

## Building the Digital Foundation for ESG-Ready Wind Projects

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# A lifecycle-wide Digital Foundation turns fragmented wind-project ESG data into governed, auditable assets — cutting rework, accelerating transactions, and enabling AI-ready operations.

**Wind projects generate vast ESG-relevant data** across biodiversity, communities, H&S, carbon, circularity and financial simulations and forecasts. Without a coherent digital strategy, this data becomes fragmented, worsening the integrated approach and auditability.

A lifecycle-wide Digital Foundation — a blend of information model, governance, quality, and integration patterns — **keeps data continuous, trusted, and reusable across company boundaries.**

### Why it matters

Wind projects span many companies, tools, and maturities; data gets siloed and inconsistent at handovers across the many project stages.

Multiple scenario iterations, continuity gaps and missing metadata make ESG analysis and reporting slow and hard to audit.

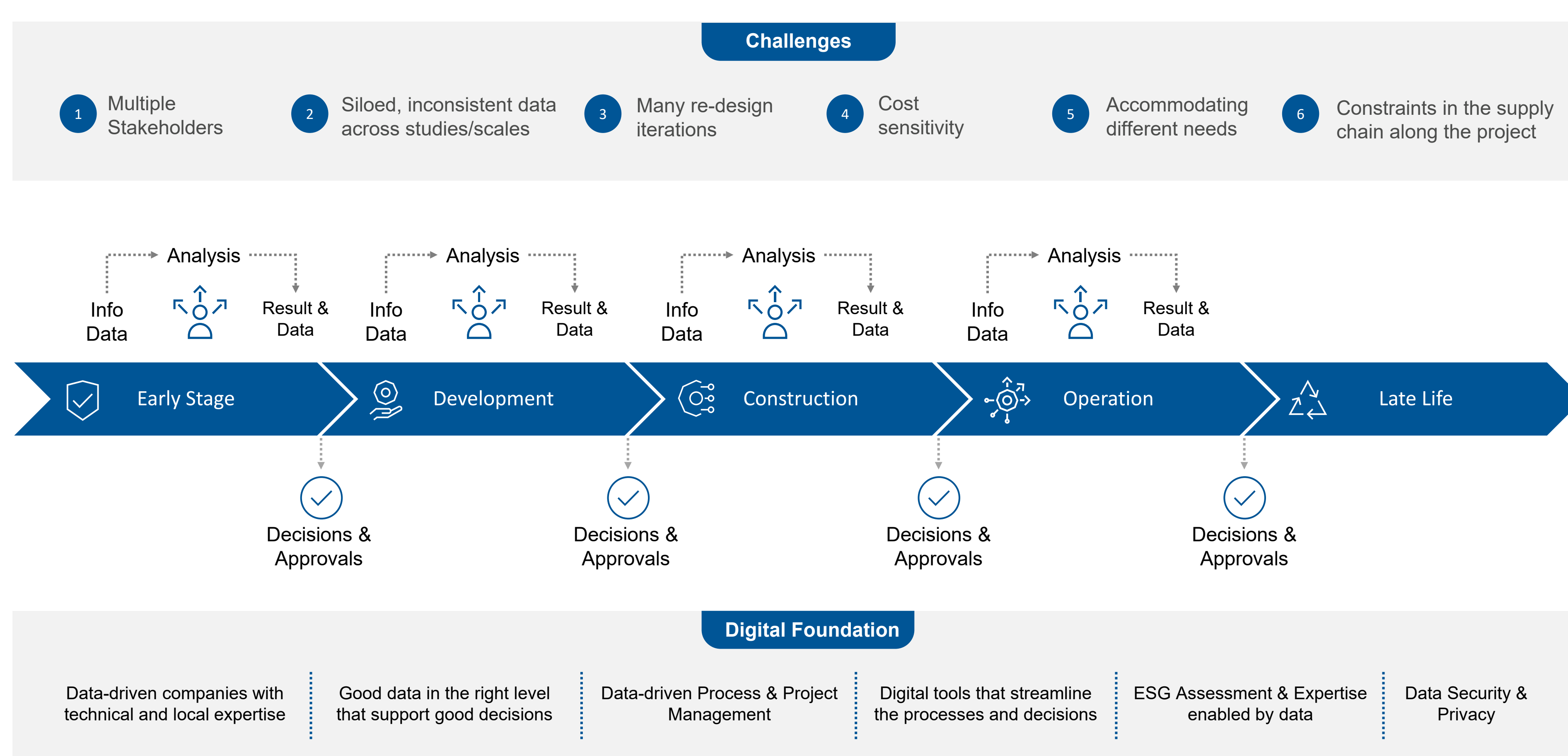
In a VUCA environment, investors, regulators, and communities expect transparent, trusted ESG metrics linked to source evidence.

### Method snapshot

We mapped the lifecycle, identified data, stakeholders & roles, inventoried data types (GIS, CAD, BIM, analytical/telemetry, structured & unstructured), and assessed continuity & quality risks vs. governance controls used by developers and subcontractors.

### The Digital Foundation Playbook

- **Scope the lifecycle:** Define data domains per phase and contract handover agreements.
- **Common information model:** Harmonize keys across GIS/CAD/BIM/Docs/Telemetry; adopt controlled vocabularies.
- **Ownership & stewardship:** Assign product owners/stewards (RACI), set change control and access governance.
- **Quality & lineage:** Validation rules, testable checks, and provenance captured at each transformation.
- **Integration & access:** APIs/workspaces, role-based access, and vendor exchange patterns.
- **Catalog & findability:** Searchable metadata, classifications, and business glossaries.
- **Controls & audit:** Retention, versioning, and calculation traceability for ESG metrics.
- **AI-readiness:** Structured, labelled, ethically governed datasets suitable for ML/GenAI.



### Results & early wins

- Less duplication & rework; fewer repeat surveys and manual reconciliations.
- Faster planning, consenting, and execution using trusted, centralized datasets.
- Seamless ESG metric integration into everyday workflows.
- Transaction speed-ups through traceable data rooms and standard handovers.
- AI-ready datasets for predictive analytics, automated reporting, and compliance monitoring.

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