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Sustainability

In cooperation with:

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Sustainability – Digital product passport

The digital product passport (DPP) is a central building block of the green and digital transformation. The main objective is to provide a tool that creates transparency and unlocks circularity through sharing product information across supply chains thereby making it easier to make sustainable purchase choices and bridge data gaps at the same time.

Even though the DPP is still in development, the possible advantages have already been identified. With an approach from different angles, the digital product passport aims to incorporate as many of the various stakeholders' interests as possible.

The ideas, requirements, and motivations include circular economy, traceability, proof of conformity, usability, quality assurance, and social aspects among many more. Most importantly, the digital product passport is built on and integrates existing solutions to prevent double standardization and to create interoperability.

Digital product passport – How can it work?

There needs to be...

...a **holistic concept** for the DPP across the motivational aspects.

...an approach that **generates interoperability** of the sector- and system-specific implementation.

...the **use of existing** components.

...the **avoidance of fragmentation**, both on the level of policy and on the level of standardization.

Source: Benjamin Helfritz, DIN Institute

IT requirements for the digital product passport

Before the digital product passport can be deployed, the system needs to be developed. The standards and protocols related to the IT requirements contain the DPP registry and standards on the following elements:

- Data carriers and unique identifiers
- Access rights management
- Interoperability
- Data storage
- Data processing
- Data authentication, reliability, and integrity
- Data security and privacy



Implementing the digital product passport can help consumers in making sustainable choices while purchasing. (Copyright: FlamingoImages)

Sustainable PPE in practice

To keep you safe while working – that's the foremost aim of personal protective equipment (PPE). Making PPE more sustainable while keeping that in mind is one of the aims of the European Safety Federation (ESF). The ESF working group on sustainability has been active since September 2022 and keeps working on various aspects impacting the PPE industry.

“When it comes to sustainability, textiles are always at the top of the discussion. But even if we are only talking about textiles, be aware that in most PPE textiles are present. Not only in garments, gloves, or footwear but for instance also on the insides of your helmet or in harnesses for fall protection. Textiles are everywhere.”






– Henk Vanhoutte, ESF Secretary General

The impacted aspects include the product itself, with new eco-design requirements, or packaging with new targets to prevent and reduce waste. Process and use of resources have to be reconsidered with deforestation-free product rules and new green claim initiatives kept in mind as well.

Some of the key drivers of sustainability are:

- **Customer's demand**
Demands and questions on sustainability coming from customers and distributors are increasing.
- **Regulatory changes**
There are new and upcoming legislations with sustainability aspects and circularity requirements.
- **B2B opportunities**
Businesses are looking for sustainability in B2B and the supply chains.

Priorities for more sustainability

| | | |
|---|--|---|
|  Ecodesign |  Packaging |  Digital user instructions |
|  Restrictions on chemicals |  Green claims | |

Challenges and achievements

For some of the current challenges, there are already circularity and sustainability efforts visible in the PPE industry, resulting in achievable solutions.

| Challenge | Achievements |
|--|---|
| Reducing waste, making products recyclable and compostable | ➤ Circular packaging and material |
| PPE contamination remains key concern for product reuse | ➤ Corporate and social responsibility plans |
| Starting with the design not just waste management – innovative solutions needed | ➤ Ethical codes to fight greenwashing |
| Legislations and green taxes are already impacting PPE | ➤ Sustainability standards, green labels and certificates |

Sustainability in workwear

When a company decides to make their workwear more sustainable, they have to take new challenges into account. For example, how to measure or know if their approach is truly sustainable? The company Fristads has dealt with these challenges of establishing a sustainable workwear production firsthand. Some of their insights can be used as a checklist for companies that want to be more sustainable but don't know where to start.

Checklist: Do I have a sustainable solution for my workwear?

| | |
|--------------------------|---|
| <input type="checkbox"/> | What is sustainable workwear and how do we avoid greenwashing? |
| <input type="checkbox"/> | Is there a common industry standard that measures environmental impact? |
| <input type="checkbox"/> | If I purchase more sustainable workwear, what is the actual CO2 saving? |
| <input type="checkbox"/> | What is the quality level of more sustainable workwear? |

Source: Lena Højland, Product Director, Fristads

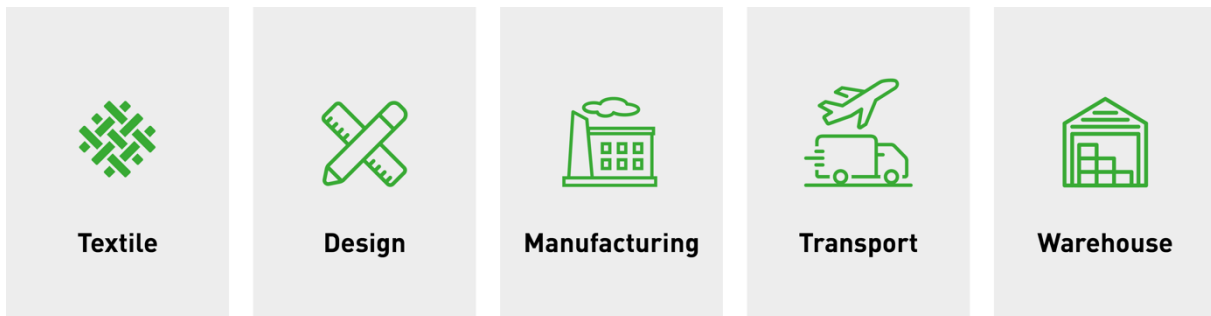


Sustainably produced workwear can improve the carbon footprint and be just as durable as any other workwear at the same time.
(Copyright: Messe Düsseldorf/C. Tillmann)

EPD in the textile industry

The concept of environmental product declarations (EPD) is already established for various products industries. But when it came to implementing EPD for clothing, Fristads took the first step. EPD allows the measurement of the total environmental impact of a garment.

EPD in action



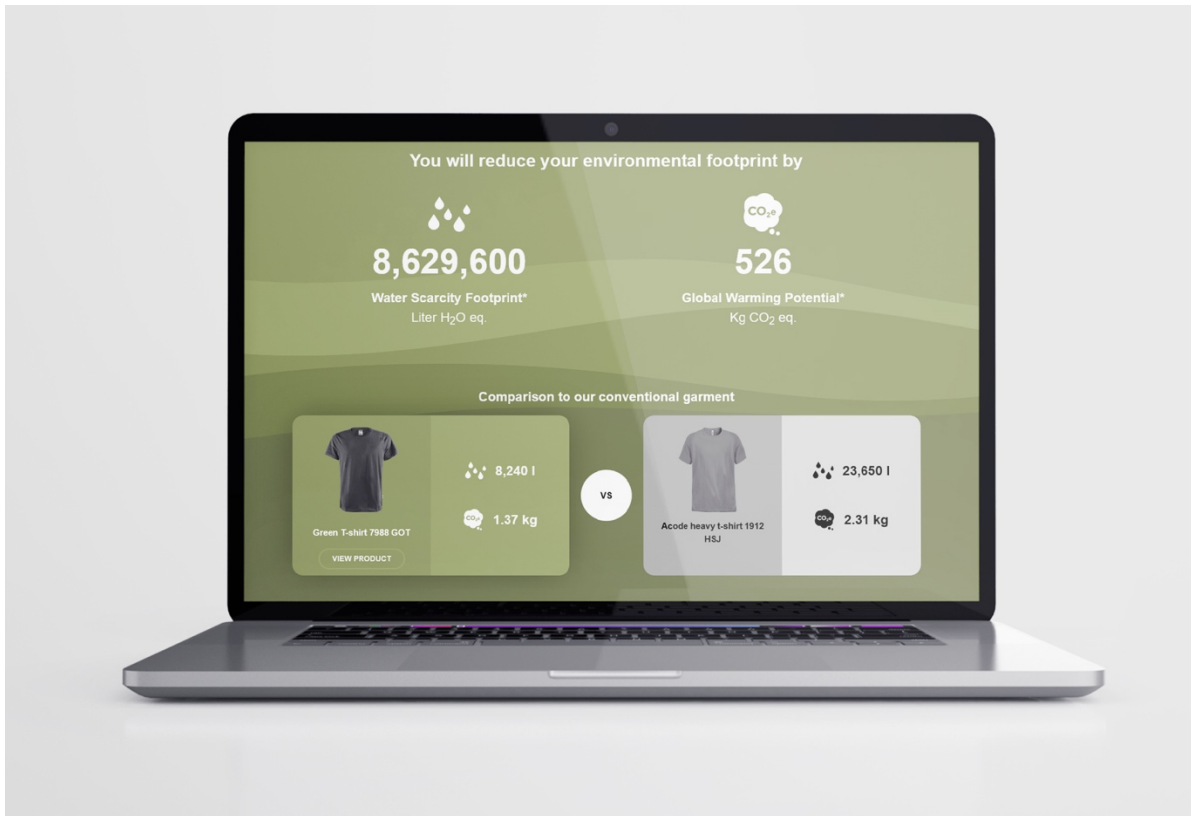
Source: Lena Højland, Product Director, Fristads

“One of the things we as a workwear brand wanted to be a part of the PCR for the textiles was information on the longevity of the product. The EPD normally shows the environmental impact from cradle to gate, which means it doesn't really reflect the use of the product. We would like to show the durability of the fabric used for the garment. So, we added the test results to the EPD as another factor. It is important to have these two dimensions when you check the EPD because durability goes hand in hand with the environmental impact.”

– Lena Højland, Product Director, Fristads

Fristads green calculator for comparison

With [Fristads green calculator](#), the process of calculating the environmental impact of workwear has been digitalized. It is a helpful tool for end users who are in a purchasing situation and want to compare the environmental impact of the workwear they plan to buy. When the number of end users or the number of garments is typed in, the green calculator shows the possible environmental savings.



Copyright: Fristads

Checklist: How to maintain high quality?

When it comes to producing workwear with sustainable materials, there are some factors that can help to maintain high quality.

| | |
|---|--------------------------|
| Using nominated materials to ensure quality, performance, and traceability. | <input type="checkbox"/> |
| Focus on the end user and wearer trials. | <input type="checkbox"/> |
| Cultivate long-term relationships with selected suppliers. | <input type="checkbox"/> |
| Washing at 60 degrees as a minimum. | <input type="checkbox"/> |
| Under 50 washing cycles. | <input type="checkbox"/> |

Source: Lena Højland, Product Director, Fristads

In the end, even if you make a product more sustainable than before, if it is less durable, it does not suffice. Therefore, especially active user tests are important. Extensive testing for approximately two years is necessary before it can be concluded that the material is durable and sustainable.

Any questions?

If you have any questions about this whitepaper, please contact: info@aplusa.de