THE GOVERNMENT
OF THE GRAND DUCHY OF LUXEMBOURG
Ministry of the Economy

Jérôme Petry (Ministry of the Economy Luxembourg)
Thibaut Wautelet (+ImpaKT Luxembourg)

+IMPAKT

Agenda

1. Introduction by Franz Fayot, Minister of the Economy and Minister for Development Cooperation and Humanitarian Affairs of Luxembourg

Franz Fayot

Minister of the Economy @ Ministry of the Economy

2. Presentation of the PCDS

What is the PCDS, key benefits and major achievements – Jérôme Petry, Deputy Director Sustainable Technologies, The Ministry of the Economy of Luxembourg

3. Testimonial on the practical usage of the PCDS - *Panel hosted by Jérôme Petry*

ArcelorMittal – Mauro Chiapini, ArcelorMittal

Astron Buildings – René Oly, Lindab

GS1 Nederland – Jan Merckx

Tarkett - Alain Casoli

Jerome Petry

Deputy Director Sustainable Technologies @ Ministry of the Economy

Thibaut Wautelet

Project Manager @ +Impakt

4. Q&A Session

Discussion hosted by – Thibaut Wautelet, +Impakt

Jan Merckx

Sustainability Specialist @ GS1 Nederland

AC

Alain Casoli

Tarkett

René Oly

Innovation and Methods Manager @ Astron Buildings

Mauro Chiappini

Research Engineer Environmental Sustainability @ ArcelorMittal

1. Introduction

PCDS
PRODUCT CIRCULARITY DATA SHEET
LUXEMBOURG

Video message by
Mr. Franz Fayot, Minister of the Economy
and Minister for Development
Cooperation and Humanitarian Affairs
of Luxembourg

2. Presentation of the PCDS

1. What is the Product Circularity Data Sheet?
2. Key benefits of the PCDS
3. PCDS System
4. Major achievements of the PCDS
5. Platforms involved

2.1. What is the Product Circularity Data Sheet

PCDS
PRODUCT CIRCULARITY DATA SHEET
LUXEMBOURG

Group of +50 companies

Ministry of the Economy of Luxembourg

+Impakt

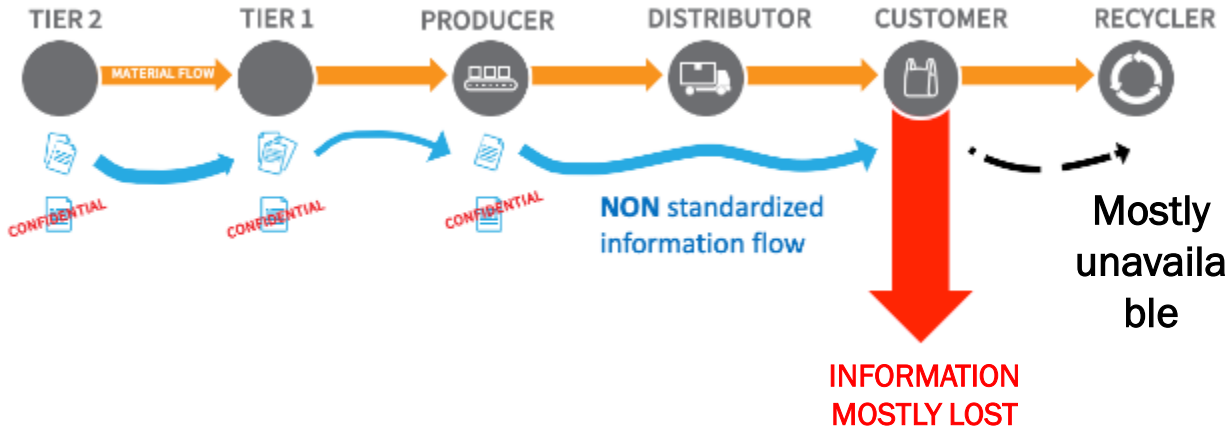
focusing on the establishment of an industry standard for communicating data on the circularity of products:

1. Save costs to manufacturers & suppliers by providing a standardized approach to offer product information
2. Align with a common language on circularity features
3. Support the design of circular & healthier products
4. Support the implementation of cost-effective circular business models

2.2. Key benefits of the PCDS

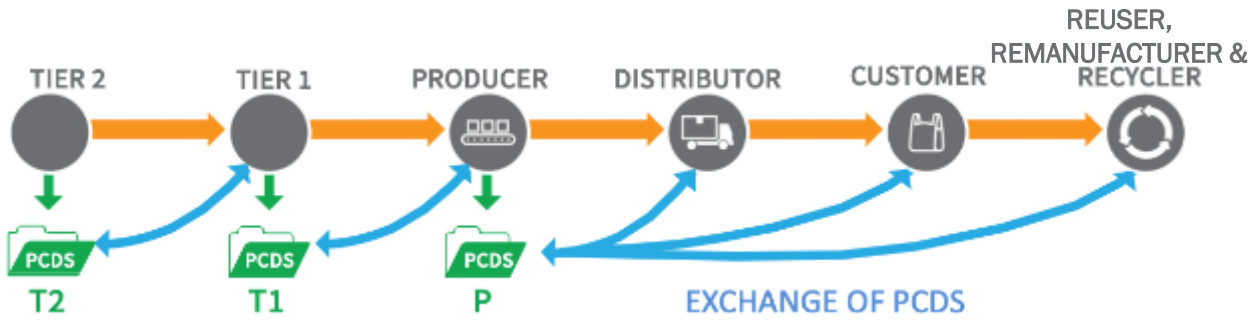
PCDS
PRODUCT CIRCULARITY DATA SHEET
LUXEMBOURG

Problem statement:
Collecting circularity data is expensive, difficult and non-standardized



The solution:
Standardized way to share circularity data at each step of the value chain

1) a data template which contains **standardized** and **trustworthy information** on the **circularity of a product**
2) a **third-party verification process** to validate the content of the PCDS
3) a **standardized data exchange protocol** based on a decentralized data storage approach



2.3. PCDS System

Data Template – Guidance Document – Audit System – IT System

PCDS
PRODUCT CIRCULARITY DATA SHEET
LUXEMBOURG

SECTIONS	STATEMENTS (EXAMPLES)
GENERAL INFORMATION	
COMPOSITION	THE PRODUCT CONTAINS > 75-95 % POST-CONSUMER RECYCLED CONTENT BY WEIGHT THE PRODUCT DOES NOT CONTAIN SUBSTANCES OF VERY HIGH CONCERN FROM THE REACH CANDIDATE LIST IN CONCENTRATION ABOVE 0.1% BY WEIGHT
DESIGNED FOR BETTER USE	THE PRODUCT CAN BE MAINTAINED & REPAIRED BY UNTRAINED PERSONNEL AT THE LOCATION OF THE PRODUCT USE
DESIGNED FOR DISSASSEMBLY	THE PRODUCT IS DESIGNED TO BE INSTALLED AND DEMOUNTED USING REVERSIBLE CONNECTORS
DESIGNED FOR RE-USE	THE PRODUCT IS DESIGNED FOR RE-USE AS-IS OR WITH MINIMAL MODIFICATION THE PRODUCT IS DESIGNED FOR COMPOSTING IN A HOME COMPOSTER

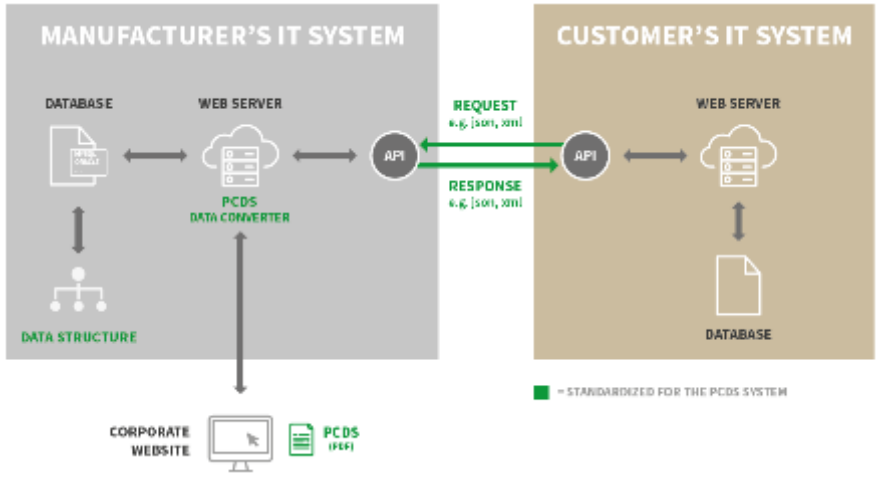
Connection Types	Description
Type I	• Direct chemical connection. Two materials are permanently fused by chemical means (no re-use or recycling)
Type II	• Indirect connection with irreversible chemical connection, which is stronger than the connected elements/ materials/products
Type III	• Direct connection with reversible chemical connection. Two elements are connected with softer chemical substances, which can be removed or disseminated (reuse by refurbishment is possible).
Type IV	• Direct insert connection. Two elements are connected by upland insertion of accessories into the element (element is weaker after disassembly).
Type V	• Direct connection with mechanical fixing devices. Two elements are connected with mechanical connection, which can be removed without damaging the elements (reuse and reconfiguration/adaptability is possible).
Type VI	• Indirect connection via dependent third component. Two elements are separated with third element/component, but they have dependence in assembly (reuse is partly possible).
Type VII	• Interlock connection. Two elements are connected with each other being damaged by fixing devices (direct reuse and reconfiguration/adaptability possible).
Type VIII	• Intermediary connection. Two elements are connected by third element using glue and chemical connections. Disassembly of one element does not affect the other (direct reuse and reconfiguration/adaptability possible).
Type XI	• Gravity. Two elements are connected only by gravity force.

Table 4: Connection Types Typology developed by F. Chevrolet, Toronto University for PACE Project

4.9. **disassembling**
ability of a product to be taken apart at the end of its useful life in such a way that the constituent sub-elements or components can be re-used or recycled. (ISO 6707-3:2017, Definition 3.7.31)
This is distinct from demounting where the product is being removed from another context like a structure or vehicle.

ASSURANCE MECHANISMS

SCOPE GOVERNANCE	SCOPE DATA	SCOPE PRODUCT
1 SELF ASSESSMENT	4 DESIGN & EFFEFFECTIVENESS VERIFICATION	5 PRODUCT CHARACTERISTICS VERIFICATION
2 DESIGN VERIFICATION		
3 DESIGN & EFFEFFECTIVENESS VERIFICATION		



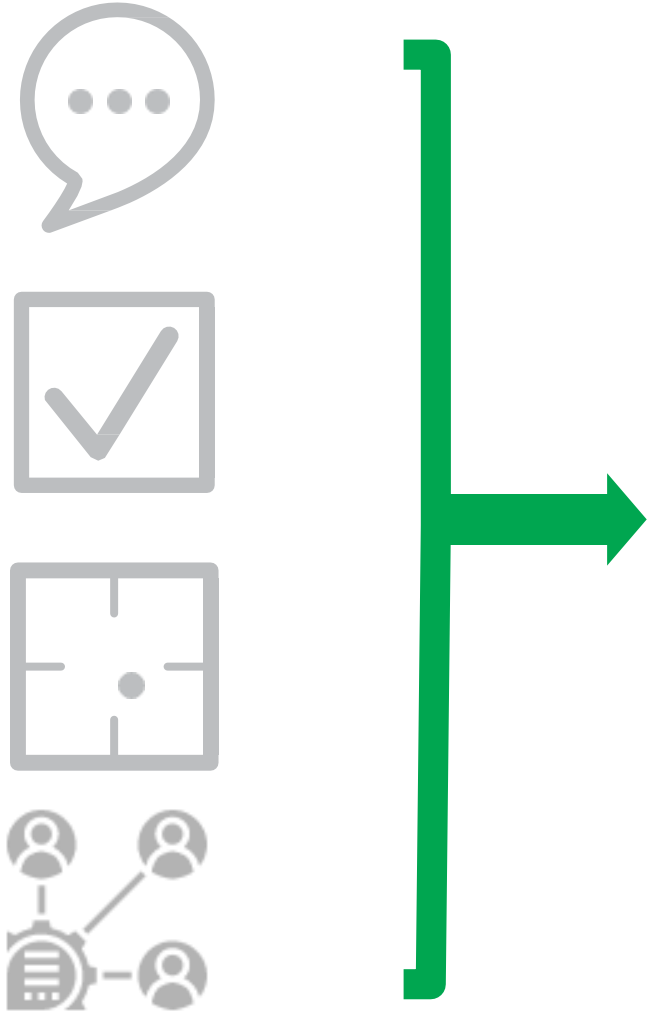
2.4. Major achievements of the PCDS

COMMON LANGUAGE

STANDARDIZED

DECENTRALIZED

STRONG SUPPORT
from stakeholders and
international platforms



AFFORDABLE

AUDITABLE

LOW EFFORT

SCALABLE

TRUSTWORTHY

2.5. Platforms involved

World Business Council for Sustainable Development

Product Data Template

Testimonial on the practical usage of the PCDS

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4. Q&A Session

Feel free to ask your questions in the second column on your right

Thibaut Wautelet

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Contact

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LUXEMBOURG

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