



Monitoring and Reporting Regulation: MRR Guidance and Templates

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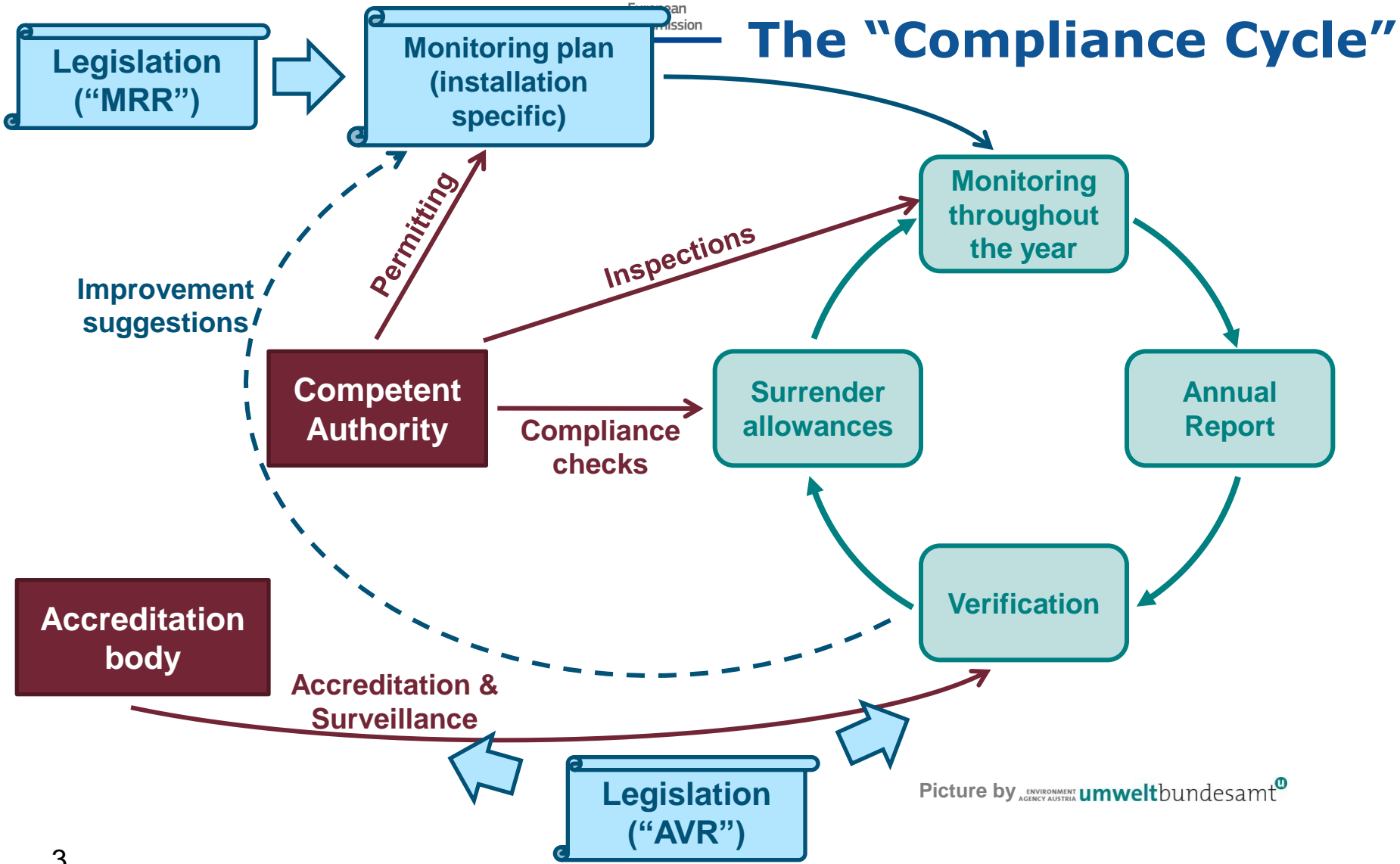
Accreditation & Verification Forum, Brussels, 31 October 2013



What will this presentation tell me?

- 1. What are we talking about (Compliance Cycle)?*
- 2. What does the Monitoring & Reporting Regulation (MRR) require the operator to do and have in place?*
 - Relevance to the verifier?*
- 3. What M&R guidance, templates and tools exist and where to find them?*

The BIGGER picture



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Where to find Guidance?

Guidance Documents

- *GD1 & GD2: General Guidance (Installations & Aviation)*
- *GD3: Biomass Issues*
- *GD4: Uncertainty*
- *GD5: Sampling & Analyses*
- *GD6: Data Flow, Control Activities and Risk Assessment*
- *GD7: Continuous Emissions Monitoring Systems (CEMS)*

Frequently Asked Questions (FAQs)

Templates

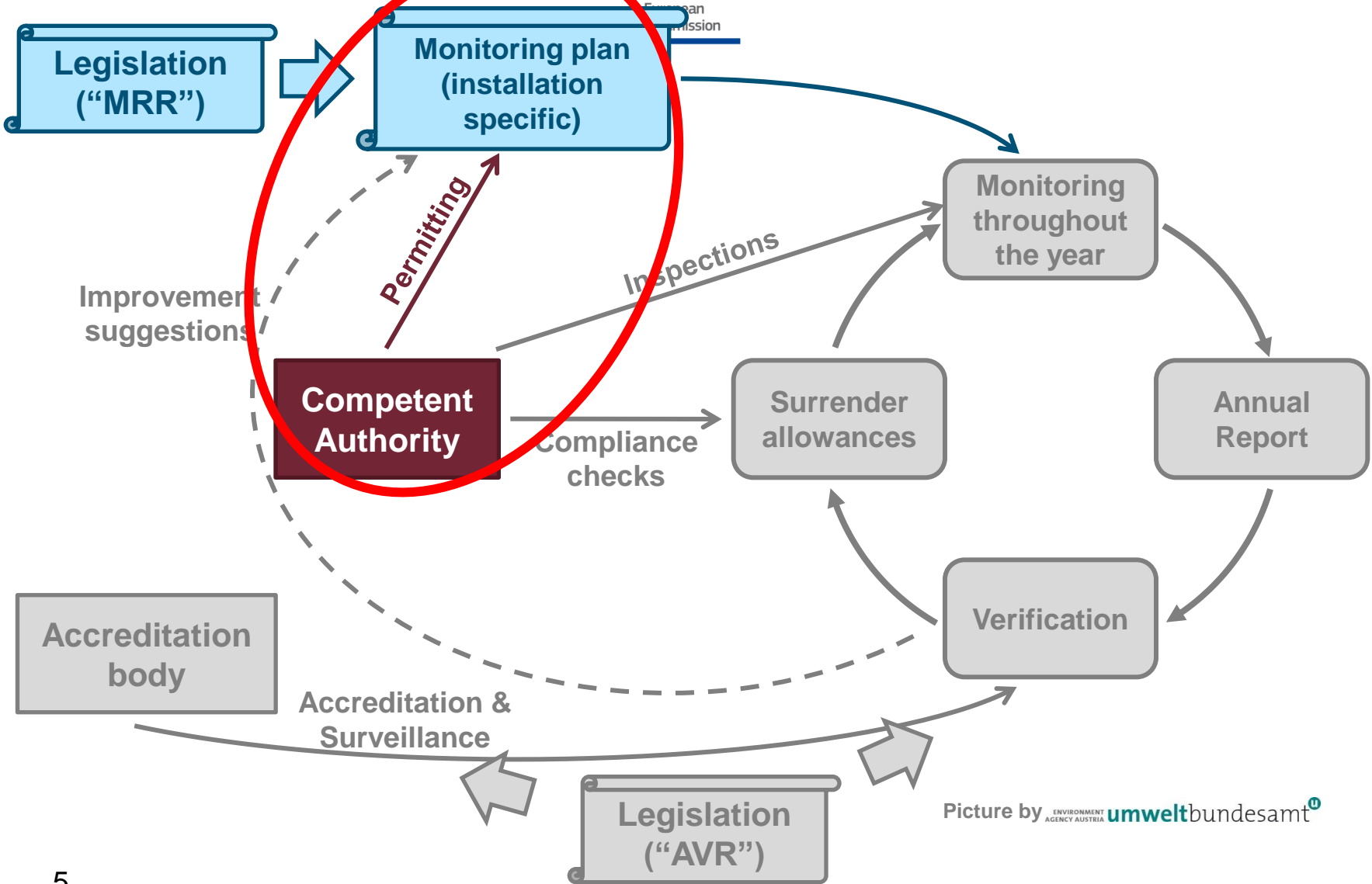
- *Monitoring Plans (Installation, Aviation incl. t-km)*
- *Annual Emissions Report (Installations, Aviation incl. t-km)*
- *Improvement Report (Installations, Aviation incl. t-km)*

Tools

- *Tool for calculating Unreasonable Costs*
- *Tool for determining the Frequency of Analyses ("1/3"-rule)*
- *Tool for the Operator's Risk Assessment*

http://ec.europa.eu/clima/policies/ets/monitoring/documentation_en.htm

Monitoring



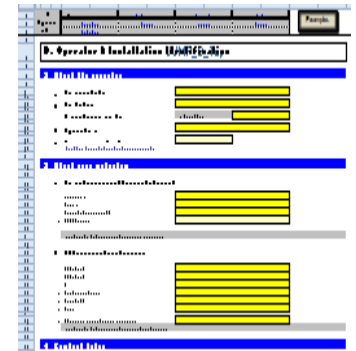
Picture by ENVIRONMENT AGENCY AUSTRIA **umweltbundesamt**^U

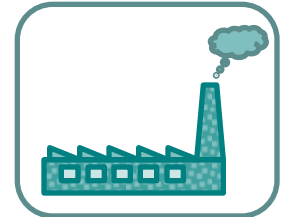
Requirements of the MRR for MP

- Monitoring approach applied (e.g. standard or mass balance methodology,..)
- Relevant source streams, emission sources,..
- Tiers applied
- Data collection (metering data, invoices,..)
- (Summary of) Procedures (→ **make available to the verifier**)
 - Data Flow and Control Activities
 - Maintenance and calibration of meters
 - Data archiving
 - Sampling plan, where relevant (external document)
 - ...
- Supporting documents to be submitted with the MP (→ **make available to the verifier**)
 - Uncertainty Assessment
 - Risk Assessment

Monitoring plan templates

- *T1: MP for Installations*
- *T2: MP for Aircraft operators (Emissions)*
- *T3: MP for Aircraft operators (t-km)*
- *Excel based*
(or MS-specific IT system with at least the same content)
- *Accompanied by the **Example MP and MP Update***





GD1: General Guidance for Installations

Content & Purpose

- *General introduction to MRV and the Compliance Cycle*
- *Concepts and approaches: Tiers, monitoring approaches,...*
- *The monitoring plan – procedures, accompanying documents,...*
- *Calculation based approaches, CEMS*
- *Simplified approaches (installations with low emissions,..)*
- *Basis for other Guidance Documents*
- *Accompanied by the*
Tool for calculating Unreasonable Costs



GD 2: General guidance for Aviation

Content & Purpose

- *General introduction to MRV and the EU ETS compliance cycle*
- *Aviation specific topics (Scope of included aviation activities, identifying Aircraft Operators, Administering MS ("The list"), relevance of t-km)*
- *Concepts and approaches*
- *The monitoring plan – procedures, accompanying documents,...*
- *Small emitter tools*
- *Hints at the more specialised documents*



GD3: Biomass issues

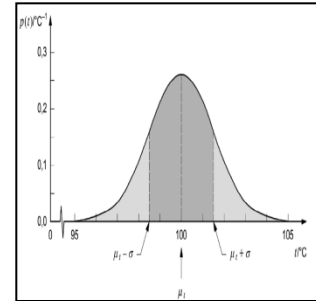
Content & Purpose

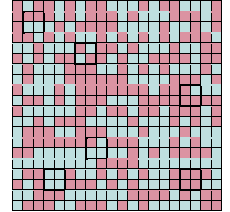
- *Determining the biomass fraction*
- *Requirements for the zero-rating of biomass*
→ *Demonstrating compliance with **sustainability criteria**, where relevant (bioliquids and biofuels)*
- *Other specific MRR rules on biomass (simplifications, natural gas grids)*
- *Aviation specific aspects (purchase based system)*

GD4: Uncertainty assessment

Content & Purpose

- *What is uncertainty*
- *How to calculate uncertainties*
- *How to show compliance with tiers*
 - Instruments under operator's control
 - Instruments under supplier's control
 - Simplification routes (e.g. National legal metrological control)
- *Accompanied by*
GD 4a (Example Uncertainty Assessment)



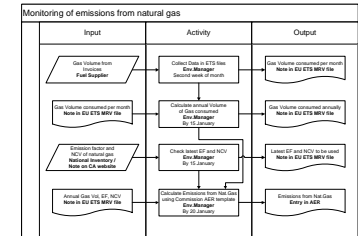


GD5: Sampling and analyses

Content & Purpose

- *Context: Determination of calculation factors (NCV, EF,..) in accordance with Article 32 to 35 MRR*
- *Developing a sampling plan*
 - Representative sampling and maintaining sample integrity
- *Frequency of analyses, including potential derogations:*
 - Unreasonable costs
 - Explanation of the "1/3 rule"
- *Equivalence criteria for non-accredited laboratories*
- *Accompanied by **GD 5a (Example sampling plan)** and **Tool for determining the Frequency of Analyses ("1/3"-rule)***

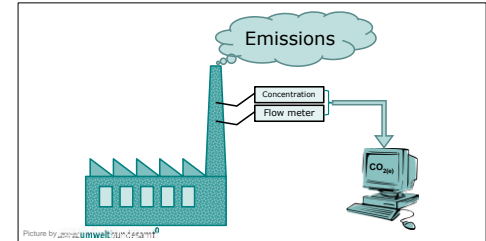
GD6: Data flow activities and control system



Content & Purpose

- *How to design data flow activities*
- *How to assess the risks*
- *How to mitigate the risks (setting up a control system)*
- *Final risk assessment to be submitted with the MP*
 - Basis for verifier's Risk Assessment
- *Accompanied by*
GD 6a (Example Risk Assessment)
- *Accompanied by the*
Tool for the operator's Risk Assessment

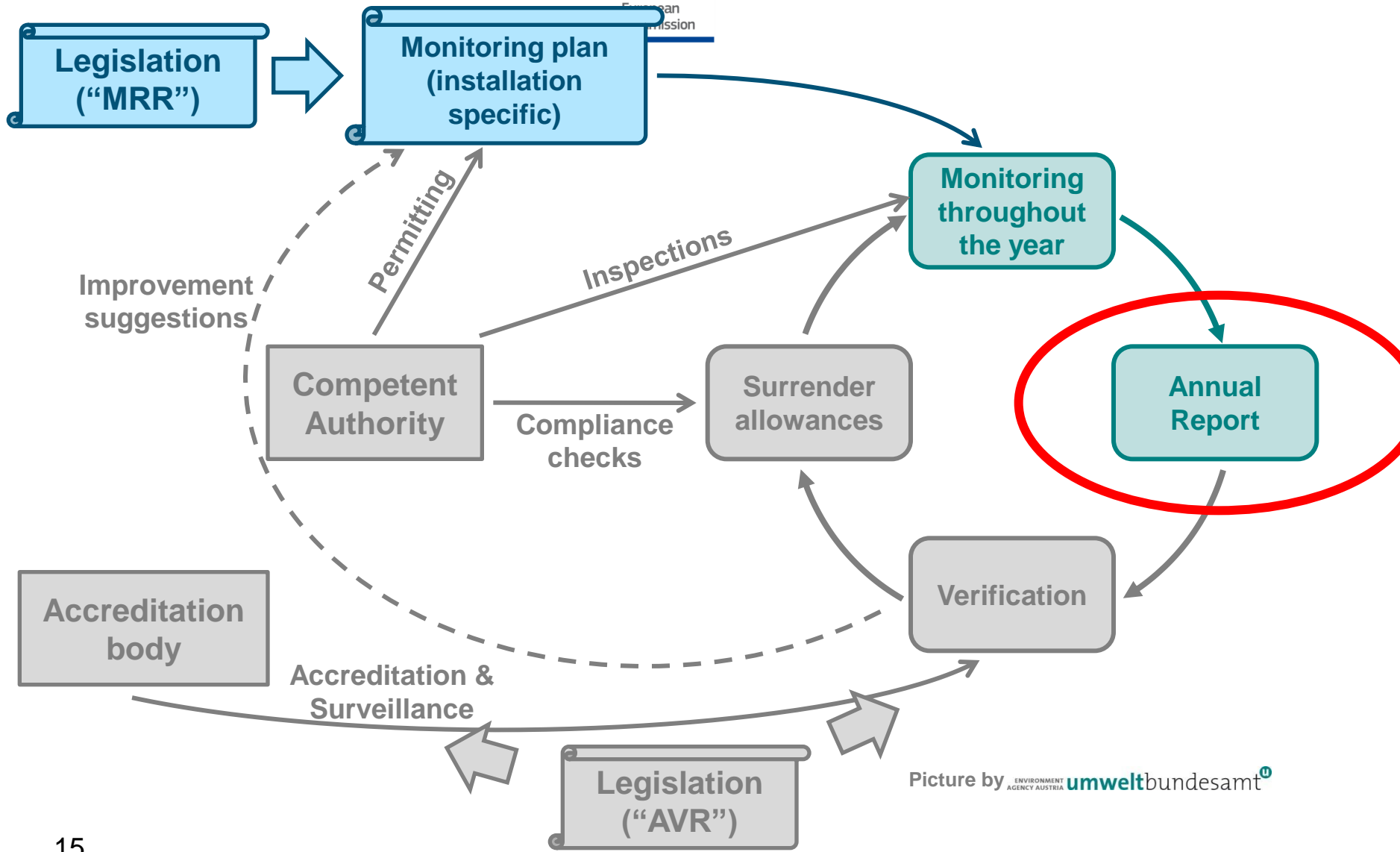
GD7: Continuous Emission Monitoring System (CEMS)



Content & Purpose

- *Relevant if:*
 - CO₂ emission points (stack) are monitored
 - N₂O emissions are relevant
 - Carbon Capture, Transport and Storage activities are relevant
- *Quality assurance levels (EN 14181; QAL 1/2/3, AST)*
- *How to show compliance with the tiers*
 - Uncertainty associated with the flow measurement
 - Uncertainty associated with the concentration
- ***Includes dedicated chapter for A&V aspects***

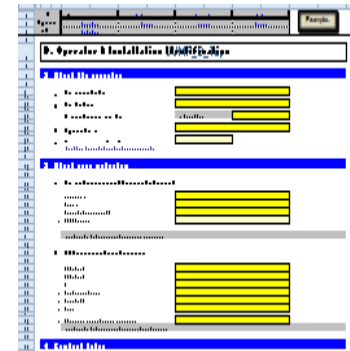
Emissions Reporting



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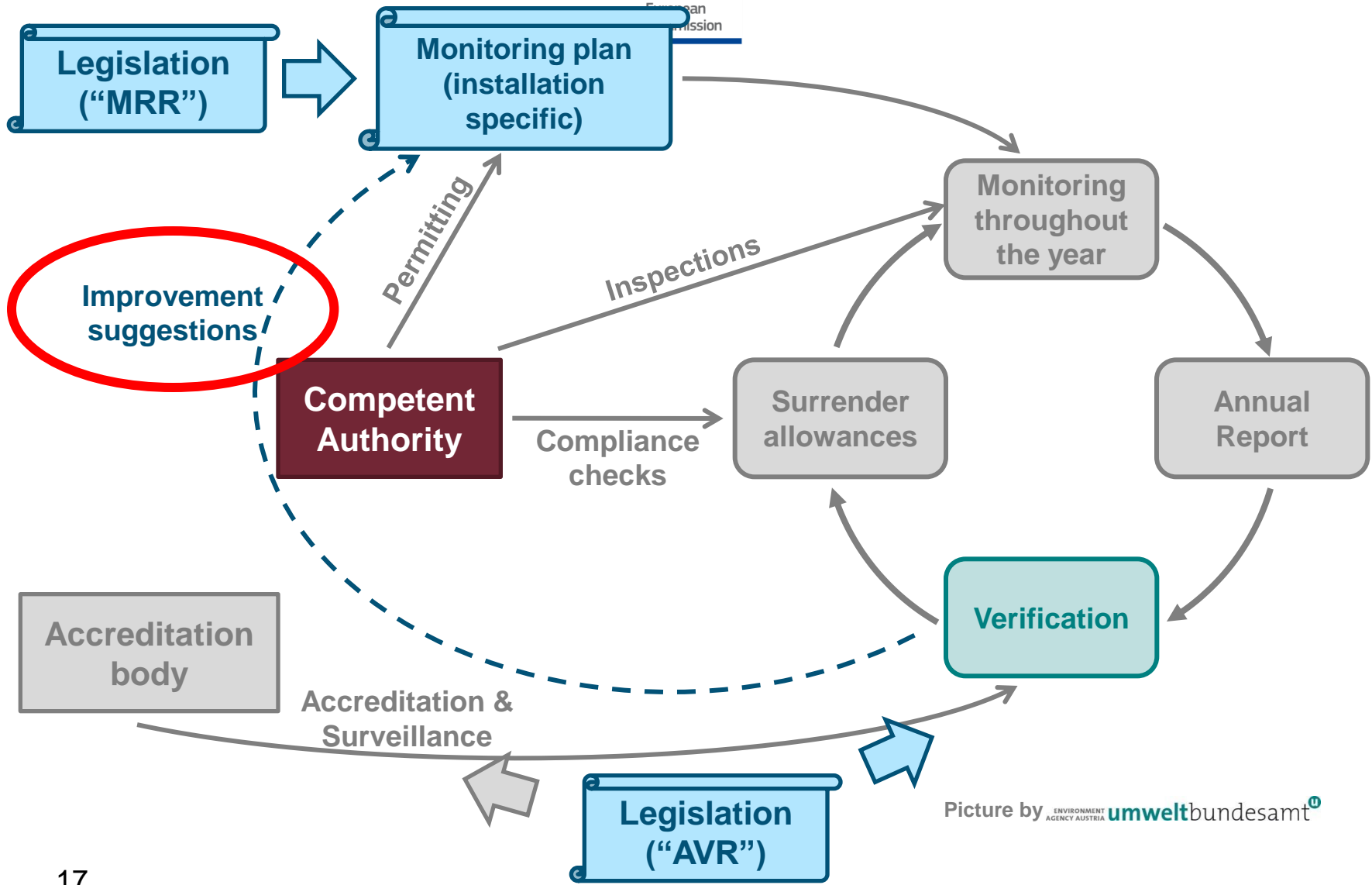
Annual Emissions Report templates

- *T4: AER for Installations*
- *T5: AER for Aircraft operators (Emissions)*
- *T6: AER for Aircraft operators (t-km)*
- *Excel based
(or MS-specific IT system with at least the same content)*
- ***Needs to be verified in accordance with the AVR***



The screenshot shows a spreadsheet interface with a table. The table has three main columns: 'Operator & Installation Identification', 'Emissions', and 't-km'. The 'Emissions' column contains several rows of data, some of which are highlighted in yellow. The 't-km' column also contains data, with some rows highlighted in yellow. The spreadsheet is titled 'Operator & Installation Identification'.

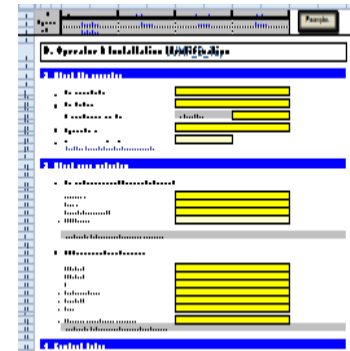
Improvement



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Improvement Report templates

- *T7: IR for Installations*
- *T8: IR for Aircraft operators*
- *Excel based*
(or MS-specific IT system with at least the same content)
- *Operator has to submit improvement report to the CA*
 - If required tiers are not applied (frequency depends on Cat.), AND
 - **In response to verifier's findings of non-conformities and recommendations stated in the verification report**
- *Accompanied by the **Example Improvement Report***



Thank you for your attention!

Contact & Information:

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Downloads:

http://ec.europa.eu/clima/policies/ets/monitoring/documentation_en.htm

Umweltbundesamt
www.umweltbundesamt.at

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