Research snapshot:
Emissions data production & curation
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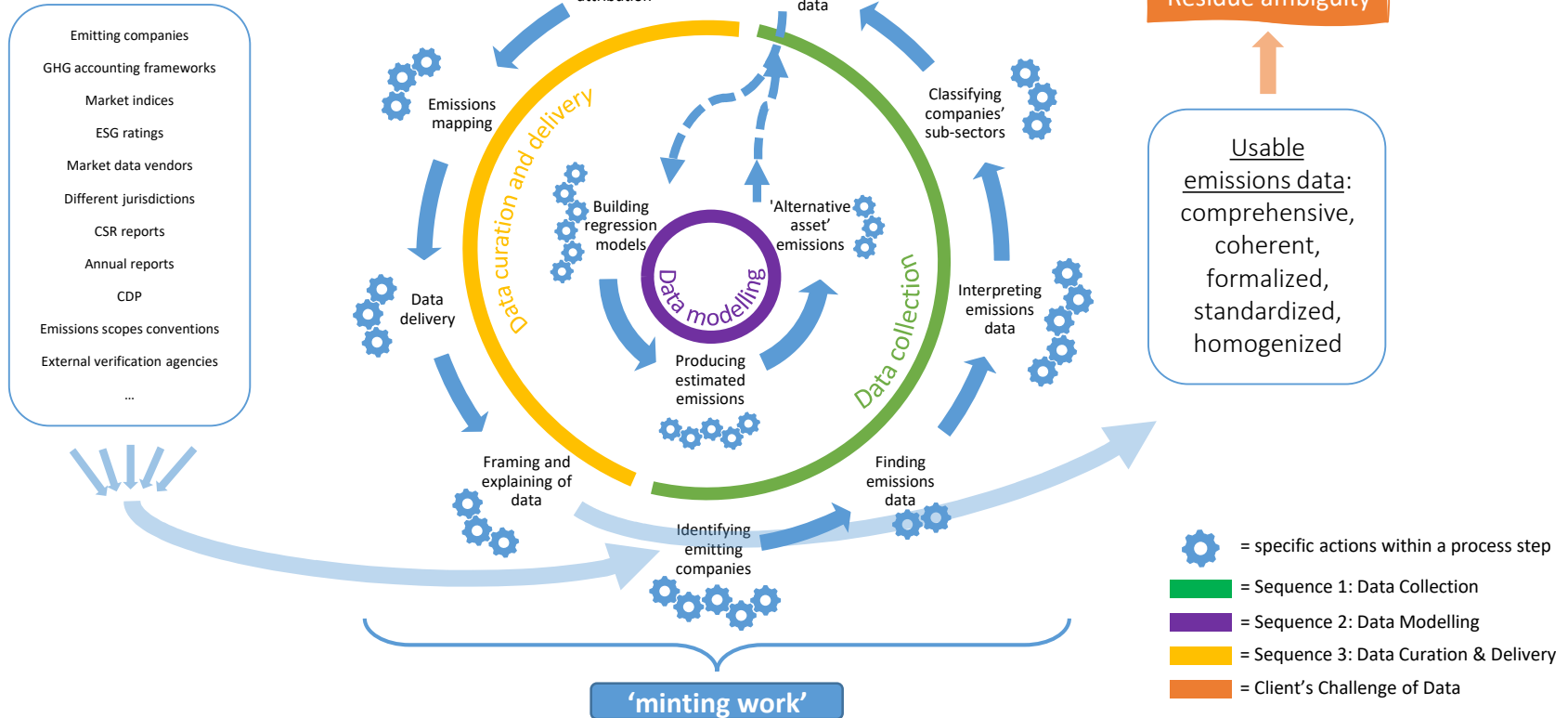# 'Carbon Reality': Knowability of economic entities' emissions

Representation problems → 'minting work' → 'Valid carbon reality'

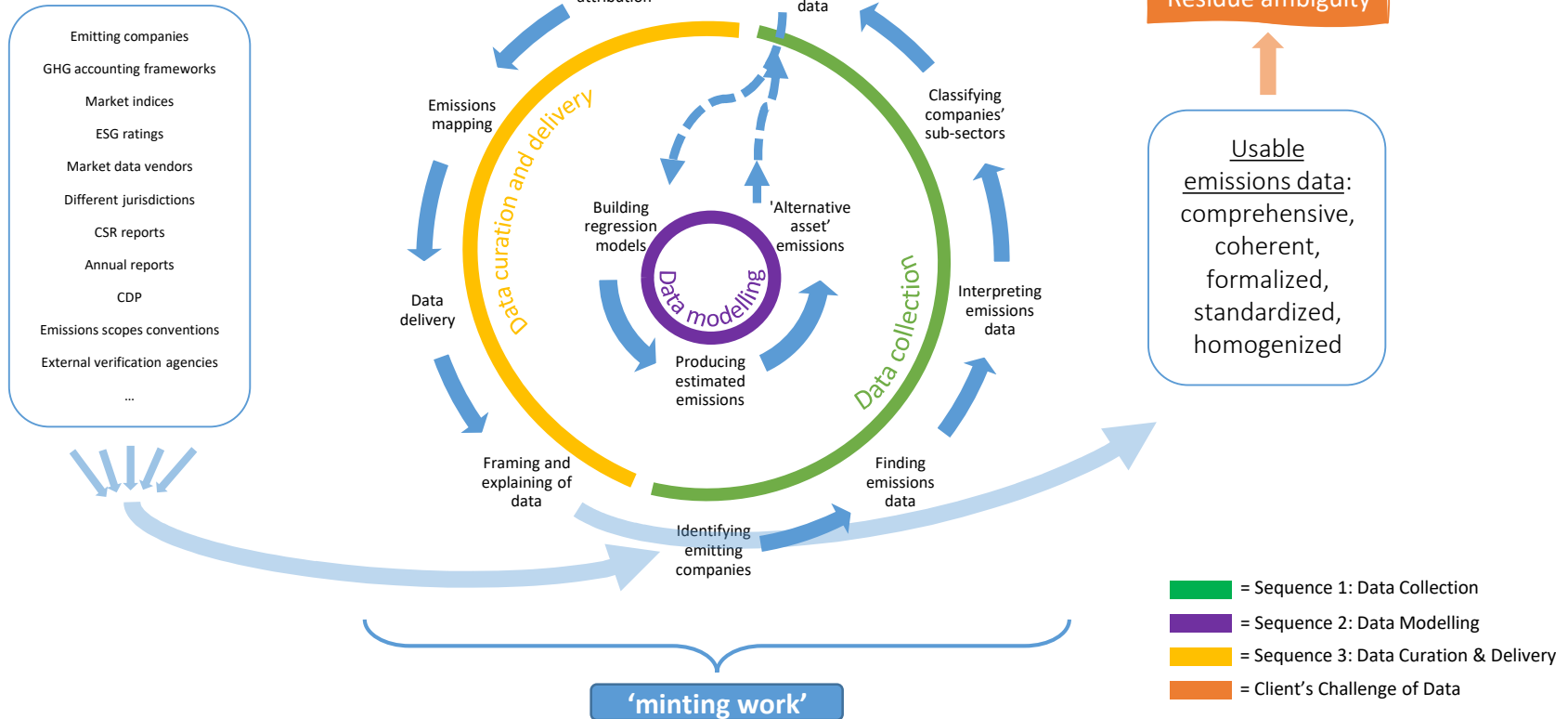| Ambiguity of 'Carbon Reality' Domains: reported emissions, non-emissions data vendors, frameworks …	Managing ambiguity & producing distinct 'Carbon Reality' Domain: **emissions data provider**	Validity claims on unambiguous 'Carbon Reality' Domains: provider, client
Absence & incompleteness	Adding and complementing information	Completeness
Inaccuracies (factual)	Judging and correcting	Accuracy
Instabilities (methodological)	Understanding and adjusting	Consistency
Heterogeneity (multiple classifications)	Re-contextualizing and formalizing	

Residue ambiguity

Emissions data production
Case study of an emissions data provider

Emitting companies
GHG accounting frameworks
Market indices
ESG ratings
Market data vendors
Different jurisdictions
CSR reports
Annual reports
CDP
Emissions scopes conventions
External verification agencies
…

Client's challenge

Residue ambiguity

Usable emissions data: comprehensive, coherent, formalized, standardized, homogenized

Emissions attribution
Registering emissions data
Classifying companies' sub-sectors
Emissions mapping
Data curation and delivery
Building regression models
Data modelling
'Alternative asset' emissions
Data collection
Interpreting emissions data
Data delivery
Producing estimated emissions
Framing and explaining of data
Finding emissions data
Identifying emitting companies

'minting work'

= specific actions within a process step
= Sequence 1: Data Collection
= Sequence 2: Data Modelling
= Sequence 3: Data Curation & Delivery
= Client's Challenge of Data

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= Sequence 1: Data Collection
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Key Insights

1. The 'minting work' of providers plays an important role in creating a <u>useable</u> representation of 'carbon reality', i.e., a valid emissions data universe.

2. Clients are an important aspect in the 'minting work' of providers: they force providers to review, revise, and justify their provided emissions data.

3. 'Residue ambiguity' from minting work is inevitable. It requires FIs' to develop coping strategies (see 'FI Data & Metrics usage' below).

4. The International Sustainability Standards Board (ISSB) of the IFRS is taking up its work this year but its uncertain when the standards will come into force. Providers' minting work will remain essential for the time being.

5. AI can be used to scrape data from the web and for judging, correcting and estimating emissions data, but especially for the latter part it still needs a lot of care and feeding by humans. AI wouldn't necessarily replace humans in the 'minting work'.

6. There are efforts to create open GHG emissions repository (e.g., EU, OS-Climate): here, minting work will still have to be done, but by whom?

7. Representation problems are magnified and multiplied in Scope 3 emissions. Given the central role of Scope 3 in correctly identifying high-emitting companies and effectively managing portfolio emissions, minting work will become even more important.