



# The Beauty Behind Traceability

How traceability technology solves the cosmetics  
and personal care industry's biggest challenges



# Turning Towards Growth

The beauty industry, which includes skin care, cosmetics, hair care, fragrances and other personal care goods, is rebounding from several years of upheaval, [according to McKinsey research](#). Despite upheaval, the industry has grown by over **15%** in 2022 (in the United States), and the luxury beauty sector reached over **27.1 billion USD**. Overall, as of 2021, the [global beauty and personal care products market size](#) was valued at **USD 482.8 billion** with the expectation that it would expand at a compound annual growth rate (CAGR) of 7.7% from 2022 to 2030.

## Beauty By The Numbers

### Consumer Focus

- Clean ingredients
- Sustainable, ethical and green cosmetics and packaging
- Hyper-personalization

**15%**

growth in 2022 in us

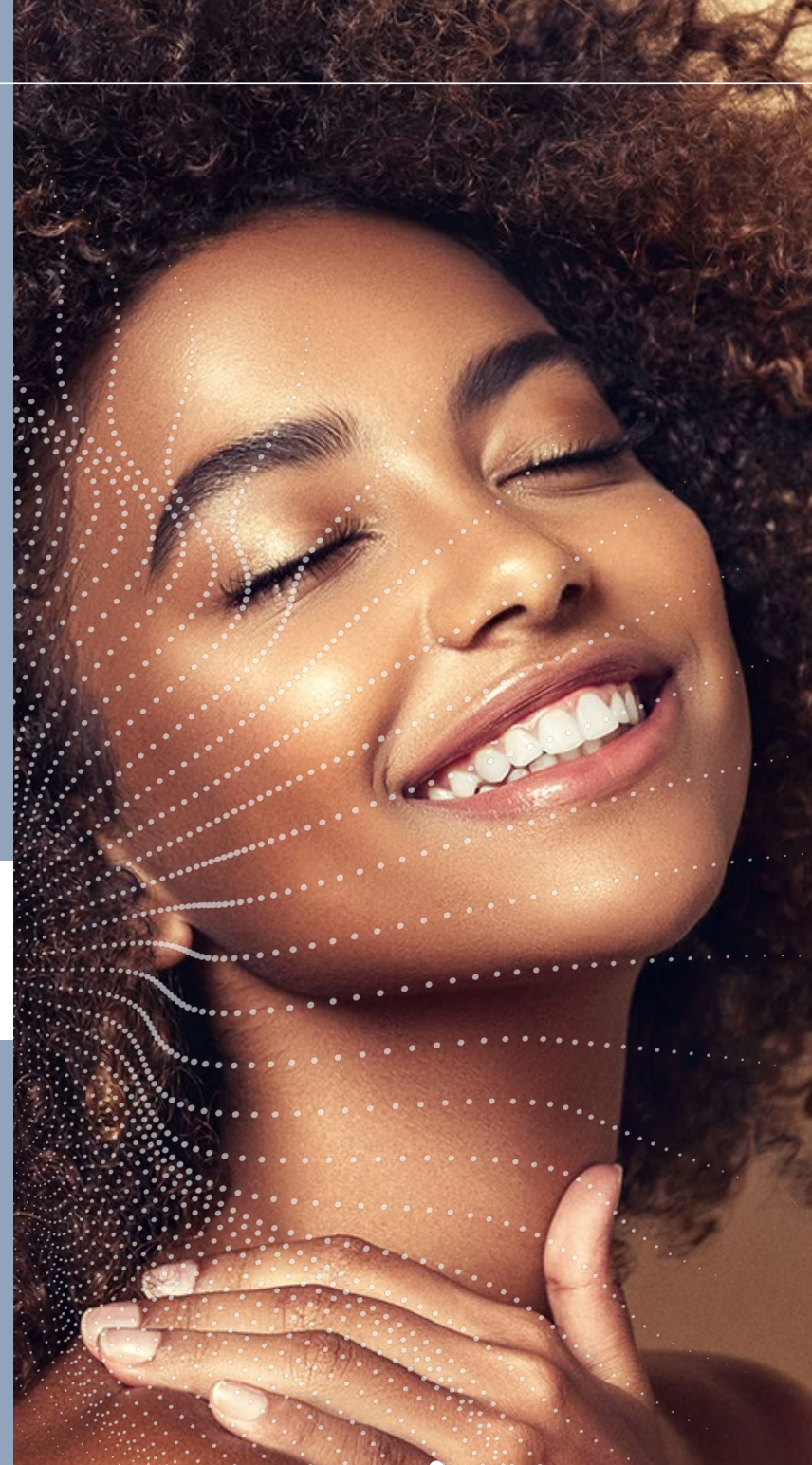
**2.1bn**

USD revenue in US (Q3 2022)

**4.7mil**

prestige cosmetic shoppers in US

Turning toward this predicted growth, the industry is focused on the challenges it faces both now and in the future. These challenges include everything from a changing regulatory landscape on a global scale to securing and retaining customer trust to doing more meaningfully sustainable business. "Sustainable" in this sense means not only ensuring business continuity and profitability but also adherence to ESG principles: accounting in tangible ways for the environmental impact of products, the social effects of a company's production (e.g., labor relations and conditions, diversity and health and safety to name a few, as well as core issues to the cosmetics industry, such as animal welfare/ anti-cruelty guarantees), and [governance](#), which deals with how a business is run, best practices and policy.





# Prioritising Consumers

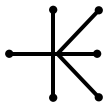
In the complex, consumer-first web of beauty and personal care business, the need to meet consumers where they are with dynamic, personalized, inclusive omnichannel experiences is paramount. This demand needs to be balanced against consumer demand for greater transparency into the full product journey and for trustworthy ESG claims. Consumers want insight into the sourcing and safety of ingredients and the processes by which their beauty and personal care goods make their way to their hands – from raw materials to manufacture to retail outlet to end of life/recycling or refilling.

And while the consumer is at the heart of the increasingly circular beauty industry model, consumers can only get as much insight and data as the brand itself has. Traceability technology and a connected product platform solve the industry's biggest challenges, providing end-to-end supply chain visibility and powering future-looking approaches to consumer engagement and sustainability.

## Taking a look at the cosmetics, beauty and personal care industry

Like all complex consumer goods value chains, the beauty and personal care industry faces ongoing and often unpredictable challenges. These can range from quick-changing circumstances in raw material availability or shortages to supply chain disruptions, from abrupt changes in consumer demand to issues with counterfeiting and grey market diversion. Alongside of, and often creating barriers and silos to a complete understanding of the information underpinning these issues, are technology limitations and immaturity somewhere within the supply chain. And all of this comes under the umbrella of more predictable, but still disruptive, regulatory compliance demands that often require major changes to how business is done (and the tools supporting it) throughout the value chain.





Many of these challenges are interrelated. The beauty and personal care industry relies on a complex network of suppliers and manufacturers to source raw materials, formulate products, and distribute them to retailers and consumers. This makes it challenging to trace the origin and movement of each ingredient and product throughout the supply chain. From the long arm of regulation reaching into most aspects of the beauty value chain to the presence of raw materials sourcing in questions of ESG, consumer demand and consumer safety – a solution for one challenge is likely to support visibility into and better control over the others.

### Regulatory compliance considerations

Regulatory compliance is an overarching consideration. It touches on many different aspects of the challenges the beauty and personal care industry faces - from consumer safety to the recyclability and sustainability of packaging.

The beauty and personal care industry is subject to a wide range of regulations and standards, including those related to ingredient safety, labeling, and environmental sustainability. The European Union is already governed by the Cosmetic Products Regulation (CPR), which outlines requirements for the labeling and traceability of cosmetic products sold in the EU. Achieving compliance with these requirements can be complex and time-consuming, especially as regulations change in different geographies. It's worth noting that EU regulations apply to any business – no matter where their location in the world – aiming to sell their cosmetics products within the EU market.

Another regulation that is proposed as applicable to cosmetics and personal care goods is the Eco design for Sustainable Products Regulation (ESPR), which is broadly focused on reducing the environmental impact of a product's packaging. This includes requirements about the amount of packaging used, the use of recycled materials, and the recyclability of the packaging. The ESPR extends to calculating the environmental impact of the product itself, including accounting for and verifying the use of sustainable materials and the product's environmental impact of the product throughout its life.





Being a part of the ESPR also means that cosmetics products will require digital product passports (DPP), which also demands a robust platform for managing the data associated with this level of granularity.

### Raw materials sourcing and provenance: Safe, authentic and ethical

One of the most significant challenges for the beauty and personal care industry supply chain is the sourcing of raw materials and establishing ingredient provenance. Many ingredients used in cosmetics are sourced from locations in which there are ethical and environmental concerns.

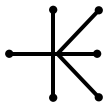
These concerns can disrupt supply chain reliability, as manufacturers face struggles securing sufficient, sustainable, and high-quality raw materials or have difficulty verifying provenance for regulatory or end-consumer use. Quality in this sense can also refer to the authenticity of a product.

### Manufacturing, labeling and packaging: Accuracy, quality, safety and opportunity

The manufacture and packaging of beauty and personal care products require specialized equipment and a high degree of accuracy. The industry must have the technical infrastructure in place to produce products at scale while maintaining both quality and safety standards. Moreover, manufacturers must navigate complex regulations and safety standards for the production and transport of cosmetics products.

At the same time, as regulations and companies both strive to reduce the burden of excessive packaging, countries and enterprises both are looking at ways to limit and trace packaging and use packaging more creatively and efficiently, for example, to adopt digital labeling so that brand owners can use the limited real estate of packaging for artwork. Digitizing packaging information also expands the possibilities of what packaging can do throughout its lifetime.





## Tracking the journey: Logistics, transport and distribution

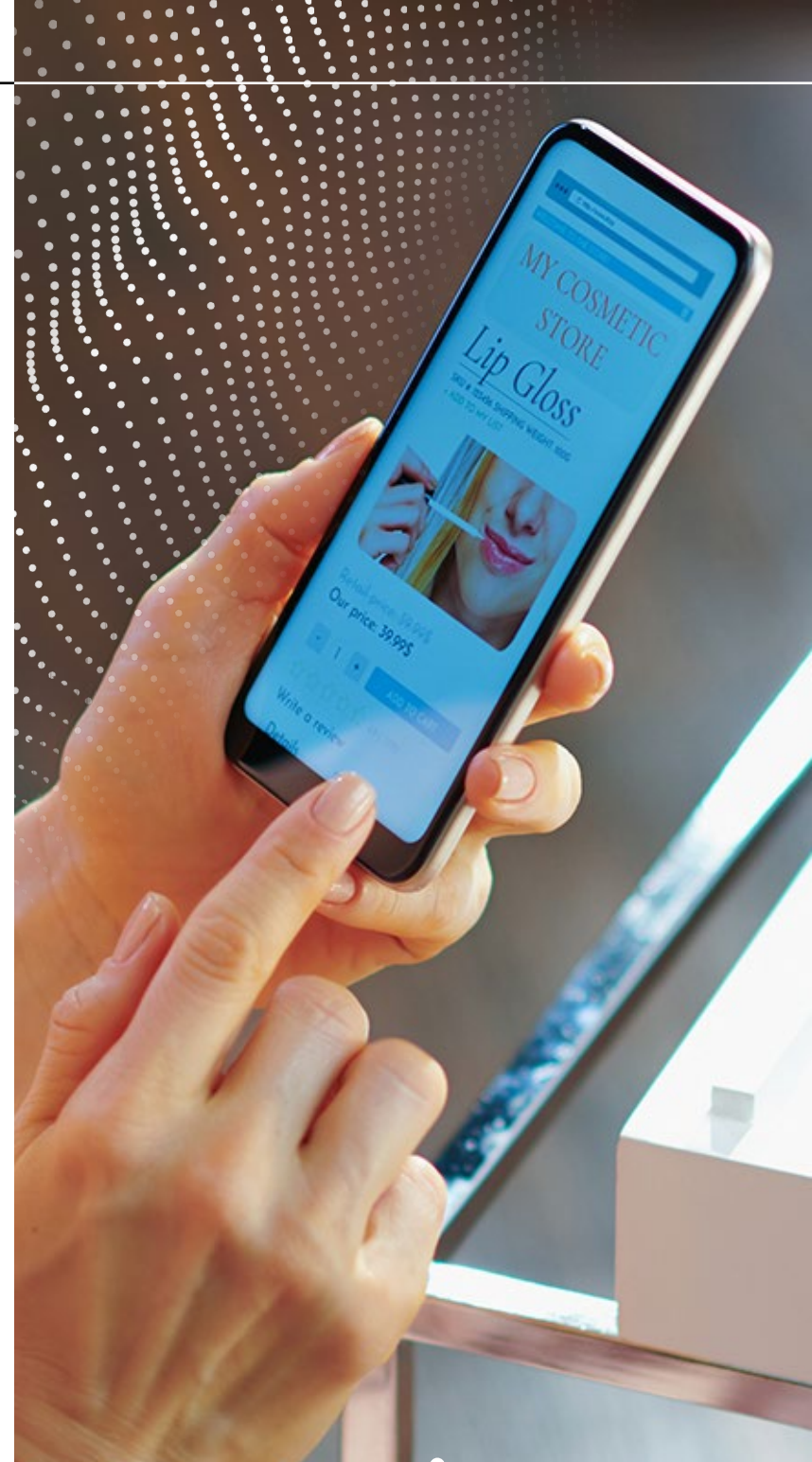
Beauty and personal care products require careful handling and transportation due to their fragility and potential for contamination. The industry must develop logistics strategies that maintain product quality and safety, reduce waste, and minimize carbon footprint while being able to account for every step of the journey to ensure that products get to the shelf as expected, particularly as many beauty and personal care products have short shelf lives.

## Deliver dynamic consumer experiences and innovation

Beauty is trend-driven, and consumers increasingly demand specialized over generic offerings, i.e., products “designed for me”, which requires granular insight into consumers and their needs. The beauty and personal care industry is highly competitive, with consumers demanding constant innovation and new, responsive product offerings.

Personalization also means that interactions are dynamic – every consumer gets their own tailored experience – everything from localization to responsive dynamism, i.e., their experience changes depending on their inputs.

Supply chain management must align with consumer trends and preferences while keeping costs low and maintaining quality and safety standards. This requires agile supply chains that can quickly adapt to changing consumer demand and market trends, which in turn means having visibility into the full supply chain. Essential to powering these dynamic experiences and consumer insight is the traceability that underpins the first-party data brands receive throughout each step of the product’s journey and the actions consumers take once they buy and use the product.





## Invest in digitization and data - Understanding and innovating for the future

The shift to digital-first and e-commerce consumption models has created the need for extensive product digitization. While requiring significant technology changes and investment in digital transformation for many brands, the move to digitization opens the door to value generation through rich first-party data, deeply embedded personalization and customization opportunities, and the ability to develop seamless omnichannel customer experiences and insight into future product and service development.

## Get to sustainable beauty: ESG and the future

Consumers, particularly in the beauty and personal care space, are willing to pay more for verifiably sustainable products. Whether this means that consumers know that all the ingredients are sourced responsibly, free from cruelty and animal testing, or that all contents are certified organic or single source, and so on, brands stand to gain from riding the sustainability wave. Brands and retailers are taking action in several ways: More environmentally friendly packaging, other initiatives to reduce harm (i.e., carbon offsets), and waste reduction. Reaching greater transparency and efficiency in achieving sustainability, however, will require supply chain visibility at a granularity, end-to-end level to satisfy both consumer and regulatory demands.

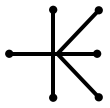
## An industry at a digital crossroads

The beauty and personal care industry stands, like most complex industries, at a crossroads in the post-Covid-19 era. The pandemic accelerated disruption and paved the path for brand reinvention on several levels, [according to McKinsey](#):

- Shift to digital engagement
- Changes in consumer behavior and expectation
- Focus on supply chain resilience (unpredictable demand patterns coupled with volatility in physical supply chains require coordinated action across manufacturing, suppliers and retailers)

These changes, added to the pain points experienced by beauty and personal care brands, create a situation in which technology will play a key role in enabling the future. More specifically, product digitization and traceability technology.





## The beauty of traceability and unique digital IDs

Some of the major challenges faced by the beauty and personal care industry can be addressed with traceability technology and the assignment of unique digital IDs at a massive scale. At its most basic, traceability delivers the power to follow the movement of products and their ingredients throughout their complete life cycle, theoretically all the way from the source of raw materials to the end consumer.

Traceability is important for beauty and personal care, broadly for the reasons already outlined in terms of the challenges the industry faces. Brands are looking for ways to achieve:

### Regulatory compliance

Beauty products are subject to strict regulations and standards, such as those set by the FDA, EPA, and other regulatory agencies and governments, such as the European Union. Traceability helps brands to demonstrate and verify their compliance with these regulations, which can help to avoid fines and other penalties as well as contribute to more consumer-facing bona fides.

### Product and consumer safety

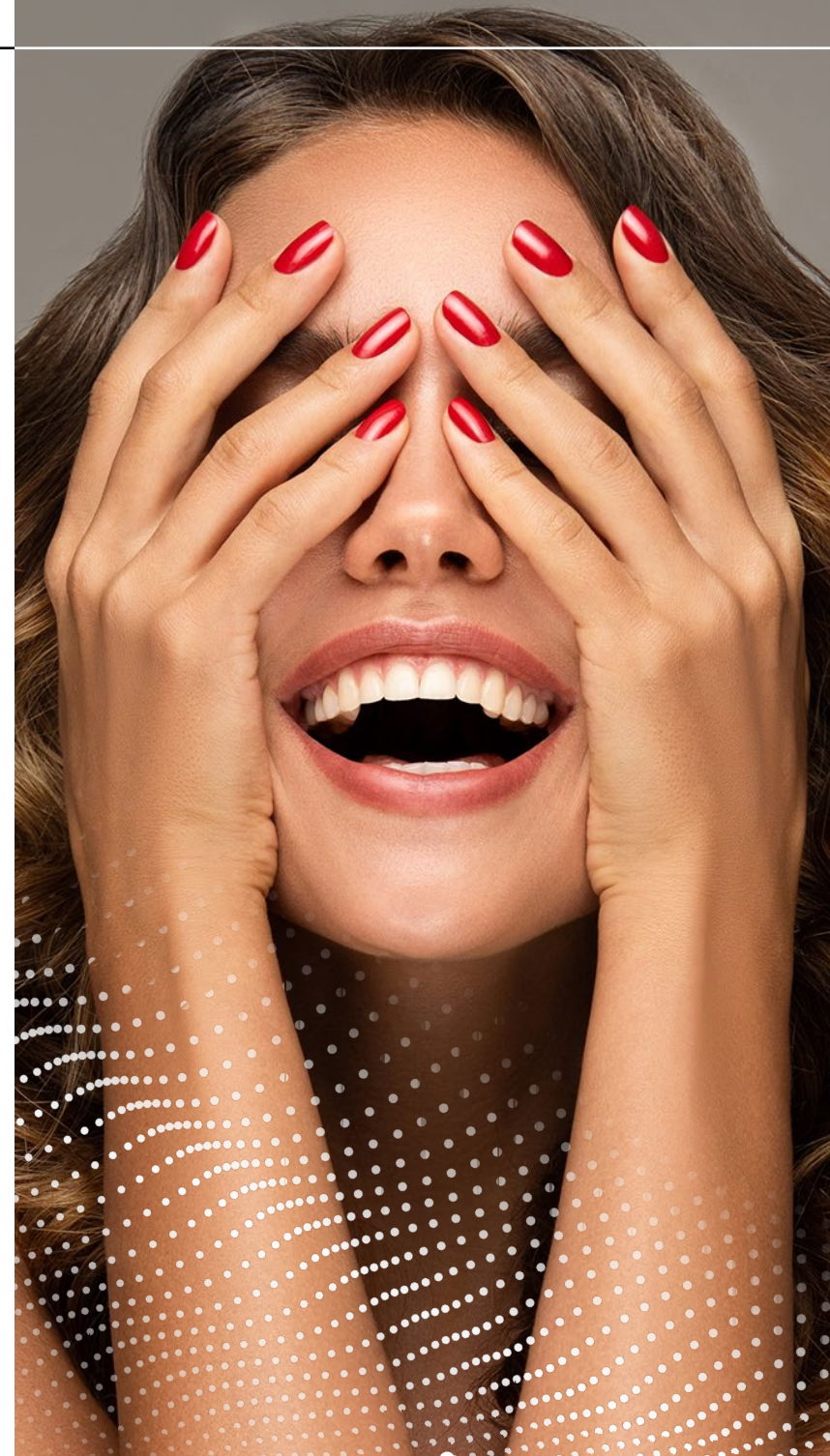
Traceability helps to identify the source of any product safety issues or quality defects, which enables quick and effective recalls, reducing the risk of harm to consumers.

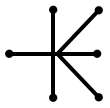
### Quality control and operational optimization

Traceability allows companies to monitor the quality of their products at every stage of the supply chain. This can help to identify any potential quality issues before they become major problems, ensuring product authenticity, and identifying operational efficiency issues and fixing them.

### Brand protection and product authenticity

Counterfeiting is a major problem within the beauty and personal care industry, posing threats to brand reputation, consumer health and safety and brands' bottom lines. Traceability and product digitization eliminates the guesswork in ensuring consumer safety and confidence.





## Sustainability

Traceability can help companies to improve the sustainability of their products by identifying opportunities to reduce waste, increase efficiency, and use more environmentally-friendly materials and processes and effectively report on these gains both to regulatory bodies and increasingly demanding consumers.

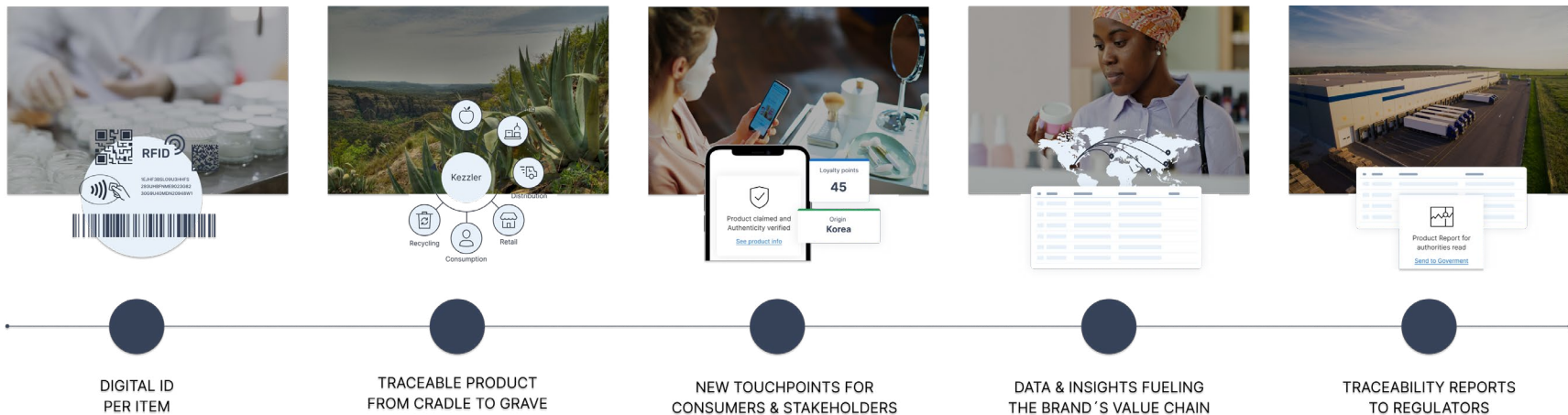
## Dynamic, data-driven engagements and interactions

Assigning unique digital IDs to products gives brands first-party data directly from their consumers that enables real-time, tailored interactions.

By implementing robust traceability systems, companies can protect their customers, their reputation, and their bottom line.

# Give your unique beauty and personal care brand a traceability makeover

Giving beauty and personal care products their own unique IDs turns them into connected products, empowered to share their own data and tell their own story. Connected products enable traceability from creation to consumption and allow for insight generation across the enterprise.



Achieving effective traceability in the beauty and personal care industry requires a collaborative effort between suppliers, manufacturers, retailers, and regulators – everyone within the value chain. And bringing it all together will be interoperable technology and standards that enable increased transparency and visibility throughout the supply chain.

If you are a beauty or personal care brand looking to level-up your traceability technology to meet the coming regulatory, sustainability and consumer-demand challenges, talk to Kezzler about how our cloud-based Connected Products Platform can deliver for you.



# Company

Kezzler is a software company and technology leader specialized in providing Digital ID solutions for connected products. Since 2010, Kezzler has powered product digitization and helped build sustainable value chains for global businesses across industries as varied as food and beverage, retail and apparel, industrial goods, OTC pharmaceuticals and consumer packaged goods.

Through the Kezzler Connected Products Platform, companies can digitize products to collect, structure and share secure, real-time value chain data at scale. This enables traceability throughout the product's lifetime to achieve regulatory compliance, gain supply chain visibility, enable circular solutions and create dynamic end-user experiences. Kezzler is headquartered in Oslo, Norway with a global footprint.

# Product

Kezzler's Connected Product Platform is a SaaS solution that enables businesses to manage and track their products throughout the entire supply chain.

By assigning unique Digital ID to individual items, the platform provides real-time visibility, authentication, and consumer engagement capabilities. With its agnostic approach to systems and platforms, Kezzler's platform seamlessly integrates with existing IT infrastructure, offering a scalable and flexible solution for businesses seeking to enhance their product management, brand protection, and customer experience.



**46bn**

USD value of goods digitized last 12 months

**5m**

daily platform interactions on one single client's software

**25bn**

connected products as of 2022

**>35**

countries with activated products in the market

## HQ | Norway

Schweigaards gate 15b  
0191 Oslo

## The Netherlands

Gamerschestraat 47  
5301 AR Zaltbommel

## India

Level 4 MBC Infotech Park  
Maharashtra

## Singapore

Nordic Innovation House  
188655 Singapore

## China

Room 805,7/F No.1 Building  
Chaoyang District, Beijing

## USA

One Marina Park Drive  
Suite 1410, 02210 Boston