

Free online workshop

Insights into **Digital Product Passports** & EU Research



21 October 2025

13:00-14:30 CEST



Funded by
the European Union

Hosts' Introduction

DATA4CIRC



Jonathan Clark
EIT Manufacturing
East



Tristan Tiefenbacher-Bath
RTDS Group

RecAL¹³

Keynote Speaker

Digital Product Passport: Evolution, Policy Framework, and Future Prospects

Our Thread of Ariadne Through the Labyrinth of Challenges to Industrial Safety and Sustainability



UNIT B3.2 'Advanced materials'



Dimcho Dimov

Keynote speaker

Digital Product Passport: Evolution, Policy Framework, and Future Prospects

Overview

- What link could possibly exist between ancient Greek myths and the modern industrial world? I would say, more than one could assume on the first glance, though the correlation is not always with a 'positive twist'.
- Let's take the subject of the Digital Product Passport (DPP) and see if we can find a link with particular Greek myth. There is one myth that I would evoke, that I think everybody knows by heart.
- I would like to start with the argument that the Digital Product Passport (DPP) represents a transformative innovation within the European Union's sustainability framework, serving as our modern-day 'thread of Ariadne.'



Digital Product Passport: Evolution, Policy Framework, and Future Prospects

Overview

- Just as Ariadne's thread guided Theseus through the labyrinth, the DPP should guide us through the complex maze of industrial pollution and hazardous substance dispersion, promising a brighter and more sustainable future.
- In other words, by creating a data-driven identity for products, the DPP provides a clear pathway to navigate the challenges posed by today's intricate industrial systems. It enhances traceability, transparency, and promotes circular material flows, aligning with the objectives of the European Green Deal and Circular Economy Action Plan.
- Embedded in the Ecodesign for Sustainable Products Regulation (ESPR/ 2024R1781), the DPP is a cornerstone in building a competitive, socially advanced, and environmentally sustainable economy, helping us find our way through the modern labyrinth of environmental and social challenges

Digital Product Passport: Evolution, Policy Framework, and Future Prospects

Policy Evolution

- The DPP concept emerged in the 2020 Circular Economy Action Plan and was developed through the Sustainable Products Initiative (SPI).
- It became a formal legislative instrument through the ESPR, which mandates product-group-specific data requirements.
- Ongoing Commission consultations (2024-2025) refine its technical implementation, data governance, and certification rules for DPP service providers

Digital Product Passport: Evolution, Policy Framework, and Future Prospects

Strategic Importance

- The DPP underpins the EU's transformation toward 'safe and sustainable' production by embedding lifecycle data in product governance.
- It strengthens consumer protection by providing verifiable sustainability information, countering greenwashing, and enabling more informed consumer choices.
- By improving product data quality, it supports the precautionary principle (Article 191 TFEU) through better evidence and monitoring of potential risks.

Digital Product Passport: Evolution, Policy Framework, and Future Prospects

Efforts for its Internationalisation

- The EU is actively promoting global alignment on DPP standards via Institutional-regulatory dialogues and multilateral fora.
- UNECE and ISO launched joint initiatives on DPP interoperability (2024-2025), while the EU leverages instruments such as the Global Gateway and standards diplomacy to support third-country adoption. The combination of EU market leverage and international standardisation gives the DPP strong potential for global diffusion

Key Implementation Challenges

Yet the future of the DPP as a policy instrument and operational tool should not be taken for granted, despite its importance for the twin /green and digital/ transition. Number of challenges around its adoption still persist and give ‘easy points’ to its detractors:

Ensuring data quality, verification, and interoperability across product categories;

- Managing confidentiality and intellectual property concerns
- Supporting SMEs and international suppliers with technical and financial readiness;
- Establishing clear governance and liability for DPP service providers, these are only some of the ‘thorns’ still covering the way.

Digital Product Passport: Evolution, Policy Framework, and Future Prospects

Future Outlook (2025–2030)

- The Commission plans to adopt product-specific implementing acts and certification frameworks under the ESPR.
- Integration with the Empowering Consumers Directive /2024L0825/ and the draft Green Claims Directive (if adopted) would upgrade the importance of DPP data, making it a reference source for sustainability claims.
- In the longer term, DPPs are expected to integrate into the European Data Space, enabling automated compliance and circular-economy services

Future operational priorities for full deployment of the DPP potential

Relevant measures to ensure the full potential of the DPP are:

1. Prioritisation of its integration in the regulatory frameworks of high-impact sectors, while ensuring SME support mechanisms to assist coping with resulting challenges for regulatory compliance
2. Acceleration of international standard convergence (UNECE, ISO, CEN/CENELEC).
3. Establishing robust verification and certification regimes for DPP service providers.
4. Embedding DPP data in consumer protection and precautionary decision-making frameworks.
5. Use EU External Action instruments (e.g., Global Gateway) to internationalise DPP standards.

Digital Product Passport: Evolution, Policy Framework, and Future Prospects

Conclusion

- In conclusion, the Digital Product Passport (DPP) stands as a pivotal tool in our journey through the labyrinth of modern industrial challenges, akin to the mythical thread of Ariadne.
- By linking sustainable production, consumer empowerment, and global competitiveness, it provides the pathway needed to navigate toward a circular, data-driven, and socially responsible single market.
- Its successful implementation will determine how effectively we can traverse this labyrinth, ensuring that our society and environment thrive in balance.

Insights into **Digital Product Passports** & EU Research



THANK YOU!



Funded by
the European Union