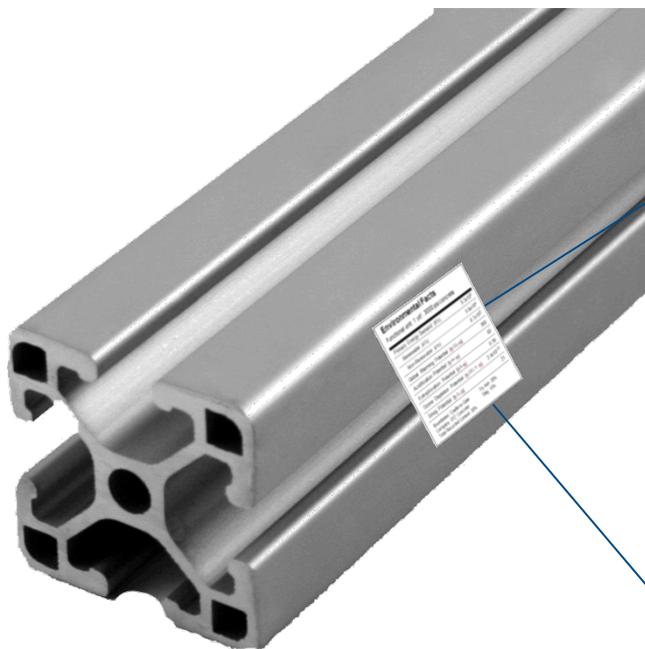**Product Category Rules (PCRs)** and

Environmental Product Declarations (EPDs)

Overview of Terms and Functions

Moving to Concise and Consistent LCA Information

Environmental Facts

Declared unit: 1 metric ton of extruded aluminum

Primary Energy Demand [GJ]	102.44
Global Warming Potential [kg CO_2-eq]	6570
Acidification Potential [kg SO_2-eq]	38
Eutrophication Potential [kg N-eq]	0.77
Smog Potential [kg O_3-eq]	327
Water Consumption [kg]	3130

Boundaries: Cradle-to-Gate   LCIA Approach: TRACI 2.1
Company: XYZ Extruders
Recycled content: 29%

Example LCA results

Image source: www.amazonsupply.com

PCR, LCA, and EPD – Definitions

The Guidelines

Product Category Rules (PCR)
"Set of specific rules, requirements, and guidelines for developing Type III environmental product declarations for one or more product categories" (ISO 14025)

The Analysis

Life Cycle Assessment (LCA)
"Compilation and evaluation of the inputs, outputs and the potential environmental impacts of a product system throughout its life cycle" (ISO 14040)

The Declaration

Environmental Product Declaration (EPD)
"Providing quantified environmental data using predetermined parameters and, where relevant, additional environmental information" (ISO 14025)

Why EPDs and PCRs?
Building on LCA Information

- **LCAs are built on generic guidelines**
  - ISO standards (14040/44)
  - Do not provide product-specific guidelines
  - Lack of prescriptive methodologies

- **EPDs are product-specific**
  - Follow LCA standards (14040/44, 14025, 21930), and…
  - Follow Product Category Rules (PCRs)
    - *PCRs are specific to a product group*
    - *Developed in conjunction with LCA experts and industry stakeholders*
    - *Examples: windows; steel; wire*
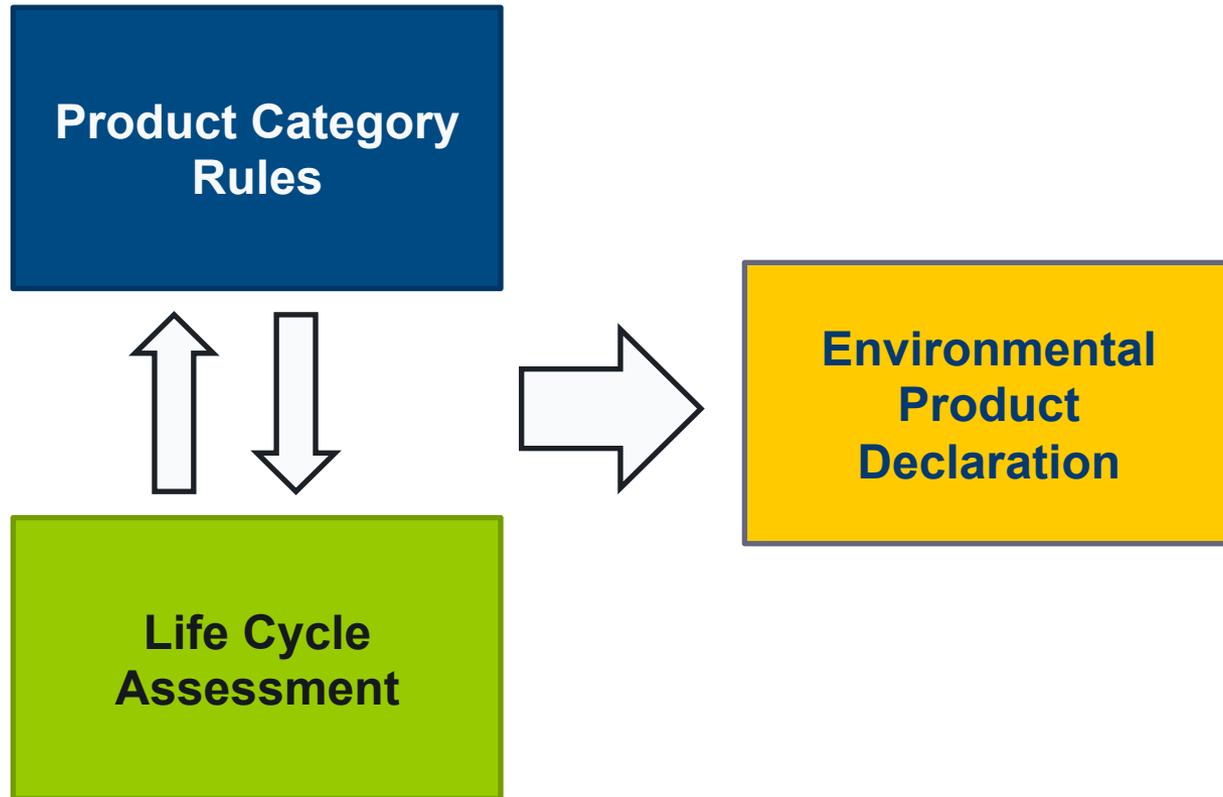 - Prescribe methodologies and/or data to be used

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PCR, LCA, and EPD – Relationships

EPD Development Process

Create the PCR
(if none exist)
- Stakeholder engagement
- Consensus-based document
- Collaborate with program operator and/or LCA expert

Conduct the LCA
- Primary data collection
- Industry and/or company-specific model
- Support from LCA expert
- Compliant with ISO 14040/44

Create the EPD
- Summary of LCA
- Follows PCR
- Compliant with ISO 14025

Verify the EPD
- Work with program operator
- Review LCA report/model
- Review EPD
- Publish on program operator website

EPD