Industry Living Labs

A series of workshops to co-develop streamlined DPP processes that reduce complexity and increase accessibility

Workshop #2

2 March 2026

Agenda

01	What is the DPP…
02	and what is M-DPP?
03	Getting your input
04	Looking ahead: roadmap to the next workshops
05	Closing

01

What is the DPP …

Digital Product Passport (DPP)

Tracking of **raw materials extraction/production**, supporting due diligence efforts

Enable **manufacturers** to create products **digital twins**, embedding all the information required

Tracking the life story of a product, enabling services related to its **remanufacturing**, **reparability, re-use/re-sale/second-life, recyclability**, new business models

Benefit **market surveillance authorities and customs authorities**, by making available information they would need to carry out their tasks

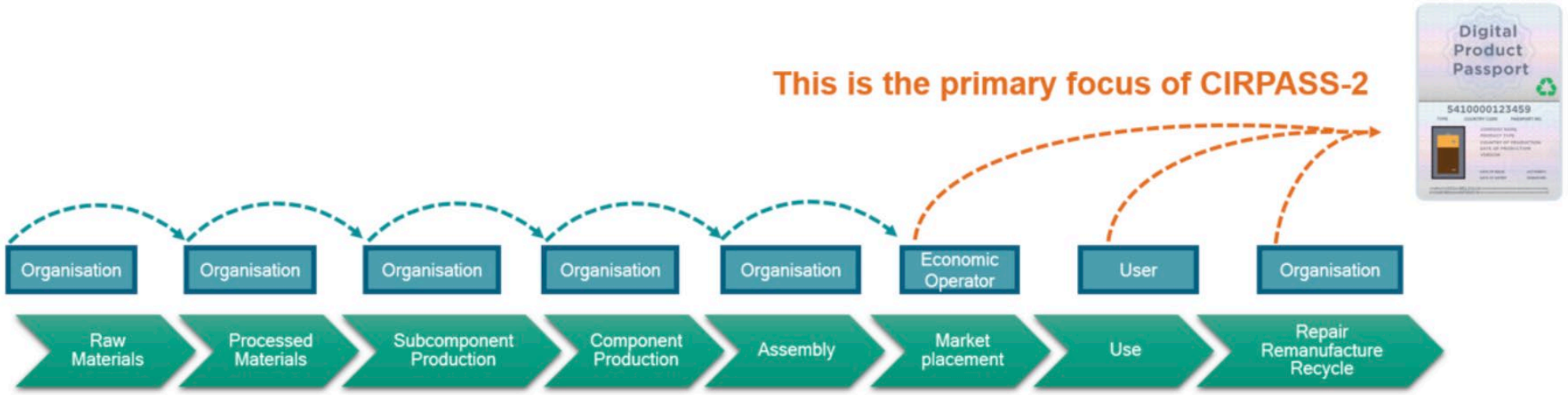
Make available to **public authorities and policy makers** reliable information. Enable to link **incentives** to **sustainability performance**

Allow **citizens** to have access to **relevant and verified information** related to the characteristics of the products they own or are considering to buy/rent (e.g. using apps able to read the identifier

European Commission

What problem are we trying to solve?

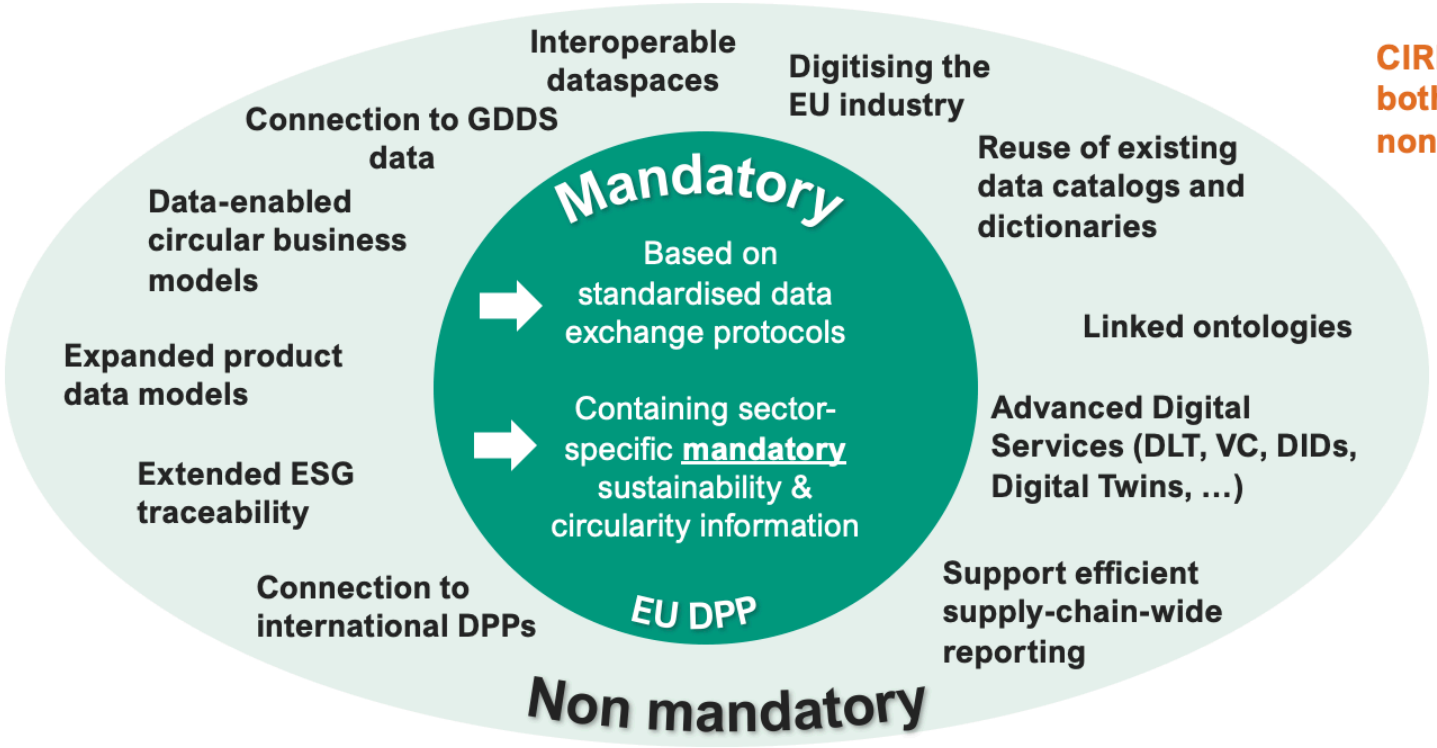
- **Problem statement:**
  - How can **all industrial sectors** agree on a common DPP system that is:
    - compliant to the regulatory requirements,
    - capable of supporting the massive issuing of DPPs in 2027,
    - is extensible and flexible to support beyond-mandatory data exchanges to enable new circular business models?"



Funded by the European Union

Why is the DPP System an incredible opportunity?

- **Vision:** The DPP links the EU internal market to the data economy.



CIRPASS-2 addresses both mandatory and non-mandatory DPPs

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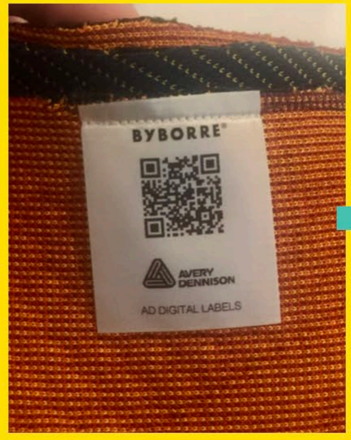
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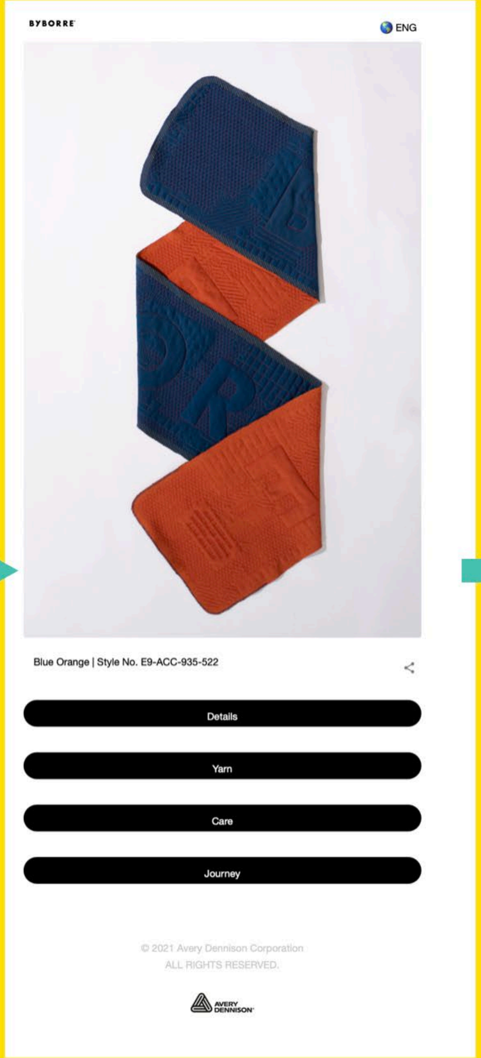
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Details
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Care
Journey
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Materials and Region
75% Egyptian Cotton, 25% Polyester fill
Made in Amsterdam
Wash With Like Colors; Do not Use Softeners
Journey
2022 9/26 Amsterdam - Netherlands Shipping Total: 0.020 kg CO2
2022 9/26 Amsterdam - Netherlands Packing + 0.000 kg CO2
2022 9/24 Amsterdam - Netherlands Inspecting + 0.000 kg CO2
2022 9/24 Amsterdam - Netherlands Transforming + 0.000 kg CO2
2022 9/20 Amsterdam - Netherlands Receiving + 0.018 kg CO2
2022 9/6 Milan - Italy Shipping + 0.000 kg CO2
2022 9/5 Yarn Commissioning + 0.000 kg CO2
2022 9/4 Milan - Italy Receiving + 0.002 kg CO2
2022 8/15 Cairo - Egypt Shipping + 0.000 kg CO2
2022 8/15 Cotton Raw Material Commissioning + 0.000 kg CO2
1 - 10
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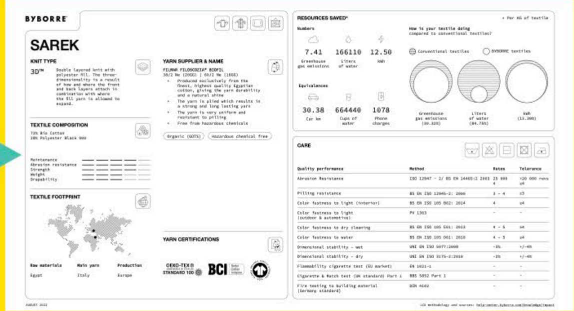
ICEA
TES M.0405
TRANSACTION CERTIFICATE
Ed.00/Rev.00
TRANSACTION CERTIFICATE (TC) FOR TEXTILES PROCESSED
ACCORDING TO THE GLOBAL ORGANIC TEXTILE STANDARD (GOTS)
Transaction Certificate Number [ICEA-TC-GOTS-2022-60367-7553]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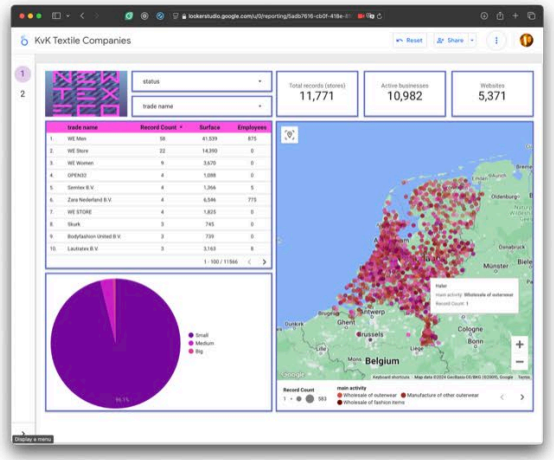
The Challenge

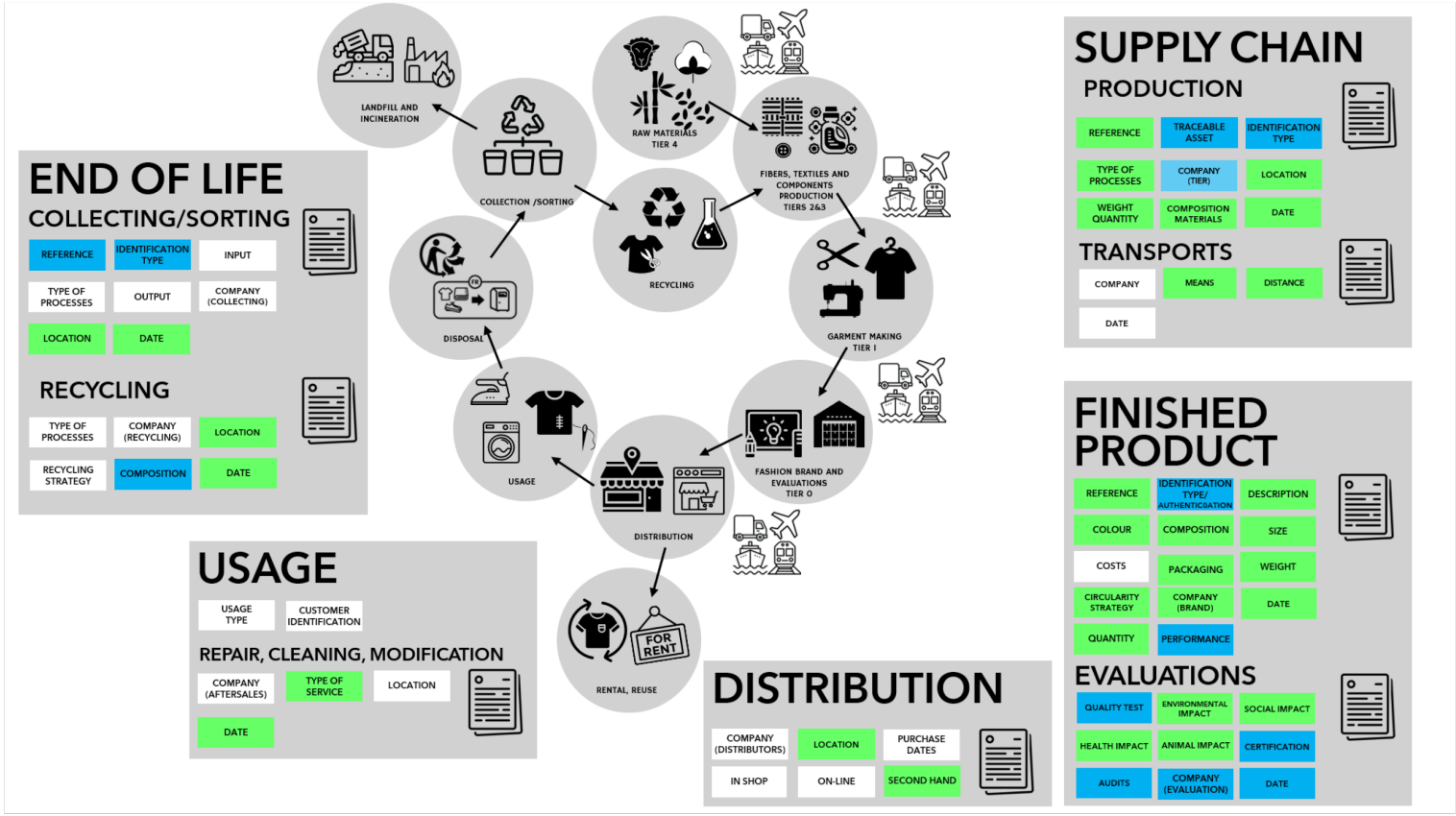
- Ecodesign for Sustainable Product Regulation; Article 10 and Article 4, Tier 4 Traceerbaarheid
- Huidige DPP-schema's zijn terug te vallen op tags en labels - gemakkelijk verloren, verwijderd of beschadigd
- Behoefte: Een levenslange, aanhoudende, fraudebestendige, schaalbare methode om verifieerbare gegevens over textielproducten in te sluiten



NewTexEco.nl/tell

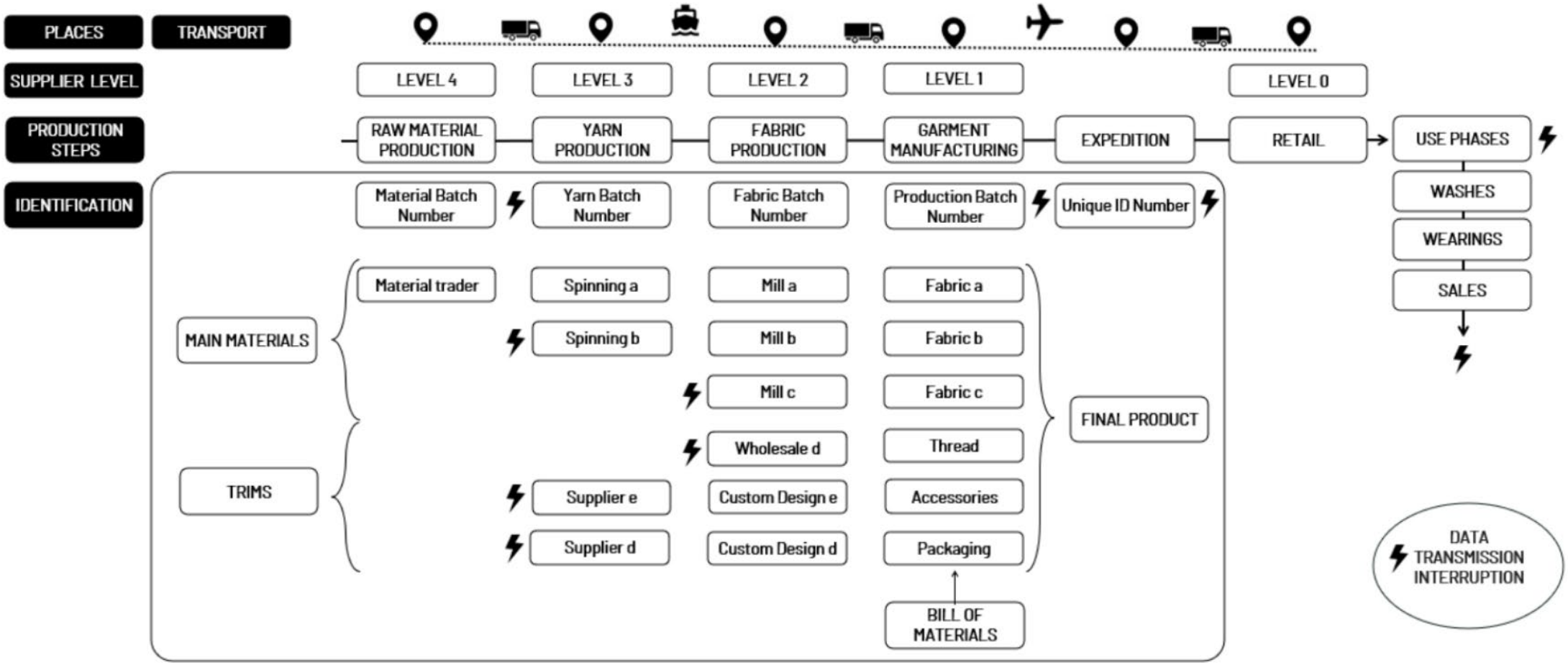
DPP model in Phase 2 (2030) from the European Parliamentary Research Service

Figure 14 – Advanced DPP Model for phase 2



DPP models across the supply chain tiers and life cycle, including the definition of the data building blocks from the EU Parliament report "Digital Product Passport for the Textile Sector" (p. 37). In green, the mandatory information, and, in blue, additional information for lifecycle analysis.

Levels



European Parliament. Directorate General for Parliamentary Research Services. (2024). *Digital product passport in the textile sector.* Publications Office. https://data.europa.eu/doi/10.2861/947638

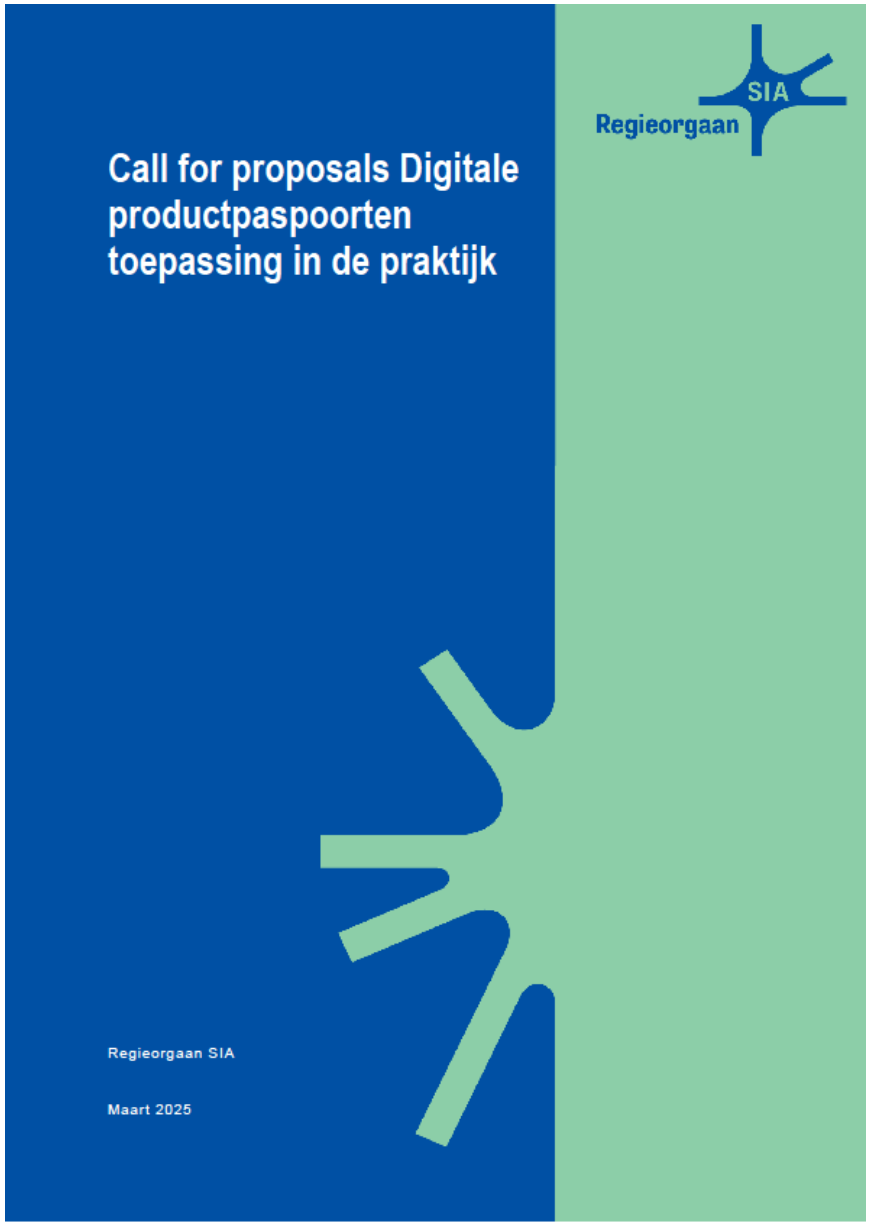
02

and what is M-DPP?

Introducing the Molecular Digital Physical Product Passport

Can we make this skill available for everyone involved in the textile supply chain?

https://www.youtube.com/shorts/wK5htw066Wc?feature=share



Fashion Research & Technology Group | Amsterdam University of Applied Sciences

HAN_UNIVERSITY OF APPLIED SCIENCES | Centre of Expertise HAN BioCentre

DCTV DUTCH CIRCULAR TEXTILE VALLEY

NSF

Candour

BYBORRE

KNITWEAR LAB

RESEARCH COMMUNITY

ETP Fibres Textiles Clothing
EUROPEAN TECHNOLOGY PLATFORM

NEW TEX ECO
ArtEZ | Hogeschool van Amsterdam | SAXION

Centre Expertise Creative Innovation

cet

AMFI
AMSTERDAMFASHIONINSTITUTE

NETFAS.eu

DEMAND

Centre of Expertise Applied Artificial Intelligence

CirCollab

Molecular Physical-Digital Digital Product Passports

- **Dr. Christof Francke** – Lector Biobased Innovations, HAN University of Applied Sciences | CoE HAN BioCentre
- **Douwe van der Leest & Tilman Todt** – Lector Bioinformatics, and Project Leader Applied Data Science | HAN
- **Dr. Marcio Fückner** – Senior Researcher Responsible IT, Hogeschool van Amsterdam, Faculteit Digitale Media en Creatieve Industrie | CoE Applied AI
- **Dr. ir. Troy Nachtigall** – Lector Fashion Technology, Hogeschool van Amsterdam, Faculteit Digitale Media en Creatieve Industrie | CoE Creative Innovation
- **Pascal Wiggers -** Lector Responsible IT, Hogeschool van Amsterdam
- **Mijke van Ballegooijen & Robert Pans** - CEO, and Finance Controller, BYBORRE
- **Ellen Albers & Haiko Huvenaars** - Initiator and Chairwoman, and Director New Order of Fashion
- **Lyske Gais de Bildt** – Researcher, Knitwear Lab
- **Claire Teurlings** - Ketenregisseur Circulair Textiel, Textielregie
- **Francesco Sollitto & Marco Mossinkoff** - Research Analyst in Data and Sustainability, and Senior Researcher in Textile Value Chain, Hogeschool van Amsterdam

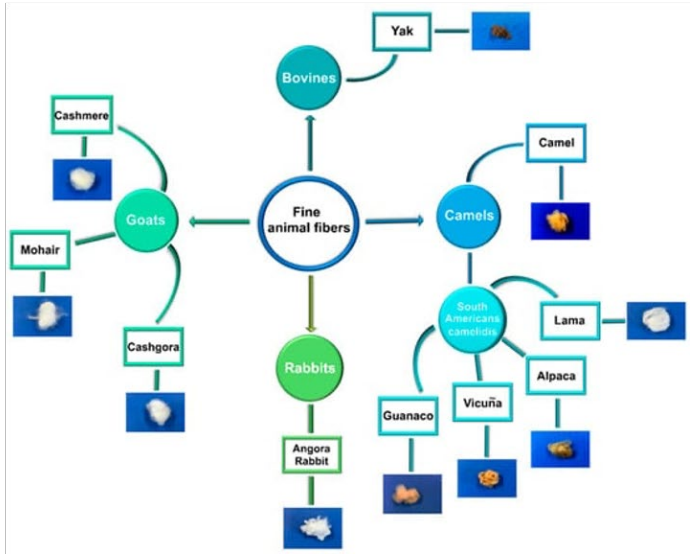
Molecular (DPP)

- Laboratory-based MOLECULAR CHARACTERIZATION of materials
- Focus on biotech methods because they offer the highest specificity
- Connects spectral and chemical fingerprinting of fibers with a Web3-powered digital infrastructure.

Genetic Traceability

- Reliably distinguish
- Probable traceability down to the individual animal

Protein Identification



Research Question

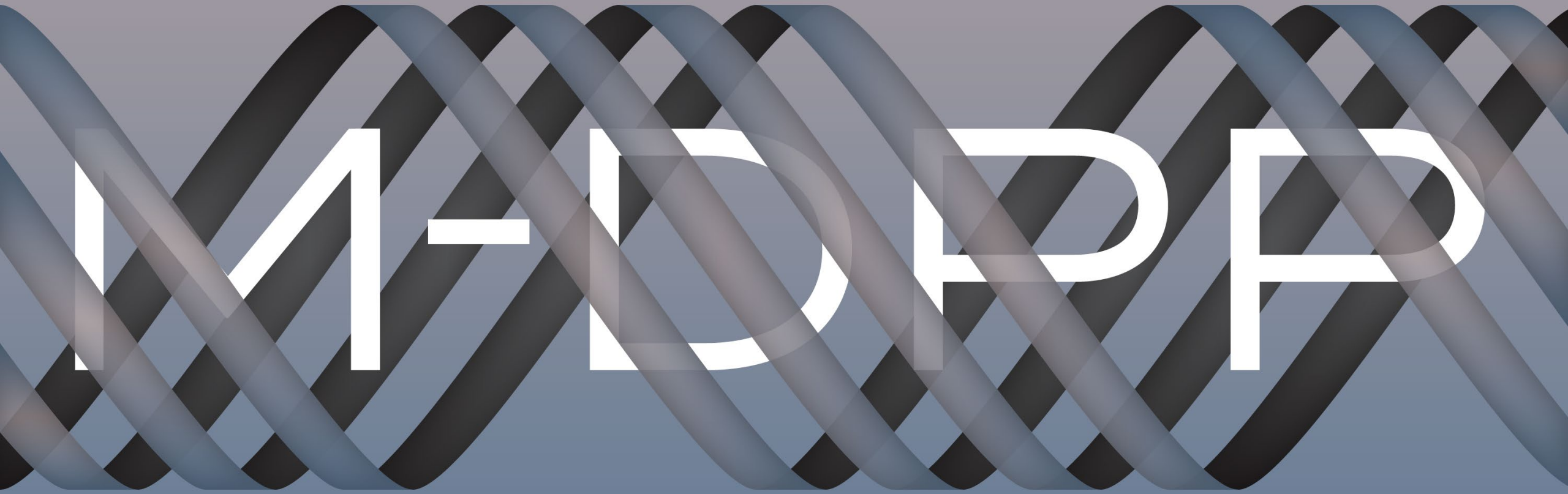
How can we deploy Digital Product Passports (DPPs) that simplify process, support trust compliance (tier 4), and ensure interoperability within complex sectors like textiles to advance circular economy goals and regulatory alignment?

Sub question 1:

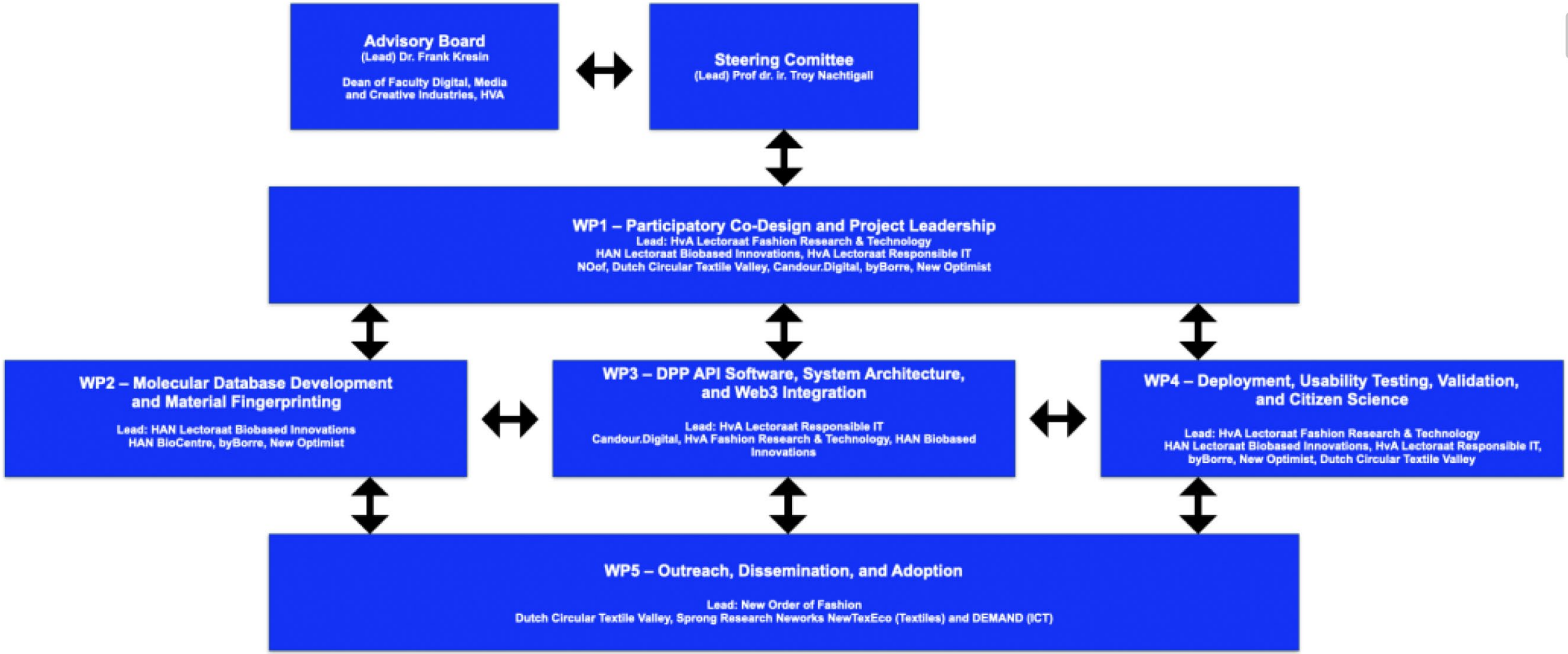
How can molecular analysis and material-data relationships improve the traceability, authentication, and compliance of textiles within Digital Product Passport frameworks?

Sub question 2:

What are the key technical and architectural requirements to deploy and scale up DPP 's with open source, decentralized, secure, and interoperable access to data in the textile sector?

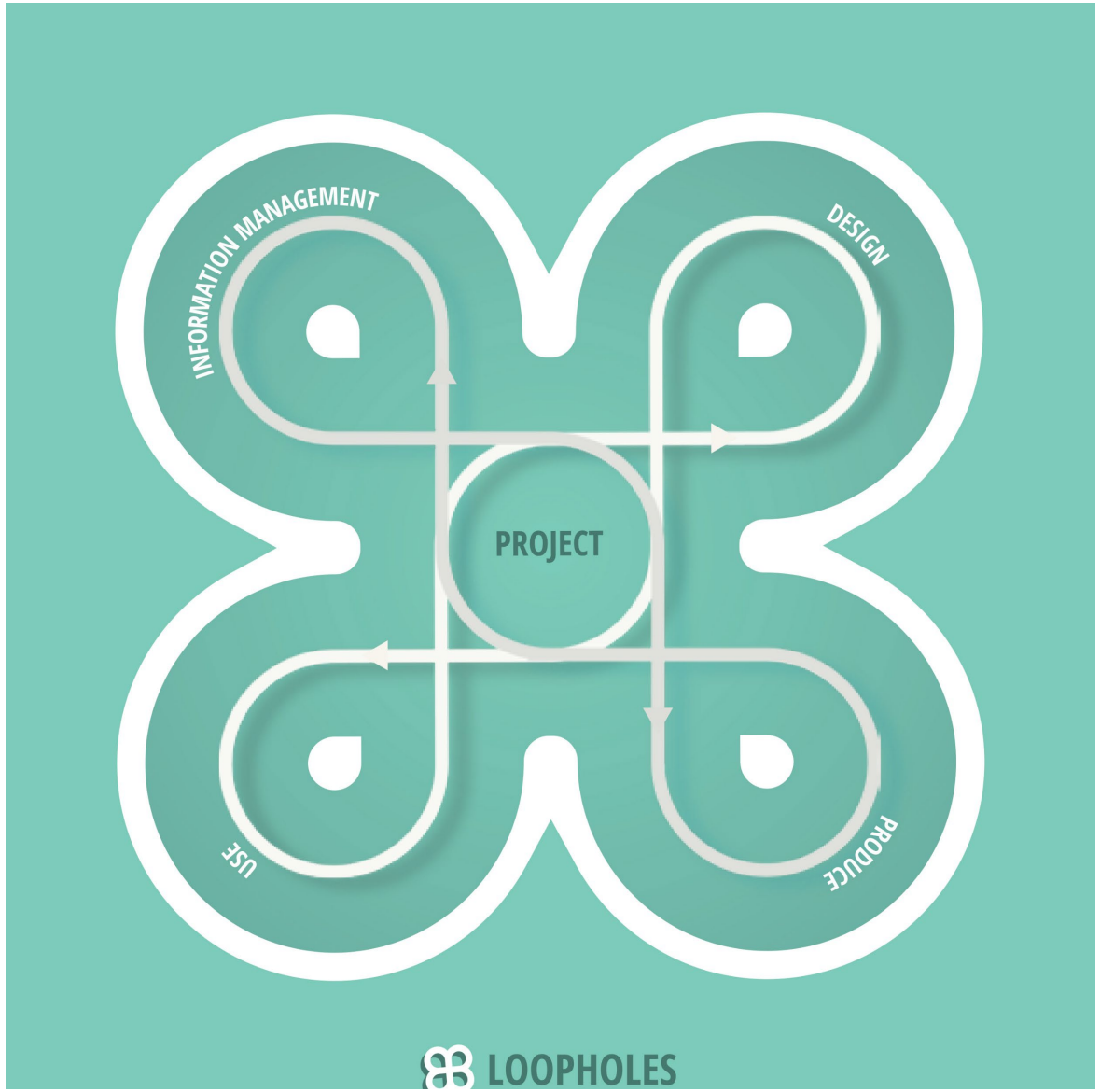

M-DRP

Plan of Approach



WP 1
Participatory Co-Design and Project Leadership

HvA Fashion Research & Technology will lead **WP1**, this focuses on participatory co-design and project leadership. By engaging stakeholders from industry, policy, and research, we ensure that the DPP framework is designed with practical applicability and regulatory alignment. Through Living Labs, stakeholder consultations, and policy monitoring, this phase lays the foundation for a system that is both technologically sound and industry-ready. NooF plays a key role in shaping the strategic dissemination and outreach

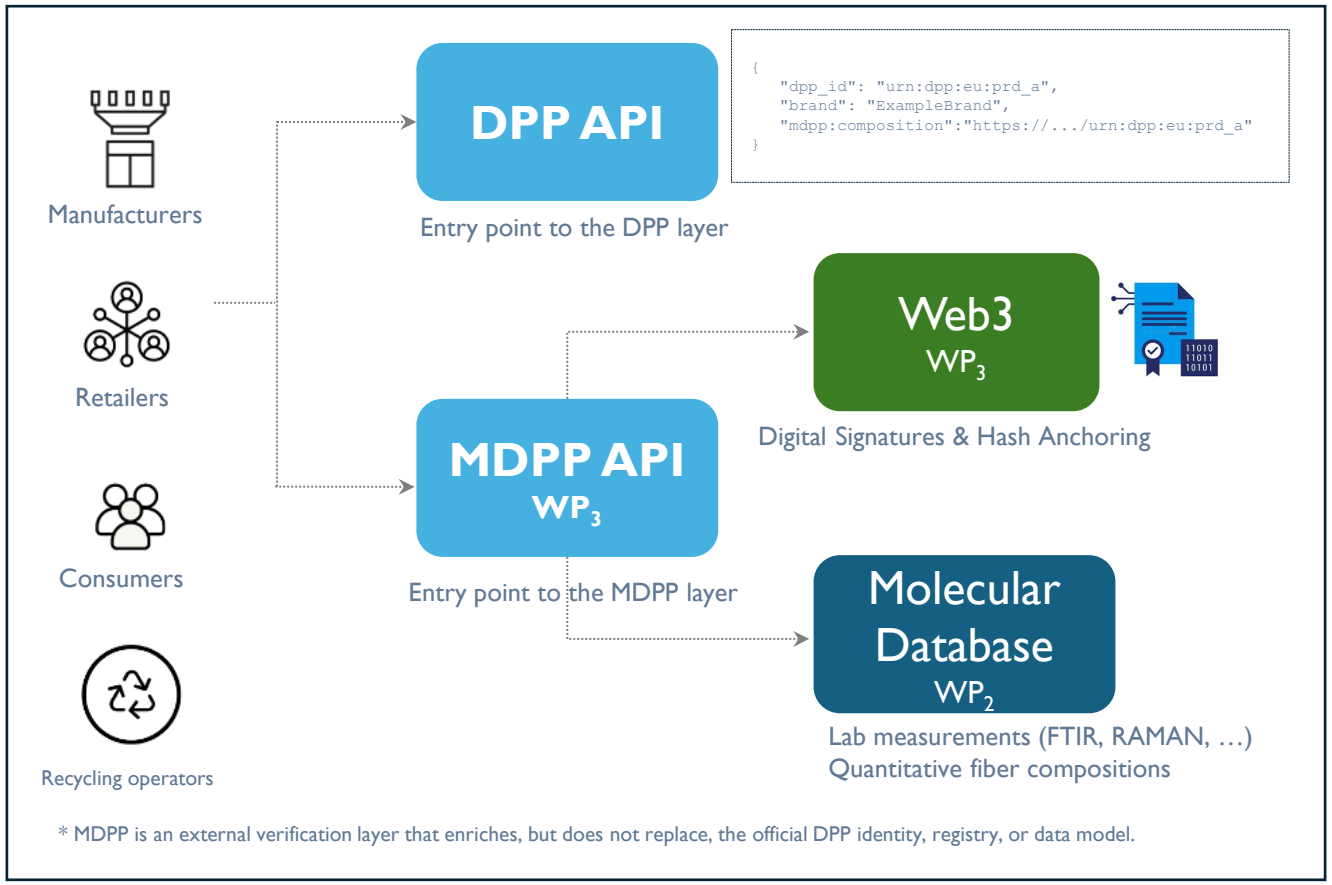


WP 2
Database of Molecular Analysis of Textiles

In **WP2**, HAN lectorate Biobased Innovations and CoE HAN BioCentre partake in developing a molecular material database,the scientific backbone of the DPP system. Our expertise (see below) allows us to integrate molecular material verification into the digital infrastructure. By building an open-source textile database, this work package ensures that the DPP is backed by verifiable and standardized material data, critical for traceability and regulatory compliance.

WP 3
P2P Web3 and API Software Development

WP3, driven by HvA Responsible IT and Candour.Digital, focuses on the development of the digital architecture that links material verification data to a decentralized DPP infrastructure. This package is closely integrated with WP2, as the molecular database provided by HAN serves as the foundation upon which the API system and compliance framework will be built. By combining blockchain-based traceability solutions and AI-driven verification models, this work package ensures a scalable and secure digital passport system that can be adopted across the industry.



WP 4
Deployment, Testing, Validation, and Citizen Science

For **WP4**, HvA Fashion Research & Technology and CoE HAN BioCentre | lectorate Biobased Innovations lead the industry validation phase, ensuring that the DPP framework is tested and refined in real-world conditions. This work package heavily relies on industry expertise from byBorre and Knitwear Lab, who provide practical insights into supply chain transparency, material usage, and product lifecycle tracking. Their on-the-ground knowledge enables us to evaluate and iterate on DPP usability, ensuring that the system aligns with existing circular business models and textile production realities. DCTV plays a pivotal role in connecting this phase to broader industry networks, helping to facilitate adoption and feedback loops.

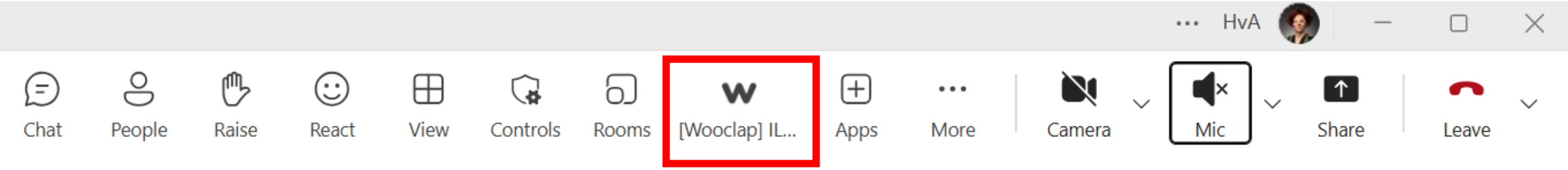
WP 5
Outreach and Knowledge Sharing

Finally, **WP5**, focusing on sector-wide dissemination and policy alignment, is led by NOoF and DCTV. Here, the emphasis is on translating research findings into actionable frameworks for industry and policymakers. Through targeted outreach, publications, and strategic engagement, this work package ensures that the insights and methodologies developed in the project extend beyond the consortium, influencing policy and industry standards on a national and European level.

03

Getting your input

The Wooclap presentation is integrated in this meeting. Click on the tab in the top of your screen to answer the questions.



We will now share another screen with the questions.

If this does not work you can try accessing it in your browser or on your phone:

1 Ga naar wooclap.com

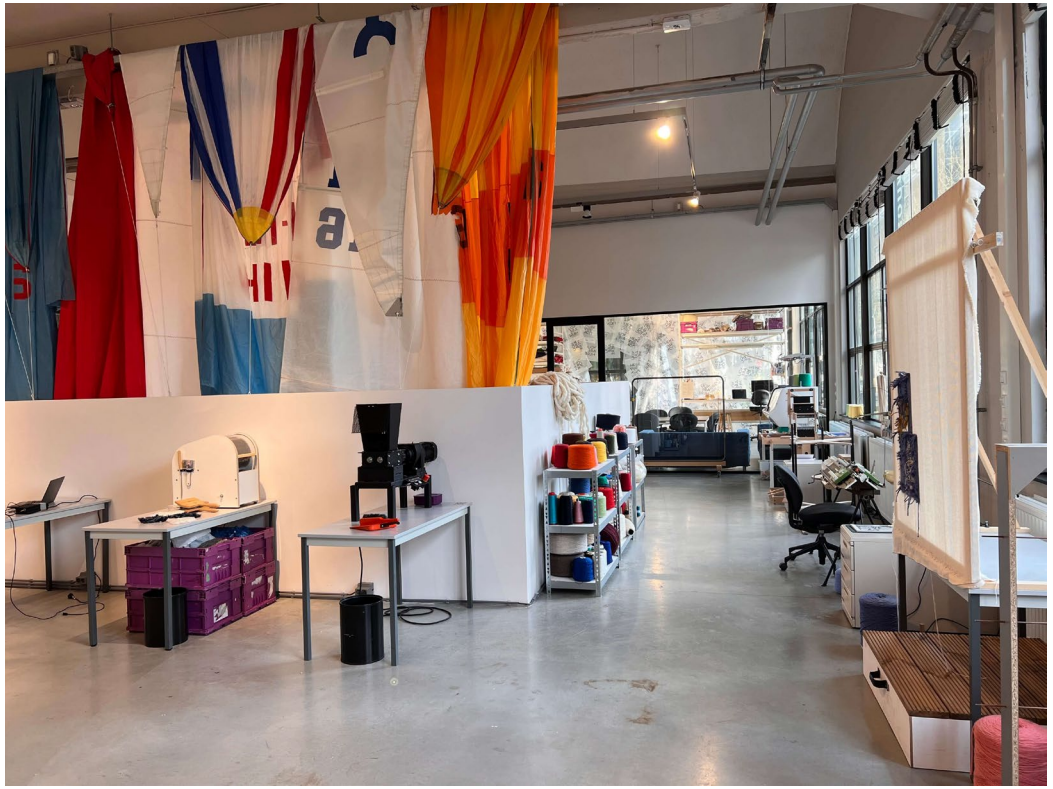
2 Voer de code van het evenement in de bovenste banner in

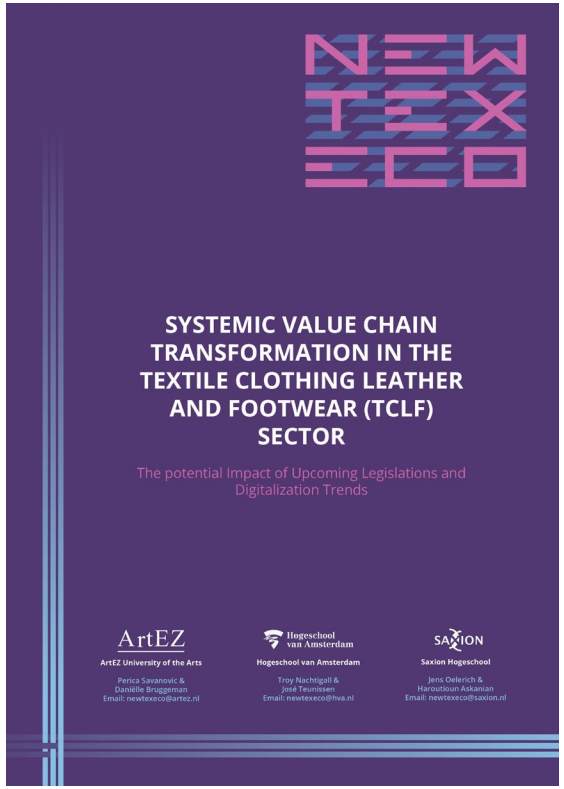
Evenementcode
CRSDIS

04

Looking ahead:
roadmap to the next workshops

Workshop #2 – Data in TCLF sector

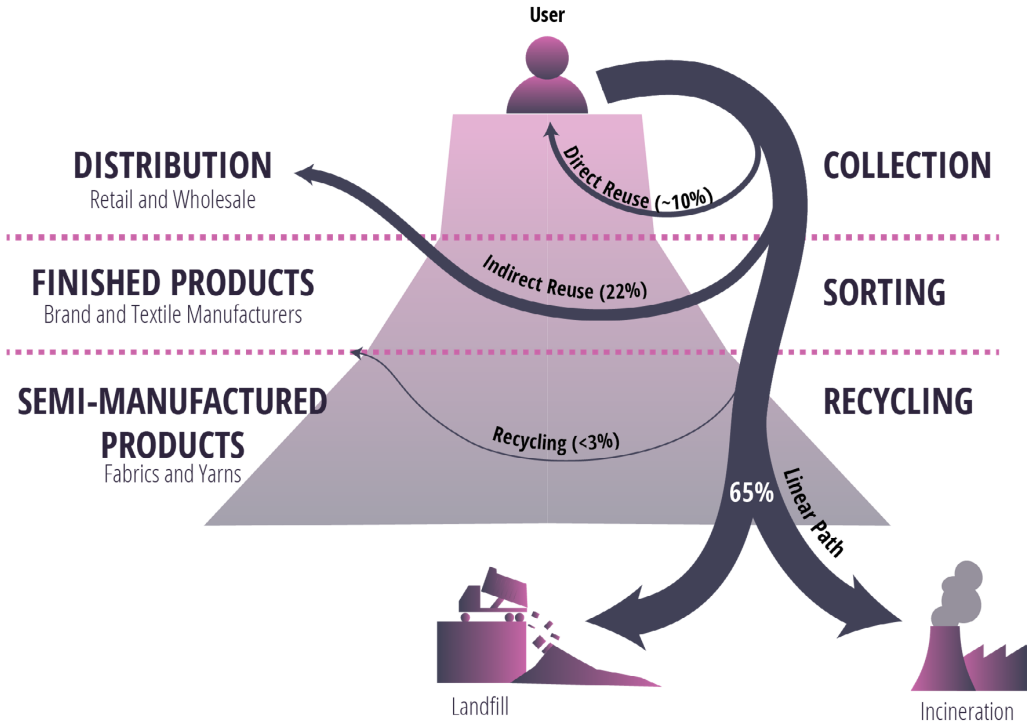




Workshop #2 – Discussion Whitepaper

The discussion around **circular processes** is at the heart of the Whitepaper that we will present. The DPP is one of the most important tools that should help facilitate the **value recovery** from textile products.

In particular, we will focus on how to shift textiles from linear flows (incineration, and landfilling) to a closed loop where reuse and recycling are the largest volumes.



Workshop #2 – Preparation interviews

Help shape the next M-DPP workshop
Voluntary follow-up conversations (January)

- Short 1-on-1 calls (30–45 minutes)
- To better understand your practices, challenges and needs
- Insights will be anonymised and used to prepare Workshop #2 at the NOOF LAB

👉 **Interested?**
Scan the QR code schedule a short call with us.

05

Closing