

CO2 Performance Ladder recertification 2026

Fastned Value Chain Analysis

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Owners:

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Purpose: This document summarizes Fastned's value chain to fulfil the CO2 Performance Ladder certification's requirements. Please note, this document is not intended to be CSRD-compliant.

Step 1: Direct relationships

Upstream (top 50% of CAPEX expenditure*):

- Charging equipment manufacturers
- Electrical services (infrastructure/grid connection/installation)
- Spare parts stocks (for charger maintenance)
- Substructure
 - Construction subcontractors (EcoCare, Stadsbader NV, others)
 - Components and materials (incl. transformers for substations, concrete for foundations)
- Superstructure
 - Construction subcontractors
 - Materials (incl. steel for canopies)

*We focus on CAPEX because it is directly linked to station construction, charging equipment and amenities. These are the supply chains where we see the main opportunities to reduce emissions through design choices, purchasing and supplier collaboration.

Link to activities:

- Electrical services/Substructure/Superstructure → Activity 1 (Station construction)
- Charging equipment manufacturers/Spare parts stocks → Activity 2 (Charging equipment procurement)
- Note: Shop equipment and fittings, linked to Activity 4 (Amenities construction) is included in the top 60% of spend

These upstream suppliers collectively represent >80% of Fastned's total CAPEX expenditure in 2025.

Please note that multiple suppliers are grouped into the categories of "substructure" and "superstructure." For the sake of this exercise, we focus on suppliers in our value chain that not only supply us with materials and services of significant financial value, but also suppliers whose materials/services contribute significantly to Fastned's CO2 footprint.

Downstream (top 50% of revenue):

- eMSPs (via roaming agreements) and B2B customers - largest revenue sources
- B2C customers (individual EV drivers)

Link to activities:

- All → Activity 3 (Use of sold electricity)

B2B customers and eMSPs collectively represent >80% of Fastned's revenue sources in 2025.

Step 2: Mapping

Construction value chain: Raw materials (cement/steel production) → Material suppliers (concrete suppliers, steel mills) → Construction subcontractors (EcoCare, Stadsbader and others) → Fastned station construction → Station operation → End-of-life and dismantling

Emission sources: Cement production (CO₂-intensive), steel manufacturing, transport, on-site construction equipment

Equipment value chain: Semiconductor/electronics/cables manufacturing → Component suppliers → Charger manufacturers → Fastned procurement/installation → Station operation → Charger recycling

Emission sources: Energy-intensive manufacturing, rare materials extraction, transport

Amenities value chain (BE, DE, CH, NL, UK): Raw materials (wood) or prefabricated units (toilets: concrete-based floor and steel construction; kiosks: European-certified wood, large steel screw foundation, recycled plastic L-stone) → Construction subcontractors (Stadsbader and others) → Fastned kiosk or shop construction → Kiosk or shop operation → End-of-life and dismantling or moving prefabricated unit to warehouse/another location

For construction and amenities, we can influence emissions through design choices, material specifications and supplier selection. For charging equipment, we can request carbon footprint information and discuss improvements with suppliers, but changes to product design and manufacturing also depend on the manufacturers.

Emission sources*: Prefabricated unit construction, transport, on-site construction equipment

**Note: These are assumptions, as we currently only have a spend-based footprint calculation for kiosks and shops. We hope to produce a kiosk LCA by the end of 2026.*

Step 3: Emissions allocation (FY 2025)

The percentages below show the emissions breakdown for the station covered by the LCA, not shares of our total company footprint. They indicate the contribution of material suppliers, equipment manufacturers and construction contractors.

Construction (Activity 1):

- Foundations: 6.3% (e.g. concrete suppliers)
- Canopy structure: 7.9% (e.g. steel and lumber suppliers)
- Canopy cover: 4.5% (e.g. steel suppliers)
- PV system: 19.5% (PV panel suppliers)
- Civil works: 16.7% (e.g. subcontractors and grid connection work)
- Construction operations: 16.9% (e.g. subcontractors)
- **Total construction: 71.8%**

Equipment (Activity 2):

- Chargers: 27.1% (e.g. EV charging manufacturers)
- Cables: 1.1% (e.g. EV charging manufacturer suppliers - in their value chain)

- **Total equipment: 28.2%**

Total per station: 100%

Amenities (Activity 4): For amenities, the current spend-based estimate does not yet provide a reliable breakdown between individual parties. We are working towards establishing an LCA for our unmanned, prefabricated kiosks by late 2026/early 2027.

Step 4: Most relevant partners

Fastned identified suppliers/service providers as our “most relevant partners” who are ...

- Key, longstanding suppliers
- In close proximity to Fastned’s headquarters
- Also participating in the CO2 Performance Ladder (e.g. EcoCare, Stadsbader)
- Considered frontrunners in their industries
- Keen to collaborate and innovate

Partners where high reduction potential is possible

- Concrete suppliers (EU and UK): Low-carbon concrete alternatives
 - Reduction potential: A 50% cement-free (or 50% OPC replacement) binder system—often referred to as a blended binder, ternary mix, or binary supplementary cementitious material (SCM) mix—reduces embodied carbon by approximately 30% to 50% compared to a 100% Ordinary Portland Cement (OPC) mix.
- EcoCare: Electric construction equipment and/or HVO use
 - Reduction potential:

Blend	HVO Content	Fossil Diesel	CO2e Reduction Potential (Well-to-Wheel)
HVO100	100%	0%	80% – 90%
HVO50	50%	50%	40% – 45%
HVO30	30%	70%	24% – 27%
HVO20	20%	80%	16% – 18%
HVO7 (B7 standard blend)	7%	93%	5.5% – 6.3%

- EV charger manufacturer: Optimized charger design, manufacturing efficiency, component sourcing
- Components supplier: Refurbishment of used station components

Partner where medium reduction potential is possible

- Steel supplier: Optimized steel components designed for reuse (circularity)

Step 5: Reduction opportunities

Short-term (1–3 years; 2024–2027):

- Foundation optimization: 20–30% material reduction (Activity 1, scope 3)
- Electric construction equipment pilots (Activity 1, scope 3)
- Recycled/refurbished materials testing (Activity 1, scope 3)
- Charger procurement criteria including carbon footprint (Activity 2, scope 3)

Medium-term (3–10 years; 2027–2034):

- Low-carbon concrete transition: 30–50% reduction potential (Activity 1, scope 3)
- Circular station designs: full material reuse (Activity 1, scope 3)
- Next-gen high-efficiency chargers (Activity 2, scope 3)
- European manufacturing for key components (Activity 2, scope 3)

Negative effects assessment: Minimal. Sustainable materials may have slight cost premium impacting margins short-term, but no rebound effects expected in other scopes.