



Embracing Digital Product Passport  
as a regulatory requirement:  
Setting a new standard for luxury  
experiences and circularity

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# Introduction

Despite recent macroeconomics and geopolitical events, the luxury goods industry remains strong. The global revenue of the top 100 luxury companies grew by 8.4% CAGR between 2019 and 2022, reaching \$347 billion, a new record for the sector ([Deloitte](#)).

Luxury tends to be more resistant than any other retail segments in times of crisis, however it is now experiencing fast changing consumer needs and preferences. For a new generation of customers, luxury has a new definition. It now means craftsmanship, excellence and storytelling but also authenticity, sustainability & trust as new core values.

This is pushing luxury brands to find new ways to reinforce their existing values while demonstrating to customers their commitment to such emerging priorities. Recently, the concept of a Digital Product Passport has quickly emerged as a strong solution for Brands to address these new challenges.

# What is a Digital Product Passport (DPP)?

The Digital Product Passport (DPP) can be conceptually seen as the bridge between physical products and their digital identity: simply put, it works as a digital link between the product, the owner, and the brand. It integrates and preserves information about the entire product lifecycle, and it should be accessible throughout a product's lifetime.

With the DPP, new upstream and downstream use cases are possible:

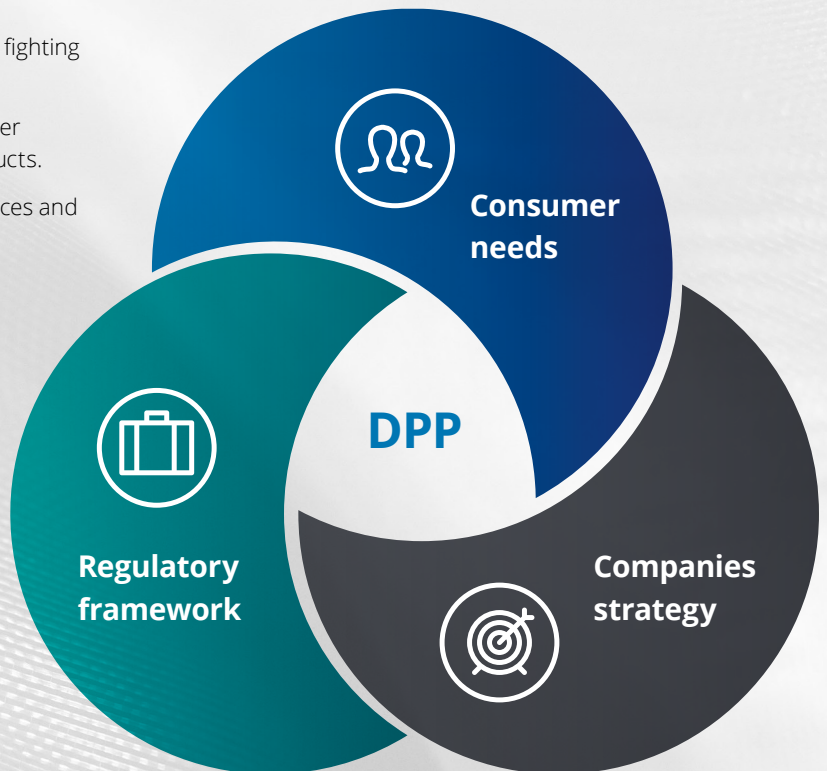
- **Upstream:** securely store and transparently share product information across the entire value chain, demonstrating sustainability and circularity (incl. sustainable product origin, craftsmanship, raw material extraction, recycling, etc.), voluntarily or as required by regulation.
- **Downstream:** establish a new channel for direct engagement with each individual customer, before and after the point of sale, regardless of the channel used to purchase a product (e.g., own brand boutique vs wholesale distributors).

From the perspective of a luxury brand, DPPs can drive a multitude of value-generating applications, such as:

- Enhancing a product's storytelling with valuable information on sustainability, circularity and traceability.
- Ensuring a product's authenticity and rightful ownership, fighting counterfeits and theft.
- Generating richer data across the customer lifetime, better understanding how they use and engage with their products.
- Create new revenue streams via product-based experiences and exclusive services.

While the adoption of DPPs has so far been driven by luxury fashion and jewelry, it could touch upon many other industries (e.g., automotive, art, hospitality, perfume, cosmetics, furniture, yachting, etc.). The modularity and flexibility of DPPs means that each one will differ, as each brand selects its desired features to enable functionalities that fit its specific industry, business strategy, and target audience.

DPPs are designed to primarily meet the need of 3 stakeholders: the Customers, the Luxury Brands, and Regulators & Governments. There is therefore an opportunity to use DPPs to create value for the brands and the consumers, while also anticipating incoming regulations.



The DPP Trilemma

“The world of luxury is challenging, we face many issues in terms of counterfeit, explaining the true story and origin of products. The Digital Product Passport is a strong complementary enabler to follow the products from the beginning to the end and demonstrating to customers that they can trust us.”

- Franck Le Moal, CIO, LVMH Group



# Customers in luxury are demanding DPP features

## Product storytelling is emerging as a differentiator in luxury

From a downstream perspective, DPPs can help drive new direct revenues by enabling a more comprehensive product storytelling and deeper brand experiences.

When deployed with the right communication strategy to properly convey the value to customers, product storytelling is seen to lead to a significant price upscaling for luxury products:

- Providing traceability and sustainability information before the selling ceremony helps influencing the purchasing decision and increases conversion rates.
- Enabling transparency after the selling ceremony boosts customer confidence, trust and loyalty with the brand.

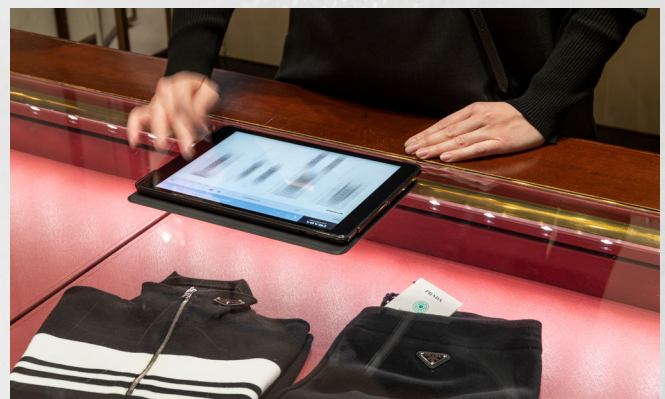
- After purchase, DPPs can enhance the product itself and foster ongoing customer engagement, by providing unique opportunities and experiences that augment the value of the product for the verified owner

Leading luxury brands are already seeing the impact of such opportunities:

- In a DPP pilot, Prada found that products augmented by digital storytelling triggered a higher average spend in customers under 35 years old.

“Tagging a product and enabling a digital storytelling is an amazing conversation starter for the sales assistants in our boutiques. It increases the conversion rates and ensures that the customer verifies the ownership of their product, creating a new channel for direct engagement that never existed before.”

– Lorenzo Bertelli, Head of Marketing & CSR, Prada Group



Credit: Prada Group

## Trust & authenticity are already must-haves for luxury customers

Trust is a key issue in luxury:



Globally, as many as 10% of all branded goods sold may be counterfeit and approximately 80% of people have handled fake or falsified goods.



In the last 20 years, counterfeits have increased by 10,000%, amounting to around \$1.7 trillion to \$4.5 trillion in goods sold per year.

Forbes

Customers place a lot of importance on authenticity, and brands that are victim of counterfeit risk undermining the trust of their consumers:



52% of consumers lost trust in a brand after purchasing a fake good online, even when the brand itself had no control over the sales process or the platform where it took place.

Forbes



24% of consumers accidentally bought a counterfeit product online in the last 12 months.

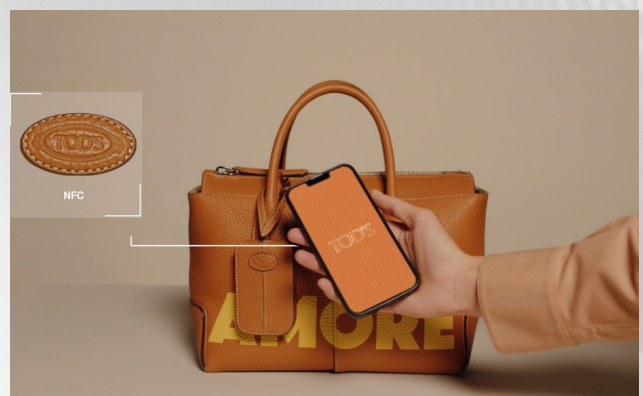
Stefanini

With Digital Product Passports, customers can easily verify a product's authenticity with essential product information, and authenticate their ownership to access augmented services and experiences.

Italian luxury brand Tod's recently launched this for its Custom Di Bag, enabling customers to scan an NFC chip embedded in the bag to access certificates of product authenticity and ownership, insights into the production and craftsmanship behind the product, the origin and sustainability certifications of raw materials and packaging, as well as a variety of exclusive benefits for the owners.

"Digital Product Passports will play an important role in adding another layer of trust, authenticity and sustainability, which are very important values to the customers. DPP can help us deliver a truly seamless customer experience, allowing to enhance the relationship with our communities and directly share the story behind our timeless products."

- Carlo Alberto Beretta, General Brand Manager, Tod's



Credit: Tod's

## Sustainability and circularity are increasingly expected by consumers

The customer base of luxury brands is changing fast: Affluent Millennials and Gen Z consumers will make up roughly 70% of the luxury market by 2025, contributing to 130% of luxury market growth (Stefanini). These new generations of customers pay great attention to sustainability and want reassurances on where

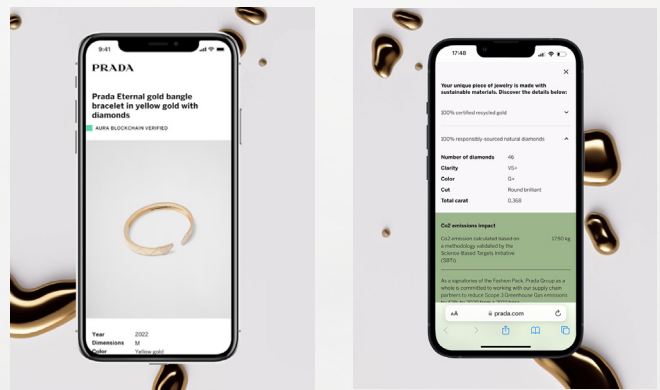
products come from and the materials used. Many companies are indeed driven to act on sustainability concerns, yet the complexity and fragmentation of the industry creates many challenges in transitioning towards circular business models, and still today only 1% of all clothing is recycled (European Parliament).

Digital Product Passports can enable circularity for the industry by creating transparency over raw materials sourcing, circular design principles, and waste stream trajectories. The solution also offers brands the opportunity to demonstrate their commitment to sustainability, proving that it is not just a marketing tactic by showing the truth directly to the end consumer in a transparent and immutable way.

Prada Eternal Gold was launched at the end of 2022. Prada debuted its journey in the fine jewelry segment with a focus on sustainability, featuring certified recycled gold and fully traceable diamonds. Raw materials information and all the steps of a diamond journey can be accessed on the product DPP by scanning an NFC-embedded card given alongside each jewelry piece, allowing each customer to independently verify the claim made by the brand about the usage of 100% recycled gold.

“If sustainability and traceability information are not transparently accessible on a blockchain-based Digital Product Passport, it’s just marketing. We are committed to showing to customers that we’re not like that.”

– Lorenzo Bertelli, Head of Marketing & CSR, Prada Group



Credit: Prada Group

The promise of authenticity brought by Digital Product Passports can truly enable the shift towards circularity as a business model, opening up new opportunities for repairing existing products, giving them a second life, as well as creating trust in the secondary market by providing customers with a reliable tool to verify a product’s authenticity and history. With circularity leading the design principles of each product and closing the loop after sales, a company can reduce their reliance on virgin materials, reinforce customer loyalty and brand reputation, and easily report on and comply with growing regulatory pressures for sustainability.

Cartier has an unwavering pursuit of Savoir-Faire, ensuring the passion and integrity ingrained in its craftsmanship, and this now extends seamlessly into their Digital Savoir-Faire. The Maison’s goal is to harmonize innovation with heritage, recognizing the potential of blockchain-based DPPs and understanding the paramount importance of maintaining digital product identities akin to their physical counterparts, ensuring longevity and trust.

The customer experience is expanding with the newer generation of clients. With this, brands need to innovate alongside them. DPPs for after-sales repairs, for example, have the potential to meet new customer expectations when it comes to transparency, security, and trust.

“In a world where the demand for transparency has become paramount, for luxury customers to know the origins and journey of their products is the assurance that their choices align with their values.”

– Cyrille Vigneron, CEO, Cartier



Credit: Cartier



# Regulators are requiring more transparency and traceability

The European Commission proposed a new regulation, the **Ecodesign for Sustainable Product Regulation** (ESPR), which is expected to be approved and in force in the course of 2024, making transparency and traceability a regulatory requirement for any luxury brand in Europe. This has accelerated the adoption of Digital Product Passports (DPPs) which will soon become a necessity, and brands who adopt the DPP early will be more prepared before the others. This will not only be a requirement for brands based in Europe, but also for products sold in European markets by any global brand.

As the global regulatory landscape around traceability and sustainability matures, it is likely that other jurisdictions will imitate the EU regulatory approach in the future, similarly to what happened in the past for data protection laws (i.e. GDPR).



“Regulation brings light to Digital Product Passports, as blockchain adds value and offers a reliable source of information. However, regulatory compliance is just one aspect of the DPP. A DPP allows customers to authenticate, claim and transfer the ownership of the product. It allows brands to enable product storytelling, obtain CRM data, and propose additional services related to loyalty, insurance or warranty.”

– Romain Carrere, CEO, Aura Blockchain Consortium

# DPP and the future of luxury CRMs

Digital Product Passports (DPPs) can be a multi-faceted solution for luxury brands, as they hold unrivalled potential to create direct touchpoints with ultimate product owner, even in case of gifting and resale. In pragmatic terms, this can create new sources of revenue for brands, which is a key factor in establishing a DPP business case.

Currently, luxury CRMs are not able to track products after the point of sale, which, in the long term, damages the effectiveness of customer profiling and messaging. Following customer interactions with a DPP could enable brands to truly understand who their customers are, even after the selling ceremony, in order to:



Unlock new sources of CRM data that are not available today – for example, tracking products sold under wholesale distributors can generate a truly new type of customer data.



Create a direct relationship with customers regardless of which channel they used to purchase a product and interact with the brand.



Elevate the customer's connection with the brand by deploying new phygital experiences, that can be tailored to each customer's specific history with the brand.

“Currently we don't get back any data from wholesalers, but now we can engage directly with those customers. DPP is very interesting from an omnichannel perspective.”

– **Stefano Rosso, Chairman, Maison Margiela**



Credit: *Maison Margiela*

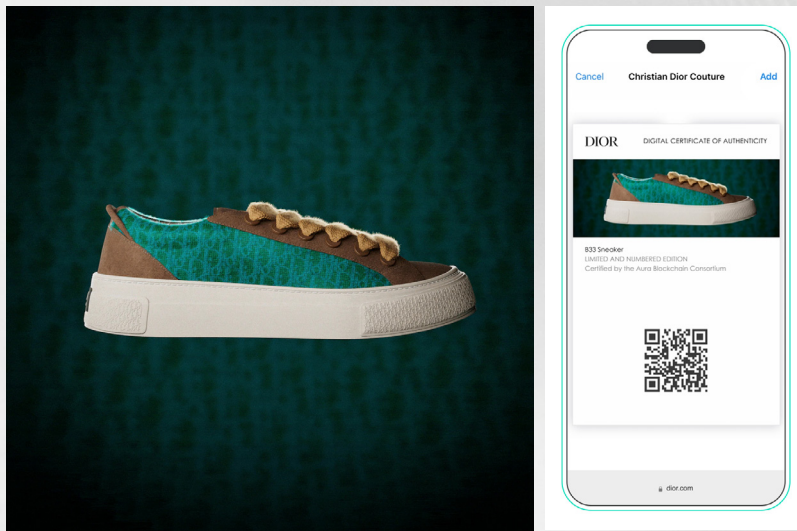
The DPP can be used by brands to drive new sources of revenue, by offering customers new product-based experiences and offering augmented aftersales services (e.g. E-warranty, loyalty programs, lost & stolen goods protection, servicing & maintenance etc.).

In July 2023, French fashion house Dior announced a line of men's sneakers complemented by an NFC chip-based authentication system. Verifying the sneakers' ownership unlocks a "Digital Twin"

of the product, granting access to a secure DPP platform and exclusive services and experiences. Dior sold two versions of these sneakers, one with the embedded chip and associated Digital Twin experience, and one without. The findings showed that the version enhanced with a digital twin led to an increase in price as well as sales volume compared to the same products without a traditional experience.

"In luxury, we are investing a lot to get new customers and to retain our existing customers through high-end sophisticated experiences. The DPP provides a strong opportunity to complement and be more accurate in CRM and "1-to-1". From an omnichannel perspective, it is another data source allowing us to be more effective and storytelling-oriented in terms of our interactions and providing better and new services to our customers."

- Franck Le Moal, CIO, LVMH Group



Credit: Dior

# Key challenges luxury leaders should be aware of

For luxury brands, the key challenges of deploying a DPP are the following:



## Customer engagement:

Achieving high claim rate will be key to enable successful DPP initiatives. To incentivize customers to scan the product and engage directly with a brand, the customer proposition should be tailored to the specific customer segments, and the sales & marketing approach should focus on creating customer awareness about this new proposition.



## Upskilling of sales & marketing teams

Invest on training will increase visibility and ROI. The more sales, marketing and servicing teams will be able to explain the value of DPPs and leverage the product storytelling it enables, the better the returns generated before and after the selling ceremony.



## Time-to-market

Launching a DPP project can take some time and require some organizational learning, so a quick time-to-market will be key to beat competition. The earlier a brand starts their DPP journey, the bigger the advantage they will have over competitors.



## Longevity

It is important to ensure the continuity of DPP solutions over time, for example if someone in 5 to 10 years is reselling a product, or gifting it to their son or daughter. Seeking the next industry standard will minimize longevity risks as it will ensure the long term longevity of the solution.



## Information gathering

DPPs will not exist in isolation but will complement existing tools already deployed along the enterprise value chain. A seamless integration could significantly reduce the complexity associated with scaling DPP adoption.



## Integration

DPPs will not exist in isolation but will complement existing tools already deployed along the enterprise value chain. A seamless integration could significantly reduce the complexity associated with scaling DPP adoption.



## Organization

It is critical to ensure appropriate governance and project team setup, as DPP projects are transformative across all departments of the organization (from sourcing, to manufacturing, to POS, through e-commerce, logistics, production).

The above challenges can be addressed by adopting a strategic approach to DPP adoption:



The “DPP Luxury Pyramid” indicates a typical journey from pilot to full maturity of the DPP.

As a brand moves up through the pyramid, the DPP scan rate and customer engagement will tend to increase. In other words, the more holistic and comprehensive the DPP value proposition is (e.g., ranging from traceability, to ownership and aftersales services and experiences), the more the customers will be incentivized to engage with it.

“We are seeing an exponential acceleration in the adoption of DPPs by luxury brands. My recommendation to luxury executives is to dream big but pilot small. Brands should focus on increasing the DPP value-proposition in an effort to deliver tangible business impact and optimize ROI.”

– Romain Carrere, CEO, Aura Blockchain Consortium



# Towards a new generation of blockchain-based DPP

As DPPs are becoming the new norm across the luxury industry, a new generation of DPPs have emerged: the blockchain-based Digital Product Passport – also known as the Tokenized DPP.

A Digital Product Passport based on blockchain offers several advantages over cloud-based solutions:

- The immutability and transparency of blockchain technology drives trust with consumers.
- Trustworthy and certified data anchored on blockchain fulfills requirements for “reliable source of information”.
- The immutable certificate of ownership can contribute to preventing disputes or fraudulent claims. With blockchain-based DPP, only one owner can be assigned to one product.
- The link between the physical product and its DPP ensures transparency and supports a more secure transfer of ownership, decreasing uncertainties of counterfeits and increasing customer trust in the secondary market.
- The benefits of product-based experiences enabled by Web3 can be unlocked: direct customer-brand connection to collect new CRM data, embedded services (e.g., e-warranty, repair, etc.) and

experiences (e.g., priority access to future collections, invites to brand events etc.), and brand communities that turn customers into brand ambassadors.

Blockchain-based digital assets are projected to account for 10% of the overall luxury goods industry by 2030, amounting to a \$56 billion revenue opportunity, of which around \$10-20 billion ([Morgan Stanley](#)) will come from a completely new digital market that can now be served with new technologies to address emerging customer needs. It is becoming increasingly evident that the use of blockchain in luxury is here to stay, as it enables to mitigate key pain points that have been affecting the luxury industry.

“With a blockchain you share the costs, while with traditional systems you would bear them alone.”

– **Lorenzo Bertelli, Head of Marketing & CSR, Prada Group**



Credit: Prada Group

Solutions for digital product passports

	Cloud based DPP	Private Blockchain DPP	Public Blockchain DPP	Multi Blockchain DPP
Privacy and data ownership				
Capacity to industrialise at scale				
Trustable product information & traceability				
Reliable and secured ownership scenarios				
Ability to unlock product-based experiences and web 3 utilities				

Unlocked      Partially unlocked

**Introducing Aura Blockchain Consortium**

A new generation of blockchain-based Digital Product Passports (DPPs) is currently being rolled-out worldwide by the Aura Blockchain Consortium, a non-profit organization established by LVMH, Prada Group, OTB Group and Cartier, part of Richemont. Aura is currently the luxury industry’s leader with more than 30 million products tracked on their blockchain.

With a vision that collaboration can coexist between competitors for a greater good, the Aura Blockchain Consortium is working towards creating a new DPP standard for the luxury industry, with the objective to promote new circular practices in luxury while elevating customer experiences. Aura is actively welcoming more luxury brands, of all sizes and from all sectors, to join the consortium to democratize the usage of DPP.

It is remarkable how the 40+ luxury member brands of the Aura Blockchain Consortium have decided to become part of a non-profit consortium rather than simply buying from a private software vendor. This in fact guarantees:

- Longevity of the underlying DPP platform, since by collaborating they can establish a long-term standard for the luxury industry and reduce risks.
- Ownership of the data to each brand, ensuring no unauthorized 3rd party can access data related to any brand.
- Highest security and data segregation standards between brands.
- Best-in-class experience for the end-clients, as all profits are re-invested by the Consortium to improve the solutions benefitting each brand.

- Modularity of solutions to fit any brand demand and need: some brands may decide to tailor the solution to fit their specific needs, while others may choose to adopt off-the-shelf plug-and-play solutions to innovate their business models.
- Reduced costs, as all consortium members are sharing the costs of running the underlying infrastructure, instead of each brand having to setup and maintain it independently.

In March 2023, Aura announced the support of public blockchain networks in addition to their own private blockchain, increasing the flexibility for brands to customize their DPP architecture to their specific needs and preferences.

This hybrid approach allows the creation of multi-blockchain DPPs leveraging the best of both worlds:

- **Private Blockchain** is used for the upstream traceability and the downstream product life cycle. It provides a safe and secured environment, guaranteeing privacy and data ownership to brands with a scalable, cost-efficient and a more sustainable infrastructure.
- **Public Blockchain** networks are best used for the creation of Digital Twins (public tokens attached to the physical product) to engage with customers, offering new personalized services and enhanced loyalty features, while benefitting from highest interoperability standards and innovations of the Web3 ecosystem.

“The world of tech today is full of intermediary companies that are in the middle keeping, owning, reselling your data. We wanted to keep the property of our data, as nobody else should be able to see them.”

- Franck Le Moal, CIO, LVMH Group



Regulatory Requirements

**Product traceability**

Maintain detailed product records for easy proof of products origin and materials used

**Waste management**

The brand needs a system to inform customers about options for repurposing or disposing of the product when they no longer want it



**Reliable source of information**

Brands will be required to use reliable tools to verify the information

**Circular experiences**

The new regulations have a strong focus on circularity including on recyclability of the products

Tracked Data & Services

Regulatory-driven use cases

Value-driven use cases





### Deloitte collaboration to advance the luxury DPP transformation

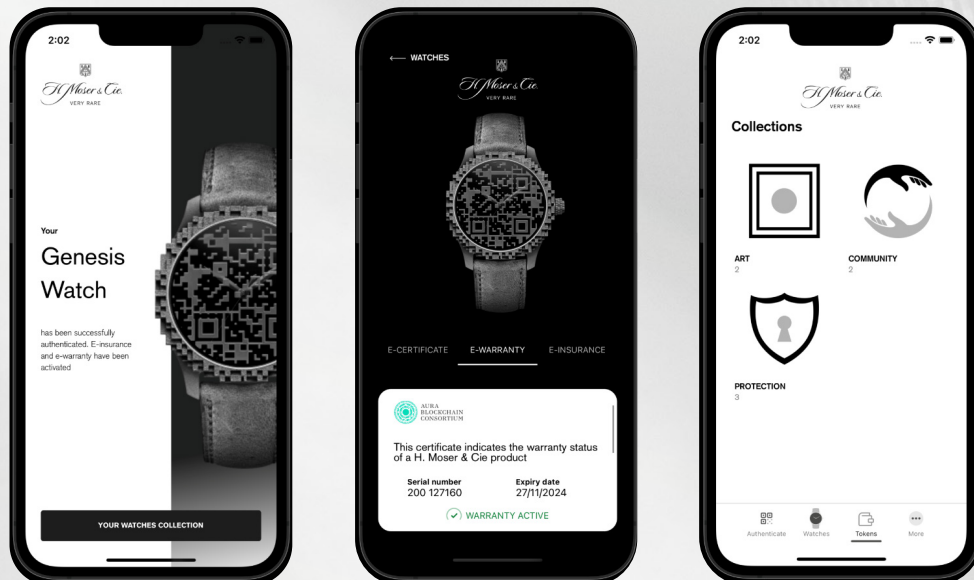
In April 2024 Deloitte, a global leader in professional services, teamed up with Aura Blockchain Consortium to advance the global digital transformation of the luxury industry, providing end-to-end support to luxury brands from strategy to implementation of DPPs.

Taking advantage of the DPP will require a holistic understanding on the various challenges and opportunities specific to each brand and luxury segment. Deloitte's horizontally integrated capabilities were demonstrated in its [collaboration](#) with Swiss watch manufacturer H. Moser & Cie. to launch a DPP of its Genesis watch collection:

- Activated and orchestrated an ecosystem of partners to enrich the customer value proposition (e.g., Salesforce, Zurich Insurance, Crossmint).
  - Developed mobile app (iOS, Android) and metaverse experience with cross-device accessibility (mobile, tablet, desktop, VR headset).
  - Design and execution of multi-channel global communication campaign.
  - Delivered legal documents for safe Web3 adoption (e.g., Terms & conditions, data & IP protection).
  - Defined and implemented anti-money laundering (AML) and know-your-customers (KYC) best practices to protect the customers and the brand reputation.
  - Provided risk and tax assessment and recommendations.
- Designed strategy & business model for the new DPP-based Genesis collection.
  - Implemented technology solutions customized to Moser's specific needs (hybrid DPP with Aura Blockchain Consortium).

“Moser has always been known as a brand exploring new territories. However, since digitalization and virtualization were far removed from our usual world, we needed a guide to explore these new territories, and that’s why we collaborated with Deloitte.”

- Edouard Meylan, CEO, H. Moser & Cie.



Finding a partner with established experience in innovation, business transformation, circularity and human-centric design will be key to defining a value proposition that is tailored to each luxury brand. Similarly, a cross-functional team of legal, financial and technology professionals is crucial to ensure compliance with the relevant laws and regulations.

# Key takeaways – why is the DPP relevant for my luxury brand?

The Digital Product Passport (DPP) has recently emerged as a game-changing concept in luxury, with leading global brands like Louis Vuitton, Cartier, Dior, Prada, Maison Margiela starting to redefine how they engage with their customers, ensure product authenticity, and promote sustainability.

The DPP is not just about marketing or regulation; it opens up new avenues for improved customer experience, loyalty and satisfaction, enhancing CRM strategies to engage customers in a more effective and personalized manner, and drive revenues across their lifecycle by unlocking a new range of services related to uniqueness, product care, warranty and ownership transfers.

In summary, DPPs provide 3 key types of benefits to luxury brands:



1

## Driving revenues

Direct channel to engage and retain customers in the long term, increasing their loyalty and generating new sources of data and revenues.

2

## Protecting the product

Immutable and reliable way for anybody to check the authenticity of a product and contribute to ensuring it belongs to its rightful owner, reducing counterfeit and theft.

3

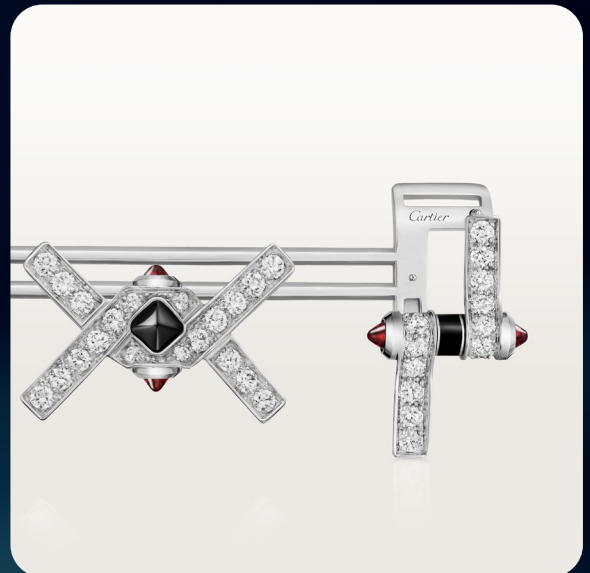
## Trusting the brand

Transparent and immutable declaration of sustainability & traceability, demonstrating the absence of green washing to customers and regulators.

Aura Blockchain Consortium is gradually establishing itself as an emerging standard for the DPP in the luxury industry, and it already is the platform with the greatest adoption of luxury brands. Other luxury brands can join Aura to reduce costs and risks, as the solutions are ready and tested, quickly following leading innovators in driving the transformation of the luxury industry.

"Our industry is embracing the challenges, demands and opportunities presented by an increasingly digitally native customer base. Standardizing the Digital Product Passport allows us to follow the entire lifecycle of luxury products, providing us with an additional opportunity to establish trusting and long-lasting relationships with the first- and future-generations of customers."

- Angela Au-Yeung, International Innovation Director, Cartier



Credit: Cartier

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