

# Comparability of the Environmental Effects of Logistics Services

## - Sector Guidance for Ecological Assessments -

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# Overview R&D project Green Logistics

## Project Partners



## Transparency & Comparability

- Development of assessment methods for the whole logistics chain
- Derivation of key figures on energy and resource consumption
- Creation of certificate for green logistics service providers

## Discussion and expertise via Stakeholder Group



## Green Levers, Products & Services

- Conception and realization of various levers with focus on
  - Piece goods and packages
  - Road, rail and air freight
  - Real estate and intra-logistics



# Background & approach for sector guidance

## Norms, standards



## Tools, databases

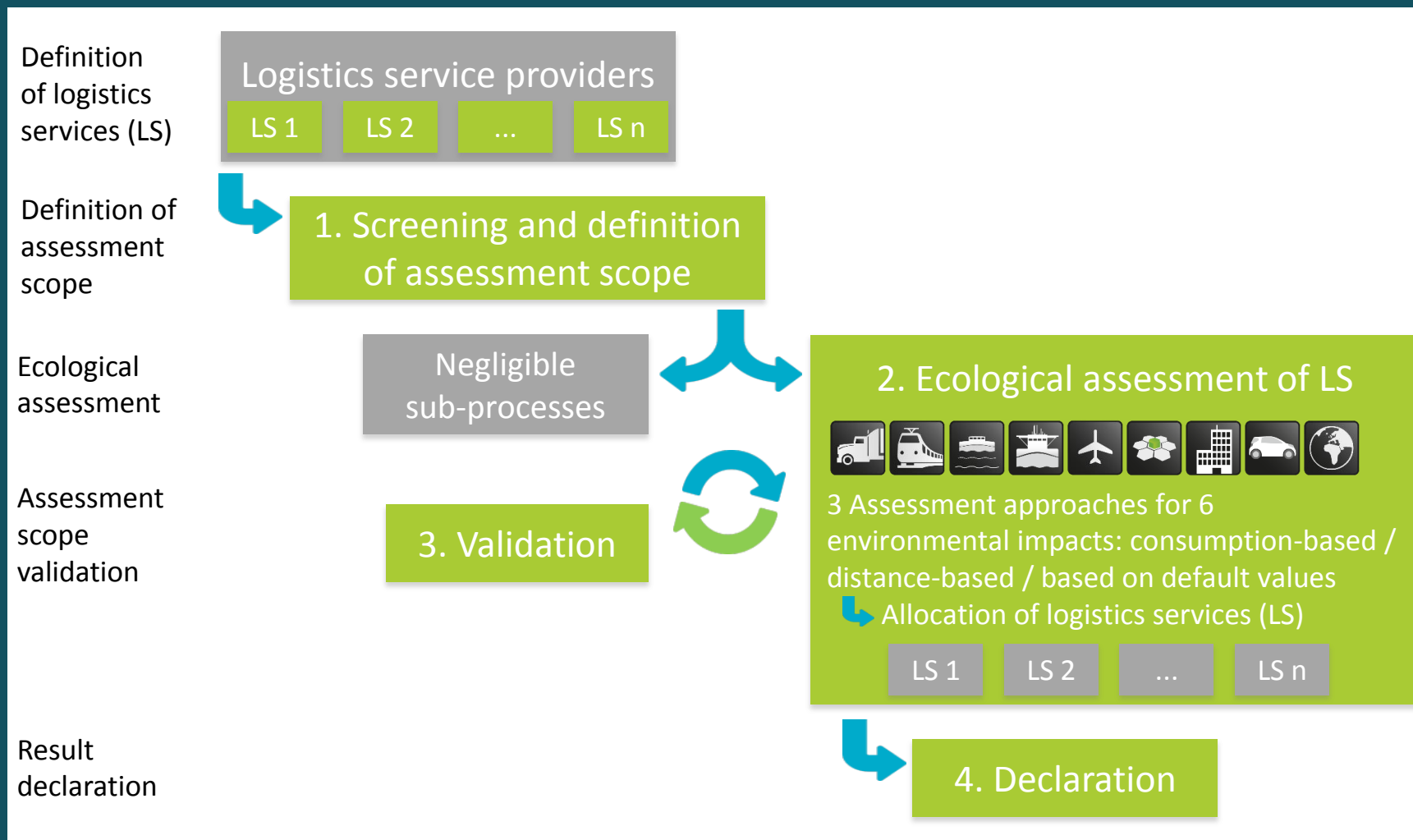


## Initiatives, projects



- Identification of relevant processes and sources of emissions from logistics services
- Definition of relevant emission categories
  - Transport (all modes): freight transport, provision of transport means & containers, ...
  - Logistics sites: intra-logistics, material consumption, real estate, ...
  - System-wide sources: administration, commuting, business travel
- Definition of relevant environmental effects:
  - CO<sub>2</sub>e, energy, SO<sub>2</sub>, NO<sub>x</sub>, CO
  - Noise, land consumption, particulate matters

- Realization of comparable results for comparable logistics services
  - Step 1: Screening and definition of assessment scope
  - Step 2: Ecological assessment of logistics service
- Applicability for large as well as small companies
  - Assessment of own and subcontractor processes
  - Usage of real process data  $\Rightarrow$  reality
  - Usage of default values  $\Rightarrow$  operability
- Definition of comprehensive set of relevant default values
  - Alignment with existing data bases & current initiatives
  - Provision of new parameters e.g. at logistics sites (warehousing, transshipment), auxiliary processes rail transport



# Exemplary Step 1: DHL Parcel Germany

DHL Parcel Germany

Day definite mail services

Deutsche Post DHL

1. Screening and definition  
of assessment scope

Emission category	Rate	Rate (cum.)	Step 2?
Road (Scope 3)	67.13%	100.00%	✓
Distribution site (Scope 3)	14.72%	32.87%	✓
Distribution site (Scope 1/2)	14.72%	18.15%	✓
Road (Scope 1/2)	3.43%	3.43%	✓
Others, not part of logistics service			

Negligible  
sub-processes



2. Ecological  
assessment of LS



# Exemplary Step 1: Werner&Mertz GmbH



Werner&Mertz GmbH

Distribution of finished goods

1. Screening and definition  
of assessment scope

Negligible  
sub-processes



2. Ecological  
assessment of LS



Emission category	Rate	Rate (cum.)	Step 2?
Road (Scope 3)	67.69%	100.00%	✓
Distribution site (Scope 1/2)	24.24%	32.31%	✓
Maritime (Scope 3)	5.00%	8.07%	✓
Commuting (Scope 3)	1.84%	3.07%	✓
Rail (Scope 3)	1.06%	1.23%	✓
Business travel (Scope 1-3)	0.08%	0.17%	✗
Air (Scope 3)	0.05%	0.09%	✗
Storage site (Scope 3)	0.04%	0.04%	✗
Others, not part of logistics service			

- Green Logistics method further develops existing approaches of ecological assessment of logistics (often carbon footprints of transport)
  - All relevant processes are covered.
  - Additional environmental effects are included.
  - Complete yet pragmatic approach is outlined.
- Still, alignment and consolidation of current activities is necessary and started in Green Logistics.

This includes

  - Methodological approaches
  - Data sets for default values
  - Design of “critical review”, i.e. check of method’s application