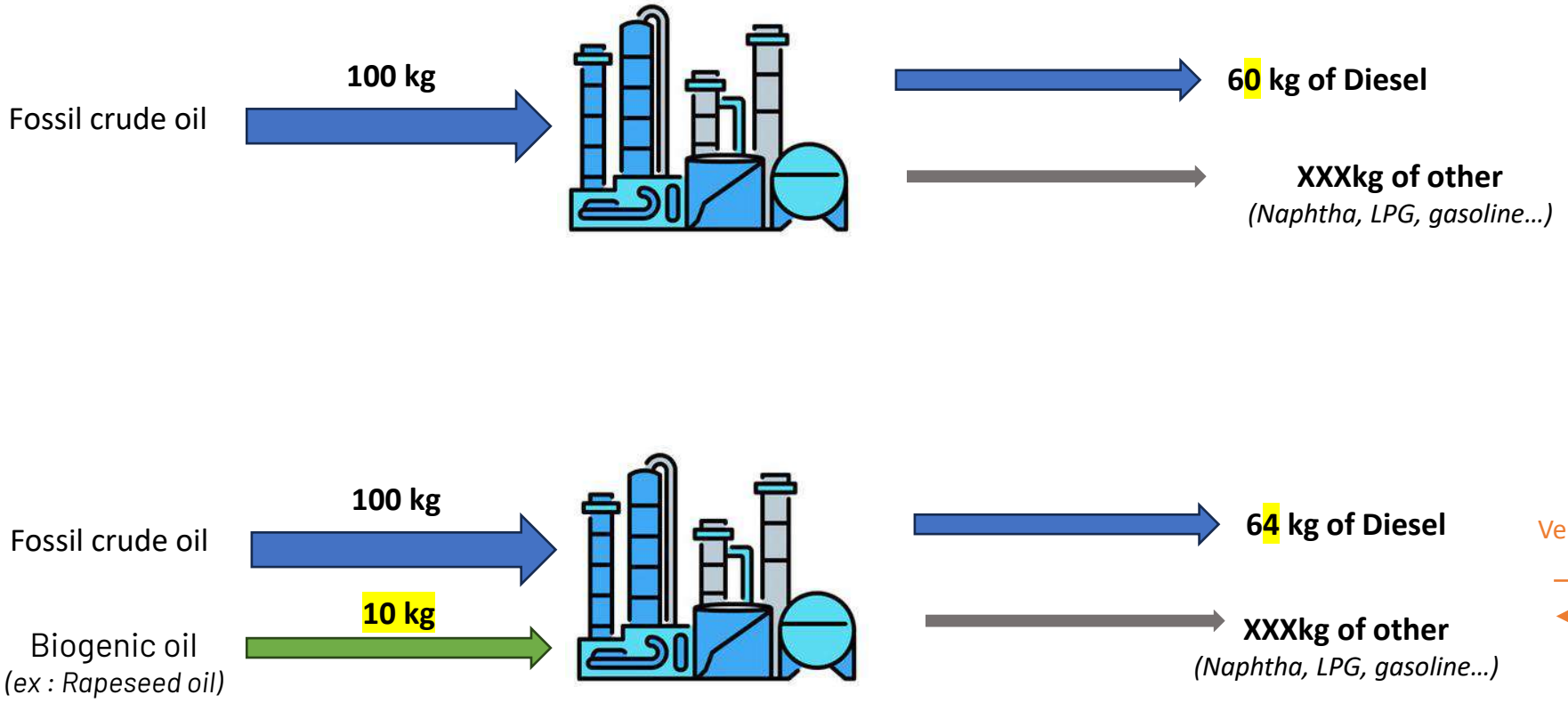



If a yield-based method is used, economic operators must apply the radiocarbon (14C) method as a control method to verify the efficiency (performance) factor, **at least whenever they alter the reference operating conditions**.

# DETERMINING BIOGENIC PART OF THE CO-PROCESSED FUEL

## INCREMENTAL YIELD CHANGE METHODOLOGY (Based on mass)

*Process to compare how much more mass we obtained of certain product after introduction of biomass*




This method focuses on the relationship between the bio-input and bio-output by using conversion factors determined during several batches of feedstock at known co-processing conditions.

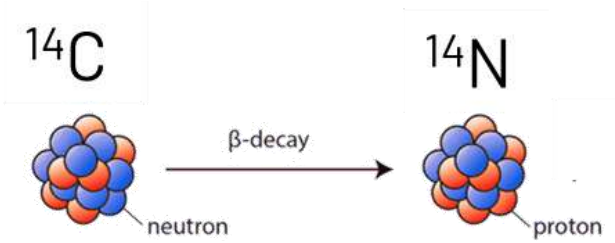
# DETERMINING BIOGENIC PART OF THE CO-PROCESSED FUEL

## OUTPUT C14 ANALYSIS

*Economic operators shall apply the **Accelerator Mass Spectrometry (AMS) method**.*
*If the bio-share is expected to be **at least 1 volume %,** they may alternatively apply **Liquid Scintillation Counting (LSC) method**, if the sample is suitable for this testing method, especially regarding particles present in clear liquids .*

For biomass coprocessing, this method involves analyzing outputs using techniques described in:

- ASTM D6866 - Standard Test Methods for Determining the Biobased Content of Solid, Liquid, and Gaseous Samples Using Radiocarbon Analysis
- EN 16640 - Bio-based products - Determination of the bio-based carbon content of products using the radiocarbon method
- ISO 16620-2 : Plastics - Biobased content - Part 2: Determination of biobased carbon content
- EN 15440 - Solid recovered fuels - Methods for the determination of biomass content
- CEN/TS 16137 - Plastics - Determination of biobased carbon content




Testing may be conducted by either:
- operators or
- accredited laboratories.

For a list of accredited laboratories, please refer to accreditation bodies that apply to your country such as
- COFRAC (France),
- UKAS (United Kingdom),
- DAkkS (Germany),
- Accredia (Italy) and
- ANAB (United States).

C14 radiocarbon testing is commonly not compatible with gaseous products (e.g. bioLPG).
Therefore, extrapolation of the biogenic content can be extrapolated for gaseous products.

# FURTHER DETAILS ON EXPERIMENTAL MEASUREMENTS

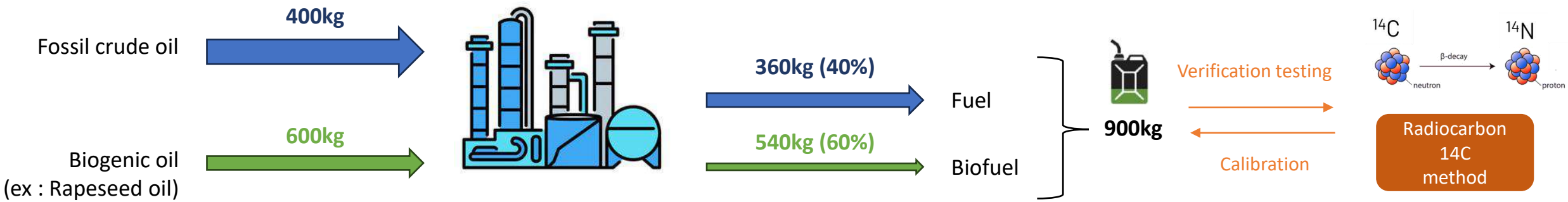
**Experimental measurements conducted on a pilot plant** using individual components or model systems related to the co-processing facility **are permissible** in the initial certification process.

However, they are subject **to verification and supplementation with field evidence** obtained during the actual co-processing phase in plants.

Further details of the methods mentioned in previous slides can be found in the Implementing Regulation 2023/1640 (articles 2, 3, 4)

If the production system co-processes renewable hydrogen of biological origin, economic operators shall document the origin of the hydrogen, as well as demonstrate that the hydrogen entering the (hydro)processing unit or another co-processing unit was not accounted as renewable energy elsewhere (to avoid double counting), that it has been incorporated into the final biofuel and not simply used to remove impurities.

# FURTHER DETAILS ON EXPERIMENTAL MEASUREMENTS




If the radiocarbon ($_{14}C$) test method, when used as a second method to verify the biogenic content of an output, shows a **deviation of more than 1 %** in absolute terms from the result of the main method used by the economic operator, only the values of the radiocarbon method ($_{14}C$) are considered valid

**In the initial year** of implementing this methodology, economic operators are permitted to deviate by **up to 3% instead of the usual 1%** in absolute terms, as they refine and perfect their testing methods.

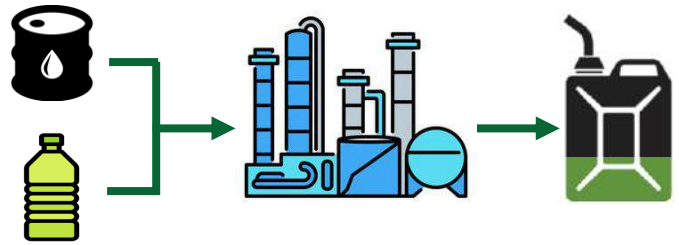
- Rectification of the primary test method
- Identification of any systemic errors
- If necessary, calibrate the method to the prescribed standards.

**COMPLIANCE WITH SUSTAINABILITY REQUIREMENTS**

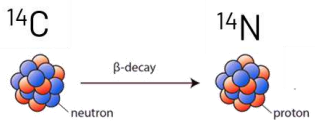
The application frequency of the primary test method and the radiocarbon (14C) test method if used as a secondary method, is established taking into account the complexity and variability of the fundamental co-processing parameters, **to ensure that at all times the biogenic content assertions reflect the expected biogenic content**.

# FURTHER DETAILS ON EXPERIMENTAL MEASUREMENTS

**Calculation of the biogenic share at least for each co-processed batch**



%?




Radiocarbon 14C method

**In any case, the radiocarbon method is applied at least once every 4 months.**

**Whenever a change occurs in the composition of raw materials higher than 5% (vs reference conditions), the radiocarbon method must be applied.***

- share of biogenic inputs or
- quantity of hydrogen and catalyst in the total mass,
- process parameters relating to the absolute process temperature [K],
- process parameters relating to the absolute process pressure [Pa] or
- composition of the product.

**Unless the applied method can identify the operating conditions relating to biogenic content in the output for each batch*

The methodology shall be clearly stated and described. It shall not be changed unless authorized by the auditor.

# OBLIGATIONS FOR ECONOMIC OPERATORS

**Economic operators must:**

- **for at least two years**, retain the **samples** associated with biogenic coprocessing quota claims and the recording of measurement data and calculations.

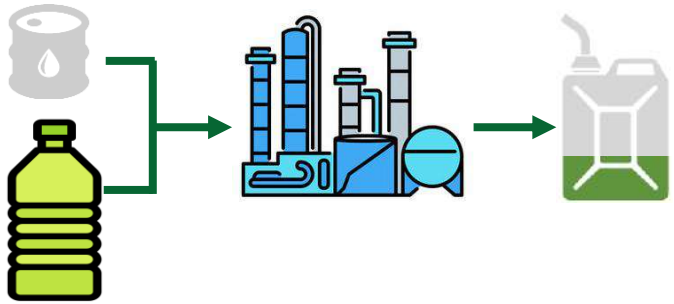
- **provide certification bodies and auditors** with **full access** to such samples, records, and tests and

- **also make available the detailed description of the main test method used**, including the indication of the **accuracy and precision**, also verified through the radiocarbon method ($^{14}C$) as well as the procedure for its application.

The methodology shall be clearly stated and described. It shall not be changed unless authorized by the auditor.

# MASS BALANCE SYSTEM

- **GHG**
- **SD**
- **Type**



- **GHG**
- **POS**
- **Product**

**The conversion factors** shall be used to carry out the mass balance accounting as described in the audit standard **2BS-STD-02.**

**Economic operators must:**

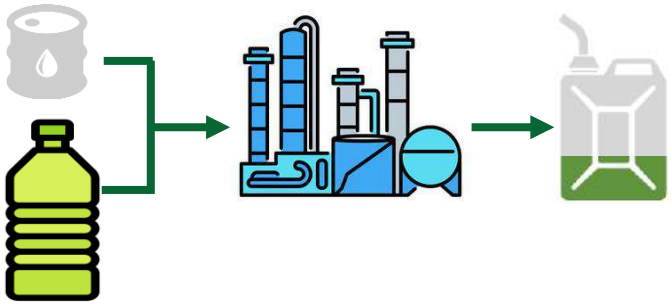
- To avoid the risk of deviations and facilitate an ex-post audit of claims relating to coprocessing and the biogenic share of their fuels**, apply a global mass balance system** indicating the **biogenic share of inputs and outputs**.

- They carry out the **mass balance** calculation **in parallel with** the **main test method** to check and compare the results of both methods of assessing the biogenic share in the final fuels produced;

- **When blending** coprocessing outputs with other fuels within the refinery or other coprocessing facilities, use a **mass balance system** that allows batches of fuels derived from fossil fuel-treated biomass to be blended with other fuels in a common process while providing adequate information on the **characteristics and sizes of the batches** under Article 30 of Renewable Energy Directive EU/2018/2001.U

Usual rules for Mass Balance System (Separate MB for each type of biomass, for different product groups, GHG averaging is prohibited, MB at the level of a container/facility/distribution infrastructure,...)

# MASS BALANCE SYSTEM

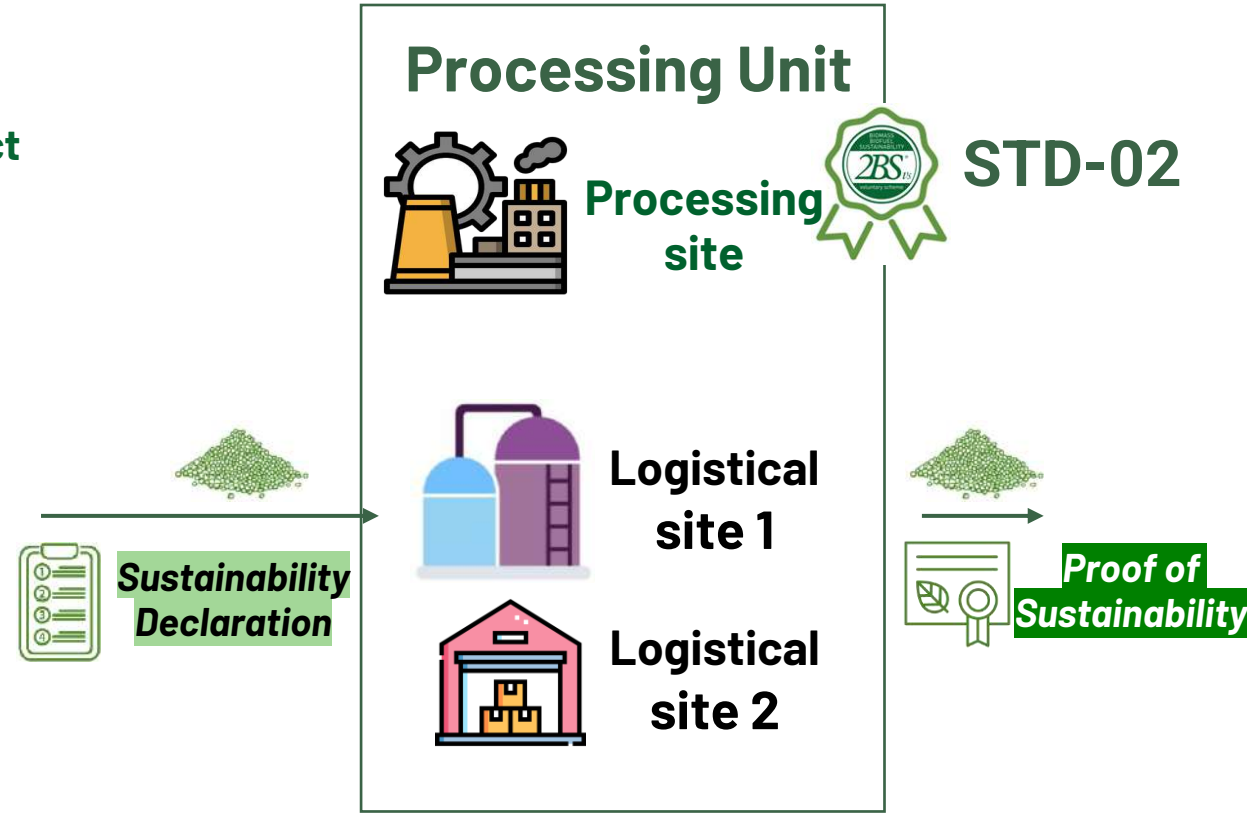


- GHG
- SD
- Type

- GHG
- POS
- Product

Usual rules for Mass Balance System:

- Separate MB for each type of biomass,
- Separate MB for different product groups,
- GHG averaging is prohibited,
- MB at the level of a container/facility/distribution infrastructure,...)

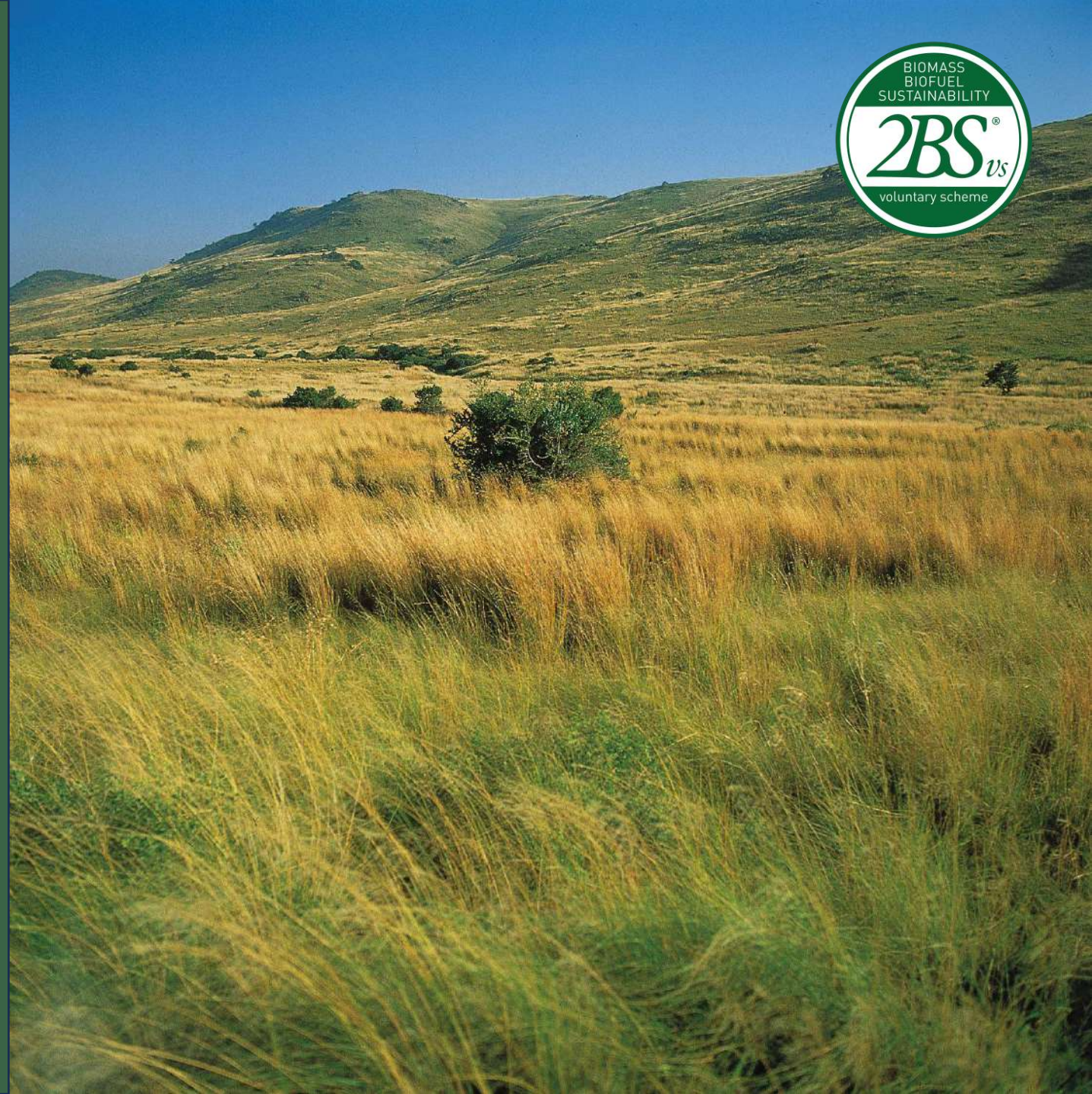



A refinery or chemicals processing facility is classified as a site. Therefore, if there is more than one processing unit that produces intermediate products or final products, each product group-specific mass balance can encompass all facilities processing the same type or category of feedstock, providing that all facilities are owned by the same legal entity.

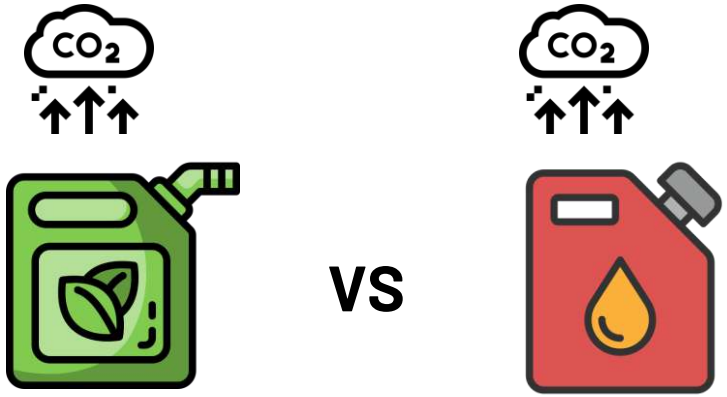
05

# GHG EMISSIONS METHODOLOGY

Nicolas Martinez



# GHG EMISSIONS CALCULATION




$$E = e_{ec} + e_l + e_p + e_{td} + e_u - e_{sca} - e_{ccs} - e_{ccr}$$

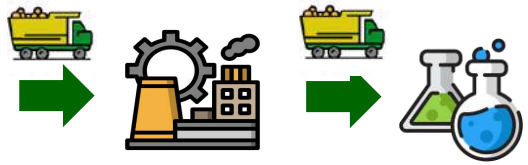
# GHG EMISSIONS

$$E_{co\text{-}processed\ biofuel} = E_{upstream} + E_{extra\ reagents} + E_{processing} + E_{td} + E_{u} + e_{ccr} + e_{ccs}$$

- As the other modules, the complete traceability of the sustainable material from its production must be considered.
- All GHG calculations must follow the methodology of 2BS-PRO-03.
- If a fuel production process produces multiple products, GHG emissions should be divided among the fuel, intermediate products, and co-products based on their energy content (using LHV).
- Only bio-based products included in the bio-yield calculation can be considered bio-based in the GHG calculation.

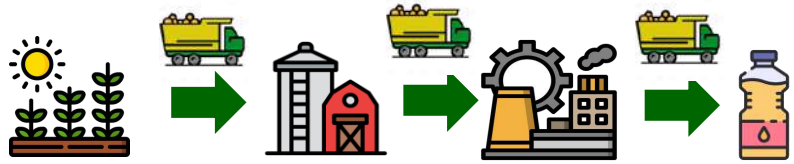
# GHG EMISSIONS

$E_{extra\ reagents}$



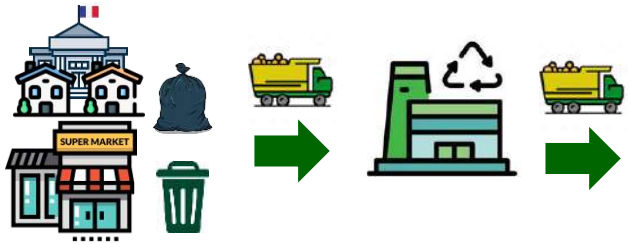
$E_{extra\ reagents}$ corresponds to the emissions related to the production of reagents used during the co-processing specifically for the conversion of biogenic feedstock into fuel. E.g., hydrogen for deoxygenation.

$$E_{upstream} = E_{ec\text{-}bio} + E_{l\text{-}bio} + E_{p\text{-}bio} + E_{td\text{-}bio} + e_{sca} + e_{ccr} + e_{ccs}$$

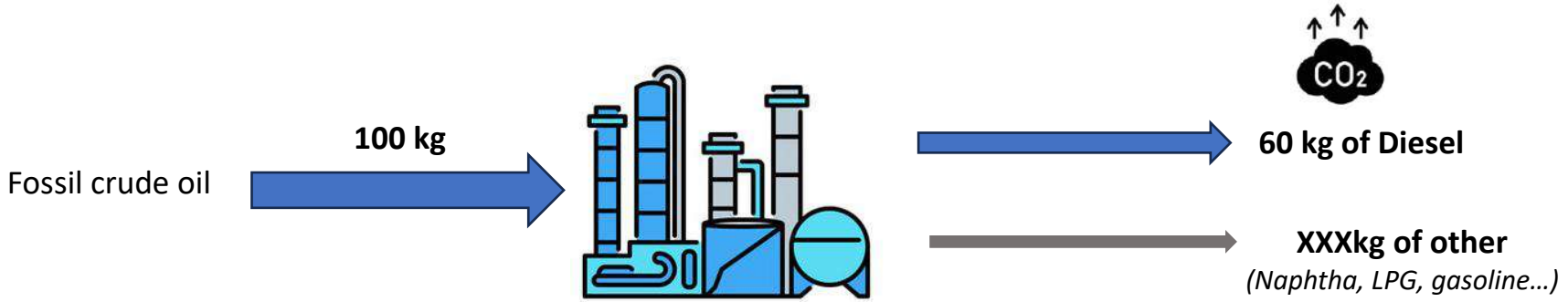


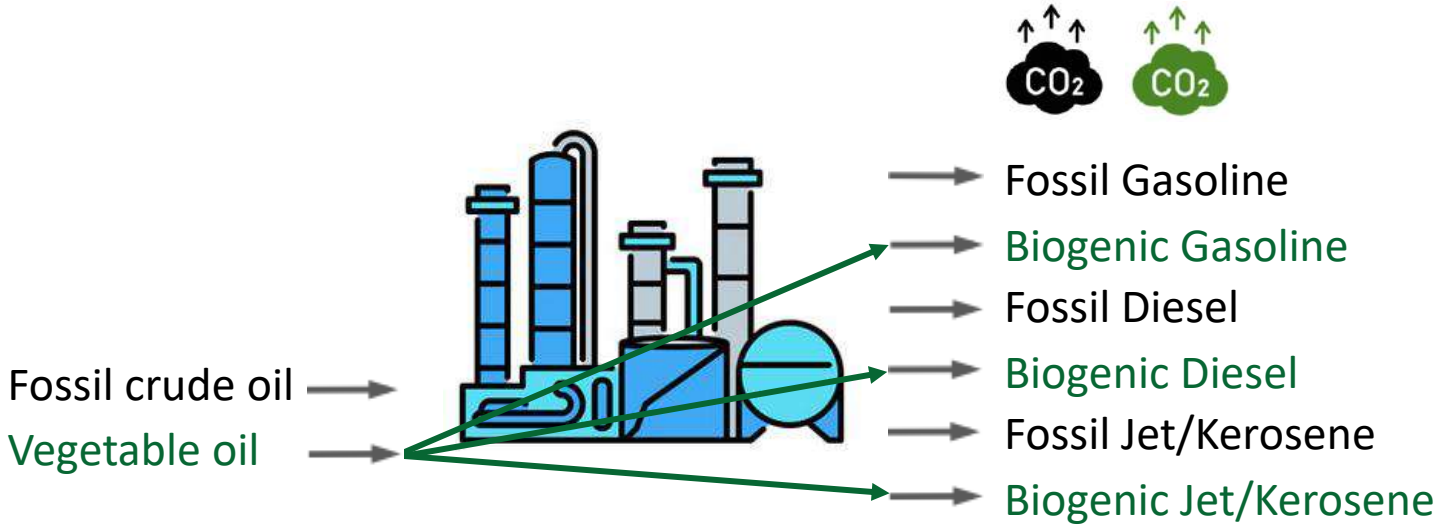
$E_{upstream}$ is the upstream emissions of biogenic feedstock. E.g., biocrudes, HVO,...

If the biogenic feedstock is classified as waste or residue, the emissions **are considered zero** at the point of origin:



# GHG METHODOLOGY




1) **Benchmark**
2) **Co-Processing**
3) **Comparison**
4) **Inputs share attributions**

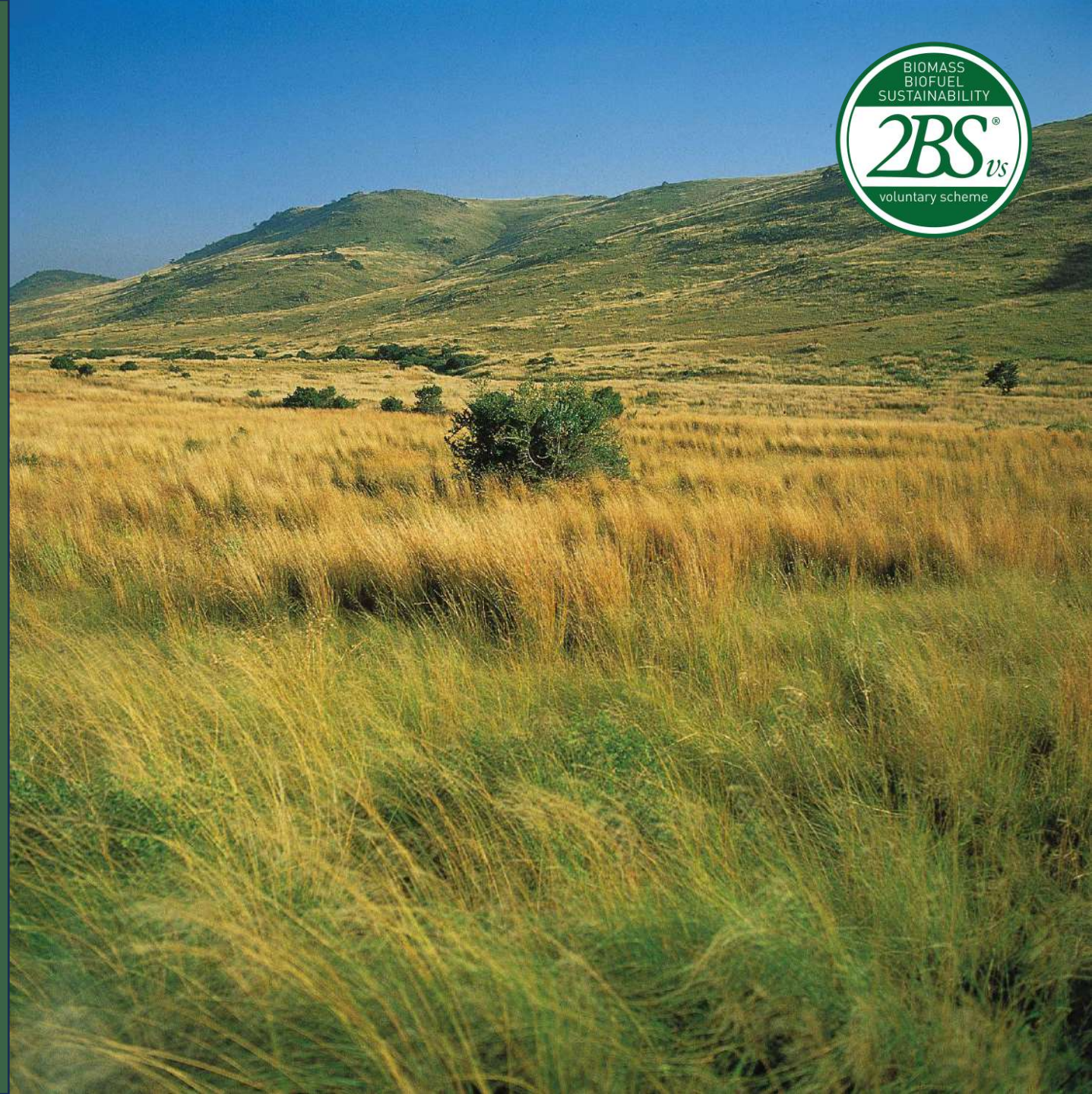
**Biogenic CO2 is excluded from the calculation**

$$E_{co\text{-}processed\ biofuel} = E_{upstream} + E_{extra\ reagents} + E_{processing} + E_{td} + E_u + e_{ccr} + e_{ccs}$$

06

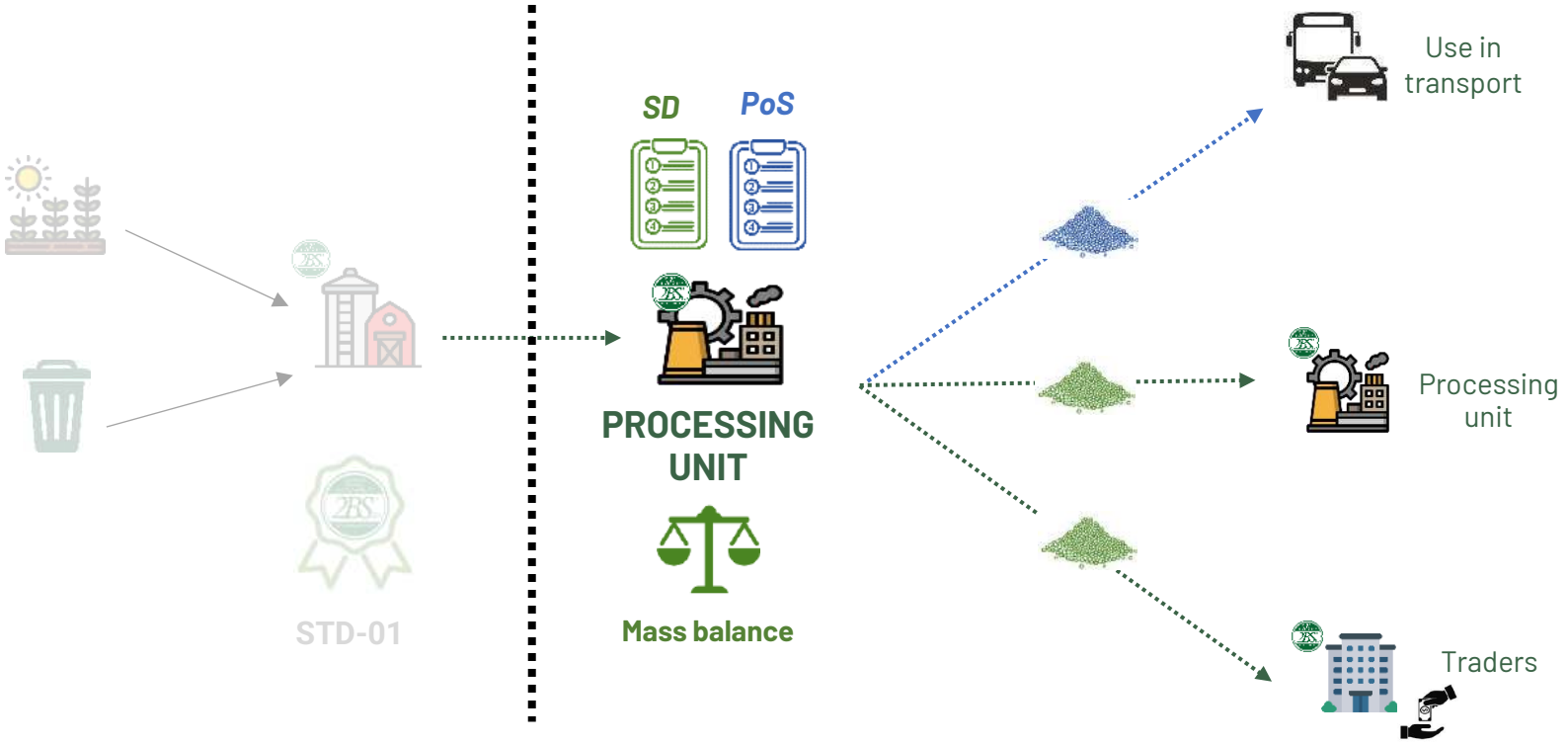
# SUSTAINABILITY DECLARATIONS & PROOF OF SUSTAINABILITY

Conrado Gattoni



# TRANSFER CONDITIONS

The economic operator shall develop and document a traceability system that ensures a traceability document is provided with each batch of co-processed output produced. Sustainability and GHG characteristics must be transferred along with the physical material being passed down the supply chain.




# CRITERION 3.4: TRACEABILITY SYSTEM

STD-02

Transformers and Last interface

**Indicator 3.4.1 (Critical):**

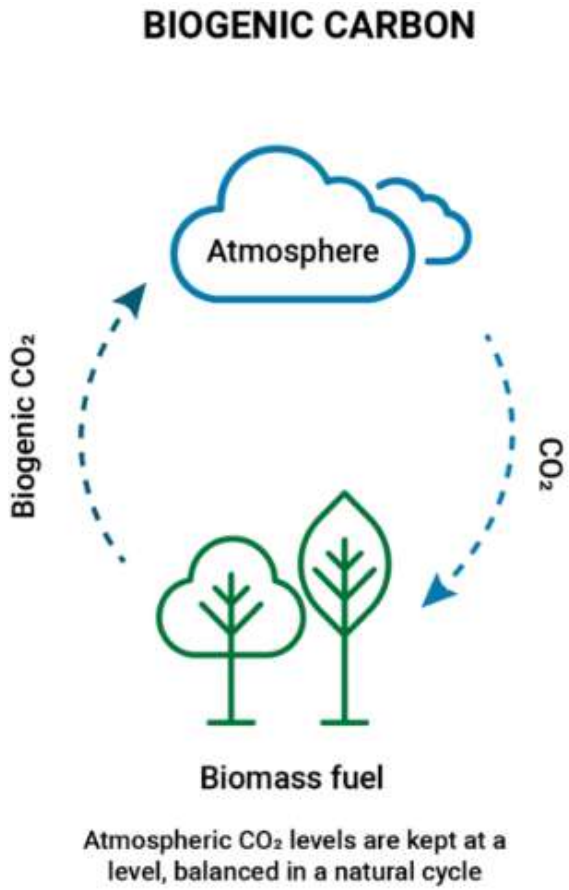
*"The economic operator must ensure that all traceability documents accurately reflect the biogenic content and compliance with sustainability criteria for each co-processed batch."*

**Example**

| Step | Batch A |
|---|---|
| **Review of PoS** | PoS indicates 65% biogenic content |
| **Cross-Verification with Mass Balance** | 800 kg total, 520 kg biogenic |

Keep in mind:

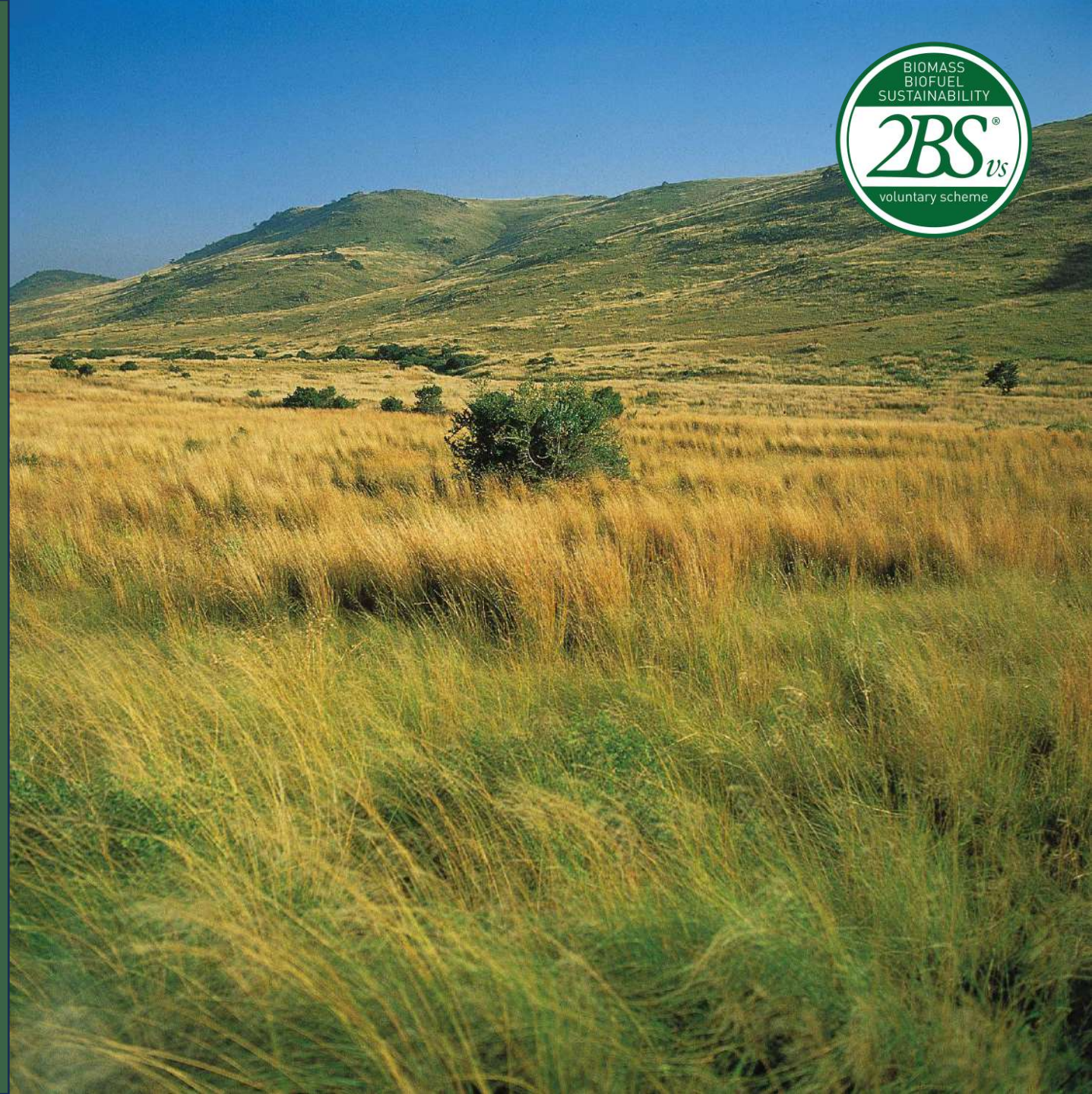
- Review the sustainability declarations/PoS issued for co-processed batches.
- Cross-check the records with the mass balance.
- Ensure the inclusion of all required information in the traceability documents.



07

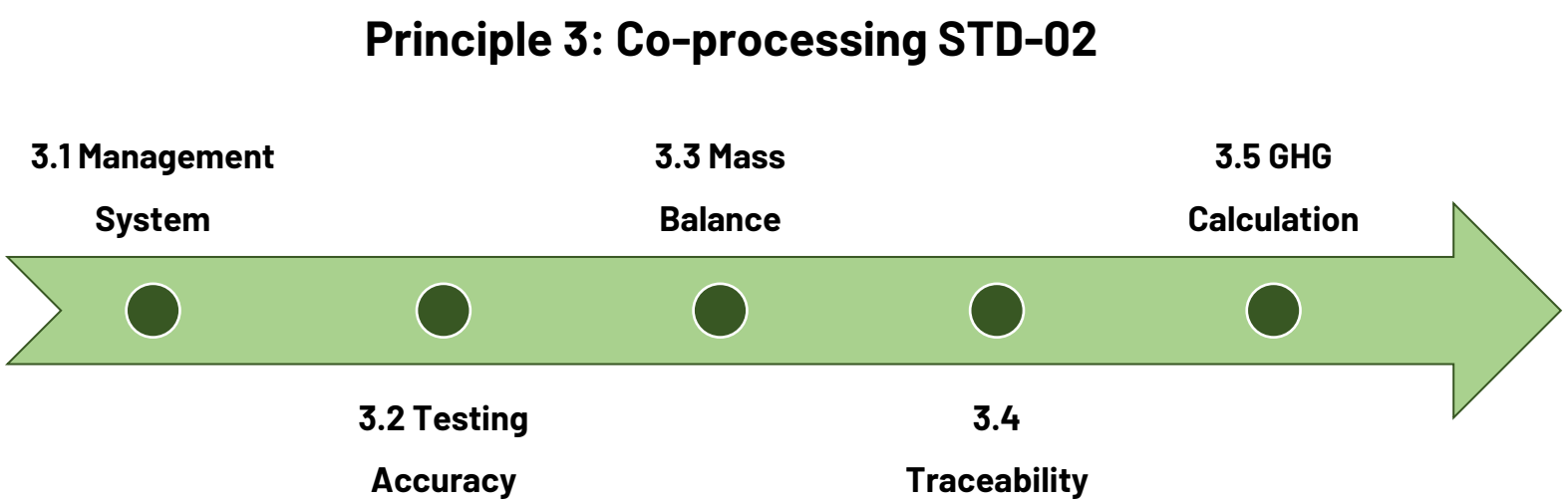
# AUDIT REQUIREMENTS

Conrado Gattoni



# ADDITIONAL SPECIFICATIONS FOR CO-PROCESSING PLANTS

The additional requirements outlined in PRO-06 added to the extra chapter in STD-02 ensure rigorous oversight of co-processing activities, highlighting the importance of accurate data collection, adherence to established procedures, and compliance with industry standards to effectively mitigate environmental impact.




# WHAT PRO-06 HAS ADDED?

1. **VALIDATION OF METHODOLOGY AND TESTING**
2. **TREATMENT OF DEVIATIONS**
3. **CONSISTENCY WITH INDUSTRY STANDARDS**
4. **VERIFICATION OF FEEDSTOCK AND PRODUCT QUANTITIES**

| | | |
|---|---|---|
| BIOMASS BIOFUELS SUSTAINABILITY 2BS VS voluntary scheme | 2BS Voluntary Scheme<br>**RED II - Requirements for the co-processing** | Doc: **2BS-PRO-06**<br>Version: 1 **(en)**<br>Approved on: 13/01/2025 |

## 7. Audit and certification requirements.

This section outlines the audit requirements specific to co-processing plants, which are similar to those for other processing facilities but with additional specifications. Here's a breakdown of the key points:

- **Validation of Methodology and Testing**: The auditor must validate the methodology, control testing, and analysis used for determining the quantities of renewable fuels, recycled carbon fuels, and renewable fuels of non-biological origin resulting from co-processing. This ensures the accuracy and reliability of the data used in assessing the environmental impact of the co-processing activities.
- **Treatment of Deviations**: Any changes, errors, or inaccuracies that result in a deviation from the documented methodology, testing, or analysis must be treated as a major non-compliance. This emphasizes the importance of adhering to established procedures and ensuring the integrity of the audit process.
- **Consistency with Industry Standards**: The auditor is responsible for verifying that the methodology, control testing, analysis, and quantities calculated are consistent with industry standards. This ensures that the audit procedures meet recognized norms and benchmarks for accuracy and reliability.
- **Verification of Feedstock and Product Quantities**: The auditor must verify that the quantities of biomass, recycled carbon, and renewable fuels of non-biological origin used as feedstocks, as well as the resulting products, are consistent with industry standards. This verification helps confirm the reliability of data related to the inputs and outputs of the co-processing plant. The auditor will verify the origin of the biogenic feedstock by analyzing the sustainability declaration or the self-declaration, according to whether the co-processing plant gathers already certified biogenic feedstock or gathers biogenic feedstock directly from the points of origin (in case of waste and residues).


2BS ASSOCIATION
ABOUT 2BS
2BS SCHEME
2BS ADHESION
CERTIFICATES
CONTACT
NEWS
EN
2BS: BIOMASS BIOFUEL, BIOLIQUIDS SUSTAINABILITY VOLUNTARY SCHEME
French economic operators involved in grain production and biofuel supply chain joined in an Associ
to develop the 2BS voluntary scheme, aimed to demonstrate through an independent audit, compli
sustainability criteria set by the European Directive 2018/2001 « Directive RED II ». This voluntary
enables sustainability claims, for the Directive, for biomass used as raw material, bioliquids, and
processed from that biomass.
https://www.2bsvs.org/2bs-scheme.html


# Do you have any questions?

# THANK YOU!

**Nicolas Martinez**
*Bioenergies Project Manager at 2BS*
nicolasmartinez@2bsvs.com

**Conrado Gattoni**
*Senior Project manager*
conradogattoni@2bsvs.com

**Marine Caffiaux**
*Content Assistant*
*marinecaffiaux*@2bsvs.com