



Workshop ETS2: monitoring plan development

+ Annual emissions report, Verification, Registry

Trinomics & Ricardo

Online
24/06/2024

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Belgium ETS2 outreach support workshop agenda

Date:

24/06/2024

	Topics	Presenter	Timing (CEST)
PART 1	NCA introduction	National Competent Authorities	10:00 – 10:05
	Introduction and webinar recap	Trinomics consultant	10:05 – 10:10
	Monitoring methodologies	Trinomics consultant	10:10 – 11:00
	Q&A part 1	Trinomics consultant & NCA	11:00 – 11:15
	BREAK		11:15 – 11:30
PART 2	Monitoring plans	Trinomics consultant & NCA	11:30 – 12:10
	Annual emissions reports	Trinomics consultant	12:10 – 12:20
	Verification	Trinomics consultant	12:20 – 12:30
	Registry	Trinomics consultant	12:30 – 12:40
	Q&A part 2 & Feedback survey	Trinomics consultant & NCA	12:40 – 13:00

Useful information

- Q&A session at the end of both workshop parts
- Please submit any questions throughout the webinar in the **Zoom Q&A only**
- We will ask interactive questions throughout, please have your mobile ready to connect
- The session will be recorded and the slides will be shared after the workshop. By remaining in the workshop you are agreeing to the recording of the session
- There will also be an evaluation survey at the end of the workshop which we encourage you to complete
- Final slides of this workshop presentation contain abbreviations, definitions and links to additional sources/guidance documents
- An FAQ document will be developed and distributed at the end of the series of workshops

Objective of the workshop

Main objective:

Walk through all the steps needed to draft a **monitoring plan (MP)**, as well as introduce the annual emissions report (AER), verification and Union registry.

Overview of the compliance cycle

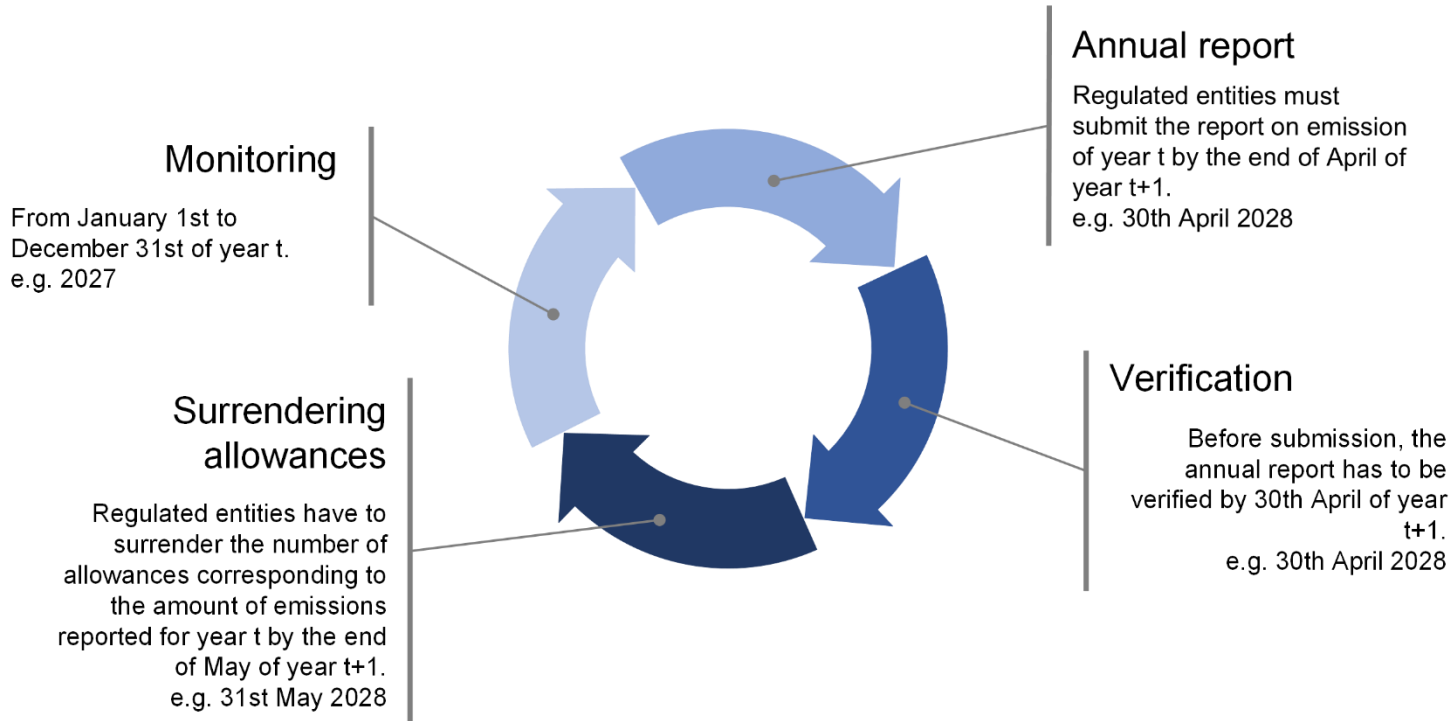
Monitoring, Reporting and Verification (MRV) requirements set by the Monitoring and Reporting Regulation (MRR) 2018/2066. Each regulated entity must submit a monitoring plan to their NCA before 1 January 2025.

Regulated entities need an account with the Union registry to perform transactions.

- **Surrendering:** the account holder transfers allowances to the Union Deletion account as part of its annual compliance obligation.
- **Penalties:** If an entity does not surrender sufficient allowances by the surrendering deadline, this triggers enforcement procedures (**fine of €100/tCO₂**).

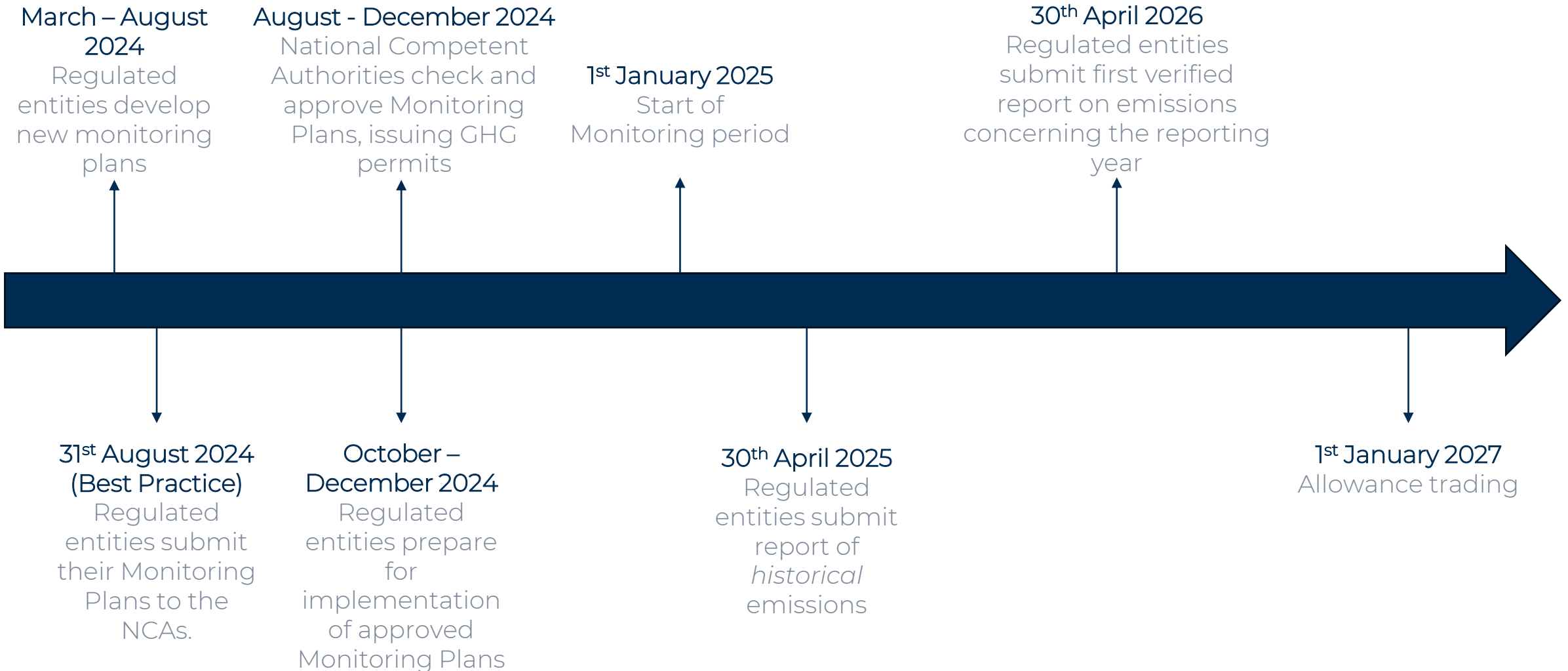
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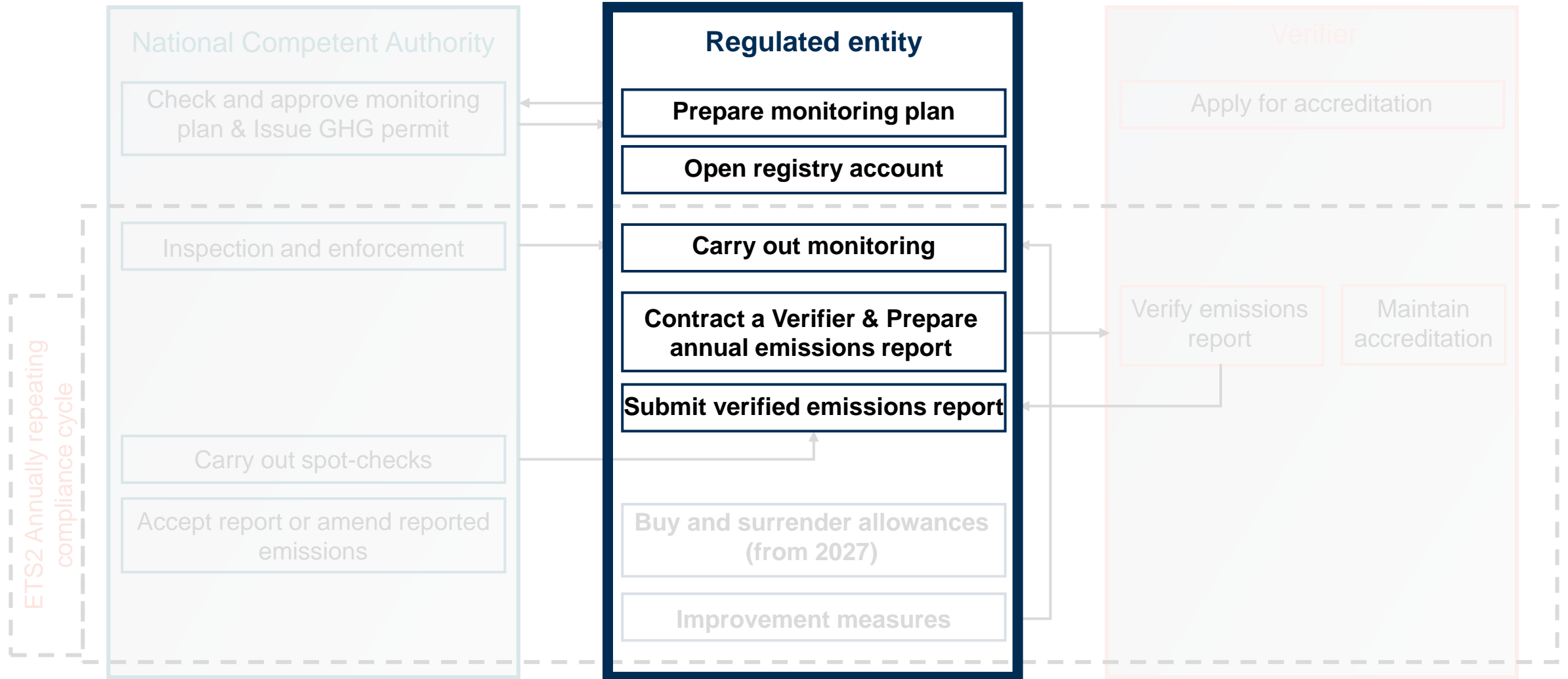


Note: Compliance cycle will start in 2025 but surrendering of allowances will take place only from 2028.

Milestones and deadlines



Responsibilities of regulated entities





Part 1: Monitoring methodology



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What is the monitoring plan and methodology?

- Goal of this workshop is to explain how to draft a **monitoring plan (MP)**. The **MP** lays out in detail the **monitoring methodology** of the regulated entity (RE)
- The **monitoring methodology** shows how to determine the **emissions** associated with the combustion of fuels released for consumption
- **Aim of Part 1 of the workshop:** explain details of how to accurately monitor and calculate all steps of the calculation.

Underlying principles of ETS2 monitoring

6 key **guiding principles** for ETS2 monitoring:

1. Completeness: all emissions of all fuel streams in the sectors listed under ANNEX III of the EU ETS Directive

2. Consistency and comparability: Data needs to be consistent across years and comparable between regulated entities. No arbitrary changes to the plan are allowed, but always should be approved by the CA

3. Transparency: all data collection, compilation and calculation must be transparent:

- Whole data flow needs to be documented transparently. It should be securely stored (min. 10 years) and retained for 3rd party access

4. Accuracy: regulated entities should take care that data is accurate. Due diligence is required by RE

5. Integrity of the methodology and emission report: at the heart of MRV

6. Continuous improvement: duty of RE to regularly look for improvements of MP and respond to suggestions of the verifier

1: Completeness

2: Consistency and comparability

3: Transparency

4: Accuracy

5: Integrity

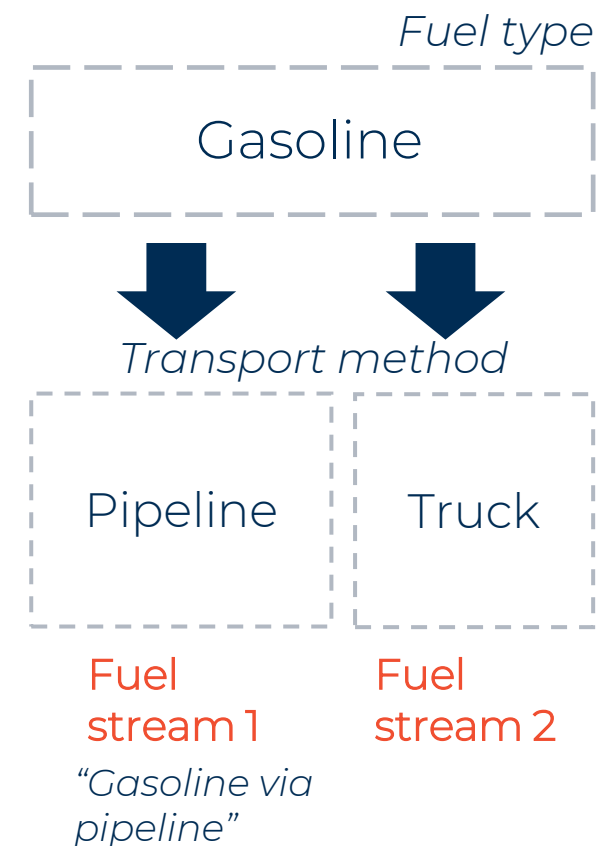
6: Continuous improvement

Fuel streams

- **Fuel streams** are all the **types of fuels** which a regulated entity **releases for consumption**, for which the emissions associated with the eventual consumption (i.e. combustion) have to be monitored
- There are requirements on how to split types of fuel into fuel streams, see the example (more details in Part 2)
- Different **fuel type categories**:
 - **Commercial standard fuels**: internationally standardised fuels (e.g. diesel and petrol)*. These have simplified monitoring requirements
 - **Fuels meeting equivalent criteria**: similarly standardized, but on national or regional level. These also have simplified monitoring requirements
 - **Other fuels (non-standardized)**: all other fuels, such as natural gas
 - Some CAs might have simplified monitoring also for this category
- *Note: electricity is not considered a fuel under ETS2*

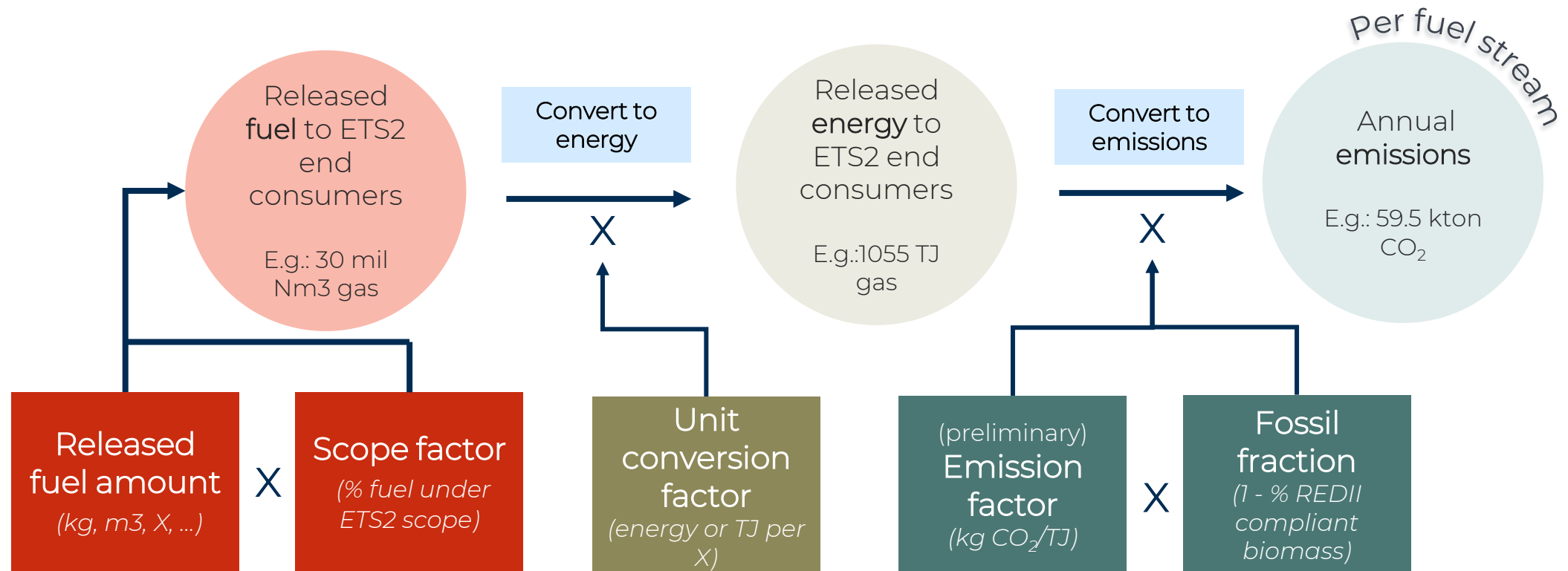
*Other commercial standard fuels are e.g. butane, propane, light fuel oil, kerosene

Simplified example



The calculation-based approach for monitoring

Basis of the methodology: **calculation-based approach** to determine emissions per **fuel stream**



The tier system – general principle

- Each parameter for the emission calculation can be determined by applying different data quality levels. These levels are called “**tiers**”
- Different specified methods can be used to achieve certain tier levels
- **General principle:**
 - **Higher tier** → High data quality: applicable to large fuel streams
 - *Requires more effort from RE to achieve*
 - **Lower tier** → Less accurate data quality: (generally) applicable to smaller fuel streams
 - *Requires less effort from RE to achieve hence ensuring **cost-effectiveness of M&R***

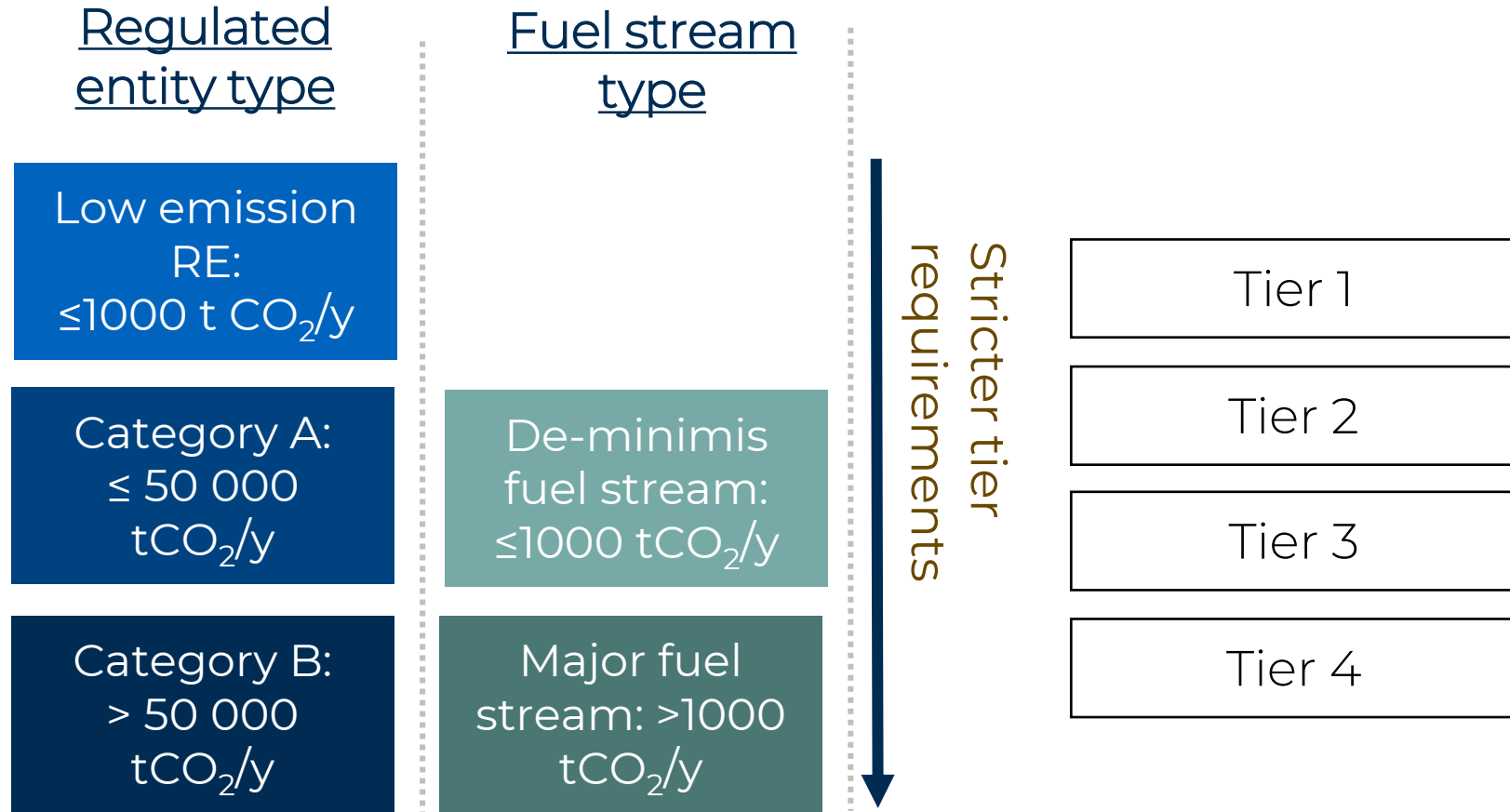
Available tiers

- REs must select certain tiers based on requirements set in MRR (e.g. size of the RE and fuel stream)
- Available tiers are:

Released fuel amount	Scope factor	Unit conversion factor	(preliminary) Emission factor	Fossil fraction
Tier 4	Tier 3	Tier 3	Tier 3a/3b	Tier 3
Tier 3	Tier 2	Tier 2a/2b	Tier 2	Tier 2
Tier 2	Tier 1	Tier 1	Tier 1	Tier 1

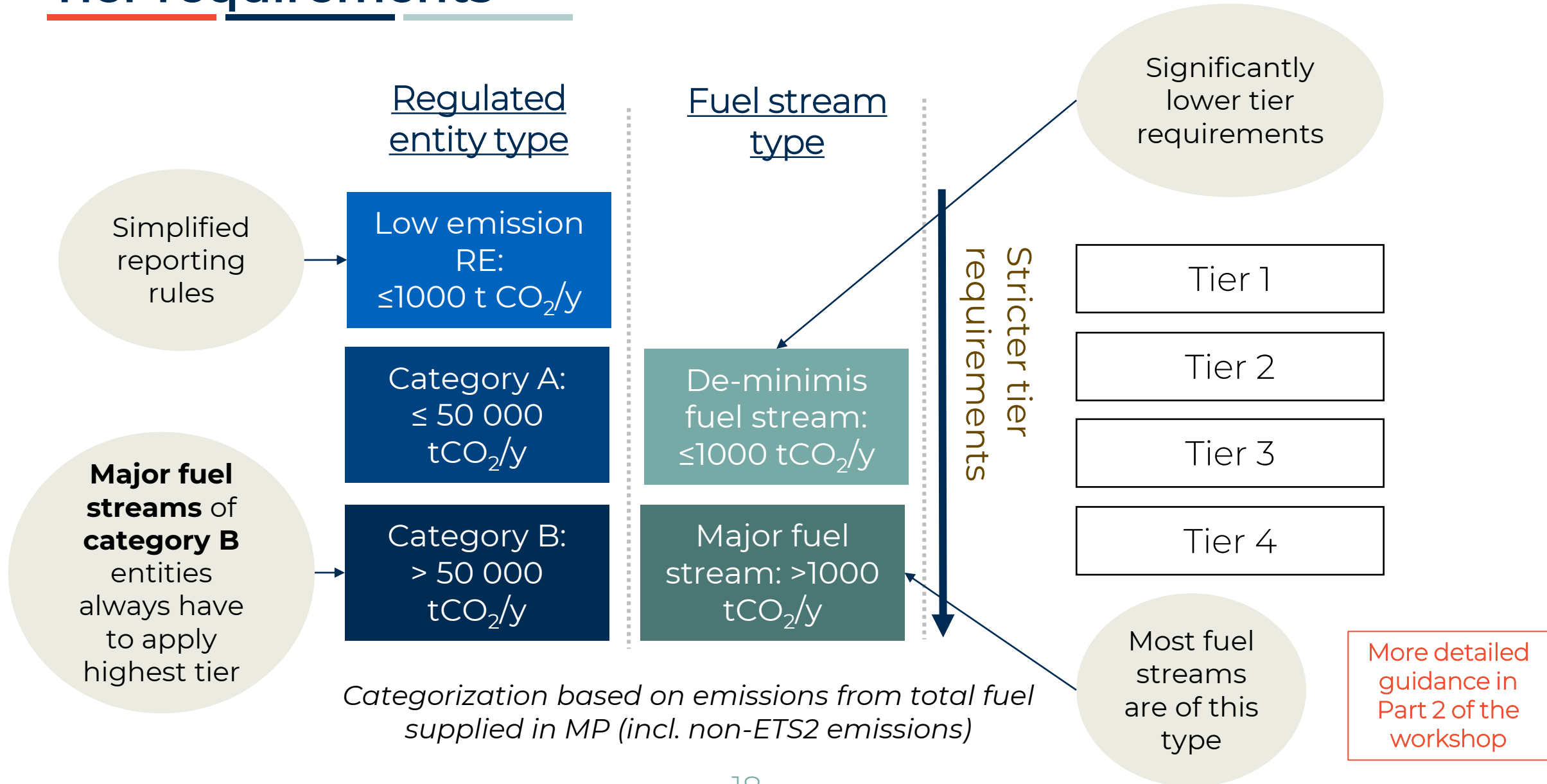
Member States can prescribe certain methods that need to be applied

Tier requirements



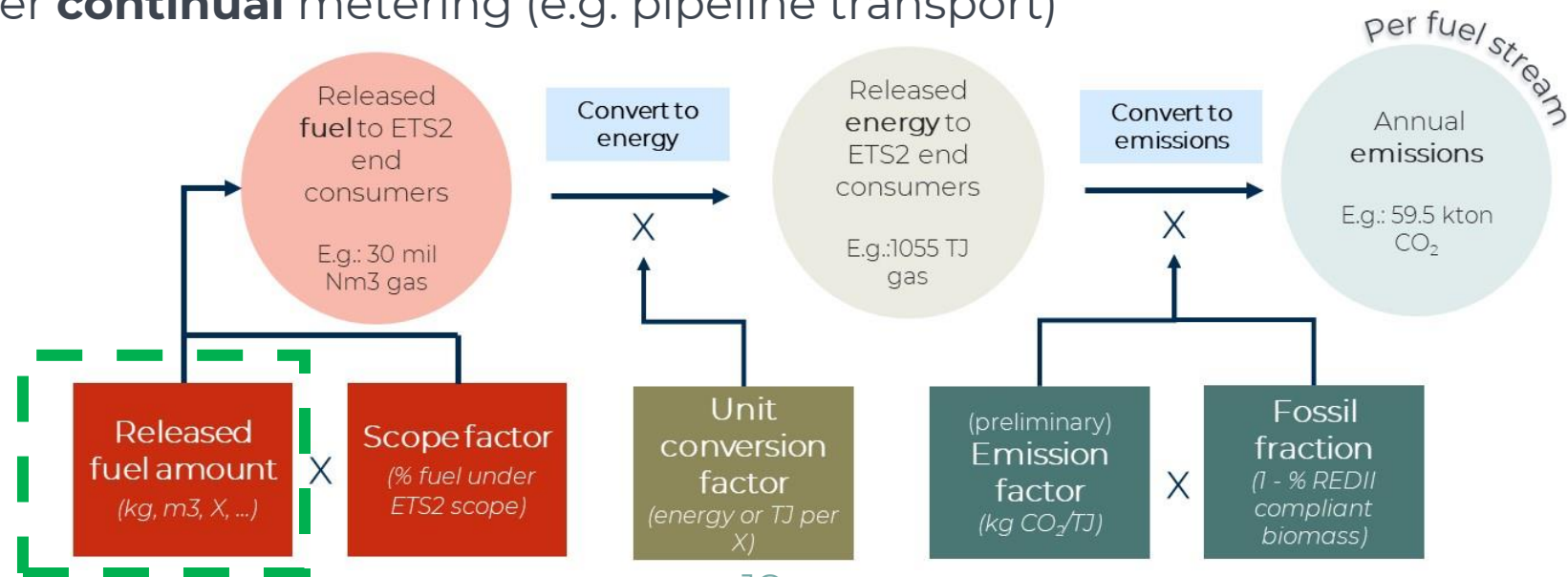
Categorization based on emissions from total fuel supplied in MP (incl. non-ETS2 emissions)

Tier requirements



Monitoring of released fuel amounts

- **Goal:** Accurately monitoring total **fuel released for consumption** by the fuel supplier
- **Three measurement methods** allowed:
 1. Measurement methods **under ETD regime** (if subject to national legal metrological control)
 - In most cases valid, making it easy for REs
 - In most cases batch or continual metering (see below)
 2. Other **batch** metering (e.g. truck deliveries of LPG)
 3. Other **continual** metering (e.g. pipeline transport)



Uncertainty assessment

Uncertainty assessment to determine tier based on maximum uncertainty of measurement

Entities under the ETD/ED regime

- **No assessment needed** and direct compliance with the highest tier if
 - RE is the same entity with reporting obligations under the ETD/ED
 - The same measurement methods as under the ETD/ED are used
 - These methods are subject to national legal metrological control

Tier	Maximum permissible uncertainty
1	± 7.5%
2	± 5.0%
3	± 2.5%
4	± 1.5%

Entities or methods not under the ETD/ED regime

- **Assessment needed** of uncertainty related to measuring instruments, its calibration, its use in practice and influence of determining start/end of year stocks
- Simplification possible by using the Maximum Permissible Error in service for uncertainty

→ Guidance Document 4 and 4a + Excel tool available on [COM website](#)

Timing of measurement

- **Standard measurement date:** midnight of 31st December every calendar year
 - Makes sense for many fuel streams
 - Applicable to each fuel stream
- Option to **shift measurement date** to next most appropriate day
 - Allowed to shift date per fuel stream

Example

A fuel supplier delivers natural gas to households without smart meters. Meters are read out manually once a year on 31 May. However, ETS2 emissions for each preceding calendar year need to be reported on 30 April (1 month before annual meter reading).

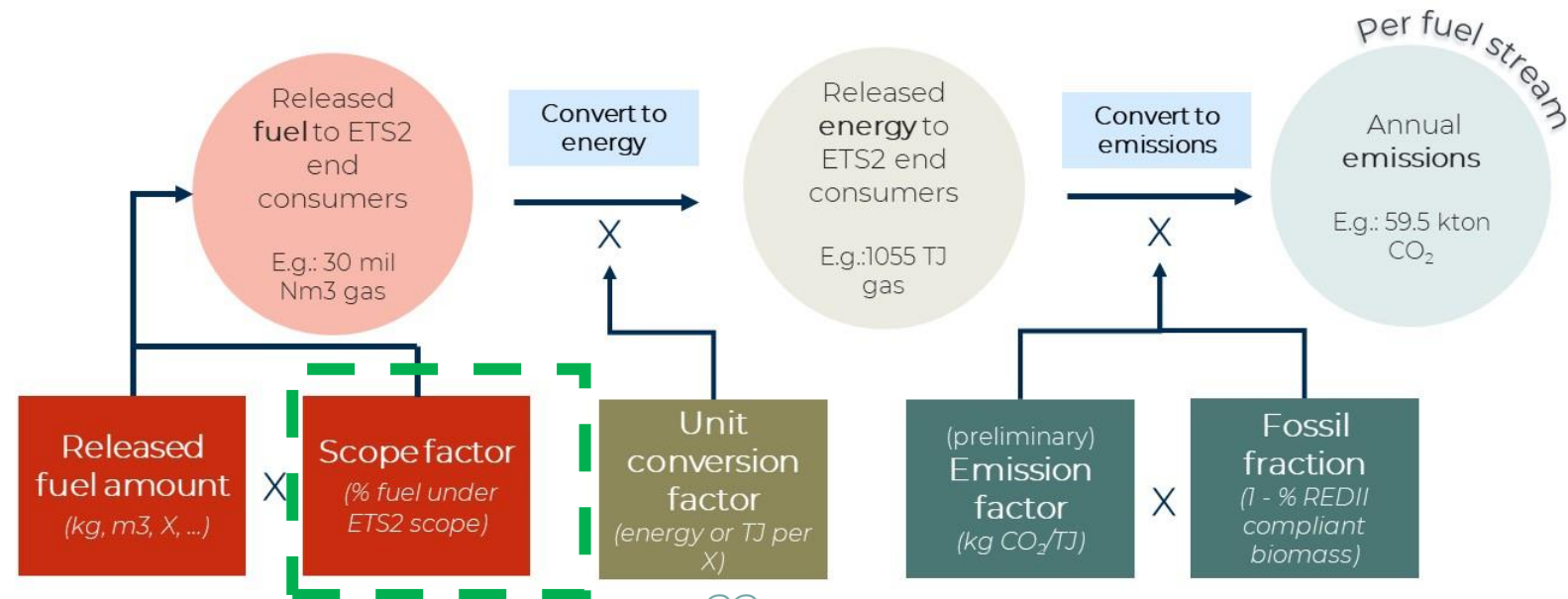
Solution: for reporting 2025 emissions on 30 April 2026, the fuel supplier can use gas consumption data for 1 June 2024 – 31 May 2025 as the estimate 2025 emissions.

- Once data for 1 June 2025 – 31 May 2026 becomes available, the difference between estimated and actual 2025 emissions is corrected in the reporting of 2026 emissions

See guidance document for a more detailed example

The scope factor

- **Scope factor** definition = share of the released fuel amounts being combusted in ETS2 sectors (listed in Annex III)
 - *In other words:* Fuel suppliers have to determine which fuel use of consumers falls under the ETS2 scope
- **The scope factor:**
 - Has a value between **0** (end consumers not covered under ETS2) and **1** (fully covered).
 - Should be calculated per **fuel stream**.
 - Is a very important but challenging step in calculating emissions under ETS2, especially if there is no direct connection with the end consumer



Which end consumers are covered under ETS2?

- **Sectors in scope are specified in Annex III** of the EU ETS Directive
 - Common Reporting Format of the IPCC 2006 guidelines used for sectoral classification.
- **Overarching sectors included:** buildings, road transportation and other sectors (mainly small-scale industry not covered by ETS1)
- **All emissions under ETS1 are excluded:** among others all (large) industry, electricity, aviation, maritime.

Road transportation



Buildings



Other sectors



Which end consumers are covered under ETS2?

Overarching sector	Included	Excluded
Buildings <i>CRF 1A4a & CRF 1A4b</i>	<ul style="list-style-type: none"> Fuel combustion in residential/commercial/institutional buildings (space heating, water heating, cooking). This includes households fuel combustion Also, off-road vehicles and machinery used in the buildings sector 	<ul style="list-style-type: none"> Any emissions from fuel combustion in agriculture, forestry, fishing and fishing industries (1A4c): <ul style="list-style-type: none"> E.g. also <20 MW combustion units (incl. CHP) in agriculture sector All ETS1 emissions: <ul style="list-style-type: none"> Energy production and manufacture industries Usually large >20MW combustion units (e.g. in large building complexes)
Road Transportation <i>CRF 1A3b</i>	<ul style="list-style-type: none"> All combustion and evaporative CO₂ emissions arising from fuel use, such as from: <ul style="list-style-type: none"> Cars Motorcycles Light-and heavy-duty vehicles <ul style="list-style-type: none"> Busses Trucks Catalyst additives 	<ul style="list-style-type: none"> Other modes of transport: <ul style="list-style-type: none"> Aviation (mostly covered by ETS1; 1A3a) Off-road vehicles in agriculture (1A4c) Railways (diesel trains) (1A3c) Maritime transport (mostly covered by ETS1; 1A3d) Military operations (1A5b)
Other sectors: Mainly (small-scale) industry <i>1A1, 1A2</i>	<ul style="list-style-type: none"> (Small-scale) industry, all energy industries (1A1) and manufacturing industries and construction (1A2) that are not in ETS1 	<ul style="list-style-type: none"> Majority (especially >20 MW installations) included in ETS1, and therefore excluded from ETS2 Non-energetic purposes excluded (e.g. process emissions, chemical reactant, reducing agent)

How to determine end consumers?

- Several specified methods to determine end consumers.
- The use of specific methods depends on:
 - **Robustness, risk of fraud, accuracy**
 - Deviation allowed if proven **unreasonable costs** and/or **technical feasibility**.

Tier	Tier definition
3	Physical distinction of flows
	Chemical distinction of fuels
	Chemical marking (EU)
	ETS1 verified emission report
2	Chain-of-Custody
	Chemical marking (national)
	Indirect methods
1	Default value of 1
	Default value lower than 1

Tier 3 method details – overview

- Most large fuel streams of large regulated entities should use tier 3 methods
- Tier 3 methods might also be combined to calculate the scope factor

Tier	Tier definition	Short description
3	Physical distinction of flows	<ul style="list-style-type: none"> • Based on physical distinction of fuel flows, such as direct measurement of fuel flows in pipeline network • Evidence can be provided that end consumers fall under the ETS2 scope (Annex III list). <ul style="list-style-type: none"> • Based on legal zoning: only industrial users allowed in industrial areas • Could be partially combined with chain of custody (such as self-declaration from fuel station connected to pipeline)
	Chemical distinction of fuels	<ul style="list-style-type: none"> • Proof based on legal, technical and economic reasons, which can be proven by the chemical properties of a fuel <ul style="list-style-type: none"> • To prove the above, chemical properties should be distinct from other fuels: purity, carbon or sulphur content, calorific value, etc.
	Chemical marking (EU)	<ul style="list-style-type: none"> • Fiscal marking of gas oil and kerosene under the Euromarker Directive <ul style="list-style-type: none"> • Already common method to identify agricultural, maritime and aviation fuel use → outside ETS2 scope
	ETS1 verified emission report	Emission report of ETS1 operator proving consumption under ETS1

More details in slides on “avoiding double counting”

Tier 3 method details – example physical distinction

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	Chemical distinction of fuels	<ul style="list-style-type: none"> • Production of fuel can be proven by the chemical composition
	Chemical marking (EU)	<ul style="list-style-type: none"> • Fiscal marking of fuel can be proven by the chemical composition • Fuel stations only dedicated to agriculture → Directive on the use of aviation fuel use → outside ETS2 scope
	ETS1 verified emission report	Emission report of ETS1 operator proving consumption under ETS1

Examples of physical distinction:

- Natural gas pipeline to which only households are connected → **inside the ETS2 scope**
- Fuel stations only dedicated to agriculture → **outside the ETS2 scope**

Tier 3 method details – example chemical distinction

- Most large fuel streams of large regulated entities should use tier 3 methods
- Tier 3 methods might also be used by smaller entities

Examples legal, technical and economic reasons:

- **Legal:** high-sulphur content fuels for environmental reasons need desulphurisation units, which small-scale consumers outside scope ETS2 (e.g. small boats) do not have → **outside ETS2 scope**
- **Technical:** high-impurity fuels would cause damage to normal combustion units and are only used in large-scale sites covered under ETS1 → **outside ETS2 scope**
- **Economic:** High purity, high C-content coal due to its price premium is only viably used for non-energetic purposes → **outside ETS2 scope**

Tier	Tier definition	Short description
3	Physical distinction of flows	<ul style="list-style-type: none"> • Based on physical pipeline network • Evidence can be: <ul style="list-style-type: none"> • Based on legal • Could be partially covered by ETS1 (e.g. station connected to pipeline)
	Chemical distinction of fuels	<ul style="list-style-type: none"> • Proof based on legal, technical and economic reasons, which can be proven by the chemical properties of a fuel <ul style="list-style-type: none"> • To prove the above, chemical properties should be distinct from other fuels: purity, carbon or sulphur content, calorific value, etc.
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	ETS1 verified emission report	Emission report of ETS1 operator proving consumption under ETS1

Tier 2 method details – overview

Useful for RE: consumers have incentive to prove they are out of scope of the ETS2

Tier	Tier definition	Short description
2	Chain-of-custody	<ul style="list-style-type: none"> Chain of traceable contractual arrangements and invoices. Documentation starts from end consumer up the supply chain to the fuel supplier End consumers self-declare if consumption is out of scope of ETS2 Useful overlap with IT Excise Movement Control System (EMCS) In practice, only self-declaration needed from consumers <u>outside</u> of the ETS2 scope
	Chemical marking (national)	<ul style="list-style-type: none"> Same as tier 3 Euromarker marking but regulated only at national level
	Indirect methods	<ul style="list-style-type: none"> Use of indirect correlation, which allows distinction on the individual consumer level <ul style="list-style-type: none"> Consumer distinction is needed for accurate cost pass-through

Tier 2 method details – example indirect methods

Tier	Tier 2 methods
2	<div data-bbox="428 239 2010 772" style="border: 1px solid black; background-color: #fff9c4; padding: 10px;"> <p>Examples:</p> <ul style="list-style-type: none"> • Pressure levels of natural gas supplied: large customers purchase gas at higher pressure levels → large industry in scope of ETS1, hence outside scope ETS2 • Fuel consumption capacities: seasonal or day-and-night consumption patterns. Low consumption and gas peaks during winter (e.g., household) → inside scope ETS2 • Existing public databases: such as on zoning plans. <i>Similar to 'physical distinction', but then without infrastructural limitation.</i> Industrial zone → if not ETS1 (proven with emission report, then inside scope ETS2) • Other correlations can also be used, if substantiated. </div>
	<p>Chemical marking (national)</p> <ul style="list-style-type: none"> • Same as tier 3 Euromarker marking but regulated only at national level
	<p>Indirect methods</p> <ul style="list-style-type: none"> • Use of indirect correlation, which allows distinction on the individual consumer level <ul style="list-style-type: none"> • Consumer distinction is needed for accurate cost pass-through

Tier 1 method details – overview

- **Lowest tier** only allowed in few cases
- Clear preference in this case to use **default value of 1** (full coverage)
- Deviating from value of 1 only possible under specific terms

Tier	Tier definition	Short description
1	Default value of 1	Full scope coverage, if no other data can be used.
	Default value lower than 1	Can be applied if several conditions are met (see above)

More details in the Guidance Document

Avoiding double counting between ETS1 and ETS2

- ETS2 costs should not be passed through to **ETS1 operators**, since this would mean a double burden for ETS1 operators
- Member States will facilitate the efficient exchanges of information between ETS1 and ETS2, to enable the regulated entities to determine the end use of the fuel released for consumption
- Some basics that will help reduce the work for ETS2 regulated entities:
 - ETS1 annual emissions reports are considered as the highest quality method (**tier 3**)
 - ETS1 operators have to report in their annual emissions report:
 1. Their **fuel suppliers**
 2. The types and amounts of fuels acquired
 3. The amount of fuel used



More details can be found in the MRR

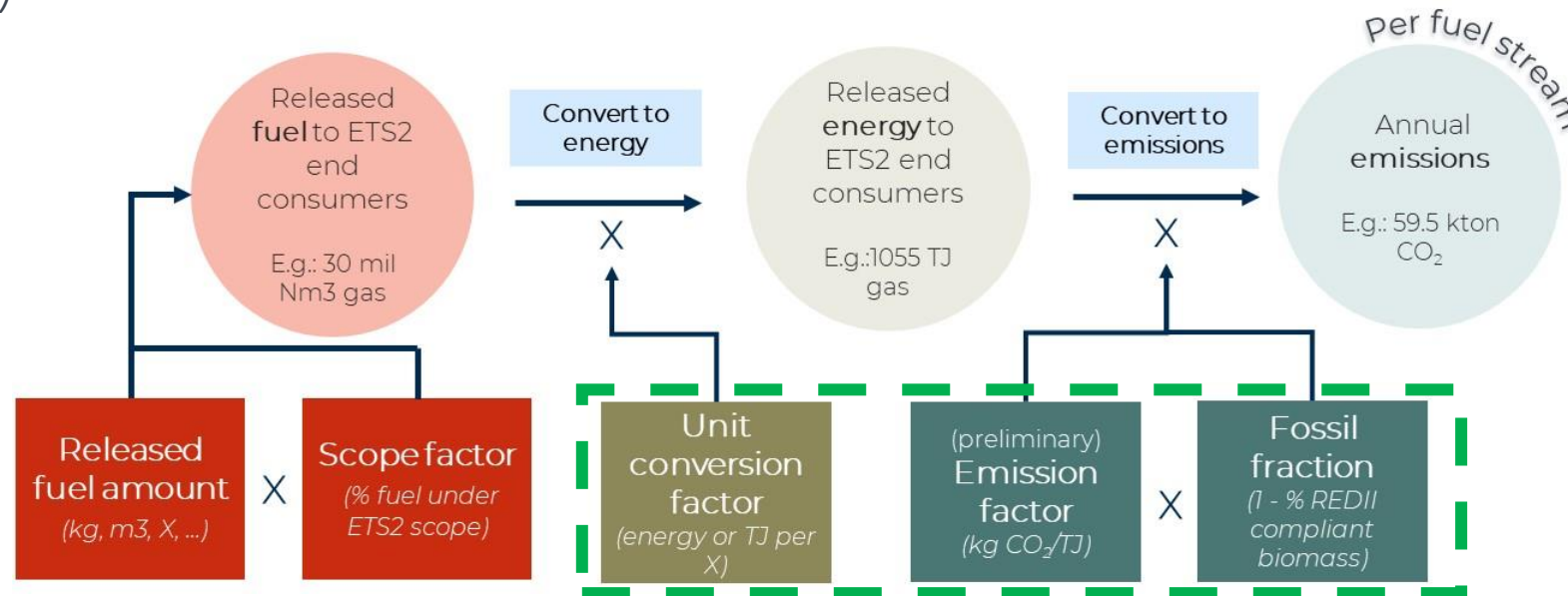
Avoiding double counting between ETS1 and ETS2

- For a regulated entity to apply a scope factor of 0 for ETS1 supply, the following is needed:
 - A **direct contractual agreement** between the ETS2 entity and the ETS1 operator, which includes an arrangement on how the fuels will be invoiced
 - E.g. a *declaration of intent to use* the fuel to ETS1 purposes
 - The ETS1 operator needs to provide to the ETS2 RE **information on their acquired and used fuel amounts** from the ETS2 RE in question
 - **Confirmation of actual use of the fuel** needs to be delivered
 - Difference between actual use and delivery will be labelled as put into stock
- If consumption by ETS1 operator cannot be confirmed, a **scope factor of 1** applies; carbon cost can then be passed through (as of 2027 when trading starts)

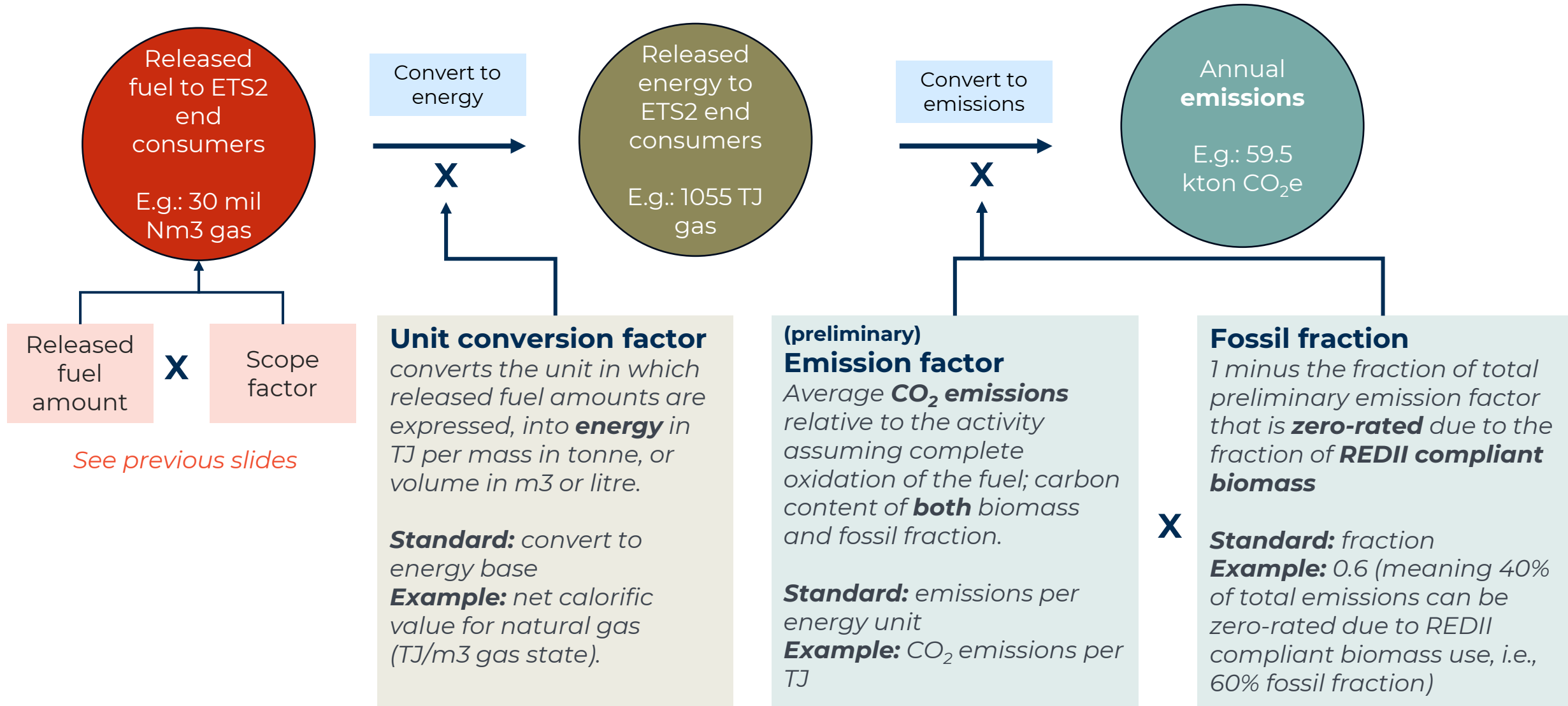
Detailed rules can be found in Article 75v and Annexes Xa and Xb of the MRR

Calculation factors – overview

- At last, **3 calculation factors are** needed to calculate the annual emissions per fuel stream: the **unit conversion factor (UCF)**, the **emission factor (EF)** and the **fossil fraction (FF)**
- These are factors needed to convert the unit (UCF), to convert to the emission per unit (EF) and to account for REDII compliant biomass (FF = 1 - % REDII compliant biomass)
- **General rules for tiers:**
 - **Lower tiers** allow the use of (internationally or nationally defined) **default values**. These are e.g. common for commercialized standard fuels or equivalents
 - **Higher tiers** generally rely on different types of **laboratory analysis**
 - *Or in some cases: mass balance (FF), empirical correlation (coal) or purchasing records (UCF)*



Detailed explanation per calculation factor



REDII compliant biomass

Biomass criteria:

- Biomass can be zero-rated (emissions) if satisfying the **sustainability** and **GHG savings** criteria of the **REDII directive***
- Same criteria as for the ETS1**

This among others means:

- For **blended biofuels**: same criteria apply as under Fuel Quality directive; information should be available
- For **biogas**: criteria only apply for >2 MW installations.
 - Demonstrate biogas use via purchase records; avoid double counting via e.g. a biogas registry
- **Solid biomass** (e.g. firewood) not in scope of ETS2, so no criteria apply

More info can be found in [guidance document ETS2](#).

Full details and rules: [article 38\(5\) of MRR](#) + [biomass guidance document ETS1](#)

Fossil fraction

*1 minus the fraction of total preliminary emission factor that is **zero-rated** due to the fraction of **REDII compliant biomass***

Standard: fraction

Example: 0.6 (meaning 40% of total emissions can be zero-rated due to REDII compliant biomass use, i.e., 60% fossil fraction)

Similarity to existing national regulations

- Loi du 22/12/2009 relative au régime general d'accise – Wet betreffende de algemene regeling inzake accijnzen

Quiz questions for participants – Part 1

Instructions for Slido

To access Slido on your mobile phone, either:

- Scan the QR code or
- Go to [slido.com](https://www.slido.com) and enter the passcode **3693715** or use [Belgium workshop - ETS2 Stakeholder outreach \(sli.do\)](https://sli.do/BeBelgiumworkshop-ETS2Stakeholderoutreach)





Q&A on Workshop Part 1



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Part 2: Monitoring Plan, Emissions Report, Verification and Registry



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Monitoring Plan development



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Purpose of the monitoring plan

Article 75b of the MRR

- “The monitoring plan shall consist of a detailed, complete and transparent documentation of the monitoring methodology of a specific regulated entity and shall contain at least the elements laid down in Annex I.”

Purpose of the MP

- Serves as a manual for the regulated entity’s (RE) monitoring and reporting tasks
- Describes methods and procedures for the annual emissions reports (AER)
- Reference for verification of the AER

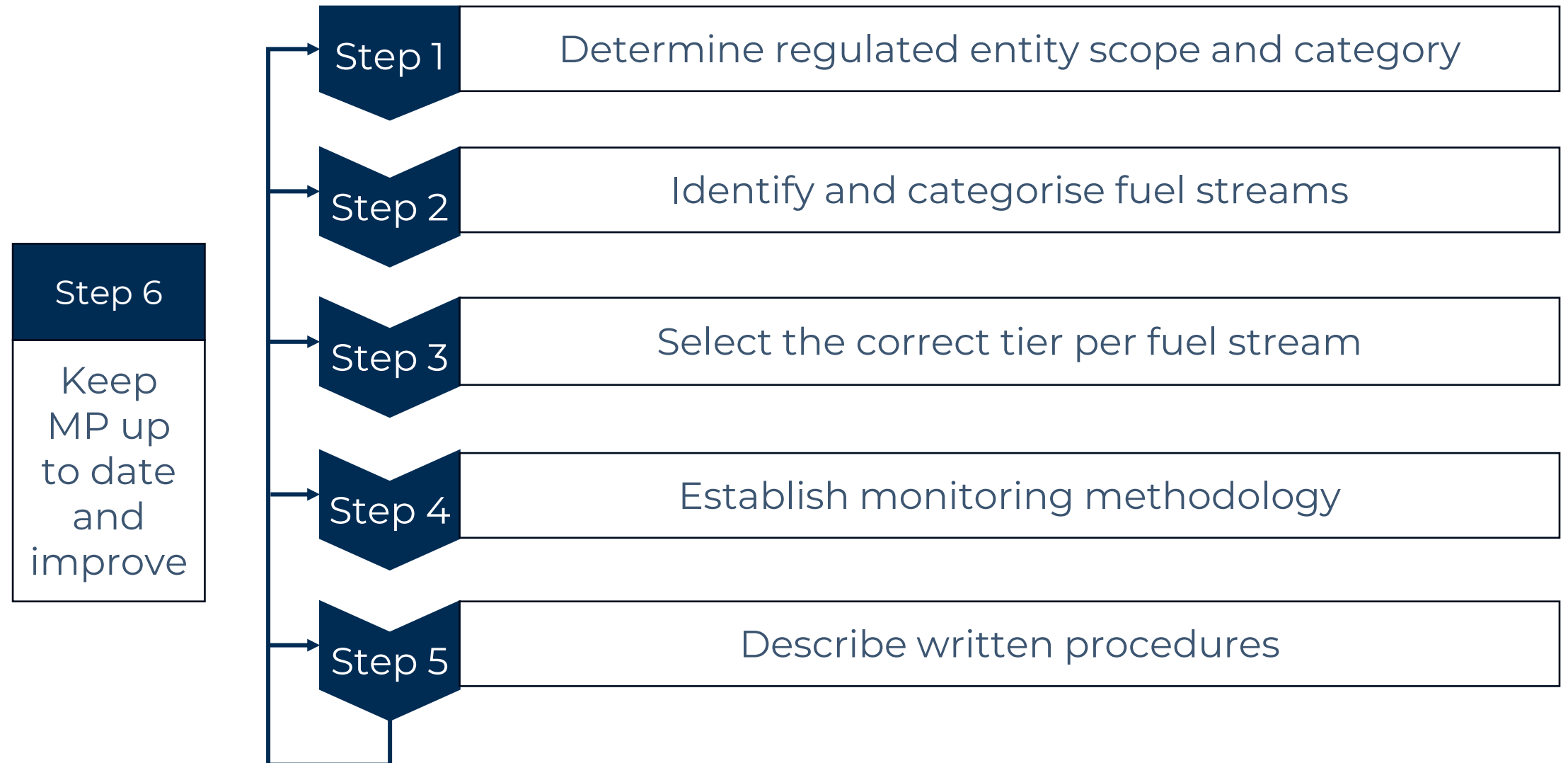
Content of an MP

- General entity information
- Fuel streams (incl. simple diagram)
- (Estimated) average annual emissions
- Monitoring methodologies for emissions
- Measurement instruments used
- Calculation procedures
- Management & control procedures
- MP modification history

Full list of required info in MRR Annex I(4)

A monitoring plan is a living document → keep up to date and improve where reasonable

Developing a monitoring plan



Step 1

Determine regulated entity scope and category

Regulated entity (RE) scope of ETS2:

- Fuel supplied to activities listed in Annex III of the ETS Directive
- Excluded from the ETS2 scope and MP (not in the Energy Taxation Directive):
 - Peat, waste used as fuel, solid biomass, charcoal from wood

Three RE categories based on emissions from total fuel supplied in MP (incl. non-ETS2):

1. Category B entity: $> 50\,000$ tCO₂ per year
2. Category A entity: $\leq 50\,000$ tCO₂ per year
3. REs with low emissions: $< 1\,000$ tCO₂ per year

For the first MP, use a conservative estimate for emissions for the next 5 years (i.e., assumptions that ensure no under-estimation of annual emissions)

Identify and categorise fuel streams

Identifying and categorising fuel streams is recommended to be done in two stages:

- 1. Split fuel streams** in such a way that the emissions of each fuel stream can be determined by one calculation approach, e.g., splitting the fuels released by:
 - Types of fuel (commercial standard fuels, other gaseous & liquid fuels, solid fuels, fuels equivalent to commercial standard fuels)
 - Physical means through which it is released (e.g., pipelines, trucks, etc.)
 - Means to end consumers (direct or via intermediaries)
 - Type of end consumer (CRF category)
 - Monitoring methodology for released fuel amounts, scope factor and calculation factors (unit conversion factor - UCF, emission factor - EF, fossil fraction - FF)
- 2. Categorise each fuel stream** as one of the following two:
 - De-minimis fuel streams: fuel streams with a combined emission of < 1 000 tCO₂
 - Major fuel stream: all other fuel streams

Fuels delivered to ETSI and REDII compliant biofuels and biomass fuels also need to be reported in the MP

Step 2

Identify and categorise fuel streams – example

Total annual emissions of fuel released =
 $81\,300\text{tCO}_2 > 50\,000\text{tCO}_2 \rightarrow$ **RE category B**

Not in ETS2, but counts towards RE category

Fuel stream	Fuel stream type	Means through which released	Means (intermediary parties)	End consumer sector (CRF)	(Estimated) emissions before scope factor	Fuel stream category
1. Natural gas 1	Other gaseous & liquid fuels	Pipelines	Direct to consumer	1A2 (<i>ETS1 industry</i>)	50 000 tCO ₂	Major
2. Natural gas 2	Other gaseous & liquid fuels	Pipelines	Direct to consumer	1A2 (<i>non-ETS1 industry</i>)	30 000 tCO ₂	Major
3. Gasoline	Commercial standard fuels	Trucks	Fuel stations	1A3b (<i>Road</i>)	800 tCO ₂	De-minimis
4. Diesel	Commercial standard fuels	Trucks	Fuel stations	1A3b (<i>Road</i>)	500 tCO ₂	Major
5. Biofuel (100% REDII-compliant)	Other gaseous & liquid fuels	Trucks	Fuel trader	1A3b (<i>Road</i>)	0 tCO ₂	De-minimis

Cannot be de-minimis as fuel stream 3 + 4 > 1 000 tCO₂

Step 3

Select the correct tier - overview

RE category	Fuel stream category	Minimum tier required	
		Scope factor	Released fuel amounts and calculation factors ¹
RE category B ($> 50\,000\ tCO_2$)	Major	Highest tier or Member State requirement	Highest tier
	De-minimis		Conservative estimates ²
RE category A ($\leq 50\,000\ tCO_2$)	Major		Tiers specified in Annex V of the MRR
	De-minimis		Conservative estimates ²
REs with low emissions ($< 1\,000\ tCO_2$)	Major		Tier 1
	De-minimis		Conservative estimates ²

¹ Tier 2a/2b for UCF and EF for commercial standard fuels or fuels meeting equivalent criteria

² Unless Tier 1 or higher is achievable without additional effort. Conservative refers to using assumptions to ensure no under-estimation of emissions.

Derogations from tier requirement possible

Step 3

Select the correct tier - reasons for derogation

Tiers lower than required allowed if one of the following can be demonstrated

- Justification needed for derogation from each tier, e.g. using Tier 1 when Tier 3 is required also needs demonstrating why Tier 2 cannot be met

For the released fuel amount, calculation factors and scope factor

1. Unreasonable costs

- If costs of meeting the required higher tier exceed benefits
- Threshold of € 4000 per year (€ 1000 for REs with low emissions)

→ Further guidance +
Excel tool available
on [COM website](#)

2. Technically not feasible

- Technical resources not available to meet the requirements
- Cannot be implemented in the required time

For scope factor only

3. Tier 3 methods not available

4. Simplified uncertainty assessment

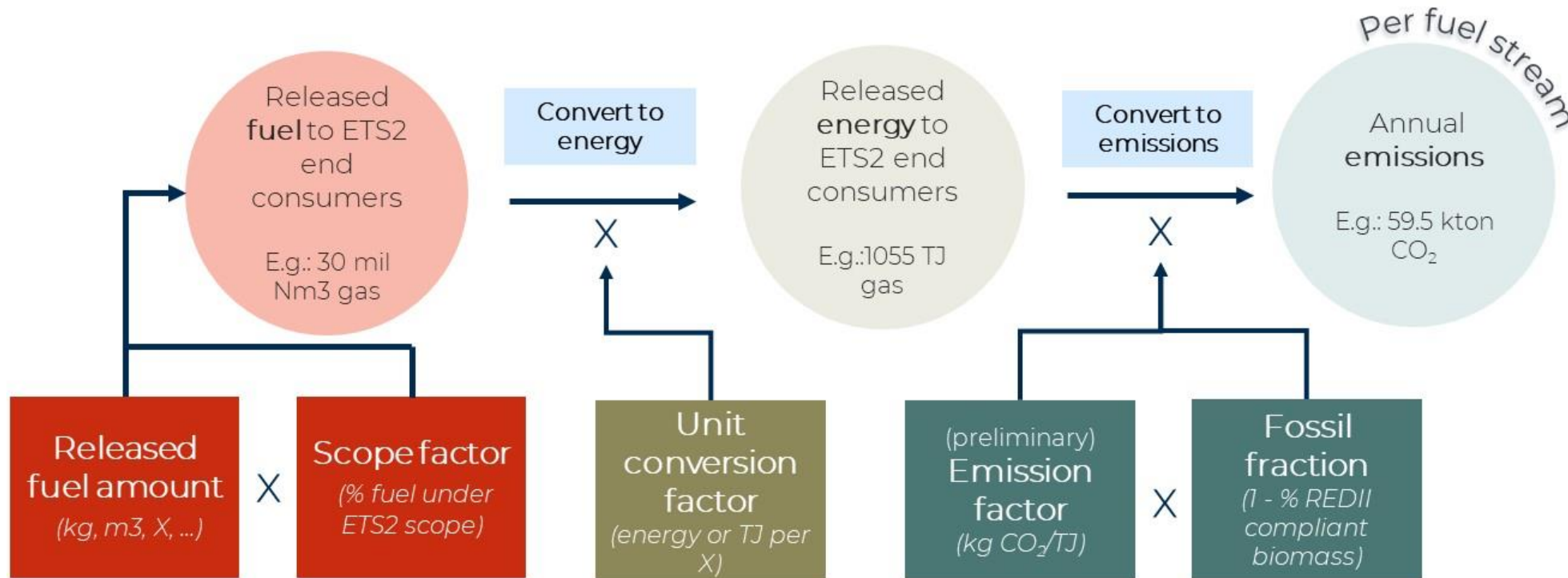
- Lower tier leads to more accurate identification of end consumers' CRF categories
- For 2024-2026, default value lower than 1 allowed (Tier 1) directly allowed following simplified uncertainty assessment

Step 4

Establish monitoring methodology

For each parameter (as explained in Part 1 of the workshop)

- List all measurement instruments and other data sources that will be used
- Establish the methodology for monitoring and the corresponding tier
- *If relevant*, work out the justification for derogation from minimum required tier



Describe written procedures – overview

Monitoring methodologies need to be supplemented with written procedures for establishing, documenting, implementing and maintaining activities under the MP

- The MP contains a brief description of the written procedures
- The full written procedures can be in other documents and not part of the MP submission, but it must be made available upon request by the CA and for verification

Written procedures required for (only if applicable):

- Methods of analyses
- Sampling plans (and revising it)
- Tracking measurement instruments
- Compliance with uncertainty assessment
- Information exchange to avoid double counting and double burden
- Biomass fuels
- Managing responsibilities and competency
- Evaluation and improvement of the MP
- Data flow and control procedures

Information needed in the MP per procedure

Title of procedure
Reference for procedure
Diagram reference (where applicable)
Brief description of procedure
Post or department responsible for the procedure and for any data generated
Location where records are kept
Name of IT system used (where applicable)
List of EN or other standards applied (where relevant)

Describe written procedures – data flow and control

RE are required to establish an effective control system for data flows:

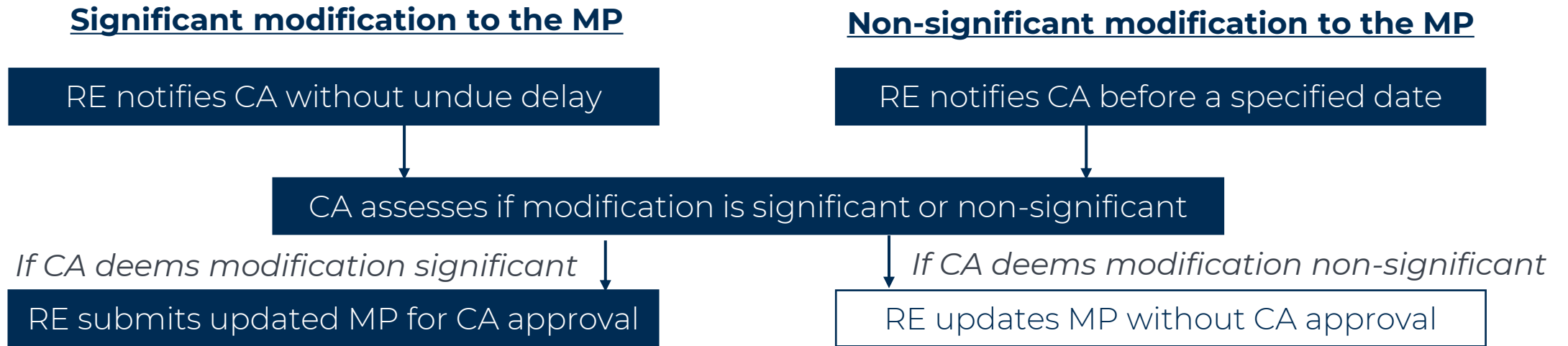
- 1. Risk assessment** (submit as supporting doc to the MP)
 - Usually assessed qualitatively for risk probability and impact
 - Can be quantified as Probability [%] x Impact [tCO₂/year]
- 2. Control activities for mitigating risks identified** (part of written procedures)
 - Management of data flow activities, incl.
 - List of primary data sources
 - Description of the relevant processing steps
 - Assessment of inherent risks and control risks
 - Quality assurance of the measurement equipment
 - Quality assurance of the IT system used for data flow activities
 - Internal reviews and validation of data
 - Corrections and corrective action
 - Closing of data gaps based conservative estimates (if applicable)
 - Keeping records and documentation

Guidance
Document 6 and 6a
+ Excel tool available
on [COM website](#)

Step 6

Keep the MP up to date and improve

The MP must always correspond to the current nature and functioning of the RE



Written procedures not affecting the description of the MP do not have to notified

Improvement principle applies to the MP with RE responsibilities being

- Explore possibilities to improve the monitoring methodology (higher tiers)
- Submit an improvement report (deadline depends on RE category)
- Implement improvements where technical feasible and against reasonable costs
- Update the MP as appropriate (as per process above)

Regulated entities with low emissions

For RE with low emissions (< 1000 tCO₂ per year), several simplifications apply

- Tier 1 allowed for released fuel amounts and calculation factors
 - Unless higher accuracy can be achieved without additional effort for the RE
- No submission of the risk assessment needed when submitting the MP for approval
 - Risk assessment still recommended to be completed
- May determine released fuel amounts by using available and documented purchasing records and estimated stock changes
 - No uncertainty assessment required
- When using analyses from a non-accredited laboratory, simplified evidence on laboratory competence needed

Overall monitoring requirements usually easier to meet by allowing lower tiers



Monitoring Plan template



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Monitoring Plan template for Belgium

- Belgium will use the EU ETS Reporting Tool for the MP submission
 - This is an online system
- The ETS Reporting Tool uses EU-Login, therefore each regulated identity must have at least one admin user with an EU-Login
 - More information on EU-Login under the Registry topic
- Exact date when the EU ETS Reporting Tool becomes available will still be communicated



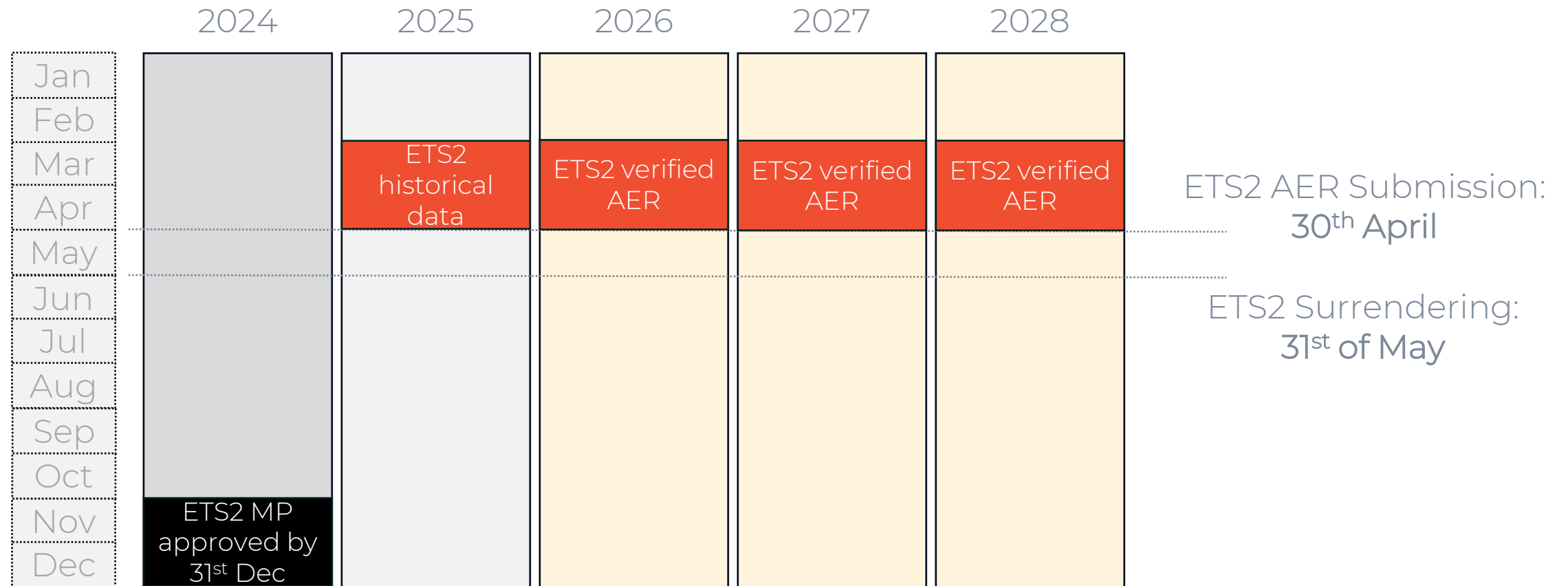
Annual emissions report introduction



www.trinomics.eu

Timing of measurement

- Regulated entity submits by 30 April of each year an emissions verified report that covers the annual emissions of the reporting period.
- The annual emissions report shall at least contain the information listed in MRR Annex X and Xb.



Minimum content of Annual Emission Reports

Information listed in Annex X of the MRR to be included in Annual Emission Reports

(1) Data identifying the regulated entity	(6) Information for all fuel streams
(2) Name and address of the verifier of the report	(7) Information to be reported as memo items
(3) The reporting year	(8) Where data gaps have occurred and have been closed by surrogate data in accordance with Article 66(1)
(4) Reference to and version number of the latest approved monitoring plan and the date from which it is applicable, as well as reference to and version number of any other monitoring plans relevant for the reporting year	(9) Any other changes in the regulated entity during the reporting period with relevance for that regulated entity's greenhouse gas emissions during the reporting year
(5) Relevant changes in the operations of a regulated entity and changes as well as temporary deviations that occurred during the reporting period to the monitoring plan approved by the competent authority	

Minimum content of Annual Emission Reports

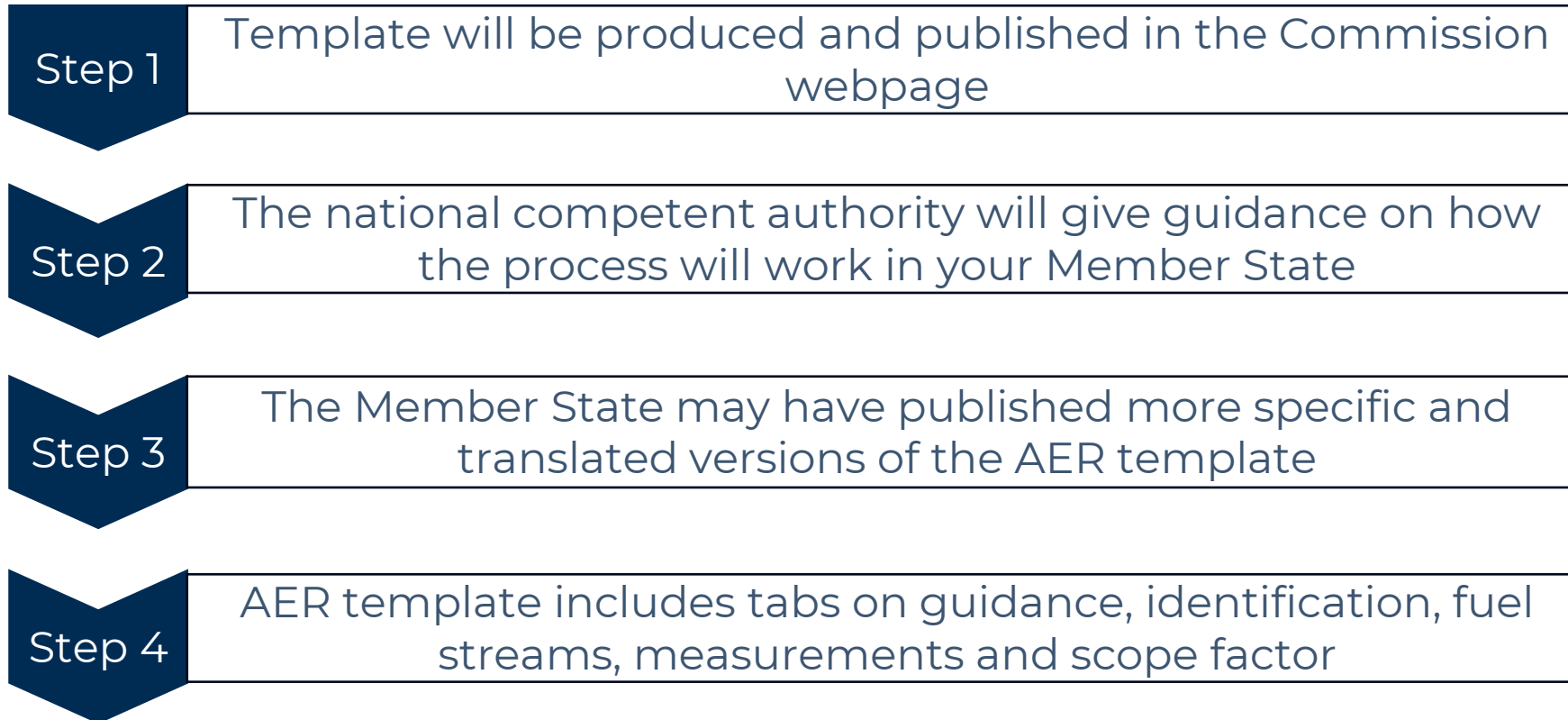
Additional information included in Annex Xb of the Implementing Regulation (EU) 2023/2122

(1) Name, address and unique permit number of the operator and, where relevant, the aircraft operator and shipping company, **to whom the fuel is released**. In other cases where the fuel is meant for end use in sectors covered by Annex I to Directive 2003/87/EC the regulated entity shall submit, where available, a list of all consumers of fuels, from direct buyer down to the operator, including their name, address and unique permit number, where this would not cause disproportionate administrative burden;

(2) **the types and amounts of fuels sold to each buyer** referred to in point (a) during the relevant reporting period.

(3) **The amount of fuel used for activities** referred to in Annex I to Directive 2003/87/EC for each buyer referred to in point (a) during the relevant reporting period.

Annual Emission Report template – next steps



There will be a designated Commission webpage available at a later date



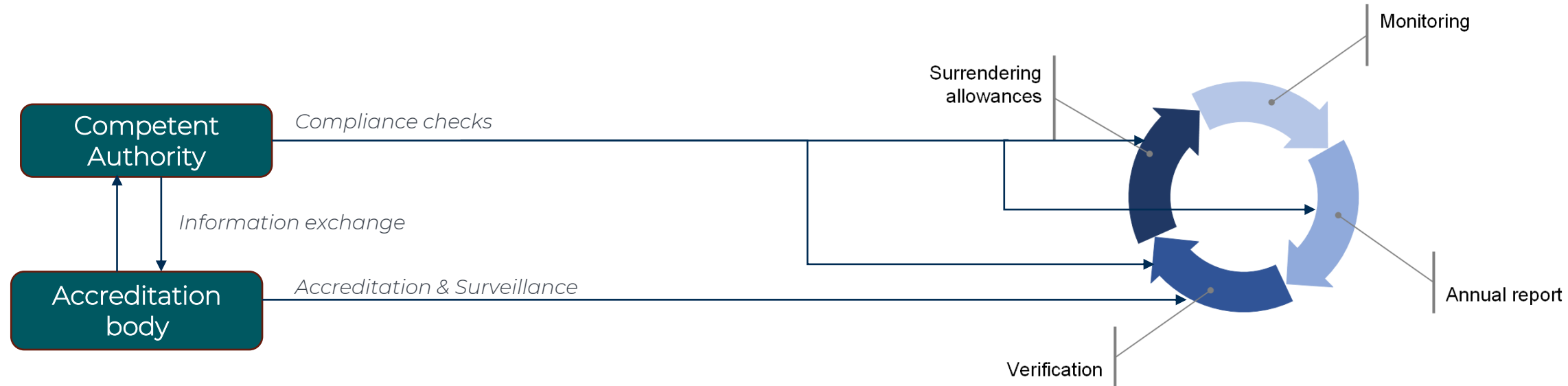
Verification



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General requirements

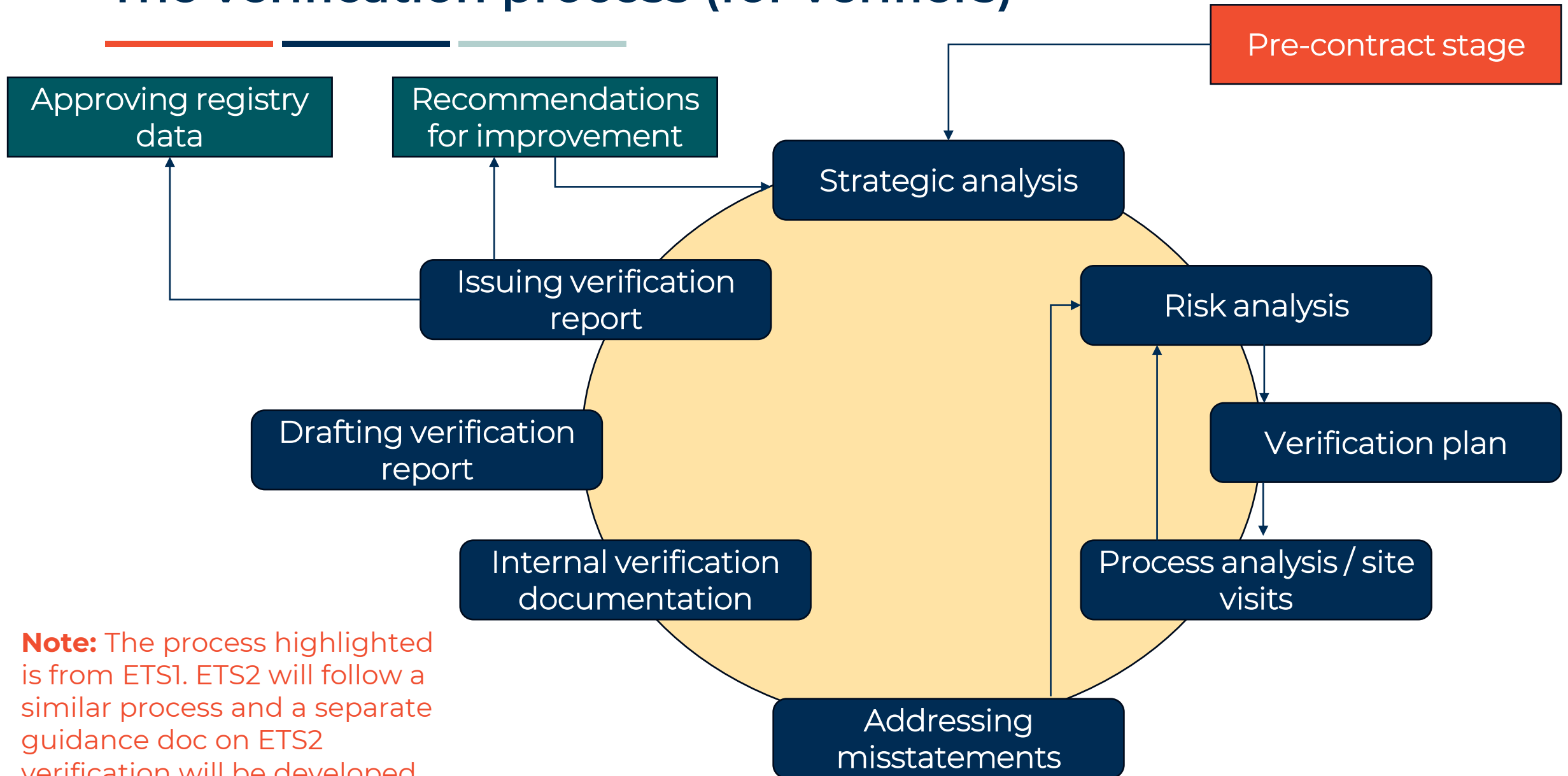
- **Requirement from 2026 that AER is verified**
 - Regulated entities to submit first verified report by 30th April 2026 (date may vary by Member State) on the emissions concerning the reporting year 2025
- **Simplified procedures for small emitters (See MRR)**
 - There is the option for MS to use simplified monitoring plans
 - Operators are exempted from submitting an improvement report on how to address recommendations of improvements made by the verifier in the verification report
 - Site visits can be waived under specific conditions



What to consider when contracting a verifier

1	<p>Where to find accredited verifier?</p> <p>Information is shared by the National Accreditation Bodies (NAB) with the CA of the Member State in which the verifier is accredited and the Member States in which the verifier is carrying out the verification.</p>
2	<p>How to ensure competence and impartiality of verifier?</p> <p>Verifiers must meet the requirements laid down in Chapter III AVR and the requirements in EN ISO 140655, the harmonized standard prescribed in the AVR for the verification of operator's reports.</p>
3	<p>Who is responsible for verification costs?</p> <p>Regulated entity responsible for costs</p>
4	<p>Timing of verification?</p> <p>Regarding the process of contracting a verifier should occur long before the deadline. Verified emissions reports will be required for the AER submitted by 30 April 2026 (for 2025 emissions).</p>

The verification process (for verifiers)



Note: The process highlighted is from ETS1. ETS2 will follow a similar process and a separate guidance doc on ETS2 verification will be developed

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Registry



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Purpose of Union Registry

- The EU ETS Registry (Union Registry) serves as a verification tool for those participating in EU ETS2 with regards to their obligations. It is central to the annual compliance cycle
- The Union Registry works similarly to internet banking
- Companies participating in EU ETS2 need a **Regulated Entity Holding Account (REHA)** in the Union Registry for the following purposes:
 - To register their CO2 emissions figures for the compliance period
 - To hold emission allowances that have been acquired
 - To surrender emission allowances for the compliance period
 - To transfer their emission allowances to other accounts via transactions
- **NB! A REHA account is mandatory for EU ETS2 participants**

Opening a Union Registry account (**simplified**)

Simplified procedure (**to be confirmed**)

Emission allowances (regulated entity allowances = REA) will only be issued as from 2027 → **no practical use of the REHA accounts prior to 2027**

Regulated entities (RE) will be asked to **agree to open the REHA account with a limited set of data** (company name, company registration number & permit ID)

The **national administrator will open the REHA accounts** with these basic data (as received from the competent authorities)

Emission data will be collected by the competent authorities and **passed in bulk to the national administrator** for upload in the Union Registry (similar to ETSI)

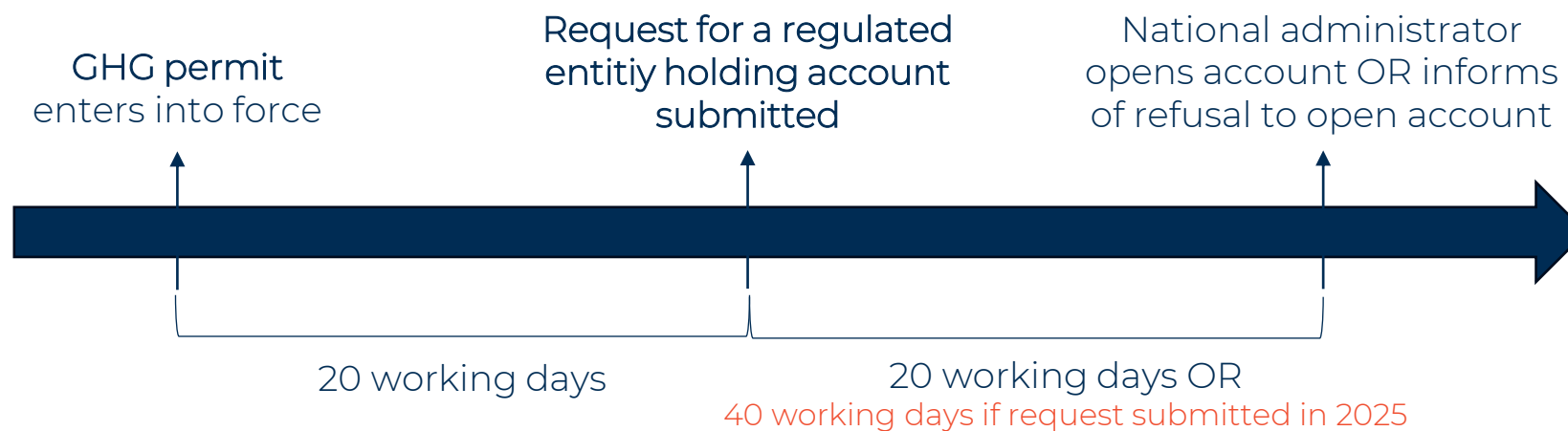
NB! The data for the full REHA account opening will only be requested as from mid 2026 by the national administrator...

Opening a Union Registry account (full)

- **Each Regulated Entity has one account (REHA)**
- Administration of the REHA accounts done by the BE registry administrator :

*FPS Health, Food Chain Safety and Environment
ETS Unit of the Climate Change Service
Helpdesk: helpdesk@climaterregistry.be / +32 2 524 95 44
<https://www.climaterregistry.be>*

- To **completely** open a REHA account, regulated entities must send a request to the registry administrator (collect & check all supporting documentation)
 - In practice the BE registry administrator will provide an activation form
 - An annual fee is required for any open user account (~ € 700)



Opening a Union Registry account (**full**) (2)

- **Full information to be submitted to the national administrator can be found in ANNEX VIIb of Delegated Regulation (EU) 2019/1122 (consolidated text)**
- This includes information regarding:
 - Authorised representative details
 - Account details for regulated entity holding accounts
 - Details of the regulated entity contact person
 - If the account holders is part of a group, documentation on group structure is required
- If a legal person is requesting to open an account, national administrator may ask for additional documentation
- **Two account representatives** (users) **are required**, as most processes require one to initiate and a second to approve
- To access the Union Registry, **you will need an EU Login account and a Unique Registry Identifier (URID)**

!NB The BE account activation form lists all information requested and provides in further guidance ; support in filling in the form is provided by the helpdesk...

Create an EU Login account

NB! Each user has only one EU login account. If you have accounts in more than one national parts of the registry (e.g. NL and BE), you need only one EU Login account.

1. Go to ECAS <https://webgate.ec.europa.eu/cas/> and click 'Create an account'
2. Fill in all your personal details & click 'Create an account'
3. You will receive an e-mail including your username and a link to create your password

A mobile device needs to be added to your EU Login account - essential to get access to the registry

1. Go to "My account"
2. Click 'Manage my mobile devices' and choose 'Add a mobile device'

[Please refer to a user manual for more detailed guidance](#)

Sign in to continue

Enter your e-mail address or unique identifier

[Create an account](#) **Next >**

Or

If you do not wish to create an EU Login account, you can sign in by using one of the following third-party sign-in options ("Sign-in Service"). [Read more](#)

Successful login

You are now logged in to EU Login.

To stop the automatic single sign-on, click [Logout](#) or close all browser windows.

(External)

[Change password](#)

[My Account](#)

[Logout](#)

Create a Unique Registry Identifier (URID)

1. Go to the Belgian part of the Union Registry:

→ Use the direct link on the home page @ <https://www.climateregistry.be/>

2. In the registry, click on the left side of your screen on 'Login'.

3. After you signed in with your EU Login, the start page of the Union Registry will open. Click 'Fill in your personal details' from the left menu

4. The 'Registration' page opens. Your first and last name, email address and mobile phone number have already been entered. Please fill in the rest of the form and click 'Next'

→ When choosing your type of identification, either choose 'passport' or 'national ID card'

5. The system will show you all your personal details. Please review your details and click 'Submit'

6. The system will now tell you that you have been registered and will show you your (Belgian) **URID (starting with BE and followed by 12 numbers)**.

→ An URID is needed for each user that wants to be appointed to an account (in BE the URIDs must then be provided via the activation form).

Quiz questions for participants – Part 2

Instructions for Slido

To access Slido on your mobile phone, either:

- Scan the QR code or
- Go to slido.com and enter the passcode **3693715** or use [Belgium workshop - ETS2 Stakeholder outreach \(sli.do\)](https://sli.do)



Feedback survey and Q&A Workshop Part 2

Thank you for your attention and active participation in this workshop!

Please scan the QR code to below to provide feedback on the presentation and topics covered:
[Workshop survey Belgium-Stakeholder outreach on the implementation of the new emissions trading system \(ETS2\) \(alchemer.eu\)](https://alchemer.eu/surveys/Workshop-survey-Belgium-Stakeholder-outreach-on-the-implementation-of-the-new-emissions-trading-system-ETS2)



Other data sources and guidance



European
Commission

Topic	Links
General ETS2 Guidance	General guidance for ETS2 regulated Entities
ETS2 Monitoring Plan	Monitoring plan for the emissions of regulated entities
ETS2: buildings, road transport and additional sectors	ETS2 : buildings, road transport and additional sectors - European Commission (europa.eu) Implementing ETS2 for buildings, road transport and additional sectors (presentation)
ETS Directive (legal basis)	ETS Directive (2003/87/EC)
Monitoring and Reporting	Monitoring and Reporting Regulation (MRR)

Other data sources and guidance - National



www.vlaanderen.be/veka/ets2-verplichtingen
ets2.veka@vlaanderen.be
+32 2 553 03 64



ets2.awac@spw.wallonie.be



ets2@leefmilieu.brussels
ets2@environnement.brussels



National Registry (account administration) at federal level: helpdesk@climater registry.be



List of abbreviations

Acronym	Key term
AER	Annual Emissions Report
CO ₂	Carbon dioxide
CRF	Common Reporting Format (end consumer sector)
EF	Emissions Factor
ETD	Energy Taxation Directive (2003/96/EC)
ETS	Emissions Trading System
MP	Monitoring Plan
MRR	Monitoring and Reporting Regulation
MRV	Monitoring, Reporting and Verification
NCA	National Competent Authority
RE	Regulated Entity
RED	Renewable Energy Directive
TJ	Terajoule (energy measurement)
UCF	Unit Conversion Factor

List of definitions

- **ETS2 scope** refers to activities covered by ETS2, in relation to fuels released for consumptions which are used for combustion in the buildings (CRF 1A4a & 1A4b), road transport (CRF 1A3b) and additional sectors (CRF 1A1 & 1A2). Detailed information on activities covered can be found in Annex III of Directive 2003/87/EC
 - **Common Reporting Format (CRF) categories** (used for compiling national GHG inventories following the IPCC Guidelines) are used to identify sectors in which if fuel is combusted, it falls in ETS2 scope
- **Fuel streams** refer to all the types of fuels which a regulated entity releases for consumption, for which the emissions associated with the eventual consumption have to be monitored when applying the calculation-based approach
 - De-minimis fuel stream – smaller quantity fuel streams (<1000 tonnes CO₂ per year)
 - Major fuel stream – all other fuel streams
- **Calculation factors**, mean net calorific value, emission factor, preliminary emission factor, oxidation factor, conversion factor, carbon content or biomass fraction;
 - **Emissions factor**, means the average emission rate of a GHG relative to the activity data of a source stream assuming complete oxidation for combustion and complete conversion for all other chemical reactions;
 - **Unit conversion factor**, means the ratio of carbon emitted as CO₂ to the total carbon contained in the source stream before the emitting process takes place, expressed as a fraction, considering CO emitted to the atmosphere as the molar equivalent amount of CO₂
- **Scope factor** is a dimensionless factor between 0 (all fuel released consumed outside ETS2 scope) and 1 (all fuel released for consumption within ETS2 scope). The determination of this factor involves the ability to identify the relevant category of end consumers
- **Fossil fraction** is a dimensionless fraction that takes into account the fossil fraction of carbon in fuels both have fractions of carbon arising from biogenic origin and have biomass components compliant with RED II
- **Released fuel amount**, means the amount of fuel released for consumption. Where applicable, this will correspond to the total fuel amount for each fuel stream released through the excise duty point



Further questions?

Mail the NCAs:

Flanders: ets2.veka@vlaanderen.be

Wallonia: ets2.awac@spw.wallonie.be

Brussels: ets2@leefmilieu.brussels

ets2@environnement.brussels



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