

**THE  
FERTILIZER  
INSTITUTE**

# **Ammonia Carbon Intensity Certification**



# FERTILIZER VALUE CHAIN

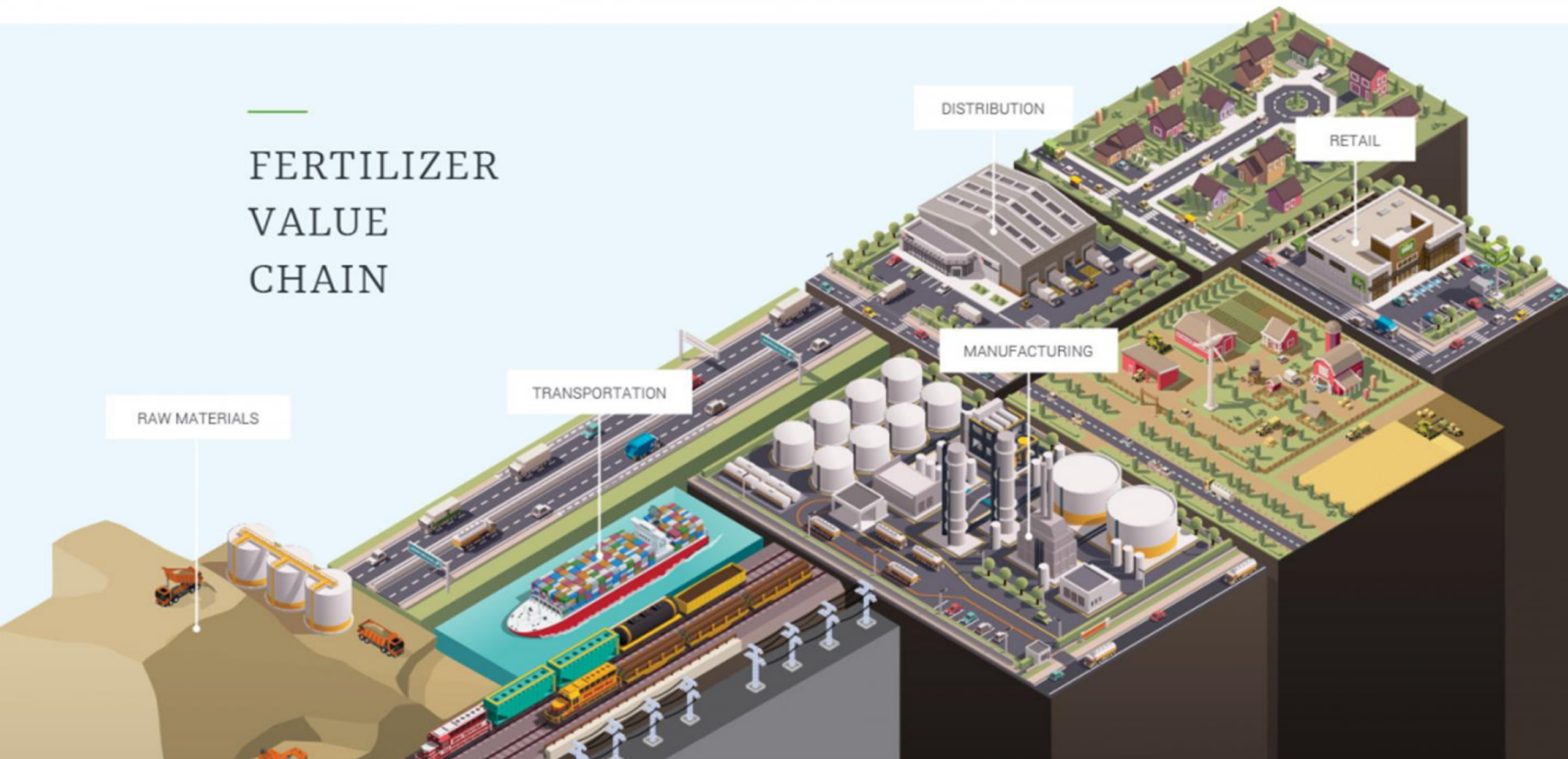
RAW MATERIALS

TRANSPORTATION

DISTRIBUTION

RETAIL

MANUFACTURING





# Low Carbon Claims: Lacking Clarity

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- Are upstream methane emissions going to be included in carbon-intensity calculations?
- Is enhanced oil recovery (EOR) a permissible form of carbon sequestration
- Are upstream methane emissions going to be included in carbon-intensity calculations?
- Is enhanced oil recovery(EOR) a permissible form of carbon sequestration?
- Is there such a thing as low-carbon urea?
- Can voluntary offsets be used to produce low-carbon molecules?



WELCOME TO  
THE VERIFIED AMMONIA CARBON  
INTENSITY PROGRAM

# Verified Ammonia Carbon Intensity

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- Voluntary
- Well-to-production gate: Does not include downstream emissions
- **Credibility:**
  - › Verification and validation of the claims via third-party auditor
  - › In alignment with ISO 17065, 14065, 14064, and 14067
  - › Emissions Reductions: Permanent sequestration or carbon capture for the use of Enhanced Oil Recovery
- **Transparency:**
  - › Standardizes the way all producers are calculating CI
  - › Does not use colors associated with different production methods
- Commercial flexibility to meet the requirements of individual customers





# How will it be used?

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- Allows producers to issue statements of verified carbon intensity for batches of ammonia produced, that includes the carbon intensity (CI) score and amount (metric tonnes).

# Methodology

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## Part 1

- ▶ Introduction
- ▶ Scope
- ▶ Definition of Terms

## Part 2

- ▶ General Calculation, Quantifying Lifecycle Emissions, Materiality Threshold/Cut-Off Criteria
- ▶ Core Energy Source Concept
- ▶ Steam & Storage Emissions

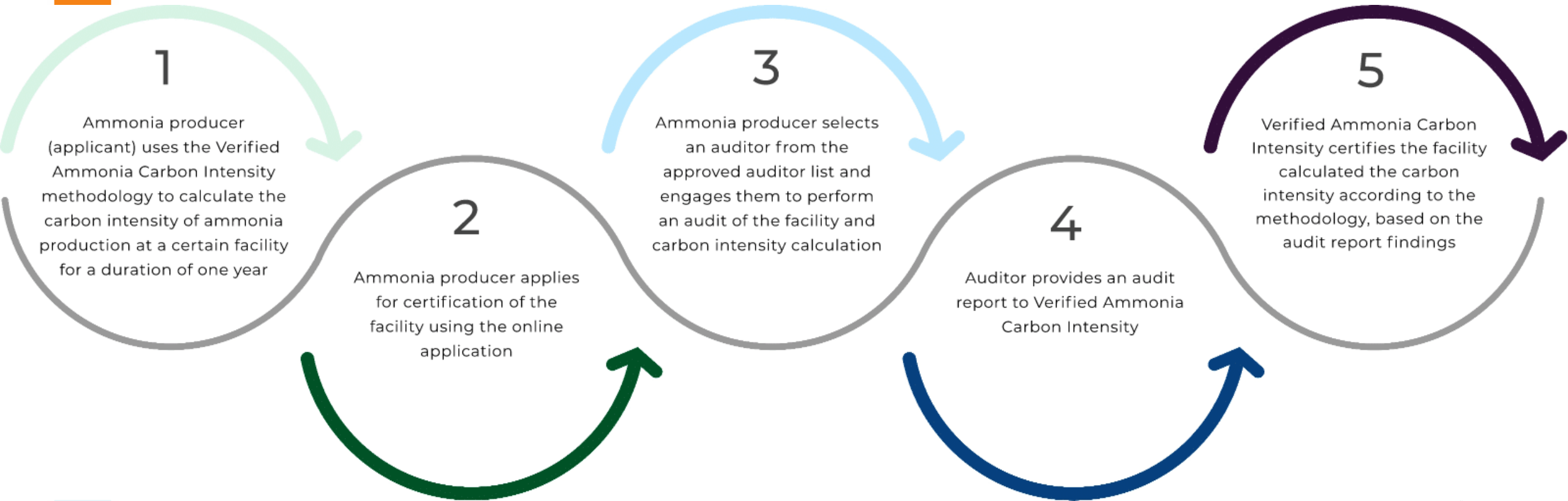
## Part 3

- ▶ Certification & Carbon Intensity of Inputs
- ▶ Carbon Capture Utilisation & Storage (CCUS) & Emissions Reduction
- ▶ Requirements for Geological Carbon Storage

## Part 4

- ▶ Data Quality Requirements
- ▶ Verification
- ▶ Annex Material

# Certification Process







# Looking Forward

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- In the future, the program will be extended to allow producers to issue verification statements for ammonia derivatives.