

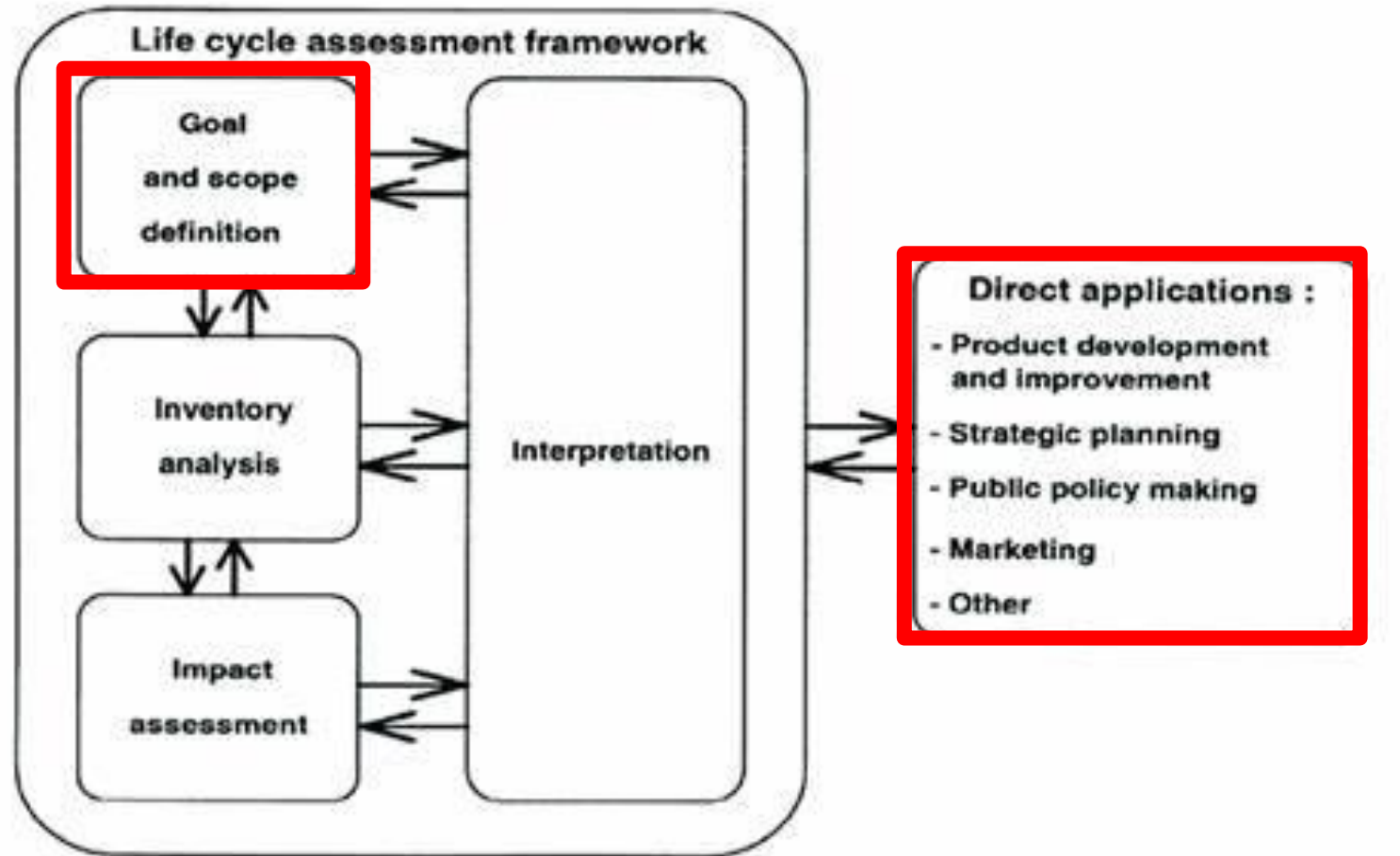
LEVEL CONCEPT DRAFTING

UNECE GRPE IWG A-LCA

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LCA procedure & application – ISO 14040



Level Concept – general characteristics

	Purpose	Degree of freedom	vehicle model	supply chain model
Level 1	strategy	multiple approaches possible	generic	generic
Level 2	strategy	multiple approaches possible	BOM & MDS	generic
Level 3	reporting	single fixed approach	BOM & MDS	partly specific
Level 4	reporting	single fixed approach	BOM & MDS	mainly specific

BOM bill of material, MDS material data system

Use cases and application – Level 1

Level 1 (multiple approaches possible)

✓ Purpose

- General uses, including research and strategic public policy making
- Strategic planning: future projection, fleet modeling, etc.

✓ Vehicle modeling

- Generic fuel-powertrain model normalized by vehicle mass
- Generic part and material composition
- User-defined vehicle model

✓ Approach for the application of the level concept

- Flexible in applying “mix&match” of levels from different life cycle stages, depending on the purpose of the study, availability of data, etc.
- For comparability and transparency, practitioners should specify the discrete levels (“mix&match”) used for their applications

Use cases and application – Level 2

Level 2 (multiple approaches possible)

✓ Purpose

- OEM's internal assessment and strategic planning
- Product development and improvement
- Marketing

✓ Vehicle modeling

- Existing vehicle model of choice for assessment
- Bill of material (BOM) & material information system (IMDS/CMDS) for composition

✓ Approach for the application of the level concept

- Flexible in applying “mix&match” of levels from different life cycle stages, other than vehicle modeling, depending on the purpose of the assessment
- For comparability and transparency, practitioners should specify the discrete levels (“mix&match”) used for their applications

Use cases and application – Level 3

Level 3 (single fixed approach)

- ✓ Purpose
 - OEM's official reporting
 - Reporting for government programs
- ✓ Vehicle modeling
 - Representative vehicle for reporting
 - Bill of material (BOM) & material information system (IMDS/CMDS) for composition,
 - for hotspot parts applying “part-by-part” supply-chain modeling instead
 - Harmonized material classification
- ✓ Approach for the application of the level concept
 - Each lifecycle stage should specify one fixed, proper level for one harmonized A-LCA approach.

Use cases and application – Level 4

Level 4 (single fixed approach)

- ✓ Purpose
 - OEM's and supplier's official reporting
 - Reporting for government programs
- ✓ Vehicle modeling
 - Representative vehicle for reporting
 - Full supply-chain and vehicle production modeling
- ✓ Approach for the application of the level concept
 - Full lifecycle modeling (material production, part & vehicle production, usage, and end-of-life)
 - Rules required for chain of custody