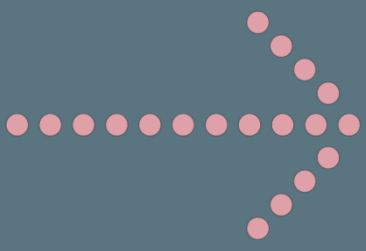
Tools for Traceability

and Digital Product Passports in textile supply chains

Data → Business

Updated Guidance report 2026 by Textile&Fashion 2030 and the Interreg ÖKS Data to Business project.



Abstract

The pressure for transparency and data sharing is steadily increasing from textile industry stakeholders: legislators, academia, investors, business partners, media, NGOs, and the public, all expect companies to be in full control of their supply chains and able to share reliable data about their products, processes and business conduct. In this report, we offer an updated overview of the market for traceability solutions, which has developed considerably since our first 2023 report. In this update, definitions are clearer and insights deeper. But the market is still fast moving and new technologies such as AI/machine learning, workflow automation and no-code platforms are accelerating new waves of development.

Mapping, tracking, tracing and verifying data globally is still a complex task. There are no simple answers or quick fixes available, and any company will need to start by assessing needs, mapping supplier relations and analysing internal data structures to get ready for more advanced traceability solutions. But there is also no time to waste – the automated data flow paradigm is approaching rapidly. One key take-away from our work is that the era of data integration is here, digital tools need to "speak" to each other.

The Digital Product Passport (DPP) is under development by the EU Commission but it will take until 2028 before it is implemented, if the current timeline holds up. More details will follow late in 2026 and 2027 through regulatory Delegated Acts which will specify the requirements for textiles in ESPR further.

In parallel with the work of producing this report update, we have also created the open-access website traceabilitytools.com, where you can research 60 tools for textile traceability and digital product passports by searching, sorting and comparing. Summaries and considerations for implementation are offered.

Based on the previous report findings, in combination with more recent learnings, we offer five general recommendations to textile companies:

- **Demands for traceability are approaching fast, from many stakeholders.** Start your traceability work today, either manually or digitally, to be prepared when becomes is a strict requirement.
- **Supply chain mapping is the first step of traceability.** It can start off manually, but a meaningful effort in supply chain mapping will require invested time and engagement, so make sure you allocate resources for it.
- **Consider implementing digital solutions for traceability and supply chain/product data management** if you have a large product or supplier portfolio to manage and the ambition is to create extensive product or materials traceability, or if you are preparing for compliance with future data management and reporting regulations.
- **Assess your internal data needs and architecture thoroughly** before reviewing tools, to understand what you are looking for and being more precise in your requests.
- **Your collected data will soon need to be shared**, both internally and externally. Building a good data structure with supporting policies and tools enabling data sharing will help future stakeholder interactions and limit the amount of manual work.

The analysis in this report is based primarily on four sources: Our previous transparency report from 2023, direct data input to TraceabilityTools.com from tool providers, interviews with selected actors in the industry, and direct email communication with tool providers, industry organizations and textile companies. A small base of scientific research was gathered as background to the report.

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About this report

This updated report was edited by **Peak 63** on assignment by the **Data to Business project** in March 2026, to support Swedish textile companies in their implementation of digital systems for transparency, traceability and digital product passports, a rapidly growing field where new solutions are presented on a weekly basis and new regulations are radically changing the game in an ongoing process until 2030.

The analysis in this report is based primarily on four sources: Our previous transparency report from 2023, direct data input to traceabilitytools.com from tool providers, interviews with selected actors in the industry, and direct email communication with tool providers, industry organizations and textile companies. A small base of scientific research was gathered as background to the report.

When referring to digital tools for supply chain mapping, product data exchange and building product/data traceability, the language and concepts are in development but there are still no widely adopted nomenclature references. Therefore, there are a several currently popular expressions and concepts mentioned and explained in the report, which may not survive long-term scrutiny. As a general description of tools that contribute to traceability, we use the term **Traceability Tools**. This term can be interpreted in a wider sense to include other types of tools and systems that contribute to traceability or have some of the characteristics for traceability integrated.

We are not working in isolation; in the data collection for this report, we had an exchange with the **Traceability Tool Navigator** project by **Preferred by Nature**, in cooperation with **WWF** and sponsored by **ISEAL Innoovations Fund**. They have set out to build a similar database of traceability tools as the traceabilitytools.com, to be launched in 2026, with focus on the EU Deforestation Regulation (EUDR) and industry sectors that are heavily nature-based: Agriculture, Forestry, Food etc. More information can be found at Traceability Tools Navigator: creating transparency in a fragmented sustainability tech market | Preferred by Nature.

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I want to direct a big and humble *Thank You* to the people who contributed to this report – without you it wouldn't have happened:

Jonas Larsson and the team of Data to Business, Textile & Fashion 2030 and Science Park Borås, who gave me the opportunity to deep-dive into this interesting subject. Jan Stala, co-worker at Peak 63, who has structured material, supported, edited interviews, and launched the traceabilitytools.com website in parallel. The five interviewees that shared valuable insights about supply chain traceability, implementation of digital tools, product passports and chemicals traceability (interviews are available as podcasts on Spotify). Several other textile industry and traceability tool representatives for sharing their insights on traceability challenges, tool selection, and implementation of these tools. All the 60 traceability tool providers for open information sharing from this fast-moving sector.

The findings in this report build on all your knowledge and suggestions – I hope I have interpreted and summarized it in a way that represents your views and our shared reality reasonably well.

Big thanks, Joel Svedlund/Peak 63 (Editor)

Peak63 OUTDOOR LAB

1. Without Traceability, no transparency

The requirements for corporate sustainability and responsibility are rapidly growing. With it comes an exponentially growing demands on data sharing, verification of claims and openness. Two main concepts are cornerstones of this *movement*: ***Transparency*** and ***Traceability***, explaining the two sides of openness and data requirements for each actor in a value chain. Simply put; to enable transparency, we need traceability**.**

- **Transparency** is a downstream-facing concept - to "*openly share relevant information about materials, supply chain and impacts to customers and other external stakeholders*" (Doyle, M;, 2022). It has been a corporate buzzword for many years, with various definitions, scopes and implementation levels.
- **Traceability** is an upstream-directed concept - defined by the International Organization for Standardization (ISO, 2007) as the "*ability to verify the history, location, or application of an item by means of documented recorded identification*", i.e., tracking origins, movements and structures of products and materials.

To achieve traceability and support transparency, a company first needs to make all parts of the supply chain and their processes visible through extensive ***Supply chain mapping***.

Data sharing: building transparency

Tracking every detail in the full value chain may seem like an impossible task for anyone starting out. And even though we likely will never capture every single detail, the amount of data we need to aggregate, process, and share is increasing drastically. In the new realm of ***Digital Product Passports (DPP)***, there will be subsets of your traceability data that needs to be shared with many different parties (read more in Chapter 2). The question is what data to disclose to whom, and how detailed/verified it has to be. Priorities will likely be made depending on stakeholder needs:

- **Legislators and regulators**. With over 30 new EU legislations and regulations developing in the sustainability space until 2030, the demand for verification of compliance through access to value chain data is radically increasing. See chapter 2 and 7 for an overview. We will need to follow the updates from legislators closely as we are in the middle of legal development, lacking the details to clarify their full requirements on data availability and traceability.
- **Sustainability reporting** – whether it is a full CSRD sustainability report or separate climate reporting, there is a need for actual data from your supply chain to verify any claimed impact reductions or other positive effects of your sustainability efforts. The legal obligation to report on sustainability is paired with growing expectations from financial stakeholders to have data that show their risk exposure.
- **Marketing substantiation**. Substantiating environmental claims according to new EU legislation will demand more granular data from your supply chains, to cover verification of the environmental and social impact categories you want to communicate about.
- **Customer demands**. Driven by influencers, NGO's, media and a public discourse, there is an increased demand for openness from companies beyond the legally controlled disclosure. Disclosure and in what format is to be defined by company policies and market positioning.
- **Other value chain actors** that need specific data about your product: retailers, recyclers, third-party auditors, who either need the information to carry out their work, or report their part of the value chain impacts, will request either detailed raw data or aggregated results answering their specific questions.

Transparency policy

While striving for transparency is seen as positive, a "total openness" approach, sharing all available data about a topic on a very detailed level can even have an obscuring effect by over-informing stakeholders with irrelevant data and complicate understanding for non-experts. Generally, a very thorough selection, processing and explanation of data is needed for verification of any claims made.

To avoid these problems, creating a ***transparency policy*** is recommended, with guidance on the communication of sustainability claims, outlining both the transparency ambition and more in detail what is prioritized for data sharing, and with whom. The policy will in turn impact how to build your traceability datasets and what type of processing (aggregation, analysis, verification, explanation etc) of the data is required before sharing information with stakeholders.

2. The Digital Product Passport (DPP)

The EU **Eco-design for Sustainable Products Regulation (ESPR)** focuses on circularity and resource use, with demands on durability, recyclability, reusability, upgradability, and reparability, as well as recycled content and environmental footprints. Collecting and sharing product data on these characteristics will be required for compliance with the ESPR. To increase transparency for consumers and strengthen the opportunity for circularity, a **Digital Product Passport (DPP)** for textile products is planned for introduction in 2027, to be implemented 18 months later.

A DPP is a digital dataset, specific to a product on batch or unique item level, with the purpose to present relevant information about the product through each lifecycle step and contribute to a more sustainable production and consumption. The DPP assigns each product batch (or unique item) a unique ID, which can be accessed through a physical tracer attached to the product – e.g., a QR code, NFC, or RFID tag. A standardised protocol enables automated data distribution between different actors in the value chain. There will not be a central registry for DPPs but a requirement for companies to follow the standard and make the required data available to the stakeholders that are entitled to access.

DPP datasets and uncertainties

A primary focus of the DPP is enabling circularity, which requires detailed information to be shared with downstream value chain operators. While the final framework is still to come, some data requirements have been suggested for inclusion in the pre-work:

- Company information
- **Supply chain information** (e.g. country of origin, facility identifications, locations)
- **Product identification** (e.g. product ID, name, art no, item no, batch no, PO no)
- **Product specification** (e.g. size, colour, category, weight)
- **Product design and service information** (e.g. care, manuals, safety warnings)
- **Material information** (e.g. materials, content, recycled content, renewable content, dyes, substances of concern, certifications)
- **Circularity information** (e.g. recyclability, take-back, recycling, disassembly, sorting, repair)
- **Sustainability information** (e.g. Certifications for responsible supply chains, brand statements)

What data to include in a DPP is still to some extent debated in the industry and among experts. While the central principle of upstream collection and downstream sharing of data from a brand are clearly defined and the basic definitions of file types and data availability have been determined, the implementation conditions for various industries including textiles are still to be decided in the Delegated Acts of ESPR during 2026 and 2027. The most recent regulatory source for information at writing from the EU commission and their research body, the JRC, is the Third Milestone documents which are available here: Product Bureau | Circular Economy: Environmental and Waste Management, under ”Documents”.

A few data types may be voluntary add-ons either inside the DPP dataset or as additional, connected data. This discussion is ongoing for environmental footprint data, and for downstream usage and repair data which may be of high value for some product types but also creates challenges of additional data being added throughout the product lifecycle, outside of the brand’s control.

Building the datasets for a DPP

The recommendations for building DPP readiness vary between actors – but there are a few key point that can be helpful:

- Do not expect to find your “do it all” platform for all DPP work as a first step.
- Start by identifying and strengthening your existing core data sources – you very likely have relevant data in PLM, ERP and systems for chemical management and compliance which needs to be connected and shared.
- If upstream traceability is lacking, start creating or refining supply chain maps for your major product segments, and initiate deeper traceability investigations on product level for a few key products and materials, to learn how the structures can be built and where the critical challenges are.

- Investigate what direct and indirect business benefits you can get from the data aggregation and sharing – from more detailed and proactive risk assessments to better storytelling and customer relations. Compliance with legislation alone will never harness the full value of your data.

Adoption of DPPs among traceability tool providers

80% of the tool providers have mentioned some development activities in relation to DPP. Due to the still unfinished framework, more than half of them are still in preparatory state with internal development and integration efforts. One out of four that have developed a DPP approach have done collaborative efforts with customers or in multi-stakeholder lighthouse projects with public financing, such as CIRPASS 1 or 2. 10% claim to have mature or commercial full-scale offers for DPP; here it is worth mentioning that since the full DPP standard is not yet defined, even the commercially mature products will need further adaption once the EU Delegated Acts are published.

Roughly, the current DPP efforts can be sorted into five categories based on the functionality or use focus. As the DPP offerings develops further, these will all be part of the full offer. But since it is hard to explore and develop all at once, there is a diversity of focuses from the providers at this stage.

- **Compliance data matching**, focused on data matching regulatory requirements from the currently available regulations (here, the battery regulation is ahead of textiles).
- **Consumer-engaging interfaces**, which match a product identifier (QR-code on hang-tag) with a web-based interface that contains aggregated product-specific data relating to authenticity, sustainability storytelling or various forms of learning or interaction about e.g. care, repair etc.
- **Circularity enabling,** exploring the use of DPPs for supporting after-sales activities such as care, repair, re-sale or recycling.
- **LCA automation,** focusing on publishing impact data (e.g. the French Ecoscore) into the DPP, primarily for consumer review.
- **Physical data linking**, developing the data carrier on the product (QR code, RFID or NFC tag) that grants access to the DPP.

Key actors for further investigation

1. **CIRPASS and CIRPASS-2** have been one key initial development and implementation testing projects for a digital product passport, supported by EU and referenced by many actors. The CIRPASS projects has more resources about Digital Product Passports and the requirements for supporting tools. A report/list of "DPP-oriented reference architectures" was published in July 2023, containing several tools in our list. More thorough definitions and implementation trial data of DPP are also available from the CIRPASS projects.
   (https://cirpassproject.eu/, https://cirpass2.eu/).
2. **ADEME**, the French governmental environmental bureau, has since 2022 through the legislation called "Anti-waste law for a circular economy", **AGEC,** mandated consumer-facing transparency pages (AGEC Article L. 541-9-1) which can be used as basis for consumer interactivity in the DPP development. While not completely aligned with ESPR, many actors see a benefit of using this already implemented requirement to develop their first "passport" efforts and gain capabilities and deeper understanding for the coming DPP implementation.
   (More information in FAQ-020123v2- english version_v3.pdf)
3. **GS1** is an international non-profit association, dedicated to global standards and solutions to improve the efficiency and visibility of supply and demand chains, which include the well-known EAN/GTIN article codes that are widely used around the world. Their **GS1 Digital Link** service has, through CIRPASS and other development efforts, grown to be a backbone for the DPP development, currently used by many tool providers.
   (Digital Product Passports » GS1 Sweden)
4. **CEN/CENELEC** is the main development body for the framework and system standards of the DPP. You can find their planned, ongoing and finished work for DPP via the link below. The practical work is carried out in subcommittees and working groups of the technical committee CEN/CLC/JTC 24, where industry actors can join through their national standards bodies technical committees – e.g. SIS/TK 639 for Sweden.
   (CEN Technical Bodies - CEN/CLC/JTC 24)

3. Finding the relevant tools

On the foundation of our previous report and tool list, we built TraceabilityTools.com and collected voluntarily reported data from 60 tool providers in March 2026, through an online survey. The data collected is openly available for searches, learning and comparison on the website. More tools will be added, and data updated a few times annually. As the data is self-reported by the providers and there due to the development pace of the sector may be changes in between updates of the information, we recommend anyone using the list to do a full review of each considered tool yourself. Here, we summarize a few of the findings from this dataset.

From tool provider descriptions, we can see three main approaches to the area emerging:

- **The compliance shield approach**, based in traditional traceability work, with support for mapping, auditing, risk assessment and verification.
- **The data efficiency and interoperability approach** from young, DPP native and tech-based companies, which from the start are focused on using AI, automation and no-code technology to simplify data exchanges.
- **The (circular) customer relationship approach** where the identifier on the garment and its connection to a system for circular services, loyalty and storytelling are key ingredients.

For a slightly more structured overview, Table 1 offers a coarse segmentation of the 60 tool providers' input to traceabilitytools.com.

Segment	**Share *(approx.*)***	**Focus & Characteristics**	**Examples from traceabilitytools.com**
Supply Chain Mapping & N-Tier Traceability	50%	Focus on "Deep Tier" visibility (Tier 2-4), mapping supplier networks, and managing risk/due diligence (CSDDD/EUDR).	*TrusTrace, Tilkal, Sourcemap, Retraced, tex.tracer*
DPP Specialists	50%	Purpose-built platforms for the EU Digital Product Passport. High focus on QR/RFID, consumer experience, and ESPR compliance.	*Blippa, TrueTwins, Renoon, Lingon, Ovido, Kezzler*
Sustainability/ESG data & reporting	25%	Reporting, data management for report creation and verification of compliance on corporate level.	*Retraced, Credibl, Qarma, Worldly, Carbonfact*
Impact & LCA Calculators	25%	Specialized in carbon footprinting, Life Cycle Assessment (LCA), and PEF (Product Environmental Footprint).	*Carbonfact, Vaayu, Målbar, SUSTAIN A/S*
Operational Integrators (ERP/PLM/SRM)	15%	Existing business systems that have embedded traceability or "Single Source of Truth" capabilities.	*Delogue PLM, TRIMIT (ERP), TradeBeyond, e-SCM*
Niche/Specific Layer Tools	5%	Specialized in one specific data layer: Chemicals, Waste/Recycling, or Facility Identification.	*The BHive (Chemicals), Reverse Resources (Waste), Open Supply Hub (ID)*

Table 1. Main categories of traceability tools registered to traceabilitytools.com in March 2026. Segments are overlapping and tools can occupy several segments at once.
**)Share is approximated with 5% increments into these categories, based on tool descriptions and specific category answers*

According to the tool providers' own descriptions, regulation is a key motivation for tool adoption. Digital Product Passport (DPP) is mentioned in over 60% of descriptions, while compliance with ESPR, EUDR or CSRD are mentioned in half of descriptions.

Key functionality is traceability and supply chain mapping, with over 70% presence, while integration or interoperability is on the rise, mentioned in a third of descriptions. LCA or Carbon Footprinting is present in a smaller subset of the tools, 1 out of 5 mention it as a key feature in their description.

Main tool functionalities in the list

There is a wide variety of tools involved in traceability and digital product passport data management. While the market can be segmented, we see both broad services that cover several segments and focused tools that set out to solve one small part of the full challenge. In the traceabilitytools.com survey we listed 8 broad tool categories that are relevant in the area.

1. **Supply chain traceability platform** - e.g. linking suppliers, materials, and products across tiers
2. **Sustainability / ESG data management & reporting tool** - e.g. collecting, managing, and reporting sustainability data
3. **Product data management (PLM / PIM)** - e.g. managing product specifications, attributes, and lifecycles
4. **Supplier / vendor management system** - e.g. onboarding, assessments, compliance tracking
5. **Enterprise resource planning (ERP)** - transactional business system for operations
6. Digital Product Passport (DPP) / product transparency tool - exposing product information to external stakeholders
7. **Physical product tracing / tagging solution** - e.g. QR, RFID, markers, or physical-digital linking
8. Lifecycle assessment (LCA) / footprint calculation tool – tool for making LCA-based calculations

"Outside the mold": Most tool providers used the option to select a primary and a secondary functional category to show the range of services offered in their tool. 10 providers used the "Other" alternative to express a combination of several functional categories, reframing a category slightly or creating a category of their own. Novel category suggestions were:

- AI-driven product compliance
- EUDR
- Resale and repair enablement
- Cross-functional solution
- Social stakeholder voice collection, Human Rights Compliance
- Environmental impact improvement platform
- End-to-end sourcing and supply chain management

Industry agnostic tools – a growing trend?

While industry sector or product segment specialization (e.g. textile or fashion specific etc) has previously been argued as a strength by some providers, the survey responses from the tool providers now indicate that the development is moving towards less segment- or sector-specific tools for traceability. This is also welcomed by many companies with diverse product portfolios, often populating both textile and non-textile segments. Most tool providers on traceabilitytools.com in 2026 claim to cover a broad spectrum of textile, apparel and footwear industry. Even furniture, sports & outdoor equipment and other non-textile products are claimed to have coverage in the tools by 80% of the tool providers.

Textile standards and certifications

Certifications are important for traceability and verification of environmental benefits. 85% of the tools listed in traceabilitytools.com have some type of certificate management functionality; to manage various types of certificates, as datapoints themselves or for verification and validation of other data. However, in traceabilitytools.com, we have not added certifications as a separate category but offered them to list themselves, if they have digital services that match any of the tool types mentioned above. Examples of the digital transition by certification operators include the Textile Exchange eTrackit and dTrackit systems for data sharing and integration with other tools, and the Bluesign Cube which offers possibilities to collect environmental data within Bluesign supply chains for development and reporting.

Traceability tool technologies

From the material communicated on tool provider's websites, it is not always possible to establish with certainty what functionality and features each tool offer, or what technologies they are built on. In traceabilitytools.com, we have offered to list the 12 following tech concepts, indicating the structural backbone of a tool:

1. **Software-as-a-Service (SaaS) -** a full-service model where the customer gets both back-end and front-end from the service provider.
2. **Cloud-hosted platform -** with both data and software running on servers located externally.
3. Multi-tenant system design
4. **Relational database** – organizes data into predefined tables with rows and columns, using fixed schemas and foreign keys to connect related information.
5. **Graph database -** structured with data nodes and links/relationships rather than a data matrix, with the ability to store large amounts of diverse data and perform analysis of complex patterns.
6. Role-based access control (RBAC)
7. Blockchain / Distributed Ledger Technology
8. Cryptographic integrity checks (hashing, signatures)
9. Automated rules engine
10. AI/Machine learning models
11. QR code tagging
12. RFID/NFC technology

Is the blockchain hype dead?

In the early 2020s, **blockchain** was heavily promoted as "the" solution to many traceability needs, offering a verification possibility and adaptability where traditional database solutions fall short. But large-scale blockchain implementation in complex supply chains has offered challenges with data management and energy consumption because of cryptographic calculations and duplicated data.

In 2026, only one out of five of the responding tool providers have listed blockchain as a key technology and made comments about active implementation. A handful more claim to use non-distributed ledgers. The most common use (half of the active implementations) is as a "digital notary", to use the blockchain as "fingerprint" verification for data inputs. 2 providers claim to use it for product journey tracking and 2 have built the infrastructure around blockchain.

A few tool providers have opted a centralized approach with standard cryptography (signatures, W3C credentials etc) for data integrity and traceability, limiting the energy needs or distributed ledger complexity.

A few tool providers have answered that blockchain is an option or a future possibility, likely to keep some potential DPP implementation scenarios open. However, it is worth noting that blockchain is not a required technology for DPP and while some DPP pilots have used blockchain, it can be solved with other technologies too.

3. Traceability from a supply chain perspective

We have, in 2026, not yet found a company with fully automated handling of the various sustainability related product data. Among smaller companies, Excel is still a common go-to tool for all types of data management. In bigger and more established companies, PLM systems are implemented to manage development processes and the exchange of product specifications with garment producers. Large companies often have supply chain management software to manage a complex mix of product lines and production deadlines.

In many companies, the input to these internal legacy systems is kept within the company and based on information gathering through email, excel sheets and phone calls. As stated by one of our interviewees regarding digital maturity in supply chains; "Excel is still often best-case, many are using pen and paper".

The complex supply chain (Tiers, supplier network)

When referring to **tiers** in this document and the tools list, we use the definitions from World Resources Institute (Sandowski, 2019) which can be seen in Figure 1. It offers a simplified overview of the supply chain where the actual complexity of supplier relations or parallel supply chains for chemicals and other input resources are not visible. In the real **supplier networks**, there can be single suppliers spanning over several tiers, suppliers covering only specific parts of a single tier and intricate relationships of sub-suppliers, transporters and agents which needs to be uncovered in the deeper supplier mapping and traceability work.

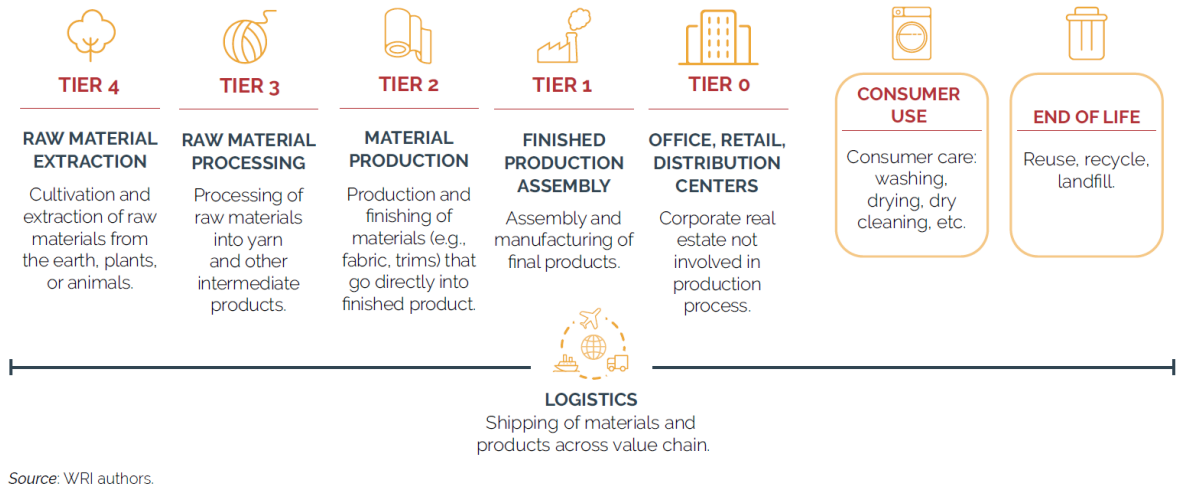

Figure 1. Definitions of Tiers in the textile value chain according to World Resources Institute.

Traceability in three levels

According to the *TrusTrace Traceability Playbook* (Doyle, M;, 2022), traceability efforts can be described in three levels, where you need the lower levels to reach the next (see Figure 2).

1. **Supplier mapping** – to establish names, addresses and basic data about the full supply chain. Can be extended with many types of sustainability and compliance data for deeper insights.
2. **Product traceability** – to connect supplier data to each product type and create the structure for a product's full supply chain, understanding the full complexity of the supplier interactions.
3. **Material traceability** – to connect the flow of materials and components through the supply chain to each product on purchase order level.

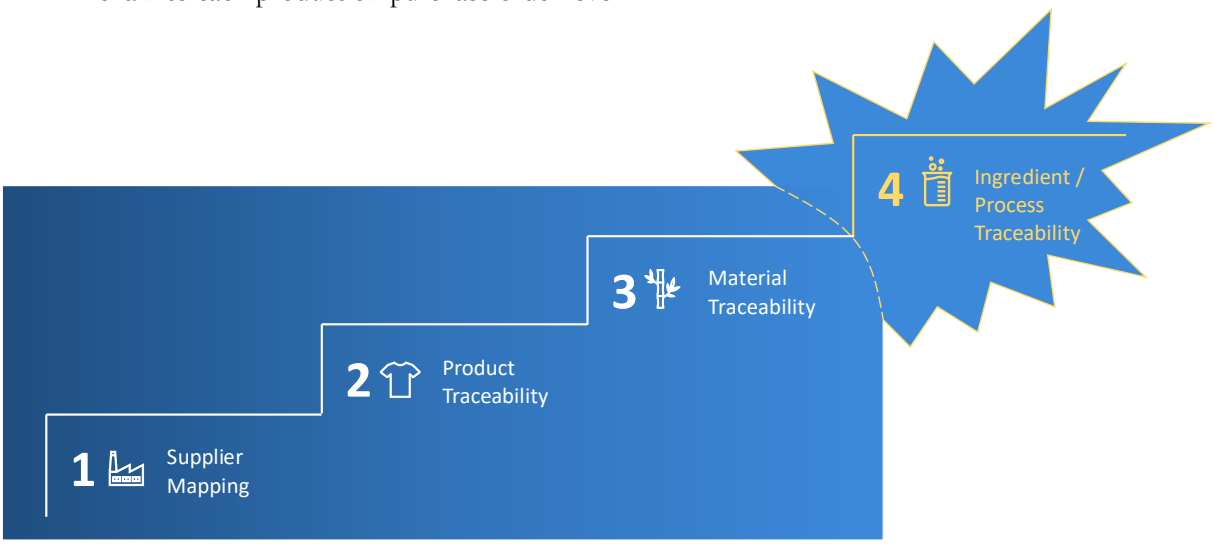

Figure 2. Three-level traceability based on definitions by TrusTrace (Traceability Playbook, 2021), with an added fourth suggested traceability level describing the additional demands for circularity outlined in Digital Product Passport works.

Traceability level four - Ingredient/process traceability

Developing legislation and practical needs for product safety, compliance and circularity (Schenten, 2019) creates a demand for a fourth level of traceability: **Ingredient/process traceability** – which includes substances as material ingredients and in process chemistry (see Figure 2) and **chemicals management** enters the traceability arena.

Currently, the most common solution to managing ingredients is to control what can be found in the product – generally through a **Product Restricted Substances List (PRSL or RSL)**. With the RSL, companies get assurance towards product safety and potential considerations for product end of life management – e.g., contaminants in recycling streams etc. Traceability efforts in RSL processing are generally limited to recording signed assurances from the suppliers that have direct contact with a company – i.e. direct manufacturers or nominated upstream suppliers.

The total chemical load at a production site, however, is much more complex to monitor as it requires including all process chemicals needed in each production step. This is where concepts like **Manufacturing Restricted Substances list (MRSL), Input Stream Management** and **Chemical Inventory Management** comes in. With some variations in approach, they all aim at controlling or prescribing the process chemistry by listing, recommending, prescribing or banning substances in a company's production. The **Chemical Inventory**, i.e. a full list of all chemicals handled in a production site, is a key element together with Safety Data Sheets (SDS) describing potential risks in substances and formulations.

Tools for chemical inventory management have started emerging, offering aggregated information about substances used in textile products and processing, for risk assessment and increased control. Some tools can also offer actual or suggested connections between specific substances and processes, materials and products, as well as simplified registration of substances with machine learning. However, among the tools on traceabilitytools.com, approx. 80% have supplier visibility, association between product and supplier and product composition capabilities. Half of them offer process and substance traceability options. Very few systems (only a handful known today) offer a deeper chemicals inventory, substance-level assessment and input management approach.

The **EU ESPR and DPP** will offer more guidance on minimum requirements for traceability level of product/material ingredients for recycling purposes, with focus on substances of concern – which according to the current legislative proposal includes existing lists of SVHC, CLP, POPs and circularity-inhibiting substances, a group of substances which still are to be defined by legislators.

Bottom-up vs top-down approach

When starting the traceability journey, companies can opt different approaches to start mapping the supply chain. There is not one right way forward, and often they are needed in combination to get to a

When the primary intention is to track one or a few specific raw materials from the source, a **bottom-up approach** often makes sense. It starts at the raw material extraction or cultivation location (or at a following step with assurances of the raw material extraction conditions) and from there tracing the downstream journey of the material through all production steps, until it lands in the company's warehouse. This is a common approach for certification of organic natural fibres or other commodities that need a verified origin and traceable processing steps – often used in traditional certifications for e.g. organic or recycled materials. The drawback of a bottom-up approach is that for a full picture of the supply chain, a company needs to do this for every single material until they converge in a product, often with many unknown material sources.

For a broader supply-chain mapping effort, the **top-down approach** is more relevant. It uses product bill of materials, purchase orders, invoices and transport documentation to back-track the upstream actors, map the relations in the supply chain and build a tree-like structure where all involved actors are listed. The top-down approach, if used to its full extent, will generate a broad map of the supply chain for a product, assortment or company's full production. If filled with all data about processes, inputs, locations,

actors and relations, it offers a comprehensive database which can be used for further mapping of specific products and materials journeys through the supply chain.

The increased demand for data

Starting off with data-collection through email and building the first data structures in spreadsheets is recommended, to build an understanding of the craftsmanship, pitfalls and needs that follow with in-depth traceability work. However, once this work is scaled up and the data points aggregate, it is highly recommended to start considering using digital tools.

Even if the first level of traceability, **supply chain mapping**, is fully achievable using excel and email as your main tools, you will most likely benefit from a digital solution already at this stage. Especially when considering keeping records updated and in sync with an active sourcing work.

> Additional needs for digital solutions: According to the tool provider *Sourcemap*, making an extended supply chain mapping generally means that you increase your original list of suppliers by factor 5-10 when including sourcing agent structures, second sources, local sources and sub-suppliers that are generally hidden in your main tier 1-2 suppliers' purchasing patterns. From a due diligence and risk assessment perspective, this extended supply chain mapping can uncover many issues that need your attention.

For **product traceability**, the first steps are also possible to take manually but when considering product updates, variants and keeping track of full product lines, the need for digital tools and automation will quickly be evident.

When going into **material traceability,** which is matched with your purchasing orders to create traceability on batch level or even unique product level, the complexity will demand digital solutions and system integration to avoid endless work hours of just entering and transferring data. The human factor in input and transfer errors will also be a data quality issue when the data flow increases.

Adding **ingredient/process traceability** for a few suppliers in a smaller product or materials portfolio is possible to do without digital tools, but if scaled up to full assortment or large-scale supply chain implementation and monitoring for compliance, digital tools will be required. They do also offer some key benefits of automated substance checking, raising warnings and offering support for substitution work which enables non-chemists to work in the field.

Data verification and reliance on suppliers

To limit each company's workload and move the data input as close as possible to the source, there is a movement for each part of the supply chain to submit their own data directly into the traceability tool themselves, by logging in and manually entering data, by uploading excel sheets, or through integration between their systems and the traceability tool (keywords: integration, API, workflow automation). Over half of the listed tools in traceabilitytools.com have responded that they offer inbound APIs or workflow automation. But there is currently no widespread industry alignment on exact datapoints to collect, their coding or the data collection formats/methods, and only 5% offer any pre-configured APIs. This means that each connection between systems need its own development, testing and verification effort.

Still, there is no clear long-term alternative to automation for large-scale data transfer. The currently prevailing manual input paradigm provides a series of challenges, which are often mentioned as **audit fatigue, reporting fatigue or compliance overload**, with two key implications:

1. **It creates a high workload for each supplier**, and many possible error sources when reporting into multiple systems with different data and input methods, which further upstream becomes very fragmented with small datasets shared with many indirect customers.
2. **The brand needs to rely on correct data inputs by their multi-tier indirect suppliers**; or they need to set up very rigorous large-scale **verification processes**. Self-reported, unverified data will in some cases not meet legal requirements.

Bulk upload via excel sheets is a time-saving method which can be used as a starting point when scaling up, but **automation and standardization** will be needed to manage recurring data transfer at scale.

Certificate management is needed to handle the multitude of certificates and standards used in the textile industry to verify claims and origins of materials and products. 85% of the tools in traceabilitytools.com claim to have some kind of certification management functionality.
Registering and keeping track of product/material/process/transaction certificates and their validity is an important feature in a traceability system, both for verification of claimed properties and as a chain-of-custody verification when tracing materials on batch level. Traceability tools that include certificate management can enable automated follow-ups and flagging missing required documentation.
There is, however, a challenge with many of the traditional sustainability certifications from a traceability perspective: While they offer assurance within their certificate scope, they are generally not very transparent themselves and do not offer detailed information on all upstream suppliers, locations and processes within the certificate scope, and their specific impact data. So, while certifications can be important for verification, they do not always support deep supply chain mapping, traceability efforts or impact calculations to the level companies are expected to deliver.
There is an ongoing transition among the certificate issuers to adapt to the new era of digital traceability and ensure relevance, when legislation requires transparency beyond the certificate assurance. An example is the Textile Exchange Trackit suite which traces materials by digitalized transaction certificates or online e-transactions, . traceability systems on batch level for certified commodities, and dTrackit with centralized databases for certificates and certified actors.

4. Data flows and your IT ecosystem

Supplier, product, material and purchasing data is often spread out over several internal systems in a company. With requirements for added datasets and verification to achieve traceability, impact assessments and sustainability reporting, the need will increase for extensive data exchanges, integrations and standardisation of data formats. There is not one single solution that solves all of these problems -

Product data management – integration and data exchange

As can be seen in Figure 3 and Figure 4, supply chain management and product/material traceability are integral parts of the product data management. There is a strong need for integration, automation and standardization of data formats, input methods, APIs, and other interfaces where these systems interact with each other or with people. At writing, there are only a handful of tool providers who have clearly stated pre-configured integrations with legacy business tools. Most offer generic APIs, requiring development and configuration by the company IT staff, tool provider, or consultants, to work in reality.

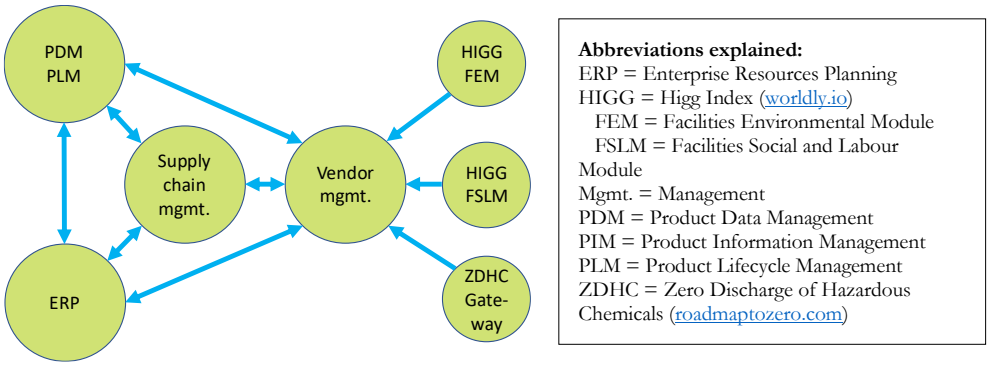

Figure 3. The internal tool/systems structure and data flows, as described by the product/purchasing team of a textile company.

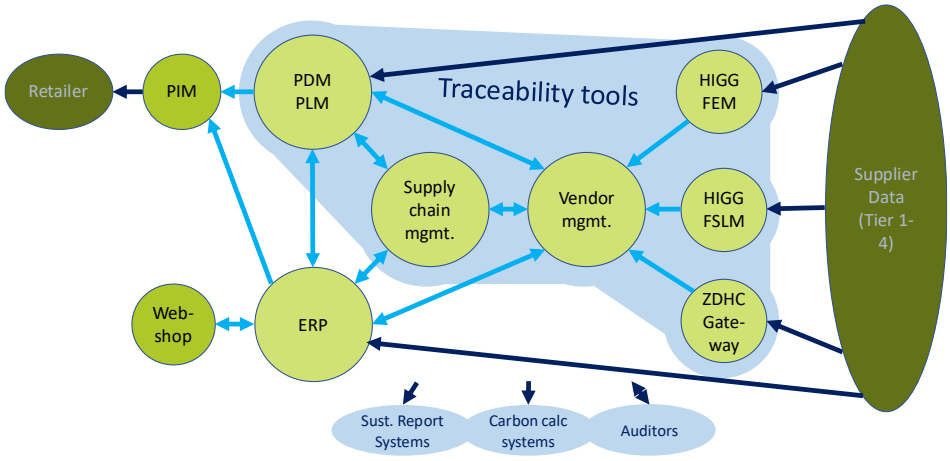

Figure 4. A more comprehensive picture of interacting tools and data flows, including some external data sources and recipients of data. This illustration can be further expanded with demands for circularity related data by downstream value chain stakeholders.

When assessing the potential for integration and data exchange, it may also be good to refer to the DPP development, with upcoming Delegated Acts from EU and standards from CEN which will define the formats for data sharing between stakeholders and build a foundation for the internal data management. Read more in 2. The Digital Product Passport (DPP).

There are efforts in the industry to build data sharing standards – besides the DPP efforts described in 2. The Digital Product Passport (DPP), below are a few examples of current work in that direction, with references to digital product passport development:

- **The Traceability for Sustainable Garment and Footwear** initiative by UNECE has developed traceability standards and implementation guidelines, as well as a Sustainability Pledge where actors can join forces for improved traceability (https://thesustainabilitypledge.org/).
- **Sustainability Data Exchange Project (SDEX)** by sporting goods industry organisations EOG and BSI, developing a sustainability data exchange protocol between brands and retailers is at writing on version 3.0 and is used by brands and retailers in Europe. See European Outdoor Group - SDEX for more information.

5. Advice for purchasing traceability tools

In this section, we have collected shared learnings from brands, tool providers, industry organizations and other stakeholders. Supply chain mapping and traceability is not only dependent on the IT infrastructure but also on corporate structure, data needs, strategic decisions, partner relations and internal policies that dictate how the company operates.

Defining your traceability tool needs

When purchasing a business-critical IT system such as a supply chain mapping or traceability tool, it is highly recommended to research options and define needs and constraints thoroughly. To get a broad view, people from different functions and departments of the company should be invited to contribute with their input.

Goals and policies affect your traceability tool purchase

Internal policies that define data management, reporting requirements and criteria for sourcing can also provide fundamental criteria for the traceability tool choice. Firstly, it is important to establish what key challenges you are addressing when looking for a supply chain mapping and traceability tool, and to create a priority order so you can assess the offers based on your internal needs, rather than having the tool provider's sales pitch telling you what you need. The increased legal demands can guide your goal setting, but your internal setup and sustainability ambitions also defines your level of commitment and approach

to different aspects of traceability and transparency, which in turn affects your requirements on chosen tools.

Example: Matching tools to your workflows

One of the interviewed brands chose to not use a common traceability tool because it has a "top-down" data structure, starting with a product's bill of materials (BOM) and creating a tree structure upstream the supply chain. Their sourcing is based on very strict sustainability criteria, starting with a long onboarding and approval processes "bottom-up" where the material suppliers are first approved as a company, then their materials before they are nominated and can enter a BOM. This has led them to look for a system with high flexibility, alternatively two parallel tools which can work independently with the BOM structure/product traceability and the supplier and material registers, to manage the onboarding process.

Figure 5 shows an overview of their data structure based on the onboarding process.

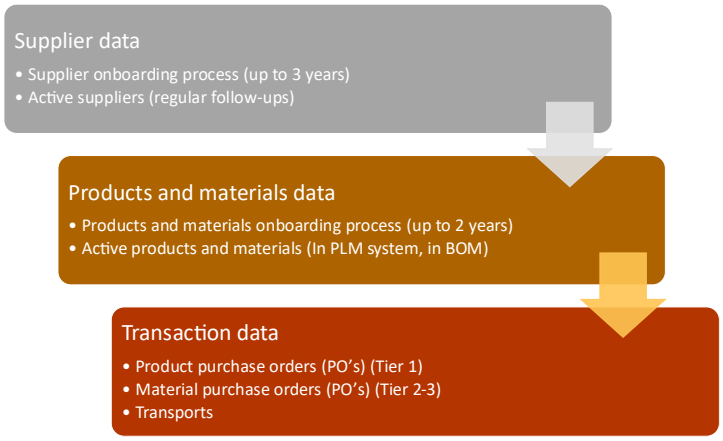

Figure 5. Data processing flowchart for traceability. In this company, the onboarding process of suppliers and materials during development and sourcing requires registering suppliers in the systems many months or even years before their materials appear in a Bill of Materials (BOM) or enters the market.

Textile specific vs generic traceability tools

Should you choose textile-specific traceability tools or more generic alternatives? There are still a few textile-specific tools but the trend since 2023 is less specialization, with around 80% of the tools in traceabilitytools.com covering categories like hard goods, sports equipment, footwear and furniture. If you have products of mixed textile and non-textile materials, or a mixed portfolio of textile and hard goods products, this will be a highly welcome feature as you can include all your product lines in the same tool.

Example: Advantages of a broader-scope tool

There can also be a positive carry-over effect in development speed and market spread for the more generic tools. One of the interviewed brand representatives, who have assessed several tools, stated:

"Systems coming from non-textile backgrounds seem to be pivoting quicker than the textile counterparts. Example: Tilkal is very flexible across food/drink/ cosmetics, and now also very strong in textiles. Such a platform gives us more optimism to capture our complicated products (i.e., tents, skis, etc) in the future, than the platforms who are stuck in thinking about yarns and dyeing. This also applies to Higg and Open Supply Hub who are doing well to pivot away from 'textiles only'."

An implementation roadmap: First steps

The below 7-step roadmap for successful traceability tool implementation was created by a group of companies investigating traceability tool implementation in 2025, within the Scandinavian Textile Initiative for Climate Action, STICA. The roadmap is based on direct experience from within Swedish fashion brands and interviews with tool providers.

1. Define what you need from a traceability tool
   - Clearly define what you want to trace (e.g. fiber origin, production steps, specific data points).
   - What missing information shall it help you with?
2. Assess your current PLM System
   - What information do you already have, and what are you missing?
   - Do we need to start by cleaning up our own data before adding a tool?
3. Understand the data collection
   - Will your suppliers input the data, blockchain, AI screening?
   - Can the tool be integrated with your existing ERP or PLM systems?
4. Cross-functional collaboration
   - Secure leadership support and involve key teams: sourcing, sustainability, product, and IT.
   - Make sure all teams are involved in the decision-making process.
5. Assess complexity
   - Evaluate your company's capacity to manage the tool.
   - Consider resources needed: time, budget, and people.
6. Involve your suppliers
   - Start with key suppliers and scale gradually. They are critical to success.
   - Involve them at an early stage to test the tool.
7. Pilot and scale
   - Run a small pilot project to test data flow and system usability before buying the full package.

Questions to ask the tool provider

Below we have collected a set of questions to use in interactions with a potential traceability tool provider. You will need to adapt the question to your situation and need. Some of the questions are covered by the traceabilitytools.com datasets, offering a possibility to prepare for your interactions with online comparisons.

Data management

- **Who can input data into the tool/system?** Is it only within the brand, or can upstream and downstream partners also input data for a product, material, or process? Does the collaboration go beyond direct partners, i.e., multi-tier traceability with direct input at the data sources?
- **What level of granularity does the system allow** in traceability – supplier, article number, production batch or unique product?
- **What solutions for consumer communication** do the tool provider have – to make traceability data or aggregated impact data part of consumer-facing transparency?
- **Preparation for circularity**: How do they provide sharing of consumer-facing data (product data, materials, care & repair, second hand services, etc) as well as important supply chain information needed for the end-of-life treatment of the product (garment collection, recycling facilities, etc.)?
- **Do they have sustainability impact assessment** functionality in the system? What impact categories and what impact data sources are they using?

Legislation

- **Legislation and regulation development as a factor for tool choice**: which national, EU and non-EU regulations are already integrated in the tool?
- **Is the tool provider proactively working with new regulations** in e.g., EU projects and government stakeholder dialogues, or passively waiting for the new legislation development? Do they have a method for assessing and implementing new regulations?

Partnerships, collaboration

- **Ask for a list of their "ecosystem" partner organisations** (i.e., EOG, Textile Exchange, etc) and platform/system integrations. Some tool providers are more embedded in your industry than others. If several providers offer the same services, the preference will most likely be one who is embedded in your current industry setting.
- **Ask for a list of key customers**. It can give you some confidence and reference to their target customer. It can also indicate their business approach – each market segment is different in terms of customer size, brand/product value, product complexity, circularity approaches and main impact drivers. If it is a generic tool with customers from other industry sectors, they may still have some of the other parameters in common with you.
- **Ask for their approach to systems integration, data exchange and standardisation**. DPP is a key factor for any system concerning product data. Automation of data management is a crucial point, both internally and externally. A supplier or retailer need to manage data exchange with hundreds of brands with different systems, so this is important align, through projects like CIRPASS-2, partnerships and joint standards.

6. Traceability as a driver for sustainability

Traceability is not an end goal, but a means to get accurate data for follow-up, analysis of effects, in-depth sustainability interventions and enabling communication of both challenges and achievements. To become relevant for sustainability, the traceability efforts must be related to the company's sustainability challenges, goals and strategies, to ensure the right types of data are collected.

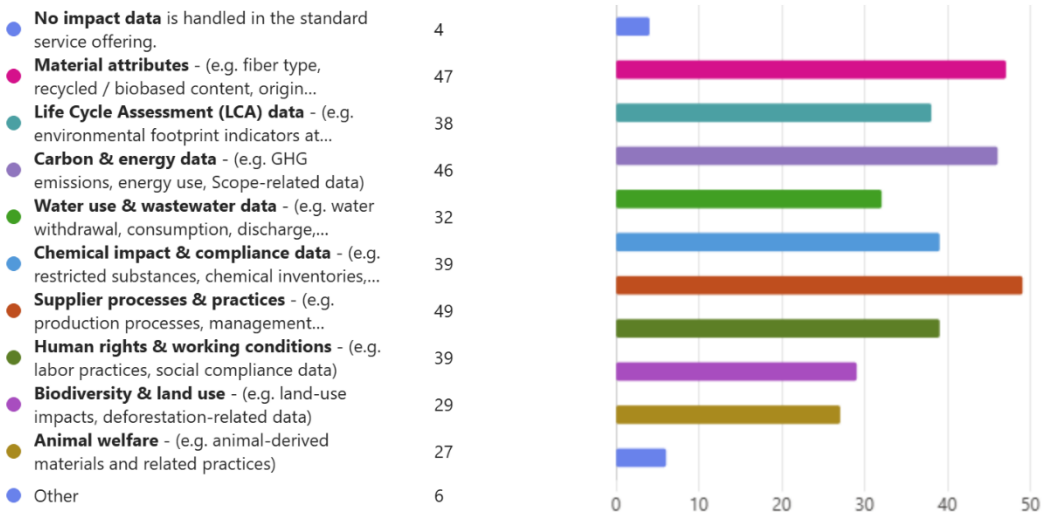

Figure 6. Impact data supported in traceability tools. Based on responses from 60 tool providers on traceabilitytools.com, March 2026.

Often, the raw data collected in a supplier mapping or traceability system is not direct sustainability impact data but can be used to calculate or assess different impact categories like social impacts, water, chemicals, climate or biodiversity. Many of the current tools have some kind of impact data, either primary or secondary (Figure 6).

For example, a supplier may not themselves have calculated their greenhouse gas (GHG) emissions for your production but can often give you the energy source and consumption which simply can be converted to CO2e values with a climate emissions factor. In some traceability systems, there is in functionality for either collecting sustainability data directly or calculating it from other traceability data with built-in emission factors and algorithms.

Traceability for circularity

Traceability for circularity can increase the demands on data drastically (see Chapter 3 for details). This is also reflected in the DPP development on EU level (see 2. The Digital Product Passport (DPP)). We have identified four general data requirements that will raise the bar for product/material/process/activity data management:

- Tracing on **ingredient- and process level** (including chemicals content, for e.g., better recycling)
- Tracing to **unique product item** (for service, usage, rental, re-sale etc)
- Data accessible **in full value chain** (to actors both upstream and downstream)
- Unique physical tracers for each **physical product**

Climate, LCA and traceability data

Climate is currently one of the strongest driving forces for many decisions in the sustainability teams. The demand for actual climate-related supply chain data is introduced immediately when considering communicating impacts and environmental benefits towards consumers, to assure that the benefits are directly linked to the product and its current supply chain. And it shows among the traceability tool providers – 75% of the providers in traceabilitytools.com claim to manage GHG emission data.

Primary activity data from the supply chain is currently one of the most important keys to improve accuracy in LCA and carbon emission calculations, and one type of data that most of the traceability tools can be used to capture. For climate calculations, easily attainable data such as production volumes counted in kg, m2 or pieces in combination with the energy in kWh and specification of energy sources will generally go far to offer a quality improvement for the calculations. However, depending on how these data points have been retrieved or calculated and from which sources, the data quality and representativity will vary. Some kind of data sanity check is generally required for reporting, and in some instances the recipient of the report may mandate validation processes for the data as well. In tools with integrated LCA or carbon calculation capabilities, it is relevant to look for the functionality to perform this data quality assurance.

When calculating impacts and environmental benefits, there is always a simplification and an uncertainty factor to include. The resulting mix of primary data, generic database factors and standardized methodologies can provide some uncertainty to the validity of results and challenges in terms of the amount of work needed to fully verify a climate emission statement, e.g., in a marketing claim or corporate report in accordance with stricter legislations on sustainability claims. They can also offer a challenge to correctly represent the actual situation, if geographical or process specific data is missing. With the use of natural fibres such as cotton, wool or lyocell, the complexity increases with biogenic carbon from agricultural systems not currently well integrated in the LCA methodology, rendering biodiversity and ecosystem effects from different agricultural methods which can have big impacts on carbon uptake or release as well as water and nutrient retention. More work is needed in this area.

7. Traceability in legislation and regulation

The textile industry has historically had considerably lower legal demands for verification of origins, product integrity and ingredients in EU, than other industry sectors like electronics. As the EU Green Deal is being implemented, the textile industry will be affected in mainly three ways by new legislations and regulations (Delogue, 2023):

1. **A broader responsibility** for all products put to market, with a legal obligation to consider the afterlife of them. This is a radical move towards a circular economy.
2. **Traceability of every component** and production step of a product, to ensure upstream control of impacts and enable informing downstream stakeholders about the best recycling options.
3. **A new, circular approach** to design. Versatility, long product life, sustainability, repairability, reusability & recyclability. Plus, stricter regulations on raw material extraction, environmental impacts, and chemical use.

From a traceability perspective, there are so far four key aspects that both EU and US authorities are pinpointing in their development of new regulations (Bonanni, 2023)

1. **supply chain mapping** - the requirement to know and locate all stakeholders in the product supply chains back to the raw material origins.
2. **traceability** - collecting sufficient supporting evidence to prove the authenticity of the supply chain and eliminate risk of fraud, counterfeiting, adulteration, or unauthorized subcontracting.
3. **independent verification** - validation of all supplier-provided data against trusted third-party tools and datasets to identify compliance risks proactively.
4. **continuous improvement** - establishment of problem escalation and corrective action plan documentation.

EU legislation: A new normal

With a large part of the EU push for stricter regulations still in the making, a new normal for consumer goods industries is being established within the next 4-5 years. And the commitment among tool providers is very high – EU legislation is one of the key pressures for traceability.

In the traceabilitytools.com survey, the tool providers have listed their readiness for EU regulation. The key regulations listed there are, in order of importance:

1. **ESPR & DPP**: Almost every respondent mentions the **Ecodesign for Sustainable Products Regulation (ESPR)**. It is the single biggest driver for product-level data architecture.
2. **CSRD / ESRS:** The EU reporting directive and accompanying reporting standard are cited as the primary driver for "authenticated data" and corporate-level reporting modules.
3. **AGEC Law (France):** Mentioned frequently as the "blueprint" for their current systems, as it is an already implemented legislation which eventually needs to be harmonized with ESPR. Many tools consider themselves "ESPR-ready" because they already meet these strict French transparency laws.
4. **CSDDD & EUDR:** Mentioned by tools focused on **Supply Chain Due Diligence** and **"deforestation-free" supply chains**.
5. **VSME:** A newer but important mention. Providers are aligning with the EFRAG **Voluntary SME Standard (VSME)** to ensure their smaller users aren't overwhelmed by data requests from larger brands and not left out completely when CSRD scopes have moved up in corporate size.

The traceabilitytools.com survey responses indicate that many of the providers view EU's "Green Deal" almost as a "tool specification". But their approaches to the legislations vary, from reactive to proactive.

- **Reactive**: They wait for EU Delegated Acts to confirm specific data points before building. They mention meeting "national requirements" first (e.g., AGEC in France).
- **Active:** Regulations "directly shape the roadmap." They have dedicated Policy Managers or AI agents monitoring EUR-Lex and are ready for the "2027 mandate" but focus on current customer needs.
- **Proactive:** They participate in DPP multi-stakeholder development in CIRPASS-2, CEN/CENELEC JTC24, and SME Relief Package working groups. They run pilots on *draft* legislation to "stay ahead".

Additional considerations in the legislation area:

- **"Regulatory-As-A-Service"**: Several providers have moved beyond just being a database to offering "compliance-as-a-service," supporting the customer with regulatory updates and even changing the tool setup/dataset/verification methods based on evolving regulations.
- **The Delegated Act bottleneck**: Many respondents noted that while their architecture is ready, they cannot finalize the data fields until the EU publishes the specific "Delegated Acts" for textiles (expected later in 2026/2027).
- **Interoperability Focus:** There is a significant focus on JTC24 standards. Providers realize that for a DPP to work, their tool must "talk" to the EU's central registry, leading to a focus on APIs and standardized schemas.

References

Bonanni, L. (2023, 03 12). Traceability tools overview - the system provider perspective? (J. Svedlund, Interviewer)

Delogue. (2023, 01 16). *EU Directives Impacting the 2023 ESG Fashion Agenda*. Retrieved from Delogue: https://www.delogue.com/blog/esg-fashion-legislation-2023/

Doyle, M;. (2022). *Trustrace*. Retrieved from The Traceability Playbook for Fashion Supply Chains: https://trustrace.com/traceability-playbook-fashion-supply-chains

ISO. (2007, 07). *ISO 22005:2007 Traceability in the feed and food chain — General principles and basic requirements for system design and implementation*. Retrieved from ISO: https://www.iso.org/standard/36297.html

Kumar, V. H. (2017). Developing a framework for traceability implementation in the textile supply chain. *Systems, 5*(2), 33.

RippleNami. (2021, 10 12). *Overcoming Traceability Obstacles*. Retrieved from RippleNami: https://ripplenami.com/overcoming-traceability-obstacles/

Sandowski, M. (2019, 06 25). *Apparel and Footwear Sector Science-Based Targets Guidance*. Retrieved from WRI: https://www.wri.org/research/apparel-and-footwear-sector-science-based-targets-guidance

Schenten, J. (2019). Traceability as driver for more sustainable chemistry in the Global Textile Supply Chains. *Current Opinion in Green and Sustainable Chemistry, 19*, 87-93. Retrieved from https://doi.org/10.1016/j.cogsc.2019.08.003

Appendix: Traceability tool types

Certifications	An independent entity certifies a product, service, or system by issuing a written statement (a certificate) stating that it complies with certain requirements. It is the official attestation or affirmation of qualities of a product, person, or an organization. Often, but not always, a form of external evaluation, instruction, assessment, or audit offers this validation.
Code of conduct	A contractual document between direct supply chain partners, establishing a business governance framework between them. Generally covering topics including Human rights, Working conditions, Health and safety, Environmental impacts and measures, disclosure, and anti-corruption measures.
Contract Lifecycle Management (CLM)	Contract lifecycle management (CLM) handles contract processes: initiation, authoring, process and workflow, negotiation and approval, execution, ongoing management and compliance, and contract renewal.
Enterprise Resource Planning (ERP)	Enterprise resource planning (ERP) is used by a company to manage key parts of its business such as accounting, manufacturing, sales, and marketing.
Physical tracer technologies	Any additive or forensic technology that serves to authenticate the presence of a specific fibre and/or material in each product. Forensic tracers mainly focus on verifying the geographic origin of natural fibres and have less supply chain burden for the user compared to their additive tracer counterparts. Additive tracers have more supply chain burden, but more versatility for the user. They can provide traceability verification of the middle tiers of the supply chain and can work more proficiently with synthetic fibres than their forensic tracer counterparts.
Product Data Management (PDM)	Product development focused system for managing product and supplier data. Generally simpler than PLM, with less functionality.
Product Lifecycle Management (PLM)	Product development focused system for managing product and supplier data during a product development lifecycle.
Sourcing/Procurement software	identify, evaluate, and qualify new suppliers
Supplier risk management software	Supplier risk management is the process of identifying, assessing, and controlling threats to an organization's capital and earnings that are caused by the organization's supply chain.
Supply chain management software	Supply Chain Management (SCM) is an integrating function that is primarily in charge of connecting key business operations and business processes both within and between organizations to create a cohesive and effective business model.
Sustainability management system	A sustainability management system (SMS) is a systematic approach that provides guidelines for an organization to evaluate, manage, and improve sustainability by optimizing on resource use.
Sustainability reporting software	Environmental, social, and governance (ESG) goals, along with a company's progress toward them, are disclosed and communicated through sustainability reporting, typically in accordance with a predetermined standard, such as GRI.
Textile communication standard	A tool to harmonize all product data into pre-defined categories, making it machine-readable and automating exchange between different systems.