



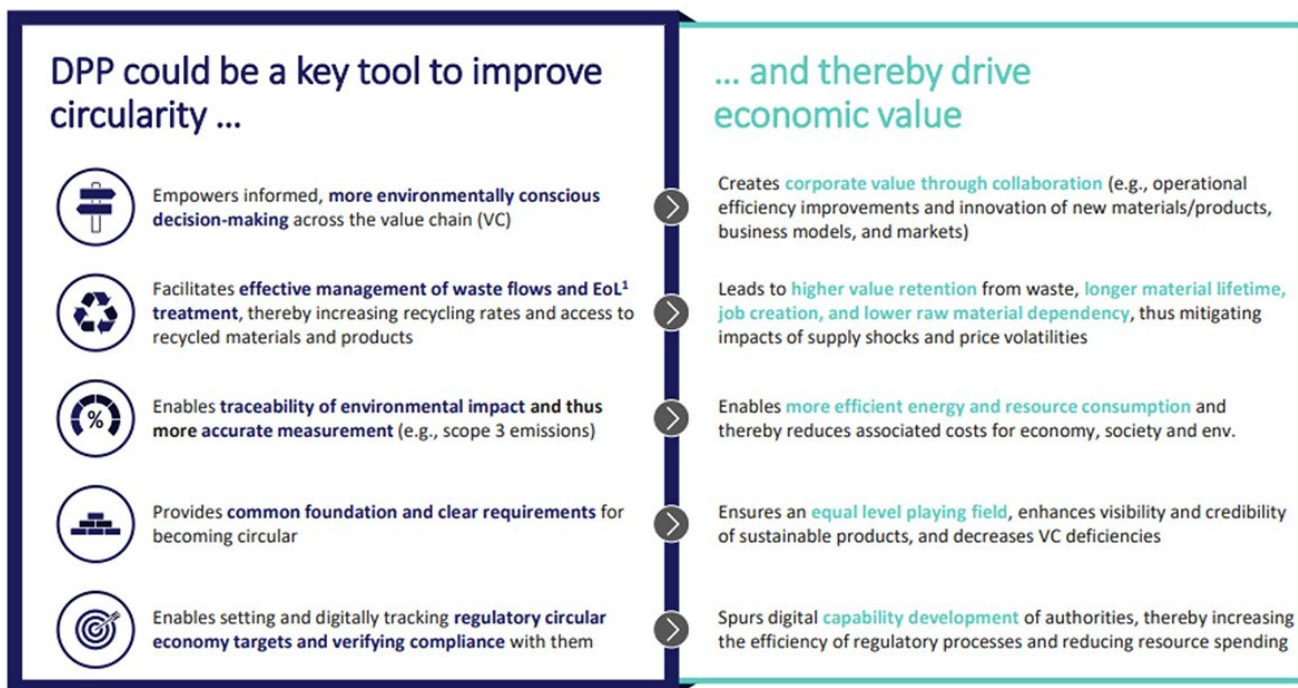
EU DIGITAL PRODUCT PASSPORTS

Aim to Bolster Supply
Chain Efficiency, Improve
Compliance

The European Union's Digital Product Passport (DPP) will equip regulators and enterprises with the necessary tools to navigate the complexities of the modern global supply chain, according to research by 3E.

Evelyn Ritter, a Senior Solutions Engineer at 3E, and Mackenzie Coon, a Solutions Engineer at 3E, recently addressed the benefits of DPP adoption for various stakeholders, as well as the barriers to improving transparency across the supply chain.

"It's clear that there needs to be some kind of framework or digitalization of that data, and that does provide clear value for manufacturers," Ritter said.



What is DPP?

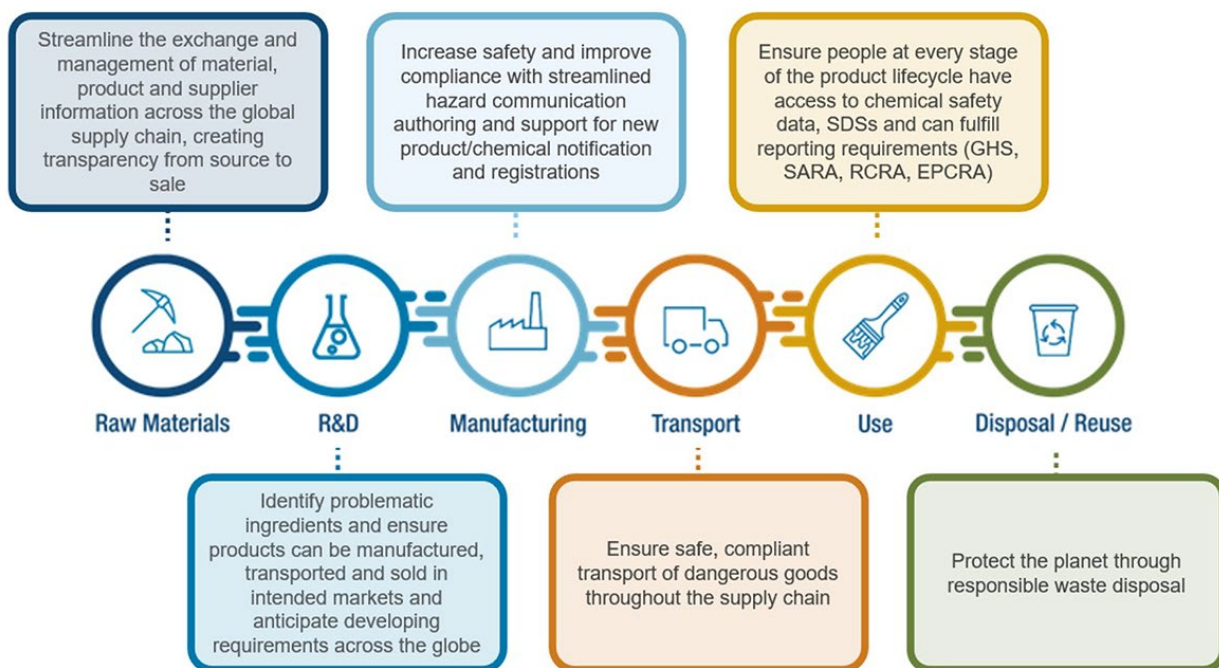
DPP is a proposed regulatory framework that covers batteries, electronics, textiles, and construction products. DPP is a component of the European Green Deal approved in 2020 and is intended to facilitate greater transparency across the global supply chain, improve compliance through streamlined hazard communication and ensure access to chemical safety data at all stages of a product's life cycle.

DPP will travel with products like a country passport travels with its owner. As a QR code embedded in a product, it can be scanned to transmit essential information, including circularity and sustainability, compliance, and chemicals of concern.

DPPs can be used as a tracking tool to assist with companies looking to invest in repair, recyclability, and end-of-life instructions, Coon said. There can be challenges to adoption if a product is too small to label it with a QR code or a company goes out of business. Those concerns can be addressed through public comments and the European Chemicals Agency, or ECHA.

Another variable to account for is the confidentiality of proprietary data, which is ensured through having a centralized clearinghouse for regulators to monitor chemical safety information. In doing so, this standardization helps to extend the lifecycle of a product, improves transparency for customers and regulators, and enhances the economic value of reused or repaired products by improving circularity, or the process by which waste is reduced and products are repaired or refurbished.

"[DPP] is really meant to ease that process by having a digitized framework which can flow from various tiers," Ritter said. "The DPP is designed to have different data fields available based on a particular person or stakeholder's access. The consumer will see different types of data than a regulator or than a recycler or a distributor might see."



DPP in Action

The European Commission's new proposed battery regulation, for example, includes labelling requirements and a carbon footprint declaration, as well as a goal of minimizing the harmful effects of hazardous chemicals used in batteries. A similar proposal has been raised regarding laundry detergent and other product types will be expected to include information on safe use, maintenance, and repair, as well as specifications such as the amount of recycled content used in the product.

Producers of building materials are expected to have high levels of DPP adoption due to extant industry standards for traceability and chemical information.

One example is Novalis Innovative Flooring, which has a DPP containing maintenance and warranty information, product end-of-life options, chemical composition and compliance, embodied carbon data, and sustainability certification. The QR code printed on the underside of the product links back to the passport and to the product website to provide documentation for the customer.

It will be more challenging to encourage DPPs to be used with complex articles such as electronics, which include raw materials such as rare earth minerals that are sourced globally and would require thousands of lines of product data.

"It is key that DPPs are easily accessible to all stakeholders and that there is not a financial barrier that holds companies back from being able to publish [them]," said Coon. "The DPP requires collaboration across many different languages, time zones, and with complex data sets that have confidential business information in them. The ease of use and accessibility for these stakeholders will be key to the success of the DPP project."

(About the Author: Stefan Modrich is a Washington, D.C.-based reporter for 3E. He covers the latest developments in environmental health and safety policy and regulation. Modrich previously wrote for S&P Global Market Intelligence, The Arizona Republic and Chicago Tribune. He is an alumnus of Arizona State University and the University of Zagreb.)

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