Scenario based on interviews

Planned EU Regulations – CSRD

- XBRL as core standard
- Not making it clear (export taxonomy in Excel, accept PDF)
- Practically useless ESRS taxonomy (see GHG item collection)
- Total confusion in timeline and requirements (no motivation)
- Probably useful, at least somewhat practical VSME

Current reports
Many templates, overlapping, Excel

Scope 3 pilot
Yet another custom Excel?

Current reports
Mostly Excel

Farmers

- Accounting information (bills, invoices)
- Lists: parcels (geoinfo?), equipment, agrochem types
- Core data collection
  - BEFORE harvest: "Job" fuel + materials
  - AFTER harvest: transportation, treatments
- Current tools (different, overlapping, auditable connection)
- Current reporting (Excels?)

SeqCarbon PoC

- Farmer core data
- Transparent transformation
- XBRL transfer

Processors / buyers

- Existing reporting schemes (exact requirements)
- Already use Scope 3 data from ACL databases like Agri-footprint
- Do not know or care about ESRS/XBRL, delay as long as possible
- Do not want to or can't change their existing reporting (Excel, brittle)
- Tinkering around Scope 3 pilots (in-house, likely Excel)

Data (equipment, jobs, …)

Data

Expert group (UEA+SzE)

- Clear vision of a practical, working prototype with scalable infrastructure
- Knowledge graph, agents – flexible infrastructure, will adapt to changes
- Open source agents, configurative meta and logic, digital signature – zero trust environment
- Minimal HW requirements, configurable access, distributed data without cloud - privacy
- No exact PoC requirements (still no real samples from any participants)
- Communcation barriers ("holy grail")
- Direct connection to farmers and one buyer, learning their needs
- May get indicators from ACL db/sw or actual reporting; samples from farmers soon

Core field data (primary)

Footprint tables (primary)

Data (final)

Data (changing)

ACL DB Scope 3 (secondary)

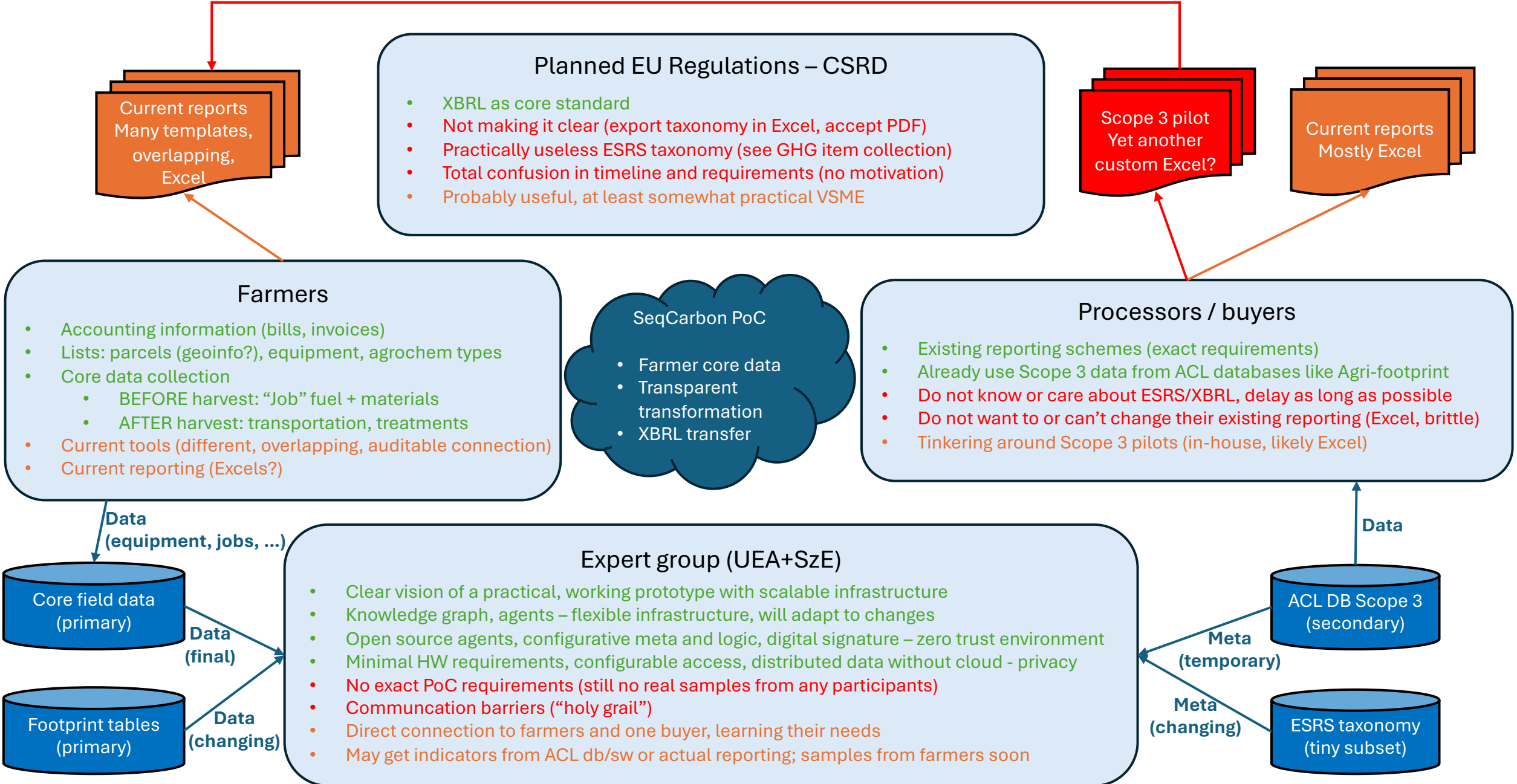**ESRS taxonomy (tiny subset)**

Meta (temporary)

Meta (changing)

Data Architecture

User
- email
- password
- roles

Parcel
- name
- site
- area
- geolocation

Plantation (also trees)
- target
- productType
- yield
- area (opt)
- geolocation (opt)
- extId (opt)

Product
- productType
- amount
- facility
- startJob
- endJob
- extId

UsedResources
- target
- resource

Footprint
- target
- date
- protocols
- total
- scope3

Entity
- entityType
- name
- extID
- site
- nextId

Asset
- site
- assetType (Facility / Vehicle / Equipment)
- fuelType
- extId

JobItem
- job
- jobItemType
- target
- amount

Job
- target
- jobType
- jobStatus
- date
- duration

Binary
- target
- itemMap (opt)
- job
- binaryType
- binaryFormat
- path
- signature

Site
- address

StockMaterial
- materialType
- amount
- extId

ExtItem
- extItemType
- target
- startJob
- endJob