



EXERCISE: INSTALLATION-LEVEL MONITORING METHODOLOGIES

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3RD REGIONAL MRV TECHNICAL TRAINING

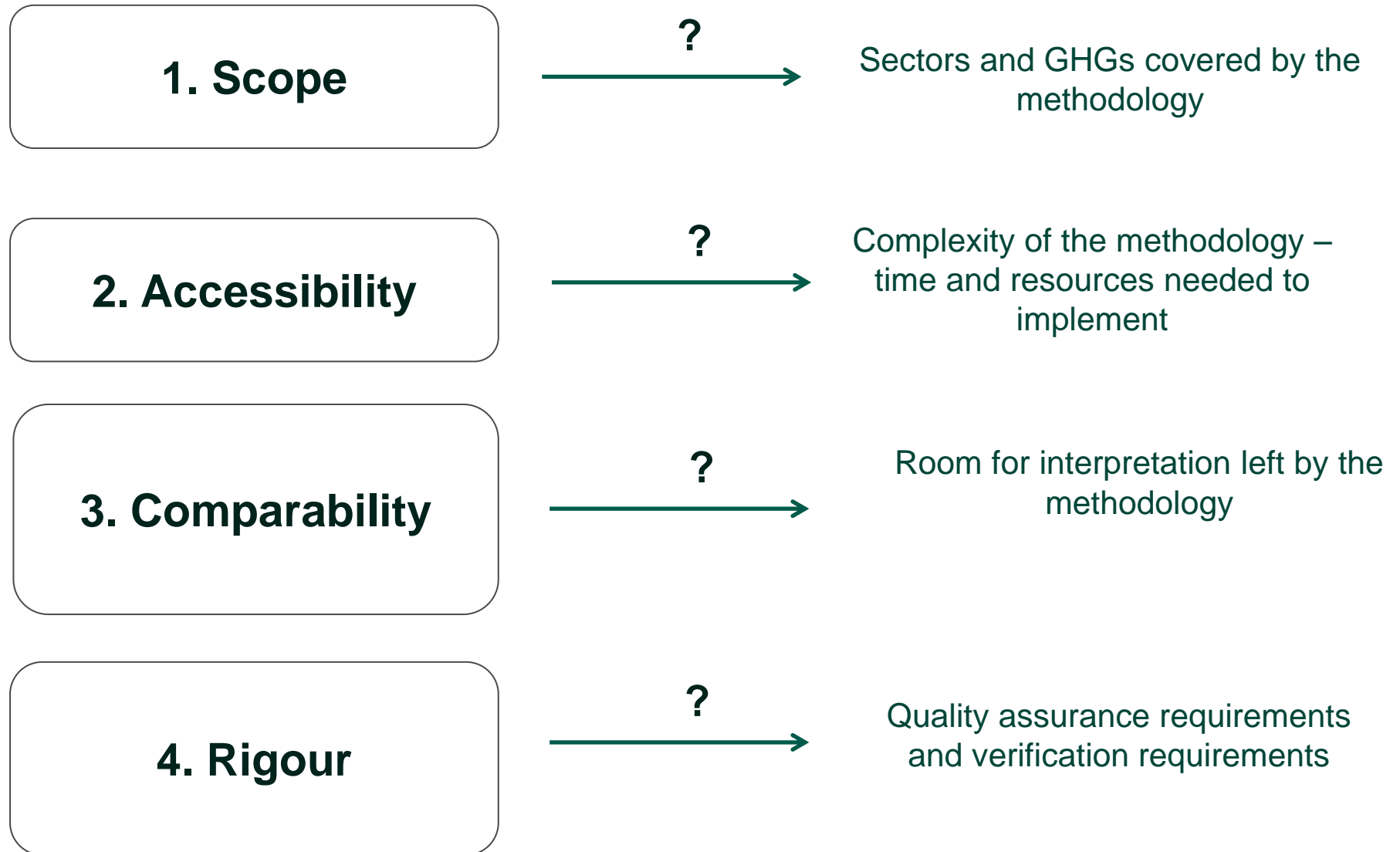
IZMIR, TURKEY

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What you can expect to learn from this exercise

- To better understand existing GHG monitoring and quantification methodologies
- To assess how the methodologies can be applied at a country level

Criteria for assessing the methodologies



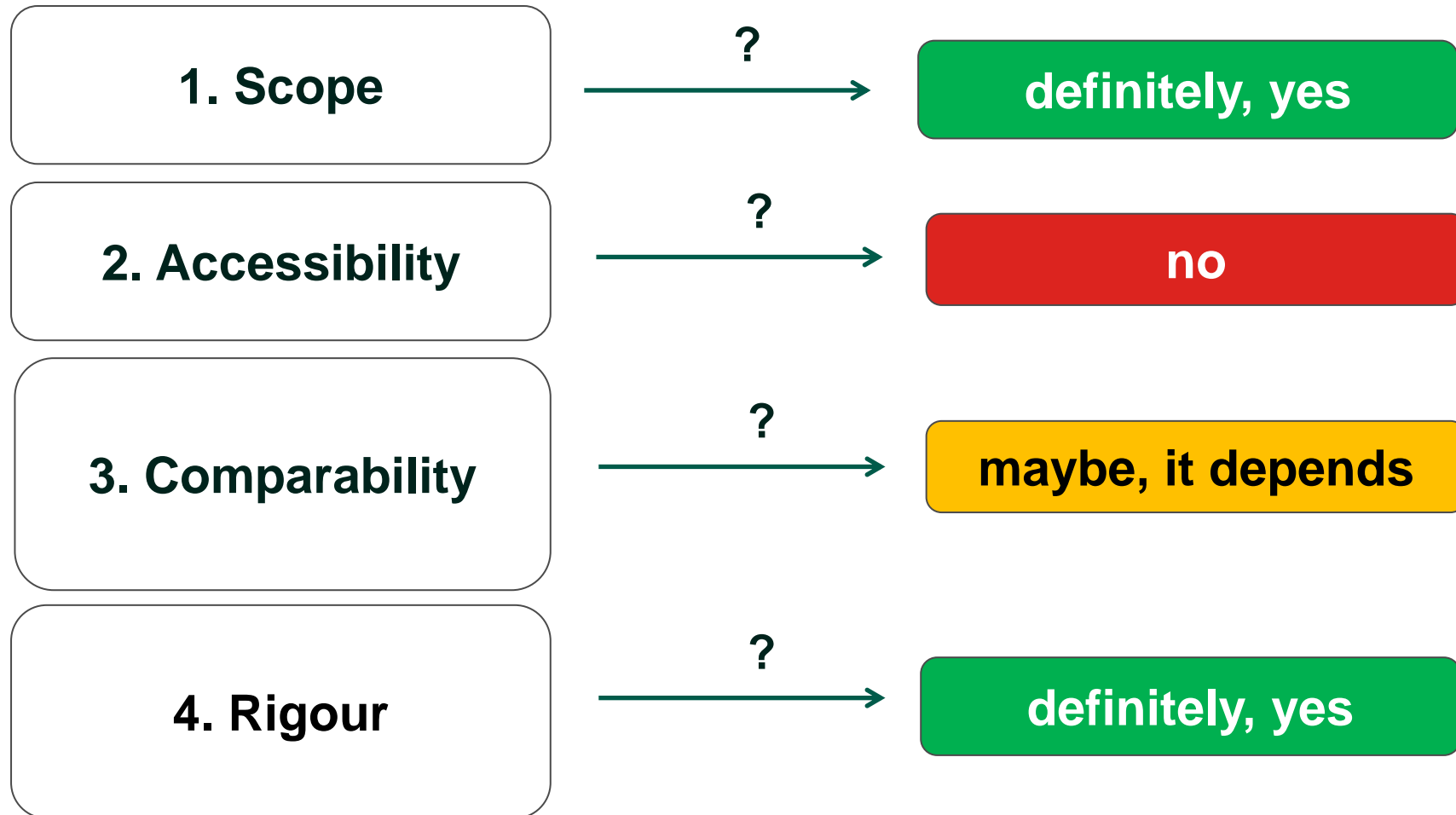
Assessing the methodologies

Will the methodology meet the Case Study ETS's needs?



Assessment

Criteria



Case Study ETS:

- The first phase of the mandatory ETS will commence in July 2015. The second phase will commence in 2017; ambitious targets are expected. In the third or fourth phase, it is possible that linking with other ETSs may be sought.
- The ETS will include electricity generation, heavy industry and waste sectors, direct emissions and potentially electricity consumption where energy market does not permit pass-through. GHGs to be included are CO₂ and CH₄.
- Voluntary reporting has been undertaken by the sectors for the past three years, using domestic reporting guidelines (which are based on the GHG Protocol). Only 40% of the facilities are reporting their emissions - however, when audited, it was found that 85% of those reporting were found to be correctly applying the guidelines.
- While the domestic reporting guidelines have been useful in building capacity within the ETS on emissions reporting, they are not purpose-built for the ETS. The country is hence trying to decide which guidelines for installation-level MRV it should adopt and is interested to know if it can adopt any existing guidelines, or learn lessons for 'upgrading' their own domestic reporting guidelines.

Methodologies to be assessed

GHG Protocol

EU ETS

**IPCC 2006 GL
Tier 3**

Mapping Existing Methodology to the Case Study ETS

- Break up into 5 groups (**each group to assess one methodology only**)
- Within your group, please undertake the following:

Step 1 Match the information on your methodology (see hand out) to the four criteria

Step 2 Assess how well the methodology performs against each of the four criteria for the case study ETS

Step 3 Choose cards by colour, according to your assessment of the methodology against each criteria (**green** = yes, **orange** = maybe, **red** = no) and briefly write down the reason for the score

Summary of Methodologies to be assessed

| Aspect | EU ETS | GHG Protocol - Corporate | IPCC Tier 3 |
|-------------------------|--|---|--|
| Context | Mandatory installation regulation | Company reporting (voluntary and mandatory) | National emissions inventory |
| Scope - emissions | Installation direct – energy and process | Company – direct and indirect | Direct |
| Scope - sectors | General combustion / power, industry | All commercial | All sectors but installation specific mainly energy and industry |
| Methodologies available | Calculation: Standard and mass Balance Measurement: Sampling and CEMS | | |

Summary of Methodologies to be assessed

| Aspect | EU ETS | GHG Protocol - Corporate | IPCC Tier 3 |
|----------------------------|---|--|--|
| Documentation and guidance | Directive, Regulations, EC Guidance, National documents, templates, electronic reporting language. High level of complexity. General and sector specific. | Standard and guidance document, general and sector specific tools. Introductory level leading to more complex contexts | Suite of guidance documents covering general and sector specific aspects. Leads to complex concepts for expert practitioners |

Summary of Methodologies to be assessed

| Aspect | EU ETS | GHG Protocol - Corporate | IPCC Tier 3 |
|--------------------------------|--|--|---|
| Use of Tiers | Yes, by installation emission size | Yes, as IPCC | Yes, by category |
| Mandatory tiers | Yes, minimum level (lower tier) maximum tier possible (others) | Company discretion based on accuracy and appropriateness | Guidance: national circumstances / key categories |
| Emission Factors | Default -> national -> installation (by tier) | Mostly standard used) | Default (tier 1) -> national -> installation (tier 3) |
| Uncertainty thresholds | Mandatory, by tiers | No, but guidelines on treatment | No |
| Reporting timing and frequency | Mandatory compliance cycle | Company choice | Flexibility (inventory team) |

Summary of Methodologies to be assessed

| Aspect | EU ETS | GHG Protocol - Corporate | IPCC Tier 3 |
|-----------------------------------|-----------------------------------|-------------------------------------|---|
| Type of verification | Third party | Internal or third party | Independent |
| Mandatory vs voluntary | Mandatory | Voluntary | Not prescriptive |
| Verification selection / coverage | All installations all years | n/a - voluntary | Guidance allows sampling |
| Verifier / auditor accreditation | Yes – National Accreditation body | No, but verifier selection guidance | No, but ISO standards identified, qualifications for Peer Reviewers |

Summary of Methodologies to be assessed

| Aspect | EU ETS | GHG Protocol - Corporate | IPCC Tier 3 |
|---------------------------------------|---|--|--|
| Basis for verification | <ul style="list-style-type: none"> • Verification against requirements of A&V Regulation • Verification in accordance with installation monitoring plan | <ul style="list-style-type: none"> • Verification in line with guidance • Emphasis on quality management process not just data | <ul style="list-style-type: none"> • Verification in line with guidance • Emphasis on quality management process not just data |
| Site visits (similar factors in bold) | Mandatory unless justified/approved under simplified verification rules: <u>risk analysis</u> / remote data / <u>recent site visit</u> against same plan | Guidelines covering: <u>risk of misstatement</u> / complexity / size and nature of installation / <u>past reviews or verifications</u> | Engagement with site staff regarding site specific factors covered by guidance |

Summary of Methodologies to be assessed

| Aspect | EU ETS | GHG Protocol - Corporate | IPCC Tier 3 |
|-------------|---|---|--|
| Materiality | Mandatory <ul style="list-style-type: none">• 5% Cat A/B• 2% Cat C | Rule of thumb 5% Lower threshold if significant | Process highlights errors. Inventory team to correct |

Thank You

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FOR MORE INFORMATION ON THE PARTNERSHIP FOR MARKET READINESS

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