# Third Party Audit for GHG Projects

## Training for Verification Agency Candidates

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ERM Japan

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- Audit for GHG project
- Validation and Verification
- Pre-engagement of validation
- Validation Approach

# Audit for GHG project

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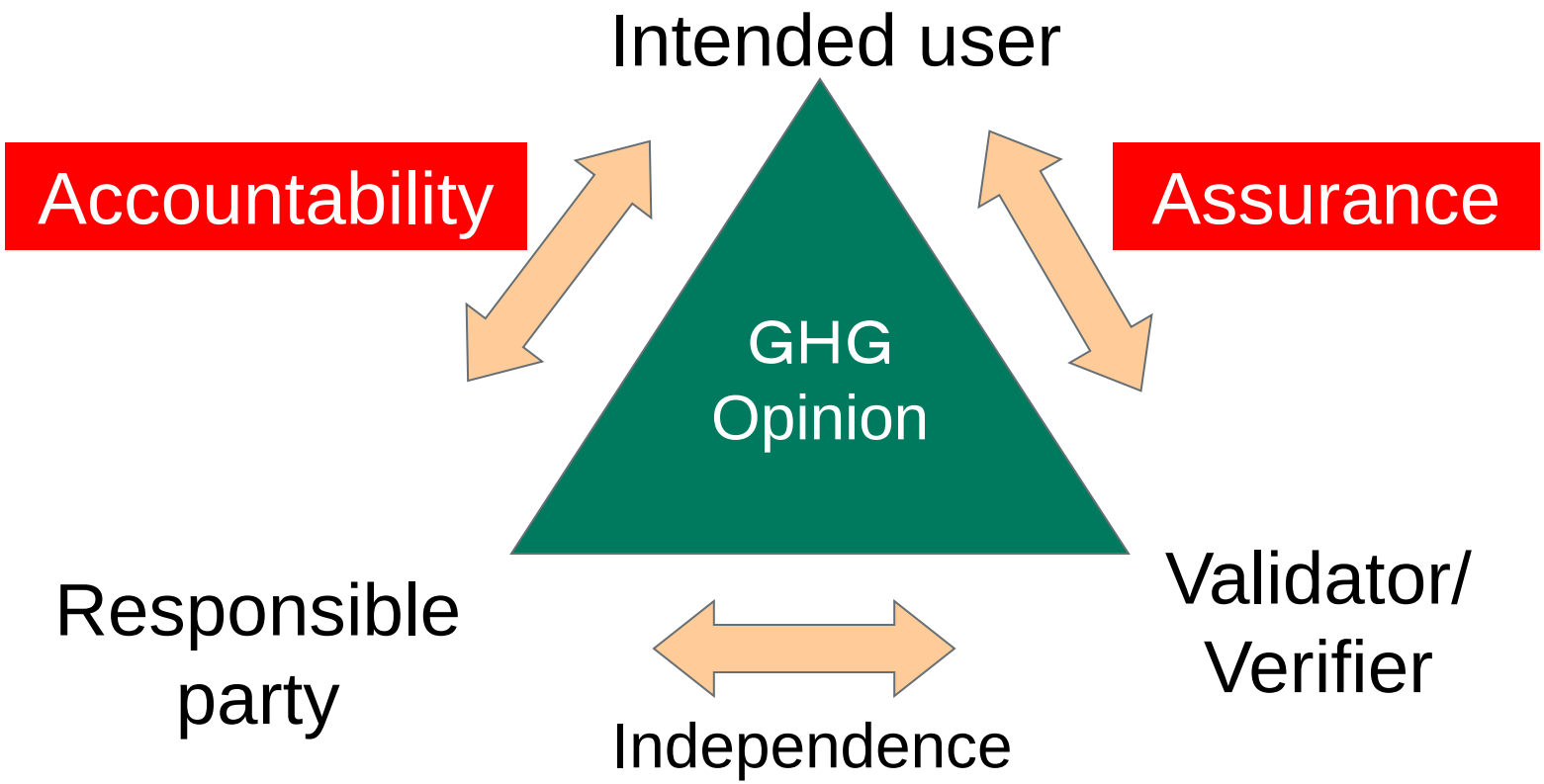
For credibility of GHG Opinion




ISO14064-3、FIgA.1

# Audit for GHG project

For credibility of GHG opinion

**Accountability** MRV

Requirement of quantification and reporting

**Assurance** MRV

Requirement of Auditing

(Validation, Verification)

# Audit for GHG project

## 1. Audit？

***ISO19011、3 Terms and definitions 3.1 “audit”***

systematic, independent and documented process for obtaining audit evidence and evaluating it objectively to determine the extent to which the audit criteria are fulfilled

**Note:**
**ISO19011 “Guidelines for quality and/or environmental management systems auditing”**

# Audit for GHG project

## Audit？



**Criteria**

- **ISO**
- **ASME**
- **EU Directive**
- **Company standard, procedure**
- **and so on**

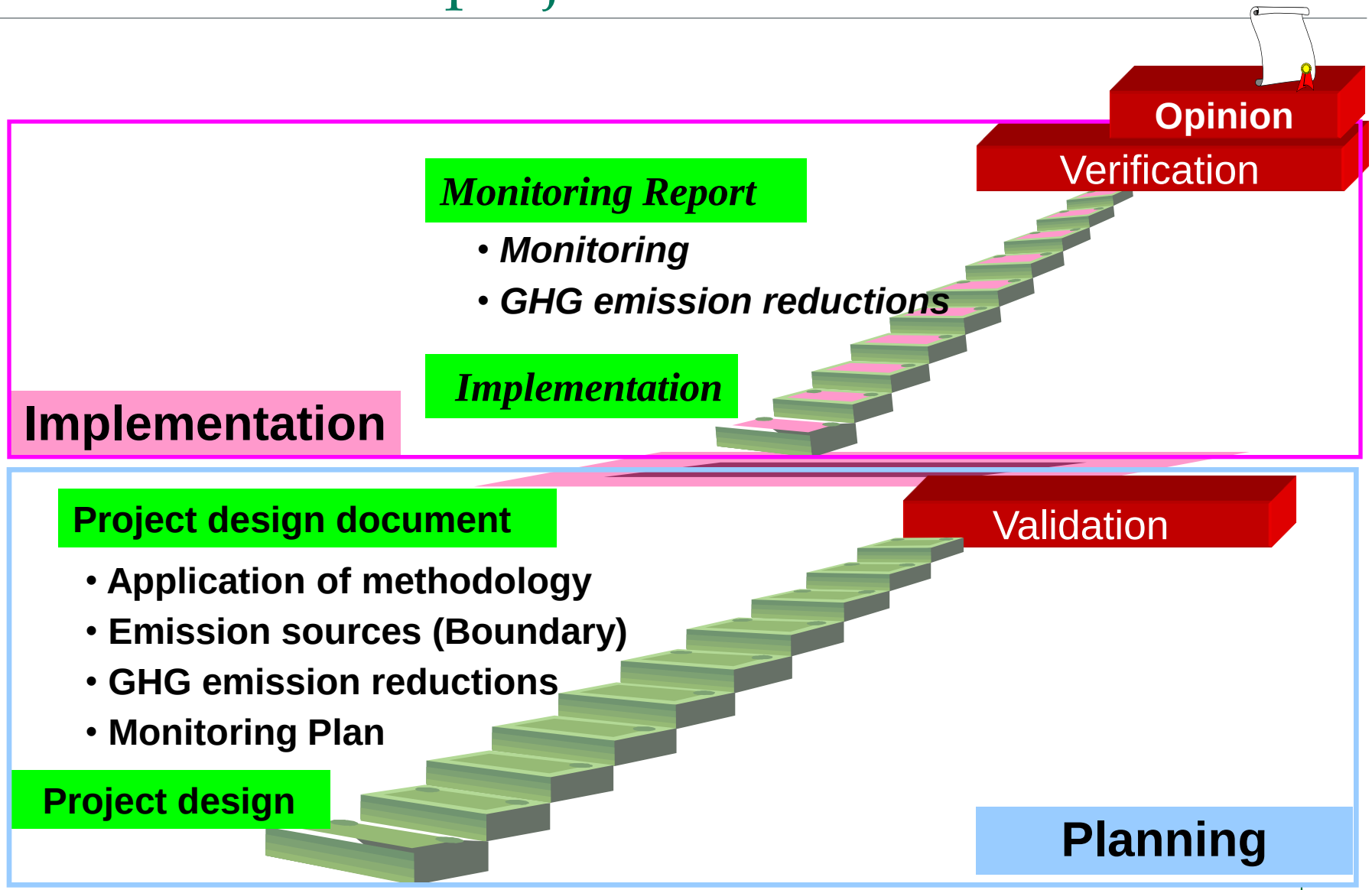
**Evaluate**

- **Management system**
- **Project**
- **Product**
- **data**
- **and so on**

**Report**

- **opinion**
- **Assurance**
- **Certification**
- **CE mark**
- **Survey report**
- **and so on**

# Audit for GHG project



# Validation and Verification

# Validation and Verification

## Validation

Evaluation of the project design by independent third party.

- Ex-ante assessment (before project activity)

  : Forecast – based on presumption about future.

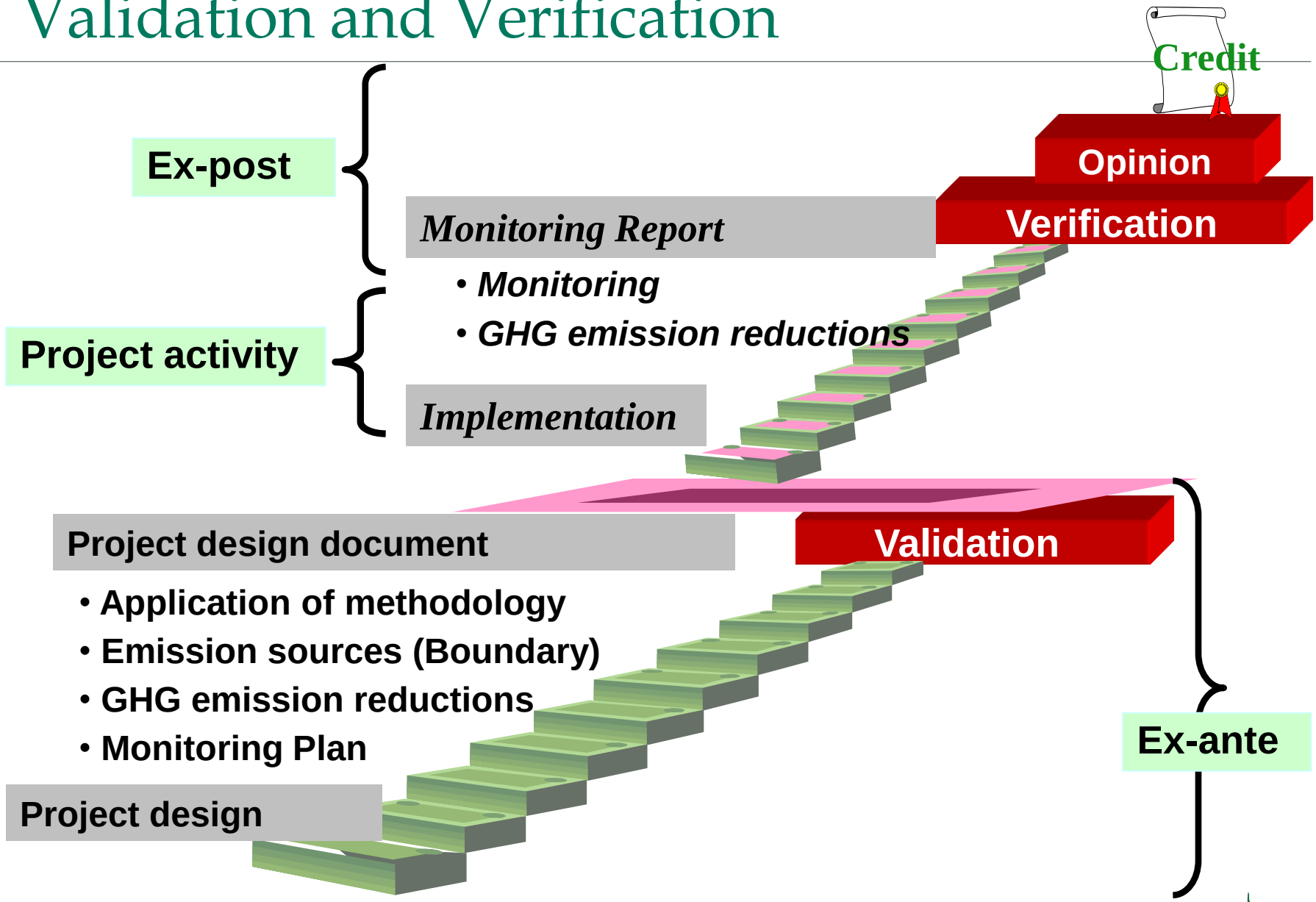
## Verification

Review and determination of project performance/emission reduction by independent third party.

- Ex-post review (after project activity)

  : Based on actual data - verifiable

# Validation and Verification



# Validation and Verification

## What is Validation?

Systematic, independent and documented process for the evaluation of a GHG assertion in a GHG project Plan *(ISO14064-3, 2.32)*

against agreed validation criteria *(ISO14064-3, 2.32)*

# Validation and Verification

## What is Validation?



Requirements → Assessment → Report

- **JCM rule, guideline**
- **Methodologies**
- **and so on**

- **PDD**

- **Validation report**

# Validation and Verification

## What is Verification?

Systematic, independent and documented process for the evaluation of a GHG assertion *(ISO14064-3, 2.36)*

against agreed verification criteria *(ISO14064-3, 2.36)*

# Validation and Verification

## What is Verification?



**Requirements** → **Assessment** → **Report**

- **PDD**
- **JCM rule, guideline**
- **Methodologies**
- **and so on**

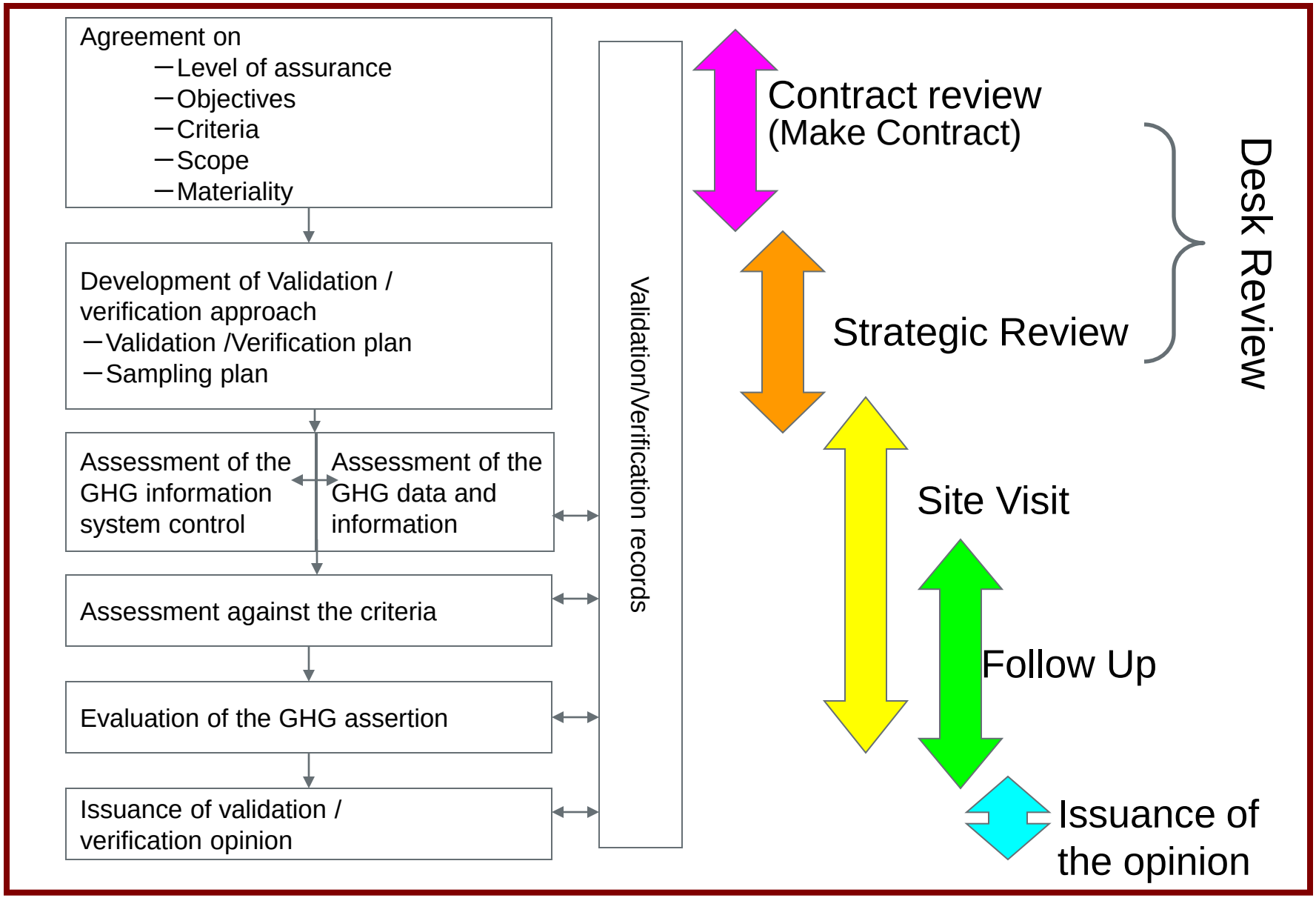
- **Monitoring report**

- **Verification report**
- **(Certification )**

# Validation and Verification

- Validation:
  - More assess on qualitative information; assumptions, justifications etc.
  - Get more evidence through interview with stakeholders
- Verification:
  - More assess on quantitative information; monitoring data etc.
  - Confirm implementation of project follows project plan; PDD

# Validation and Verification Process



# Pre-engagement of validation

# Validation process

**Pre-engagement**

- Impartiality
- Competence
- Agreement /Contract
- Team leader

**Approach**

- Validation Team
- Communication with PPs
- Validation Plan

**Implementation of Audit**

- Document review
- Follow-up interview (Site visit)
- Draft validation report

**Opinion**

- Conclusion of GHG assertion
- Final validation report
- Opinion

ISO14065. 8.1

# Validation team

- Independent
- No conflict of interest
- Competent, Professional
- Integrity and trustable

**Designated by Joint Committee**

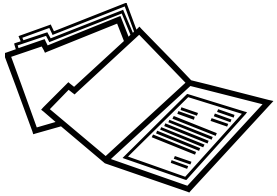
Eligibility

- Accredited under ISO 14065
- DOE of CDM

# Validation Team

Team Leader: 1

Team member: 1 or more



※ Sector expert is necessary

# Avoidance of conflict of interest

a) shall not use personnel with an actual or potential conflict of interest

b) shall not validate and verify GHG assertions from the same GHG project unless allowed by the applicable GHG programme;

c) shall not validate or verify a GHG assertion where it provided GHG consultancy services to the responsible party that support the GHG assertion;

d) shall not validate or verify a GHG assertion where a relationship with those who provided GHG consultancy services to the responsible party that support the GHG assertion poses an unacceptable risk to impartiality;

# Avoidance of conflict of interest

e) shall not validate or verify a GHG assertion using personnel who were engaged by those who provided GHG consultancy services to the responsible party in support of the GHG assertion;

f) shall not outsource the review and issuance of the validation or verification opinion (see 8.5);

g) shall not offer products or services that pose an unacceptable risk to impartiality;

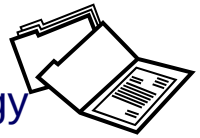
h) shall not state or imply that validation or verification of a GHG assertion would be simpler, easier, faster or less expensive if a specified GHG consultancy service were used.

# Risk based validation approach

# Risk-Based Validation Approach

Stakeholders
NGOs

- Project Description
- Application of methodology
- Emission reduction
- Environmental assessment
- Local stakeholder consultation
- Others,



PDD

Identify risks :
assumptions
data sources

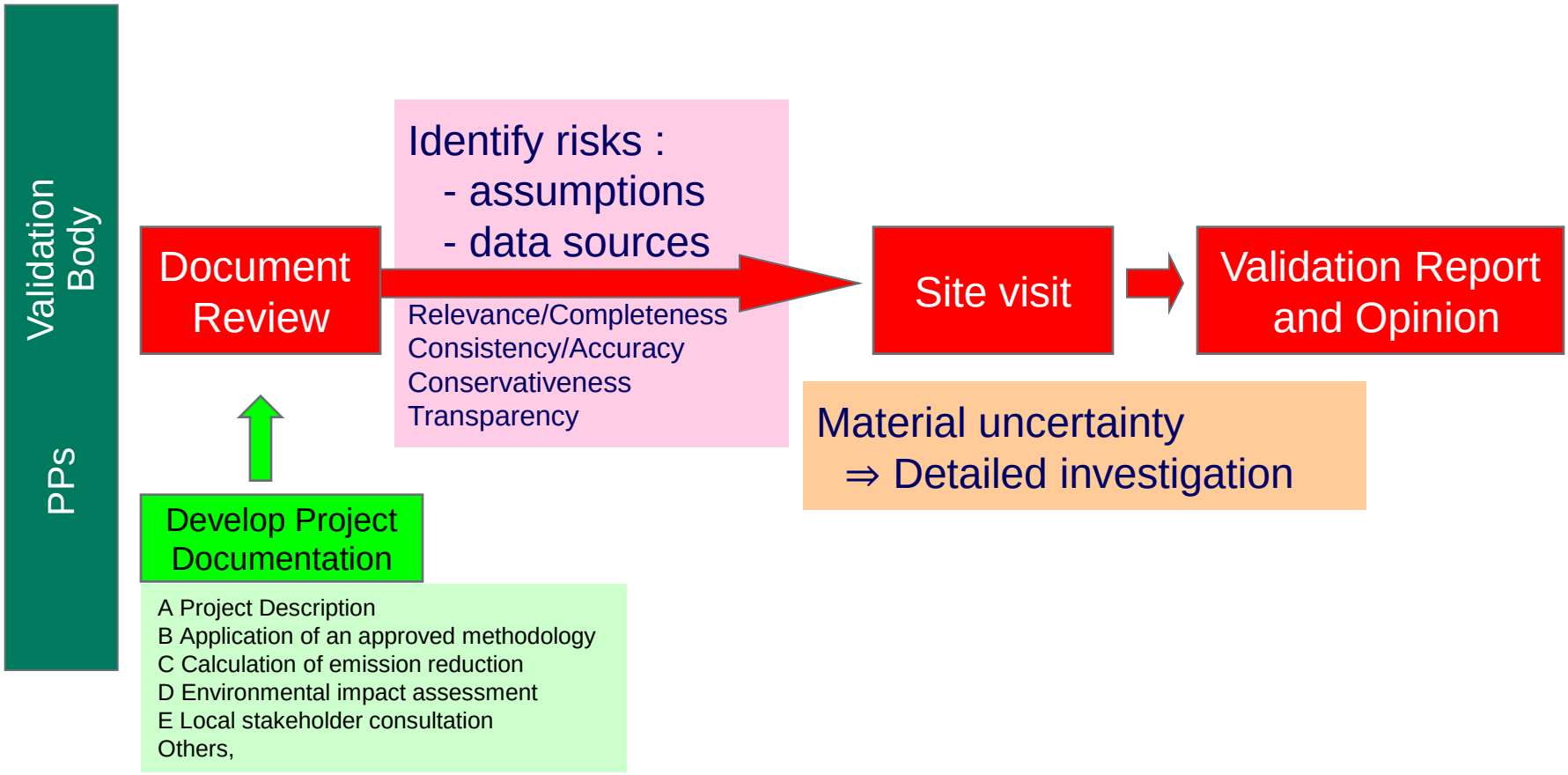
Relevance?
Completeness?
Consistency?
Accuracy?
Conservativeness?
Transparency?

Follow-up
Interviews

Material uncertainty:
Detailed investigation

Validation Report
Opinion

# The Validation Process



# Risk checked on Validation

1. Possibility of non-compliance with requirements
2. Potential cause of misstatement of emissions reductions
3. Assess project design document (PDD).
   - ✓ Relevance
   - ✓ Completeness
   - ✓ Consistency
   - ✓ Accuracy
   - ✓ Conservativeness
   - ✓ Transparency

# Conservativeness

Relevance, Completeness, Consistency
Accuracy, Transparency

A Project Description
B Application of an approved methodology
C Calculation of emission reduction
D Environmental impact assessment
E Local stakeholder consultation
Others,

**To reduce Risk**

More and Detail information

Select *Conservative* Manner

# High Risk Example 1

## Fuel Switch Project:

Fuel switch project from coal to natural gas

- Solid waste used to be blended with coal
- The solid waste will be land filled by the project.

Leakage

（additional landfill emissions）

# High Risk Example 2

## Energy Saving Project:

Automatic operation control technologies applied for factory energy saving

- Difficult to monitor energy saving effectiveness directly.

Estimation of emission reductions include unknown factors.