Q&A Session on the PCF Rulebook V4

Catena-X Automotive Network e.V.

30.9.2025 // PCF Methodology Expert Group

Legal framework and antitrust requirements for the meeting

Before the start of this meeting, express reference is made to the pre-competitive nature of the meeting.

Participants are requested not to make any impermissible decisions, agreements, recommendations, discussions or spontaneous statements on topics relevant to antitrust regulations during this meeting.

Please refer to the Association's Antitrust Guidelines for further details.

Antitrust Guidelines Catena-X Automotive Network

Agenda

1	Introduction and Key Changes PCF Rulebook v4 Andreas Kircher	10 min + 5 min Q+A
2	Data model (incl. Biogenic up take) Florian Ansgar Jaeger	25 min + 5 min Q+A
3	Prospective PCF Stephan Neuschaefer-Rube	10 min + 5 min Q+A
4	Electricity Accounting Ansgar Christ	10 min + 5 min Q+A
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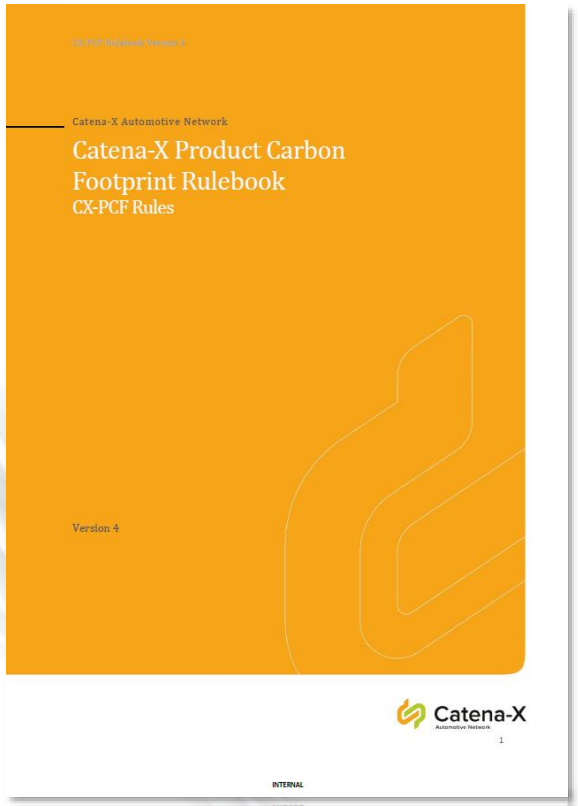
Introduction & PCF Rulebook V4.0



Rulebook Download Location

- Link (also see Invite)

Questions during the meeting

- **QR code to the Slido for Q&A** at the end of each agenda Point
- Please focus your **questions on PCF Rulebook related topics**

Next Steps

- **Slides, Q&A and Feedback Form** will be distributed after the Session to all registered participants
- **Session recording** will be available for CX members internally
- Please submit **your feedback** by the attached feedback form

Q&A Poll

Submit your questions during the presentation in the Slido

Key Changes

Topic, chapter	Rulebook v3.1	Rulebook v4
Transition period extended to 2027 (Chapter 2, p. 16)	Transition Period end: End of 2025	Transition Period end: End of 2027 extended to enable the applicability of the PCF Rulebook especially for SMEs in the short term and to give them time to get adapted to the demanding additional rules
Screening analysis / recalculation of PCF (Chapter 4.3.1, p. 21 f.)	Recalculating needed if the screening analysis shows a 5 percent increase.	Recalculating needed if the screening analysis shows a 10 percent increase. The cut-off criteria was increased from one percent to three percent of the total PCF in version 3. In order not to be too close to this three percent, the limit for a recalculation of the PCF was increased from 5% to 10% in version 4 of the Rulebook
Update of Annexes A 3 to A 6 (sector-specific requirements) to reflect changes in CX PCF Rulebook v4 (Annexes, p. 48 ff.)	Annexes A 3 to A 6 provide additional requirements and recommendations for the steel, chemicals and aluminum sectors to be CX-PCF compliant.	The tables were updated to reflect the recent changes on temporal validity and chain of custody

Q&A Poll

Audience Q&A

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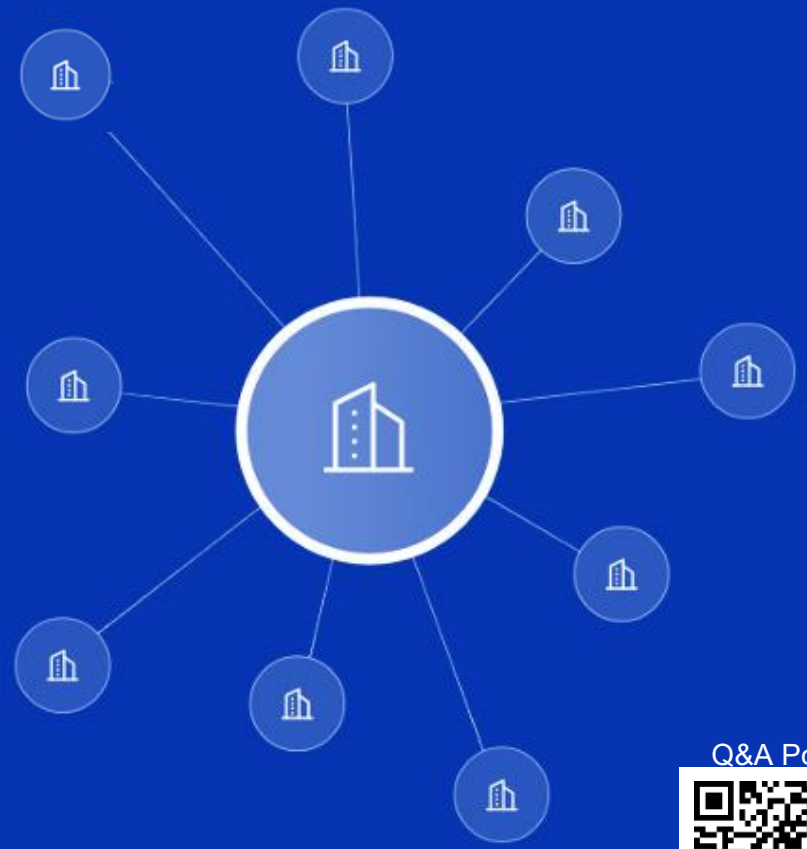
Q&A Poll

Current status of the PCF data model

Status 30.09.2025

Semantic description	– Specification containing definitions of parameters for LCA- expert to understand what their meaning is – Status: published
Aspect model	– Specification for technical implementation (similar to an API specification) – Status: published
Additional semantic guidance	– Guidance documents which are easy to read for non-technical experts – Status: pending



Q&A Poll

General changes from Data model V7→V8

- Data model extensions for:
  - PCF Verification and PCF Program Certification Framework V2
  - Prospective PCF
  - Mass balancing
  - Full emission set also for distribution and packaging
  - Rulebook v4
- Improvements in interpretability for LCA-Experts:
  - Description of all attributes reworked based on user feedback
  - Catena-X compliance requirements stated
- Interoperability improvements with PACT and TFS
  - Changes in technical field names adopted, value list adopted, …
  - New PACT and TFS attributes added if applicable for Catena-X Rulebook v4
    - Not adopted was CCS, CCU and Land Management, since not specified in Catena-X Rulebook

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Prospective PCF

Prospective PCF: differentiation into 3 PCF types

New product without forerunner

Upstream, own operations:
Use of secondary data

Transport:
Use of an assumption concerning the predominant origin of this product in the company's own supply chain

Further developed product with forerunner

Upstream, own operations:
Modelling using secondary data allowed for modified product portions
For portions of the product that remain unchanged based on the production of the forerunner product. Reductions must be justified and proven

Transport:
Only modified portions can be subject to new modelling the transport emissions.

Existing product for future production date

Upstream:
Reductions to the upstream production emissions are only permitted if commitment from the reporting supplier can be presented.

Own operations:
PCF reduction only permitted if improvements to the production emissions can be justified by reduced emission intensity of used energy.

Transport:
Any changes to the current transport emissions need to be justified by commitments of the logistic companies

To keep it simple:

- No data quality rating (DQR), no primary data share (PDS)
- No annual checks are mandatory. An update shall only be provided on demand

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Electricity Accounting

Elements of Electricity Accounting:

	New?
a. Upstream emissions (e.g. coal mining & transport to power plant)	Ø
b. Generation & transmission emissions (e.g. combustion of coal & transmission losses of the grid)	Ø
c. Infrastructure emissions (embedded emissions in power plants, transmission grids, backup-systems …)	✓

Connection Types:

	Consumption
• Direct connection to a generator (physical: e.g. PV panel or wind turbine on company grounds)	as produced
• Virtual direct connection to a generator (e.g. PV panel or wind turbine off company grounds w/o dedicated line)	as produced
• Connection to the grid (participation in the **electricity system,** i.e. generators, transmission lines, backup-systems …)	on demand

Q&A Poll

Electricity Accounting

Infrastructure emissions (direct connection / as produced):

- Construction emissions of generator
  e.g. 5 MW off-shore wind turbine — $5600t_{CO2}$
- Capacity factor of generator
  e.g. full load hours per year (FLH) — 3200h ≙ 36% of nominal capacity
- Lifetime of generator
  e.g. 5 MW off-shore wind turbine — 25 years

↳ E_{inf} = 5 600 000 000 / (0.36 * 8760 *25 * 5 000) g_{CO2}/kWh — 14 g_{CO2}/kWh

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Infrastructure emissions (electricity system / on demand):

- Construction emissions of electricity system — usually not quantified
- Total power consumption in the electricity system
- Lifetime of electricity system

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- Total power consumption in the electricity system
- Lifetime of electricity system

$Germany_{2024}$: 99,3 GW PV; 63,5 GW on-shore wind; 9,2 GW off-shore Wind — simplified approach

↳ : E_{inf} = 58% $E_{inf,PV}$ + 37% $E_{inf,won}$ + 5% $E_{inf,woff}$ — 32 g_{CO2}/kWh

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Q&A Poll

Chain of custody: Mass balancing - methodological requirements

Definition of mass balancing

Mass balancing is a method for **quantity-based allocation** of attributes to final products.

Basis: ISO 22095 – Chain of Custody is not regulated further at the moment (ISO 13662, ISO 13659 and ISO 14077 in preparation)

Mass Balance methods

Rolling average

Attributes are allocated as a time-averaged value across a process chain or production site.

Credit method

Attributes are specifically assigned to individual products based on defined criteria.

Book & Claim not permitted: Only product-related measures are eligible for allocation.

Rules for all Chain of Custody Methods as in Version 3

1. The use of chain-of-custody approaches **shall achieve significant changes** and an effective transition towards a lower GHG emissions production in complex value chains.
2. The choice and implementation of chain-of-custody approaches and models shall be **transparent, clear, credible and verifiable**.
3. **No double counting**: A reliable accounting system shall be installed at each operating site to ensure that the claimed volume on the output side exactly matches the actual volume on the input side within the declared time and regional scope.
4. For each material or product, **claim periods** shall be defined, which shall correspond to the claimed relation of the input to the output **(max. 1 year).**
5. The **operating sites** in the spatial boundaries for mass balancing are **under the operational control of the same company**/ corporate group/ joint venture.

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Additional requirements for a mass balancing credit method

1. It **shall be technically possible according to standard industry practice to produce a mass-balanced product from an alternative feedstock**.
2. **Only additional measures** relative to the PCF of the residual product **shall be considered.**
3. **Physical traceability of the material in the supply chain**
   It must be possible for portions of the material to be physically present in the product.
4. **Technical equivalence**
   The product must possess the same technical properties as the equivalent product without applied measures.
5. **Multi-site mass balance** possible under certain conditions.

Q&A Poll

Audience Q&A

Closing and Next Steps

Event Overview:

September 30, 1:00–2:30 pm CEST – Catena-X Q&A Session on the PCF Rulebook v4 (Register here)

October 7, 1:00–2:00 pm CEST – Catena-X PCF Calculation Apps Pitch Session (Register here)

October 8, 2:00–3:00 pm CEST – Catena-X & TfS PCF Verification Public Q&A Session (Register here)

End of Session

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