CBS COPENHAGEN BUSINESS SCHOOL HANDELSHØJSKOLEN

trace a transition towards circular economy

Lifestyle & Design Cluster.

ALEXANDRA INSTITUTTET

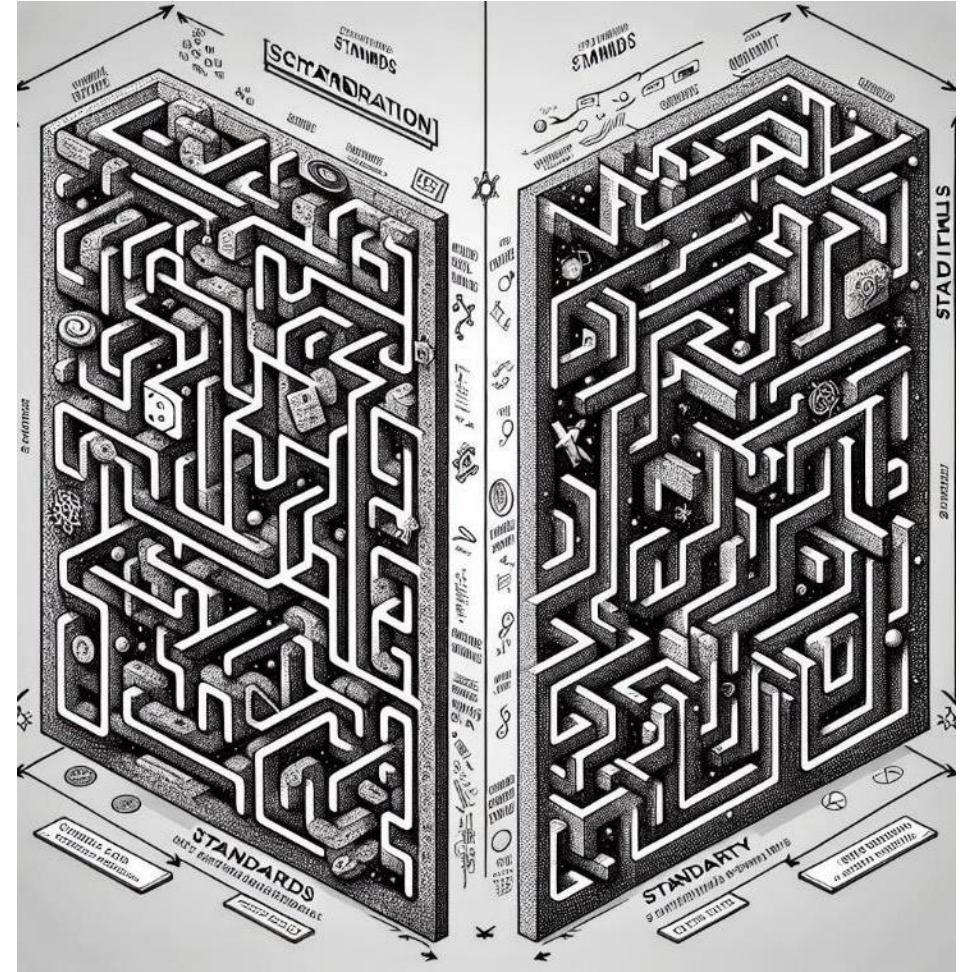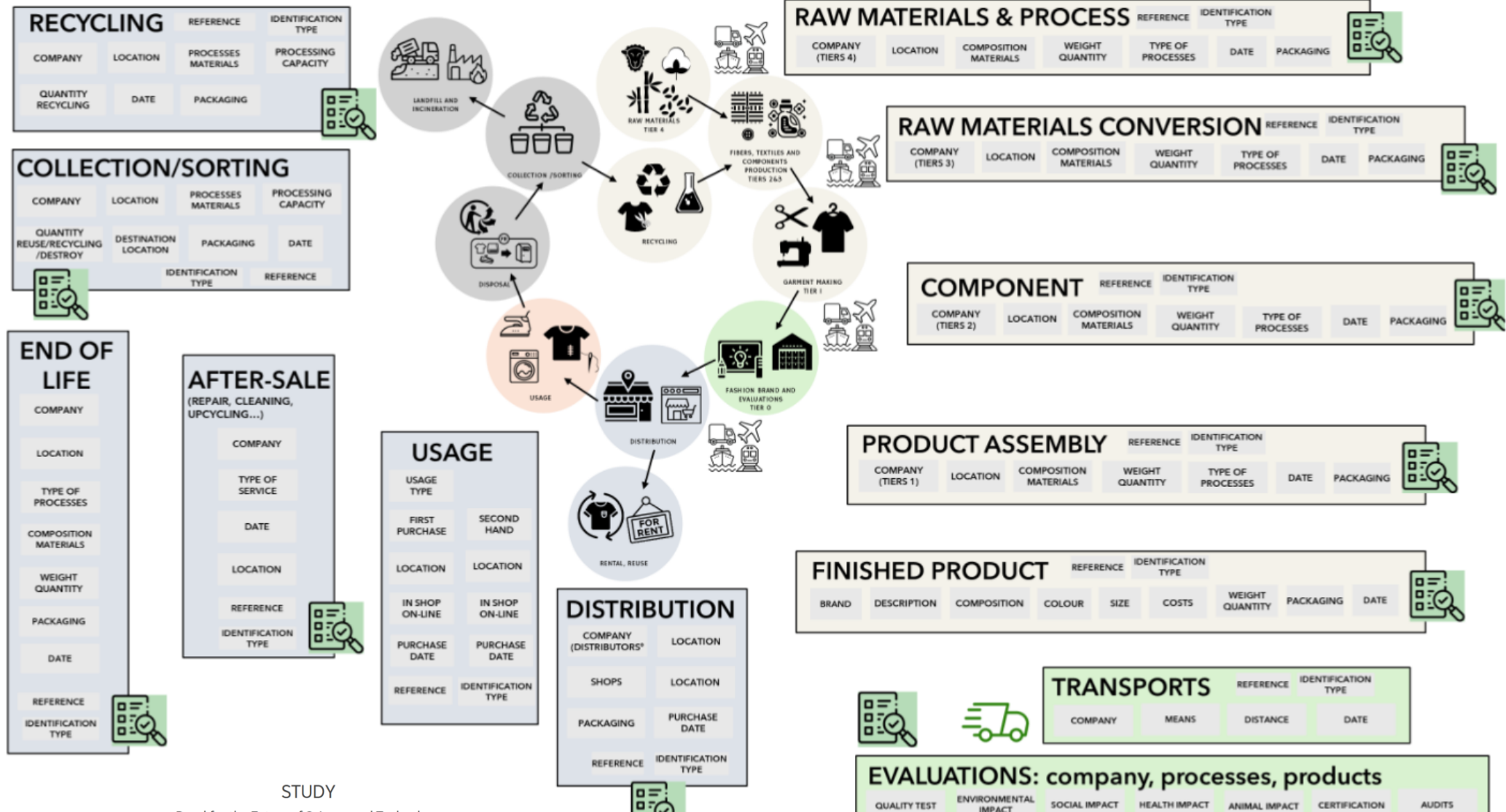**Det Kongelige Akademi** Arkitektur Design Konservering

A PARADOX OF STANDARDS?

A Reflection on Industry standards for the global supply chain in the context of Fashion Industry, After Sales Markets, and DIGITAL TWINS, Product Passports ...

Günter Prockl
Department of Digitalization

EQUIS ACCREDITED · AACSB ACCREDITED · AMBA ASSOCIATION ACCREDITED · CEMS · PIM Partnership in International Management

Digital Twin and Digital Product Passports have a BIG Hunger for Data

over the whole product life cycle

In the essence: The idea of a Chain of Custody ...

Stake a claim
For Legitimization, Rights Property, Branding, Quality Innovation, Design

Conformity documentation
Conformity to claims made in brand, design, origins, quality Throughout Partner network

Process control and process triggering VISIBILITY
Tracing product history in fulfillment and operations

Transparency and Documentation
Conformity/standards; etc. Use data for Business development ("Big Data")

... across the extended supply chains with different Entry Points for different purposes

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Data entry: Any change of status creates a potential data entry point

Could also be a blockchain

Figure 5-18 A repository for traceability, visibility and sharing

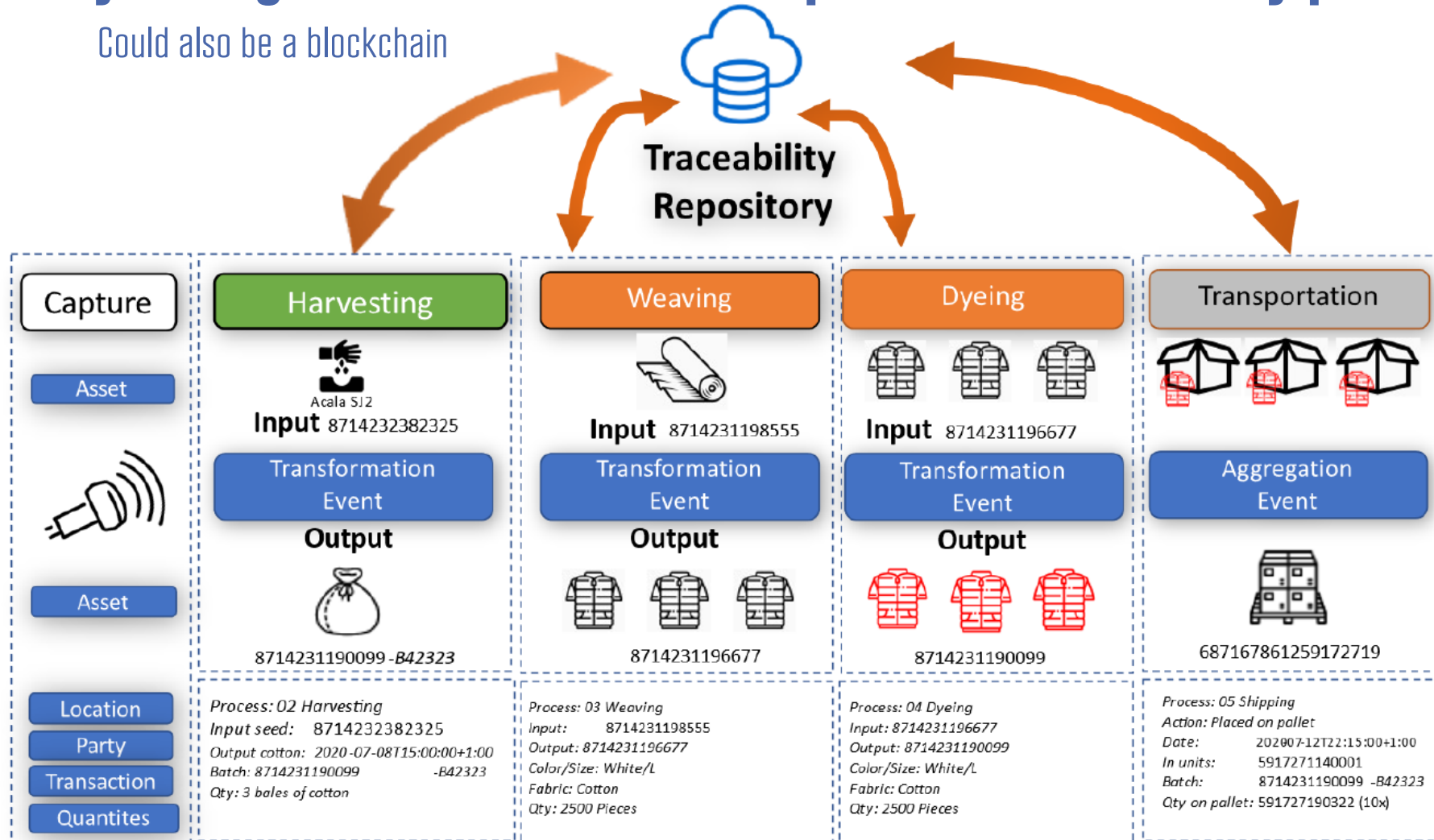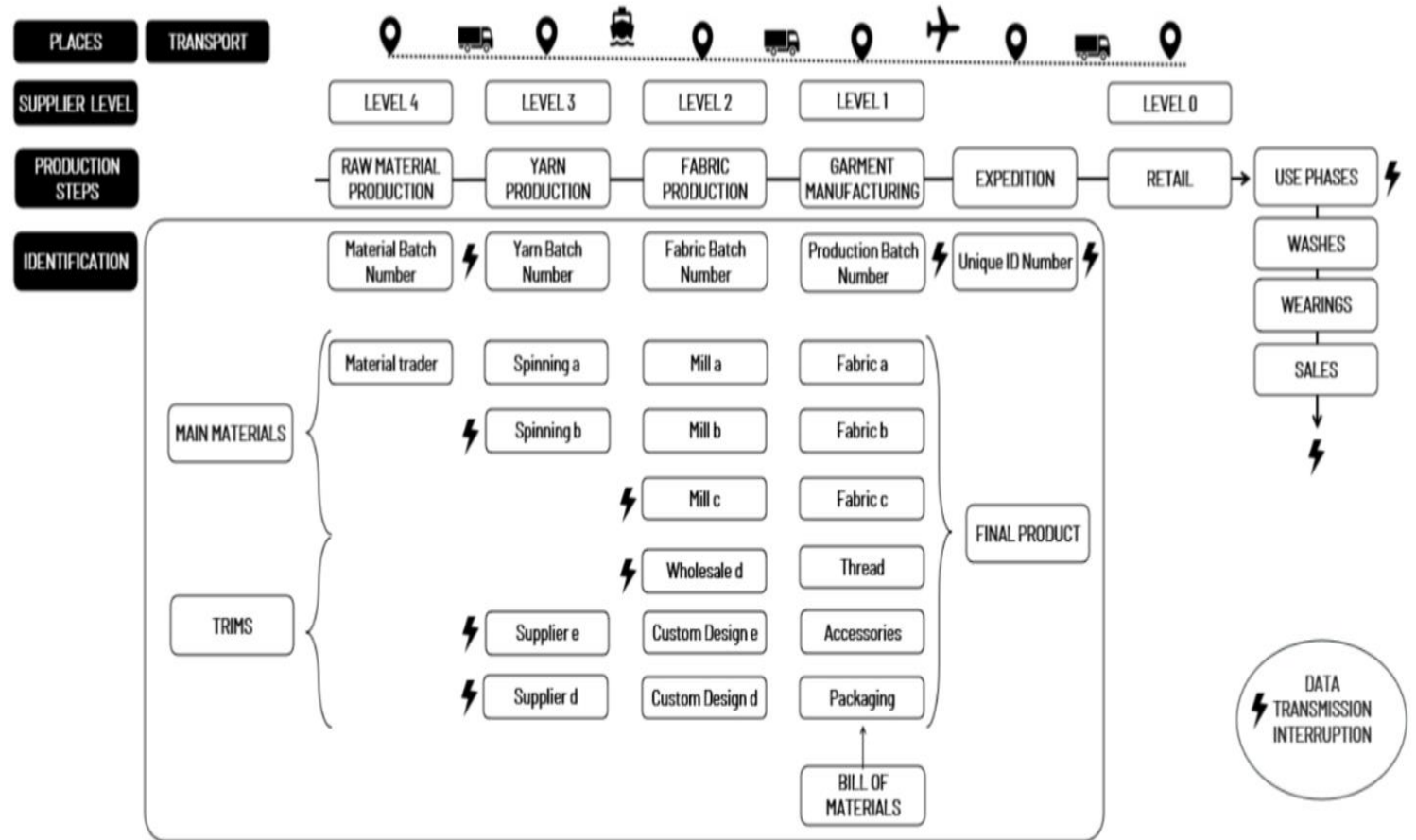# Provider and User and Owner of the Data/Information may be very likely at different steps of the supply chain

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After the sale is before the sale – What industry do we talk about?
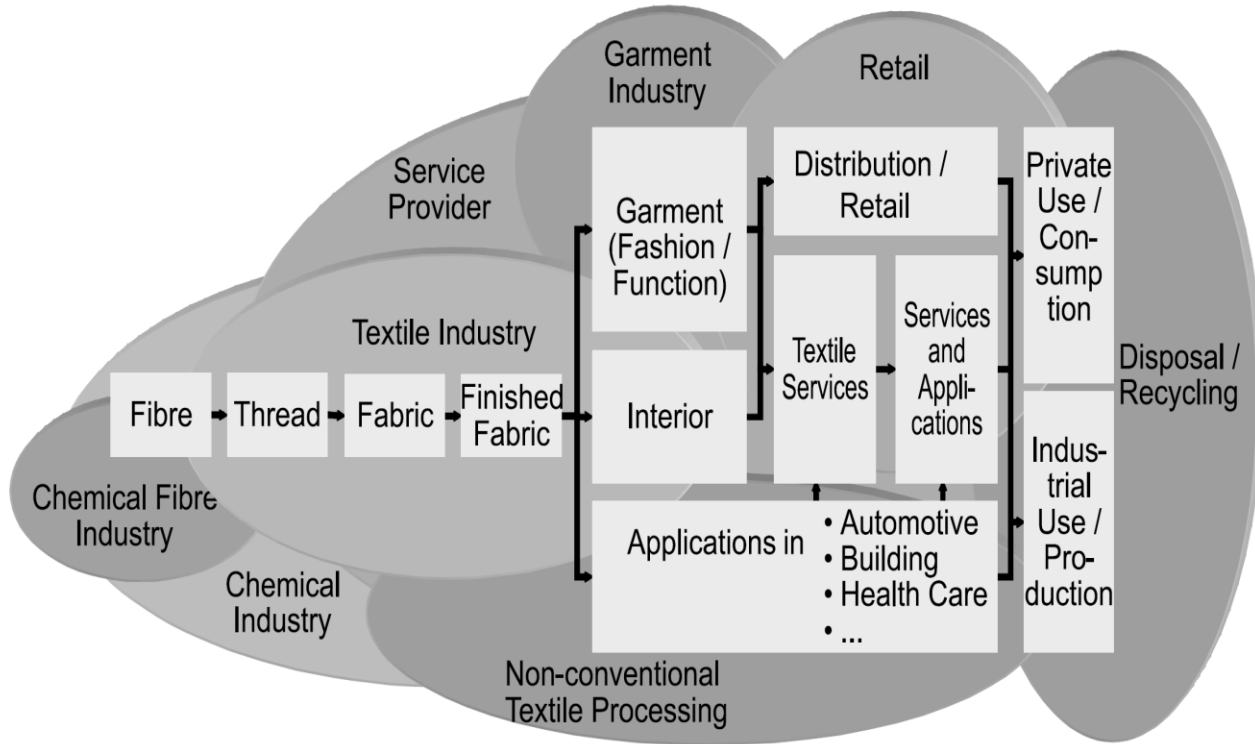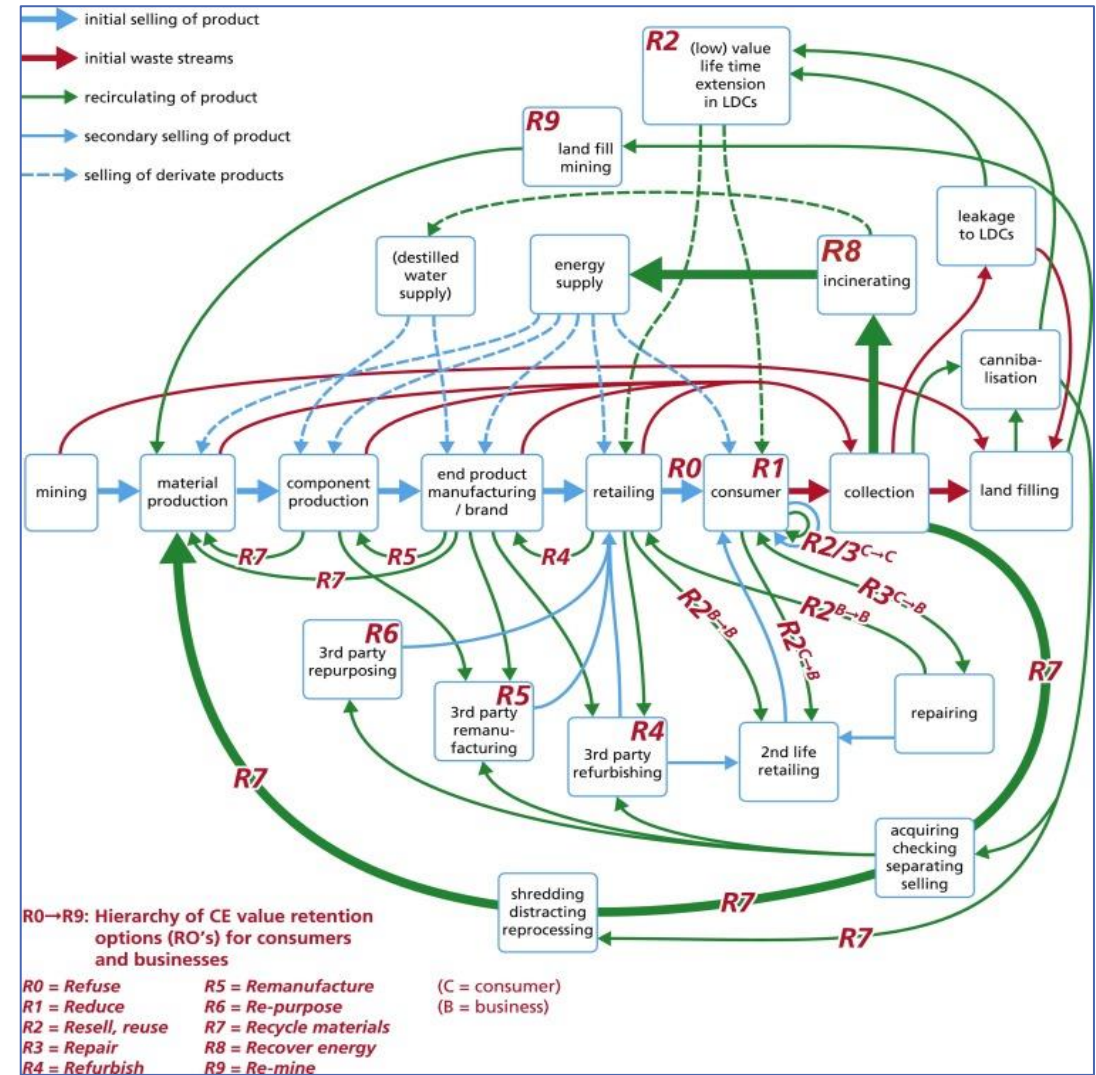# In particular in after sales

Fig. 5.1 The complexity of the textile world (Fischer and Rehm 2005)

Beike et al., 2018

What about Responsibilities – EPR and Data - Patterns?

Extended
Producer
Responsibily

Sourcing of raw packaging materials

Production of Packaging

Packaging materials used by retailers

Consumer uses packaging

Product manufacturers: Manufacturers of consumer goods such as electronics, appliances, packaging materials, batteries, and textiles are typically held accountable for managing the environmental impacts of their products.

Importers and distributors : Businesses engaged in importing and distributing products within a specific market may also be subject to EPR requirements. They share the responsibility of ensuring compliance with EPR regulations, which can include fulfilling reporting obligations and contributing to the financing of waste management systems.

Retailers: Retailers selling products covered by EPR may have distinct responsibilities, including collecting and appropriately disposing waste products. They may collaborate with manufacturers and consumers to facilitate recycling initiatives or take-back programs. Compliance with EPR regulations may also involve ensuring the sale of products that align with EPR requirements.

Packaging and brand owners: Companies involved in packaging production or utilization of packaging materials may have specific responsibilities for managing packaging waste under EPR schemes. These obligations often involve the implementation of strategies to minimize packaging waste and improve its recyclability.
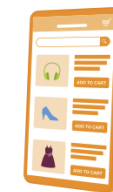
E-commerce platforms: As e-commerce continues to gain importance, certain countries are exploring the inclusion of online retailers and platforms within EPR regulations. This means platforms may be obligated to facilitate the collection and be responsible for the management of end-of-life products sold through them.

GVC Global VAT Compliance®

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What about Standards to fight a Babylonian confusion of tongues

- Günter Prockl
- Dr. Günter Prockl
- Dr. Dr. Günter Prockl
- Gunther Prockl
- GUENTER PROCKL
- MRPROFDRGUENTERPROCKL
- V3MY6G

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The principles of standards – Reflections

Firstly standard provides guidance that should ultimately promote community benefits

- *What community, what industry what stakeholders*

- *Creating business models or to comply might be different in regard to standards*

Secondly, standards aim at consistency

- *Consistency may come on many different levels,*

- *e.g.: Terminology, labeling and documentation, product standards, quality standards, Practices and Processes, e.g. sustainability practices*

Thirdly standards are based on consensus

- *This leads to a new level and need for legitimization and acceptance*

- *Who stores, owns and shares the data on what infrastructure, EU vs. the rest?*

Periodic Table of Sustainability Certifications

Legend

- **Animal Welfare**
- **Better Textiles**
- **Recycling**
- **Organic**
- **Climate Action**
- **Fair to Folk**
- **Oceans**
- **Packaging**
- **Regenerative**
- **Upcycled**
- **Tourism**
- **Building & Design**
- **IT**
- **General/Other**

Certifications

Lb — Leaping Bunny

Cf — Certified Vegan

Oe — OEKO-TEX

Fsc — Forest Stewardship Council

Upc — Upcycled Certified

Cl — Compostability Label

Gg — Green Globe

Ve — The Vegan Society

Go — GOTS (Global Organic Textile Standard)

Grs — Global Recycled Standard

Us — USDA Organic

Tcl — The Climate Label

Asc — Aquaculture Stewardship Council

Ok — OK Compost

Tr — Travelife

Pe — PETA-Approved Vegan

Rws — Responsible Wool Standard

Rcs — Recycled Claim Standard

Euo — EU Organic

Cp — Climate Partner

Ft — Fairtrade

Wf — WFTO

Msc — Marine Stewardship Council

Cr — Certified Regenerative

Le — LEED

Be — Better Cotton

Zq — ZQ Certified (Merino Fibre)

Rcc — Recycled Content Certification

Sa — Soil Association

Gs — Gold Standard

Fl — Fair for Life

Sa — SA8000

Gw — Goodwell

Roc — Regenerative Organic

Tco — TCO Certified

Iso — ISO 14001

Eue — EU Ecolabel

Bc — B Corp

Ra — Rainforest Alliance

Cc — Cradle to Cradle

Fp — 1% for the Planet

Rspo — Roundtable on Sustainable Palm Oil

See www.thesustainableagency.com/blog/sustainability-certifications-and-ecolabels-guide/ for more info.

akepa

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Reflecting a bit on Industry Standards – which one and what to do?

Gaia-x and similar – Success stories???

Gaia-X Data Space Lighthouse Projects started in 2021

gaia-x

Catena-X Automotive Network	agdatahub	Structura-X
https://catena-x.net/en/	https://agdatahub.eu/en/	https://bit.ly/3aJYgZL
Automotive Supply Chain	Agriculture	Manufacturing, Industry 4.0

smart connected supplier network (SCSN)	EuPro Gigant	Mobility Data Space
https://smart-connected.nl/en	https://euprogigant.com/en/	https://mobility-dataspace.eu/
Electronics Supply Chain	Manufacturing, Industry 4.0	Mobility

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