

# Monitoring and Reporting: the guidance material

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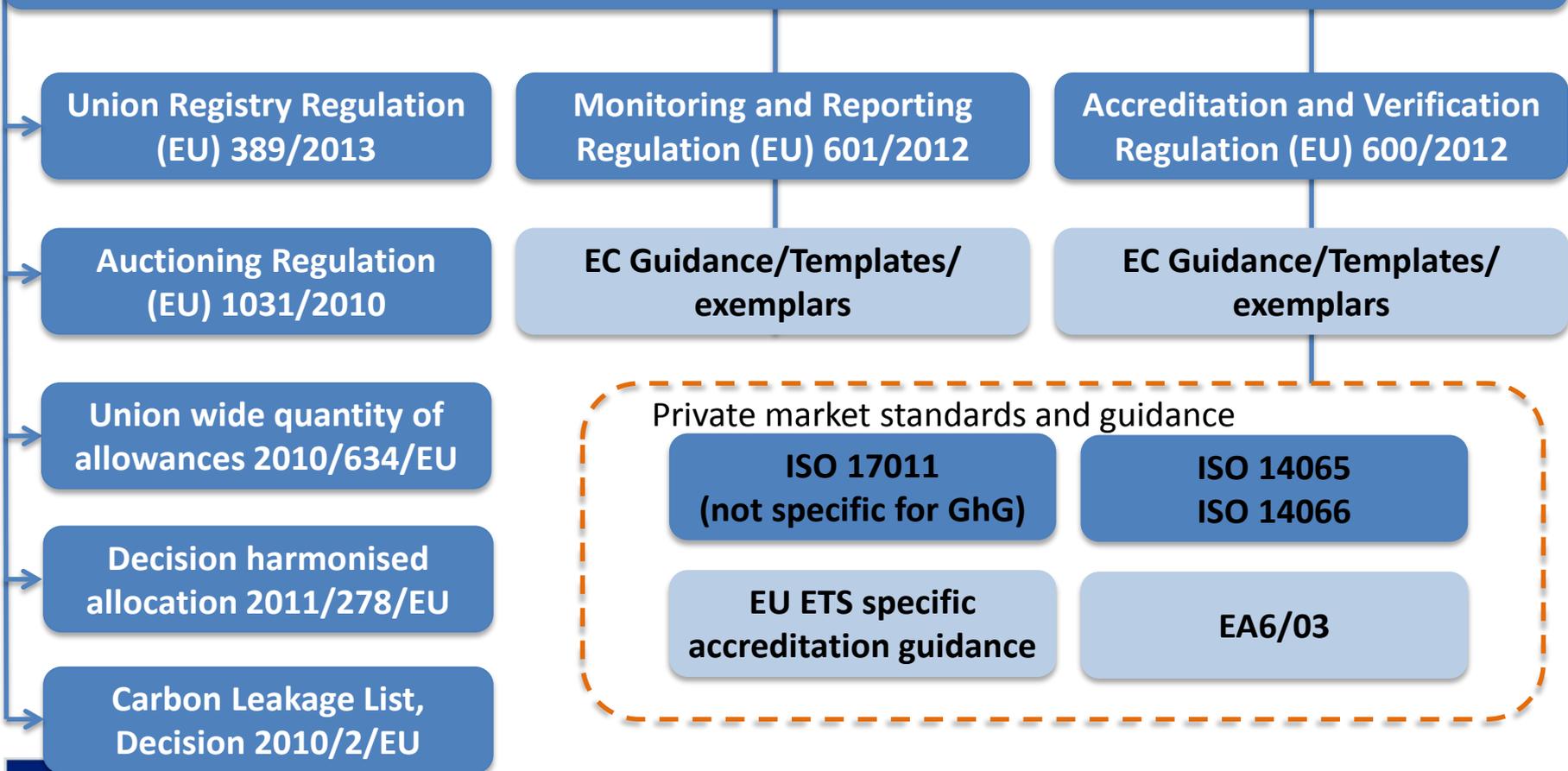
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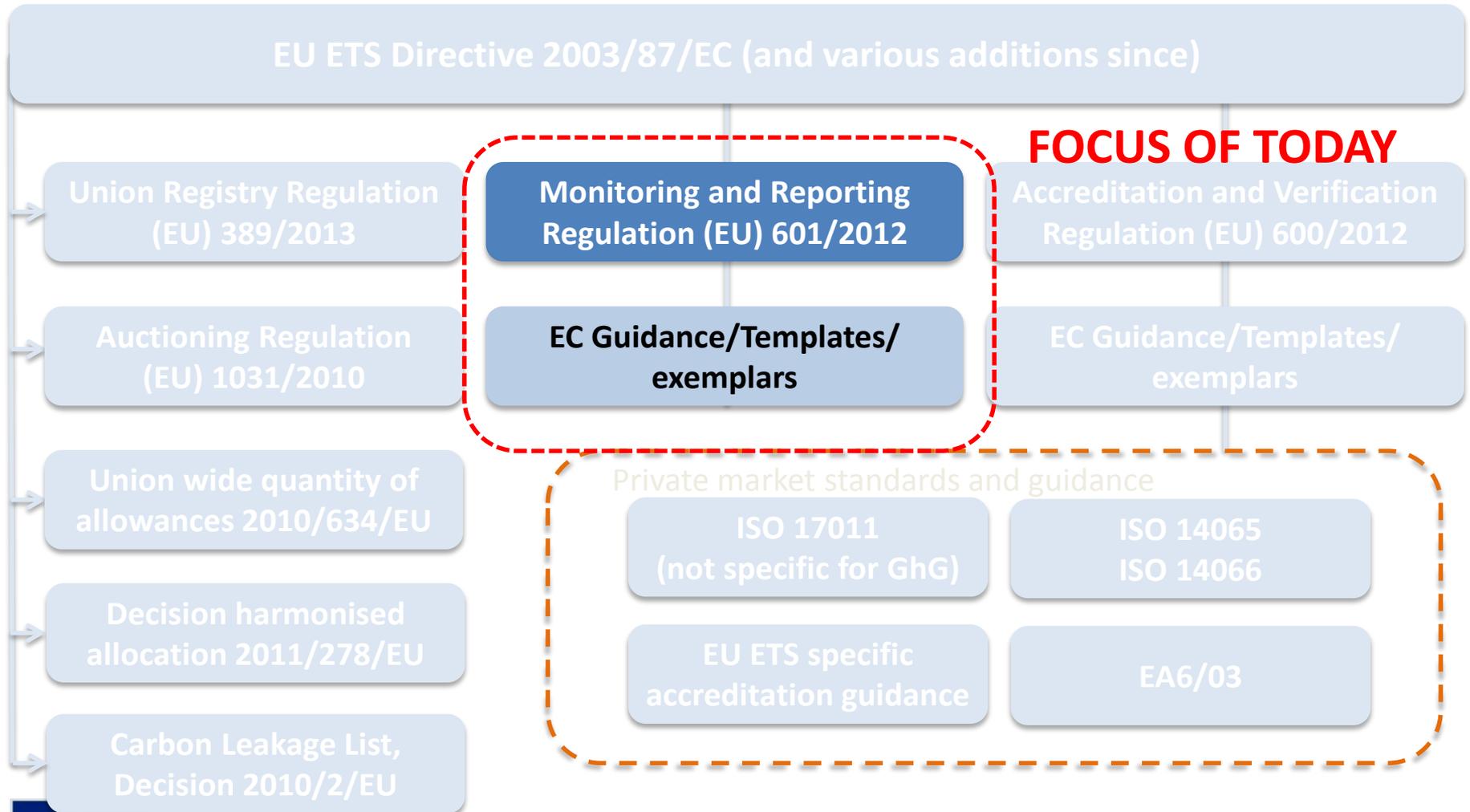
Project implemented by Human Dynamics Consortium

# The Regulatory Framework of the EU ETS

EU ETS Directive 2003/87/EC (and various additions since)



# The Regulatory Framework of the EU ETS



# Lessons learned on MRVA

## Experiences in earlier years

Regulations allowed for differences in interpretations

Consequently such differences appeared, between countries and between installations within one country

This could lead to distortion of competition >> unwanted effect



## Conclusions

MRVA processes should be harmonised as much as possible

Plans and reports, as well as requirements/ procedures need to be standardised as much as practicably feasible through use of templates



# The Guidance Material

- Commission developed suites of guidance material
- Aimed to support harmonised implementation, achieve common understanding and application of requirements
  - Templates for the monitoring plan, emission report and verification report
  - Exemplar cases for these plans and reports for specific types of installations
  - Calculation tools, f.ex. to determine unreasonable costs
  - Guidance documents, that explain in detail what information should be provided and how that information can be obtained
  - Frequently Asked Questions (and answers)
  - Electronic data exchange formats
- All information is available at [http://ec.europa.eu/clima/policies/ets/monitoring/documentation\\_en.htm](http://ec.europa.eu/clima/policies/ets/monitoring/documentation_en.htm)



# The Guidance material

Guidance Document No and title	
<b>1</b>	<b>General Guidance for installations</b> (incl. templates and exemplar cases)
<b>2</b>	<b>General Guidance for aircraft operators</b> (incl. templates and exemplar cases)
<b>3</b>	<b>Explaining biomass issues</b>
<b>4</b>	<b>Uncertainty assessment</b>
<b>5</b>	<b>Sampling and analysis</b> (incl tool to determine frequency analysis and template for sampling plan)
<b>6</b>	<b>Data flow activities and control system</b> (incl. tool for operator risk assessment and examples)
<b>7</b>	<b>Continuous emission monitoring systems</b>



# Template Monitoring Plan

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- XLS based
- Clickable
- Structured menu
- Explanations, further details in annexes
- Several MS have translated them in own language



# Chapters follow MRR requirements

- A. Monitoring Plan versions
- B. Operator & Installation Identification
- C. Installation Description
- D. Calculation Based Approaches
- E. SourceStreams
- F. Measurement Based Approaches
- G. Fall-back Approaches
- H. N<sub>2</sub>O emissions
- I. Determination of PFC emissions
- J. Determination of transferred or inherent CO<sub>2</sub>
- K. Management & Control

## C. Installation Description

### 5 About the Installation Activities

Please use this sheet for describing your installation. The information entered here prepares the necessary detailed inputs in the following sheets. In particular, source streams will be described in more detail in sheet E\_SourceStreams, and measurement points in sheet F\_MeasurementBasedApproaches.

**(a) Description of the installation and its activities:**

Please provide here a brief outline description of the site and the installation, and describe the location of the installation on the site. The description should also include a non-technical summary of the activities carried out at the installation, briefly describing each activity performed and the technical units used with each activity. In particular, the description should also identify and explain any part(s) of the installation which are not operated by the applicant, or parts which are not deemed to fall under the scope of the EU ETS.

This description should provide the linking information which is needed to understand, how the information given in other parts of this template are used together for calculating the emissions. It may be as short as the given example in sheet D\_CalculationBasedApproaches, section 7(a).

**(b) Source Stream Diagram document title and reference:**

It may aid the description of activities to provide a simple diagram showing emissions sources, source streams, sampling points and metering/measurement equipment. If such a diagram is available please provide here a reference (filename, date) and attach a copy when submitting this monitoring plan to your competent authority.  
Note in some cases this may be specifically requested by the competent authority as mandatory.

**(c) List of activities pursuant to Annex I of the EU ETS Directive carried out at the installation:**

Activity Ref. (A1, A2...)	Annex I Activity	Total Activity Capacity	Capacity units	GHG emitted
A1	Combustion of fuels	≤100	MWh	CO <sub>2</sub>
A2				
A3				
A4				
A5				

**(d) Estimated annual emissions:**

Please enter here the average annual emissions of your installation. This information is required for categorisation of the installation in accordance with Article 19 of the MRR. Use the average verified annual emissions of the previous trading period data OR if this data is not available, or is inappropriate, a conservative estimate of annual average emissions, including transferred CO<sub>2</sub>, but excluding CO<sub>2</sub> from biomass.

The resulting category is used for identifying minimum tier requirements in section 8 (Source streams).

Estimated annual emissions		1 CO <sub>2</sub> e
Installation category in accordance with Article 19		

**(e) Installation with low emissions?**

Entering "TRUE" here means that the installation satisfies the criteria for installations with low emissions as defined by Article 47.

According to that Article, the operator may submit a simplified monitoring plan for an installation where no nitrous oxide emitting activities are carried out and it can be demonstrated that:

- the average verified annual emissions of the installation during the previous trading period were less than 25 000 tonnes CO<sub>2</sub>(e) per year, or
- a conservative estimate shows that emissions for the next 5 years will be less than 25 000 tonnes CO<sub>2</sub>(e) per year, where the verified emissions are not available or inappropriate.

Note: the above data shall include transferred CO<sub>2</sub>, but exclude CO<sub>2</sub> stemming from biomass.

If your selection here contradicts the number for estimated emissions under point (d) above, a message will highlight this fact. Please give an appropriate justification below.

If your installation is an installation with low emissions as defined by Article 47, several simplifications for the monitoring plan apply.

**(f) Justification for estimation value**

If your input regarding being an installation with low emissions contradicts your entry in point (d), or if that figure is not based on verified emissions, but on a conservative estimate, please give a short justification below:



# What's in the template?

## C. Installation Description

### 5 About the Installation Activities

Please use this sheet for describing your installation. In particular, source streams will be described in more detail in sheet E. Necessary detailed inputs in the following sections are: source streams and measurement points in sheet F\_MeasurementBasedApproaches.

**(a) Description of the installation and its activities**

Please provide here a brief outline description of the installation, and describe the location of the installation, and the location of the activity performed. The description should also include the information given in other parts of this plan, which are used together for calculating the emissions. It may be a non-technical summary of the activity performed by the installation, as required by the EU ETS.

Detailed instruction what information is needed with reference to examples

Explanation what needs to be filled in here and its purpose

Yellow boxes: obligatory to complete

**(b) Source Stream Diagram document title and reference:**

It may aid the description of activities to provide a simple diagram showing emissions sources, source streams, sampling points and metering/measurement equipment. If such a diagram is available please provide here a reference (filename, date) and attach a copy when submitting this monitoring plan to your competent authority.



# What's in the template? -2

(c) **List of activities pursued at the installation:**  
 Please provide the following information for each activity at the installation:  
 Please also provide the capacity of the installation for each activity.  
 Please note that 'capacity' in this context means the maximum continuous rating of the installation (not the rated capacity of the boiler on the 20MW threshold), which is the rate at which fuel can be burned at the maximum continuous rating of the installation multiplied by the calorific value of the fuel and expressed as megawatts thermal.  
 - Production capacity for those specific activities for which production capacity determines the inclusion in the EU ETS.  
 Please make sure that the installation boundaries are correctly defined in line with Annex I of the Commission's Guidance on Interpretation of Annex I. The relevant sections of the guidance can be found at [http://ec.europa.eu/clima/policies/ets/docs/guidance\\_on\\_interpretation\\_en.pdf](http://ec.europa.eu/clima/policies/ets/docs/guidance_on_interpretation_en.pdf).  
 The list entered here will be used to calculate the total activity capacity for the installation.

Link to further information on EC website

Drop down menu with options to select from

Detailed guidance on exact meaning of terms

Activity Ref. (A1, A2...)	Annex I	Total Activity Capacity	Capacity units	GHG emitted
A01	Production of electricity	1500	tonnes per day	CO2
A02	Combustion of fuels	120	MW(th)	CO2
A1	<div style="background-color: yellow; border: 1px solid black; padding: 2px;">                     Combustion of fuels                      Refining of mineral oil                      Production of coke                      Metal ore roasting or sintering                      Production of pig iron or steel                      Production or processing of ferrous metals                      Production of primary aluminium                      Production of secondary aluminium                 </div>			
A2				



# What's in the template? -3

**(d) Estimated annual emissions:**

Please enter here the average annual emissions of your installation. This information is required for categorisation of the installation in accordance with Article 19 of the MRR. Use the average verified annual emissions of the previous trading period data OR if this data is not available, or is inappropriate, a conservative estimate of annual average emissions, including transferred CO2, but excluding CO2 from biomass.

The resulting category is used for identifying minimum tier requirements in section 8 (Source streams).

Estimated annual emissions	200.000	t CO2e
Installation category in accordance with Article 19	B	

Automatically determined results

**(e) Installation with low emissions?**

FALSE

Entering "TRUE" here means that the installation satisfies the criteria for installations with low emissions as defined by Article 19 of the MRR. According to that Article, the operator may submit a simplified monitoring plan for an installation where no nitrous oxide emissions have been demonstrated that:

- the average verified annual emissions of the installation during the previous trading period were less than 25 000 tonnes CO2(e) per year, or
- a conservative estimate of annual average emissions is less than 25 000 tonnes CO2(e) per year, where the verified emissions are not available or inappropriate.

Note: the above data shall include transferred emissions. If your selection here contradicts the data entered in point (d), the system page will highlight this fact. Please give an appropriate justification below. If your installation is an installation with low emissions, the simplified monitoring plan apply.

Questions/boxes that become irrelevant are automatically marked grey

**(f) Justification for estimation value**

If your input regarding being an installation with low emissions contradicts your entry in point (d), or if that figure is not based on verified emissions, but on a conservative estimate, please give a short justification below.

