

Digital Product Passport (DPP) Market by Focus Area (Supply Chain Management, Circular Economy, Customer Engagement, Environmental Impact Assessment), Lifecycle Stage (Product Design, Production, Distribution, End of Life) - Global Forecast to 2030

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Abstracts

It is anticipated that the Digital Product Passport (DPP) market will experience substantial growth, increasing from USD 185.9 million in 2024 to USD 1,780.5 million by 2030, with a strong CAGR of 45.7% throughout the forecast period. A key factor driving the market for Digital Product Passport is sustainability and circular economy efforts. DPPs allow stakeholders to obtain detailed product information, promoting recycling and reuse, and thereby supporting international sustainability objectives. Nonetheless, a major limitation is the difficulty of achieving standardization and interoperability. The absence of universally recognized frameworks and varied technological infrastructures within industries makes seamless data integration and sharing challenging. This may impede broad adoption as companies face challenges with the expenses and intricacies of adjusting to diverse standards. Addressing these obstacles is essential for the successful execution of DPPs and realizing their ability to revolutionize product lifecycle management.

“By offering, software segment is expected to have the largest market share during the forecast period”

During the forecast period, it is estimated that the software segment will lead the digital product passport market as that industry holds a big deal in integration and monitoring across the supply chain with ease and access to the required information of the product.

Digital product passport software solutions can enable the collection, storage, and sharing of fundamental product information like origin, composition, sustainability metrics, and compliance requirements. Additionally, progress in technologies such as blockchain, AI, and cloud computing improves the functionality and scalability of these software platforms, further reinforcing their attractiveness. With organizations placing greater emphasis on sustainability and traceability, the software sector's capability to deliver thorough and adaptable solutions establishes it as a crucial facilitator, significantly aiding in market expansion.

“By end user type, batteries are expected to register the fastest market growth rate during the forecast period.”

In the digital product passport market, the battery segment by end user type is projected to experience the fastest growth rate in the forecast period. It is mainly because of the growing global demand for devices and solutions running on batteries for renewable energy storage. The rising application of electric vehicles (EVs), portable devices, and energy-efficient technologies has boosted the demand for traceability and sustainability in the manufacturing and lifecycle management of the battery. Digital product passports facilitate improved monitoring of raw materials, adherence to environmental regulations, and recycling initiatives, tackling issues related to resource exhaustion and waste. Regulations such as those from the European Union emphasize the promotion of circular economies, which enhances the use of these digital tools. With industries and consumers emphasizing transparency and environmentally friendly practices, batteries, essential in many uses, are crucial as digital product passports propel notable progress and encourage strong market expansion.

“By region, Europe to have the largest market share in 2024 and will also account for fastest growth rate between 2024 to 2030. North America to follow as the second fastest growing region over the forecast period”

Europe is expected to dominate the Digital Product Passport (DPP) market in 2024 and experience the fastest growth rate through 2030 due to several factors. The European Union's strong focus on sustainability and circular economy initiatives, such as the European Green Deal and the Circular Economy Action Plan, promotes the widespread adoption of DPPs. These digital solutions enable efficient tracking, recycling, and reuse of products, aligning with Europe's environmental goals. Additionally, stringent regulations, including the extended producer responsibility (EPR) laws, encourage the integration of DPPs across industries.

North America follows closely, driven by increasing demand for transparency in supply chains and consumer preferences for sustainable products. The region's advanced technological infrastructure and robust corporate support for digital solutions will fuel rapid adoption, making it the second-fastest-growing market for DPPs over the forecast period.

Breakdown of primaries

In-depth interviews were conducted with Chief Executive Officers (CEOs), innovation and technology directors, system integrators, and executives from various key organizations operating in the Digital product passport market.

By Company: Tier I – 14%, Tier II – 33%, and Tier III – 53%

By Designation: Directors– 57%, Managers – 26%, and others – 17%

By Region: North America – 22%, Europe – 59%, Asia Pacific – 14%, and Rest of World– 5%

The report includes the study of key players offering Digital product passport solutions. It profiles major vendors in the Digital product passport market. The major players in the Digital product passport market include AVL (Austria), Eviden (France), iPoint-systems (Germany), DNV (US), Narravero (Germany), Optel Group (Canada), Siemens (Germany), 3E (US), Kezzler (Norway), EON (US), Circulor (UK), LyondellBasell (Netherlands), Arianee (France), Billon Group (UK), Qliktag (US), Protokol (Netherlands), Circularise (Netherlands), The ID Factory (Italy), Renoon (Netherlands), Spherity (Germany), ASM Global (India), Carboledger (US), Scantrust (Switzerland), Pathway Digital Products (UK), Minespider (Germany), Cirpass (France), Piconext (US), and PSQR (Denmark).

Research coverage

This research report categorizes the Digital product passport Market by offering (software and services), by focus area (supply chain management, environmental impact assessment, circular economy, regulatory compliance & reporting, customer engagement, and other focus areas), by product lifecycle stage (product design, production, distribution and end of life) by end user (end user by size and end user by type) and by Region (North America, Europe, Asia Pacific, and rest of the world). The

scope of the report covers detailed information regarding the major factors, such as drivers, restraints, challenges, and opportunities, influencing the growth of the Digital product passport market. A detailed analysis of the key industry players has been done to provide insights into their business overview, solutions, and services; key strategies; contracts, partnerships, agreements, new product & service launches, mergers and acquisitions, and recent developments associated with the Digital product passport market. Competitive analysis of upcoming startups in the Digital product passport market ecosystem is covered in this report.

Key Benefits of Buying the Report

The report would provide the market leaders/new entrants in this market with information on the closest approximations of the revenue numbers for the overall Digital product passport market and its subsegments. It would help stakeholders understand the competitive landscape and gain more insights better to position their business and plan suitable go-to-market strategies. It also helps stakeholders understand the pulse of the market and provides them with information on key market drivers, restraints, challenges, and opportunities.

The report provides insights on the following pointers:

Analysis of key drivers (Increased consumer demand for transparency, Growing importance of battery passports in advancing sustainability goals, EU regulations for sustainable circular economy), restraints (High implementation costs in budget-constrained industries, Privacy and security concerns in collecting and sharing sensitive product data), opportunities (Digital product passport in precision healthcare and drug discovery, Technological advancements in blockchain, IoT, and AI driving efficient DPP implementation), and challenges (Slow adoption due to lack of education and industry resistance, Legacy system compatibility and lack of standardized frameworks).

Product Development/Innovation: Detailed insights on upcoming technologies, research & development activities, and new product & service launches in the Digital product passport market.

Market Development: Comprehensive information about lucrative markets – the report analyses the Digital product passport market across varied regions.

Market Diversification: Exhaustive information about new products & services,

untapped geographies, recent developments, and investments in the Digital product passport market.

Competitive Assessment: In-depth assessment of market shares, growth strategies and service offerings of leading players like AVL (Austria), Eviden (France), iPoint-systems (Germany), DNV (US), Narravero (Germany), Optel Group (Canada), Siemens (Germany), 3E (US), Kezzler (Norway), EON (US), Circulor (UK), LyondellBasell (Netherlands), Arianee (France), Billon Group (UK), Qliktag (US), Protokol (Netherlands), Circularise (Netherlands), The ID Factory (Italy), Renoon (Netherlands), Spherity (Germany), ASM Global (India), Carboledger (US), Scantrust (Switzerland), Pathway Digital Products (UK), Minespider (Germany), Cirpass (France), Piconext (US), and PSQR (Denmark) among others in the Digital product passport market. The report also helps stakeholders understand the pulse of the Digital product passport market and provides them with information on key market drivers, restraints, challenges, and opportunities.

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