



# Exploring possible Digital Product Passport (DPP) use cases in electronics and textile value chains

Thibaut Wautelet

*Senior Circular Economy Advisor, +ImpaKT*

CIRPASS Final Event – Brussels, 5<sup>th</sup> March 2024

# +ImpaKT - Who are we ?

Strategy and policy advice  
for the transition to  
Circular Economy (CE)



Innovation and New Business  
Models for Circular Economy

Circular Building  
and Construction

CE Data and Product  
Passport



# Exploring DPP use cases - Objectives

## Key questions

WHY ?

Which DATA ? For which PURPOSE & BENEFITS ?

## Approach

**Use Cases** are identified to understand what benefits and opportunities can be provided by improved access to sustainability and circularity related product data.

**3 prioritized sectors**

Battery



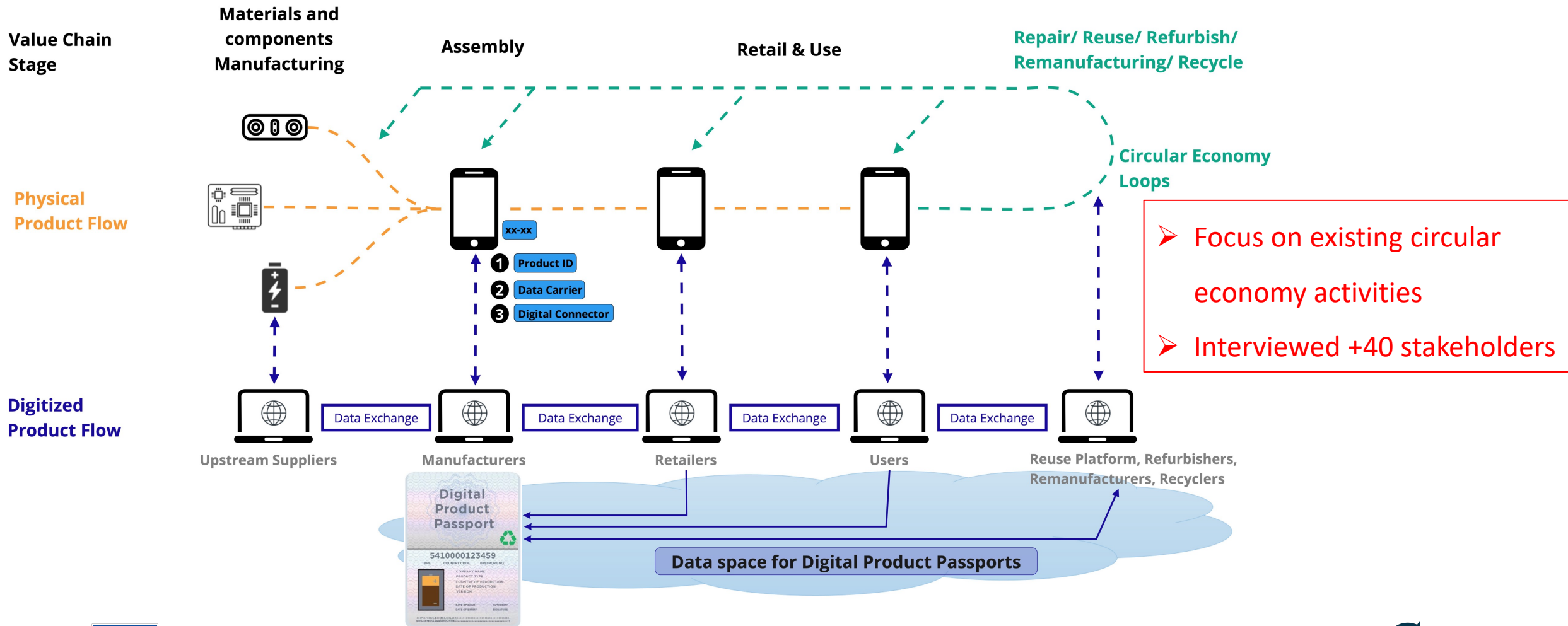
Electronics



Textile



# Exploring DPP use cases - Methodology

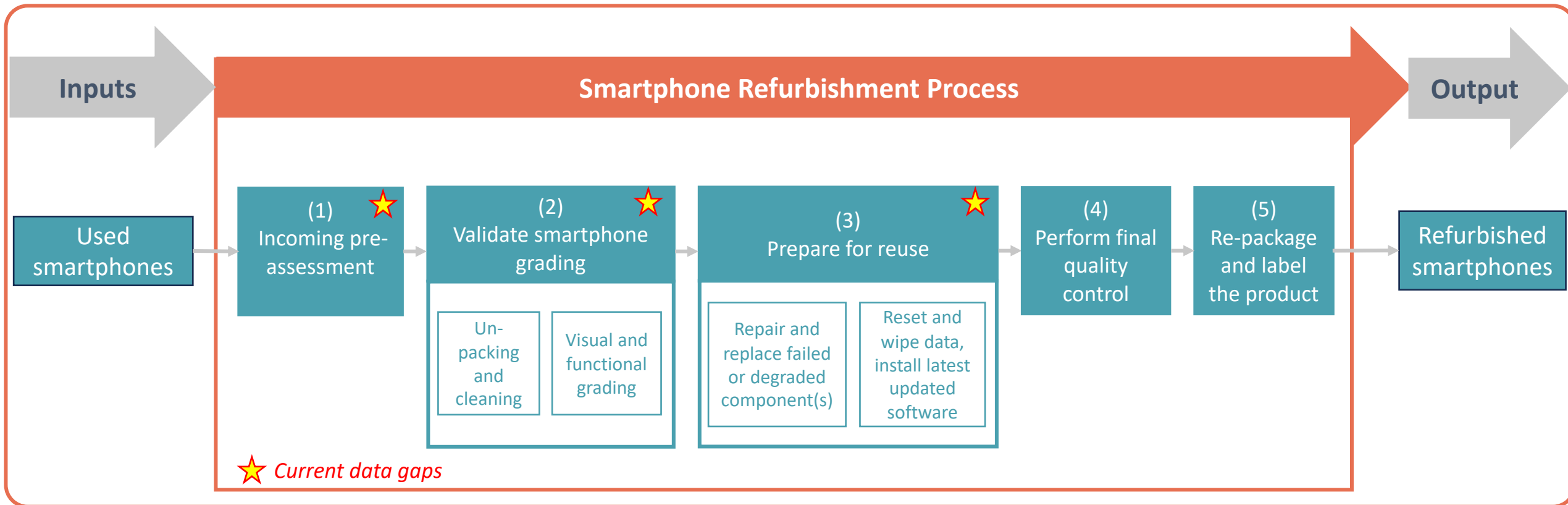


# DPP use case example – Smartphone refurbishment

1 Current situation and data gaps

2 Potential improvements made possible by a DPP

3 Benefits and barriers



# DPP use case example – Smartphone refurbishment

1 Current situation and data gaps

2 Potential improvements made possible by a DPP

3 Benefits and barriers

DPP data attributes	Level of granularity	Potential Improvements
Information on the state of health and the repair history		
Information on refurbishment operations		

# DPP use case example – Smartphone refurbishment



1 Current situation and data gaps

2 Potential improvements made possible by a DPP

3 Benefits and barriers

BENEFITS	BARRIERS
<p><b>Qualitative benefits</b></p> <ul style="list-style-type: none"><li>• Enhanced customer service and increased trust by providing higher transparency (e.g. records of product repair such as battery replacement)</li><li>• Reduced risks of failure</li></ul> <p><b>Economic benefits</b></p> <ul style="list-style-type: none"><li>• Time saving for the quality control of refurbishment process</li><li>• Improved repair process</li></ul>	

# Main findings

Sector	DPP use cases analyzed	
<b>Electronics</b> 	1	<i>Increase volume of refurbished smartphones by improving the quality and transparency of the refurbishment process</i>
	2	<i>Increase recovery rate of critical raw materials of small electronics equipment</i>
<b>Textile</b> 	3	<i>Improve the efficiency of textile product sorting to favor reuse and increase sales of second-hand textile over recycling</i>
	4	<i>Increase the value created in reselling second-hand garments on online platforms</i>

## High potential of the DPP

- **reduce information asymmetry** and **foster trust** in second-hand markets and life-extension applications
- **increase** the **recovery rate** of valuable materials and products at end of their life (or use)



# Recommendations for fully exploiting the opportunities enabled by a DPP

**R1** Extensible and flexible DPP system capable of supporting beyond-mandatory data

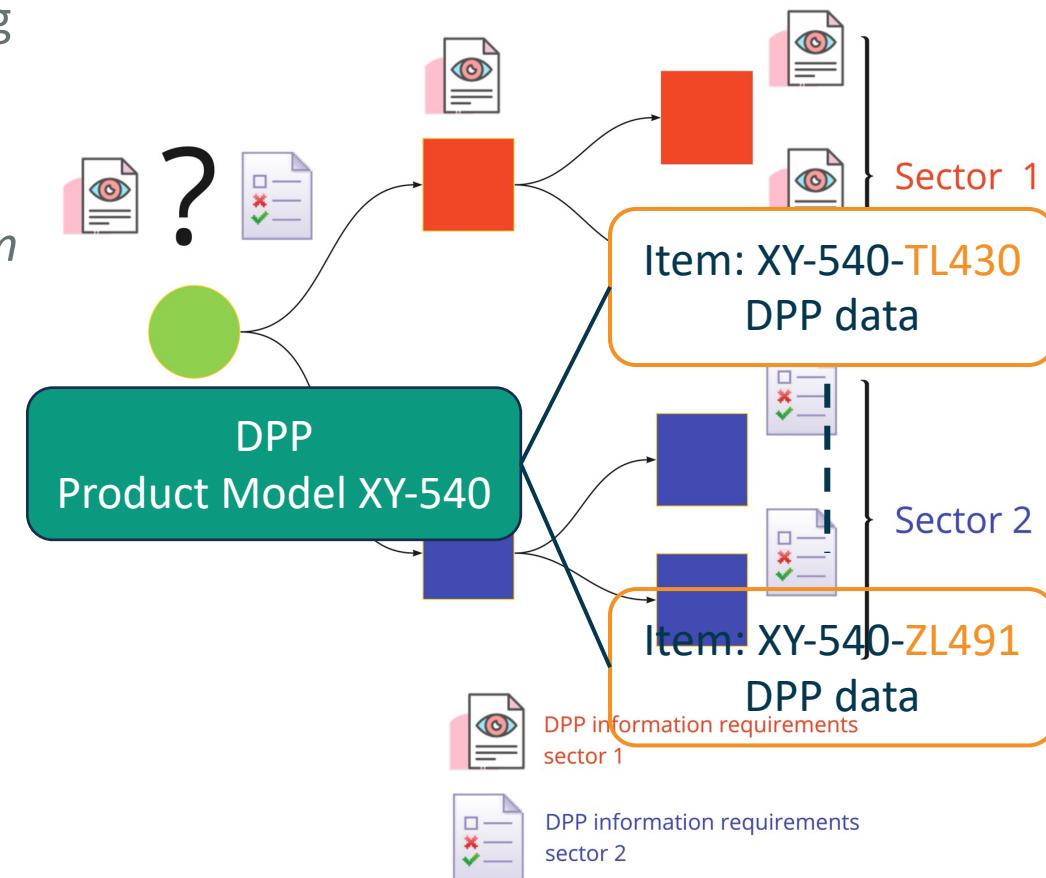
**R2** Ensure harmonized data and assessment methods between product categories to facilitate data collection from the value chain

**R3** Allow other stakeholders to input at serial number level (e.g. repairers and refurbishers) within a model-level DPP

**R4** Prioritize remote-readable data carriers

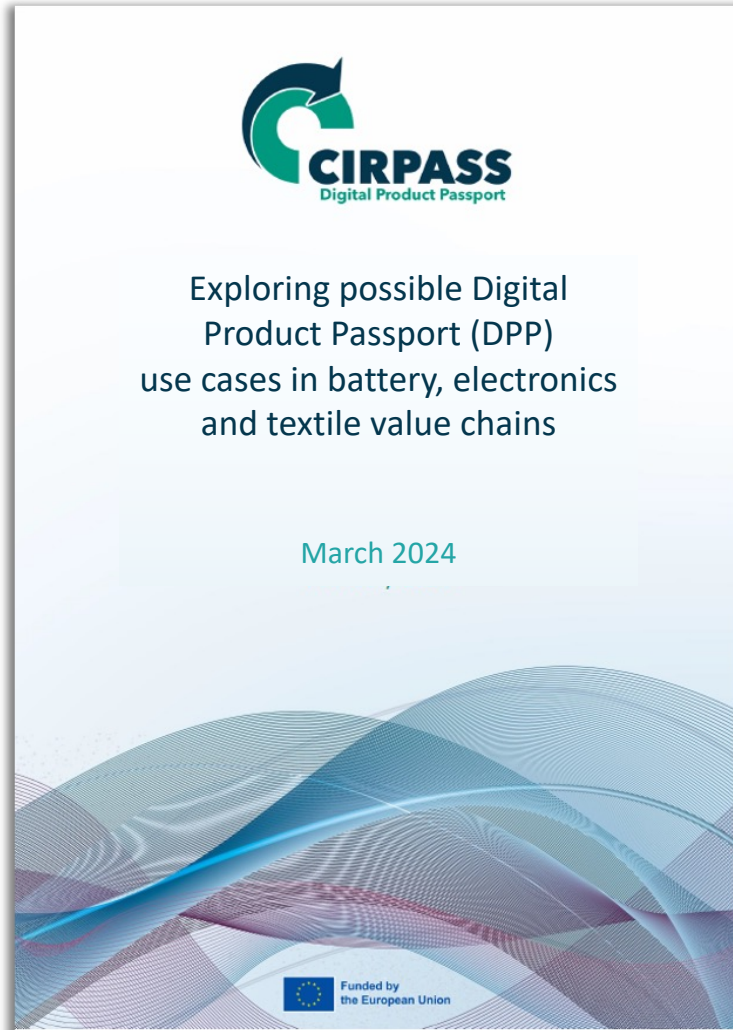
**R5** Develop digitalization support tools to accompany DPP implementation

**R6** Develop incentive mechanisms to ensure quality data sharing



# Further information

---



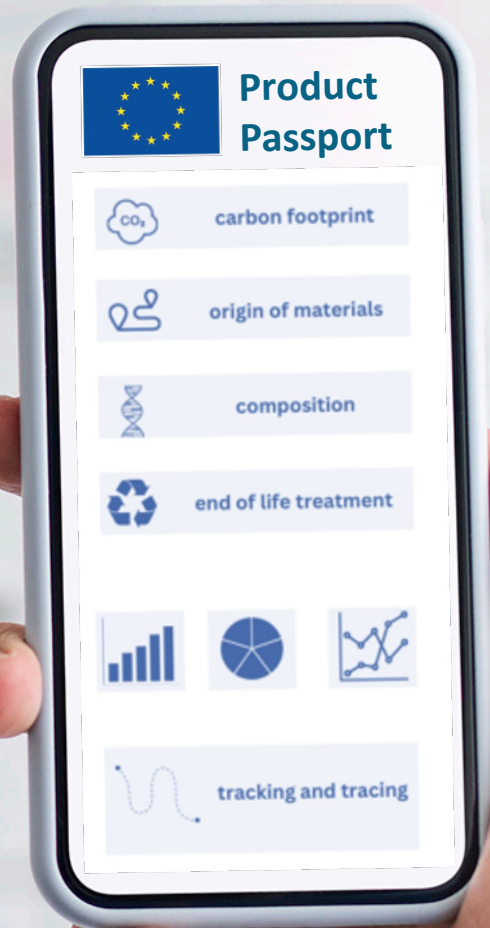
**Report to be published in March 2024**

-> <https://cirpassproject.eu/project-results/>

**CIRPASS task leader on DPP use cases**

Thibaut Wautelet, +ImpaKT

E-mail: [twautelet@positiveimpakt.eu](mailto:twautelet@positiveimpakt.eu)



## Consumer App Demo: exploring consumer behaviour with the DPP