

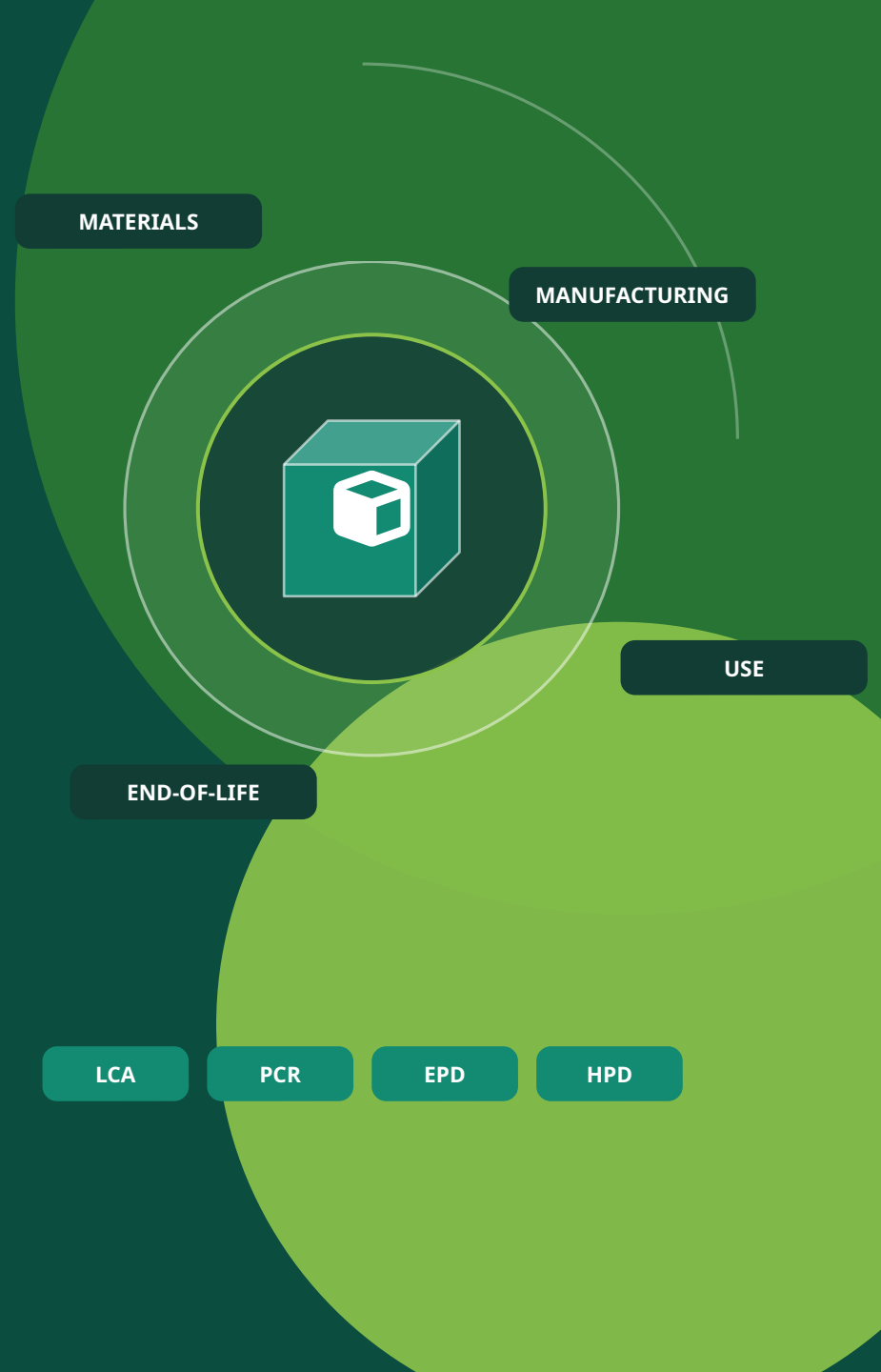


شركة البعد البيئي
Environmental Dimension
GLOBAL CAPABILITY PROFILE | 2026

Product Transparency & Material Health

Environmental Product Declaration (EPD) | Health Product Declaration (HPD)

From factory data to credible, verification-ready and market-facing product disclosures.



A specialized product transparency service line

Built for manufacturers, suppliers, designers, contractors, developers and procurement teams.

Environmental Dimension helps manufacturers convert fragmented technical records, supplier information and production data into credible product disclosures that can be reviewed, verified, published and used in specifications and tenders.



Strategy

Define product scope, target markets, disclosure pathways and the right level of investment.



Data

Build a traceable evidence base covering materials, production, suppliers, logistics and end-of-life.



Technical delivery

Prepare LCA, EPD and HPD documentation in line with applicable standards, PCRs and program rules.



Market activation

Translate verified disclosures into tender summaries, specification support and improvement roadmaps.

FROM FACTORY RECORDS



TO CONTROLLED PRODUCT DATA



TO VERIFICATION-READY DISCLOSURES



TO MARKET VALUE

Saudi environmental expertise, global product disclosure methods

A dedicated EPD and HPD capability built on Environmental Dimension's environmental consulting foundation.



شركة البعد البيئي
Environmental Dimension

Licensed Saudi environmental consultancy

Environmental permitting and licensing
Environmental impact assessment
Environmental management plans
Compliance and standards
Sustainability and impact reduction

LOCAL CONTEXT + GLOBAL METHODS



Industrial & manufacturing

Sector exposure demonstrated across the company portfolio.



Construction & engineering

Sector exposure demonstrated across the company portfolio.



Commercial & logistics

Sector exposure demonstrated across the company portfolio.



Medical & veterinary

Sector exposure demonstrated across the company portfolio.



Investment & development

Sector exposure demonstrated across the company portfolio.



Sustainability solutions

Sector exposure demonstrated across the company portfolio.

This combination enables product-level work to remain practical for factories, aligned with Saudi procurement realities and credible in international markets.



01 Why Product Transparency Matters

Environmental performance and material health data are becoming core business information - not optional marketing content.

Why manufacturers are investing now

A structured disclosure program responds to multiple commercial, regulatory and design pressures at once.



Tender qualification

Major projects increasingly request product-specific environmental and ingredient documentation.



Green building

Rating systems and project specifications reward verified environmental data and material transparency.



Decarbonization

LCA reveals the product stages and inputs that drive climate and resource impacts.



Claims governance

Verified disclosures reduce the risk of unsupported environmental or health-related claims.



Specifier confidence

Transparent, consistent product data improves trust among architects, consultants and procurement teams.



Continuous improvement

A reusable data model supports updates, new SKUs, product families and future regulations.

Common failure point: starting verification before product scope, data ownership and supplier engagement are controlled.

Environmental Product Declaration - what it is

A verified, registered disclosure of life-cycle environmental information based on LCA and applicable product rules.



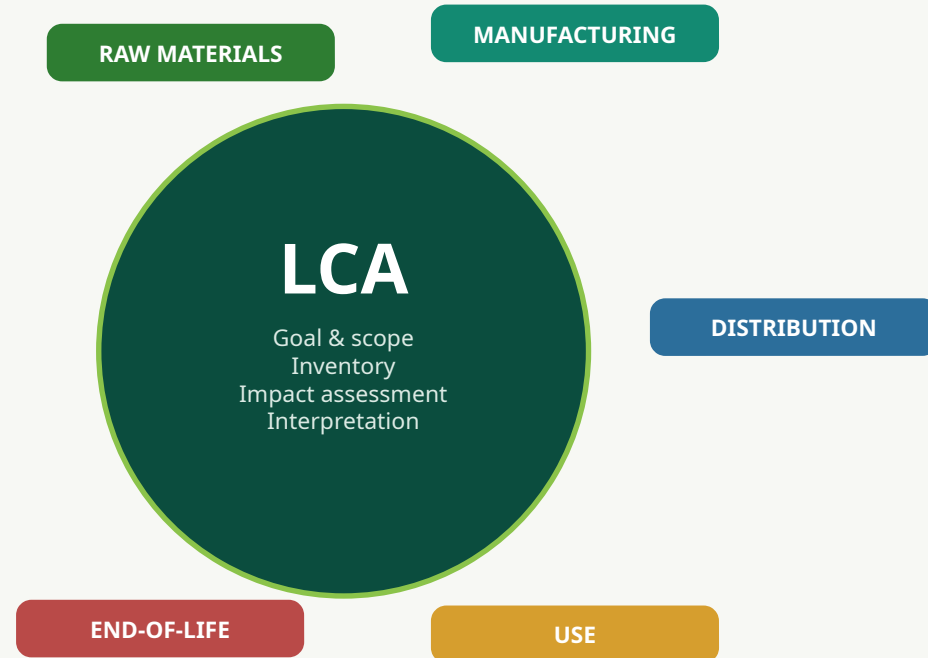
The core question

What are the potential environmental impacts of this product across the life-cycle stages defined by the applicable PCR?



What an EPD is not

It is not an eco-label, a pass/fail certificate or proof that one product is better than another. Comparisons require aligned PCRs, units, scope, methods and valid declarations.



Technical basis

ISO 14025:2026 + ISO
14040/14044 + applicable PCR and
program rules

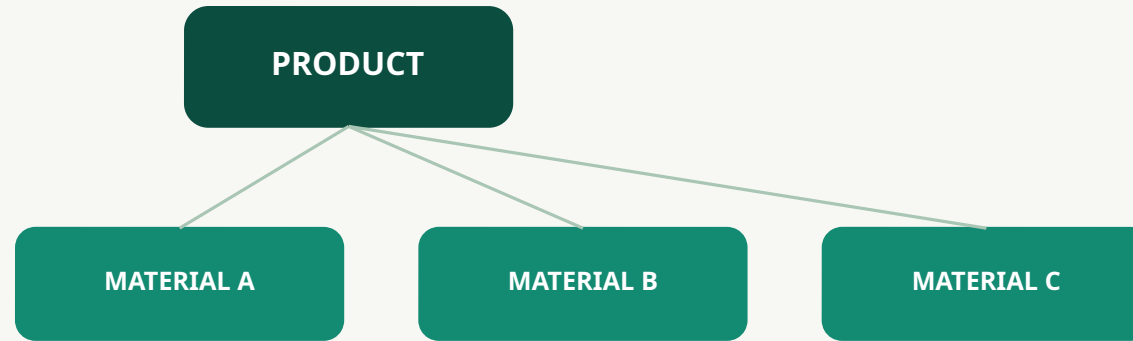
Health Product Declaration - what it is

A standardized report of product contents and associated health hazard information for building products.



The core question

What substances are present, at what reporting threshold, and what health hazard information is associated with those substances?



What an HPD is not

It is not a product safety certification, a declaration that a product is safe, or a full exposure and risk assessment. Hazard and risk are not the same.

Substance 1

Substance 2

Substance 3

Substance 4

Substance 5

IDENTITY

CONCENTRATION

FUNCTION

HAZARDS

Current framework: HPD Open Standard v3.0. Optional third-party verification is separate from preparation.

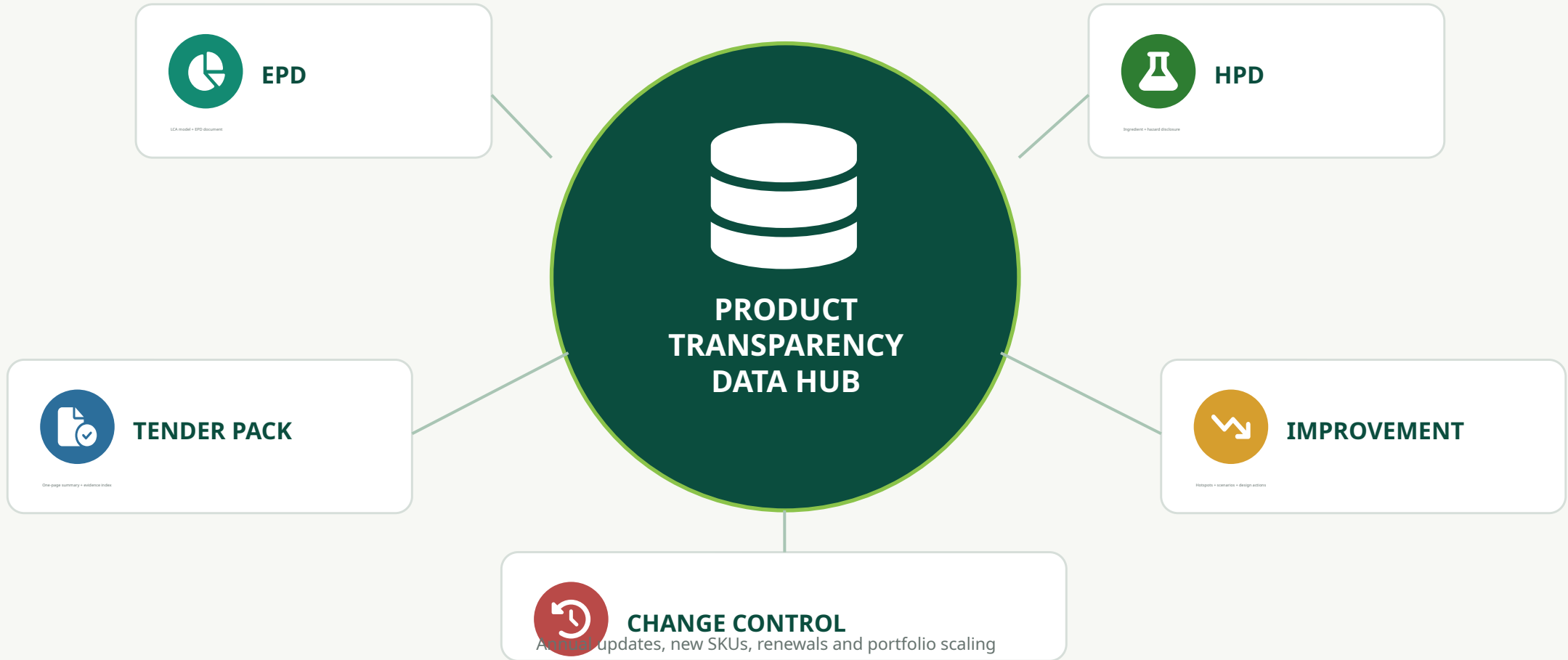
EPD and HPD answer different questions

Used together, they create a stronger product transparency package.

DIMENSION	EPD	HPD
Primary focus	Life-cycle environmental impacts	Product contents and associated health hazards
Technical foundation	LCA, PCR, impact assessment methods	Material/substance inventory, identifiers, hazard screening rules
Key data	Materials, energy, water, emissions, transport, waste, life-cycle scenarios	Materials, ingredients, concentration ranges, function, residuals/impurities, supplier evidence
Main output	Verified and registered environmental declaration	Standardized material health disclosure; optional third-party verification
Typical users	Procurement, specifiers, LCA teams, developers, sustainability teams	Architects, designers, material health teams, manufacturers, green building teams
Does not prove	That a product is universally better or environmentally preferable	That a product is safe, hazard-free or low-risk in every use
Best combined value	Quantifies environmental hotspots and market-facing impacts	Makes composition and hazard information transparent and reviewable

One product data foundation, multiple market outputs

Build the data once, control it, then reuse it across disclosures, tenders and improvement programs.





02 Environmental Product Declaration (EPD)

A complete service pathway from product strategy and factory data through LCA, verification coordination, publication and improvement.

End-to-end EPD development support

Modular services can be commissioned separately or combined into a complete delivery program.



Readiness & product strategy

Product/SKU selection, target markets, intended use, functional or declared unit and family strategy.



PCR & program pathway

Identify the applicable PCR, program operator, geographic scope and transition requirements.



Data collection & QA

Structured workbooks, evidence register, site interviews, supplier data and data quality assessment.



LCA modelling & interpretation

Life-cycle model, impact assessment, hotspot analysis, sensitivity and uncertainty where required.



EPD drafting

Prepare the declaration and supporting LCA project report, including confidential annexes where needed.



Verification coordination

Manage verifier questions, evidence responses, revisions and final approval workflow.



Registration & publication

Coordinate the submission package, publication record and tender-ready summary.



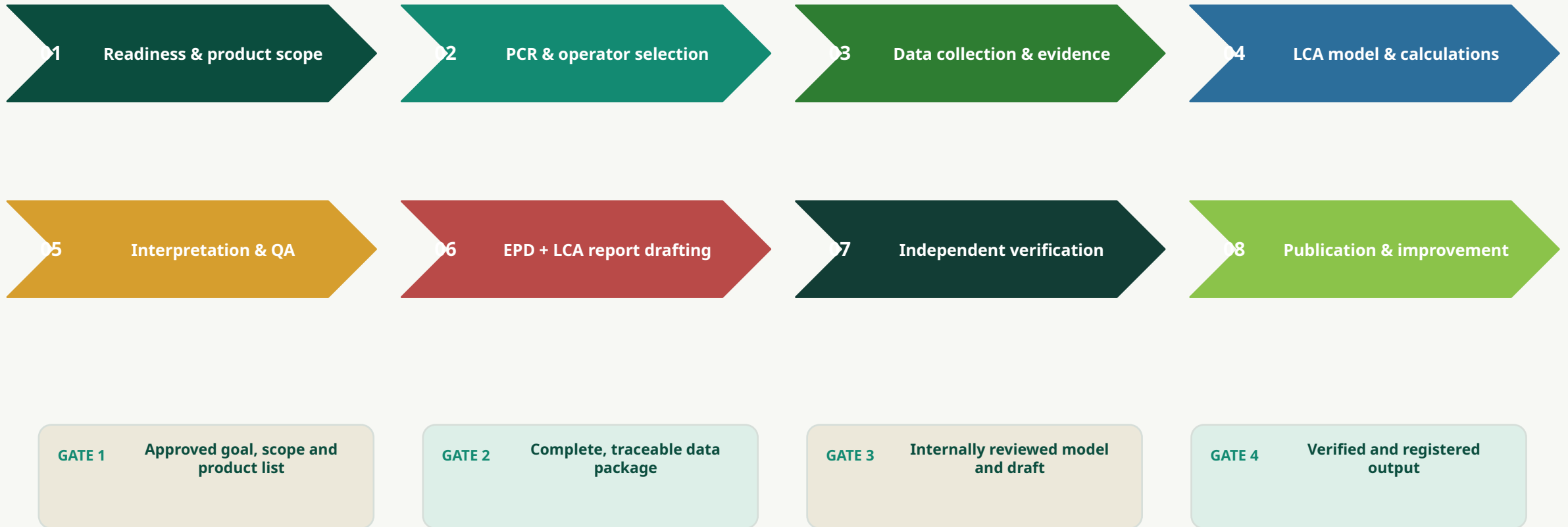
Optimization & renewal

Existing EPD audit, product improvement scenarios, annual data maintenance and renewal planning.

Available for single products, product families, multiple manufacturing sites and portfolio-level programs.

Eight controlled steps from strategy to publication

A stage-gated approach keeps technical decisions, evidence and responsibilities visible.



Independent verification and program publication are performed by the applicable approved parties, not by the EPD preparer.

What the manufacturer needs to prepare

The exact dataset depends on the PCR and scope, but the evidence structure is consistent.



Factory & operations

- Annual production volumes and yields
- Electricity, fuels and heat
- Water consumption
- Direct emissions, if relevant
- Waste streams and treatment
- Process map and allocation basis
- Quality and environmental records



Product & packaging

- Product function and specifications
- Bill of materials and quantities
- Recycled/biogenic content
- Packaging composition
- Installation and accessories
- Use, maintenance and service life
- End-of-life scenarios



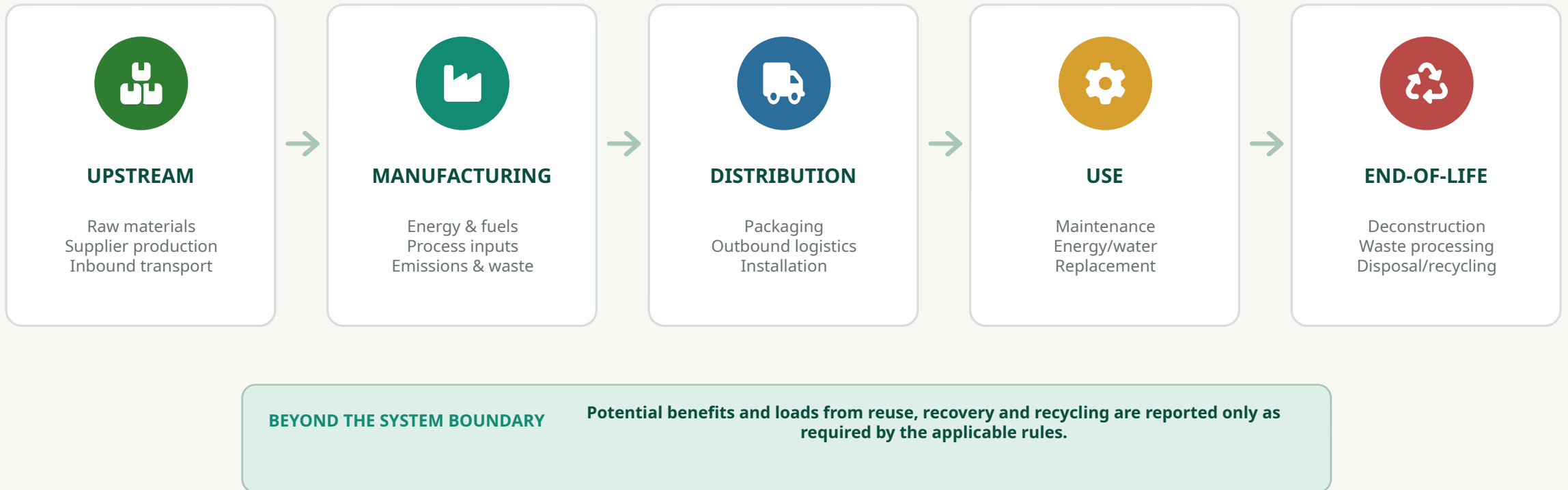
Supply chain & logistics

- Supplier and country of origin
- Inbound transport modes/distances
- Secondary and primary datasets
- Outbound distribution scenarios
- Supplier EPDs or verified datasets
- Material declarations and evidence
- Data confidentiality constraints

DATA QUALITY = COMPLETENESS + CONSISTENCY + TIME + GEOGRAPHY + TECHNOLOGY + TRACEABILITY

From unit processes to a product system

System boundaries, allocation, cut-off and scenario choices are documented and justified.



For construction products, modules are mapped to the applicable EN 15804/ISO 21930 structure. Other sectors use equivalent life-cycle stages defined by the relevant PCR.

Environmental impact and resource indicators

The indicator set and characterization method follow the applicable PCR and program rules.



Climate & atmosphere

Global warming potential
Ozone depletion
Photochemical ozone formation
Particulate and air-related indicators



Water & nutrients

Freshwater, marine and terrestrial eutrophication
Water use/deprivation
Water-related inventory flows



Energy & resources

Renewable/non-renewable primary energy
Fossil resources
Minerals and metals
Secondary materials and fuels



Waste & output flows

Hazardous/non-hazardous/radioactive waste
Recycling and energy recovery flows
Exported energy and materials

INTERPRETATION MATTERS: absolute values, contribution analysis, scenarios, uncertainty and limitations must be communicated together.

PCR, program operator and independent verification

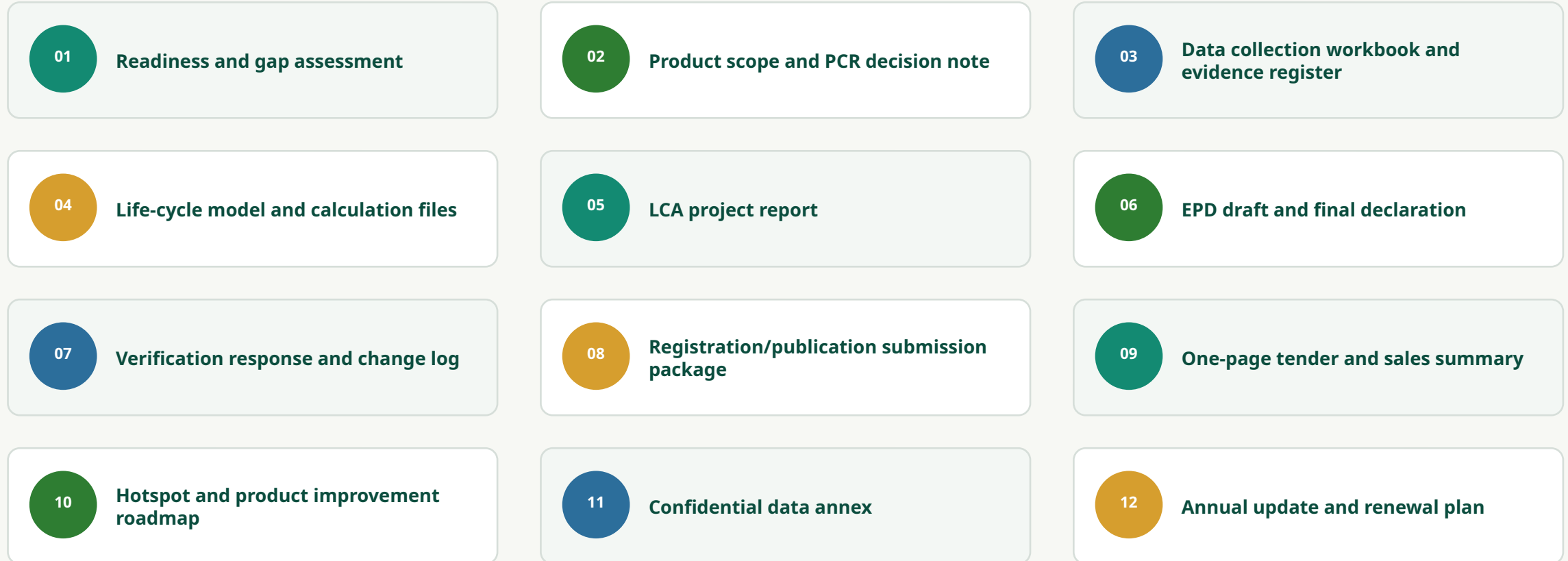
Clear role separation protects credibility and avoids conflicts of interest.



INDEPENDENCE CONTROL: the EPD preparer does not perform the required independent verification unless separately approved and permitted by the program.

A complete technical and commercial-ready package

Each deliverable is version-controlled and mapped to the verification evidence trail.



EPD optimization and decarbonization

Use the LCA model as a product development tool, not only as a reporting exercise.



Materials

Lower-impact inputs, recycled content, supplier-specific data



Energy

Efficiency, renewable electricity, fuel switching



Yield

Scrap prevention, process yield and quality optimization



Logistics

Supplier geography, transport mode and distribution



Packaging

Weight reduction, reuse and recyclable materials



Circularity

Service life, reparability, reuse and end-of-life routes



03 Health Product Declaration (HPD)

A disciplined workflow for product content transparency, supplier engagement, hazard reporting and optional third-party verification.

End-to-end HPD preparation support

Designed for manufacturers that need credible disclosure without losing control of proprietary information.



Disclosure strategy

Define product, scope, reporting threshold, target certifications and publication approach.



Material inventory

Map the product into materials, components, substances and supplier-owned formulations.



Supplier engagement

Issue controlled questionnaires, evidence requests and escalation plans for missing data.



Substance identity

Confirm names, identifiers, concentration ranges, functions and relevant special conditions.



Hazard screening

Screen reported substances against the authoritative sources required by the current HPD standard.



HPD Builder-ready entry

Prepare a consistent dataset and draft for entry, review and publication in the compliant tool.



Verification readiness

Prepare the evidence package and coordinate optional HPDC third-party verification.



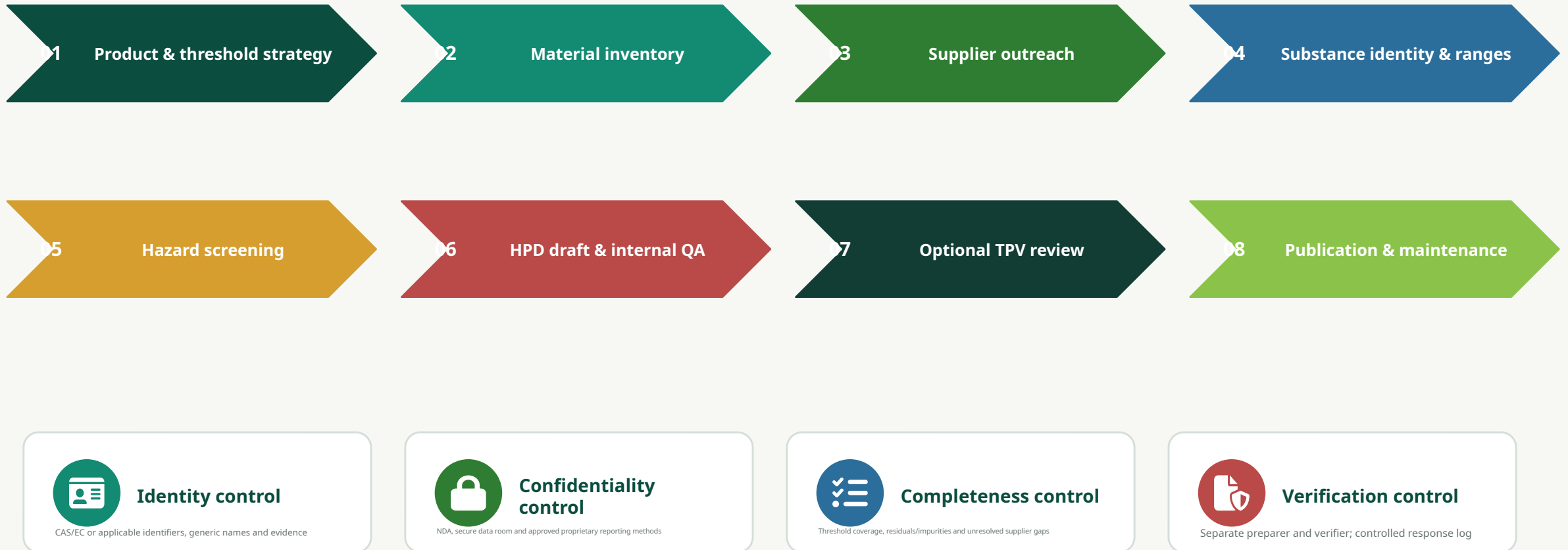
Maintenance

Update the HPD when formulations, suppliers, thresholds or program requirements change.

HPD preparation is a disclosure process. Product safety, exposure and risk decisions may require separate specialist assessments.

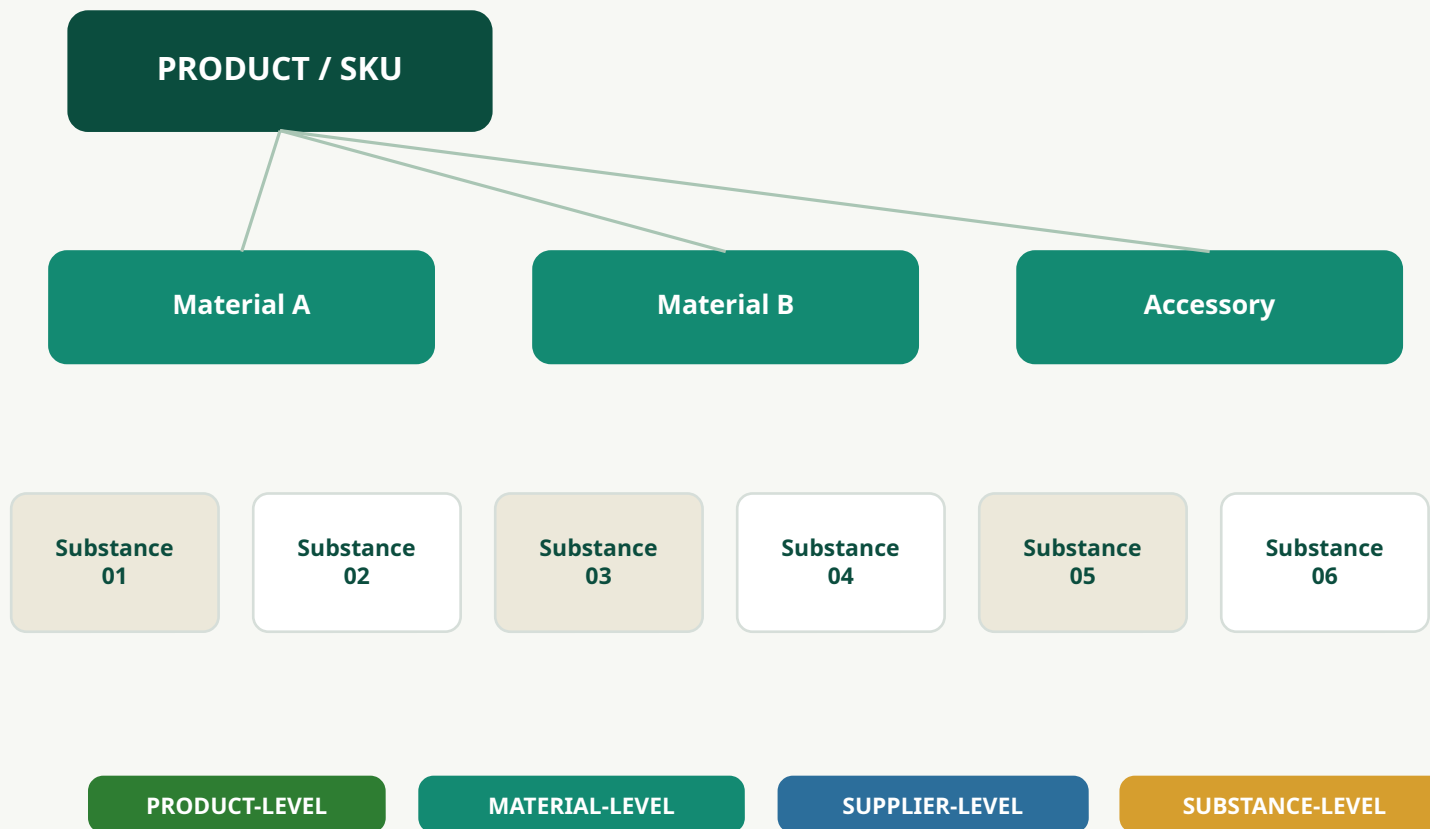
Eight steps to a complete, defensible disclosure

Supplier data and evidence quality are managed from the first week - not left until publication.



From product to substance-level evidence

The inventory structure must match the current HPD method and the selected reporting threshold.



REQUIRED DATA FIELDS

- Chemical/material name
- Identifier or approved generic identity
- Concentration or range
- Function in product/material
- Supplier and formulation evidence
- Residuals, impurities and special conditions
- Hazard screening results and notes
- Disclosure and verification status

The selected method must be applied consistently across the complete product inventory.

Confidential formulations without incomplete disclosure

A controlled process protects proprietary information while maintaining compliance and traceability.



Common challenges

- Multi-tier supply chains
- Proprietary mixtures and trade secrets
- Unavailable CAS numbers or concentration ranges
- Multiple formulations for one SKU
- Residuals and impurities not documented
- Supplier reluctance or delayed responses
- Inconsistent SDS and technical data



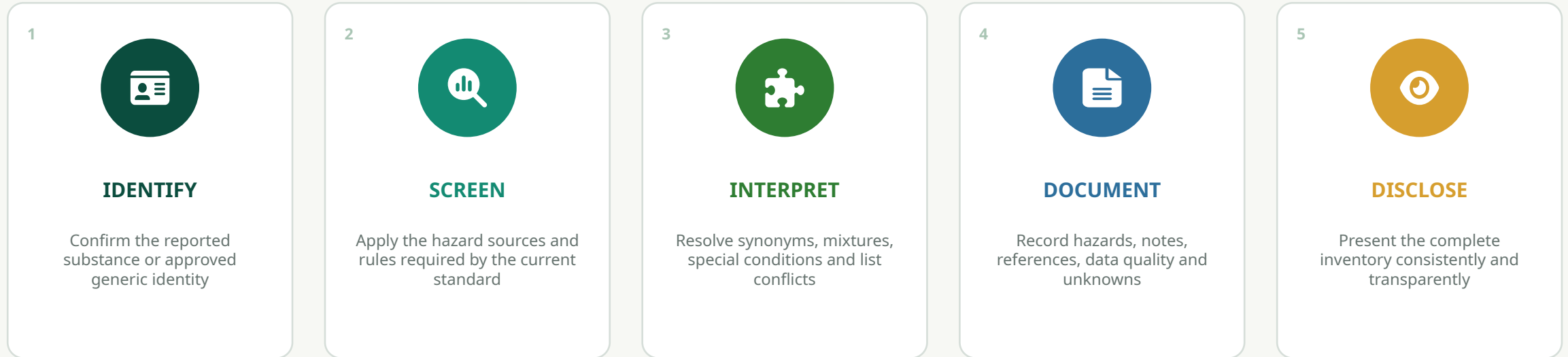
Environmental Dimension controls

- NDA and secure data-room workflow
- Standard supplier questionnaire and evidence checklist
- Direct confidential submission path
- Approved generic identity and range strategy
- Supplier response tracker and escalation matrix
- Evidence register and unresolved-gap log
- Independent verifier access where required

Confidentiality is a reporting condition to manage - not a reason to leave the inventory uncontrolled.

From substance identity to transparent health information

HPD reporting communicates authoritative hazard information; it does not replace an exposure or risk assessment.



HAZARD An inherent property or potential to cause harm.

RISK Depends on hazard, exposure, dose and use conditions.

Third-party verification readiness

Optional verification provides an additional level of assurance that the HPD complies with the Standard and supporting documentation.



Scope & threshold

Correct product, reporting method and disclosure threshold



Inventory completeness

Materials, substances, accessories, residuals and unresolved gaps



Identity & concentration

Identifiers, names, ranges, functions and supporting records



Supplier evidence

Questionnaires, confidential submissions, letters and source documents



Hazard reporting

Correct application of lists, special conditions, notes and unknowns



Independence

Verifier is independent and did not verify an HPD it helped prepare

Third-party verification is a desk audit of the HPD and supporting documentation. It is not laboratory testing or product safety certification.

Support for green building, specifications and procurement

Requirements vary by rating system, project version, product type and client specification.



Environmental Dimension reviews the exact credit, version and tender wording before confirming eligibility or point contribution.

Product categories we are structured to support

Priority sectors reflect the company's Saudi market exposure and the strongest global demand for EPD and HPD documentation.



Cement, concrete & minerals



Steel, aluminum & metals



Glass, gypsum & insulation



Coatings, flooring & adhesives



Wood, composites & doors



Plastics, packaging & membranes



HVAC, ducts & MEP products



Furniture & interior products



Solar & renewable technologies



Chemicals & specialty materials



Medical and laboratory products



Industrial equipment & systems

Product-specific feasibility is confirmed through PCR availability, data readiness, target market and verification pathway.

Technical QA, data governance and confidentiality

Every important decision must be reproducible, reviewable and linked to evidence.



Single source of truth

One controlled dataset for product, factory, supplier and disclosure records



Version control

Named versions, approval status, change history and release dates



Traceability matrix

Each input, assumption and statement linked to supporting evidence



Decision log

System boundary, cut-off, allocation, scenarios and methodological choices



Internal peer review

Independent internal technical and editorial review before external submission



Issue & CAPA register

Questions, nonconformities, corrective actions and closure evidence



Confidentiality protocol

Access control, NDA, secure storage and confidential annex management



Change management

Annual review and trigger-based updates for materials, suppliers and processes

Goal: a zero-ambiguity evidence trail that remains usable after publication, during audits and at renewal.

What we need from the manufacturer

Early ownership and complete records are the strongest predictors of schedule, cost and verification performance.

01 Project owner

Named internal lead with authority to coordinate departments and suppliers

02 Product definition

Product/SKU list, function, technical specifications and target markets

03 Production records

Representative annual volumes, energy, fuels, water, yield and waste

04 Material records

Bill of materials, quantities, SDS/TDS and supplier contacts

05 Process evidence

Process flow, allocation basis, emissions and quality/environmental records

06 Logistics & scenarios

Supplier origin, transport, packaging, use and end-of-life information

07 Target requirement

Tender clause, rating system, program operator or client documentation request

08 Confidentiality rules

NDA requirements, restricted data, supplier access and publication constraints

A short readiness assessment is recommended before committing to a publication date or verification schedule.

Start with one product or build a portfolio program

The delivery model is selected according to product complexity, repeatability and market urgency.



SINGLE PRODUCT LAUNCH

For one priority product or tender requirement

Readiness assessment
One EPD and/or HPD
Verification coordination
Tender summary



PRODUCT FAMILY PROGRAM

For related SKUs, plants or product families

Family strategy and variation rules
Shared data model
Multiple declarations
Portfolio QA and update plan



TRANSPARENCY PLATFORM

For manufacturers with recurring disclosure demand

Master product data architecture
Supplier engagement system
EPD/HPD pipeline
Dashboards, renewals and improvement

Global standards. Local execution. Manufacturer-focused delivery.

A practical partner for product transparency programs in Saudi Arabia and international markets.



Saudi market context

Understanding of local manufacturers, project stakeholders, environmental compliance and procurement realities.



Integrated environmental capability

EPD and HPD work connected to environmental studies, management plans, compliance and sustainability.



Sector experience

Experience across industrial, manufacturing, construction, logistics, services and medical sectors.



Accuracy and delivery discipline

Structured data requests, milestone controls, issue tracking and clear technical communication.



International methodology

Current standards, program operator rules, PCRs and verification pathways applied to each project.



Stakeholder coordination

Bilingual engagement with management, production, EHS, procurement, suppliers, verifiers and project teams.

Our promise: rigorous data, transparent boundaries, credible documentation and no confusion between preparation, verification and certification.

Standards, program rules and technical basis

Current as of July 2026; project-specific requirements and transition rules are confirmed at kickoff.

ISO 14025:2026

Environmental statements and programmes for products - EPDs

ISO 14040 / ISO 14044

Life-cycle assessment principles, framework, requirements and guidelines

ISO 14067

Product carbon footprint, where commissioned

ISO/TS 14027

Development of product category rules

ISO 21930 / EN 15804+A2

Construction product EPD rules, where applicable

PROGRAM OPERATOR GPI + PCR

Current instructions, valid PCR and publication requirements

HPD OPEN STANDARD v3.0

Current specification for product content and associated health information

HPDC THIRD-PARTY VERIFICATION

Optional independent review methodology and approved verifier pathway

PROJECT-SPECIFIC RATING SYSTEMS

LEED, WELL, BREEAM, Mostadam, Estidama, GSAS and developer requirements

Capability statement: Environmental Dimension prepares and coordinates EPD/HPD documentation. Independent verification, registration and certification decisions remain with the applicable approved external bodies.



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Make your product data specifier-ready.

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Start with a product readiness review and a clear disclosure roadmap.

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