

Pioneering Transparency Through Technology in the Luxury Sector

2nd Edition - March 2024



At ORIGINALLUXURY, we are dedicated to pioneering transparency in the luxury sector. With our academic expertise and technological solutions, we aim to empower luxury brands, bridge industry gaps, and simplify information for consumers. Join us on our journey to redefine transparency in luxury.

www.originalluxury.org





Dear Esteemed Readers.

In order to leverage the opportunities and tackle the uncertainties of today's world, we need to combine multiple perspectives and join forces with all sectors of society. It is in this spirit that three institutions of academic excellence, the University of Lausanne through its Faculty of Business and Economics (UNIL-HEC), the Institute for Management Development (IMD) and the Ecole polytechnique fédérale de Lausanne (EPFL), under the stewardship of its College of Management of Technology, have joined forces in the Enterprise for Society Center (E4S).

E4S is proud to present to you this second edition of the "Technology For Transparency" report, ORIGINALLUXURY's bi-annual publication, exploring the evolving landscape of technology in the luxury sector, offering an insightful blend of reflections from our academic partners, the initiative's members and insights from various events.

Hosted by the Swiss Center for Luxury Research, ORIGINALLUXURY unites over 50 luxury brands and 16technology partners in a consortium that stands at the forefront of academic research and industry insights. This consortium is dedicated to pioneering transparency and traceability in the luxury sector. With their academic and technology partners, ORIGINALLUXURY aims to empower luxury brands, bridge industry gaps and simplify information for consumers encouraging responsible decision-making within the luxury industry.

The collaboration between E4S and ORIGINALLUXURY is rooted in a shared vision. ORIGINALLUXURY represents a comprehensive platform encompassing events, workshops, tailored advisory services and the ORIGINALLUXURY LAB. These initiatives are designed to cultivate collaboration, facilitate the exchange of knowledge, endorse best practices, and provide networking opportunities for professionals, technologists, and global specialists in the luxury industry. The "Technology For Transparency " report symbolizes our collective commitment to this vision. It is not only a repository of information and insights but the result of our joint dedication to shaping a future where luxury and technology intersect in the most responsible and sustainable manner.

As you engage with this report, we invite you to join us in this journey of exploration and innovation. Together, let us navigate the challenges and opportunities ahead, striving to sculpt a more transparent, responsible, and inclusive luxury industry.

With warm regards,

Prof. Jean-Philippe Bonardi Co-Managing Director, E4S

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History

ORIGINALLUXURY, initially known as THE INDEX, was originally established as a collaborative venture between E4S and OriginAll, with the primary objective of assessing transparency and traceability initiatives within the luxury sectors. The focus was particularly on technology's role in amplifying product security and data integrity.

Inaugurated in 2022, this initiative was academically spearheaded by Prof. Felicitas Morhart, Professor of Marketing at UNIL-HEC and founder of the Swiss Center for Luxury Research. She was joined by Prof. Stéphane Girod, Professor of Strategy and Organizational Innovation of IMD's Luxury 2050 Initiative. Prof. Jean-Philippe Bonardi, the co-managing director of E4S and Margot Stuart, the co-founder and C00 of OriginAll, were also at the forefront of this endeavor.

The initiative stands out for its diverse array of stakeholders. Participants now encompass over 30 luxury brands from sectors such as cosmetics, jewelry, and high-end fashion. This consortium also includes a multitude of luxury suppliers, organizations, and an impressive array of technology providers.

Since its inception, THE INDEX has facilitated two luxury roundtables. These exclusive gatherings provided an avenue for members to delve into issues specifically pertinent to the luxury sector, especially concerning transparency and traceability. These confidential and "by invitation only" discussions fostered an environment where participants could freely exchange ideas, gain fresh perspectives, and deepen their understanding of the intricacies involved in offering transparency, both internally and externally.

Owing to the vast diversity of technological suppliers – which include anti-counterfeiting solutions, blockchain-enabled traceability, and consumer engagement platforms – the "Technology For Transparency" report was launched. This bi-annual publication acts as a comprehensive guide, helping brands navigate the multifaceted solutions that heighten transparency levels. Additionally, it offers invaluable insights into both the challenges faced and the overarching benefits reaped across industries.



RESEARCH RESULTS

In July 2023, the time came to evaluate the current status of our data collection, which was foundational to our initiative. We invited brands to disclose their use of technology for transparency, self-assess their alignment with the UN SDGs, and identify keywords associated with transparency. The results highlighted the hesitancy surrounding transparency, even though anonymity was an option for respondents.

Given this revelation, we conducted a survey to gauge the genuine interests of our members in our initiative and their priorities. The findings are as follows:

- A staggering 98% indicated their likelihood to attend our upcoming events, with interests distributed
 as:
 - o 35% for Networking
 - o 29% for Academic collaboration, insights, and learnings
 - o 18% for Sustainable reporting tools
 - o 16% for Technology insights
 - o 2% for Other
- 75% expressed a strong interest in our "Technology For Transparency" report, while 23% were moderately interested.
- A significant 82% showed keen interest in the establishment of a Center of Excellence for Luxury
 Technology ORIGINALLUXURY Lab a research and advisory laboratory dedicated to promoting
 transparency and traceability within the luxury sector and the primary focus of this proposal.

EVOLUTION

The 2023 summer hiatus offered a valuable opportunity for our team to reflect and strategize based on the aforementioned results. It became unmistakably clear that THE INDEX should evolve into a more dynamic platform emphasizing networking, knowledge dissemination, and technological innovation: **ORIGINALLUXURY**.

This transformation resulted in the reevaluation of our mission, vision, and anticipated impact.

ORIGINALLUXURY: Pioneering Transparency Through Technology in the Luxury Sector

Mission: Empower the luxury industry with cutting-edge knowledge from academia and advanced technological tools, paving the way for unparalleled transparency.

Vision: Position the luxury sector at the forefront of transparency best practices.

Impact: Drive measurable advancements in transparency for luxury brands by integrating innovative technologies.



In a world where consumers are increasingly concerned about the origins and authenticity of the products they purchase, the Swiss Center for Luxury Research (SCLR), in collaboration with IMD and OriginAll, and under the aegis is of E4S, has launched an unprecedented initiative—focused on luxury transparency and traceability -"ORIGINALLUXURY"

We aim to centralize our endeavors with the ORIGINALLUXURY Consortium, leading up to an annual ORIGINALLUXURY Summit. Situated within the Swiss Center for Luxury Research, this hub will be dedicated to analyzing, displaying, and advocating for the newest technologies and innovations that enhance and empower brands and customers with precise and easily comprehensible information, fostering responsible decision-making. More than just a resource center, our goal is to facilitate collaboration, encourage knowledge exchange, and provide networking opportunities for industry professionals, technology experts, and global specialists.

CREATING A PLATFORM FOR INNOVATION

At the core of ORIGINALLUXURY is a dynamic digital platform that serves as a reference for sharing the latest innovative developments and best practices in the luxury industry, particularly those related to traceability and security technologies. Through partnerships with over 50 stakeholders and over a dozen technology companies, ORIGINALLUXURY is already gaining traction and fostering collaboration among industry players.

The initiative's success is fueled by its deep understanding of the pain points faced by luxury brands, technology providers, and consumers alike. ORIGINALLUXURY has identified three key challenges and is actively working to address them:

- Brands' technology capacity: Luxury brands often lack the in-house capacity to develop
 transparency solutions and struggle to identify the most suitable solutions for their supply chains.
 ORIGINALLUXURY aims to empower brands by providing them with comprehensive information about
 readily available technologies, enabling them to enhance transparency within their companies and
 towards consumers.
- 2. Technology providers' access to the C-suite: Simultaneously, tech suppliers often lack access to C-level representatives in the luxury industry and a deep understanding of their companies' unique needs. ORIGINALLUXURY acts as an independent platform, bridging this gap by showcasing technology solutions and facilitating connections between brands and providers.
- 3. Consumer information overload: Consumers face a growing complexity of information and sustainability claims, often leading to confusion and misinformation. ORIGINALLUXURY aims to simplify this landscape by offering consumers an easy-to-understand primer that visually illustrates brands' transparency efforts. This empowers consumers to make informed and responsible purchasing decisions, helping to identify brands that prioritize transparency and traceability. A dedicated website is currently being developed for these purposes.



CONTRIBUTING TO THE UN SDGS

ORIGINALLUXURY has made substantial strides in promoting the principles outlined in United Nations Sustainable Development Goal 12, focusing on responsible consumption and production. By advocating for comprehensive transparency and traceability frameworks, ORIGINALLUXURY is paving the way for effectively enhancing the sustainability profile of its luxury members, thereby promoting a culture of conscious consumption. Through its advisory services for enhanced ethical sourcing, minimal environmental impact, and the integration of sustainable practices along the industry's supply chain, ORIGINALLUXURY is aiming to set a commendable precedent for the luxury industry. By fostering consumer awareness and advocacy for sustainable choices, the initiative is encouraging a shift towards more responsible consumption patterns, contributing significantly to the realization of UNSDG 12 targets both locally and on a global scale.









ORIGINALLUXURY's commitment to sustainability extends to its significant contributions towards United Nations Sustainable Development Goal 17, emphasizing partnerships for the goals. Through strategic collaborations with various stakeholders, including local communities, academic institutions, and governmental bodies, ORIGINALLUXURY has fostered a culture of collaboration and knowledge-sharing within the luxury industry. By actively engaging in cross-sector partnerships and advocating for sustainable business practices, the project is playing a pivotal role in promoting sustainable development initiatives.

ORIGINALLUXURY's emphasis on building strong, transparent partnerships has not only enhanced the effectiveness of its sustainability efforts but will also, hopefully, inspire other industry players to prioritize collective action towards achieving the UN SDGs, thereby fostering a culture of global cooperation and partnership for sustainable development.















ACTIONABLE RESEARCH

Our aim is to transit this academic research project into an entrepreneurial venture, so as to not only nurture innovation but also foster real-world applicability. By bridging the chasm between theoretical exploration and practical implementation, this transformation will lead to the creation of impactful products and services that address real market needs.

ORIGINALLUXURY: a membership networking hub that fosters partnerships and collaboration between luxury brands, technology providers, and digital innovators:

- Luxury Brands
- Luxury Institutions, Associations, and Organizations
 - Luxury Suppliers
- Technology Providers

Our Offerings

- **Digital Showcasing Space**: An exclusive website where members can spotlight and discover transparency endeavors and recommend best practices.
- Digital Outreach: An active social media footprint and campaigns to amplify the transparency narrative.
- Luxury Roundtables: Bi-annual private, members only gathering hosted at IMD, offering an intimate setting for members to engage, display, and stay abreast with the evolving transparency trends and tech breakthroughs in the luxury milieu.
- Technology For Transparency Report: This bi-annual compendium presents the avant-garde technologies sculpting transparency in luxury, integrating reflections from our Luxury Roundtables and imparting scholarly insights.
- ORIGINALLUXURY LAB: An immersive experience lab focused on giving brands the opportunity to test and pilot the latest innovative technologies and solutions driving the digital transformation in the luxury sector as well as host roundtables and events.
- Luxury Technology Summit: A yearly two-day event that gathers industry leaders, innovators, and influencers in the luxury sector to explore the transformative power of technology.
- Bespoke Advisory: Tailored consultation sessions and workshops, crafted on-demand to address the particular needs and challenges of a brand, group of brands or industry.

LEADERSHIP

Presently, our esteemed leadership team comprises Professors situated in Switzerland and UAE. As part of our strategic vision, we aspire to expand our team by welcoming Professors with diverse expertise from the GCC region. This approach will foster a rich exchange of knowledge, enabling us to capitalize on the unique strengths each member brings to the table.



Prof. Felicitas Morhart,
Professor of Marketing, UNIL-HEC,
Founder of Swiss Center for Luxury Research

Felicitas Morhart is Full Professor of Marketing at the University of Lausanne since 2014 and Vice-Dean of the Faculty of the Business School since 2019. Her research focuses on how market-oriented companies can create meaning and contribute to the well-being of their various stakeholders (mainly customers, employees, managers, and society). Her central work is at the intersection of marketing and leadership, such as her work on behavioral branding, brand-oriented employee leadership, personal branding, and brand authenticity. Her latest teaching and research focuses on luxury marketing. In 2020, she published the edited book "Research Handbook of Luxury Branding (Edward Elgar Publishing). In the same year, she founded the Swiss Center of Luxury Research at HEC Lausanne (www. swisscenterforluxuryresearch. com), where she also teaches the master course "Luxury Marketing".

Her research has been published in top national and international journals. She also advises and trains managers mainly in the luxury and premium industries (mainly financial, automotive and hospitality) on the topic of transformational change. In 2013, Felicitas Morhart was named one of the "Top 40 under 40" by the business magazine Bilanz for her influence in the Swiss business world. In July 2019, she was also named one of the top 100 successful women in Switzerland by the Swiss magazine "Women in Business".



Prof. Stéphane J.G. Girod,
Prof. of Strategy and Leader of IMD's Luxury 2050 Initiative

At the Institute of Management Development (IMD) in Switzerland, Stéphane J.G. Girod is Professor of Strategy and Organizational Innovation. His research, teaching and consulting interests focus on business agility transformation at the strategy, organizational and leadership levels. His latest book "Resetting Management" (Kogan Page) is a finalist for the Business Book Awards 2022.

Professor Girod specializes in luxury management where he increasingly directs his research into sustainability strategy. He directs the annual Reinventing Luxury Lab and co-directs Digital Execution. In custom programs, he designs programs for multiple clients in consumer goods and services industries.

Professor Girod's research has appeared in leading journals such as Harvard Business Review, Organization Science and Strategic Management Journal. He has published multiple articles on innovation and disruption in luxury in China Daily, Womens' Wear Daily, Luxury Society, HandelZeitung, and Bilan Luxe.

He earned his PhD at the University of Oxford and speaks seven languages.



Prof. Jean-Philippe Bonardi, Professor of Economics, UNIL-HEC, Co-Managing Director of E4S

Holder of a Ph.D. from HEC Paris, Jean-Philippe Bonardi is a full professor of strategic management at the Faculty of HEC at the University of Lausanne. He also served as dean of this faculty from 2015 to 2021, during which time he contributed to the achievement of the first EQUIS certification.

Jean-Philippe Bonardi has also taught at the Richard Ivey School of Business at the University of Western Ontario and at the University of New South Wales (UNSW).

He is also one of the founders of the E4S Center ('Enterprise for Society'), which aims to inspire and facilitate the transition towards a resilient, sustainable, and inclusive economy.



Margot Stuart,
Co-Founder and COO of OriginAll

Margot brings over 15 years of expertise in combatting illicit trade and counterfeiting. As an early member of the OECD Taskforce on Charting Illicit Trade, she has been at the forefront of initiatives co-developed alongside international organizations such as INTERPOL and WCO.

Not just limited to countering illicit trades, Margot has a proven track record in establishing and scaling start-ups. Steering operational activities in a MedTech startup has also allowed her to acquire a deep understanding of regulatory and quality mandates. Over the years, she has established herself as a subject matter expert in traceability and product data integrity with deep insights on Sustainable Business Management.



Hans J Schwab
Co-Founder and CEO of OriginAll

Hans Schwab co-founded numerous ventures, with a focus over the past two decades on developing platforms that empower people to make better, safer product choices. Before co-founding OriginAll, he was the Chief Information Officer of a publicly traded Swiss cybersecurity company. Earlier in his career he spent 10 years in various management positions with the World Economic Forum in Geneva, Switzerland, including as a Member of their Executive Board and seven years in senior management positions with a Swiss multinational company in the security industry.

Hans was an early member of the OECD Task Force on Charting illicit trade and from 2014 to 2016 he was a member of the World Economic Forum's Global Agenda Council on Human Rights and a member of the World Economic Forum's Meta-Council on the The Illicit Economy.

A PUBLIC-PRIVATE PARTNERSHIP

In order to realize our vision of fostering groundbreaking advancements within the luxury industry, we recognize the paramount importance of cultivating robust public-private partnerships. We are enthusiastic about the prospect of collaborating with the GCC region and additional local academic entities, a collaboration that would further bolster our already impressive network of academic institutions and partners.



THE SWISS CENTER FOR LUXURY RESEARCH

The Swiss Center for Luxury Research (SCLR) unites luxury researchers and experts from top academic institutions in Switzerland to build a hub for thought leadership on the future of luxury management. It is based in Lausanne, Switzerland at University of Lausanne (HEC).

https://www.luxurytribune.com/en/the-sclr



E4S

The Enterprise for Society Center (E4S) is a joint venture of the University of Lausanne through HEC Lausanne, IMD and EPFL, under the stewardship of its College of Management of Technology, with the mission of spearheading the transition towards a more resilient, sustainable, and inclusive economy. E4S is dedicated to train the next generation of leaders, inspire economic and social transformation, and activate change by strengthening start-ups and boosting innovation.

e4s.center



IMD

IMD is an independent business school, with Swiss roots and global reach, expert in developing leaders and transforming organizations to create ongoing impact.

IMD has ranked #1 in the world for Open programs for the 9th consecutive year (2020 Financial Times Executive Education Rankings)

IMD.org





UNIL-HEC

Since 1911, HEC Lausanne has been training future executives and business leaders to become active players in the world of business and economics. HEC Lausanne also prepares students who wish to pursue an academic career. HEC is the department of economics of the University of Lausanne.

https://www.unil.ch/hec/en/home.html

ORIGINALL

OriginAll platforms empower its users to differentiate legitimate from fake or illicitly traded products, regardless of the security solutions or features adopted by a brand.



OriginAll does neither compete with, nor favour any particular traceability solution, nor does it intend to disrupt already deployed or imposed solutions and programs. Rather, it creates their interoperability to offer consumers and other stakeholder groups a single and transparent source of product information.

originall.com



TECHNOLOGY PARTNERS

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Sm·art Sta·mp

Sourcemap





Introducing the originalluxury Technology Partners

In the luxury sector, ensuring transparency, traceability, and authenticity is crucial for maintaining consumer trust and upholding brand reputation. This edition of the ORIGINALLUXURY Technology For Transparency Report features 14 of our technology suppliers, each contributing unique, innovative solutions to these challenges. While some are presenting their technologies others have provided case studies, showcasing how their solutions are being used by the industry and the positive impact they have.

Here is a short overview of the technology partners featured in this report:

Arianee harnesses the power of Digital Product Passports and Engagement Tokens, transforming them into rich ownership data to foster deeper relationships and embrace new circular business models. The Arianee Association operates as a member-run organization, comprising brands, builders, and partners who also serve as the founders of the Arianee protocol. The absence of shareholders means that a single corporate entity cannot take control of the association. With each member being an industry specialist, whether a brand or partner, all have an equal voice in the design of the standard.

Atlantic Zeiser develops, manufactures and distributes innovative and future-proof systems, including hardware and software components for the Consumer Goods Packaging industry and the Card market. Their product portfolio includes technologies for digital coding and marking, customization and artwork printing of Consumer Goods Packaging. Atlantic Zeiser also offers technologies for the protection of high-quality cosmetics and other luxury brands as well as complete systems for printing and personalization of ID, flat financial and commercial cards.

Aura Blockchain Consortium is a non-profit organization offering blockchain agnostic solutions exclusively to luxury brands. Established by Luxury Groups (LVMH, Mercedes-Benz, OTB, Prada Group and Cartier, part of Richemont) who have united for the greater good, Aura Blockchain Consortium's mission is to create the technological standard for the luxury industry and enhance the customer experience. The Consortium has crafted solutions for all sectors of luxury, such as fashion, jewelry, watches, automotive and more.

Authentic Vision provides Mobile Authentication systems, designed to protect brands, products and consumers through anti-counterfeiting and authentication technologies. Their solutions are designed to protect brand investments in product innovation, brand value, and reputation. Authentic Vision's unique Holographic Fingerprint security label, mobile authentication App, and real-time data and analytics are used in many applications including Brand Protection, License Compliance, and Label as a Key.



Crane Authentication specializes in providing brands with packaging solutions that blend stunning visuals with product security. Leveraging the expertise of its parent company, Crane Currency, a leader in banknote production and security features, Crane Authentication offers customized labels and packaging that enhance consumer engagement. Their solutions are designed to be visually appealing and intuitively convey a message of security, making them virtually impossible to counterfeit. This approach, Authentic by Design, combines micro-optic security features with conventional security elements, ensuring products are authentic and protected from fakes.

Digital Partners offers Digital Services and Technical platforms to address today Business

Transformation challenges using the best of breed technologies and Software's using Big Data, Artificial Intelligence and Analytics.

Dynamic Element specializes in providing innovative technology that creates a Unique ID from the surface of a product or its package. This technology allows for effective protection against counterfeit products and enables product verification throughout the entire supply chain. Additionally, it offers new ways for brands to interact with their customers, enhancing customer engagement and brand security.

Equal Profit focuses on equitable distribution of profits in global supply chains. Their model ensures that each actor in the supply chain is compensated proportionally to their contribution and the risks they bear. This approach addresses imbalances in commodity goods' traceability and pricing, emphasizing value distribution. By adopting the Equal Profit label, brands commit to a pricing system that is both equitable and transparent, allowing consumers to understand how their purchase impacts every participant in the product's journey.

iTraceiT specializes in secure, blockchain-based traceability solutions, among others for the diamond and jewelry industry. Their system is designed to ensure absolute transparency throughout the supply chain. By combining AI and blockchain technology, iTraceiT tracks products at every production stage, offering a robust, intuitive, and highly secure solution.

OPSYDIA provides sub-surface laser inscription technology for the diamond, gemstone and jewellery industries. They create innovative systems powered by surface and sub-surface laser technology to place high-quality and high-resolution identifiers both on and beneath the surface of gemstones. This promotes transparency, supports traceability initiatives, and offers brands a unique method of identification.

SmartStamp's patented, AI technology creates a unique "fingerprint" that links physical objects to the digital realm. Similar to biometrics used for human identification, their technology captures unique features that cannot be cloned, ensuring tamper-proof authentication and a new level of security and trust for the art and collectibles sector. By linking object biometrics to an NFT, their solution unlocks a range of digital and virtual services such as web3 integration, smart contract artist royalties, and more.



SourceMap specializes in supply chain mapping and transparency, providing enterprise software that supports extended supply chain due diligence, resilience, and sustainability. Their solutions are used across diverse sectors such as automotive, electronics, pharmaceuticals, luxury, apparel, and cosmetics, offering procurement teams deep insights into the entire supply chain.

Tracr offers its clients a digital platform for tracing natural diamonds from source at scale, giving them the ability to explore the provenance, authenticity and the unique journey their diamonds have taken along the diamond value chain. Utilizing a combination of Internet of Things, Artificial Intelligence, and blockchain technology, Tracr provides a secure and immutable record of each diamond's journey, including its provenance and certifications.

ZAPTAP represents a significant step in the phygital evolution, blending physical products with the digital world. It utilizes NFC and blockchain technologies, transforming products into dynamic communication and sales channels, giving each product a unique, safe digital identity. Their technology fosters direct consumer engagement while providing data insights, strengthening customer relationships and enhancing brand loyalty.

The contributions, innovation and passion of these 14 technology providers are instrumental in revolutionizing the luxury sector. Their innovative solutions not only ensure the authenticity and traceability of luxury products but also play a pivotal role in establishing new standards for consumer confidence and ethical practices. By leveraging advanced technologies like blockchain, AI, NFC, and micro-optic security, these partners are leading the way in combating counterfeit products and enhancing transparency across the supply chain. This collaborative effort marks a significant stride towards a more responsible, transparent, and sustainable luxury industry, where consumer trust is paramount, and the authenticity of each product is unequivocally assured. The integration of these cutting-edge technologies is not just a step forward in luxury brand protection but also a leap towards redefining the luxury experience for consumers, setting a precedent for future innovations in this space.

With the opening this year of our physical ORIGINALLUXURY Lab we aim to continue to empower the luxury industry by assessing, showcasing, piloting and promoting the latest technologies and innovations that can redefine and elevate the customer experience in this sector. The ORIGINALLUXURY Lab will also provide a comprehensive suite of services designed to create a dynamic ecosystem that fosters collaboration, knowledge-sharing, and networking among industry players, technology providers, and experts from around the globe. At the ORIGINALLUXURY Lab, industry professionals will have access to unparalleled resources, engage with our technology partners, and participate in bespoke total immersion sessions addressing specific technology challenges.



Professor Felicitas Morhart
Vice-Dean and Professor of
Marketing
HEC Lausanne
Founder of the Swiss Center
for Luxury Research



Hans J Schwab Co-Founder OriginAll



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EMPOWER BRANDS' USERS WITH A NEW KIND OF DATA: DIGITAL PRODUCT PASSPORTS AND ENGAGEMENT TOKENS

Founded in 2018, Arianee harnesses the power of Digital Product Passports and Engagement Tokens, transforming them into rich ownership data to foster deeper relationships and embrace new circular business models.

Arianee's products help redefine the relationship brands have with their customers by transforming every product and every act of engagement into a specific touchpoint, delivering meaningful and personalized brand experiences. These products are new tools to generate instant ROI for brands and enriched ownerships for customers.

They enable brands to:

- · Maintain a continuous connection with product owners
- · Improve the ownership experience with utilities
- Facilitate circular journey (repair, recycle, resell)
- · Be compliant with transparency legal frameworks

They allow customers to:

- Stay connected with the brand regardless of the product was obtained the product (1st hand, 2nd hand, gifting)
- · Prove the ownership and authenticity of their products
- · Access seamlessly personalized content, services and events
- · Regain control over personal data

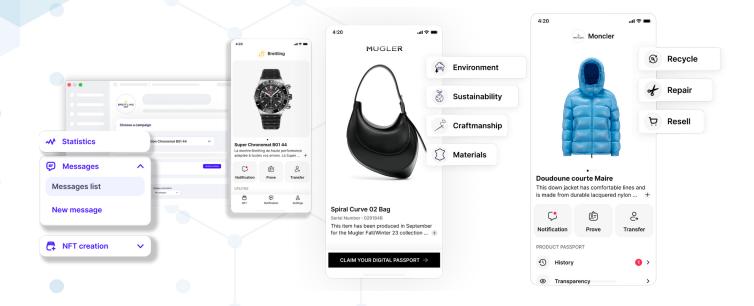
ARIANEE STARTED AS AN OPEN-SOURCE PROTOCOL AND HAS BEEN DEVELOPING BLOCKCHAIN-BASED SOLUTIONS

1/ ARIANEE'S PRODUCT

Arianee's products bring together all the essential elements needed to build an enriched digital product passport, from upstream to downstream partners, and everything in between.

True to its mission of empowering brands and their users to control their data, Arianee has been developing technological solutions from an NFT Management Platform, to dynamic product pages and user-friendly embedded wallet solutions.





- NFT Management Platform to manage product and ownership data: Tokenize assets, communicate
 with holders, and extract campaign insights based on zero-party data.
- Dynamic Product Page to onboard customers seamlessly: From a simple link or QR code, users are
 directed to a dynamic web app where they can visualize the digital product passport, read product
 transparency details and act on the passport before collecting it.
- Embedded Wallets to distribute ownership data: Allow users to collect the digital product passport and conveniently manage it in a digital wallet embedded in their client account or in a decentralized app.

By providing these comprehensive tools, Arianee enables every brand with the capability to deploy a new customer data infrastructure, natively dynamic and controlled by users, complementing first and third-party data.

Arianee brings together more than 50 brands and partners, including the Richemont Group, L'Oréal, IWC, Panerai, Moncler, Mugler, Breitling, Paris Fashion Week, Lacoste, Château Pape Clément.

2/ ARIANEE SOLUTIONS AND USE CASES

- Digital Product Passport (DPP): Enabling high product circularity, preparing for ecodesign compliance and turn each physical product into an engagement platform
- Engagement tokens: Providing proof of community with built-in interoperability

WE COVER TWO MAIN USE-CASES







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Digital Product Passport (DPP): turn each physical product into an engagement platform



Engagement tokens: provide proof of community with built-in interoperability







FOCUS ON THE MUGLER JOURNEY

Since September 2023, Mugler, the pioneer in avant-garde fashion house, has partnered with Arianee to associate a digital passport with two of its physical products, the Spiral Curve 01 and 02 bags.

Available for purchases in both stores and on the brand's e-commerce platform, owners of the Spiral Curve 01 and 02 bags can experience a new level of engagement, from reading and exploring product stories to collecting digital passports on their smartphones, providing access to unique experiences and features.

These blockchain-backed product passports offer ownership validation, historical tracking, and effortless transferability.

Mugler's visionary move anticipates forthcoming EU regulations and addresses the growing demand for transparency, turning their handbags into digital engagement platforms.

ABOUT ARIANEE'S CARBON FOOTPRINT

At Arianee, we have decided to make sure that our carbon footprint is as low as possible from day one. In fact, Arianee operates on two Ethereum side chains under the Proof of Stake (PoS)(Polygon) and Proof of Authority (PoA), which are very efficient in terms of energy consumption. We audited our Carbon and Energy footprint, and we're proud to say that even if we reach the threshold of 200 million NFTs created in one year, our carbon footprint is only 25% of what a French family emits in one year.

THE ARIANEE PROTOCOL IN NUMBERS

40

1.6M

583.5K

282.7K

Brands and counting

Passports distributed

Utility events recorded on digital passport

Messages to product owners

EMBRACING CIRCULARITY THANKS TO ARIANEE'S DIGITAL PRODUCT PASSPORT

Building a more circular economy requires consumers to make informed purchasing decisions. Arianee enables brands to issue digital product passports in order to unlock personalized engagement, deeper and data-driven relationships, and new circular business models.

A digital passport is a digital passport claimed by a physical identifier (e.g., NFC chip, QR code). It can be stored in a custodial or non-custodial wallet, and all data is stored in an NFT imprinted on a public blockchain.

Through digital product passports, consumers can access the following:

- · Certificate of ownership and authenticity
- Upstream product information
- Added value services such as recycling, repair, and resale
 - Repair through timestamping: consumers can book a repair service in a physical store with one click from their DPP. Once repaired, the brand will timestamp the DPP, showing the date and time the service was delivered
 - o Resell service through NFT-backed marketplace: consumers can list and sell their items in a seamless experience
- Regulatory information



Brands can take advantage of digital assets to embrace circularity and leverage them as product lifecycle management and new CRM tools while allowing product owners to use their valuables and keep them longer.

THE BRAND BENEFITS OF ARIANEE'S DIGITAL PASSPORTS INCLUDE

- · Lowering the cost of secondhand infrastructure
- Staying in direct contact with end consumers
- · Creating the conditions for future revenues through royalties
- Understanding consumers' consumption patterns and expectations
- · Engaging consumers through tailored communication
- Running state-of-the-art loyalty programs

To learn more about the many benefits of DPPs, scan this QR code to see our recent report, "The Case for Native Digital Product Passport Tokenization" conducted in partnership with BCG.







TACKLING GRAY MARKET CHALLENGES WITH GMC PRO: A COMPREHENSIVE SOLUTION

The gray market continues to pose significant challenges for manufacturers, distributors, and consumers globally. These unauthorized channels not only tarnish brand reputation but also can jeopardize product quality and safety. In the current global market scenario, effectively controlling the gray market is not just important; it is paramount, particularly in high-value supply chains such as perfumery and luxury goods. Implementing serialization, involving unique identification solutions and track-and-trace systems, is a proactive measure to mitigate these issues.

The innovative GMC Pro system developed by Atlantic Zeiser, is a robust and comprehensive solution, addressing gray market challenges.

1. UNDERSTANDING GRAY MARKETS

The term "gray market" denotes the trade of genuine goods through unofficial channels, thereby bypassing the manufacturer's approved distribution network. While these products are authentic, they are acquired and sold through unsanctioned channels.

The implications are far-reaching, affecting authorities, brand owners and consumers alike:

- Unauthorized Distribution: Gray market goods are procured from channels not endorsed by the
 manufacturer, bypassing their approved distributors or retailers. These products often traverse
 international borders, taking advantage of price disparities or serving as a means to dispose of
 surplus or discontinued items.
- Pricing Dynamics: Gray market products are usually priced lower than those available through official channels. These reduced prices make gray market goods appealing to consumers who are budgetconscious or seeking discounted options.
- Warranty and Support Challenges: Purchasing gray market goods might entail the absence of
 manufacturer warranties and limited support. Consumers purchasing through unofficial channels
 might find themselves without proper recourse if the product encounters issues. This lack of support
 can lead to dissatisfaction and financial losses for consumers who may have no means of repair or
 replacement for faulty products.
- Legal Implications: The sale of gray market goods often overrides legal boundaries, potentially
 infringing on intellectual property rights and trademarks. Different regions have varying laws
 and regulations concerning the import, sale, and distribution of gray market goods, bringing legal
 implications of purchasing products from unauthorized sources. Moreover, gray market goods can
 circumvent local taxes, especially for regulated products like tobacco and pharmaceuticals.
- Quality and Safety Concerns: Despite being genuine, gray market products are susceptible to
 issues within uncontrolled supply chains. For instance, these products might come from sales of
 discarded or perished goods, leading to compromised quality and safety concerns for consumers.
 Additionally, in temperature non-monitored chains, products could be exposed to improper storage
 conditions, affecting their integrity. Moreover, the gray market opens avenues for counterfeits, further
 exacerbating the risk to consumers who might unknowingly purchase substandard or counterfeit
 goods.



The gray market not only poses risks to consumers but also presents reputational challenges for brands and regulatory issues for authorities. Consequently, it becomes the responsibility of brand owners to proactively combat the gray market. Implementing measures such as serialization, traceability, and consumer awareness campaigns are essential steps that brand owners can take to create a transparent and secure marketplace and to protect their brand reputation, ensure consumer safety, and adhere to regulatory standards.

2. SERIALIZATION: A FUNDAMENTAL STRATEGY

Serialization plays a significant role in combating the gray market. It involves assigning distinct identifiers, like serial numbers or barcodes, to individual products or units, ensuring comprehensive traceability across the supply chain and sales channels. Here's how serialization effectively addresses gray market challenges, minimizing its impact and safeguarding both consumers and brand reputation:

- Traceability: Serialization enables companies to monitor the movement of products throughout the
 entire supply chain, from manufacturing facilities to end consumers. This allows for the identification
 of "weak points" where goods might exfiltrate from or infiltrate into the legitimate supply chain.
 Brand owners can then pinpoint unauthorized channels and take necessary corrective measures.
- Authentication: Consumers and authorized distributors can directly authenticate products. By verifying their unique identifiers with centralized databases, they can distinguish genuine products from gray market items.
- Quality Control: By monitoring serialized products, manufacturers can identify and isolate gray
 market goods that do not meet the established quality standards. The products monitoring through
 serialization can also be used as a quality assurance tool, by facilitating the management and
 tracking in the cases when product recalls need to be organized.
- Supply Chain Security: By reducing the infiltration of counterfeit or substandard products, serialization enhances overall supply chain security. This ensures that consumers receive products handled with care, mitigating the risks associated with substandard or mishandled goods.
- Legal Enforcement: The collection of serialization data by authorities and manufacturers allows to take legal action against unauthorized distributors and sellers. This legal enforcement serves as a deterrent, dissuading others from engaging in gray market activities.
- Consumer Confidence: Serialization fosters consumer trust, providing evidence of product
 authenticity. It is also a visible symbol of a brand's commitment to authenticity and transparency and
 contributes to building customer loyalty.

However, the effectiveness of serialization depends on its meticulous implementation and enforcement. Collaboration between brand owners and supply chain participants is essential to build a robust serialization system, involving secure database management, adherence to standards, regulatory compliance, and the establishment of control points throughout the supply chain.



3. DIGITAL PRINTING AND SERIALIZATION: A SYNERGY

Several methods are available to mark and serialize products or packs, such as laser engraving or printing. Digital printing emerges as a robust solution for serialization, offering flexibility and efficiency in applying unique identifiers such as serial numbers, barcodes, QR codes, or other tracking data.

Its advantages include:

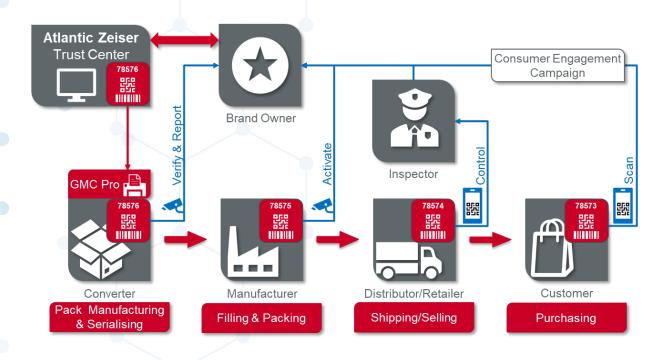
- On-Demand Printing: Digital printing enables on-demand printing of unique serial numbers or other identifiers directly onto products, labels, or packaging. This flexibility enables to adapt to changing serialization requirements and to accommodate with product variations.
- Variable Data Printing (VDP): Digital printing effortlessly handles variable data for serialization,
 where each product requires a distinct identifier. VDP ensures different serial numbers or information on each product or label within a single print run.
- High-Quality and Robustness: Digital printing delivers high-quality and resistant output, ensuring legibility and scan ability along the supply chain, essential for tracking and authentication purposes.
- Real-Time Data Integration: Integration with databases and software systems enables real-time data
 encoding and printing, ensuring accurate and up-to-date serialized information.
- Customization: Digital printing allows additional variable information, such as manufacturing dates or lot numbers, to complement serialization data, offering comprehensive product details and regulatory compliance, all integrated.
- Cost-Effectiveness for Short Runs: Digital printing proves cost-effective for short production runs,
 accommodating manufacturers with varying product volumes.

While digital printing is a valuable tool for serialization, it constitutes just one component of a comprehensive serialization and traceability system. To implement serialization effectively, companies must develop and manage robust databases, ensure data integrity, and implement workflows to verify and track products as they move along the complete supply chain.



4. ATLANTIC ZEISER GMC PRO: A PROVEN SOLUTION

Atlantic Zeiser, a leading provider of digital printing solutions, has developed GMC Pro, a workflow for unique product identification, within a complete Trust Center ecosystem.



TRUST CENTER

Atlantic Zeiser's Trust Center offers brand owners a comprehensive solution, featuring:

- Digital printing technology for variable data printing (VDP)
- Software for unique code creation, transmission to the printer, and verification of the print-out
- · Secure encrypted database storage

Over the years, Atlantic Zeiser has become a privileged supplier to major luxury and perfumery brand owners, owing to the system's inherent security. Through Trust Center, brand owners define with Atlantic Zeiser the scheme and range of products codes. The codes are sent exclusively to designated Atlantic Zeiser printing systems, ensuring a unique link between the generated code and the specific print head. The data exchange between Trust Center and the GMC Pro printing system occurs with highly secure encrypted keys, directly transmitted to the printing machine.

The complexity of implementing serialization is removed from brand owners, as it is managed collaboratively by the converter (for printing) and Atlantic Zeiser (for code management). Trust Center forms a closed-loop system, covering code generation, printing, verification, and tracking. Brand owners can activate these unique codes seamlessly during the manufacturing process at their own facilities, enhancing efficiency and ensuring a streamlined approach to product serialization.

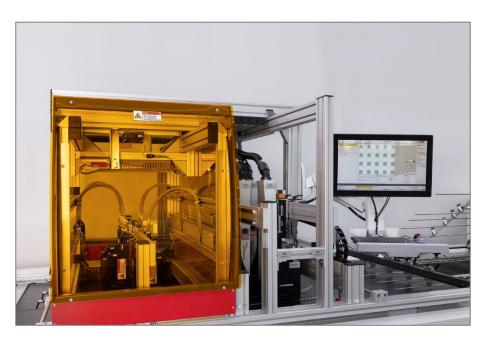
The validation database is securely hosted at Atlantic Zeiser, functioning as an external validation body separate from the brand owner. This setup ensures the integrity of codes. Brand owner inspectors can verify codes at any time by accessing Trust Center. This system not only provides protection but also grants brand owners immediate verification access.

GMC PRO: ENSURING SECURITY AND RELIABILITY

Atlantic Zeiser's GMC Pro (Gray Market Controller) printing system can be supplied with DIGILINE Versa Pro printing machines (for sheet and blank coding) or integrated into existing packaging transport lines, with the OMEGA Table integration kit.



DIGILINE Versa Pro Printing System



GMC Pro OMEGA Table

The system features OMEGA ProFlo printheads, ensuring high-resolution and high-speed printing using high-opacity UV inks. With a 600-dpi print quality and deep black coverage, the printed codes are not only 100% secure but also easily readable, ensuring reliable and efficient product identification and traceability.

The OMEGA ProFlo printheads are the real application of Variable Data Printing (VDP). Through GMC Pro, specific codes are sent to the printhead, which can be alphanumeric characters, QR codes, or barcodes. Each individual sheet, box, or article is uniquely marked, and cannot be modified or altered.



OMEGA ProFlo Printer

INSPECTION SYSTEM

The VERICAM Pro inspection system conducts real-time checks on codes right after printing, ensuring 100% readability for brand-owner packaging. By discarding non-compliant or difficult-to-read codes, the system guarantees the accuracy and consistency of the printed code.

This quality control includes assessing quality, readability, position, and orientation of the codes. In case of printing defects or incorrect serialization data, the system triggers an automated rejection process, preventing non-compliant products from entering the supply chain. All these checks are performed instantaneously, providing real-time monitoring, accurate reporting, and detailed documentation for brand owners.



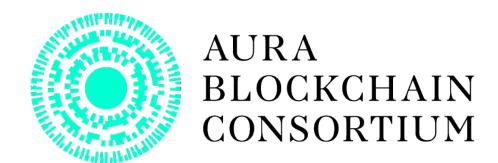
VERICAM Pro Inspection System

5. DIVERSE APPLICATIONS: BEYOND LUXURY MARKETS

Atlantic Zeiser's system extends its relevance beyond the luxury sector, finding applications in diverse sectors such as fine wines, jewelry, fashion, consumer electronics, and the automotive industry. Enhancing value throughout the distribution channel, product serialization is crucial for industries

Enhancing value throughout the distribution channel, product serialization is crucial for industries prioritizing traceability, authenticity, and regulatory compliance. By ensuring product traceability and authenticity, Atlantic Zeiser's system fosters consumer trust and safeguards brand integrity.









AURA BLOCKCHAIN CONSORTIUM: SETTING THE STANDARD

Aura Blockchain Consortium is the first and only consortium created from luxury brands for luxury brands. It is the industry's leader with over 40 luxury member brands and 30 million products recorded on the Aura blockchain.

Aura Blockchain Consortium was born from the need to address the common challenges faced by the luxury goods industry through the transformative power of blockchain technologies. They encourage luxury brands to dream big, begin with small-scale pilots, and use a trusted and secure platform to enhance the customer journey in unprecedented ways.

Established by LVMH, Mercedes-Benz, OTB Group, Prada Group, and Cartier, part of Richemont, with a vision that collaboration can coexist between competitors for the greater good, Aura Blockchain Consortium is on a mission to help the luxury industry embrace their digital transformation by putting the consumer at the centre to enrich and empower the customer experience through simple and customisable solutions. Through traceability, transparency, authenticity and sustainability, Aura Blockchain Consortium forges trust and serves as a safe haven for luxury innovation.

They are a non-profit association of luxury brands investing in emerging technologies and innovative thinking to bring the customer experience to a new level and build a virtuous future for the luxury industry.

They strive to make blockchain solutions and related technologies easy and available to all luxury brands by providing tools to assist in creating transparency and trust for all customers and stakeholders. Aura Blockchain Consortium strives to improve the buying, owning, selling, reselling and recycling experience of luxury goods.

Embrace the future of luxury with Aura Blockchain Consortium - where tradition meets innovation, and possibilities are reimagined. Together, let us craft a new era of luxury.



"From Luxury, For Luxury"

Today, Aura Blockchain Consortium proudly unites over 40 luxury brand members:

BVLGARI	Cartier	Chopard GENEVE	CZAPEK
DIOR	GIVENCHY	Hennessy	HERISTORIA
₩ HUBLOT	JIL SANDER	Loro Tiana	LOUIS VUITTON
Maison Margiela	MARNI	ພາກ ພາກ	Moser's Cie.
NOBLE PANACEA	PRADA	TOD'S	

Additional brands will be revealed in due course

THEIR MISSION

The luxury industry is currently facing unprecedented challenges when it comes to authenticity, traceability, sustainability, circular economy, and transparency. The European Union has placed a great deal of responsibility on brands, requiring them to take ownership of the end-of-life phase of their products. This is a daunting task, but it's one that can be tackled much more effectively when brands come together to share ideas and resources. Through collaboration, real impact can be made.

At Aura Blockchain Consortium, they understand these challenges and are working hard together with their members to overcome them. By offering an additional blockchain layer to the digital product passports, the Aura blockchain can help brands ensure that the information provided to customers is authentic and traceable, which is critical to building trust with consumers and adhering to forthcoming regulations from the EU.

Moreover, their platform opens up exciting new opportunities for brands to engage with customers in innovative ways that were previously impossible. This creates a unique value proposition for luxury brands, enabling them to differentiate themselves from competitors and offer customers a truly enhanced experience.

Overall, Aura Blockchain Consortium is one of the leading blockchain solutions addressing the critical issues facing luxury brands today. By collaborating together and leveraging the power of blockchain technology, we can create a more sustainable, transparent, and innovative future for the industry as a whole.



AURA BLOCKCHAIN CONSORTIUM SOLUTIONS:





Aura Blockchain Consortium is committed to supporting their member brands in embracing their digital transformation in its entirety.

With this, Aura Blockchain Consortium provides a diverse range of exceptional offerings, with their flexible and simple solutions:

- Digital Product Passport: Aura's Digital Product Passport (DPP) offers brands a comprehensive
 framework for navigating EU regulations and local directives while allowing the flexibility to tailor
 their approach to their unique desires and storytelling. Adding significant value, their solution
 establishes the standard for the luxury industry, unlocking Web3 utilities and functionalities uniquely
 through a choice of private or public blockchain.
- Digital Collectibles: Key to the world of NFTs and SBTs, where physical products become digital
 assets, enhancing product value and forging unprecedented connections with the end consumer.

DIGITAL PRODUCT PASSPORT (DPP)

Aura Consortium's Digital Product Passport revolutionises direct-to-consumer access to a product's history and proof of authenticity. This innovative approach ensures a transparent and seamless tracking of a product's lifecycle, from its inception through distribution, bolstered by trusted and immutable data.

Positioned to redefine the product-owner relationship, particularly in anticipation of upcoming EU regulations. This Aura solution guarantees immutable assurance of authenticity, as well as providing valuable insights into sustainability, transparency, and traceability. With several live use cases from their member brands and many more to come, Aura is at the forefront of the luxury industry, offering ownership certificates and comprehensive traceability of a product's lifecycle, both upstream and downstream.

SOME OF AURA'S DPP FEATURES

Authenticity

By emphasising authenticity, the Consortium safeguards against counterfeit products, aligning with the circular production goal of promoting quality and reliability. The Aura Blockchain Consortium's commitment to authentication not only enhances consumer trust, but also contributes to a more sustainable and ethical consumption ecosystem.



Transparency

Transparency is a crucial pillar, fostering openness and clarity throughout the entire supply chain, both upstream and downstream. This transparency not only builds trust but also aligns with circular production goals by allowing consumers to make informed choices about the environmental impact of the products purchased.

Traceability

Traceability is another vital aspect, as it facilitates the ability to track the origin and movement of products. This capability contributes to the circular economy by enhancing accountability and reducing waste in the production process.

Aura's blockchain-based DPPs have the capacity to comply with upcoming regulations thanks to its agnostic blockchain-based solutions – meaning that it can be provided on either public or private blockchain. Aura will thus empower luxury brands to effectively contribute to the EU objectives of more environmentally sustainable and circular products:

- They can display trustworthy, readable and certified product data anchored on the blockchain: the
 best way to fulfill one of EU's requirements for "reliable source of information", and thus combat
 counterfeiting.
- A DPP on the blockchain guarantees an immutable and reliable proof of ownership, preventing disputes or fraudulent claims. Each product will be exclusively linked with a single designated owner.
- The link between the DPP and the product ensures transparent and secure recording of the product lifecycle and traceability information, eliminating uncertainties and ensuring trust. In other words, all the information about the product can be tracked and recorded on the blockchain in a secure way.
- A DPP on the blockchain also enables customers and brands to unlock the benefits of Web3: direct customer/brand connection, embedded utilities such as repair, e-warranty, e-insurance, etc.





BLOCKCHAIN AGNOSTIC

At Aura Blockchain Consortium, they have crafted their solutions to operate on both private and public blockchains, ensuring broad accessibility. It is their commitment to empower every facet of the digital landscape, uniting the best of both worlds for a truly encompassing experience.



PRIVATE BLOCKCHAIN

In a private blockchain, product IDs are kept on a controlled network, accessible only to authorized participants. Although it does not offer the full transiency of the public blockchain, it enhances privacy and control, crucial for protecting product info for luxury brands.



PUBLIC BLOCKCHAIN

In a public blockchain, product IDs are secured in a decentralized network, ensuring transparency. While privacy concerns may arise due to open access, it's important to acknowledge the advantages of having access to diverse blockchains for brand benefits and seamless interaction with any digital wallets.

LIVE USE CASES FROM THEIR MEMBER BRANDS:

Aura Blockchain Consortium has a wide range of live use cases from their over 40 luxury member brands. These use cases showcase the adoptions of these technologies to the customer and how they enrich and enhance the customer experience. To see more use cases, you can visit Aura Blockchain Consortium's LinkedIn page.

TOD'S CUSTOM DI BAG DPP

Tod's announced their first DPP initiative in November with the integration of the Aura Digital Product Passport into their iconic custom Di Bags.

This DPP assures authenticity of the bags, including ownership certificates, which provide essential insights into the production and craftsmanship behind the product, the origin and sustainability certifications of raw materials and packaging, and the Group's commitment to sustainability. In addition, a customer delight experience with Tod's dedicated premium benefits is included.

By offering our DPP for this iconic product, Tod's safeguards brand integrity, promotes transparency, and strengthens their customer engagement while also anticipating upcoming EU regulations. Starting now, every personalised Di Bag will be digitally linked to an immutable traceability token, enhancing the customer experience, with the brand planning to expand the use of the Consortium's solutions to additional collections.



DIOR 'B33' SNEAKERS

In July, Dior launched their blockchain-enabled 'B33' sneakers collection.

This token-linked product empowers owners through the Digital Product Passport to access the shoe's certificate of authenticity, gain insights into the various stages of the manufacturing process, and receive exclusive updates about Dior's upcoming sneaker releases.

These coveted sneakers, in addition to the traceability and authenticity features, also possess a digital twin on Ethereum, created using the Multi-Token Minter, powered by Aura Blockchain Consortium



PRADA ETERNAL GOLD FINE JEWELRY

Prada is revolutionising the luxury industry by leveraging blockchain technology to enhance transparency and traceability for clients. By doing so, Prada Group is tackling the significant challenges faced by the industry in our modern era.

Prada made a groundbreaking debut in 2022 with their Eternal Gold collection, the industry's first truly sustainable fine jewelry collection. Setting a new standard for luxury brands, Prada utilised 100% certified recycled gold. This mitigated the environmental impact associated with mining new gold and championing the cause of human rights. Prada extended the traceability of diamond origins from stones of 0.5 carats or larger to stones of all sizes, challenging the industry norms and promoting transparency throughout the supply chain.

The journey of individual pieces is accessed by Prada's clientele by tapping the authenticity card with their mobile. An Aura blockchain verified image of the product will appear and consumers are able to trace the provenance and authenticity of every aspect of their fine jewelry piece, from mining to cutting and polishing. Furthermore, they are able to see the certification of the recycled gold as well as the authenticity of the piece.



H.MOSER & CIE GENESIS

By offering an all-embracing, immersive experience and using an approach that combines physical, digital and virtual dimensions, Aura Blockchain Consortium collaborated with the luxury watch brand as they introduced a cuttingedge, customer-focused solution.

Based on the development of an ecosystem structured through a dedicated app, their new Genesis timepiece allows watch authentication through blockchain technology, provided by the Aura DPP solution. This authentication and certification will eventually be introduced for all their watches via the warranty card that is included with each model giving the customer access to details they never had before.



Along with the traceability feature, through Aura Consortium's technology, owners can also access the warranty details, such as the technology used and the warranty expiry date as well as a first of its kind insurance service. Their DPP provides full traceability on the watch's insurance that has been embedded to the products in this collection.

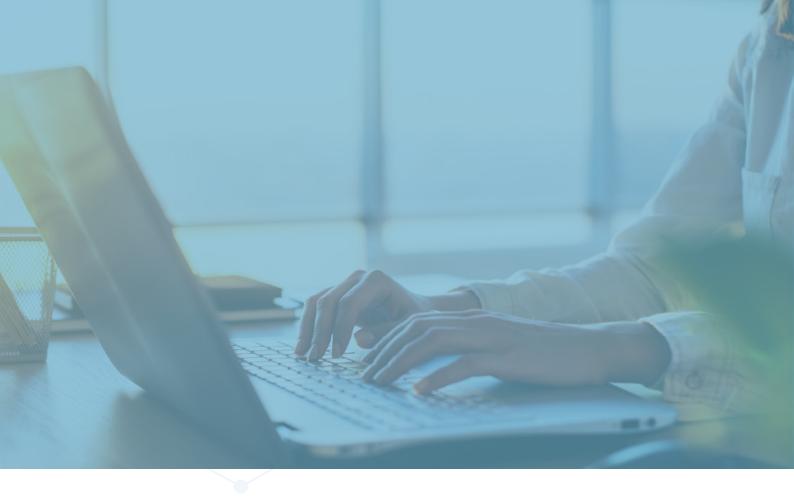
A truly groundbreaking development, these watch owners can now access the details of their insurance, such as who is the provider, the expiry date, any previous claims and cover in case of theft etc., thus giving the consumer an unrivalled insurance service.

KEY TAKEAWAYS

- Aura Blockchain Consortium was founded from luxury, for luxury.
- Aura Blockchain Consortium is a non-profit association of luxury brands investing in technologies to enhance the customer experience and build a virtuous future for luxury.
- Aura Blockchain Consortium strives to make blockchain solutions and related technologies simple and available to all luxury brands.
- Aura Blockchain Consortium's Digital Product Passport redefines the product relationship,
 providing immutable assurance of authentic ownership and valuable information for sustainability,
 transparency and traceability.
- Aura Blockchain Consortium strives to provide tools to assist in creating transparency and trust for all customers and stakeholders.
- Aura Blockchain Consortium strives to improve the buying, owning, selling, reselling and recycling experience of luxury goods.







PLUGGING INTO AUTHENTICATION

Learn how the power of product authentication technology and tools from Authentic Vision helped Elsewedy Electric grow their business, track down counterfeiters, engage their customers and protect their brand. Authentic Vision helps Elsewedy



AUTHENTIC VISION HELPS ELSEWEDY ELECTRIC PROTECT THEIR BUSINESS AND CUSTOMERS

As consumers, how can we be sure that the electrical cables we purchase are authentic and safe? As manufacturers, how can we help customers differentiate our products from erroneous and potentially dangerous imitations? In markets like Egypt, where 40 - 60% of electrical cables on the market may be counterfeit, shoppers and sellers could never be too sure what they were buying or selling. Until now. Thanks to their work with Authentic Vision, Elsewedy Electric, a \$2B per year electric technology company based in Cairo, Egypt, is able to protect its customers and its market share from the dangers of counterfeiting.

A GROWING PROBLEM

Counterfeit products in any field unfairly erode the market share of legitimate manufacturers who invest in product innovation and safety. The producers of these fake products take advantage of established brands, violate their patents, copy their trademarks and flood the market with inferior goods not built to proper safety and design specifications. The electrical cables industry is no different. They've witnessed an increase in the number of counterfeiters and substandard products. Customers are not able to easily distinguish fake products from the genuine article. Legitimate companies may even find themselves facing potential liability lawsuits for damages caused by inferior counterfeit products that were not even their own! As a trusted market leader in electrical cables since 1938, Elsewedy Electric, turned to Authentic Vision – a leader in authentication technology – to help them address the problem.



THE SOLUTION SPECIFICATION

Working with Authentic Vision, Elsewedy Electric was able to define a complete anti-counterfeiting solution for their market. They needed a solution that would allow their distributors, contractors and consumers to readily recognize real products and reject counterfeit products at the point of sale based on a simple, easy-to-use application. They wanted to drive criminal counterfeiters out of business while putting the power back in the hands of consumers.

Their solution specification called for:

- · A security feature that could not be copied or shared online to stay ahead of counterfeiters
- · The ability to apply a label to all products at the factory
- Label management options that support the manufacturing and distribution process
- . The ability to authenticate products at the point of sale using a smartphone
- · Data and analytics that could stamp out counterfeit activity through enforcement

AUTHENTIC VISION'S SOLUTION DELIVERY

Because of their complete, multi-faceted solution, Authentic Vision was able to meet all of Elsewedy Electric's specification requirements. This included a solution that end consumers could simply and actively check with the use of an application and a smartphone at any time, even at the point of sale.

Security to stop counterfeiters:

Authentic Vision technology offers a copy-proof holographic fingerprint technology that can only be produced once. This unparalleled asset security solution means that when industrial counterfeiters create fake products, they cannot copy or mimic Authentic Vision's security labels.

Simplicity to put the power back in the

consumer's hands: Customers can be assured of a product's genuineness upon completing their simple yet stringent authentication process and instantly see whether it is "Authentic" or "Counterfeit" — all on their smart phone. The burden of identifying counterfeit products is shifted from subjective human perception to objective technology and machines.

Traceability to track counterfeiters:

With Authentic Vision's powerful Business Intelligence backend, every time a product—genuine or otherwise—is scanned in the market, a data point is generated. Elsewedy Electric was able to put the analytics engine to work to identify and geo-locate counterfeits every time a product is scanned by the mobile application.

Ability to support a market awareness

campaign: With Authentic Vision's technology implemented, Elsewedy Electric was able to deliver a powerful market awareness campaign educating the market about the product ultimately putting the power to authenticate back into the hands of the end customers.



SOLUTION IMPLEMENTATION

STEP 1

EDUCATING THE MARKET

While both Elsewedy Electric and Authentic Vision understood that half the battle to fight back against counterfeiting was a great authentication solution, they also knew the other half was an effective customer awareness campaign at the point of sale. The campaign needed to EDUCATE, INFORM and ARM users so they could readily identify genuine products and reject counterfeit ones. The campaign began by targeting males ages 25 – 55 years old within specific geographic locations from distributors and retailers.



Market Channel Reach included:

- Billboards
- Newspapers
- Radio
- Press Releases
- News (online and offline media)
- Events

Customer KPI metrics included:

- Downloads: Number of downloads and installations
- Social Media: Analytics and polls (Facebook and Twitter)
- Website: Landing page analytics
- Hotline: Customer Relations feedback
 - Quantitative & Qualitative
- Radio: Channel reach
- · Billboards: Hotline and website
- Point of Sale: Hotline and website
- Print Media: Hotline and website

CAMPAIGN ACCOMPLISHMENTS

- Total of 43K application installs (Android + iOS)
- Customers were educated about falsely named, fake products and the potential dangers of using such products.
- The Elsewedy Electric Application from Authentic Vision became an integral part of the customer's buying process.



Banner ad for social media channels





Point of Sale



YouTube

Elsewedy Hurghada Billboard Ad

STEP 2

IN-MARKET OBSERVATIONS AND FINDINGS

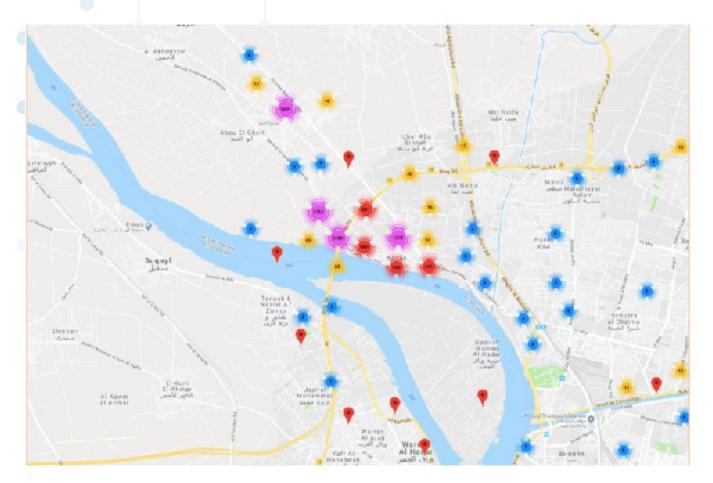
Counterfeiters react quickly to any product changes, including security technologies. As expected, within a day of Elsewedy Electric adopting Authentic Vision's security labels, counterfeiters were photocopying Authentic Vision labels and applying these copies onto their fake 'Elsewedy Electric' products.

The quality of the fake labels was crude, and, of course, could not be authenticated. Within a few weeks, counterfeiters were trying (and failing) to re-create the patented holographic technology contained within the Authentic Vision label.



Initially, Authentic Vision and Elsewedy Electric identified the specific label codes that were suspected of being used by counterfeiters. Daily scan rates were approximately 3K-5K authentications, and the system reported up to 50% of all scans to be scans of fake labels. Importantly, the user was instantly aware that the scanned product was fake. This shows the importance of Authentic Vision's solution to protect Elsewedy Electric's original products.

There are many counterfeit hotspots and these areas are also known for high criminal activity. As depicted in Fig. 1, the largest number of detected counterfeits were taking place in a specific location which could clearly be identified with the help of technology implemented in Authentic Vision application.



STEP 3 ANALYSIS AND FINDINGS

How was the counterfeit problem detected and analyzed?

- Counterfeits detected: Till today, more than four thousand different types of copies exist and each of these were scanned multiple times. For example, the first created fake was already identified 11K times as counterfeit (as of January 2019) – see Fig. 2.
- Scan Results displayed: Upon scanning a fake label, a clear message appears on the smartphone screen: "Counterfeit Product." This message instantly identifies fake products and protects customers.
- Datapoint created: As a fake product was scanned, a datapoint was created in the Authentic Vision system, including exact location.

- Datapoints analyzed: These datapoints were analyzed by Authentic Vision and allowed Elsewedy
 Electric to detect counterfeiting hotspots and provided actionable data which could enable them to
 take enforcement actions.
- Results measured: The market saw a large number of counterfeit labels. Reports show that one out of two labels on the market are counterfeit – indicating 50% of all checked Elsewedy Electric cables are counterfeit.
- Supply Chain protected: Authentic Vision's technology allows Elsewedy Electric to extract and analyze the network of counterfeiters, their relation to each other, and also their role in the supply chain.

Key Findings

The key success factor is Authentic Vision's unique Holographic Fingerprint™, random serialization of the data matrix code and the use of blacklisting through server side analytics. That helped blacklist hijacked codes and also detected counterfeit activity. The application enabled Elsewedy Electric and Authentic Vision to stop counterfeiters dead in their tracks. Authentic Vision technology was able to recognize a pattern and distinguish between many scans of counterfeit by the same phone within the same location that points to counterfeiters. Elsewedy Electric was encouraged to use the interactive map to also cross check their existing knowledge about the local market, such as location of important distributors, stores etc. This enabled follow-up investigations and enforcement action.

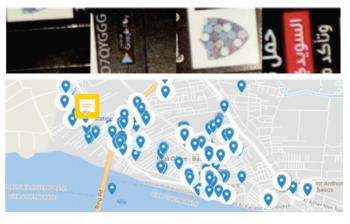
COUNTERFEITING CHRONOLOGY ATTEMPTS TO COPY AUTHENTIC VISION'S LABELS AND HOW WE STOPPED THEM

After Two Days

Copies of Authentic Vision label using standard photocopying machines appeared.

After Two Weeks

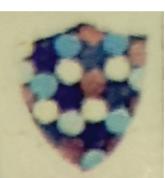
High quality printed replicas including original serial numbers.



Top: [Fig. 2] Color copy of Elsewedy label.

Bottom: Locations of the counterfeit.





After One Month

Replicas of the holographic foils. The majority of the foils originate from Egypt, but Chinese versions have also been detected.





After Two Months

Perfect to the eye replicas of the Authentic Vision labels including the holographic foil and original serial numbers.











Counterfeiters are always trying to break anti-counterfeiting technologies and at a furious pace. They have failed in creating and authenticating replicas of Authentic Vision technology. Customers should pay careful attention to the degree and level of security in the solutions that they are considering, given the vulnerability of solutions that are capable of being copied easily due to low security and the speed at which the counterfeiters move. They could easily get a false sense of comfort by adopting a technology, and not realize that the damage to revenue and brand is happening without them even knowing and after having made the investment in low quality solutions.

Authentic Vision
has the expertise,
the creativity, and
the tech leadership
to be a true trusted
partner. We are
extremely satisfied
with our results—
and our ROI.

-MR. AHMED HASSOUNA,
GROUP MARKETING DIRECTOR,
ELSEWEDY ELECTRIC

RESULTS, CONCLUSIONS, AND TAKEAWAYS SUCCESSFUL AUTHENTICATION AND COUNTERFEIT DETECTION

- To date, over 43,000 app instances have been installed across Android and iOS devices, and growing.
- Elsewedy Electric's products are successfully protected by the Authentic Vision's integrative solution.
- Several types of "Authentic Vision fake labels" have been identified and documented by Authentic Vision and all of these labels were blocked, therefore there is no counterfeit attempt that works.
- Approximately every three minutes, Authentic Vision scans detect a counterfeit.



GROWING AWARENESS

- · A successful awareness campaign has led to active behavior change in the market.
- Elsewedy's above the line (ATL) marketing/awareness campaign resulted in a behavior change on customer side. The scan of the product is now an integral part of the buying process.
- A process has been established where consumers are asking dealers to authenticate the Holographic Fingerprint™ in shop before they purchase.

Authentic Vision continues their strong commitment to support their customer, Elsewedy Electric, in their quest to enhance authentication capabilities and track down counterfeiters using their business intelligence tools.

If you need help securing your products or your brand, Authentic Vision is ready to help. Our complete security solution helps you to protect your supply chain, grow your revenue and provide an engaging experience for your consumer. We are continuously innovating to deliver industry-leading anticounterfeiting protection with today's customers in mind. Our anti-counterfeiting and authentication solutions target a variety of sectors including auto parts, pharmaceuticals, technology, chemicals, wine and spirits, and more. Authentic Vision is here to help you as you seek authentication solutions to secure your products. If you are interested in more information about Authentic Vision or Authentic Vision's offerings, or wish to order a samples box, please visit www.authenticvision.com.



SECURE PRODUCT DIGITALIZATION: ELEVATING THE LUXURY AND APPAREL INDUSTRY

TRANSFORMING HIGH-END FASHION WITH DIGITAL INNOVATION



BENEFITS OF SECURE PRODUCT DIGITALIZATION

- · Create a unique customer experience
- · Boost digital engagement
- · Collect customer data with physical products
- Position yourself as an innovative brand

ABOUT AUTHENTIC VISION

Authentic Vision is a pioneering company that is revolutionizing the luxury and apparel industry through secure product digitalization. Our vision is to be the secure bridge between the physical and digital worlds, especially in the realm of high-end fashion and luxury items. By harnessing the power of digital technology, we aim to enhance the value and authenticity of luxury products, thereby elevating the overall brand experience for both consumers and businesses alike.

In today's competitive market, it is crucial for luxury brands to differentiate themselves and create a unique brand identity that resonates with their target audience. Authentic Vision's digital solutions empower brands to do just that by providing them with the tools to create a digital identity for their products. This digital identity not only adds an extra layer of value to the product but also enables brands to connect with their consumers in new and innovative ways, thereby fostering a stronger relationship between the brand and its customers.

Furthermore, our digital solutions allow brands to tap into the growing trend of sustainability and ethical consumption. By providing consumers with detailed information about the origin and production process of their products, brands can demonstrate their commitment to ethical and sustainable practices, which is becoming increasingly important to today's conscious consumers.



THE NEED FOR DIGITALIZATION IN LUXURY AND APPAREL

In today's fast-paced digital age, the luxury and apparel industry must evolve to meet the ever-changing demands of modern consumers, particularly Generation Z, who are digital natives and have a significant influence on market trends. Product digitalization plays a crucial role in this evolution, offering brands a unique opportunity to enhance the customer experience and forge a stronger emotional connection with this young, tech-savvy demographic.

One of the key concepts at the heart of product digitalization is the the idea that every luxury item and piece of high-end fashion can have its own unique digital identity. This digital counterpart. It not only adds an extra layer of value to the product but also allows these consumers to interact with luxury brands in new and exciting ways that are native to their digital-first approach, thereby enhancing the overall brand experience and fostering a community around the brand.

The benefits of secure product digitalization are manifold and particularly relevant when targeting Gen Z. For one, it can significantly boost revenue growth by preventing counterfeiting and opening up new avenues for direct-to-consumer sales – a model that Gen Z consumers prefer due to its convenience and speed. Additionally, digitalization enhances customer engagement and brand positioning by providing unique and personalized experiences that set the brand apart from its competitors, which is something that Gen Z values highly.

Furthermore, product digitalization allows brands to collect valuable data about their consumers, including shopping habits and preferences, which can be used to improve the customer experience and develop new products that better meet the needs of this target audience. By leveraging the power of data analytics, brands can gain a deeper understanding of their customers and create more targeted and effective marketing campaigns that resonate with Gen Z's desire for brands that understand their individuality and speak their language.

By aligning with the values and expectations of Gen Z through secure product digitalization, luxury and apparel brands can not only stay relevant but also build a strong foundation for loyalty and growth in an increasingly digital future.



WHY CHOOSING THE RIGHT TECHNOLOGY MATTERS

In the ever-evolving landscape of product digitalization, it is crucial to choose a solution that not only bridges the gap between physical items and their digital identities but does so securely and with scalability in mind. As digital assets increase in value, they become prime targets for theft and misuse. It is imperative that these assets are shielded and consumed solely in tandem with their original products. Moreover, the chosen technology must be cost-effective at a large scale and function seamlessly across all devices to ensure widespread adoption and effectiveness.



QR Codes, despite their low cost and popularity, present significant vulnerabilities. They can be easily shared and replicated digitally, making them prone to copying. This opens up avenues for potential security breaches where malicious parties can manipulate these codes to siphon off personal information or even commit financial fraud against unsuspecting customers. The simplicity of creating and distributing counterfeit QR Codes further exacerbates these risks, underscoring the need for more secure alternatives.

NFC (Near Field Communication) chips, while offering a more interactive and secure user experience, are burdened by their prohibitive costs, making them an impractical choice for mass implementation. Additionally, NFC technology is not uniformly supported across all smartphones, which introduces compatibility challenges that could exclude portions of the user base. These factors, combined with the significant expense associated with NFC, underscore the necessity for a more inclusive and economically viable solution.

In contrast, Authentic Vision's Meta Anchor® stands out as an innovative solution tailored for the luxury and apparel industry. It overcomes the security challenges of QR Codes, and the technological and cost barriers associated with NFCs. Meta Anchor® facilitates a frictionless and secure link between physical products and their digital identities, ensuring that the digital engagement luxury brands provide is both authentic and exclusive. By prioritizing a balance of accessibility, robust security, and a streamlined user experience, the choice of cutting-edge technology like the Meta Anchor® becomes crucial for brands aiming to excel in the digital age.

ENHANCING AUTHENTICATION IN THE AGE OF VISUAL INTERACTION

As technology rapidly advances, the boundaries between the physical and digital worlds are blurring, ushering in an era of unprecedented immersive experiences. In the next decade, it's anticipated that mixed reality (MR) headsets will eclipse smartphones as the primary tool for digital interaction.

This shift is largely due to the immersive capabilities of MR technology, which offers a more intuitive and engaging way to interact with information and virtual objects within our real-world environment.

MR and virtual reality (VR) technologies are revolutionizing the way we connect with products and brands. They allow consumers to step into a simulated world, where they can experience products in three-dimensional space, adding a new level of depth to the purchasing journey. This transformation is not just a novelty but a fundamental change in the consumer experience, as the act of shopping becomes an interactive visual exploration.

Embracing this shift, Authentic Vision's Meta Anchor® technology is at the forefront, enhancing the consumer journey by integrating visual authentication into these immersive environments. This innovative approach allows users to verify the authenticity of luxury items in an interactive, visually rich space, making the process secure, intuitive, and engaging. By doing so, Meta Anchor® elevates the act of purchasing into a captivating event, seamlessly blending product verification with a dynamic brand narrative in the evolving landscape of digital reality.



A DIGITAL OFFERING FOR A NEW ERA OF LUXURY AND APPAREL

Authentic Vision is proud to offer a range of digital solutions specifically tailored to the luxury and apparel industry. Our offerings include anti-counterfeiting technology, product information databases, and loyalty programs designed to foster a stronger connection between the brand and its consumers.

At the heart of our digital offering is Meta Anchor®, a unique technology that provides a secure and scalable solution for product digitalization. Unlike traditional QR codes or NFC chips, Meta Anchor® is not susceptible to counterfeiting or replication, ensuring that the digital identity of each product remains secure and authentic.



Our technology can be applied to a wide range of luxury items and apparel, from high-end fashion to bespoke jewelry and accessories. By incorporating Meta Anchor® into their products, brands can offer consumers a unique and enhanced experience that adds value to the product and strengthens the emotional connection between the brand and its consumers.

Furthermore, our digital solutions are designed to be easily integrated into existing business processes, making it simple for brands to adopt and implement our technology. Our team of experts will work closely with you to develop a customized solution that meets the specific needs of your brand, ensuring that you can fully leverage the benefits of product digitalization.

In conclusion, secure product digitalization is an essential tool for brands in the luxury and apparel industry looking to elevate their products and create a stronger connection with their consumers. Authentic Vision's unique offering of Meta Anchor® technology provides a secure and scalable solution that can be tailored to the specific needs of each brand, ensuring that the digital soul of each product remains authentic and valuable.

We invite you to contact Authentic Vision for more information on how we can help you leverage the power of product digitalization to elevate your luxury brand and create a truly unique and memorable experience for your consumers. Our team of experts is ready to assist you in unlocking the full potential of your products and taking your brand to new heights.

In the Future, all products will have a Digital Soul®

"Going forward, every business process will bridge the digital and physical worlds"

- Satya Nadella, CEO Microsoft









PROFOUND™ MICRO-OPTIC LABELS BY CRANE AUTHENTICATION ARE INTUITIVE TO AUTHENTICATE AND DIFFICULT TO REPLICATE.

Top-quality products and brands will always strive for packaging which communicates customer value. PROFOUND™ Micro-Optics help brands attain this with effects that engage consumers at first glance with clear call-to-action in any lighting conditions, and with eye-catching designs.

At Crane Authentication, we believe consumer engagement is critical to product authentication, so we engineered PROFOUND™ Micro-Optics to include brand logos, crisp movement effects and three-dimensionality. These secure not only the product but call attention to QR codes and other features to provide an authentication solution that is integrated, intuitive and connected.

Customers need assurance their hard-earned money is spent on authentic products supplied by companies that share their values and beliefs.

Today, brands have new means to bridge the information and authenticity gap. By providing public features that attract attention through strong 3D and movement effects, integrated with QR codes, companies can provide a secure, attractive and engaging entry point to their brand's values and the product's authenticity. Crane Authentication's Micro-Optic technology supplies customized solutions for brands by providing a seamless integration into brand's imagery.

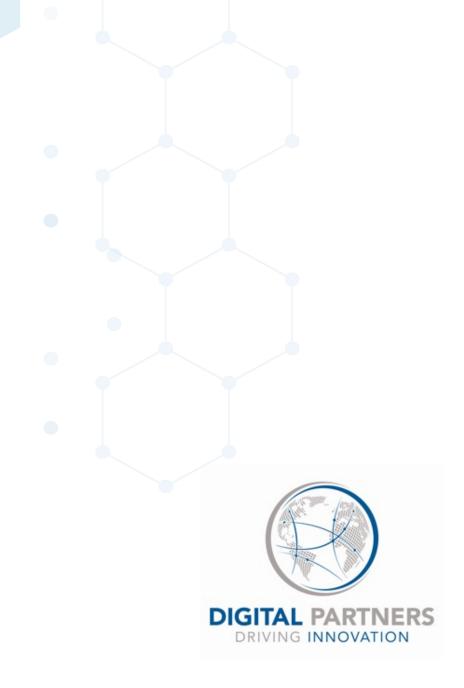
This is a solution that is at hand today, and one that can play a role in addressing the most pernicious attributes of counterfeited products, exploitive labor practices and environmental degradation to name just two. It is time for brands to act more transparently than ever.

Counterfeiters do not care about sustainability, child labor, or making safe products for consumers. It is impossible for consumers to know whether human rights are respected, working conditions are safe and the environment is protected without knowing where companies' products are made. This authenticity and information gap diminishes brands' transparency efforts.

The ultimate transparency brands should provide customers is ensuring the products they buy are genuine. Integrated with overt, secure features and easy-to-use authentication tools, Crane Authentication's PROFOUND Micro-Optic technology can respond to this need and deliver the authenticity customers deserve.









DIGITAL PARTNERS

Digital Partners SA (Switzerland) and Digital Data Spain SL (Spain) welcomes the opportunity to join the Luxury Transparency and Traceability Initiavie - ORIGINALLUXURY - as a technology provider.

Digital Partners (Switzerland/ Spain) is a leading company with expertise in Data Driven Artificial Intelligence Platforms and Strategic analysis for international organisations, Luxury, Health organisations, Sport and Public Services verticals.



Digital Partners SA was founded in early 2016 and offers Digital Services and Technical platforms to address today Business transformation challenges using the best of breed technologies and Software's using Big Data, Artificial Intelligence and Analytics.

Our vision, mission and delivery model is resumed below Figure 1 – Vision and Mission





Value Proposal

Our Services & Products
Help International organizations
Who leverage Innovative scenarios
By reducing the risk to be disrupted
And leveraging new Business Models
Unlike

Vision

Become an International leading company in Digital Strategy and technologies for International Organizations

Mission

- Partner with innovative clients on digital programs
- Help them anticipate and prioritize disruptive and complex challenges using innovative scenarios
- Define Data driven Business use cases
- Leverage our technical expertise to demonstrate the use cases

Delivery Model

- Develop Impactful Strategies
- Develop digital platform and productbased offerings
- A highly competent team of innovation experts (AI, Big Data, Blockchain, IoT)
- Partner with global technical leaders academic and emerging start-ups

Digital Partners draws on an extended network of partners to foster innovation in a variety of contexts. Our Value proposition is the following:

Figure 2 -Value proposition

	Value Proposition	Business Benefits, Outcome
Why?	 Vision, Strategy, Roadmap, Shaping, Opportunity Discovery Digital Advisory services Digital Assessments Innovation Strategy Digital Transformation 	Business Scenarios and Implementation Roadmap Digital Audit & Diagnostic Innovation Maturity Assessment Data Driven Business Modelling Big Data & Analytics Strategy Customized Digital Framework
How?	 Digital Workplace Product Definition Digital Technologies Big Data and Analytical IoT(*) & Analytics 	Cognitive Computing strategy and tools Predictive Analysis tools Personalized Digital Analytics Collaborative solutions Data Driven Decision making tools Business Process Modelling frameworks
What?	IoT(*) technologies Artificial Intelligence Mobile computing Big Data & Analytics platform Social Media data	loT Platform Digital Technologies & Products Big Data, Al(**) & Analytics Scenario Implementation Business Scenario Prototyping Platform-As-A-Service Mobile Development (**) Al: Artificial Inte

COMPANY HISTORY- DIGITAL PARTNERS SA

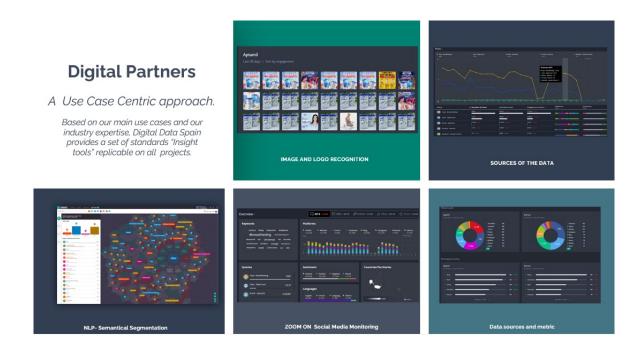
- Founded in early 2016
- Selected as the first Swiss representative at BDVA European Union Big Data Value Association www. bdva.eu and https://bdva.eu/associate-members
- Selected as a key digital player in the context of Microsoft BizsparkPlus
- Selected as a key digital player in the context of IBM Softlayer
- Digital Partners SA is member of the European DIGITAL SME Alliance Focus Group on Artificial Intelligence (AI) & ICT Sustainability, the ITU/WHO Focus Group on Artificial Intelligence (FG-AI4H) and Member of the NEM- New European Media initiative.
- Elected on Nov 2017 as the 6 most European Innovative SME at European Big Data Forum in Versailles https://european-big-data-value-forum.eu/session/big-data-value-ppp-networking-sessions-big-data-entrepreneurship/
- Selected in Nov 2018 Vienna EBDVF as a key player for the European Data Ecosystem https://www.european-big-data-value-forum.eu/european-data-space-connecting-data-ecosystems/
- Digital Partners has been in charge of the Artificial Intelligence for the European Commission in connexion with the Digital Single Market and the Digital Economy Unit who is coordinating the design and implementation of the AI WATCH. The objective to monitor industrial, technological and research capacity, policy initiatives in the Member States, uptake and technical developments of Artificial Intelligence and its impact.
- Digital Partners is in charge of Multiple National Digital Strategies for the European Union, African Union, the Southern African Development Community (SADC) and regional initiatives on Artificial Intelligence and Big Data.
- Digital Partners is in charge of multiple Digital Transformation programs with the following Universities and schools:
 - o University of Lausanne (UNIL):
 https://execed.unil.ch/professeur/anys-boukli/
 - Ecole Polytechnique de Lausanne, ETH in collaboration with ICRC and MSF: https://www.essentialtech.ch/ and https://actu.epfl.ch/news/epfl-eth-zurich-and-the-icrc-team-up-to-bolster-hu/
 - o Haute école de gestion Genève (HESGE) : https://www.hesge.ch/heg/formation-continue/ cas/td/programme/intervenants
 - o Glion Institute of Higher Education https://www.glion.edu/
- Digital Partners team is part of the Digital Transformation Expert Group shaping the Arab Digital
 Economy Strategy https://arab-digital-economy-vision



CORPORATE STRUCTURE

Digital Partners is located in Lausanne (Switzerland), a location providing a high visibility in terms of Digital Innovation collaborating closely with academic Institutions like IMD, UNIGE, HESGE, EPFL, UNIL, UNIBE...as well as a rich clients portfolio.

Figure 3 – A user centric approach



We operate in the following sectors: Governments, Health Sector, European Commission, United Nations, Luxury, Sport Industry, Research with academic Institutions and European Innovation Institutions.

Digital Partners has been recognized by many organizations United Nations, European Commission, private, public and academics as an innovative SME and a subject matter expert in digital strategy and technologies.

OUR SERVICES AND PRODUCTS OUR SERVICES

Businesses need to create a seamless brand experience, projecting their brand clearly across the many touch points, channels and devices their customers use. They also need to leverage analytics and the wealth of data available in and around the business to sense and shape market opportunities ahead of their competition. Such a digital strategy is an important step toward becoming an intuitive enterprise.

At Digital Partners, we help companies to define relevant business scenarios that can be implemented through Digital transformation projects. Our Digital Strategy practice helps executives understand, envision and articulate digital as a business strategy and implement it using a road map that delivers on the brand promise across channels. Domain Transformation.



OUR PRODUCTS

We provide a Global social media and web monitoring platform ingesting Big data to provide Powerful insight at the speed of the consumer using artificial intelligence and machine learning in an expert-designed data structuring and visualization.

Figure 4 – Overview of our products



- Built for the needs of large, complex organizations.
- Fast adoption:
- High-value turnkey use cases
- Library of expert-designed research queries
- Insight without need to define specific queries.
- Rapid user onboarding
- Robust & fully compliant access to global data
- Industry-leading AI, text and image analysis
- Unlimited customization

Figure 5 – Detailed analysis of a brand

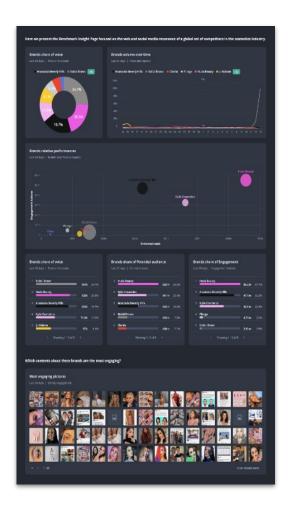






The potential business needs:

- Analyze and measure customer experience.
- Identify and activate your tribes.
- · Measure brand equity and perception
- Measure campaign performance
- Benchmark your brand against the competition.
- Create more engaging content.
- Discover, vet and measure influencers.
- Identify emerging trends.
- · Manage crises and monitor brand reputation.





Robust access to global and local data:

- Strong coverage in China, Apac & Russia with access to Sina Weibo, WeChat, Little Red Book,
 VKontakte, Naver, Zhihu, Toutiao, QQ, Bilibili, ...
- Exclusive partnerships and integrations with key western social media platforms: Facebook, Instagram, Twitter, Youtube, Pinterest, Tiktok, Twitch, .Reddit, ...
- Blogs, Forums, review sites, news
- Fully compliant with those platforms



LUXURY BRANDS ON SOCIAL MEDIA

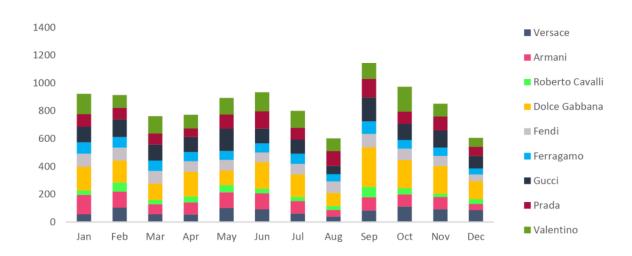
The rapid proliferation of social media has been redefining every facet of the old marketing and customer engagement tactics, not only for low-end and mass-market products but also for luxury brands. In this context, brands are dealing with the challenge of maintaining a balance between using mass marketing strategies concurrent with accentuating the exclusivity of their offerings. Social media can be considered beneficial if brands employ it to reach the right audience and use the right platform and incorporating the right content.

Currently, customer behavior towards brands has been altered profoundly throughout the entire purchase process and decision-making stages from the awareness and recognition of needs to later stages and beyond. Social media provides the potential to communicate and interact with highly involved users and build relationships and bonds between individuals, who will subsequently positively represent the brand to their social media communities. Social media has a considerable effect on consumer behavior from the phase of information acquisition to later on in the post-purchase stage through interactions such as (dis) satisfaction statements.

An overview of the frequency of posts by brands (see Figure 6) reveals that September,

October, January, and February, with the greatest number of posts, create the highest peaks, likely due to the spring/summer and fall/winter international fashion weeks. On the other hand, December and August, with the least number of posts, are in the last two places. The three companies that published the most posts were D&G, Gucci, and Valentino.

Figure 6 - Post frequency per month by each brand



Among the first notions that social media users will consider are the people that have a starring role in the photos or videos. Celebrities and luxury are inseparable, with one completing the other. Likewise, people have been classified into three categories in a study analyzing Brand Awareness Strategies on social media in the Luxury Market.

BRAND RISK DETECTION

Brand risk refers to the potential harm that a company's reputation and financial performance may face as a result of negative public opinion, regulatory actions, or other external factors. This can include risks related to product safety, environmental concerns, financial fraud, or other issues that may damage the company's reputation or lead to financial losses. Companies may take steps to manage brand risk by monitoring public opinion, implementing risk management practices, and communicating effectively with stakeholders.

The brand name is among the most highly valued assets of a company. A solid brand is able to easily acquire new customers while also retaining existing customers. It also acts as a platform for launching new products. Studies have revealed that having strong brand results in greater returns but with less risk. But a business's branding strategies can also wind up putting them in a risky position, which can be disastrous for revenue, cash flow, brand equity, and investors' value.

There are several methods and tools that companies can use to detect brand risks, including:

- Social media monitoring: Companies can use social media monitoring tools to track mentions of their brand, products, and competitors on social media platforms, and identify potential risks.
- News Monitoring: Companies can use news monitoring tools to track mentions of their brand, products, and competitors in the news and identify potential risks.
- Web Monitoring: companies can use semantical (text recognition) and cognitive (Image recognition),
 sentiment analysis technologies to monitor the mention and associated content.
- Vidéo Monitoring: Companies can use monitoring tools to track mentions of the vidéos mentioning their brands and identify potential risks.

EXAMPLES OF LUXURY BRANDS EXPOSURE

Dolce & Gabbana under fire over racism accusations

In their effort to get a better foothold in the multi-billion-dollar Chinese fashion market, the legendary Italian fashion brand Dolce & Gabbana arranged a star-studded Shanghai fashion show, and to promote it, they released an ad. The only problem was that the ad was extremely offensive to the very people they were targeting.

In it, a young Asian woman is seen giggling as she tries to eat pizza and pasta with chopsticks — an image that is rife with Asian stereotypes and makes her look inept.

To make matters worse, the outspoken designers made racist comments on their Instagram profile, later claiming the account had been hacked.

Figure 7 – <u>Vidéo Ad</u>





In a video, the pair apologized, but the damage was already done, big time. The reaction was immediate and overwhelming, with Chinese celebrities pulling out of the fashion show, and customers posting videos of themselves destroying their Dolce & Gabbana goods, vowing never to buy the brand again. Soon after, the pricey fashion show was cancelled.

Figure 8 - <u>Video response</u>



CHANEL "COCO SERVED HOT"

Photographer Billy Kidd is being criticized for a photo shoot he did in the August issue of Interview Magazine that people say reinforces Asian racial stereotypes.

Entitled "Coco Served Hot," the images portrayed an Asian woman in a traditional Asian farmer's hat walking in New York's Chinatown lifting a bindle stick on which were hung bags that look like knock-off products. The woman is wearing head-to-to Chanel from her conical straw hat emblazoned with a Chanel logo to the Chanel Gabrielle handbags to her sandals. People were infuriated over the image because it seemed to associate the Chinatown worker with counterfeit luxury goods.

Figure 9 - Coco Served Hot picture



Fake news, online counterfeit activities, Sustainable fashion

- Fake accounts on social media are not only used to spread misinformation but also boost the reach
 of certain influencers. It turns out that luxury brands do not differ but are rather among the most
 affected by this phenomenon.
- Social Media platforms have emerged as hot spots for counterfeit offenders who exploit a range of social and private messaging tools to reach like Facebook, Instagram and WhatsApp
- Numerous brands utilize social media to capture consumers' interests while promoting their sustainability goals. Social media presents opportunities for fashion brands to attract the attention of younger generations, build a brand image, and promote product.

FAKE NEWS AND FAKE ACCOUNTS

Fake news, fake likes, and fake social media followers – FAKE and Disinformation has been one of the hottest words over the past couple of years. Fake accounts on social media are not only used to spread misinformation but also boost the reach of certain influencers. It turns out that luxury brands do not differ but are rather among the most affected by this phenomenon.

A study report has checked which luxury fashion brands have the largest percentage of fake followers on Instagram. They picked the 20 most popular brands across industries such as fashion, cosmetics, jewelry and watches. According to the fake account checker tool they used, 19 of the 20 most prominent fashion brands have at least a quarter of their followers flagged as fake or suspicious at minimum. Furthermore, with the leading brands in their ranking the fake-follower percentage is nearing a third of all followers.

Figure 10 – Luxury Fashion brands with the most Fake profiles



Fake Instagram accounts – possibly in the millions – are being created every single day. Consumer brands, popular influencers, famous actors and singers are the most likely to have fake followers. A significant percentage of the followers of top fashion brands are also fake.

ONLINE COUNTERFEIT

Facebook, Instagram Are Hot Spots for counterfeit Louis Vuitton, Gucci and Chanel. The Meta-owned social media sites have become key marketplaces for counterfeit luxury goods.

Figure 11 - Counterfeiters hawking imitations of luxury brands



Its platforms have emerged as hot spots for counterfeit offenders who exploit their range of social and private messaging tools to reach users, according to interviews with academics, industry groups and counterfeit investigators, who likened brands' attempts at policing services like Facebook, Instagram and WhatsApp.

Research, led by social media analytics firm Ghost Data and shared exclusively with Reuters, showed counterfeiters hawking imitations of luxury brands including Gucci, Louis Vuitton, Fendi, Prada and Chanel.

It identified more than 26,000 active counterfeiters' accounts operating on Facebook in a June-October 2021 study, the first time its counterfeit research had focused on Meta's flagship app, and it found more than 20,000 active counterfeiters' accounts on Instagram, up from its count the previous year but down from a 2019 peak when they identified about 56,000 accounts. About 65 percent of the accounts found in 2021 were based in China, followed by 14 percent in Russia and 7.5 percent in Turkey.

IMPACT OF FASHION BRAND SUSTAINABILITY ON CONSUMER PURCHASING DECISIONS

The definitions of sustainable fashion in the literature vary; however, they all include the same elements—the impact of the fashion industry on the environment and all stakeholders through different aspects, including society as a whole. It is possible to distinguish eight dimensions making up the sustainable fashion construct.

- 1. Recycled—Recycled apparel products are made from reclaimed materials from used clothing.
- 2. Organic—Organic products are made from natural sources without any pesticides and toxic elements and/or raw materials.
- 3. Vintage—Refers to any second-hand clothes and up-cycled clothes that have been given a new life.
- 4. Vegan—Products that do not contain leather or animal tissue products.



- 5. Artisan—Products that continue the skills of ancestral traditions.
- 6. Locally made—Includes products that require little transportation and contribute to the local economy.
- 7. Custom made—The goal of this personalized design is to encourage quality and slow fashion design rather than mass-produced disposable fashion.
- 8. Fair Trade certified—Includes products made by companies that show respect for employees and their human rights.

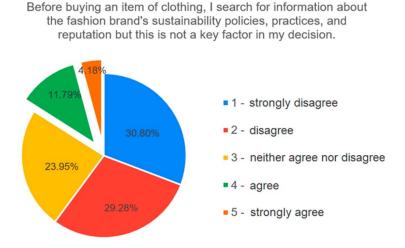
An online questionnaire created on the Google Forms platform was used to conduct quantitative research. The research was carried out in January of 2021.

The respondents were asked to indicate, on a five-point Likert scale, the degree to which they agree or disagree with five statements describing their apparel purchase behavior. The statements read as follows:

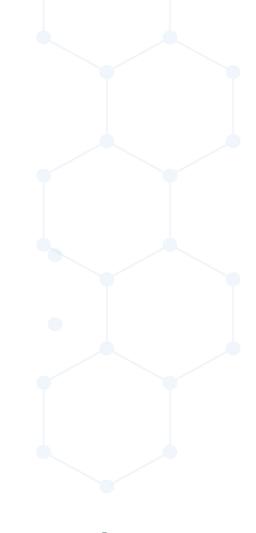
- 1. The sustainability of fashion brands is not a factor in my decision to buy their clothing
- 2. Before buying I search information about the fashion brand's sustainability policies and reputation, but this is not a key factor in my decision.
- 3. Fashion brands' sustainability policies have an impact on my decision to buy their clothing.
- 4. Sustainability is a marketing gimmick, and in my opinion, it is not truly a part of the fashion brand's strategy.
- 5. I prefer to buy clothing from fashion brands that have a sustainable clothing line.

The second statement was used to test. Figure 1 shows the respondents' agreement with the statements on the five-point Likert scale: 1—strongly disagree, to 5- strongly agree. The result is that 30,80% and 4.18% of the respondents Strongly disagree and disagree and search information online about the fashion brand's sustainability policy before buying its products.

Figure 11 – Distribution of respondents' agreement with the second item



The Use of social media to Promote Sustainable Fashion and Benefit Communications is key in this context. Therefore, fashion brands exploit social media by posting images and textual information that promote sustainability events and campaigns while demonstrating the beauty of the natural wild aligned with their products.



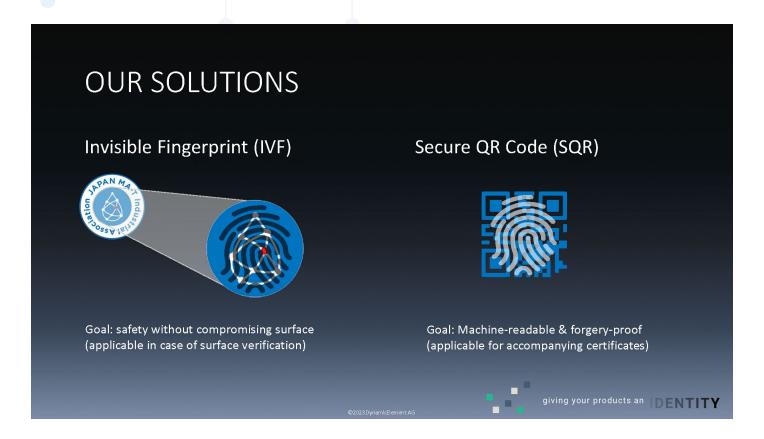
DYNAMIC ELEMENT

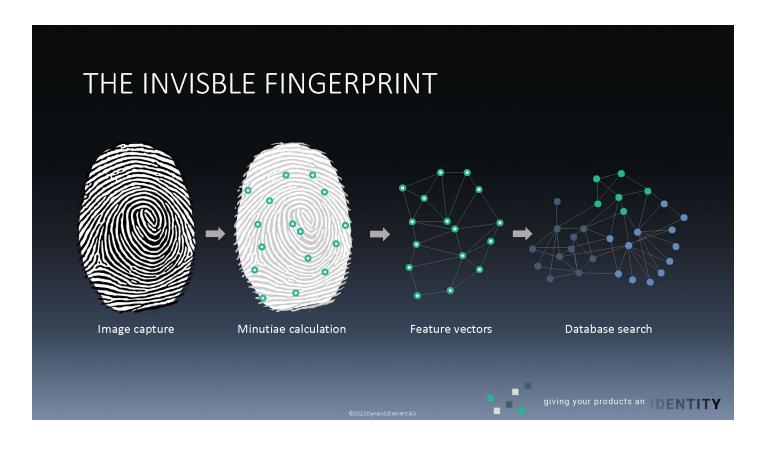


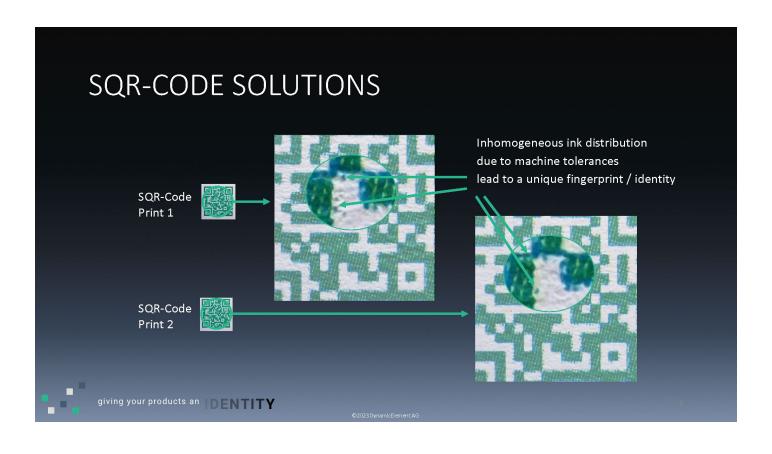


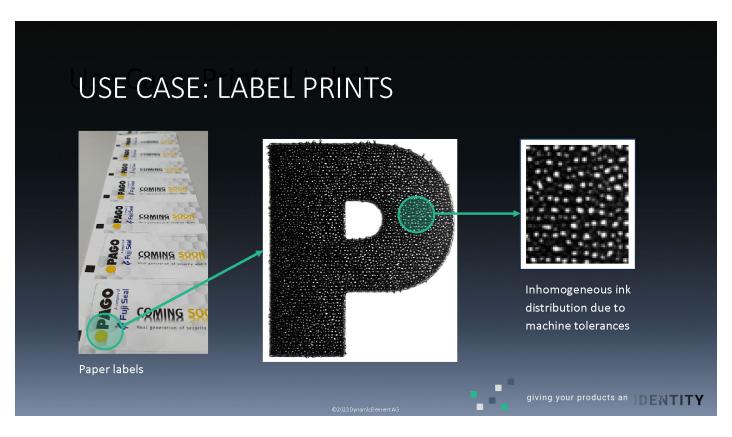


giving your products an DENTITY



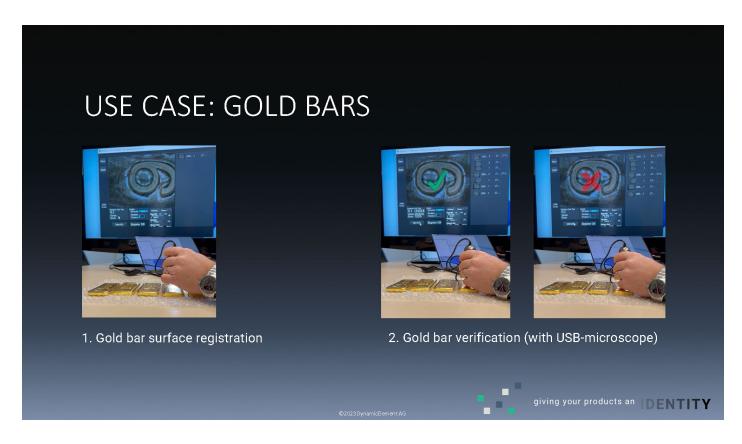




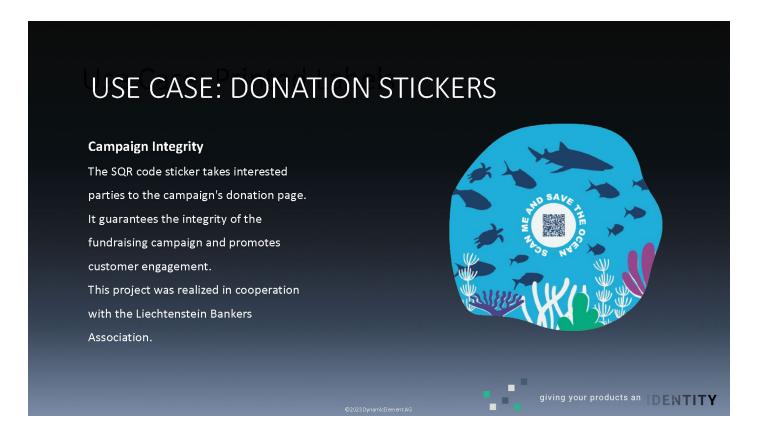






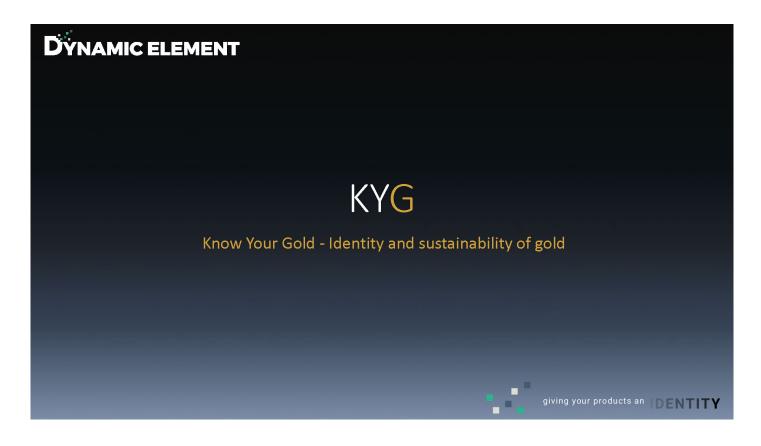




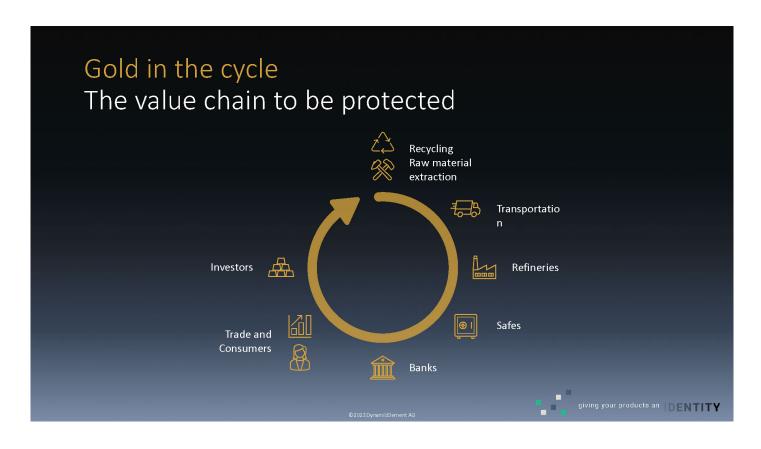








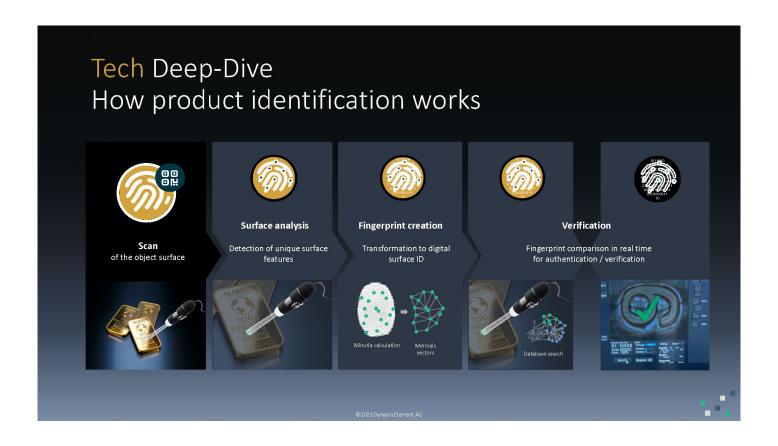


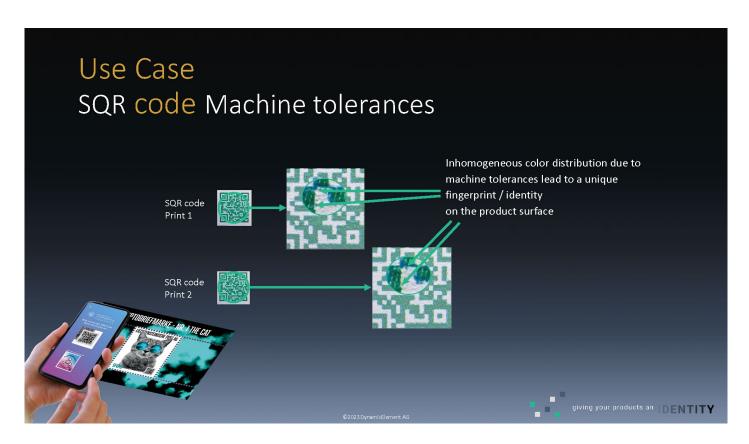








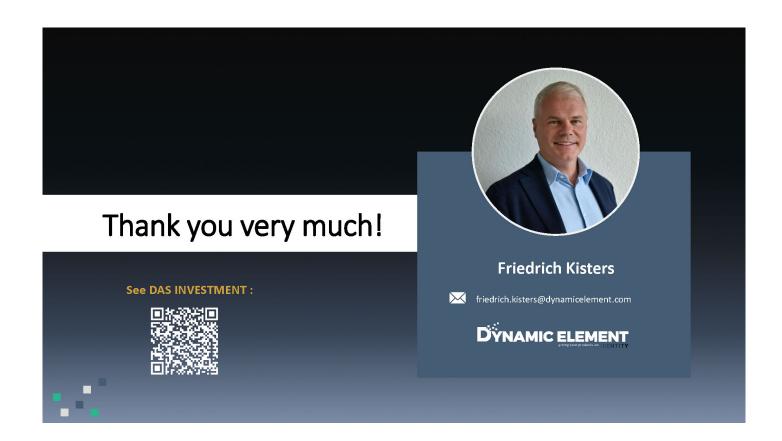














BREAKING THE RULES FOR MORE EQUITY

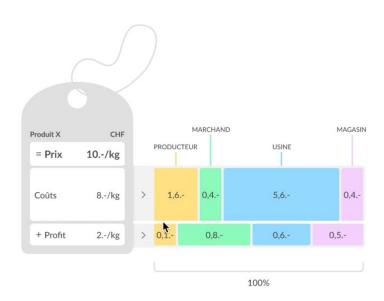
The company Equal Profit was created in 2019 and results from the PhD thesis of Inès Burrus, its founder. Her research project focused on the reasons why young people are moving out of farming and are leaving rural areas. Results show that ensuring farmers' financial well-being is key to make farming an attractive life-choice profession to youth. This implies that power dynamics among supply chain actors should be addressed, and value needs to be shared more equitably among them. The Equal Profit movement is a path to more equity, and less poverty.

TRACEABILITY AND TRANSPARENCY AS PREREQUISITES FOR MORE EQUITY



TRANSPARENT PROFIT™ CERTIFICATION

The Transparent Profit model answers one fundamental question raised by consumers: what exactly are we paying for? Who receives how much money of the price that we pay, from farmers to retailers? Following supply chain mapping, the Transparent Profit certification estimates the costs and profits of each actor of the supply chain and compares the proportion of each to the total. By disclosing the actual value distribution of products, consumers are informed of the breakdown of the price that they pay. This method makes it possible to highlight the disparities between costs and profits. Transparent Profit is therefore a prerequisite to a more equitable value distribution.





EQUAL PROFIT™ CERTIFICATION

The purpose of the Equal Profit model is to go beyond the subjective debate of what is considered fair by distributing value equitably from farm to cart, in an objective manner. Equal Profit goes beyond minimum prices or premiums for farmers by engaging with the whole supply chain from a cost perspective. The Equal Profit certification implies that profit is distributed in a way that is proportional to the effort that each actor puts into the global supply chain. This effort is measured as a function of costs borne by each actor. To sum up: the more you contribute, the more you earn. By sharing profit equitably among global supply chain actors, Equal Profit ensures economic equity and fosters solidarity among them.

IXPALUCA - THE 1ST EQUAL PROFIT CERTIFIED SPECIALTY COFFEE

In complete alignment with the Equal Profit values, Xalala Sàrl, a Swiss specialty coffee roasting company was the first partner to produce an Equal Profit-certified coffee named Ixpaluca. With a roasting lab located in Saint-Pierre-de-Clages, in the Canton du Valais, Xalala roasts its coffee in the middle of the Swiss Alps, surrounded by vineyards. The specialty coffee beans are carefully selected and freshly roasted for optimal taste. Xalala guarantees social and environmental sustainability, while seeking close contact with coffee growers, offering total transparency on conditions in which the coffee is produced. Since 2013, Xalala has been working with coffee growers in Mexico. With common values such as quality, sustainability and equity, in 2019, Ixpaluca became the first Equal Profit-certified coffee. Aiming at generating positive impact on people, as well as on the environment, Xalala has been working together with several actors of the state of Veracruz, including a cooperative of indigenous smallholder coffee farmers named Citlatl Cafen and Ensambles Cafés Mexicanos a company that works directly with farmers to move towards regenerative agriculture that protects the environment and respects people. Ensambles serves the Equal Profit model as coffee sourcing, producer relations, quality control, beans processing and sorting, logistics and exporting.



OUR COMMUNITY: "SHARING VALUES"

Since its creation in 2019, Equal Profit Sàrl has built partnerships around the world to guarantee each actor of the supply chain transparent and equitable profit sharing. The Equal Profit model goes beyond products' traceability and transparency. With this label, profit is distributed in a way that is proportional to the costs of each supply chain actor. In other words, value chains are rebalanced by objectively weighing the efforts of each player. This disruptive vision of business is convincing an increasing number of like-minded actors.

SCALING UP - NEW DIGITAL PLATFORM

Equal Profit is supported by a high-level Advisory Board of experts from the public and private sector. Benefitting from insightful guidance and strategic advice, the company is enabled to scale up its Transparent Profit and Equal Profit services by developing a digital platform, which will be launched in 2024, increasing its impact on a global level.





ITRACEIT: REVOLUTIONIZING TRACEABILITY IN THE LUXURY INDUSTRY

iTraceiT is a software company based in Belgium that provides traceability solutions to an array of industries. The company is committed to implementing state-of-the-art technology that allows users to track and trace the complete journey of a product, from its initial origin to the final end user. Each step in a supply chain is methodically monitored, and all significant traceability data points and supporting files are captured and documented on the iTraceiT Network.

The company's traceability solution uses a combination of QR code and blockchain technology to ensure that the traceability information is correctly transferred between companies in a highly secure and reliable environment. In addition, iTraceiT has invested significant development time in automated connections. As the iTraceiT system is entirely digital, it can easily connect to any other system or software.

iTraceiT was launched in mid-2022 and has since experienced tremendous growth in the number of customers from all stages of the supply chain, and it is actively being used in the luxury sector today.

TRACEABILITY AT THE HEART OF SUSTAINABILITY: WHY TRANSPARENCY MATTERS

Traceability plays a critical role in sustainability, which has become an increasingly important topic among end consumers when deciding which product to purchase. Driven largely by the changing consumer needs of millennial and Gen-Z age groups, retailers are being asked to pay greater importance to the social, economic, and environmental impact of the products they put on the market. This is particularly true for the broader luxury sector, whose consumers are typically more discerning and wish to feel good about their purchase.

Traceability is the fundamental building block for any sustainability policy. To make any claims about the environmental footprint of a luxury product, whether it was manufactured in factories where child labor and gender equality policies are in place or if there have been any beneficiation efforts towards the local communities, one must first have a clear map of where the product has been.

iTraceiT's traceability solution aims to map the complete travel of a product across each stage of a supply chain, providing retailers with the tools to confidently demonstrate the country of origin and the full journey of the luxury product they are selling. This level of transparency is the first step to examining and rating the broader sustainability impact of each product.

BRINGING TRANSPARENCY TO THE DIAMOND AND JEWELRY SECTOR: OVERCOMING TRACEABILITY CHALLENGES

As a first proof of concept, iTraceiT has developed a traceability solution for the global diamond and jewelry sector.

This \$80 billion luxury industry is characterized by a complex, global supply chain, with stakeholders with different levels of digital adaptation, from large multinational factories to small artisanal miners.

Diamonds are difficult to track as they undergo various mutations throughout the cutting and manufacturing processes. At the same time, each diamond is unique, so for diamonds of a certain size and up, it is critical to keep track of each individual stone's journey, while for smaller stones, keeping track of the different mixtures and splits presents an interesting traceability challenge.



Fragmented traceability solutions exist in the sector, focusing either on a particular origin or on a specific product category, so there is a need for an independent, industrywide traceability solution.

While the initial proof of concept is being demonstrated in the diamond and jewelry sector, iTraceiT's traceability solution can be used to track and trace any product. The system can easily be switched to track the data points and supporting documents relevant to each sector, with pilots in the precious metal, medical, and food sectors currently underway.

This sector-agnostic approach also puts iTraceiT in a unique position, as the system can combine traceability elements from different sectors into one report. One specific example that is currently underway is the development of a jewelry report, where all components, including diamonds, gold, platinum and gemstones are combined into a single consumer-facing traceability report.

ITRACEIT: AN INDEPENDENT. DIGITAL. AND AUTOMATED TECHNOLOGY AND SERVICE PROVIDER

iTraceiT is a leading technology and service provider that operates independently, which presents numerous benefits to its users.

One of the key advantages is that iTraceiT is 100% neutral, as it has no luxury industry organizations in its shareholder structure. This neutrality is crucial given the sensitive nature of the information that passes between different companies in a supply chain. Additionally, this independence enables different industries to collaborate on traceability. For instance, iTraceiT is developing a watch and jewelry certificate that traces not only diamonds but also gold, metal, and other materials that go into a luxury piece.

Moreover, iTraceiT is integrated with logistics providers and grading labs to ensure third-party verification of the data submitted by the actors of different luxury industries. To further increase the validity of data on the blockchain, iTraceiT has partnered with Logion (https://logion.network/). Logion provides legal digitization of documents and anything else one wishes to legalize ownership (valid in court and notary). This makes iTraceiT a traceability solution with legal capabilities. In the future, "Mazal" will be replaced by two mobile phones in proximity to each other.

As a fully digital solution, iTraceiT leverages webservice calls, which allow for complete automation. Users can copy all relevant traceability actions and data entries directly from their inventory management systems or upload them manually if desired.

THE SYNERGY OF QR CODE AND BLOCKCHAIN TECHNOLOGY

iTraceiT's traceability solution is based on two key technologies: QR codes and blockchain.

The decentralized nature of blockchain has several positive implications, such as enhanced security and protection against outside attacks. Furthermore, information captured onto the blockchain cannot be modified, instilling confidence in retailers that the traceability information is accurate and has not been tampered with.

iTraceiT decided to use QR codes in their solution because they can function as carriers for a wide range of information. Each QR code automatically generates several data points, including geolocation, timestamps, and ownership.



Additionally, there is no limit to the information that can be added to a QR code. Any relevant data point or supporting documentation related to traceability and sustainability can be included in a QR code, effectively making it a digital identity card for the product. For example, customers in the diamond and jewelry sector can add copies of invoices, shipping documents, pictures, videos, factory codes, extraction dates, and more.

iTraceiT's system automatically generates and assigns new QR codes at each stage of a product's journey in a supply chain, establishing an unbreakable chain from start to finish with all the supporting data points and documentation.

Many avenues for innovation and research are now being studied to further improve the technology behind iTraceiT's traceability solution, whether in the use of artificial intelligence for fraud detection (behavioral analysis), the integration of NFT 'digital escrow' type solutions and many others.

EMPOWERING RESPONSIBLE BUSINESSES THROUGH TRACEABILITY TECHNOLOGY

iTraceiT's leading traceability solution strives to promote responsibility and sustainability among companies. Our key principle is to ensure that our customers are always in full control of the information they provide. Our secure cloud-based environment allows users to select the data points and documentation they wish to pass on to the next step in the chain. Only that traceability information is transferred to the blockchain and is legible by that client's customers.

At iTraceiT, we firmly believe in providing our users with flexibility so that they can decide what information is relevant for their customer base. We do not force our users into a certain mold but allow them to tailor the solution to their specific needs. We understand that consumers are looking for provenance, confidence, and assurance in the products they purchase, and our traceability tool helps companies demonstrate their transparency and sustainable processes.

JOIN THE ITRACEIT COMMUNITY AND SHOWCASE YOUR COMMITMENT TO SUSTAINABILITY

We invite potential customers to join the iTraceiT community and take advantage of our traceability solution to demonstrate their commitment to sustainability and responsible business practices.

Our solution is easy to implement, intuitive to use, and can help businesses stand out in a competitive market. By joining the iTraceiT community, companies can improve their supply chain visibility, increase consumer trust, and gain a competitive advantage. Contact:

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OLIVIER GAERTNER

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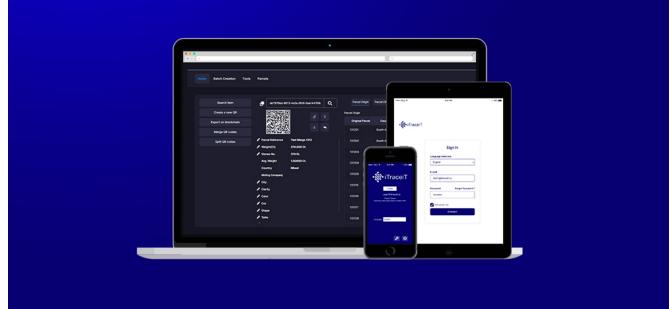
SHAVIT GAISTMAN

Head of Sales – Luxury shavit@itraceit.io











Traceability Report

--- Rough origin









Unknown 3,95%



Journey details









Polished



Jewelry





Retailers

2-Australia 3-Russia 4-Unknown 5-Canada

2-India 3-USA

2-Dubai

2-Dubai 3-Israel

1-India 2-USA 3-France

1-Hong Kong 2-China







Opsydia is a technology & security company dedicated to securing the gemstone, jewellery and luxury goods industries. Our vision is to equip companies with the means to provide greater transparency and enhance traceability through cutting-edge innovation and technology, securely bridging material product and digital worlds.

ORIGINS

Founded in 2017, the company spun out from the University of Oxford's Dynamic Optics & Photonics Group at the Department of Engineering Science.

The company has created an innovative set of technology solutions for the traceability of diamonds and coloured gemstones, linking gemstones, jewellery and luxury goods pieces to their unique provenance and traceability stories.

TECHNOLOGY & APPLICATIONS

Using patented sub-surface laser inscription technology, the method allows anyone handling loose polished diamonds or coloured gemstones to place microscopic 'identifiers' inside or on the surface of a gemstone. Revealed using Opsydia's specially designed loose and mounted jewellery viewers, Opsydia's identifiers are perfect for any luxury brand, manufacturer or retailer looking to add another level of transparency and security to their product.

The applications of Opsydia's technology stretches beyond gem and jewellery: it is being explored in diamond-based devices, semiconductors, quantum computing and beyond.

GEMSTONE IDENTIFIERS

Opsydia's systems can create three types of gemstone identifiers: 2 sub-surface and 1 surface. These can be designed as a brand logo, serial number or custom designs.

1 NANO-ID (SUB-SURFACE)

Nano-IDs are microscopic, ultra-fine identifiers placed inside a diamond or coloured gemstone. Sitting directly below the gem's table, Nano-IDs are discrete but permanent, unable to be removed without recutting the stone, and with no impact on the structural integrity of a stone.

As confirmed with SSEF Gem Lab in Switzerland, they also have no impact on the clarity grade, remaining invisible under a jeweller's loupe or standard microscope, and revealed only with Opsydia's specially designed loose stone or mounted jewellery viewers.

Nano-IDs are the perfect solution for any brand looking to secure their diamond and gemstone supply chain and protect against counterfeiting. They can integrate with and complement existing traceability programmes, making the critical connection between physical and digital in a way which is visual, direct and easy-to-understand.

2 LOUPE-ID (SUB-SURFACE)

Loupe-IDs are also sub-surface, placed at a depth below the gemstone table which also renders them impossible to remove without re-cutting. Whereas Nano-IDs are invisible, Loupe-IDs are designed to be visible under a 10x loupe, where clarity grading is not a consideration.

Lightbox from De Beers is currently using Loupe-ID technology for its lab-grown diamond range, placing a brand Loupe-ID logo under the table of every stone, and providing assurances and authentication to its customers.

3 SURFACE-ID

Opsydia's Surface-IDs are translucent identifiers, which very discretely convey a brand logo or other type of design. As standalone identifiers, or used in combination with the Nano-ID, Surface-IDs are an easy reference for anyone looking to visually identify their product with a loupe and microscope. Surface-IDs can be polished off from the surface, but can be used in conjunction with sub-surface technology.

LASER SYSTEMS

Opsydia's commercially available laser systems are capable of placing identifiers either on the surface, under the surface, or both:

D-4000 - Surface-ID

D-5000 - Nano-ID and Loupe-ID (sub-surface only)

D-6000 - All ID types (surface and sub-surface)

The systems are fully compatible with existing frameworks and gemstone traceability programmes, comfortably scaling from small trading offices to the largest manufacturing operations.

Deployed across the world with leading manufacturers and luxury brands, the systems are extremely easy to use, with only 1day training required when a system is commissioned.

Their semi-automated process means an single operator and machine has the capacity to inscribe up to 100,000 stones per annum, approximately 60-90 seconds per stone

GEMSTONE SIZE & SHAPE

Capable of inscribing diamonds and coloured gemstones of all shapes and sizes, Opsydia's shape recognition software automatically calculates size and recognises the centre of a stone based on its shape.

Each system is optimised for diamonds and coloured gemstones greater than 0.20cts in weight, and is capable of placing identifiers up to 0.5mm in diameter inside stones.

Opsydia worked closely with the Natural Diamond Council on it's Project ASSURE 2.0 Program and Diamond Verification initiative, placing alpha-numeric sequences inside every stone to assess the effectiveness of natural diamond screening equipment. Over 3,000 stones – natural, lab-grown, and simulants – were successfully inscribed, with some measuring less than 1mm in diameter.

QUALITY CONTROL

Immediately after placing an identifier during the process, a high-quality QC image is available for upload to a traceability programme, blockchain or certification process. This could include details of the date, time, location and person where the inscription took place.



DATA SECURITY, ENCRYPTION & SUPPORT

Opsydia takes data security and encryption very seriously, recognising that branding and authentication are some of the guarantees companies deliver to their customers. All laser systems are backed up with sophisticated software encryption, managed by a team in Oxford which keep the systems secure.

For further protection, Opsydia itself manages the central uploading of inscription types and designs from Oxford, making it not possible for anyone else with an Opsydia system to replicate another brand logo.

Frequent and granular data reporting from the systems allow customers to also verify their suppliers are sending them the correctly inscribed stones.

Whether it's a fixed inscription such as a brand logo or a variable one like a unique serial number, Opsydia is flexible and responsive to the needs of client requests.

Opsydia supports its clients with regular maintenance and system check-ups at the client site, while regular remote diagnostics are carried out to ensure the system(s) run(s) smoothly.

THE OPSYDIA VIEWER

Opsydia's new viewers reveal the identifiers, leveraging optical technology both in loose stones and mounted jewellery. Currently entering the final stages of product development, the viewers have been designed with luxury retail stores and gem labs in mind. Fully customisable in colour, materiality and finishes, they look and feel at home in all luxury retail environments whilst also comfortable authenticating loose stones or finished pieces behind-the-scenes in a gem lab.

Authenticating a jewellery piece with a consumer and providing an extra layer of trust with the viewer is just the first step; the viewers are a powerful storytelling and sales tool for any brand looking to differentiate their product with consumers.

INNOVATION FROM UNIVERSITY OF OXFORD

With innovation, craftsmanship and precision at its core, Opsydia is a trusted partner to luxury brands and manufacturers across the world.

Designed, assembled and tested in Oxford by Opsydia's development team, the D4/5/6000 laser systems are the product of 15 years R&D at the University of Oxford, where underlying the tech was originally developed. Opsydia's development team continues to collaborate with leading professors and academics in their respect fields at Oxford, exploring new applications and projects.

Opsydia adds another dimension of secure traceability to jewellery and luxury goods products. The technology adds to the consumer experience with ease, security, and simplicity, making a connection that lasts beyond the store.

The technology can place 3 types of microscopic identifiers either sub-surface, surface, or both. Surface Sub-Surface Gem table surface Depth of 50-250 microns Ultra shallow depth 01 | Nano-ID 02 | Loupe-ID 03 | Surface-ID 10x loupe invisible. 10x loupe visible. 10x loupe visible. Visible on Opsydia Dark appearance. · Clear appearance. Viewers. Recommended for lab- Recommended with Nano-ID for natural No impact on clarity, grown diamonds. confirmed by SSEF lab in diamonds.

Image 1: Opsydia laser system

Switzerland.

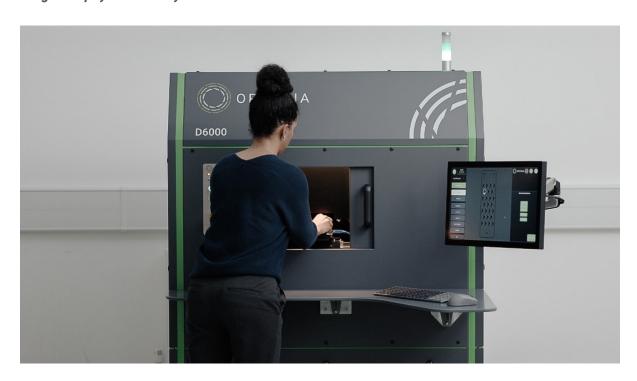


Image 2: In the Opsydia lab

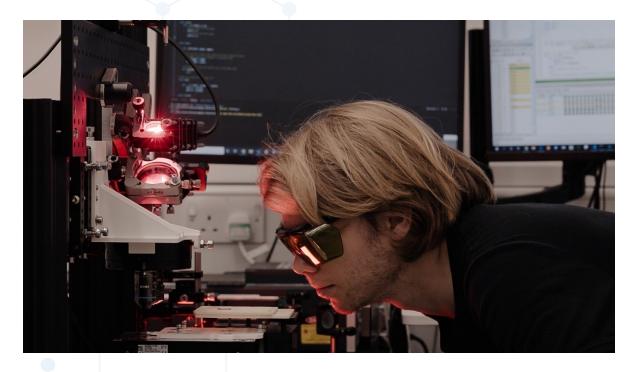
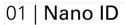


Diagram 2: Opsydia Nano ID



- Sub-surface Nano ID perfect for natural diamonds.
 - Invisible, does not impact clarity grade.
 - Visible with Opsydia Viewers.
- Sub-surface IDs placed inside stone, and can't be removed without re-cutting.

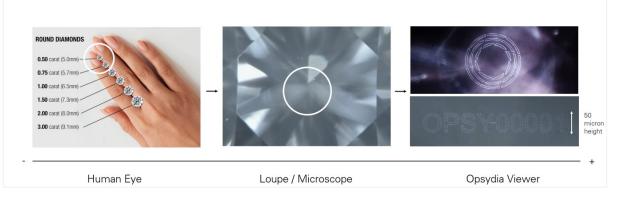


Image 3: Mounted stones



USE CASE 1: LIGHTBOX (OF DE BEERS GROUP) SUB-SURFACE ID FOR LAB-GROWN DIAMONDS (2019)

University of Oxford spinout Opsydia secured the first order for its Opsydia D5000 (sub-surface) Diamond Marking System in 2019.

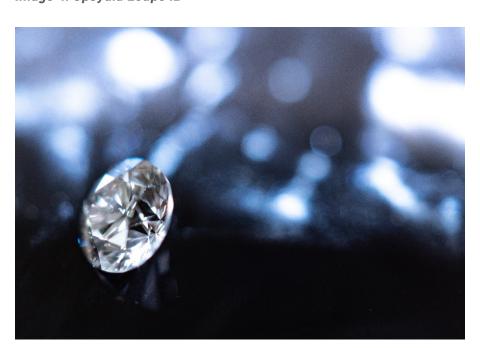


Image 4: Opsydia Loupe ID

The sale, to industry leader De Beers for their Lightbox Jewelry business, followed over a year of development work and was a major step forward for Opsydia's ground-breaking technology that helps address tampering and counterfeiting in diamonds.

Using high precision laser and optics, the Opsydia D5000 can make identifiers less than 1/50th of the size of a human hair.



Unlike current surface marking techniques, these highly refined, microscopic marks are secured below the surface of gemstones so that they cannot be polished off economically. The sub-surface marks can be so small that they have no effect on the grading or quality of the gems.

After proving the concept within the laboratory of the University of Oxford's Department of Engineering Science, Opsydia began work to scale the laser process for use in diamond processing facilities at high volumes. The result was the Opsydia D5000 & D6000 systems, which allow customers to apply Opsydia's secure marking technology on an industrial scale.

"Opsydia's technology has already proven itself to be a highly effective method of including a quality mark and tamperproof tag into our laboratory grown diamonds. We are excited to now be purchasing our first D5000 marking systems from Opsydia, which will support the significant expansion of our production in 2020 as our new manufacturing facility near Portland, Oregon in the US comes online" said Steve Coe of Lightbox.

"Having been adopted by one of the iconic names in the diamond industry, we aim to show the wider diamond, gemstone and jewellery community how our laser technology can transform security and support initiatives to prevent counterfeiting and tampering," said Andrew Rimmer, CEO of Opsydia.

Opsydia's technology uses laser pulses shorter than one trillionth of a second in length to create tiny lines which can be written as numbers or logos within the diamond. The marks are invisible to the human eye and the smallest ones are not detectable with a jeweller's loupe, but can be viewed using a microscope. Marking in any facet of the stone means security can be maintained even when gems are mounted in jewellery.

Opsydia's technology can also be used to securely mark any translucent material, such as plastics and polymers, and the company also envisages future applications writing electrical circuits within industrial diamond to create advanced sensors.

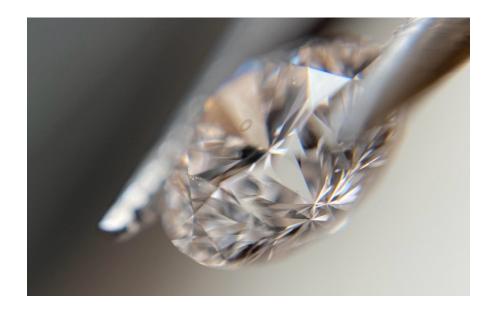


Image 5: Opsydia Loupe ID

USE CASE 2: SUB-SURFACE IDS FOR MELEE DIAMONDS WITH NATURAL DIAMOND COUNCIL (2021)

In 2021, Opsydia honed its sub-surface laser technology to such an extent that it can now place permanent identifiers in melee diamonds without affecting their surface polish.

Diamonds that are just 0.5 millimetres in diameter can have an alphanumeric sequences, coded shapes or logos placed beneath their surface to create a physical link to a supply chain record or branded jewellery origin.

Opsydia directed this technological advancement towards supporting the trade by collaborating with the Natural Diamond Council (NDC) on the latest phase of its ASSURE Diamond Verification initiative.

The ASSURE Program 2.0, which assesses the relative performance of Diamond Verification Instruments available on the market, utilises an 'ASSURE Sample' of melee stones (including individual stones of less than 1mm in size) to test each device on its effectiveness at identifying and/or recognising natural diamonds, laboratory-grown diamonds and diamond simulants.





This is an important advancement for volume manufacturers, who may be searching for a unique and forward-thinking methodology to secure their supply chain and protect against undisclosed lab-grown diamonds.

Chief Executive Officer, Andrew Rimmer, says: "With this technology, the natural diamond trade has more opportunities to secure the identity of its products and use sub-surface features to create 'fail safes' within its supply chain. Similarly, luxury jewellery brands wishing to fight back against counterfeiting may wish to include an identifier in a specific pavé diamond and assure their customers that only pieces with this nanoscale identity feature are legitimate."





The precise capabilities of the Opsydia system allow for high-resolution lines, approximately ~1um (0.001mm) in width, meaning legible characters can be achieved at much smaller sizes in comparison to other, industry-standard surface marking systems.

ASSURE PROGRAM SAMPLE

To aid the testing of instruments submitted to the ASSURE programme, Opsydia has placed unique serial numbers beneath the surface of all stones in the ASSURE Sample, therefore allowing the testers of ASSURE Tested Diamond Verification Instruments to discover which stones the devices have mis-identified.

This valuable information, which will be accessible to manufacturers, will allow engineers to improve the effectiveness of their diamond detection devices and will, as a result, benefit the trade as it fights for accurate disclosure.

Raluca Anghel, Head of External Affairs and Industry Relations at the Natural Diamond Council, says: "We are pleased to collaborate with Opsydia on this latest phase of the ASSURE Program as we value their ongoing commitment to innovation. Being able to accurately identify melee diamonds, laboratory-grown diamonds and diamond simulants will allow the ASSURE program to provide greater feedback to manufacturers and will contribute towards further learning, technical advancement and above all, ensure consumer protection."

OPSYDIA MELEE DIAMOND

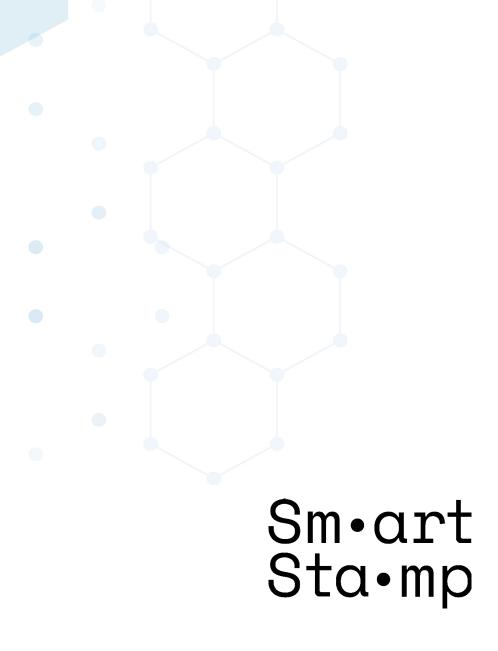
Opsydia's systems use a high-precision, ultrafast laser to place logos, alphanumeric sequences or coded shapes (known as 'identifiers') beneath the surface of a diamond. This laser is tightly focused only once it passes the surface of a diamond, therefore only creating the identifier at a selected depth without affecting the surface condition or polish. It can be applied beneath the surface of a diamond in a range of locations, such as the table or a specific facet.

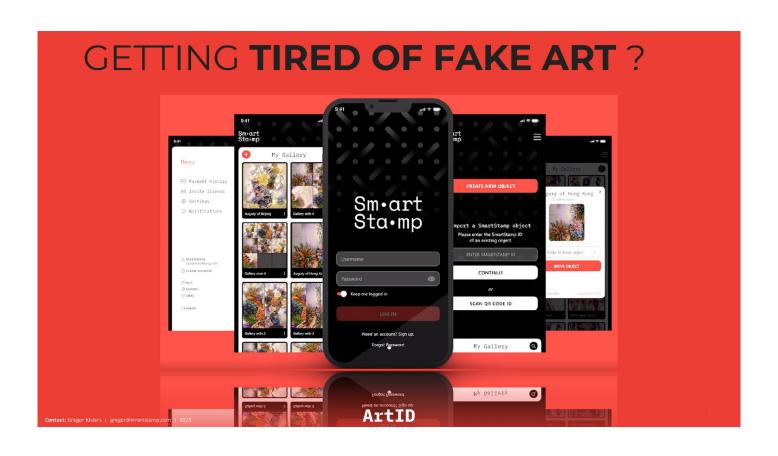
By adapting its techniques to suit melee and larger diamonds, Opsydia is introducing the natural diamond sector to a unique methodology for addressing its core challenges, such as enhancing stone security, establishing bold traceability initiatives and protecting against fraud, non-disclosure and other counterfeiting concerns.

The Opsydia systems (approx. one metre wide and standard doorway accessible) is based on cutting edge laser technology developed at the University of Oxford. It can place unique identity features in diamonds and is capable of processing up to 100,000 stones per year in an industrial environment. Encryption techniques ensure that each Opsydia system can only write authorised logos or identifiers preventing counterfeiting and protecting brand integrity.

Opsydia technology is deployable across the globe and can be utilised by natural diamond and laboratory-grown diamond specialists.

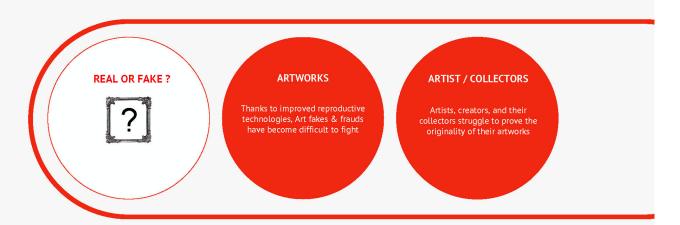








Fakes and frauds



Contact: Gregor Kisters | gregor@smartstamp.com | 2023

ORIGINALLUXURY

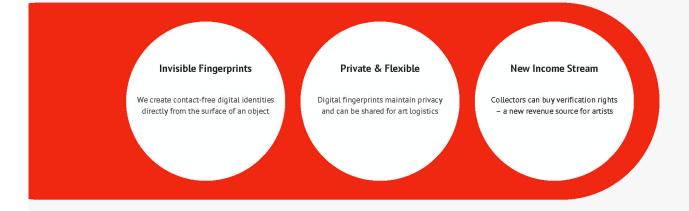
Sm·art Sta·mp

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Sm·art Sta·mp

THE **SOLUTION**

The SmartStamp ArtID



Contact: Gregor Kisters | gregor@smartstamp.com | 2023

Sm·art Sta·mp

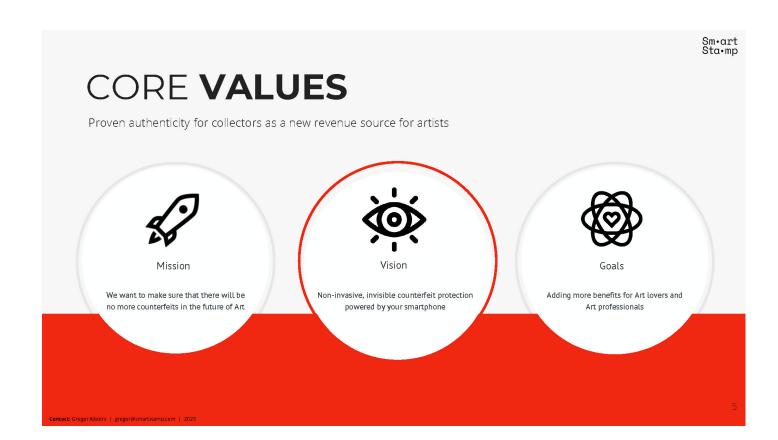
HOW IT WORKS

The invisible surface fingerprint



ORIGINALLUXURY

2







Interested in becoming part of our vision?

Contact us!



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Gregor Kisters

PM & New Markets

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6

Sourcemap

INTRODUCING SOURCEMAP

For more than 12 years, Sourcemap has been providing state-of-the art software that allows global retailers, manufacturers, and brands to map their supply chains down to the raw materials and ensure operational best practices every step of the way. Sourcemap technology encompasses the full suite of supply chain due diligence requirements, including supplier discovery, supply chain mapping, supplier risk assessment, transaction traceability, resilience planning, real-time visualization, and consumer-facing transparency.

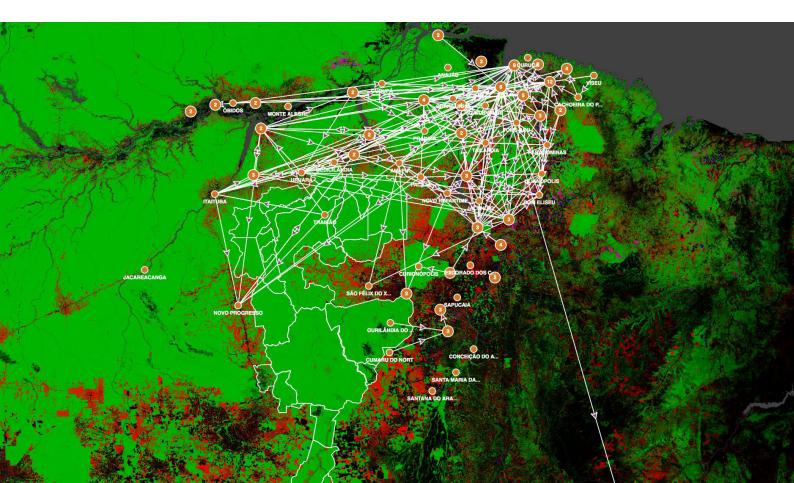
THE RISE OF SUPPLY CHAIN MAPPING

Laws requiring supply chain mapping are being enacted around the world, from the Uyghur Forced Labor Prevention Act in the United States to the European Union's Green Deal. This marks the first-time companies are accountable for their indirect suppliers, especially when these suppliers are in regions or industries where forced labor is endemic or major environmental issues such as deforestation are present. Global brands and manufacturers typically have tens of thousands of suppliers in their end-to-end supply chains. In order to verify standards at every link in the chain, companies need to start by identifying all of the stakeholders in a process called supply chain mapping.

Born out of MIT research, Sourcemap was the first company to commercialize software for supply chain mapping. Today Sourcemap counts many of the world's largest and most valuable brands as customers across luxury apparel and footwear, food and agriculture, flavors and fragrances, pharmaceutical and chemical, and automotive industries among others.

Sourcemap is also the leading advocate for supply chain transparency. In 2020, Sourcemap was selected to participate in the US Department of Labor-funded STREAMS initiative to combat child and forced labor. In 2021, Sourcemap founder and CEO Dr. Leonardo Bonanni was called to testify before the Senate Finance Committee on Forced Labor, emphasizing the importance of using data-driven technology to fight forced labor in supply chains.

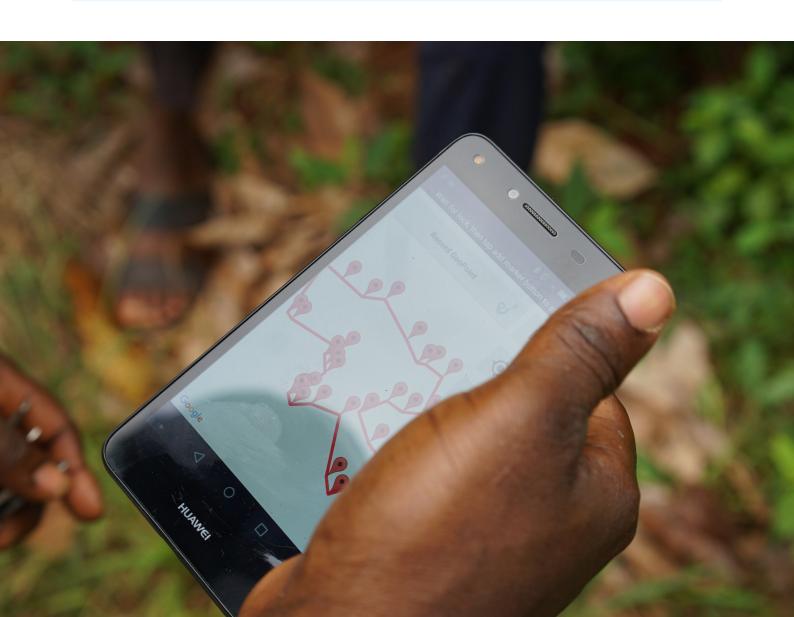
In November of last year, Sourcemap's Forced Labor Due Diligence Solution was named as one of TIME's Best Inventions of 2022 in the Social Good category.



This degree of supply chain visibility is not only possible through Sourcemap technology; it has become critical for some industries to remain competitive in the global market. Beyond customs compliance issues, it won't be possible to meet the demand for high-tech products such as electric cars and solar panels if companies don't have a clear line of sight to the raw material origins.

SUPPLY CHAIN VISUALIZATION HOW IT WORKS:

- **Step 1:** Map end-to-end supply chain in order to identify every supplier in the value chain, from raw material to finished goods.
- **Step 2:** Identify risk: From human rights to environmental risk, companies can identify risks present in their value chain by collecting the right data.
- **Step 3:** Remediate: Once risks have been identified, companies will be able to implement a remediation in line with their regulation obligations or ESG policies.
- **Step 4:** Report progress: Using dashboards and data analysis, Companies are able to disclose required information via annual reports to regulators and enforcement agencies



THE SOURCEMAP / BREITLING COLLABORATION

In 2022, Sourcemap, and Swiss watchmaker Breitling have partnered to deliver end-to-end traceability for the precious materials used in Breitling's newest watch, the Super Chronomat Automatic 38 Origins. Sourcemap's full-suite supply chain transparency solution independently verifies the entire chain of custody, from raw material to finished product, to guarantee social and environmental impact at every level for Breitling customers

Global watchmakers traditionally rely on thousands of suppliers to source precious materials such as gold and small "melee" diamonds and struggle to verify material origin and root out the presence of illegal and unethical working conditions and the overall social and environmental standards upheld in the process. Further compounding the issue of tracking and tracing provenance, each supplier has its own web of suppliers, making verifying origins nearly impossible. Paving the path to modern supply chain transparency, Sourcemap is the solution trusted by key players in the watchmaking industry to map every tier of their supply chains, gain a better understanding of their supplier network, and present proof of origin for their goods.

Today, luxury watch companies like Breitling are leading the way with more sustainable sourcing standards within their product lines, beginning with the debut of the Super Chronomat Automatic 38 Origins. By partnering with Sourcemap, Breitling guarantees its customers sustainably sourced artisanal gold from a single mine and lab-grown Fenix diamonds from an accredited supplier. Customers can use Sourcemap's solution to view the chain of custody for their individual watch with a blockchain-backed NFT that accompanies every Super Chronomat Origins watch.

"At Breitling, we are committed to achieving positive social and environmental impacts along the value chain and enabling product integrity," said Aurelia Figueroa, Global Head of Sustainability at Breitling. "That's why we engage closely with our suppliers and work with partners like Sourcemap to bring a new level of transparency into how our watches are made."

Of the more than 500,000 business entities registered on Sourcemap's platform, more than 20% supply the luxury goods industry.



"The bar is rising for companies to provide more visibility into the origins of luxury products and their components, and those who can deliver will stand out from those who don't," said Leonardo Bonanni, CEO & founder of Sourcemap. "It takes one company to catalyze others to commit to supply chain transparency, and Breitling is that first-mover in its search for a more sustainable path forward."



tracr

The Industry is continuously changing...

Macro events are shaping the Diamond industry. They are forcing changes and adaption at speeds the industry has never seen before.

- Geopolitical events have increased scrutiny and sanctions on diamond origin
- There is an increase in the demand for ethical and sustainable purchases
- Growth in Lab Grown diamonds is increasing challenging the natural diamond industry
- Changes to the industry require us to quickly adapt and react to consumer demands





What is Tracr

When Tracr was founded we have a vision to create an open, endto-end industry platform that creates a diamond attribute and a transaction ledger, delivering value to all industry participants.

Tracr blockchain solution allows for the identification, and hence traceability of diamonds. Along with the record of provenance and the proof of authenticity Tracr aims to create trust between all parties in their diamond supply chain.

Tracr unlocks strategic value for the entire diamond industry through:

- Increased consumer confidence in the product
- Lower financial risk
- Enhanced inter-party trust

Tracr enables participants to answer a growing demand for natural diamonds with ESG credentials by making supply chains transparent and tamper–proof.

Tracr opens up the power of AI and the advantages of blockchain to make natural diamonds truly traceable based on their unique physical attribute-based verification.





Why Blockchain

Blockchain is a powerful technology for maintaining a reliable ledger of information and ensuring it can't be tampered with.

The Tracr blockchain underpins everything we do, connecting to the different sources of information on Tracr and storing a unique tamper-proof record for each diamond.

This means when you look at a diamond on Tracr you can be sure that the images and data you are seeing about the diamond are the same ones that were originally recorded against the diamond and are linked to your individual Tracr ID.





Tracr Vision & Mission

Vision:

For Tracr™ commercially successful and to be the diamond industry's open, scaled, tamper-proof and end-to-end traceability solution providing a standard for provenance claims, openly governed by industry participants and a platform for digital innovation

Mission:

To provide a foundational platform to help the diamond industry build desire and confidence in natural diamonds by creating an industry wide provenance standard to share a diamonds story from source to client

To make a material contribution to the investment De Beers has made in this industry leading platform and by ensuring De Beers Trustmark platforms can leverage the Tracr™ eco-system to create a profitable master brand for De Beers

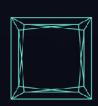
Enabling an ecosystem for participants to create value enhancing innovation, through data and information sharing and verification across the platform













Our Approach

Our solution is underpinned by 4 key pillars: Traceability, Storytelling, Technology and Authenticity.

- · You will be able to link provenance to each individual diamond
- End to End traceability form the point of recovery to point of sale

TRACEABILITY

TECHNOLOGY

- · Tracr offers you ability to share the ESG work you do with end consumers
- · Showcase the famous mines you operate at
 - · Promote your sustainable and ethical practice to the end consumer

Tracr is built using 4 core technical competencies:

- 1. Security and Privacy
- Internet of things (IoT)
 Artificial Intelligence (AI)
- 4. Distributed Ledger Tech (DLT)

AUTHENTICITY

STORYTELLING

· Through traceability and provenance, Tracr differentiates your natural diamonds from Lab Grown Diamonds



The benefits of a diamond with a Tracr ID

A diamond with a Tracr ID allows to:

Showcase diamond provenance, captured at source and tracked through production

Display to your client the amazing transformation of a natural diamond from its rough form all the way through to the final polished diamond

Allows you to speak in more detail about the positive impact of natural diamonds

Empowers you to tell broader stories around natural diamonds and connect with todays consumer who has and increased focus on origin and digital assurance

Transfer ownership of the digital asset that holds the Tracr data to your client and allow them to carry own their own story









TECH-ENHANCED TRANSPARENCY

In today's luxury industry, transparency is critical for brands to build trust and credibility with consumers. By providing transparency throughout the supply chain, luxury brands can ensure that their products are genuine and produced in an environmentally and socially conscious way. With its Product Cloud Platform (PCP), ZATAP offers an extension of solutions supporting luxury brands in their endeavor to enhance product and supply chain transparency for consumers via a Digital Product Passport (DPP).

THE PRODUCT CLOUD PLATFORM

The ZATAP Product Cloud Platform is a phygital ecosystem, in which each physical product is equipped with a digital twin based on a unique physical identifier. By doing so, physical products come to life as they are enriched digitally with information, content, and exclusive experiences. With a simple smartphone tap, consumers unlock the digital twin conveniently and establish a direct connection to their favorite brands through the products they own.

"As each of our physical pieces showcases a unique serial number, our customers are very excited to discover which piece they own out of the produced serialized number. Their overall feedback is very positive and they are curious to further discover the perks of owning a phygital product."

Elissa Lefoll, Founder of ELLYHA

The PCP encompasses a wide array of solutions in regards to hardware and front end, depending on a brand's requirements and the pursued goals. It acts as a seamless bridge between the physical and digital worlds, ensuring trust, authenticity, and an elevated and prolonged customer experience. Our physical identifiers include dynamically-encrypted NFC tags for top-notch security, as well as non-encrypted NFC tags and QR codes for economic convenience. To cater to our customers' specific needs, we provide a variety of front-end options, such as the out-of-the-box ZATAP app, mono-branded web apps, and integrations into customer apps via API. Through the PCP, brands gain access to invaluable first-party data and insights regarding customers' product interactions. Lastly, the Content Management System (CMS) allows partners to curate and modify their product's content and messaging dynamically.

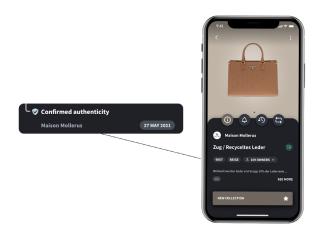
The following sections outline how the PCP ensures product authenticity, fosters transparency through digitized product information, and creates awareness and customer engagement for more sustainable industry practices.

ENSURING PRODUCT AUTHENTICITY

Firstly, the ZATAP technology enables tamper-proof verification of the authenticity of physical luxury goods through a combination of blockchain and IoT technology. This is achieved through the integration of dynamically-encrypted, smartphone-ready NFC tags that are associated with secure, immutable NFTs on the blockchain. Each physical item is equipped with a unique NFC tag, creating a unique digital twin. To check a product's authenticity, users simply tap the product with their smartphone to seamlessly access the proof of authenticity that is issued by the manufacturing brand and stored immutably on the blockchain. Importantly, neither an app nor any technical know-how are required from the user.



Dynamically-encrypted NFC tags offer superior security and flexibility compared to non-encrypted NFC tags and QR codes. They enhance security through encryption, resist cloning and replay attacks, allow for remote management and multi-functionality, and protect user privacy. Additionally, these tags can safeguard against eavesdropping and ensure data integrity. Their advantages make them suitable for applications demanding robust security and versatile functionality, as is the case for the luxury industry.



By using ZATAP's Product Cloud Platform, luxury brands can provide their customers with the assurance that they are purchasing authentic products, but there is more to that. While it may not be possible to eliminate the fraudulent sale of counterfeit goods completely, the ZATAP PCP can prevent unintentional purchases of fake products, safeguarding the reputation of the brand and protecting consumers from potentially hazardous and criminal counterfeits. This level of control helps protect the brand's image and revenue. However, the establishment of a secure verification system can offer additional benefits to luxury brands beyond product authentication.

DIGITIZING PRODUCT INFORMATION

In the wake of ongoing political and regulatory discussions about transparency customers with information about the products they purchase. Digital product labels provide several benefits over traditional paper labels. They can be easily updated in real time, so manufacturers can provide the most up-to-date information to consumers. They can also provide more detailed information, including interactive content such as videos or animations. In addition to the mentioned benefits of digital product labels and the fact that many consumers are cutting off physical product labels from their products, brands are challenged to anticipate potential regulatory changes that would introduce new requirements to providing product information.







With the ZATAP solution, a Digital Product Passport is created for every physical product. While the product's unique identity is stored immutably on the blockchain, the product information can be updated and enriched dynamically. To access product information such as material composition and care instructions, consumers simply tap the embedded NFC tag with their smartphone to find the most up-to-date information about their product. Especially in the luxury industry, where storytelling is an integral part of value creation, digital product passports represent a far superior opportunity for brands to enrich their physical products with digital content, thereby preserving the perceived emotional value over time and offering customers more immersive experiences.

TACKLING THE SUSTAINABILITY CHALLENGE

Sustainability has become an increasingly pressing issue in the fashion and luxury industry. The industry is notorious for its fast-paced production cycles, high levels of waste, and heavy reliance on natural resources. This has led to significant environmental and social impacts, including pollution, resource depletion, and poor working conditions. As consumers become more environmentally and socially conscious, they are demanding more sustainable products and practices from the brands they purchase from. Thus, brands are challenged to increase the transparency of their products and processes, as well as find innovative ways to promote more sustainable practices that expand beyond the sale of their products.

ZATAP has partnered with several luxury brands and sports clubs to promote eco-friendly materials and production processes. Most recently, ELLYHA, a high-end ready-to-wear brand born in Switzerland, introduced digital product passports powered by ZATAP. Each item of its new collection comes with a DPP, where customers can access product-specific information, such as the material composition, its origin, and its supply chain. In addition, customers learn about ELLYHA's commitment to sustainability, which incorporates the repurposing of leftover materials from the LVMH group, pre-order-based manufacturing, and short and transparent supply chains. Further, customers are provided with meticulous care instructions and a repair program to extend the lives of their products.

"Our second drop, powered by collectID, is a step toward a more sustainable fashion future. By allowing customers to access the journey of their garments through the Digital Product Passport, we're promoting conscious consumerism and enabling a deeper connection between consumers and the fashion they wear. We want to empower individuals with knowledge about their clothing and inspire a sense of responsibility in the fashion choices they make."

Elissa Lefoll, Founder of ELLYHA

Other examples include the Swiss luxury brand Maison Mollerus, which grants customers a behind-the-scenes look at the manufacturing of their recycled leather handbags, and the Swiss brand, CZI, which shares meticulous care instructions to prolong the life cycle of their art-infused swimwear. KangaROOS uses the DPP to tell the story of its limited edition 'Environment Day' sneaker made from environmentally-friendly materials and planted a tree on behalf of each sneaker sold. Kappa and Deportivo de La Coruña released a limited-edition eco-conscious jersey that uses 100% recycled materials sourced locally and manufactured ethically. Lastly, JAKO introduced an incentive-based challenge for customers who registered their products, promoting sustainable practices.

Through ZATAP, these brands are able to provide customers with information on the origin of sustainable materials used in their products and their manufacturing process. Moreover, the immutable product history allows brands to highlight their supply chain partners and promote ethically conscious partnerships. The technology ensures that such information is not lost but is closely tied to the physical product through its Digital Product Passport. In addition, the ZATAP technology facilitates the resale of luxury goods in a secure and transparent way, making it a smart and sustainable choice for both consumers and the environment.

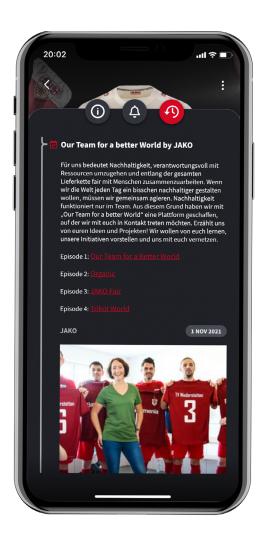
PROMOTING CUSTOMER ENGAGEMENT

In today's rapidly evolving digital landscape, customer engagement has become a critical challenge for fashion and luxury brands. In this highly competitive, global market, brands must work harder than ever to capture and maintain the attention of their target audience. Additionally, as consumers become more sophisticated and discerning, they are demanding personalized experiences and meaningful engagement from the brands they interact with. This has made it increasingly difficult for fashion and luxury brands to stand out and build lasting relationships with their customers. As a result, customer engagement has become a key challenge for fashion and luxury brands, requiring them to develop innovative strategies and technologies to create a more personalized and engaging customer experience.

The ZATAP PCP is the gateway to increased customer engagement, as its connected products empower customers to engage more profoundly with the brands that create them. Importantly, this engagement is measurable and grants participating brands insights into how customers interact with their products. For example, the tamper-proof digital twin allows for secure, peer-to-peer trading on the secondary market. Brands can thus track the immutable ownership history and eventually even earn a commission from every trade of their phygital products.

Further, the PCP enables luxury brands to engage with customers in new and innovative ways such as offering personalized loyalty rewards and access to exclusive content and experiences, which will ultimately boost customer retention, drive sales, and unlock new revenue streams. As an example, registered owners of an ELLYHA piece were offered early access to pre-order the next highly limited collection before the general public.

In other words, brands and their products not only become more transparent in the eyes of consumers but brands also gain transparency about how customers engage with their products beyond the point of sale. This reciprocal transparency allows for more meaningful relationships between consumers and brands, facilitated through the phygital product.





REDUCING THE ENVIRONMENTAL IMPACT

Sustainability is a key priority for ZATAP, and we are committed to reducing our environmental impact while providing innovative solutions for brands. To further enhance our sustainability efforts, in February 2022, we completed the transition from Ethereum to Polygon blockchain. By using Polygon, we are able to achieve faster blockchain transaction processing and reduce our carbon footprint. Polygon is already carbon neutral by eliminating all of the blockchain's carbon debt, and they are actively working on becoming carbon negative. This means that every transaction is accounted for, and its environmental impact is offset.

INTEGRATING COLLECTID NFC TAGS

The ZATAP NFC tags come in different shapes and forms, allowing frictionless integration in various product categories. Our tags are water- and heat-resistant to ensure long durability and to enable products to withstand at least 100 washing cycles. Further, the seamless integration into physical products ensures that quality and wearing comfort are not compromised. The ZATAP NFC tags can either be integrated during the manufacturing process or post-production, leaving brands with a high degree of flexibility in regard to timing and application methods. Lastly, our API allows partners to lock customers into their own brand environment, ensuring complete control over the entire customer experience and the collected first-party data.

CONCLUSION

In summary, ZATAP's Product Cloud Platform offers a seamless bridge between the physical and digital realms, enhancing transparency for luxury brands by providing a secure and tamper-proof system for verifying product authenticity through blockchain and IoT technology. This holistic ecosystem extends far beyond product authentication, empowering customers with comprehensive product information and enabling luxury brands to get to know and engage their customers while harnessing valuable first-party data for informed marketing strategies and elevated customer experiences. Moreover, the PCP paves the way for luxury brands to foster novel and innovative customer interactions, from loyalty rewards to facilitating resale, thus strengthening the brand-customer relationship. By uniting our efforts, we can collectively advance towards a more transparent future for all.

USEFUL LINKS

- ZATAP Success Stories
- ZATAP x Maison Mollerus
- Swiss Fashion Brand ELLYHA Partners with ZATAP for Second Drop
- 3 Revolutionary Reasons Why ELLYHA is Changing Swiss Fashion

CONTACT DETAILS

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USE CASES: LUXURY AND FASHION

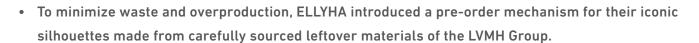
In the pursuit of enhancing transparency and authenticity in the luxury sector, we are thrilled to present three illuminating use cases that showcase how the ZATAP Product Cloud Platform has revolutionized the customer experiences of leading brands. These cases exemplify the transformative power of technology, forging seamless connections between the physical and digital worlds. Join us as we delve into the stories of ELLYHA, Hugo Boss, and Maison Mollerus, as they leverage our solutions to deliver groundbreaking experiences for their customers.

1. ELLYHA: TRANSFORMING FASHION WITH TRANSPARENCY AND INNOVATION

In partnership with ZATAP, ELLYHA, a Swiss high-end ready-to-wear brand, is revolutionizing the fashion industry through innovation and a commitment to sustainability. Their latest venture, DROP 02, represents a pivotal step towards enhanced transparency. This use case delves into ELLYHA's initiatives and the transformative power of their collaboration with ZATAP.

RELEASE INFORMATION

- DROP 02 features a curated selection of six sustainable pieces, each equipped with a serialized Digital Product Passport and a unique identity.
- The DPP provides information on the origin of the repurposed garments and their journey across the short supply chain.



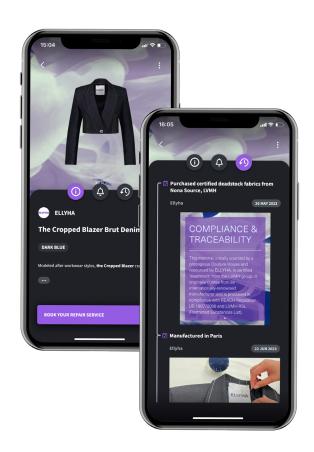
PROJECT GOALS

- With the DPP, ELLYHA wants to provide customers with a transparent view of their supply chain, from material sourcing to production facilities.
- The introduction of a Digital Product Passport aligns perfectly with ELLYHA's mission to differentiate itself from the competition by promoting conscious consumerism.



USER JOURNEY AND CUSTOMER BENEFITS

- ELLYHA empowers customers with a transparent supply chain, shedding light on material sourcing and production locations.
- Detailed information about material composition and origin allows customers to make informed choices.
- ELLYHA offers a repair service, fostering product longevity and encouraging customers to invest in sustainable fashion.
- By providing care instructions, ELLYHA helps customers maintain product quality and extend the lifespan of their garments.
- Owners of previous collections enjoy early access and discounts for pre-orders, strengthening customer loyalty.



PROJECT RECAP AND BRAND BENEFITS

- ELLYHA gains a direct channel to communicate with customers, fostering customer-brand relationships and driving sales.
- The brand's differentiation through innovation and sustainability positions ELLYHA as a responsible and forward-thinking brand, building a unique reputation.
- ELLYHA takes on a pioneering role in contributing to the development of digital product passports, thereby anticipating upcoming EU legislation.

"Our second drop, powered by ZATAP, is a step toward a more sustainable fashion future. By allowing customers to access the journey of their garments through the Digital Product Passport, we're promoting conscious consumerism and enabling a deeper connection between consumers and the fashion they wear. We want to empower individuals with knowledge about their clothing and inspire a sense of responsibility in the fashion choices they make."

Elissa Lefoll, Founder of ELLYHA

This collaboration between ELLYHA and ZATAP propels the brand towards a more sustainable and transparent future, enriching the customer experience and strengthening its commitment to environmental responsibility.



2. HUGO BOSS X IMAGINARY ONES: CONNECTING PHYSICAL AND DIGITAL

In the ever-evolving world of premium and luxury fashion, authenticity stands as a non-negotiable cornerstone. Hugo Boss recognizes the paramount significance of authenticity and provides its customers with a groundbreaking method to ensure the integrity of their products. This transformation was ignited through a pioneering collaboration between Hugo Boss and Imaginary Ones, facilitated by our cutting-edge technology. The result is an unprecedented gateway, bridging physical products with the digital realm while placing authenticity at its core.



RELEASE INFORMATION

- In the vein of the collaboration between Hugo Boss and the NFT studio Imaginary Ones, a highly limited phygital cap was released.
- The cap was made exclusively available to holders of the HUGO x Imaginary Ones NFT, adding a layer
 of exclusivity and uniqueness to the product.
- Through ZATAP's Product Cloud Platform, owners could verify the authenticity of their cap and unlock a digital wearable with additional perks.

PROJECT GOALS

- The cornerstone of the project is the creation of an immutable proof of authenticity stored on the blockchain.
- The project sought to create a seamless connection between physical caps and their digital twins, unlocking a myriad of possibilities for customers.

USER JOURNEY AND CUSTOMER BENEFITS

- Customers tap their cap to receive irrefutable proof of authenticity.
- The unique ID allowed customers to unlock their digital twin on the Ready Player Me platform to then wear it in various virtual environments.
- Unique redemption codes ensured that only customers with physical access to the cap could redeem the digital wearable, providing a secure and exclusive experience.
- Customers were restricted to redeeming the digital wearable only once, safeguarding the exclusivity of the product and discouraging sharing of access.





PROJECT RECAP AND BRAND BENEFITS

- The Imaginary Ones community expressed overwhelming enthusiasm for the innovative experience, lauding the fusion of physical and digital realms.
- The project strengthened Hugo Boss' ability to protect its brand against counterfeiting, ensuring the authenticity of its products.
- By offering a digital extension of the physical product, Hugo Boss prolonged the customer journey into the digital realm, creating increased engagement and laying the foundation for new revenue streams.
- The innovative approach elevated the overall customer experience, aligning with Hugo Boss's commitment to innovation and authenticity.

This collaboration between Hugo Boss, Imaginary Ones, and ZATAP marks a transformative step toward a more authentic and immersive future, where luxury fashion and innovation merge seamlessly.

3. MAISON MOLLERUS: PIONEERING SUSTAINABILITY AND AUTHENTICITY IN HANDBAGS

Maison Mollerus, renowned for its exquisite handbags and leather goods, is leading a sustainable fashion movement in partnership with ZATAP. In this use case, we delve into Maison Mollerus' project, presenting a collection of handbags crafted from recycled leather and the introduction of the brand's first iteration of a Digital Product Passport.

RELEASE INFORMATION

- Maison Mollerus unveiled a collection featuring four distinct models of handbags, each meticulously crafted from recycled leather.
- Each of the recycled handbags is equipped with a digital twin that tells the story of the eco-friendly production process.

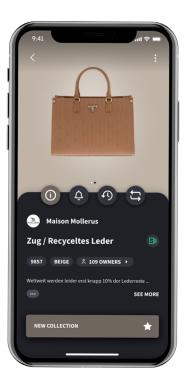


PROJECT GOALS

- Maison Mollerus wanted to create awareness for recycled leather products and grant customers a behind-the-scenes look into their production facilities
- With the ZATAP Product Cloud Platform, Maison Mollerus wants to provide customers with immutable proof of authenticity for their handbags.
- Especially because of its diverse target audience, reaching from young to old, Maison Mollerus wanted to get to know its customers and establish a direct relationship with them.

USERS JOURNEY AND CUSTOMER BENEFITS

- With a simple smartphone tap, customers access the bag's proof of authenticity.
- The digital twin guided handbag owners through the innovative manufacturing process around the recycled leather handbags, fostering appreciation and trust for sustainable practices.
- Maison Mollerus rewards customer loyalty by offering those, who unlock their digital twin, an exclusive discount for their next purchase.
- Customers could utilize their proof of authenticity to trade their handbags on the secondary market, promoting circularity and sustaining value.



PROJECT RECAP AND BRAND BENEFITS

- By using recycled leather and innovative manufacturing, Maison Mollerus promoted a more sustainable and environmentally responsible production process.
- The Product Cloud Platform allowed Maison Mollerus to establish a direct communication and sales channel with customers, building stronger customer-brand relationships.
- Maison Mollerus set itself apart from the competition by being an early adopter of NFC technology for product authentication and promoting sustainable manufacturing processes.
- The project laid the groundwork for secure and autonomous peer-to-peer secondary trading, offering added value to customers and the brand.

This collaboration between Maison Mollerus and ZATAP exemplifies their commitment to sustainability, authenticity, and innovation, enhancing customer experiences while laying the foundation for change in the fashion industry.

USEFUL LINKS

- ZATAP Success Stories
- ZATAP x Maison Mollerus
- Swiss Fashion Brand ELLYHA Partners with ZATAP for Second Drop
- 3 Revolutionary Reasons Why ELLYHA is Changing Swiss Fashion

CONTACT DETAILS

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USE CASES

































Transformative Insights of Transparency in Luxury

In an era marked by conscientious consumerism and technological advancements, the luxury industry stands at the crossroads of tradition and innovation. This year's Technology for Transparency report unveils a compelling narrative of luxury brands navigating the delicate balance between sophistication and responsibility.

This section of the report brings together insights from fourteen key players in the luxury industry, each showcasing their unique contributions towards sustainability and ethical practices. These range from advancing responsible mining initiatives, integrating end-to-end transparency in jewelry and fashion, to emphasizing supply chain transparency and ethical sourcing. Intellectual property protection, the adoption of cutting-edge technologies like blockchain, and a focus on sustainable and ethical manufacturing processes are also highlighted. Together, these varied perspectives underscore a collective movement towards more responsible, transparent, and technologically innovative practices in the luxury sector, shaping a future where luxury and responsibility go hand in hand.

As we delve into the following case studies, we witness a collective effort among these luxury houses to redefine not only the aesthetic standards of the industry but also the ethical and environmental considerations that underpin their operations. These narratives offer a glimpse into a sector evolving with a sense of purpose thanks to the deployment of advanced technology solutions.

Alliance For Responsible Mining: Focuses on the transformation of artisanal and small-scale mining (ASM) into socially and environmentally responsible activities. It highlights the Fairmined Standard, a structured pathway for responsible ASM, emphasizing responsible practices, community and family well-being, and environmental mitigation. Key aspects include best practices in various areas like environmental care, social conditions, health and safety, and traceability. The Fairmined certification and premium are central, incentivizing responsible mining and enabling continuous improvement in the ASM sector. The report showcases ARM's success in transforming the ASM sector, influencing legislations, and promoting sustainability through alliances and responsible commercial practices.

A to Z Diamonds: focuses on their unique position in the diamond and jewelry industry, highlighting their commitment to transparency. The company specializes in end-to-end concierge services for overseas buyers, leveraging technology to provide detailed insights into their products. Challenges faced include sourcing transparency, technological limitations, market variability, educating consumers, and adapting to new trends. Future industry predictions involve increased technology integration for transparency and ethical practices, with an emphasis on blockchain technology and advanced grading technologies. The company's approach is customer-centric, emphasizing ethical sourcing, detailed information, and consumer education.

Bally: Emphasizes the company's commitment to responsible business practices and sustainability. It details Bally's approach to transparency in its supply chain, the introduction of a "Preferred Material List" for product sustainability, and the improvement of supply chain traceability. The company focuses on maintaining ethical standards, reducing environmental impact, and enhancing operational efficiency. Additionally, Bally's digital transformation and efforts in preserving its historical archive are highlighted, reflecting its commitment to sustainability and innovation.



Breitling: Discusses their commitment to sustainable and responsible practices. It covers their initiatives in traceable product sourcing, particularly focusing on gold and lab-grown diamonds. The document highlights Breitling's efforts in improving supply chain transparency, implementing sustainability measures, and contributing to social and environmental causes in mining communities. Additionally, it describes Breitling's move towards using lab-grown diamonds to ensure ethical sourcing and reduce environmental impact, along with initiatives like the Impact Diamond Fund to support positive change in the diamond industry.

Cabinet Hoffman: Discusses the challenges luxury brands face in protecting their intellectual property, especially in the context of counterfeiting and global market presence. Emmanuelle Hoffman, an expert in this field, emphasizes the importance of proactive and strategic brand protection, particularly in relation to trademark registration and vigilance against counterfeiting. The document also addresses the complexities of using surnames as brands and the need for a tailored approach to legal protection in the luxury industry, including in the digital realm like the metaverse.

Camille Louise: Outlines their commitment to sustainable and ethical jewelry production. The company, founded in 2020 by Aline d'Ambricourt and Camille Louise Merré, integrates cutting-edge technologies like XR, blockchain, and NFTs into their operations. They focus on circularity, enhancing consumer experience, and minimizing environmental impact. CLJ is dedicated to sustainable development goals and demonstrates a commitment to environmental responsibility, ethical sourcing, and advancing technology for sustainable growth in the jewelry industry.

CZI: Showcases the brand's journey and philosophy. Founded by Sandra Czich, CZI is known for its unique artworks and swimwear designs. Sandra, along with her twin sons Elie and Gabriel, have integrated sustainability and innovation into the brand's DNA. The company values transparency in production, disclosing the origins and processes of their garments, and emphasizes quality and excellence. They also focus on traceability and authenticity, integrating NFC certification in their garments to ensure product authenticity and combat counterfeiting.

EL-RAN Diamonds: focuses on their leading role in the diamond industry, particularly in terms of traceability and ethical practices. The company, under Eyal Atzmon's leadership, uses the iTraceiT technology for rigorous traceability of diamonds from mine to market. EL-RAN's commitment to ethical excellence is demonstrated through their in-house gemological laboratory, adherence to GIA and GGTL standards, and collaborations with like-minded suppliers. Their operations have been validated by external audits, showcasing their leadership in sustainable and ethical practices within the diamond industry.

Fairalloy: Details their pioneering role in the gold sector, especially in developing the world's first traceable Gold Potassium Cyanide (GPC), crucial for gold plating in jewelry, numismatics, and electronics. The gold used is Fairmined certified from Iquira and Chede Mines, with the entire supply chain undergoing regular third-party audits for compliance with the Fairmined standard. The Fairmined Connect software tracks every gram of GPC, ensuring transparency and accountability throughout the supply chain, from mining operations to technology companies. This comprehensive tracking system exemplifies FAIRALLOY's commitment to transparency in gold production.

Ethical Making Resources: A comprehensive website for individuals seeking information on responsible and sustainable practices in the jewelry and silversmithing industry. Created by The Scottish Goldsmiths Trust in 2017, EMR provides clear and practical ways for students, educators, small businesses, and independent jewelers and silversmiths to engage with ethical making. The resource includes guidance on ethical making, implementation of specific practices, sourcing materials sustainably, and a news section, all contributed by various industry professionals.



Ellyha: Showcases their unique approach to fashion design, combining innovation, quality, and a focus on women's needs. Founded by Elissa Lefoll, Ellyha emphasizes individuality, creativity, and empowerment. They use certified repurposed fabrics, ensuring sustainability and exclusivity in their collections. A notable feature is the integration of NFC technology and NFTs, providing digital passports for garments that ensure authenticity, traceability, and exclusive customer experiences. This approach reflects Ellyha's commitment to transparency, sustainability, and innovation in the fashion industry.

Movo Partners x ID Genève: ID Genève, a Swiss watch brand rooted in the circular economy, is recognized for its commitment to social and environmental responsibility. With B Corporation certification, the brand highlights its comprehensive approach to evaluating its impact on stakeholders, including suppliers, customers, and the environment. Known for its eco-innovative timepieces and supported by prominent figures like Leonardo DiCaprio and the Watches of Switzerland Group, ID Genève aims to lead positive change in the watch industry by creating products that respect communities, biodiversity, and the environment. This initiative is a collaborative effort with Movo Partners, emphasizing transparency and accountability.

Saskia Shutt: Highlights their approach to sustainable and ethical practices in the luxury industry. It focuses on transparency in the supply chain, the use of eco-friendly materials, and the adoption of circular economy principles. The document discusses the importance of responsible sourcing, including the use of recycled materials and the reduction of environmental impact. It also emphasizes CZI's commitment to ethical practices, including addressing issues related to illegal artisanal gold mining and the challenges associated with lab-grown diamonds. The company supports initiatives like Diamonds For Peace and advocates for responsible investment in small, sustainable mining projects.

VD Global: Emphasizes their advanced traceability processes for diamonds. They ensure each diamond is traceable from mining to distribution, with detailed documentation at each step. The process includes scanning diamonds at the source and inscribing identification codes. They have innovated in tracing multiple uncertified stones in loose parcels, using blockchain technology for public registration and identification. Tracr™, developed by De Beers, provides tamper-proof source assurance. Ethical compliance is strict, with diamonds sourced only from conflict-free, human rights-respecting environments. Purchasing a diamond supports community health, education, and livelihoods, along with environmental conservation efforts and technological innovations for sustainability.

Join us on a journey through these transformative tales, where luxury and technology converge to illuminate a path towards a more transparent and sustainable future. The exploration of these use cases not only showcases the industry's commitment to responsible business practices but also sets a precedent for others to follow. As we unpack these stories, we uncover the multifaceted dimensions of transparency, where innovation and responsibility coalesce to redefine the very essence of luxury in a rapidly evolving global landscape.



Prof. Stéphane J. G. Girod Professor of Strategy and Organizational Innovation IMD



Margot Stuart COO & Co-founder OriginAll S.A.





The Alliance for Responsible Mining (ARM) was established in 2004 and is a leading global expert on artisanal and small-scale mining (ASM). We work to transform the ASM sector into a socially and environmentally responsible activity, while improving the quality of life of artisanal miners, their families and communities.

The Fairmined Premium - An introduction to the Fairmined premium Report 2022 : Get access to the full Fairmined premium report here:

https://fairmined.org/wp-content/uploads/2023/10/Fairmined-premium-report-2022-English.pdf

FAIRMINED: A PATH TO POSITIVE CHANGE

Almost 20 years ago, the Alliance for Responsible Mining (ARM) introduced the Fairmined Standard to the world, offering a structured pathway towards a responsible artisanal and small-scale mining that progressively transforms the lives of miners, their families, their communities, while also mitigating the negative environmental impacts associated with this activity.

With the Fairmined Standard as a cornerstone, ARM has collaborated with miners, companies, foundations, governments, cooperation agencies, and mineral buyers, among others, all interested in contributing to this cause. It has engaged in co-creating methodologies and social technologies, generating insights into ASM, fostering multi-sectoral partnerships, and influencing both national and international legislations to create more favorable conditions for responsible artisanal and small-scale mining worldwide.

Through a systemic and innovative approach, ARM has developed concrete ways for enhancing the responsibility of this sector. It has also facilitated the transfer of resources to the ASM sector, enabling positive changes that would have otherwise been impossible without donations or an actively responsible market. In addition, it has ushered sustainability into the achieved improvements by helping to build responsible commercial alliances between buyers and certified mines, ensuring fair prices for minerals and additional premiums.





Specifically regarding certified mines, in 2022, over 1,194 artisanal and small-scale miners across 7 certified mines committed to carrying out their mining operation responsibly, which involved the implementation of best practices in various categories:

- Environment (with a special focus in mercury and other climate change-related factors) and Productivity
- · Social, gender, and labor conditions
- Health and safety
- · Traceability and management

In addition to these best practices, commercialization strategies have been fundamental in helping these mines to become viable responsible enterprises. And thanks to on-ground efforts and the commitment of 413 sector companies, in 2022 certified miners achieved continuous enterprise development, invest in member well-being, community advancement, and territorial improvement, all made possible through fair prices and premiums received for their Fairmined minerals.

During 2022, six Fairmined mines successfully sold their Fairmined gold and silver within responsible markets, receiving both the international market price and the Fairmined premium.

In Colombia, these mines included:

- Chede Mining Organization
- Agromining Cooperative of the Municipality of Íquira
- La Gabriela Mine





In Peru, the certified mines ere:

- Cecomip Mining Organization
- · Oro Puno Mining Organization
- Cruz Pata Chaquiminas Mining Organization

Since 2014, certified mining organizations have collectively received over \$6.8 million through the Fairmined premium, funds channeled towards maintaining their best practices and progressively deepening their commitment to multiple stakeholders.

The results achieved over these years stand as a testament that it is possible to transform the reality of the ASM sector. It has also inspired diverse interventions and organizations that have contributed to this agenda in various capacities. ARM takes pride in its pioneering efforts, which have served as a source of inspiration for these new organizations and initiatives, garnering even greater support for the global positive transformation of the ASM sector.

From this perspective, the impact of the Fairmined Standard extends beyond the immediate influence on the lives of certified miners, their families, communities, and local environments, as well as the buyers of this responsible mineral. This impact goes widely far beyond and we thank everyone who has joined us on this remarkable journey, turning the seemingly impossible into a reality.

This report is both a recognition of the achievements made possible by the investments from the 2022 premium and an invitation to ARM's allies and partners to continue supporting the Fairmined initiative. For those who are considering joining us in this significant cause, ARM welcomes your participation, as together, a greater and more profound difference can be achieved.



Key Figures in 2022

6 CERTIFIED SMALL-SCALE MINING ORGANIZATIONS ENTITLED TO A PREMIUM OF USD 541,481

130.31 KILOGRAMS OF FAIRMINED GOLD AND 5.55 KILOGRAMS OF FAIRMINED SILVER WERE SOLD TO THE INTERNATIONAL FORMAL MARKET BY 6 CERTIFIED MINES

A TOTAL OF USD 6,838,930 IN FAIRMINED PREMIUM HAS BEEN PAID TO CERTIFIED MINING ORGANIZATIONS SINCE 2014

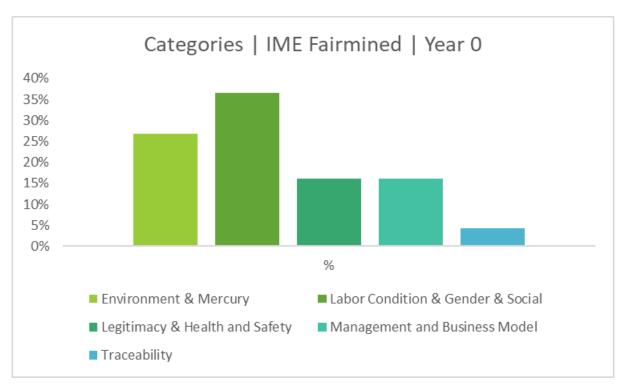
WHAT IS THE FAIRMINED CERTIFICATION?

The Fairmined certification is the guarantee that an artisanal and small-scale mining organization (ASMO) complies with the requirements of the Fairmined Standard, developed by the Alliance for Responsible Mining (ARM).

To assist ASMOs to assess their status and chart a course towards continuous improvement, thereby fostering greater responsibility towards all stakeholders, ARM has pioneered the creation of an assessment tool known as the Integral Mining Evaluation (IME).

The IME contextualizes the Fairmined Standard within the ASMO's specific circumstances, enabling ARM, the mines, and any other partners to understand the status of each mine in line with the Standard and pinpoint its specific areas of focus. These identified priorities form a foundation for a sustainability plan, and through its implementation, the mine develops its practices to the extent that it qualifies for Fairmined certification to become part of the pool of artisanal and small-scale mining organizations recognized as leaders in responsible practices within the ASM sector.

For a mine to be deemed ready for a third-party certification audit, especially when being certified for the first time, it must exhibit high compliance, scoring a minimum of 93 in the evaluation criteria, distributed across various categories:



As the Fairmined Standard is designed to be progressive, the IME tool mirrors this progression. Depending on the number of years the mine has been part of the Fairmined family, it will be required to comply with an additional set of criteria outlined in the IME to qualify as a candidate for recertification.

ASMO	Year of certification
La Gabriela Mine	1
Cruz Pata Chaquiminas Mining Organization	2
Oro Puno Mining Organization	5
Cecomip Mining Organization	6
Chede Mining Organization	3
Agromining Cooperative of the Municipality of Íquira	6

WHAT IS THE FAIRMINED PREMIUM?

A PREMIUM THAT TRANSFORMS LIVES AND SHAPES THE FUTURE

The Fairmined premium stands as an economic recognition, empowering Fairmined certified mining organizations to not uphold their best practices but also advance them. It also aims at improving the well-being of their members and families while fostering social, economic and environmental development within the territories they are part of.

For every kilogram of Fairmined gold sold, certified organizations receive \$4,000 in premium. Organizations holding the ecological Fairmined certification (complying with the Fairmined Standard and additional more progressive requirements) receive \$6,000 for every kilogram of gold sold. Similarly, for every kilogram of silver sold, certified organizations receive \$100 for Fairmined silver and \$150 depending for ecological Fairmined silver.

To use these resources, each mine establishes a Premium Committee comprising representatives from diverse sectors and hierarchies within the mine. This committee is responsible for mapping the needs and prioritizing investment using the premium resources, all while considering the ASMO's financial counterpart.

These priorities are then structured in a Fairmined Premium Investment Plan, which is implemented by the mining organization and monitored by the mine's Premium Committee with the support of ARM, following established procedures, formats and rules governing premium utilization. These investment plans not only take into account the ASMO's context and primary stakeholders, but also align with the premium's predefined objectives.



FAIRMINED PREMIUM, ESG (ENVIORNMENTAL, SOCIAL AND GOVERNANCE) CRITERIA, AND SUSTAINABLE DEVELOPMENT GOALS

IMPACT ON MINING COMMUNITIES

For ARM, responsible artisanal and small-scale mining entails more than merely correcting, mitigating, or compensating for the social and environmental negative impacts derived from mining activities. It also involves actively promoting best practices that empower miners, their families, communities and territories. In this context, we believe in the importance of the ESG approach (Environmental, Social and Governance criteria) as a pathway to raise awareness about the potential for positive change, serving as an important tool to showcase the positive impacts achieved within ASMOs, mining communities and territories. By doing so, multiple stakeholders can access and understand these achievements and explore ways to engage and contribute to this cause, ultimately contributing to build a future where responsible ASMOs set the Standard.

The importance of ESG criteria in the responsible mineral industry also aligns with the United Nations Sustainable Development Goals (SDGs). In our pursuit of a more responsible ASM sector, we employ ESG criteria to make contributions towards the following SDGs:



SOCIAL:

Obtaining the Fairmined certification is crucial, but the true key to its sustained success lies in maintaining this certification and facilitating access to fair and international markets for the mines. Such access not only ensures fair compensation in alignment with international gold prices but also secures the receipt of the Fairmined premium. These factors are key in the viability of projects and activities that enable ASMOs to uphold and advance their best practices, achieve these results and serve as positive models of responsibility within the ASM sector.

WHAT ARE THE LEVELS OF RESPONSIBILITY OF THE FAIRMINED PREMIUM?

The Fairmined premium is strategically invested to foster the development of the following levels of responsibility:

- 1. STRENGTHENING THE MINING ORGANIZATION'S RESPONSIBLE PRACTICE AND PRODUCTION SYSTEM
- Investments aimed at improving the productivity of the mining organization, upholding best practices
 and complying with new practices demanded by the Fairmined Standard's progressive nature. In this
 level of responsibility, most of the investments are channeled into categories such as environment
 (including mercury reduction or elimination plans), gender equity, legitimacy, occupational health and
 safety, management, business model, and traceability.

2. ENHANCING THE WELL-BEING OF WORKERS AND THEIR FAMILIES

 Investments aimed at improving the quality of life for the members of the mining organization and their families. In this level of responsibility, most investments are designed to improve social and/or labor conditions.

3. FOSTERING COMMUNITY DEVELOPMENT

 Investments and projects aimed at benefiting the communities surrounding the mining operation and the broader territory. In this level of responsibility, most investments fall into the categories of social and/or environment conditions.

CLIMATE CHANGE MITIGATION: A CONTRIBUTION FROM ASM

At the Alliance for Responsible Mining (ARM), we recognize that the journey towards a more responsible ASM with better environmental, social, and governance practices requires a gradual and progressive approach. We firmly believe that promoting collaborative and coordinated efforts among key stakeholders within the supply chain, including miners, industry players, government entities, civil society organizations, impact investors, is essential to achieving this goal.

To this end, we have developed the Sustainable Mines Program (SMP) as our comprehensive roadmap. This provides a framework for all stakeholders to collaborate and align their actions, leveraging the principles outlined in the CRAFT Code and the Fairmined standard, promoting best practices in ASM and encouraging the responsible sourcing of gold by the market. In addition, the SMP is tailored to meet the diverse needs of stakeholders taking into account all of the existing possibilities to promote positive change in the ASM sector.

Through the implementation of sustainability plans, supported by funding from actors within the supply chain, and with our guidance and support, mining organizations enhance their performance, demonstrating tangible results of their responsible practices which are based on Environmental, Social, and Governance (ESG) criteria, and bringing positive impacts to their communities.

ENVIRONMENTAL IMPACT

As part of this, environmental issues have always been at the core of our strategies to support artisanal and small-scale miners on their path to continuous improvement. An example of this is the environmental criteria of the CRAFT Code that mines must comply with, which are verified through mining assessments involving a total of 22 criteria related to Modules 2 and 5. Similarly for the Fairmined standard, the assessment has 37 criteria distributed progressively according to the year of certification. It is also important to highlight the Forest-Smart Mining (FSM) standard.

Therefore, significant results related to the mitigation of negative environmental impacts are achieved as mining organizations progress through the stages of the Sustainable Mines Program. This progress is made possible through mining assessments conducted by our ARM team together with miners. Additionally, sustainability plans adapted to their specific contexts are implemented in alliance with the mining organization and other partners.



However, in the face of global challenges posed by the current planetary crisis, in ARM we are deepening our focus on effective strategies where ASM can contribute to mitigating negative environmental and social impacts, particularly in addressing climate change, biodiversity loss, and water source contamination.

In the same vein, our ARM team has been exploring strategies to increase the resilience of mining communities, which face high levels of vulnerability associated with climate change and biodiversity loss.

MERCURY FREE GOLD

A significant milestone in promoting mercury-free ASM was the alliance we formed with the PlanetGold program, aimed at significantly improving production practices and working conditions for artisanal and smallscale miners. Additionally, we promote bridging the financial gap, supporting formalization efforts, and connecting mining communities that implement mercury-free technologies with formal markets. In 2022, 27 artisanal and small-scale mining organizations received support within the framework of the CRAFT Code and the PlanetGold Program. Actions aimed at eliminating the use of mercury in mining activities were carried out in all of these organizations.

Two organizations achieved significant milestones: AGROMIN reached CRAFT compliance, and La Gabriela was in the first year of Fairmined certification compliance.

In Peru, the Green Mining project, implemented by nonprofit organizations Pure Earth and ARM and funded by the global jewelry company Brilliant Earth, supports mining organizations in the Amazon region in adopting mercury-free practices. The project also focused on restoring degraded Amazon rainforest areas affected by gold mining through reforestation. Nearly 50 miners from the Tauro Fátima Artisanal Miners Association (AMATAF), composed of mining organizations Fátima, Abel 3, El Principe Azul 1, and Linda 2 in Madre de Dios, are part of this initiative.

These mining organizations began their journey in the Embracing stage of the Sustainable Mines Program in 2022 and are on their way to becoming a benchmark for responsible mining in the region. The good practices they are implementing will help them meet the strict requirements of the Fairmined Standard to sell their gold in international markets at a fair price.

Additionally, in Peru, there are two certified ecological Fairmined mines, CECOMIP - Francisco I - and Oro Puno, which means they do not use any chemicals in their extraction and processing, demonstrating their environmental commitment.

CARBON FOOTPRINT ASSESSMENT

As pioneers in the field, ARM has developed a carbon footprint assessment tool for the ASM sector using a methodology based on the NTC ISO14064 technical standard and the criteria established by the Intergovernmental Panel on Climate Change (IPCC) reports. The results of the pilot application in three mining organizations in Colombia (La Gabriela, El Cangrejo, and Golondrina) provide important clues on how to progress towards potential pathways to low-carbon Artisanal and Small-Scale Mining (ASM). Some priorities on this path include:

- Conducting carbon footprint assessments for other mining organizations, particularly for certified mining organizations.
- Implementing actions that promote the reduction of the carbon footprint in each of the mining organizations we work with, based on available funding.



OTHER IMPLEMENTED ACTIVITIES

In line with our commitment to climate change mitigation and environmental protection, our Mining Sustainability Team strengthened its strategy by developing procedures, metrics, indicators, and tools for the effective monitoring of environmental best practices implemented by mining organizations. These actions include the utilization and recirculation of water, reforestation, proper management of hazardous substances, and waste management.

This is part of the Alliance for Responsible Mining annual Report:

https://www.responsiblemines.org/wp-content/uploads/2023/07/ARM-Annual-Report-2022-.pdf

SANU KURA PROJECT CLOSES IN BURKINA FASO SUPPORTING THE FORMALIZATION OF 1.000 MINERS

Over 4 years (2019-2023), the SANU KURA project provided a pathway to a promising future for artisanal and small-scale mining (ASM) in Burkina Faso. Funded by the European Union through its Instrument Contributing to Stability and Peace (IcSP), this ambitious project transformed the mining landscape by creating legal and viable production and marketing channels. The results are positive for the mining communities involved in economic, social and environmental aspects in Burkina Faso.

The SANU KURA project has had a significant impact on local communities, benefiting 2,456 people, including 982 men and 1,474 women. It has provided essential support for the creation of 23 mining groups, comprising 17 associations and 6 cooperatives (7 associations and 3 cooperatives in the Centre-North, 6 associations and 3 cooperatives in the Centre-West and 4 associations in the South-West).

The SANU KURA project is a model of success in promoting responsible and sustainable artisanal and small-scale mining in Burkina Faso. Through its considerable efforts in the areas of health, safety, environment, social organization, economy and technology, it has left an indelible mark on the country's development. The positive impact of this project will last well beyond its closure in 2023, making Burkina Faso an example of artisanal and small-scale mining worldwide.

Learn about the main positive impacts of the project:

ENVIRONMENTAL PROTECTION

The project took important steps to promote environmentally friendly mining techniques. It implemented waste and effluent management systems at 9 mining sites, contributing to the preservation of local ecosystems. In addition, the project was able to significantly reduce the use of mercury at 6 mining sites, representing an important step towards environmental sustainability.

IMPROVEMENTS IN OCCUPATIONAL HEALTH AND SAFETY

The SANU KURA project put safety at the center by training 36 workers in good health and safety practices, including first aid. It also raised awareness among more than 1,000 workers about the risks associated with the use of mercury, thus helping to protect the health of artisanal miners. Thanks to this project, 3 mercury-free processing plants were set up at the Memer, Guido and Pagdin mining sites, and 06 in rotation at the mining sites (Pagdin, Guido, Bepoidyr, Poa, Urbi and Memer), and carried out crucial awareness-raising campaigns on the dangers of mercury.

In addition, personal protective equipment (PPE) was provided to each mining organization to improve safety in the field. The project also implemented emergency protocols and accident response plans at 9 mining sites, ensuring a rapid response in case of need. In addition, a medical assessment related to mercury exposure of 9 artisanal miners was carried out, further strengthening health surveillance.

A comprehensive report on the management of the COVID- 19 pandemic at the 10 mining sites was also produced.





SOCIO-ORGANIZATIONAL DEVELOPMENT

The project developed 3 multi-stakeholder local action plans based on the discussion and engagement of the different actors involved in local governance. In addition, 10 improvement plans were developed and validated for each mining site, covering aspects such as human rights, reproductive health, community governance, financial education, health, safety and hygiene at work.

In addition, the project trained 45 civil servants and public sector actors in standards of responsible business conduct in relation to conflict minerals and other natural resource extraction.

A participatory communication strategy was developed to raise awareness of priority issues for mining communities and interactive radio and TV programmes were organized.

Supply chain, technology and economic opportunities

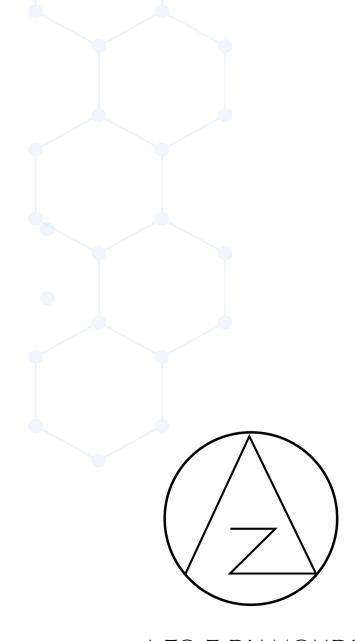
The SANU KURA Project has opened up new economic perspectives for artisanal miners, in particular the creation of economic opportunities in the artisanal mining sector through the connection to the formal market on the basis of responsible production models – CRAFT or FAIRMINED – that respond to the expectations of the sector.

As a result, 60% of the mining sites have significantly improved their level of formalization in relation to the CRAFT Code and the Fairmined Standard. As a result, more than 1,000 partially or fully formal jobs have been formalized in pilot sites and related activities. This represents an important and responsible step forward for the artisanal gold mining sector in Burkina Faso.

In addition, 500 women were trained in saponification, financial literacy, business plan development, credit application procedures and support for poultry and small ruminant rearing through endowments, thus strengthening their knowledge and capacity to thrive in the sector.

The project has also contributed to improving the gold supply chain by identifying actors, providing training on the CRAFT Code, strengthening traceability of the gold produced and meeting the requirements of the formal gold market in the case of Memer.

Finally, the SANU KURA project has adopted innovative technologies to optimize mining processes, the development of environmentally friendly ore processing methods and the implementation of technological solutions for mining data management with the MAPE Progress App digital platform.



A TO Z DIAMONDS

CAN YOU PROVIDE AN OVERVIEW OF A TO Z DIAMONDS AND ITS UNIQUE POSITION WITHIN THE DIAMOND AND JEWELRY INDUSTRY?

A to Z Diamonds is uniquely positioned as a diamond trading company that specializes in providing end-toend concierge services to overseas buyers. Our expertise lies in managing purchases through shipment aggregation, offering competitive prices, and delivering unbiased inspection services. We also play a consultative role for our clients. For those in the retail sector, we provide tailored advice on diamond selections that align with their sales trends and customer preferences, leveraging our market insights to help them make informed purchasing decisions.

HOW DOES A TO Z DIAMONDS LEVERAGE TECHNOLOGY TO ENHANCE TRANSPARENCY IN ITS OFFERINGS?

At A to Z Diamonds, we leverage technology to enhance transparency for our overseas clients by providing high-quality photo and videography of our diamonds, complete with expert grading opinions, allowing clients to confidently make informed decisions from afar. We also employ advanced digital platforms for efficient order tracking and communication, ensuring clients are always updated about their purchases. Furthermore, we use data analytics to offer personalized recommendations for future purchases, tailored to each client's unique preferences and past buying patterns. Additionally, our use of remote collaboration tools, like video conferencing bridges the geographical gap, offering clients a more interactive and engaging experience. This comprehensive use of technology not only facilitates transparency but also builds trust and satisfaction among our clientele.

WHAT CHALLENGES DOES A TO Z DIAMONDS FACE IN MAINTAINING TRANSPARENCY, ESPECIALLY WITHIN THE DYNAMIC LANDSCAPE OF THE DIAMOND INDUSTRY?

A to Z Diamonds, operating in the dynamic and complex landscape of the diamond industry, faces several challenges in maintaining transparency:

Sourcing Challenges: As we are not manufacturers, our ability to ensure transparency is partially dependent on our suppliers. Ensuring that every supplier adheres to the same high standards of transparency, especially in tracing the origin of diamonds, can be challenging.

Technological Limitations: While we strive to adopt the latest technologies for traceability and certification, the diamond industry as a whole is still progressing towards full technological integration. This means that complete traceability is not always feasible, and we must navigate these limitations.

Market Variability: The diamond market is highly globalized and subject to fluctuations in regulations, standards, and practices across different regions. Keeping up with these changes and ensuring consistent transparency across all markets poses a significant challenge.

Educating Consumers: Another challenge is educating consumers about the complexities of diamond sourcing and certification. With varying levels of awareness among customers, providing clear, understandable, and transparent information is essential yet sometimes difficult.

Adapting to New Trends: The diamond industry is continually evolving, with new trends and consumer preferences emerging. Staying ahead of these trends while maintaining our commitment to transparency requires constant vigilance and adaptability.

Despite these challenges, A to Z Diamonds remains committed to upholding the highest standards of transparency, working diligently to overcome these obstacles and ensure that our clients receive ethically sourced, high-quality diamonds with clear and verified backgrounds.



HOW DOES A TO Z DIAMONDS EDUCATE CONSUMERS ABOUT THE QUALITY AND AUTHENTICITY OF ITS DIAMONDS?

For our retail custom jewelry customer, the focus is on making diamond education approachable and understandable. We explain the basics of diamond quality, often referred to as the 4Cs: Cut, Color, Clarity, and Carat Weight. We provide detailed information on how these factors influence a diamond's appearance and value. We also educate them about the importance of diamond certification from reputable grading institutions. This involves explaining what each certificate covers, such as the diamond's grading report, its authenticity, and any additional unique attributes. Additionally, we use visual aids, like high-resolution images and videos, to show real-life examples of how different grades and cuts appear, enhancing their understanding and confidence in evaluating diamonds.

HAVE YOU NOTICED ANY CHANGES IN CONSUMER EXPECTATIONS OR PREFERENCES RELATED TO TRANSPARENT INFORMATION IN THE DIAMOND AND JEWELRY SECTOR?

In the diamond industry, consumer preferences are increasingly favoring diamonds certified by reputable grading institutions, as these certifications assure quality and authenticity. While there's growing interest in traceability, indicating where a diamond originates and its journey, consumer knowledge in this area is still in its early stages and gradually gaining traction. These trends suggest a shift towards more informed, ethical purchasing decisions, with an emphasis on certified quality and a developing interest in the complete traceability of diamonds.

HOW DOES A TO Z DIAMONDS FORESEE THE FUTURE OF THE DIAMOND INDUSTRY, PARTICULARLY IN TERMS OF TECHNOLOGY INTEGRATION AND TRANSPARENCY?

In envisioning the future of the diamond industry, A to Z Diamonds anticipates a significant shift towards integrating technology for enhanced transparency and ethical practices. We expect to see a widespread adoption of blockchain technology, providing an immutable and transparent record of each diamond's journey from mine to market. Advanced grading technologies, particularly those harnessing AI and machine learning, are likely to standardize and improve the accuracy of diamond assessments. The industry is also set to expand its digital footprint, with online platforms and virtual showrooms making diamond trading more accessible globally. A strong emphasis will be placed on ethical sourcing, with technology being pivotal in ensuring and verifying responsible practices. Moreover, consumer education is expected to be revolutionized through technologies like augmented and virtual reality, offering deeper insights into diamond quality and origins. Overall, these technological integrations signify a move towards a more transparent, efficient, and ethically responsible diamond industry

IS THERE ANYTHING ELSE YOU WOULD LIKE TO SHARE OR EMPHASIZE REGARDING A TO Z DIAMONDS' COMMITMENT TO TRANSPARENCY IN THE DIAMOND AND JEWELRY INDUSTRY?

At A to Z Diamonds, our commitment to transparency in the diamond and jewelry industry is fundamental and ongoing. We continuously strive for improvement by adopting the latest industry innovations and best practices, focusing on ethical sourcing. Our approach is customer-centric, ensuring that both B2B and B2C clients receive detailed and accurate information about their diamonds' journey, quality, and certification. Education is also a vital part of our mission, empowering our clients with the knowledge they need to make informed decisions. We are dedicated to ethical practices and customer empowerment in the ever-evolving diamond industry.





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BALLY

Bally has been committed to responsible business practices since the company foundation in 1851. Since the company's early years, founder Carl Franz Bally pioneered a modern employee benefits model that included an on-site canteen, health care and pension plans. Though Bally is now a global luxury fashion brand with over 600 stores worldwide, the heart of its operations remains in Switzerland, where the company still takes care of people, craft and the environment, remaining true to its values.

Bally's 2022 annual Sustainability Report documents the company's progress to date and reflects its deep-rooted commitment to responsible practices.

The following excerpts represent a synthetic recap of the most relevant initiatives about sustainability. For a comprehensive understanding of Bally's commitments and actions, we recommend consulting the annual sustainability report at this link:

https://www.ballyofswitzerland.com/on/demandware.static/-/Library-Sites-bally-shared-row/en/v1700218593547/images/2020/new/sustainability/bally-sustainability-report-2022.pdf#zoom=75

TRANSPARENCY

Bally strongly believes in the power of transparency. For this reason the company planned its sustainability roadmap in 2019 and has since then published an annual report to provide updates on its journey to sustainability. Every year the company has been increasing its precision in gathering and sharing date, particularly regarding the choice of energy and materials.



OUR PRODUCTS

In 2022 Bally produced a total number of approximately 450,000 pairs of shoes and 650,000 ready-to-wear items and accessories. This high production volume is matched by exceptionally high standards for both the quality of their pieces, and their ethical and environmental impact.

In 2022, the company introduced the "Preferred Material List", a tool set to transform how products are designed and fabricated by taking Bally's sustainability credentials to a new level. Bally has also made improvements on the global supply chain transparency and continued to develop initiatives that increase the lifecycle of its designs.

MATERIALS

To achieve the goal of traceability, Bally continues to classify all relevant materials used throughout its supply chain and production processes by weight, which is widely considered the most accurate indicator of material consumption and allows to track more precisely the organization's progress towards a more responsible sourcing.

Bally can therefore consolidate its report in the form of a concentrated material list (arranged in ten main categories) allowing the company to prioritize its efforts on the most relevant material types, being aware that every category includes a number of subcategories and material families. Bally remains attentive to every material used in their supply chain, including small or residual amounts.

Compared to 2021, 2022 saw the occurrence of quantity variations and differences within the same material groups that can be ascribed to a different mix in the collection, concerning not only raw materials but also categories (shoes, accessories and ready-to-wear).

In 2022 Bally was able to classify almost 400 tons of materials more than in 2021. This is certainly the result of an improved traceability ability.

Bally was also able to improve its raw material classification and to correctly weigh the different components of numerous composite materials; the company succeeded, for instance, in identifying 96 tons of leather used within their products but mixed with other materials. Furthermore, 65 tons of other mixed material have been correctly allocated to their proper material category.

Bally's capability of weighing employed materials has also improved, an example being that of the amount of rubber in the soles. In 2021, infact, the company was aware of the importance and relative weight of rubber in its products, but could not properly classify it yet. In 2022 Bally has finally managed to account for it correctly, reaching the count of 166 tons.

Bally is committed to continue enhancing its systems to become increasingly precise in detailing the components of its products and their weight. In addition, the company is committed to improving its material sourcing. In 2022, around 25% of the material used had a preferable attribute, including:

- Certified materials e.g. leather from Leather Working Group certified tanneries, GRS certified materials, BCI cotton, FSC paper and wood materials
- · Chemically sustainable e.g. metal-free leather, vegetable tanning
- · Materials with less resource needed textiles requiring less energy and/or water in their processes
- Organic/vegan e.g. organic cotton
- Recycled material pre and post-consumer waste.
- Bally is building on this achievement by creating a new Preferred Material List.

SUPPLY & PRODUCTION

Bally considers their global supply chain partners as an extension of the brand. As such, suppliers are asked to demonstrate their commitment to Bally's shared values by signing and abiding by their Restricted Substances List and Supplier Code of Conduct. Traceability and accountability are of utmost importance, which is why the company maps its supply chain at Tier 1 and 2 levels. In 2022, by continuing to work with advanced models of procurement, production, and distribution, Bally has also managed to reduce the environmental impact of B2B transportation.



FLEXIBLE SOURCING

Bally's flexible sourcing model continues to improve efficiency, enabling the company to adapt the supply chain to meet the required volume thresholds while maintaining long-lasting and trusted relationships with its main suppliers. Bally has established a well-defined production footprint that relies on the flexibility and knowledge of the European supplier industry, as well as a strategic supply base in more competitive locations. In 2022, Bally continued to reduce the impact of their B2B transportation by sourcing materials as locally as possible.

OPERATIONAL EFFICIENCY

Bally's global logistics platform delivers a high degree of operational efficiency. In 2022, the company deployed a more efficient product allocation across different markets and channels, decreasing the overall inventory level and achieving further alignment between sales and supply, thus avoiding unnecessary product buffers.

SUPPLY CHAIN TRACEABILITY, ETHICAL STANDARDS & VENDOR MANAGEMENT MAINTAINING ETHICAL STANDARDS

Bally nurtures strong relationships with all suppliers to ensure they meet the highest ethical standards for labor, health and safety, and the environment.

Besides the Restricted Substance List, every supplier is required to sign and respect Bally's Supplier Code of Conduct, which is based on respecting human rights and protecting the environment.

The Bally Supplier Code of Conduct is divided in four chapters, each one covering a macro topic and detailing the related required standards:





01 SAFE WORKING AND HUMAN RIGHTS

- · Prohibition of child labor and regulation on minimum working age
- · Prohibition of forced labor and requirements on voluntary employment
- Non-discrimination and Harassment guidelines
- · Freedom of association and collective bargaining that need to be granted
- Provisions on working hours, compensation and benefits, and Regular employment
- · Health and Safety of workers who shall be provided a safe workplace

02 ENVIRONMENTAL AWARENESS AND PROTECTION OF NATURAL RESOURCES

- · Protection of animals and animal welfare
- Efficient energy use and reduction of GHG emissions
- · Responsible water consumption
- · Minimization of materials consumption and waste management
- · Product quality and safety
- · Handling of hazardous materials, chemicals, and substances

TRACEABILITY

- · Prohibition of outsourcing without authorization
- · Material and product traceability along the supply chain

ADDITIONAL PROVISIONS

- · Anti-money laundering
- · Anti-bribery
- Taxation
- · Confidentiality of information

In addition, Bally has made it possible for any individual to report any situation or circumstance that may conflict to it. Vendors are invited to report any violation or breach of the Supplier Code of Conduct. They can contact the Internal Audit department via post or a dedicated email address.

Bally did not receive any reports in 2022, nor did they receive any fine for non-compliance regarding regulations and laws on environmental, social, and economic issues.



VENDOR MANAGEMENT

Bally periodically interviews the majority of its suppliers on a range of themes, including environmental and social Issues. Over the past three years, the company developed a holistic Vendor Management System that allows to trace suppliers' performances according to a set of six measures:

- · Technical and commercial evaluation
- · Financial scoring
- · Economic evaluation
- · Ethical and juridical evaluation
- ESG parameters
- Certifications

This evaluation covers all aspects of a client-supplier relationship and is aimed at achieving the following targets:

- Enhance the knowledge of the supply chain by structuring the relevant information and making it available to the organization
- Ensure the capacity to isolate and manage improvement points in all aspects contributing to the success of a business relationship with dedicated action plans
- Ensure the capacity to track suppliers' progress and evaluate them correctly
- · Ensure the capacity to select partners according to specific criteria
- · Manage suppliers in an open and transparent manner

In 2022, Bally surveyed suppliers representing 95% of their expenditure value, and none revealed any concerns regarding negative or social impacts in the supply chain.

In addition, Bally highlights the following data regarding its suppliers network:

- · 64% already have policies in place aimed at reducing their environmental footprint
- · 33% have green energy supply agreements
- · 30% already have circular material processes in place

BALLY'S COMMITMENT TO SUPPLY CHAIN TRANSPARENCY

Since early 2022, Bally has shared a list of trusted companies that represent the majority of its Tier 1 and Tier 2 suppliers. This list is regularly updated and covers the main product categories they develop, including shoes, leather goods, ready-to-wear pieces, and accessories. The 2022 list offers disclosure on 79 suppliers accounting for 52% of Tier 1 and Tier 2 suppliers in expenditure value. Information about their name and their address, their parent company, the number of employees, certifications and existence of free trade unions systems are made available.

BALLY SUPPLIERS LIST

It is worth noting that any individual supplier may appear as both Tier 1 and Tier 2 as it fulfils distinct roles and positions across separate business units within Bally. However, the Vendor Management System allows Bally to correctly trace the respective roles each supplier plays across their supply chain.





DIGITAL TRANSFORMATION

In recent years, the Covid-19 pandemic decisively accelerated Bally's path towards a best-in-class digital infrastructure. For instance, the company evolved its B2B communications with the development of a virtual showroom accompanied by virtual collection presentations, expanded its e-commerce presence, and was able to enrich the virtual dialogue with customers through content creation and social media.

In 2022, Bally continued to accelerate the digital investment and transformation, given its growing importance as a sales channel, and increasing share of voice in customer engagement. In September, Bally launched a new Digital Platform which works in parallel with the e-commerce website to offer an immersive experience of Bally's vision and creative direction, showcasing collections and runway shows, as well as the brand values and projects.

BALLY'S DIGITAL ARCHIVE

Bally is closely connected to the Ticino region through its leadership within the Lifestyle Tech Competence Center (LTCC). The LTCC is a Swiss association that brings together diverse companies from a variety of industries to leverage technology for more sustainable business practices. It aims to support businesses conducting research and development in the lifestyle-tech arena, and to promote collaboration between academic institutions and companies, encouraging the exchange of technology and knowledge.

At LTCC, in addition to several innovation projects, Bally is working on the digitalization of its archive. Documenting more than 170 years of Bally history, it is fundamental for the company to preserve this archive, as a testament to their roots to help maintain the key values and the identity in a transformative time.

Archives allow brands to control their materials and curate their own story more directly. For this reason, as fashion has strengthened its role in modern culture, brands are thinking carefully about their archives and how to handle them; they want to preserve the past to build on their future. Archival fashion is not only culturally enriching but provides a rich source of inspiration for Bally's designers. It can also become an engaging communications tool for employee onboarding, retail partnerships, museum exhibitions, social media, and content creation.

The project involves transforming Bally's historical archive – which includes around 40,000 assets, from shoes to posters, and much more – into an innovative digital tool, through:

- digital content acquisition (tagging, scanning, etc.)
- · digital preservation
- · content enrichment
- user-friendly accessibility (high-definition assets)

Bally aims to complete their archive digitalization project by 2027.

https://www.ballyofswitzerland.com/en/home

BREITLING



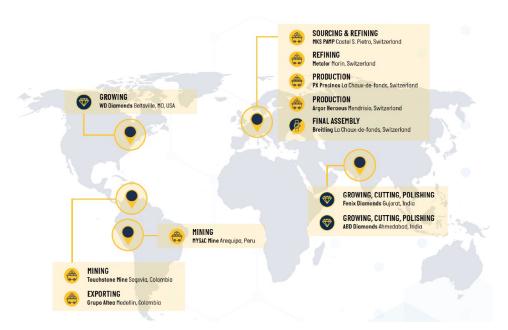
Founded in 1884, Breitling is a leading Swiss watchmaker. The innovative company invented the modern chronograph and pioneered the navigational tool watch. Today, it's still breaking new ground as a casual, inclusive, and sustainable luxury brand with more than 200 industrial-loft-inspired retail locations around the world. Breitling's collections center around air, land, and sea pursuits, all captured in the brand's unmistakable modern-retro style. The exceptional quality of every watch movement is confirmed by its status as a COSC-certified chronometer, and the brand remains one of only a handful of independent watchmakers to produce its own manufacture calibers. Combining classic watchmaking with the latest innovations, Breitling is both a company with history and one that's ahead of its time.

PRODUCT INTEGRITY



Breitling has a strong commitment to creating beautiful products and experiences with better materials, better manufacturing, and better packaging. Following their industry-leading launch in October 2022 of the proof-of-concept Super Chronomat Automatic 38 Origins – Breitling's first traceable watch, they have continued to implement the road map established by that release and to onboard even more suppliers to their sustainability efforts. To signify those products containing better gold and/or better diamonds, the Breitling Origins label was introduced.

Understanding the provenance of raw materials, goods, and services along the value chain is essential to assess sustainability performance. To develop its traceability and transparency capabilities, Breitling partners with Sourcemap to verify chain of custody and certifications along the way. Key artisanal and small-scale gold and lab-grown diamonds value chain partners are detailed in its extended Sourcemap, which is publicly available. The product owner is also provided with a blockchain certificate for the watch enriched with sustainability data.



In addition to this, Breitling works with key suppliers, including gold and diamond suppliers, on initiatives related to social and environmental impact.

IMPACT PREMIUM FUND

Through the distribution of its impact premium fund, which is paid on each gram of gold sourced, Breitling has been able to support community health services in the remote community of Ispacas, Peru, near a mining operation from which gold is sourced. This will support the rural communities of Alpacay and La Barrera near the MYSAC mine which operates in a remote location 3008 meters above sea level. It is estimated that the total number of beneficiaries will be approximately 6000, of which 51% are women. Currently, an estimated 20% of this population does not have access to health services. Most diseases reported today in the region are gastrointestinal and respiratory infections, as well as different skin diseases, all of which can be treated within the new center. The center will offer specialised health care in different medical areas, as well as nursing, dentistry, obstetrics, nutrition, and psychology.



Its impact premium also contributed to the installation of a wastewater treatment plant (WWTP) containing a Moving Bed Biofilm Reactor (MBBR) on a mining site. The plant recovers wastewater from the mine and treats it so it may be reused for irrigation or industrial purposes in the mining operations and the five mining camps. The MBBR, an effective system to treat wastewater demonstrating several economic and environmental advantages, can process 120 m3/day.



The use of the WWTP systemically contributes to a range of sustainability factors. It allows water to be reused on site, thus reducing the need for the transport of fresh water and related CO2 emissions. It considerably decreases the production of waste sludge and thus helps to eradicate viruses and bacteria, such as hepatitis, cholera, typhoid, among others, while also eliminating bad smells. Finally, the water treated by the WWTP will be reused for industrial purposes during the mining process and, as it meets Peruvian legal standards related to irrigation, it will also be used to maintain and cultivate green spaces on the mine site, as well as to water the dusty roads to contain and reduce dust contamination.

In the region surrounding the Touchstone mine in Colombia, from which Breitling sourced gold to produce the Super Chronomat 38 Origins, a key need identified by the community and in its visits was educational access. Generally, illiteracy rates in the region are high. It has also been strongly affected by the armed conflict which has led to an absence of state institutions, including educational facilities. The few children in this community who do attend school often walk long hours to study in other villages or abandon their home village and move to live with relatives in urban areas. Most adult inhabitants have not attended school and due to their lack of education and skills often work in informal sectors.





Based on this, in the reporting cycle a project to support a long-term education program in El Pescado was launched by Touchstone Colombia, supported by the impact premium generated by Breitling gold purchases through the Swiss Better Gold Association. This long-term program aims to facilitate education for children, teenagers, and adults with the purpose of fostering skills and knowledge and achieving graduation within the national educational system.

The holistic program includes classes on subjects ranging from mathematics, physical education, computer skills, and social skills. Classes are held in the community house in the village which was supported by Swiss Better Gold (SBG) in 2021. Furthermore, the primary school program was accompanied by a series of workshops for the children's parents in the Escuela de Padres which sought to complement the learning process of the children by teaching their parents how to support them, including classes about nutrition and children's health. During its first phase, the project also included an educational program for 16 employees of Touchstone Colombia, many of them former illegal miners, who had not finished their basic education.



During the 2022 school year, different school grades were offered, with participants being graded before the program started to determine their level. In February 2023, 9 children and 22 teenagers and adults graduated from their respective category.

Following the first phase of this project, Touchstone Colombia stopped its operations. As a result, efforts to educate employees had to be concluded. However, both Breitling and SBG remained committed to continuing the program and a second phase was recently launched in May 2023. In this phase, efforts are underway to ensure the continuity and resiliency of the project. To support this, Touchstone Colombia has, among other things, signed an agreement with the municipality and the schooling provider which establishes the eventual takeover of the education program by local authorities, ensuring continuation in the long run.

This second phase is being monitored by a professional in social project management who is a former member of the Touchstone team and will also maintain the connection among the community, the school, the municipality, and SBG for at least the next two years. This role is essential to ensure the long-term success of the project once it is assumed by the municipality.

Environmental impacts along the value chain are also a key consideration in which Breitling engages its suppliers. The second phase of the educational program that is currently running directly benefits 10 children and 20 teenagers and adults of the community. A further important activity in this second phase is the installation of solar panels in the community house where schooling and other community activities, such as social gatherings and workshops on income generation, take place. The solar panels provide the necessary electricity given its remote location and lack of community resources.

The solar panels were financed in full by SBG and will benefit the 22 families in the community. Community members will be trained in the functioning and the maintenance of the solar panels to raise awareness about the responsible use of resources and to create a sense of responsibility among the community members. Direct beneficiaries of these activities to date include 10 children and 20 teenagers and adults of the Pescado El Vereda community. As the solar panels positively impact the community center, a further 22 families from the community also benefit from the installation of these as the center supports broader community activities.



In addition, a range of programs addressing climate, biodiversity and water impacts are being developed with local stakeholders and supported by the Breitling Carbon Fund, which places a voluntary price on carbon of CHF 40 / ton of carbon dioxide equivalent, to support reduction measures, known as insetting, along its value chain.

LAB-GROWN DIAMONDS

To facilitate its transition to traceable precious materials, Breitling made the decision to switch to labgrown diamonds for all new main collection products and to ensure each diamond grower is accredited according to a relevant standard. This shift, in development since 2020, enables traceability and allows Breitling to confidently confirm that its lab-grown diamonds are produced free of human rights abuses. At the same time, it removes the environmental impacts of diamond mining, whether above ground or on the seabed.



Lab-grown diamonds are identical in appearance to mined diamonds and have the same physical and chemical composition. They are subject to the same rigorous quality testing. In sourcing its lab-grown diamonds, Breitling applies the SCS-007 Jewelry Sustainability Standard – Sustainability Rated Diamonds, the first comprehensive, independent, third-party certification standard developed for the diamond sector. It establishes unprecedented benchmarks of performance and transparency across five key aspects: Origin traceability, ethical stewardship, sustainable production practices, net zero carbon footprint, and sustainability investments.

To limit the environmental impacts of its lab-grown diamond sourcing, Breitling works with its suppliers to continually improve their environmental performance and support their shift to a greater share of renewable energy in the production process. Presently, one key supplier has already completed this shift. Another has transitioned to 25% renewable energy and will complete the transition by 2025 with the support of Breitling.

IMPACT DIAMOND FUND

Breitling's switch to lab-grown diamonds benefits not only its customers with a high-quality product featuring fully traceable type-IIa diamonds for which it is able to attest to social and environmental measures taken along the value chain, but also local sourcing communities. For each lab-grown diamond carat purchased, Breitling has established an Impact Diamond Fund which allocates 30 CHF per carat purchased to support positive social and environmental impact along the supply chain. Its first disbursals are already underway.



Breitling is prioritizing the following three objectives in allocating the Impact Diamond Fund. These are women's economic empowerment, social entrepreneurship for economic development, and regeneration in former diamond mining areas. Through stakeholder consultations, these have been identified as powerful levers for Breitling to contribute to the systems in which its current diamond supply chains operate, while also addressing the negative impacts of diamond mining in a meaningful manner.

Its activities related to women's economic empowerment and social entrepreneurship for economic development will take place in the state of Gujarat, in western India, where a substantial portion of the Breitling lab-grown diamond value chain is based. Known for its spirit of entrepreneurship, Breitling will work as a member of this system to contribute resources to support entrepreneurs working in areas of positive social and environmental impacts.

To carry out its work in this area Breitling is proud to be partnering with Amani Institute, a leading global non-profit organization supporting entrepreneurs globally, especially in the global south. Amani Institute has built substantial expertise in the topic, including in India, and will be helping Breitling lead its efforts to engage local entrepreneurs in Gujarat, India. In early 2024, Breitling will welcome the inaugural class of Breitling Legendary Future Entrepreneurs who will participate in an upskilling program that is foreseen to boost several key business performance indicators that in turn support greater employment, productivity, and inclusion.







Camille Louise Jewellery is a phygital (physical and digital) Swiss impact-tech brand committed to sustainability. It pioneers the future of jewellery ownership and narrative, actively contributing to Sustainable Development Goals (SDGs) 5, 9, 10, 12, 13, and 17, while pursuing the path towards Net-Zero. Founded in 2020 by Aline d'Ambricourt and Camille Louise Merré, a mother-daughter duo recognized as Top 100 Innovators by IoDF for "planet profitability," Top 100 Women @Davos, Top 100 Women of the Future Global Vol. I in "Web3 & Metaverse," and Top 25 Women in the Metaverse, among other accolades.

At CLJ, harnessing the power of technology as a key lever for circularity, enhancing the consumer experience, and reducing returns while minimizing environmental impact and carbon emissions is a priority. The Maison acknowledges a profound responsibility to minimize environmental impact, recognizing that planet Earth is non-fungible—unique, irreplaceable, and non-interchangeable. Powered by a commitment to redefine the jewellery industry, CLJ integrates cutting-edge technologies such as XR, blockchain, and NFTs, driven by a focus on value creation into every facet of the jewellery value chain. The maison aims to act as a catalyst for positive change, showcasing that it is possible to be both profitable and sustainable. By intertwining phygital (in real life and online) tokenized jewellery and leading an omnichannel circularity business-to-experience model, CLJ prioritizes planetary profitability while advancing technology to deliver solutions for sustainable growth.

CLJ's core focus is driven on technology tools that power emerging technology, enhancing the end-user experience and driving transparency through traceability, trackability and accountability showcases in the phygital 360° client journey:

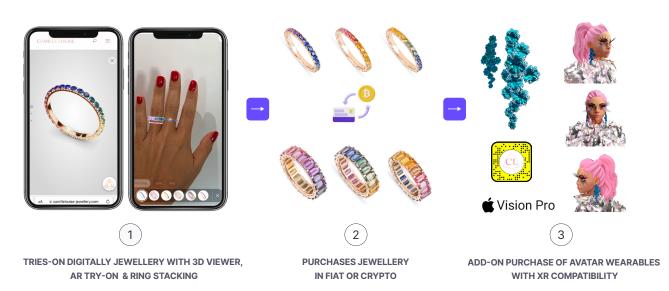
I. PRODUCTS:

- Phygital Jewellery
- Digital-Only Cross-Platforms Avatar Wearables compatible with Apple Vision Pro
- NFTs with utility

CAMILLE LOUISE JEWELLERY (CLJ)



PHYGITAL (PHYSICAL + DIGITAL) PRODUCTS: EXPERIENTIAL JEWELLERY





II. TECHNOLOGY SOLUTIONS:

- 3D viewer
- Virtual try-on & stacking (Rings)
- Digital Product Passport (Digital Twin as NFTs)

3D VIEWER & VIRTUAL TRY-ON & STACKING:

CLJ' uses 3D digital assets as a foundation, driving efficient and sustainable processes. These assets serve as the starting point for crafting both physical and digital-only jewellery products and experiences, aligning with the Maison's commitment to an industry-wide sustainability agenda-digital-first, less physical, manufacturing only what there is demand for.

The technology is implemented on all selection of rings on the Maison's e-commerce.

DIGITAL PRODUCT PASSPORT (DIGITAL TWIN AS NFTS)

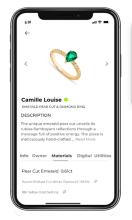
CLJ pairs each jewellery with a Digital Product Passport (DPP) on blockchain for efficient processes, trackability, and provenance, providing insights into the long-tail of product lifecycle and ownership.

DIGITAL PRODUCT PASSPORT (DPP)



TRACING JEWELLERY LIFECYCLE & ELEVATING THE CLIENT'S JOURNEY BACKED BY BLOCKCHAIN

- 1 PURCHASE OF JEWELLERY
- 2 CREATION OF THE NFT
- (3) CERTIFICATE REDEMPTION
- 4 PEER2PEER ENGAGEMENT







THE DPP INCLUDES:

- Digital Twin (NFT)
- CLJ certificate of authenticity
- · Product information: Material provenance certification
- Proof of ownership (Digital ID): traceability, transparency & lifecycle
- Jewellery memorabilita as XR "box"
- Loyalty Programme & CRM: personalized communications
- · Services: Warranty, Repairs & Care kit
- Up-selling & Cross-selling
- · Gifting & Resale



CONTRIBUTING TO THE SDG's



AS "FRIENDS" OF GOALS HOUSE, CLJ IS "CHAMPIONNING SUSTAINABILITY DRIVEN BY IMPACT AND PURPOSE, SHIFTING THE DIAL FOR A MORE SUSTAINABLE FUTURE"



CATALYZING WOMEN'S INCLUSION

A women-led company committed to women equality and equity. CLJ is a member of leading Women's organizations such as 100 Women Davos 100 Women of the Future and Marble Collective. Leading an ambassador program for women's education on circularity 8 emerging technologies.



SUSTAINABLE CIRCULAR PRODUCTION

Powering cutting-edge 3D digitalization and XR technology showcasing jewellery; for pre-orders, driving innovation and efficiency, Increasing sales and reducing returns. Prioritizing sustainability by utilizing upcycled materials, eco-friendly packaging, and bio-minicry-inspired designs.



DEVELOPING LOCAL ECONOMIES & OPPORTUNITIES

Focused on local partners providing resources to NGOs: fostering partnerships and donations to chartities. Offering volunteering opportunities within communities and providing support to disadvantaged individuals. Promoting youth advocacy for climate resilience, circularity, and impact-driven initiatives.



All CLJ pieces are paired with the DPP (blockchain) ensuring ethical, traceable and transparent supply chain of materials and manufacturing process. Made from 100% recycled 18k gold, the diamonds and gemstones are mine-to-market certified conflict-free. All suppliers and partners are members of RJC, ICA, GIA, DeBeers Sightholders ensuring ethical and transparent supply chain.



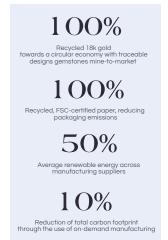
RESPONSIBLE PRODUCTION & REDUCING CO2 EMISSIONS

CLJ's focus is towards net zero to actively reducing carbon emissions to accelerate change across the jewellery industry, investing in renewable energies from up-stream to down-stream processes. CLJ website runs on renewable energy & content delivery network (CDN).



SCALING SUSTAINABLE CIRCULAR PRODUCTION

Stronger as a collective, CLJ aims to amplify it's impact by collaborating with purpose-driven partners and beyond the trade industry. Focusing on value partnerships committed to the brand's value from NGO's preserving craftsmanship, women-led organizations in emerging tech, driving innovation for sustainable consumption.



CLJ's driver stems from a vision that goes beyond jewellery—it's about pioneering a sustainable and technologically advanced approach that redefines not just the products the Maison creates, but the very essence of how CLJ's engages with their clients, enhancing the consumer journey committed to leading change in the jewellery industry.

#cljforplanetprofitability #Creators4Impact



CZI The Art of Skin

CZI, A FAMILY STORY

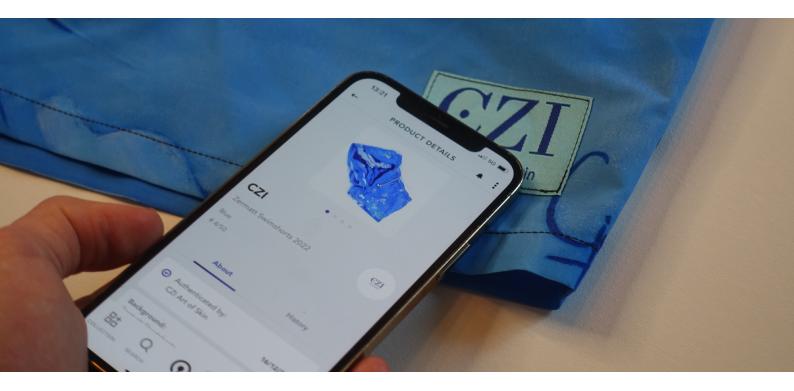
CZI is born with full heart and authenticity from the desire of its founder, Sandra Czich, to create a unique gift for someone special, while giving life to her artworks on the most beautiful support, the body.

I long wanted to see my paintings coming to life outside the frame. One day, as I was sunbathing on a
rocky Mediterranean island, the idea came to me, unexpectedly, naturally. I started fantasising about
my paintings on this amazing body, breathtaking. A few weeks later, my first swimtrunks for men
were born", says Sandra, self-taught Artist, Lawyer and Artrepreneuse.

What better than swimsuits to magnify the body and the Artwork, starting a never ending conversation... The Art of Skin.

Now Elie and Gabriel, Sandra's 19 years' old twin sons are part of the adventure. "CZI is our family artistic venture. We shape the brand day after day, it is all very exciting and very unique." says Elie.

While Elie focuses on marketing and distribution, Gabriel is more into design and tech. Both are innovation driven and eager to reach the next level, with Art and sustainability deeply anchored in the brand's DNA.



TRANSPARENCY:

We are transparent on our production process, as we disclose the various places of production of our garments, from the weaving of the fabrics (France or Italy) to the stitching (France or Switzerland), including the printing (France). As already stated, we are proud of these origins, they're part of our DNA. We decided from the beginning to go for the highest quality and excellence and this is what we do. Our hand embroideries are similarly made in Switzerland or India, where there is a secular tradition of hand-embroidery, globally recognized by the most distinguished fashion houses.



TRACEABILITY:

As we select our partners and providers we can trace the full origin of our products. For us, traceability and transparency go with authenticity. And so it is most important, as you know, to be able to guarantee the authenticity.

This means that the end client must be given a secure mean to verify the authenticity of the goods purchased, when he/she does not purchase directly from the manufacturer or the brand. This is why we integrated NFC certification inside our garment.



THE SWISS BRAND FOR THE HAPPY FEW

WWW.CZI-ARTOFSKIN.COM





@CZI_ARTOFSKIN



CREATED FROM ARTWORKS DIGITALLY CONNECTED



ELLYHA



THE STORY BEHIND THE BRAND

ELLYHA was created by lawyer-turned fashion designer, Elissa Lefoll, who wanted to create a brand that would resonate with the multi-faceted personalities of women across industries:



"Over the years, my wardrobe has represented my workplace over my personality with its long line-up of black, grey and navy tailored clothes. I wanted my clothing line to put women's wants and needs at the heart of its DNA by always uncompromising on creativity, quality and finishes. More importantly, I wanted to create a brand that went beyond offering a product – an experience made by women for women".



THE BRAND

Established in 2021, ELLYHA is a Swiss-born highend ready-to-wear brand, crafting conscious elegance through innovative design.

The brand's exclusive collections, meticulously crafted from certified repurposed fabrics, are intricately linked to NFTs, signifying not only their exclusivity but also their authenticity.

ELLYHA champions unconventional self-expression, embracing core values such as individuality, creativity, and empowerment.

The vision of ELLYHA is to inspire confidence and individuality in everyone, offering versatile designs that facilitate genuine self-expression while transcending limitations.



THE COMPANY

Our vision:

Be a leader in the phygital fashion space, by leveraging innovative technologies and sustainable practices to create a unique and meaningful customer experience.

Our mission:

Disrupt the industry by creating a brand that goes beyond offering a product, but an experience made by women for women.

Our values:

Innovation, individuality, sustainability, community, empowerment.

Our promise:

Provide exclusive and sustainable pieces while fostering a sense of community and continuously innovating to exceed our customers'expectations.



SUSTAINABILITY: USE OF DEADSTOCK FABRICS.

Use of repurposed fabrics only:

We are committed to reducing fashion waste and minimizing our environmental impact. That's why we exclusively use deadstock fabric from high-end luxury houses and designers, repurposing high-quality materials that would otherwise go to waste. By doing so, we not only contribute to a circular economy but also offer unique and exclusive pieces to our customers.

Local sourcing and production:

ELLYHA's collections are designed in Switzerland and made in Europe. With its whole supply chain in Europe, the brand also reduces its carbon footprint by reducing transportation emissions.

THE ELLYHA NFT CERTIFICATE: DIGITAL PASSPORTS FOR YOUR WORDROBE.

Embedded NFC Technology:

Each garment comes with a small NFC (Near Field Communication) tag discreetly embedded in the fabric. This tag acts as a gateway to the digital world, connecting your physical wardrobe to its virtual counterpart.

Easy Access with Your Phone:

Using your smartphone, you can effortlessly scan the NFC tag on your garment. A simple scan will reveal the digital passport of your product.

Your Garment's NFT - A Digital Passport:

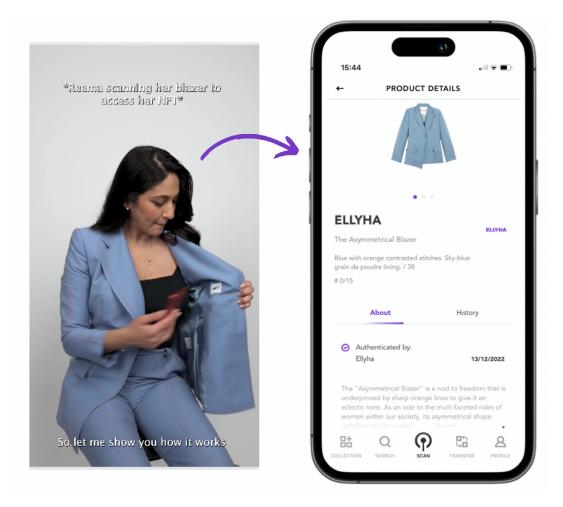
Once scanned, you gain access to the garment's unique Non-Fungible Token (NFT). Think of it as a digital passport for your ELLYHA piece. This NFT, secured on the blockchain, serves as a one-of-a-kind identifier for your item.

Serialization on the Blockchain:

Each NFT is serialized on the blockchain, ensuring that no two garments have the same digital identity. This not only adds an extra layer of security against counterfeiting but also enhances the exclusivity of your ELLYHA piece.

Unveil the Story:

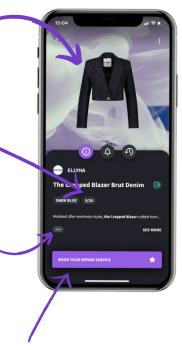
Discover the journey of your garment, from its creation to your hands. The blockchain record provides an immutable and transparent history, offering insights into the craftsmanship and authenticity of your fashion item.



This is your purchased item! You can access additional product content by swiping left.

This is your piece serial number - you own piece number 0 out of the 20 pieces produced.

You can access
extensive
information about
your garment,
including Care
Details, by
tapping here.

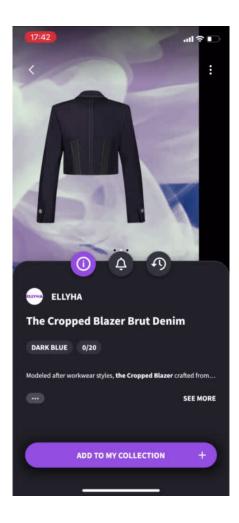


Get in touch with the us directly via your NFT (you can also book a repair if you are experiencing a problem with your purchase!)



This is where you can access the sourcing and production information of your ELLYHA piece. Each step, from material sourcing to manufacturing, is recorded on the blockchain.

The material used to create your ELLYHA piece was sourced on May 24, 2023 from Nona Source. Your piece was then manufactured in Paris on June 27, 2023.



THE ELLYHA NFT CERTIFICATE: PERKS

Authenticity and provenance:

Our NFTs provide an indisputable proof of authenticity, therefore protecting our customers against counterfeiting.

Transparency:

Our NFTs allows us to be transparent about our sourcing and production practices.

Value appreciation:

As our collections are produced in limited editions, NFTs help us take exclusivity to the next level. Each NFT owner knows which number of the serialized pieces they own.

Exclusive content and experiences:

As a member of our community, customers are able to access exclusive perks and content imagined by the brand (i.e. exclusive events, pre-sales, next drop dates etc.).

THE ELLYHA NFT CERTIFICATE: USE CASES AND INSIGHTS

Supply Chain Visibility:

ELLYHA uses NFC-enabled NFTs to provide consumers with visibility into the entire supply chain of a garment.

 Consumers gain confidence in the authenticity of materials and ethical production practices, fostering trust in the brand.

Counterfeit Prevention:

NFC tags embedded in our collections serve as a robust anti-counterfeiting measure. Consumers can easily verify the authenticity of a product by scanning the NFC tag.

• Counterfeiting risks are significantly reduced, protecting both consumers and the brand's reputation.

Ethical and Sustainable Sourcing:

Blockchain records showcase details about the sourcing of materials. This transparency allows consumers to make informed choices aligned with their ethical preferences.

ELLYHA demonstrates commitment to sustainability, aiming to attract conscious consumers.

Consumer Engagement:

ELLYHA uses the digital interaction facilitated by NFC-enabled NFTs to engage consumers with exclusive content.

 Enhanced consumer engagement creates a sense of connection, transforming a garment into a unique and memorable experience.

Quality Assurance:

Each garment's digital passport includes information about its composition. This can encompass details like material composition, care details and adherence to industry standards.

 Consumers gain insights into the craftsmanship and durability of their purchase, fostering satisfaction and loyalty.

DROP 01



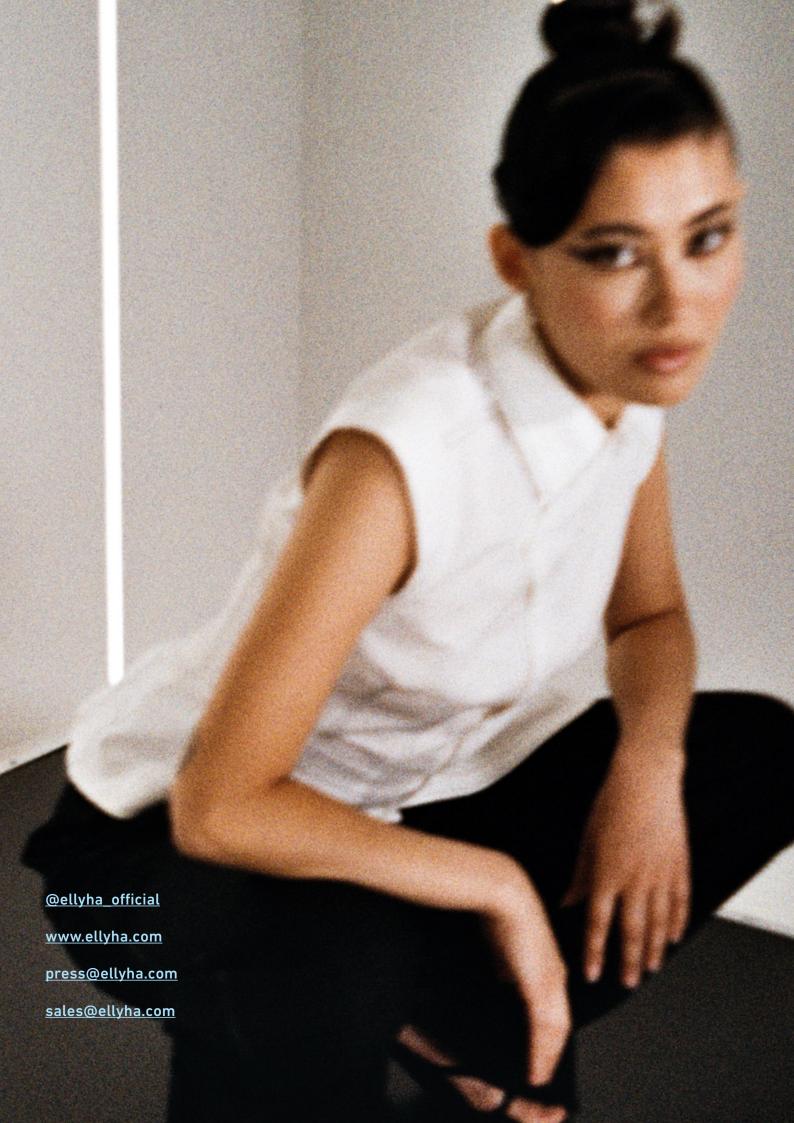


DROP 02















EL-RAN'S ETHICAL ODYSSEY: LEADING THE CHARGE IN DIAMOND TRACEABILITY, TRACING EXCELLENCE WITH EVERY GEM

In an era where transparency is not just expected but demanded, EL-RAN stands as a beacon of integrity in the diamond industry. From the visionary leadership of Eyal Atzmon to the groundbreaking deployment of iTraceiT technology, EL-RAN embodies a relentless pursuit of traceability and ethical excellence. With an inhouse gemological laboratory aligned with GIA and GGTL standards, a supply chain shaped by responsible practices, and the prestigious endorsements from Mazars, RJC, and BPP, EL-RAN is not merely navigating the future of sustainability — it is defining it. As we stand at the forefront of industry transformation, we invite you to journey with us toward a brighter, more accountable future where every gem's story is as pure as its cut.



PIONEERING TRACEABILITY: EL-RAN'S JOURNEY OF ETHICAL TRANSFORMATION

In the landscape of the diamond industry, where sustainability and ethics are becoming the cornerstones of operations, EL-RAN has stood at the forefront, championing the cause of traceability. Since 2013, under the visionary leadership of founder Eyal Atzmon, EL-RAN has not just anticipated the shift toward responsible sourcing but has actively shaped its emergence.

THE EARLY VISION (2013-2016)

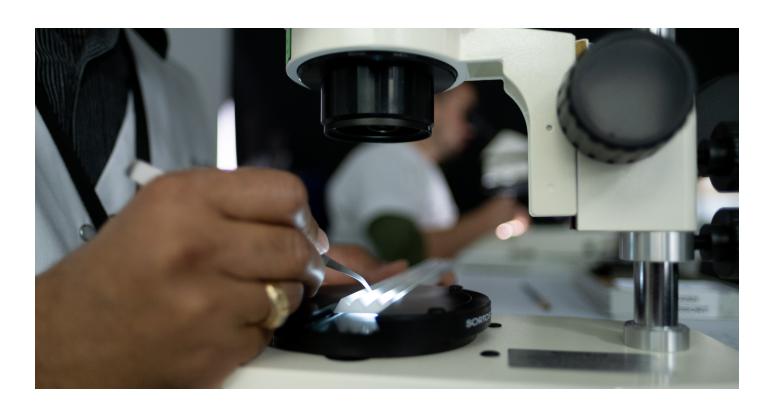
Recognizing the impending need for transparent supply chains, EL-RAN embarked on an audit expedition to India, aiming to evaluate the feasibility of traceability within the diamond industry. In those times when such concepts were alien, EL-RAN, with its visionary gaze, was paving a path many had not considered.

COLLABORATION AND INDUSTRY ENGAGEMENT (2016-2019)

The journey was not one to be walked alone. EL-RAN reached out to suppliers with better infrastructure and a willingness to embrace change. The dialogue extended to Swiss watchmakers and French luxury brands, where EL-RAN's initiative began to resonate. The echo of interest from these conversations validated EL-RAN's foresight as more brands sought to understand the origins and narratives behind their diamonds.

TECHNOLOGICAL INNOVATION AND PIONEERING (2019)

In 2019, a transformative development in diamond traceability was set in motion, with EL-RAN at its testing forefront. Eyal Atzmon, leading by example, was among the first to conduct extensive pilot tests of the nascent iTraceiT application, developed by ITPlace's Guy De Smet. His contributions were vital yet humble, offering nuanced feedback and engaging with luxury brands to refine the application's capabilities. This collaborative effort was pivotal in maturing iTraceiT from an initial concept into a trusted, effective solution. Thus, EL-RAN enhanced its ability to provide a traceable journey for every stone, from the mine to the market.



ITRACEIT IMPLEMENTATION AND IMPACT

The deployment of iTraceiT within EL-RAN's operations is not just a procedural enhancement—it's a reflection of our unwavering pledge to traceability and ethical standards. A pivotal element in this process is our inhouse gemological laboratory, established in 2014, which is a cornerstone of our quality assurance. This laboratory operates under stringent guidelines and is calibrated in alignment with the esteemed standards of the Gemological Institute of America (GIA) and the Gemmological Laboratory of Geneva (GGTL), ensuring that our assessment and certification process stands up to the most rigorous international benchmarks.

Our implementation strategy involved constructing the shortest possible supply chain, initiating as close to the source as possible with a De Beers Group's Diamond Trading Company (DTC) sight-holder who shares our vision for traceability and is proactive in its execution. This collaborative approach extends to our partner's factory in India, which has been meticulously prepared to meet the comprehensive traceability requirements our luxury brand partners requested.



Through iTraceiT, we've established an unbroken chain of custody, tracking our naturally polished diamonds from their origins—whether from DTC, Canada, or other approved sources—through every phase of processing, sorting, and final quality control by our gemological experts. Our entire operation is a testament to EL-RAN's commitment to detail-oriented and exhaustive traceability, allowing us to monitor and record every facet of our operation to meet the bespoke needs of our clients and the industry at large.

The robustness and integrity of EL-RAN's traceability processes have been internally upheld and externally validated. Our commitment to excellence has been rigorously audited by Mazars from Switzerland, a testament to our operational transparency and adherence to best practices. As a result, EL-RAN has been honored with the highest note for traceability standards. Additional audits were done by the Responsible Jewellery Council (RJC) and Best Practice Principles (BPP). This distinction is not limited to our operations alone but also extends to our partner's factory in India, affirming our collective dedication to sustainable and ethical practices across our supply chain. This recognition clearly indicates our leadership in the industry and our relentless pursuit of excellence in every facet of our work.

THE FUTURE OF TRACEABILITY AND EL-RAN'S ROLE

As the world anticipates regulatory changes from global leaders like the G7, EL-RAN stands ready, knowing well that the path of traceability is irreversible. The future of the diamond industry is etched with the principles of transparency and ethics, and EL-RAN is positioned not just to witness but to lead this change.

EL-RAN invites you to join this journey of transformation. Whether you are a brand seeking to ensure the integrity of your supply chain or a partner looking to embrace traceability, EL-RAN is your gateway to a sustainable future. Connect with us, and together, let's set new standards for responsibility in the diamond industry.





In the realm of transparency and technology, our company stands as a pioneer in the gold sector. Specifically, we take pride in being the forefront entity when it comes to these two crucial elements. Our distinction lies in having developed the world's first and only traceable Gold Potassium Cyanide (GPC). This chemical compound holds significant importance in the gold plating industry, particularly in the realms of jewelry, numismatics, and electronics.

The gold utilized in the production of this chemical compound is Farimined certified, sourced from the Iquira and Chede Mines. We adhere strictly to the Fairmined standard, subjecting our entire supply chain—including the mine, refiner, plater, jewelry, numismatic, and technology companies to periodic third-party audits. The emphasis on transparency is paramount, and the Fairmined standard plays a pivotal role in ensuring accountability.

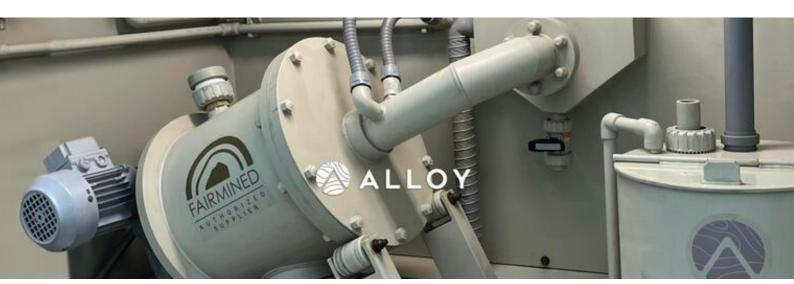
Every gram of GPC is meticulously tracked and accounted for using the state-of-the-art Fairmined Connect software. Within this framework, each certified entity within the Fairmined supply chain dutifully reports their transactions. This meticulous reporting process is a testament to our commitment to transparency, allowing for a comprehensive and traceable record of every step in the journey of our Fairmined-certified GPC.

- 1. The mining operation initiates the process by reporting the sale to the refiner.
- 2.Upon receiving the report, the refiner validates the purchase, proceeds to process the gold, and subsequently notifies the Fairmined licensee about the sale.
- 3. The licensee, in turn, confirms the purchase through the Fairmined Connect software.

*licensee: Jewelry, numismatic, and technology companies

In this concise and efficient supply chain, each gram of gold undergoes meticulous tracking and accountability. The robust standards set for each participant in the supply chain are rigorously upheld, with regular third-party audits ensuring compliance.

Utilizing the advanced Fairmined Connect technology, coupled with a stringent standard that guarantees both traceability and transparency, we are proud to offer a level of openness supported by a framework that ensures the traceable journey of every gram of gold.









FORBES (FRANCE), HIVER 2023

PROTECTING A LUXURY BRAND, A MULTIPLE CHALLENGE

In the world of luxury, brands have inestimable value. Whether they are surnames like Dior or Chanel or created ex nihilo, he has to know how to protect them. Me Emmanuelle Hoffman is one of the greatest specialists in France in the sector. The advice she gives in this interview is valuable.

COMMENTS COLLECTED BY YVES DERAI

DO LUXURY BRANDS FACE MORE LEGAL PROBLEMS THAN OTHERS?

EMMANUELLE HOFFMAN: Luxury brands do not necessarily face more legal issues than other brands, but they do have specific legal concerns due to the nature of their products or services, their brand image, their level of exposure and of their wide visibility and influence.

They are often targets of counterfeiters because of the value and appeal of their products or services and must be particularly vigilant to protect their intellectual property rights, both their brands and their creations. Thus, legal monitoring or anti-counterfeiting monitoring centers can be developed within luxury groups, or outsourced to consultants specializing in intellectual property law. Luxury brands must also be attentive to their image and reputation because of the expectations, emotions and dreams they arouse. They may, for example, be confronted with legal problems linked to sometimes political positions, or to those of people with whom they associate or who promote their image within the framework of collaborations (cobranding, influencers, models, etc.) . More generally, luxury brands must be exemplary, both in their management and in their production, their distribution channel and even compliance with regulations in force at the risk of immediate repercussions on financial results.

HOW TO PROTECT THE NAME OF A LUXURY BRAND SUSTAINABLY AND EFFECTIVELY?

E.H.: Intellectual property must be seen as an investment and not as an expense. We recommend implementing a suitable protection strategy. Being well advised in advance is absolutely essential. Registering a trademark in China is, for example, less expensive than then trying to recover it through long and costly procedures. The first reflex is naturally to register your trademark by targeting your mediumterm projects, to achieve "tailor-made" protection (choice of word sign, logo, choice of territory, choice of registration classes, etc.). Subsequently also to seriously exploit it for the products and services registered, and to renew it regularly. Then, aware of its positioning on the market, a luxury brand must put in place preventive means to defend its rights. This involves raising awareness among its employees and its distribution network, but also through the implementation of monitoring methods to prevent breaches and put an end to them as soon as possible. By defending its rights, it protects its image, its entire network and the trust it maintains with its customers: it thus perpetuates its status as a luxury brand.

ARE THERE COUNTRIES THAT IT IS BETTER TO IGNORE WHEN IT COMES TO NAME PROTECTION?

E.H.: There are no specific countries that can be overlooked when it comes to trademark protection, as the decision depends on many factors, including the target market, business activities, brand objectives, or their business plan. The trademark is a right that is neither everywhere nor for everything. And having an international vision of development is essential to adapt the deposits. The choice of territories is a strategic choice which must be considered between the company and its council.





A strategy studied and implemented for the exploitation of a brand cannot be copied for the development of another, this is also what makes the beauty of the material, the haute couture of law. Intellectual property law requires an artisanal and tailor-made approach.

WHAT DO YOU ADVISE LUXURY BRANDS TO FIGHT AGAINST COUNTERFEITING?

E.H.: To have a "checklist" for each situation. It is naturally impossible to predict or predict precisely the difficulties that will have to be faced by the brand, but it is possible to limit the risks if we know the points of attention to check at each stage. This is one of the objectives of my new book:

New Worlds, New Rights: On Your Marks!1

Emmanuelle Hoffman

Préface Marc Guillaume

NOUVEAUX MONDES, NOUVEAUX DROITS

À vos marques!

La propriété intellectuelle aujourd'hui : points d'attention Marques, RSE, metavers, IA...

FAUVES



IS THERE INTERNATIONAL COOPERATION ON THE SUBJECT?

E. H.: ounterfeiting is a global problem that requires close collaboration between many players. We can cite for example the World Intellectual Property Organization (WIPO), which is a United Nations agency and which plays a central role in the promotion and protection of intellectual property rights on a global scale, the Organization international criminal police Interpol, or the remarkable work of customs. We can also highlight at the French level the important work that Unifab has been doing for many years. Finally, we ourselves work with an international network of correspondents to collaborate on actions to be taken for the benefit of our clients and act very quickly.

"REGISTERING A TRADEMARK IN CHINA IS CHEAPER THAN TRYING TO RECOVER IT LATER."

WHAT STRATEGY DO YOU RECOMMEND TO YOUR CLIENTS TO DEFEND THEIR LUXURY BRANDS IN THE METAVERSE?

E.H.: We must be as well protected in the virtual world as in the real world. Technical means are evolving, and the law will adapt. In reality, the same advice applies whether you're in the metaverse or not (with a slight adaptation, of course!). As a precaution, we recommend:

- to protect your brand, including in the metaverse, both to develop there and to act against counterfeiters:
- to develop active surveillance in the metaverse to identify attacks as early as possible;
- to act: reports on platforms, formal notices, and legal action.

KENZO, DIOR, SAINT LAURENT, AMONG OTHER LUXURY ICONS, ARE PATRONYMIC BRANDS. WHAT ARE THE LIMITS OF USING A SURNAME AS A BRAND?

E.H.: Patronymic names face specific problems. Extreme caution must be exercised when deciding whether to post such a sign. Indeed, surname marks are intimately linked to a natural person and to a family history. Registering it as a trademark will make it an intangible asset of the company, and therefore transferable. The brand will be "detached" from the person bearing the name, and in the event of transfer, they will no longer be able to use their name as a brand. Numerous cases of case law are examples of this.

THEREFORE, IN THE WORLD OF LUXURY, IS IT BETTER TO CREATE A BRAND FROM SCRATCH OR USE ITS NAME, IN THE PERSPECTIVE OF ITS SECURITY?

E.H: Here again, everything is a matter of strategy, especially since we now have to think globally. Legal will always seek to adapt to the company's marketing choices while warning of the risks that may be encountered in either case. We always recommend using prior art searches before any filing to secure exploitation. In the world of luxury, there is often a natural creative person at the origin. The heritage status of its name may be relevant. This allows for a true identification, a personification of the brand which creates authenticity of the brand story. It is also interesting to note that most luxury houses are surnames.

The contractual framework when transferring the name to the company will then be essential for the sustainability of the brand. The other solution is to file a sign ex nihilo. But in this case, everything has to be invented. It is a virgin space and significant resources and strategies must be deployed to create a brand image and develop trust.



"WE MUST BE AS WELL PROTECTED IN THE VIRTUAL WORLD AS IN THE REAL WORLD."

VERY RECENTLY, AT THE REQUEST OF CHANEL, THE COURT OF CASSATION ABANDONED ITS LOGO REPRESENTING THE TWO CS. DID THIS SURPRISE YOU?

E.H.: To tell you the truth, yes, especially with regard to everyone's activities! Chanel is associated with the fashion house while the Court of Cassation is the highest court of the French judicial order, the competitive relationship between the two is far from immediate, except what the Court of Cassation proposes the sale of derivative products bearing its logo... In principle, to compare brands, we apply the so-called "specialty" principle. This means that a trademark registered for example for cosmetic products will only be protected for this sector. Another economic actor could perfectly register the same sign to manufacture cars. We have already seen this between a brand of pens and a brand of dessert cream, for example. There is an exception with famous brands, of which luxury brands can be part. The principle of specialty then ceases to apply and such a brand in view of its "renowned" character can request a ban on the use of signs, whatever the fields. The question we can ask ourselves: how would the judges of the Court of Cassation have ruled if they had been seized of this case?





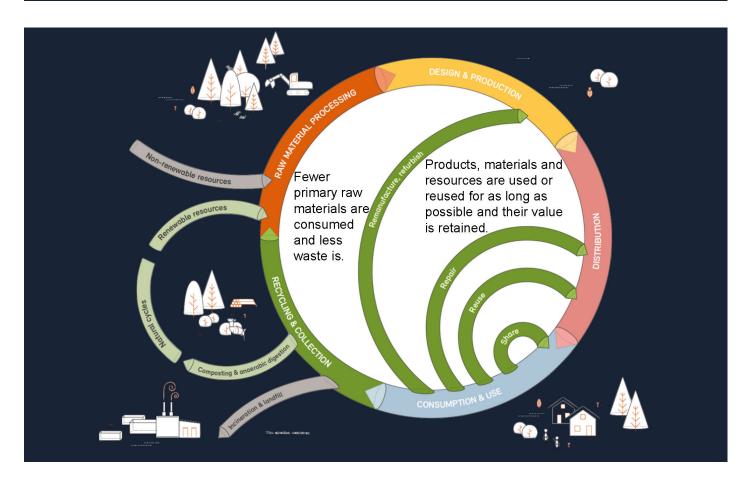






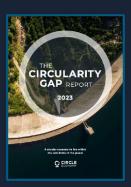






CALL FOR LESS EXTRACTION

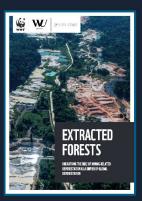




"The global economy is now only 7.2% circular; and it's getting worse year on year driven by rising material extraction and use. " Circle Economy, 2023



"Mineral resources will be exhausted within 50 to 70 years if our consumption continues to grow at the current rate."
François Grosse, senior engineer, 2023

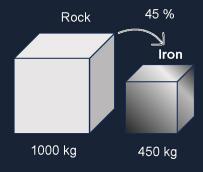


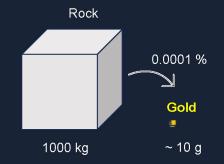
"Mining impacts affect up to 1/3 of global forest ecosystems, and tipped to rise with increased demand for metals" WWF, 2023

5

METAL CONCENTRATIONS







6

Source: Nassar et al. (2022) Rock-to-Metal Ratio - A Foundational Metric for Understanding Mine Wastes





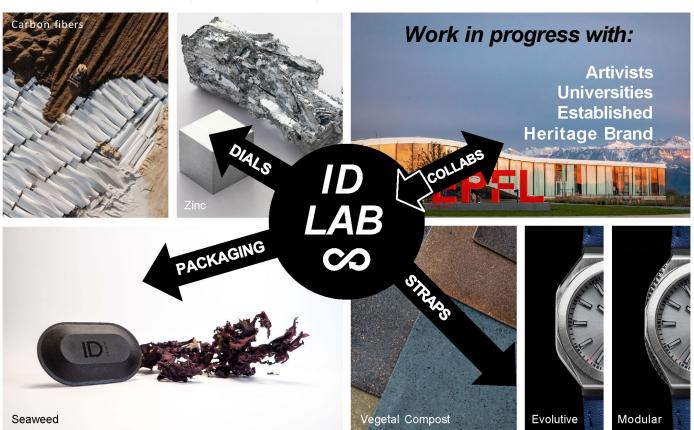




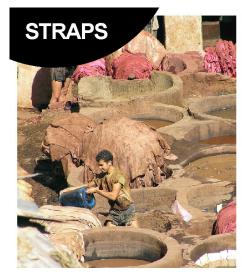
WHAT CIRCULARITY MEANS FOR IDG

- 1 Implement a circular framework (eco-design, raw materials, suppliers)
- 2- ID LAB => developing and testing new materials
- 3- Applying circularity to products (eco-design) and beyond (eg; packaging)



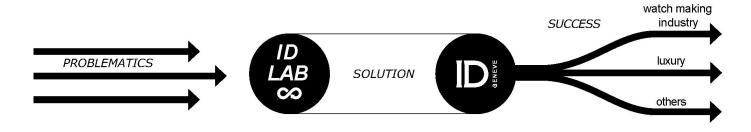








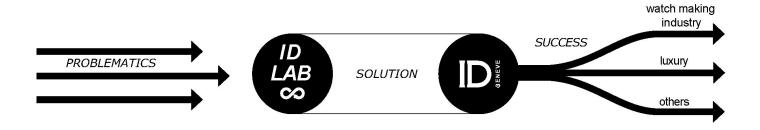


















"I have invested in ID Genève because it is disrupting the luxury watch industry and championing ethically sourced, recycled materials and low-carbon footprint processes in a circular economy"

Leonardo Di Caprio









SASKIA SHUTT



CONTRIBUTION TO TECHNOLOGY FOR TRANSPARENCY REPORT: INSIGHTS FROM SASKIA SHUTT, PRIVATE JEWELLER



https://saskiashutt.com

Saskia Shutt, a Belgian-British jewellery designer, specializes in crafting bespoke jewellery using responsibly sourced silver, gold, platinum, and gemstones. All her creations are meticulously handmade in her Brussels workshop.

TRANSPARENCY INSIGNTS:

It's crucial to recognize that transparency extends beyond suppliers to encompass our own workshop practices. Embracing circularity is paramount, involving the substitution of toxic chemicals with eco-friendly alternatives. In my workshop, efforts are made to neutralize the citric acid waste with bicarbonate soda before filtration through a coffee filter, with resulting filters added to recycling waste. This waste includes old polishing tools, emery paper, worn crucibles, polishing dust, ultrasonic sludge, and residues from polishing barrels. Sustainable practices permeate every aspect, from eco-friendly washing up liquid replacing chemicals in the ultra-sonic to the use of citric acid crystals in the magnetic polisher and acid bath to clean the precious metals. Continuous substitution of chemical products with bio alternatives remains an ongoing process.

My commitment to responsible sourcing goes beyond the workshop; I personally visited Fairmined certified mines in <u>Peru (2022)</u> and <u>Colombia (2023)</u>. Meeting the miners who extract the gold and silver for my jewellery reinforces my dedication to Fairmined certification since 2018. While I offer a remodelling service for customers' old gold, I distinguish it from recycled gold due to distinct motivations.

An impactful initiative involves redefining recycled gold, challenging its perception as a green and ethical choice. Many jewellers, having experienced at least one break-in or robbery, find their jewellery from unfortunate events in the recycled gold supply chain. This jewellery ends up sold to pawn shops, then sold to refineries, melted down, with its origin often obscured. Accountability and transparency need tightening in these cases, demanding scrutiny of the entire supply chain.





How is recently mined gold converted into recycled gold in less than 15 days?

X

It is possible for newly mined gold to be converted into recycled gold in less than 15 days please take a look at the following chart. The recycled gold sector, a multibillion dollar industry, is afflicted by notable shortcomings due to inadequate definitions. These deficiencies create openings for such situations to arise

Definition technicalities alone have the power to eliminate carbon footprints, and traceability is conveniently established exclusively from the gold refinery.

considering that the gold refining sector operates in a rapid and dynamic environment due to the considerable value and fluctuation of gold, its inventory turnover stands as one of the swiftest across industries. This speed is attributed to gold's monetary characteristics, resembling cash in its behavior.

Recycled gold, acting as a channel for illicitly sourced gold to enter mainstream markets, is indirectly linked as a catalyst for illegal artisanal gold mining. These illegal practices contribute significantly to environmental pollution, particularly through the unrestrained use of mercury. The lack of protection in the application of mercury by illegal artisanal gold miners exacerbates the environmental impact. Mercury poses a grave threat to the oceans and its marine life, infiltrating our food supply chain as it finds its way into supermarkets, restaurants, and ultimately onto our plates at home. For deeper insights into this intricate issue, I strongly recommend reading "Gold Laundering: The Dirty Secrets of the Gold Trade - and How to Clean Up" by Mark Pieth. This comprehensive resource sheds light on the interconnectedness between recycled gold, illegal gold mining, and the pervasive use of mercury, emphasizing the urgent need for systemic reforms.

Addressing lab-grown diamonds is imperative, exposing their origin as factory-grown, primarily from China. The industry's lack of transparency regarding cutting facilities and labor conditions necessitates scrutiny.





Supporting projects like <u>Diamonds For Peace</u>, which empowers mining communities, offers a more ethical alternative to factory-made diamonds.

Furthermore, re-educating the West about greed and advocating for investment in small mine-to-market projects can ensure equitable wealth distribution. This approach avoids the environmental and social costs associated with large-scale mining projects, preventing the exploitation of rural communities.

Large-scale mining, prioritizing efficiency and minimal manpower, contrasts with artisanal small-scale mining (ASM), which employs millions worldwide (approximately 10 to 20 million people employed in artisanal small-scale mining worldwide, and approximately 180 million people are dependent on ASM). Tackling pollution in ASM is crucial, and supporting responsible and sustainable practices, exemplified by Fairmined and ARM, offers a promising path forward. These remote communities, often vulnerable to illegal activities, benefit from responsible investment, ensuring a sustainable and ethical future for all stakeholders.





An initiative of





Ethical Making Resource (www.ethicalmaking.org)

The Ethical Making Resource is a website for anyone looking for information about responsible and sustainable making practices in the jewellery and silversmithing industry. This Resource was created to bring together information about ethical making and to provide clear and practical ways for students, educators, small businesses and independent jewellers and silversmiths to engage with ethical making. The Resource includes information about what ethical making means, how to implement specific practices, where to source materials sustainably and fairly, and a news section. The Resource was launched in 2017 by The Scottish Goldsmiths Trust thanks to the input from various industry professionals: visit the website to learn more. http://www.scottishgoldsmithstrust.org/

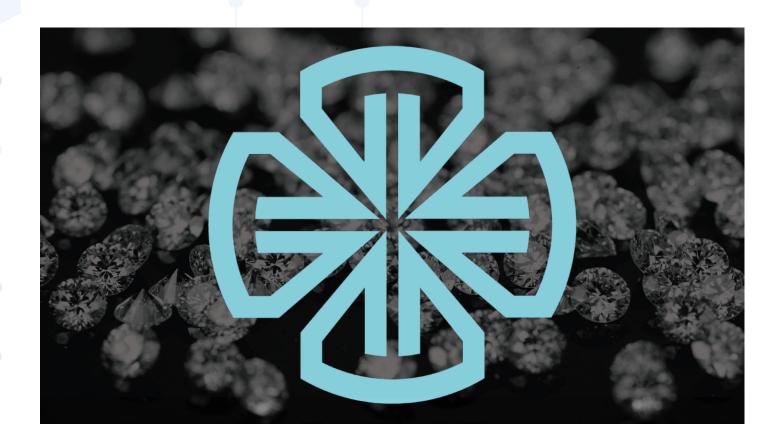


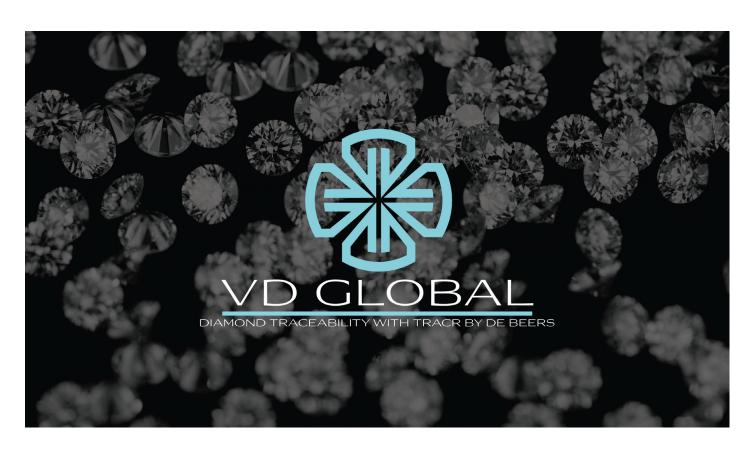


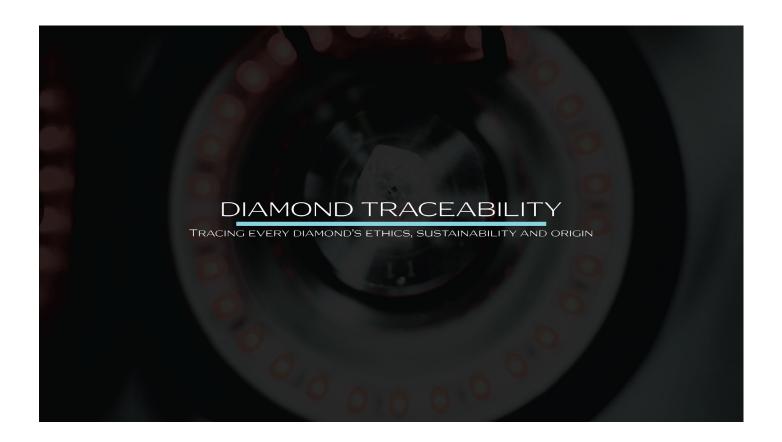


















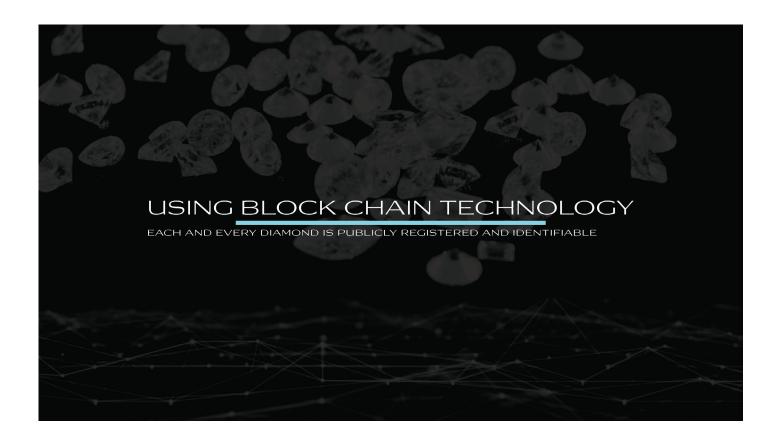


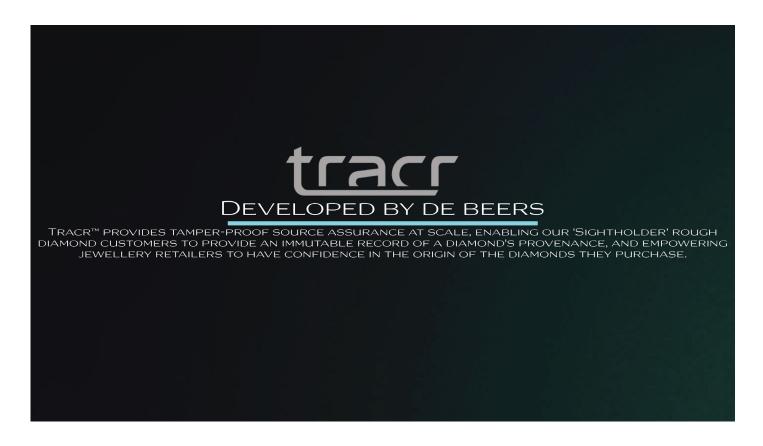






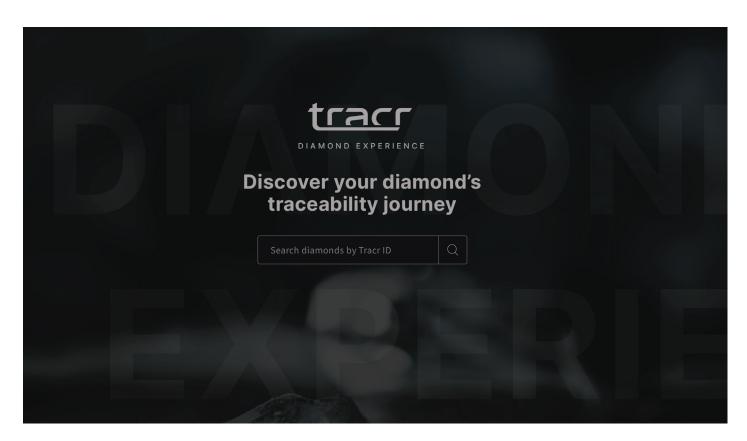


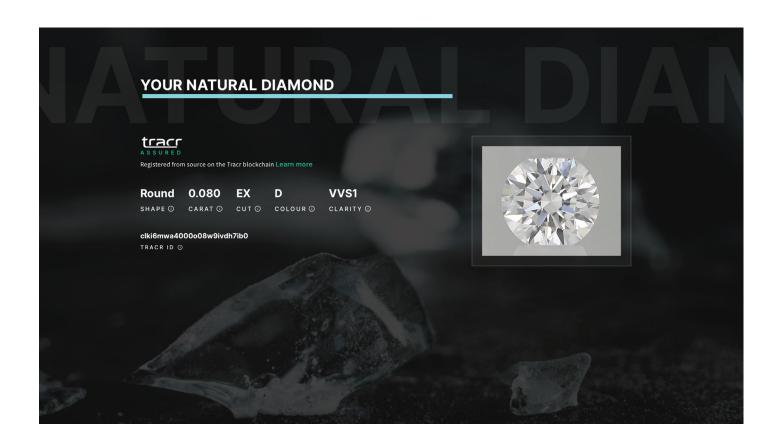


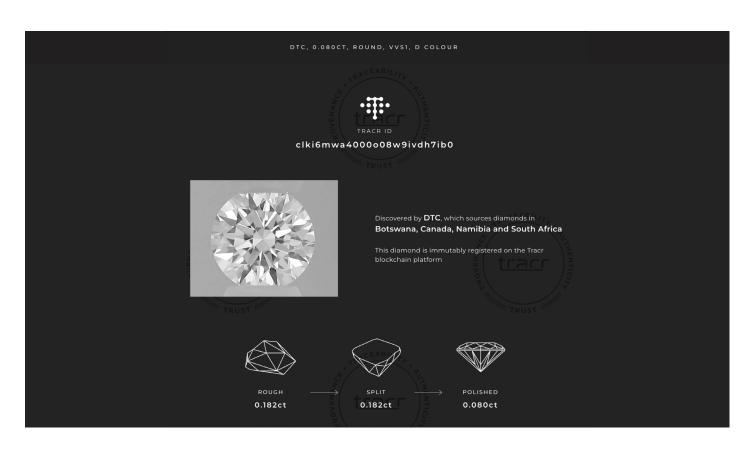


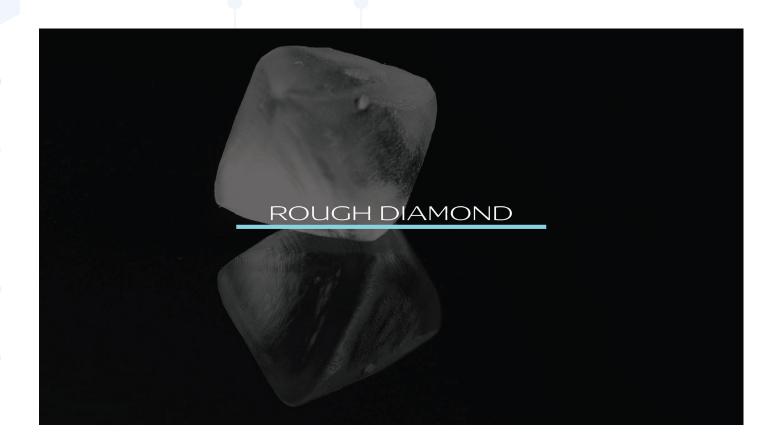


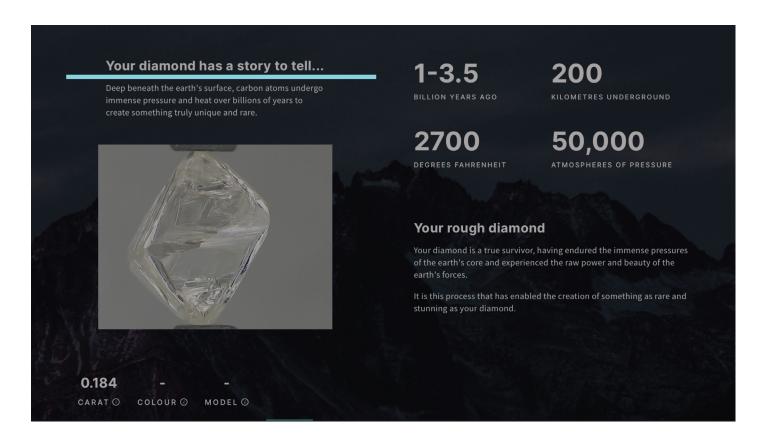


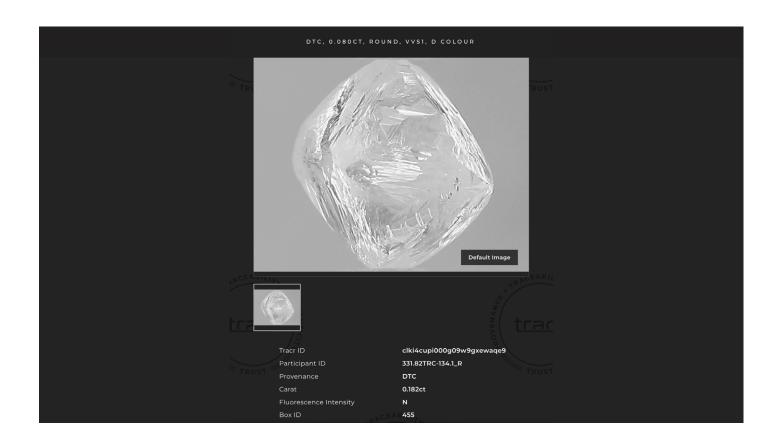






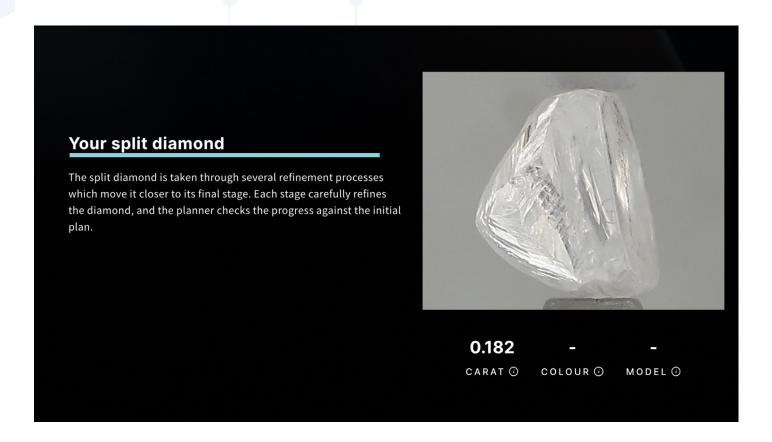


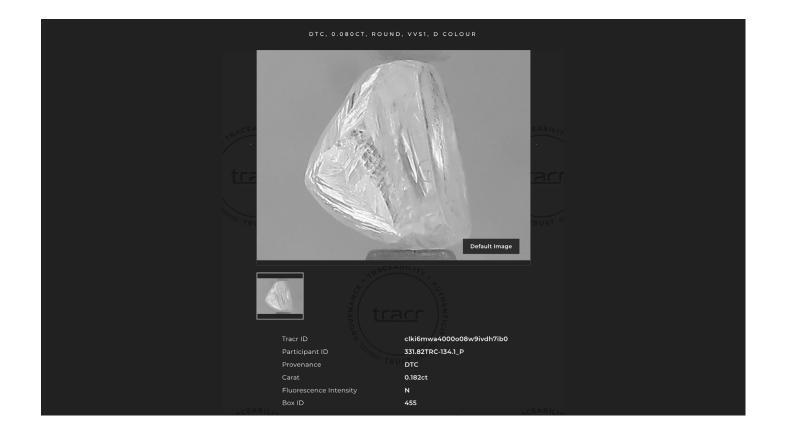




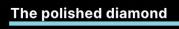




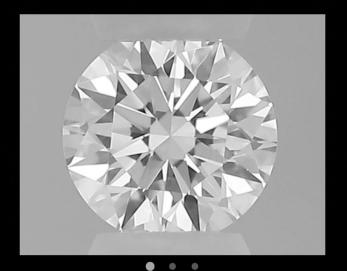




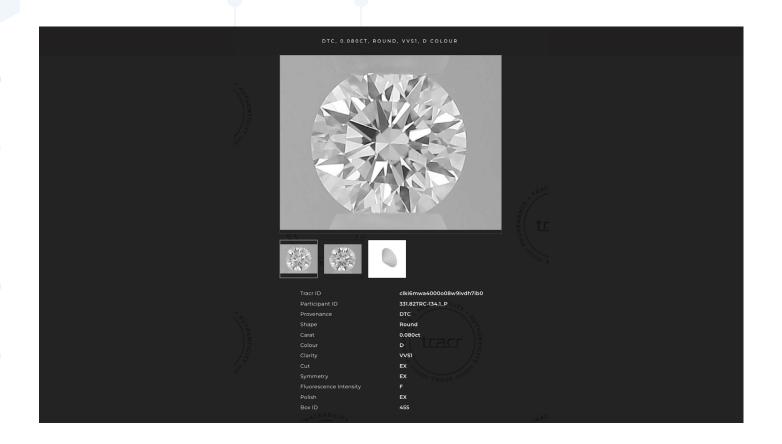


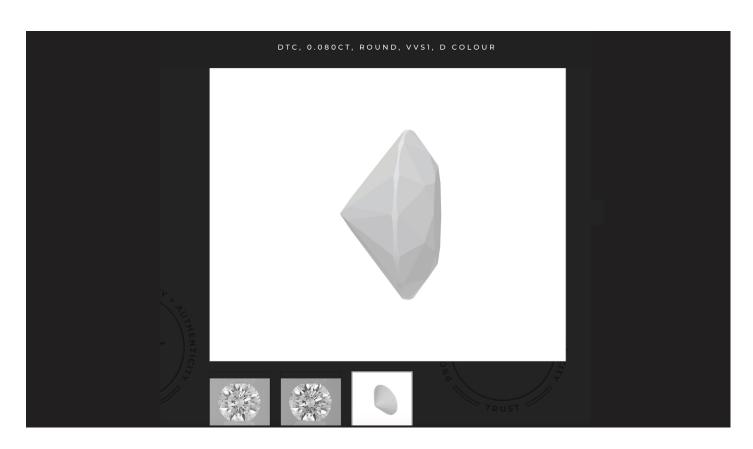


The diamond is inspected and checked to ensure that its polish quality and cut parameters are aligned with the original plan. Only if the planner is satisfied with the work of the master polisher is the diamond released and ready to be graded, sold, or mounted.



Round 0.080 EX D VVS1
SHAPE © CARAT © CUT © COLOUR © CLARITY ©

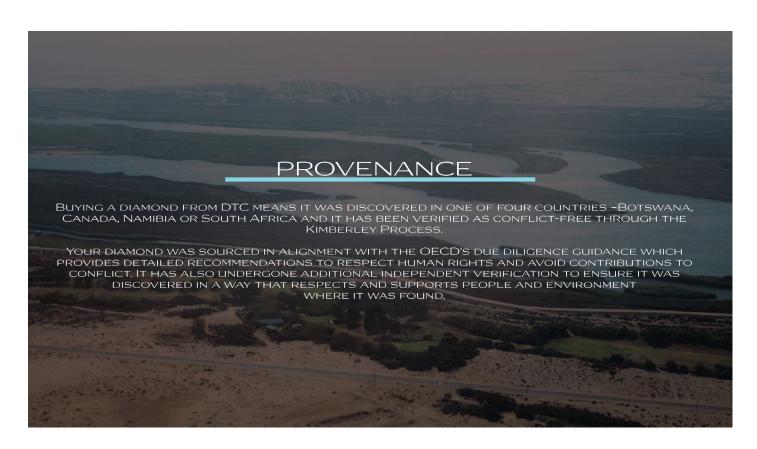




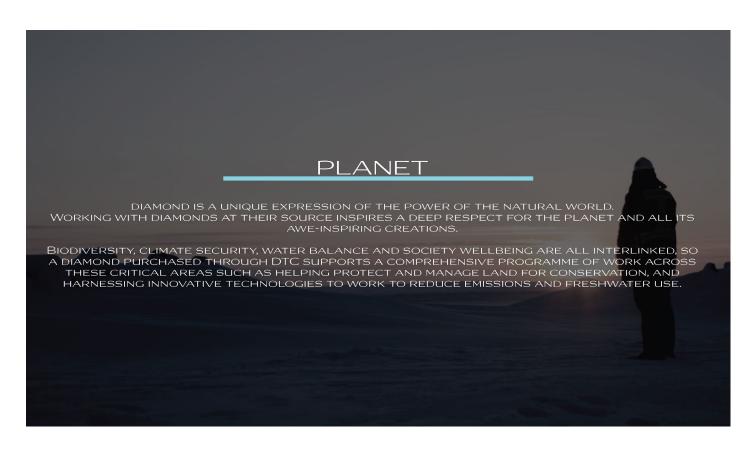


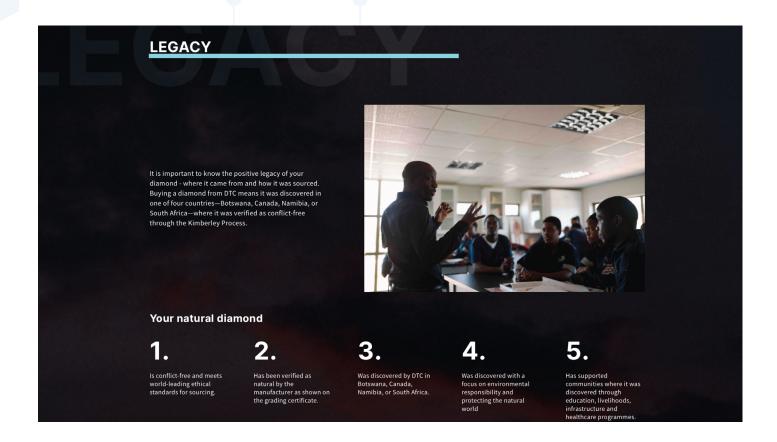




































Scan a GR code to access the grading report and positive impact of your diamond.



















Working Groups





















Working Groups - Bridging Inquiries with Innovation

In our relentless pursuit of transparency and sustainability within the luxury industry, the collaboration between our esteemed ORIGINALLUXURY members and cutting-edge technology partners has been paramount. To amplify the voice of our community, we embarked on a unique initiative, inviting members to pose burning questions to our technology partners. Two compelling questions emerged as focal points - one delving into the transformative role of recycled gold and pawn shops, and the other exploring the intricacies of Life Cycle Assessment tools for raw materials.

To delve into these inquiries with the depth they deserve, we orchestrated remote working groups, uniquely pairing the individuals who initiated the questions with willing technology providers. This intentional collaboration brought together not only experts, thought leaders, and innovators from our network but also the very individuals whose curiosity sparked these investigations. The resulting synergy fostered comprehensive discussions, yielded rich insights, and birthed innovative solutions that transcend conventional boundaries.

Within the following two reports, we unveil the outcomes of these working sessions, offering our readers an exclusive and in-depth look into the conversations that unfolded. Join us on this journey as we navigate the realms of sustainability, transparency, and technological advancement, forging a path towards a more responsible and enlightened future for the luxury industry.

Lastly, we have the privilege of presenting insights from a pivotal workshop, "Can Gold Be Responsible?" co-moderated by ORIGINALLUXURY for a private Swiss bank. This workshop, a significant event in our series of working groups, convened experts and leaders to dissect and discuss the facets of responsible gold production. The dialogue spanned across various critical topics, including supply chain traceability, ethical sourcing, and the environmental and social impacts of gold production. The comprehensive discussions aimed to redefine responsibility in the gold sector, exploring innovative approaches and best practices. This summary encapsulates the essence of these discussions, reflecting on the complexities and potential solutions in making gold production more responsible and sustainable.



Prof. Jean-Philippe Bonardi
Professor of Economics
UNIL-HEC
Co-Managing Director
E4S



Margot Stuart Co-Founder OriginAll S.A.





Working Group GOLD

WEDNESDAY, 16 NOVEMBER 2023 VIA ZOOM



WORKING GROUP: GOLD

Wednesday, 16 November 2023 via Zoom

SUBMITTED QUESTIONS:

"I would like your technology partners to please take into consideration that the origin of recycled gold does not start at the refinery, the origin of recycled gold starts at the pawn shops and cash for gold shops. It would be great for the sake of transparency to have this valuable information published in the public blockchain, if these primary actors are not included in the blockchain claiming complete traceability could be considered a false claim." - Andres Castellanos - FAIRALLOY

Participants (in order of appearance):

- Andres Castellanos <u>FAIRALLOY</u>
- Frederic Albinyana CRANE AUTHENTICATION
- Frederik Degryse iTraceiT
- Friedrich Klisters DYNAMIC ELEMENT AG

The session was kicked off by Andres, who shed light on his endeavors at FAIRALLOY and provided crucial context on the intricate subject of recycled gold.

Andres raised a pivotal concern regarding the existing fragmentation in the definitions of recycled gold. This lack of standardized definitions results in diverse interpretations, potentially misleading both consumers and stakeholders within the supply chain. One of the key issues highlighted was the current inadequacy of recycled gold and traceability mechanisms in offering transparency to downstream companies, with most insights confined to the refinery level.

The presentation delved into the prevailing challenges within regulatory frameworks, noting that entities such as the Responsible Jewellery Council (RJC) assert that refineries serve as the starting point or source of recycled gold. However, as the chain of custody is examined more closely, the granularity of this process becomes apparent, challenging the appropriateness of refineries as singular points of origin.

A noteworthy quote from the World Gold Council emphasized that a substantial portion of recycled gold, approximately 90%¹, originates from jewelry, with the remaining percentage sourced from technology. This information implies that pawn shops and Gold For Cash establishments should logically be considered primary sources of recycled gold. However, a notable gap was identified – these entities are conspicuously absent from the Chain of Custody, and there is a lack of regulatory insistence on tracing or traceability for these crucial contributors.

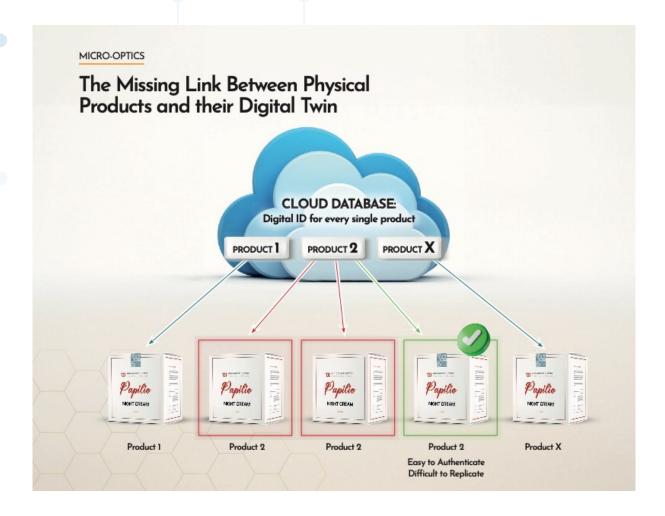
In essence, Andres' inquiry and subsequent discussion underscore the urgent need for a more comprehensive and standardized approach to defining recycled gold. Additionally, the limitations of existing traceability mechanisms, particularly the oversight of pawn shops and Gold For Cash establishments, pose challenges to achieving transparency throughout the entire supply chain. Addressing these issues will be instrumental in fostering a more accountable and transparent ecosystem within the industry.

^{1 «} The majority of recycled gold – at least 90% - comes from jewellery, with gold extracted from technology providing the remainder. » World Gold Council (https://www.gold.org/gold-supply)



Crane Authentication proposes the application of their specialized labels directly onto the packaging of the gold as it moves from one stakeholder to another. This strategic labeling approach is designed to act as a digital signature, creating a seamless and unbroken record of the gold's provenance. By doing so, pawn shops and Cash For Gold establishments can now be seamlessly integrated into the traceability journey, bridging the existing gap and ensuring that their contributions to the recycled gold supply are duly recognized and documented.

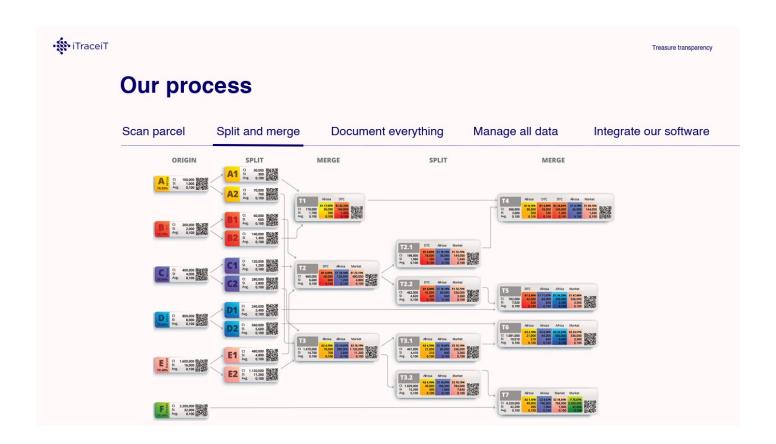
The transformative aspect of <u>Crane Authentication</u>'s solution lies in its ability to establish a digital twin for each piece of jewelry. This digital twin serves as a comprehensive and immutable record, preserving the entire history of the gold throughout its transformation process. From its origins in pawn shops or Cash For Gold establishments to subsequent stages in the supply chain, every significant step is captured, ensuring transparency and accountability.



Frederik Degryse from iTraceiT provided a valuable perspective on the challenges encountered in the realm of recycled gold, drawing parallels with the issues faced in tracing the origins of small diamonds. His insights underscored the critical need for independent, secure and comprehensive traceability to address the inherent uncertainties associated with the actual origins of these precious materials.

Frederik introduced the iTraceiT solution as a transformative approach to trace every step of the transformation process. Notably, the iTraceiT solution is inclusive, offering every entity in the supply chain, including both highly processional as well as artisanal structures, the opportunity to establish their digital "domain". This unique digital space ensures easy access to the blockchain, democratizing the traceability process and empowering even those with minimal technological infrastructure, such as Artisanal and Small-Scale Mining (ASM) entities. With just mobile phones and laptops, these entities can now actively participate in traceability efforts without the need for additional machinery or software.

The significance of iTraceiT's solution extends beyond accessibility. The aggregation of data collected through this process not only facilitates the creation of a Digital Identity Card for each piece of gold but, when combined with the Traceability Report, enables the generation of an ultimate Jewellery Report. This holistic report provides a comprehensive overview of the entire journey of the gold, from its initial sourcing to the final product, offering a level of transparency and documentation that was previously challenging to achieve.



Friedrich Kisters from <u>Dynamic Element</u> brought a valuable perspective to the discussion by presenting their anti-counterfeiting solution tailored for securing gold. The core of their innovation revolves around an Invisible Fingerprint (IVF) integrated with their exclusive machine learning technology and patents on dynamic security. A secure QR code can also protect the packaging of small gold bars. The small fingerprint area on the surface becomes the entry door to data related to each gold bar/packaging, offering a robust method to prove the integrity of gold throughout its lifecycle.

The introduction of the Invisible Fingerprint (IVF) signifies a unique and imperceptible identifier that becomes an intrinsic part of the gold's identity. Using a secure QR code as the point of entry adds another layer of flexibility and security. While basic information on the gold bar may be made accessible to a broader public, it also allows for separate access to information only authorized entities can read.





The development and integration of this anti-counterfeiting solution aligns with the broader industry goal of enhancing transparency and accountability within the supply chain. By leveraging cutting-edge technologies, DynamicElement not only addresses the immediate concerns related to counterfeiting but also contributes to the overall integrity of the gold sourcing and processing ecosystem.

The collective insights presented by Frederic Albinyana from Crane Authentication, Frederik Degryse from iTraceiT, and Friedrich Klisters from Dynamic Element form a comprehensive and complementary framework that holds the potential to revolutionize the landscape of recycled gold. Each technology partner addressed distinct facets of the existing challenges, and when combined, their contributions pave the way for a more responsible, transparent, and accountable recycled gold industry.

Crane Authentication's proposed labeling solution emerges as a pivotal tool in establishing traceability throughout the entire chain of custody. By affixing specialized labels on gold packaging, the digital signature created becomes a key element in preserving the gold's provenance. This not only includes traditional supply chain players but crucially incorporates pawn shops and Cash For Gold establishments, previously overlooked contributors to recycled gold.

iTraceiT, on the other hand, introduces a holistic approach that empowers entities across the supply chain, including artisanal structures, to actively participate in traceability efforts. By providing a digital "domain" accessible to all, even those with minimal technological resources, iTraceiT ensures a more inclusive and democratized traceability process. The aggregation of data, facilitated by iTraceiT's solution, results in comprehensive reports that offer a detailed overview of the gold's journey, from origin to the final product.

Friedrich Klisters from Dynamic Element introduces a crucial layer of security against counterfeiting with their anti-counterfeiting solution. The integration of an Invisible Fingerprint (IVF) and secure QR code not only protects the gold's authenticity but also adds an extra level of data security. This is especially pertinent in an industry where counterfeiting poses a significant threat to transparency and responsible practices.

When these three innovative solutions are considered together, the power of aggregated data becomes apparent. The combined efforts of Crane Authentication, iTraceiT, and Dynamic Element contribute to a robust and interconnected system where the gold's journey is not only traceable but also secured against fraudulent practices. The aggregation of data from labeling, inclusive traceability, and anti-counterfeiting measures culminates in a comprehensive understanding of the recycled gold space. This collective vision, with its aggregated data, could ensure responsible practices, transparency, and accountability, marking a significant step towards building a sustainable and ethical recycled gold industry.





Working Group LIFE CYCLE ASSESSMENT TOOL (LCA)

WEDNESDAY, 27 NOVEMBER 2023 VIA ZOOM



WORKING GROUP: LIFE CYCLE ASSESSMENT TOOL (LCA)

Wednesday, 27 November 2023 via Zoom

SUBMITTED QUESTIONS:

"For transparency purposes, we would love to see a reliable technology to calculate life-cycle-analysis, one that would be user-friendly and affordable enabling standardized outputs on most critical raw materials such as diamonds, gemstones, etc." - Sébastien Crétegny - MOVO PARTNERS

Participants (in order of appearance):

- Sébastien Crétegny MOVO PARTNERS
- Jimmy Gove, Andrew Rimmer and Lewis Fish <u>OPSYDIA</u>
- Thomas Weiss AUTHENTIC VISION
- Anys Boukli DIGITAL PARTNERS
- Alvise Cavallari ATLANTIC ZEISER

Unable to attend due to technical issues:

• Friedrich Klisters - DYNAMIC ELEMENT AG

The session commenced with Sébastien taking the lead, shedding light on Movo Partners' undertakings and elucidating a persistent challenge faced by their clients: the absence of a standardized tool for calculating their carbon footprint. In the current landscape, brands are compelled to exercise due diligence in their utilization of raw and noble materials. Regrettably, the prevalent employment of disparate tools and methodologies obstructs a unified comprehension of the associated problems and impacts. Divergent consultants resort to distinct tools, lacking a shared methodology.

A rapid-fire round of questions ensued from the participants to precisely articulate Sébastien's requirements. The tech partners, in particular, contemplated whether quantifying the CO2 footprint exclusively represents the comprehensive evaluation of sustainability impact. In response, Sébastien underscored that the prevailing industry norm centers on a carbon emission focus, hence prompting his initial inquiry. The consensus within our collective was reached swiftly, discerning that the primary challenge lay not in the procedural aspects but rather in the divergent calculation methodologies applied.





The Carbon Border Adjustment Mechanism explained European Parliament Multimedia Centre nultimedia europarl europa eu · 1 min read

Sebastien was able to share some additional context by sharing two valuable resources:

 The enforcement of the upcoming new tool called CBAM (Carbon Border Adjustment Mechanism) by the EU on 1 October 2023 :

https://www.linkedin.com/feed/update urn:li:activity:7115643364577800192/

2. A study: Environmental Impacts of Mined Diamonds Report produced by: Dr Gbemi Oluleye - Research Fellow, Centre for Environmental Policy, Imperial College London.

https://www.imperial-consultants.co.uk/wp-content/uploads/2021/02/Final-report-Environmental-Impacts-of-Mined-Diamonds.pdf



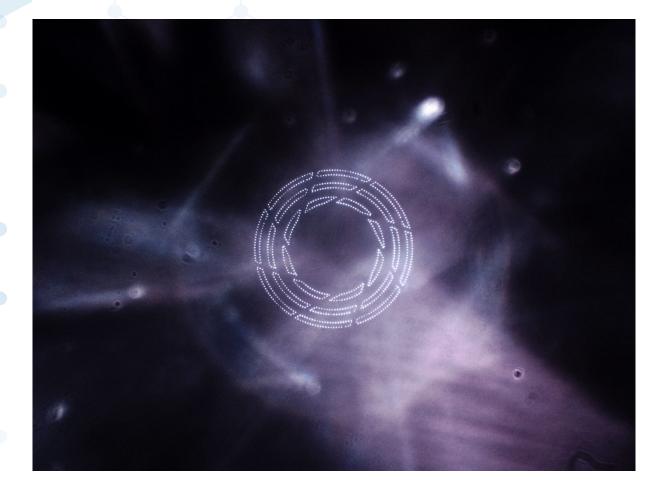
Jimmy Gove, representing Opsydia, took the floor as the first presenter, unveiling their expertise in crafting specialized solutions for diamonds and coloured gemstones for security and traceability. Emphasizing the distinctive nature of their offering, he clarified that their solution serves as a means of placing information – through a precision laser process – into the physical material itself, rather than functioning solely as a calculating tool. Central to their innovation is a nano ID meticulously placed in each stone, a permanent identifier ensuring an indelible link to the authentic material which cannot be removed without recutting.

The versatility of these identifiers is notable, as they can be integrated as early as the polishing stage, providing a seamless incorporation into the stone's life cycle. Jimmy elaborated on the potential synergy between Opsydia's solution and data storage mechanisms, citing blockchain as a prime example; the nano ID is a bridge between the physical object and an immutable digital record. Such integration could establish an initial framework for gathering and reading essential data points throughout the stone's entire life cycle and transformation processes, thereby facilitating the accurate calculation of carbon emission outputs and traceability.



An interesting sidebar illuminated the adaptability of Opsydia's solutions, demonstrating equal efficacy with lab-grown diamonds. This fact was underscored by the adoption of the technology by Lightbox (De Beers), showcasing the applicability and robustness of Opsydia's technology across various facets of the diamond industry.





Thomas Weiss, the CEO of Authentic Vision, took the stage to elaborate on his company's innovative solution geared towards combating clonability. Thomas readily acknowledged the symbiotic relationship between his solution and Opsydia's, recognizing the mutual enhancement they offer to the industry.

In distinguishing <u>Authentic Vision</u>'s approach, Thomas highlighted the feature that sets it apart – the absence of a proprietary tool requirement for reading the fingerprint. A simple mobile device suffices, making it a user-friendly and accessible solution. Additionally, he introduced another dimension to their technology, the option to integrate with an NFC chip, providing an extra layer of versatility.

Addressing Sébastien's inquiry directly, Thomas admitted to not having a direct solution but expressed confidence in the potential of combining select technologies. He envisioned that through a collaborative effort, accurate data could be compiled, laying the groundwork to calculate the effective carbon footprint generated throughout the lifecycle of precious stones.

Thomas emphasized the significance of collecting data at specific intervals during the stone's life cycle, enabling the subsequent calculation of the footprint at each transformative stage of the material. This strategic approach, he argued, holds the key to achieving a comprehensive and accurate understanding of the environmental impact associated with the production and transformation of these valuable resources.





Building upon this discussion, Jimmy underscored a possible and perhaps overlooked facet of the environmental impact within the industry – the shipping trajectories of precious stones, particularly diamonds. He explained that these stones, in their life cycle, frequently pass through the same cutting or trading centre several times, highlighting some potential inefficiencies and areas to optimise the pipeline both environmentally and economically.

Jimmy's observation shed light on the intricate logistics involved in the precious stone trade, revealing a potential source of environmental inefficiency. The often repetitive trajectory through cutting or trading centres not only raises ecological concerns but also hints at economic inefficiencies within the industry's supply chain. This insight prompted a collective recognition of the need to scrutinize and optimize the entire lifecycle of precious stones, beyond the immediate aspects of their production and transformation. The acknowledgment of shipping routes as a contributing factor to the industry's environmental footprint adds depth to the ongoing conversation about sustainable practices within the sector. It was suggested that traceability information for diamonds could reveal these inefficiencies and help address them.

Anys Boukli, representing <u>Digital Partners</u>, assumed the stage to delineate the sector-specific solutions his services provide to the luxury industry. He shed light on the role he plays in responding to the industry's demand for a comprehensive evaluation of the environmental impact associated with integrating technologies for sustainability improvements. Anys emphasized the critical necessity for tangible metrics to accurately compute the entire lifecycle of a product or material, extending beyond mere production to encompass transportation and operational phases.



Digital technologies can accelerate progress in many domains by creating efficiencies that decrease environmental impacts and lower emissions. However, the training and use of large-scale Big data, AI systems can also require massive amounts of processing power, memory, networking, storage and other resources –collectively known as "AI compute" – which can have significant environmental footprints from energy and water use, GHG emissions and end-of-life considerations. AI compute can also have indirect negative environmental impacts through its applications. To harness technologies to meet national and global sustainability goals, government, policymakers, academia and private sector actors need accurate and reliable measures of the environmental impacts of compute and applications. These include environmental impacts from production, transport, operations, and end-of-life considerations for compute, as well as environmental impacts from Digital application.

The core of Anys's services lies in sophisticated monitoring, leveraging big data and AI. This active approach significantly contributes to the identification of fake and misinformation that brands may inadvertently disseminate. It becomes particularly pertinent in the context of brands seeking exposure for their commitments to UN SDGs and adhering to other regulatory requirements. Anys's expertise not only ensures the authenticity of a brand's sustainability claims but also actively aids in aligning these commitments with tangible and measurable impacts throughout the entire life cycle of their products.



Alvise Cavallari, representing Atlantic Zeiser, provided a comprehensive overview of his experience in product traceability, drawing on his prior engagements in the diamond industry. With a deep understanding of the intricacies involved, he underscored the imperative for a Life Cycle Assessment (LCA) that extends seamlessly from the extraction point in the mines through every node in the supply chain.



A unanimous consensus emerged among the participants regarding the pivotal role of converting any environmental impact into CO2 equivalents, aligning with the industry-wide standard. This holistic approach incorporates considerations such as water usage and landfill consumption, encapsulating a comprehensive understanding of the ecological footprint.

Alvise emphasized the need for meticulous accountability at each stage, fostering a sense of ownership among stakeholders throughout the material's entire lifecycle. Navigating through the complexities of diverse lifecycle phases and the multitude of players involved, Alvise illuminated the inherent challenges in effective track and trace mechanisms, making the distribution of accountability a formidable task. Despite these challenges, the collective sentiment among participants was a firm rejection of inaction. The consensus rested on the belief that proactive data collection today serves as a foundational step, allowing for the bridging of any missing gaps in information at a later point. This proactive approach underscored a shared commitment to addressing the challenges head-on and advancing towards a more sustainable and transparent future.

In summary, Authentic Vision, in alignment with all other participants, underscored the imperative for a pilot initiative that seamlessly integrates diverse technologies into a unified solution. Recognizing the significance of this endeavor, ORIGINALLUXURY pledged to explore the feasibility of orchestrating such a pilot. We expressed a commitment to leverage the collective support of our members and integrate complementary technological solutions to effectively bridge any remaining gaps. This collaborative effort aims not only to test the interoperability of various innovations but also to pave the way for a cohesive and comprehensive solution that addresses the multifaceted challenges posed by sustainability and traceability in the luxury industry.





Working Summary Can Gold Be Responsible?

THURSDAY, 19 OCTOBER 2023 VENUE: PRIVATE BANK IN GENEVA, SWITZERLAND



WORKSHOP SUMMARY: CAN GOLD BE RESPONSIBLE?

October 19, 2023, 8:30 am - 17:30 pm

THE MULTI-STAKEHOLDER EXCHANGE ON RESPONSIBLE GOLD AIMED AT DEFINING RESPONSIBLE GOLD AND ASSOCIATED LABELS AS WELL AS AT SHEDDING LIGHT ON PRACTICAL NUANCES OF RESPONSIBILITY ALONG THE VALUE CHAIN.

Challenges include:

- Differences in interpreting responsibility for recycled versus newly mined gold (ASM and LSM¹),
- Traceability versus transparency,
- · Lack of regulatory harmonization (e.g. insufficient standards),
- Difficult market conditions,
- Complexity and uncertainty regarding sustainability efforts.

Participants also compared gold considerations with other metals, such as manganese, co-balt, and lithium, which are considered indispensable for the energy transition.



Source: Axedras

THE MORNING SESSION FOCUSED ON DEFINING THE CONCEPT OF RESPONSIBILITY.

It started with interventions from The Bank and MKS Pamp. The speakers presented the Swiss Positive Gold Fund and highlighted the role of financial institutions in controlling gold stocks, together with the jewelry sector,² and the potential to impact the lives of 20 million artisanal small-scale miners,³ e.g. through initiatives like the SBGA4. The SBGA connects the bottom of the pyramid with financial institutions and luxury brands - an endeavor which is difficult to scale and comes at a price: an impact premium of 1000 USD/kg. The Swiss Positive Gold Fund applies Provenance technology to trace the origin of gold bars (country/counterpart/recycled) and thus caters to diverging interpreta-tions of responsible gold, in line with AML⁵ laws, the RGC's⁶ new principles and LBMA's⁷ responsible gold guidance. Guided group discussions circulated around the dichotomy be-tween historically extracted and newly extracted gold, as well as the challenges for defining responsibility in both scenarios, and the consideration of labels, such as "provenance", "ethical" and "climate". The present experts highlighted diverging priorities of clients (incl. fiduciary duty, price exposure, physical ownership (safe haven), and sustainability) and di-verse interpretations of ESG (e.g. reputation and risk management; CO2 emissions; biodi-versity and social impacts). A common understanding emerged on the need to raise aware-ness ("travail de mémoire") for grandfather gold (or "amnesty gold"; i.e. gold extracted before 2012) as well as to increase the traceability and the impact of newly mined gold. Under the umbrella term "recycling", for example, central banks can swap their old gold into LBMA-marked bars, and refineries can theoretically buy competitors' waste to brand it as LBMA bars.



¹ ASM=Artisanal and small-scale mining; LSM=Large-scale mining

² https://www.gold.org/goldhub/data/how-much-gold

³ https://www.swissbettergoldassociation.ch/why-artisanal-and-small-scale-gold-mining-asgm

⁴ SBGA= Swiss Better Gold Association

⁵ AML=Anti-Money Laundering

⁶ RGC=Responsible Gold Council

⁷ LBMA=London Bullion Market Association

AFTER LUNCH, PROF. FELICITAS MORHART AND PROF. STÉPHANE GIROD SYNTHESIZED THE MORNING DISCUSSION AND PRESENTED THEORETICAL MODELS FOR DEFINING RESPONSIBLE GOLD.

They highlighted the impact potential for newly extracted gold and stressed two-way ESG inclusion - not only in form of a premium or feel-good narrative, but also crowding out bad behavior (cf. taxation on diesel or tobacco). They underlined the need for innovation to counterbalance the growing impact of gold resulting from an increase in wealth per cap-ita and population.

ORIGINALL AND AXEDRAS THEN PRESENTED THE RESPONSIBLE GOLD LANDSCAPE AS WELL AS EXIST-ING TECHNOLOGICAL SOLUTIONS.

Both called for data aggregation via existing technologies⁸ and platforms (e.g. customs and Interpol) to overcome data silos and foster industry collaborations ("piggyback"). In that context, Axedras, for instance, helps connect suppliers and jewelers and allows tracing via a digital twin for each product category ("gold passport" provides respective ESG and prov-enance data).

THE AFTERNOON DISCUSSIONS ADDRESSED A) MARKET OFFER AND DEMAND AS WELL AS A PRE-MIUM FOR RESPONSIBLE GOLD, B) SUPPORTIVE MODEL(S)/STANDARD(S)/METHOD(S) ALONG THE VALUE CHAIN, AND C) REPLICATION ACROSS METALS.

At the core of the discussions was the question how responsible gold can be correctly priced (i.e. pricing externalities) and become the new normal. Participants highlighted the overarching need for regulation and awareness via thorough value propositions (recycled vs processed gold; jewelries vs bars; across full range of products). While institutional in-vestors are bound by their mandate to consider responsible gold from a pure risk perspec-tive (call for benchmark index), relationship managers in other financial institutions can increase demand by raising awareness. Although luxury brands might fear reputational damage regarding responsible gold, they have higher margins and more space to maneu-ver. Participants agreed that diversified supply and a secondary market for responsible gold would allow raising the bar for responsible gold. The associated premium should not be carried only by end consumers, however. Suggestions included lending and sharing models as well as (self-)regulatory adjustments or higher minimum standards. In particu-lar, references were made to LBMA, Dodd Frank, OECD Guidelines as basis for DDTrO^o, CSRD/CSDDD¹⁰ with ESRS/IFRS¹¹, EU Conflict Mineral Regulation and labels with partic-ular focus, e.g. on human rights. Governance difficulties, such as high turnover and gov-ernmental interest in illegal mining, or competition in terms of data access, market share or oversight (e.g. growing Indian influence¹²) must not further disadvantage small produc-ers. Acknowledging the impact on livelihoods and the natural limits of extraction, respon-sible metal extraction should involve a circularity concept from the stage of conception and stakeholders should carefully analyze the whole value chain.



⁸ LBMA issued a best-in-class traceability technology call for submission in 2022, which could be taken further.

⁹ DDTRO=ORDINANCE ON DUE DILIGENCE AND TRANSPARENCY IN RELATION TO MINERALS AND METALS FROM CON-FLICT-AFFECTED AREAS AND CHILD LABOUR

¹⁰ CSRD=Corporate Sustainability Reporting Directive, CSDDD=Corporate Sustainability Due Diligence Directive

¹¹ ESRS=European Sustainability Reporting Standards, IFRS=International Financial Reporting Standards

¹² https://www.gold.org/goldhub/research/gold-refining-and-recycling-india-gold-market-series

WITH AROUND 70% OF THE WORLD'S GOLD REFINED IN SWITZERLAND, THE LEVER OF ACTION IS TRE-MENDOUS.¹³

This is however not the case for all metals. Supply chains and geographical concentration differ across metals (e.g. Cobalt mined in DRC and processed in China). Certifications and due diligence mechanisms exist in particular for palladium, silver and platinum. The po-tential for positively impacting millions of livelihoods seems limited with silver and cop-per, since ASM does not play a large role in these cases. Nonetheless, traceability technol-ogy and data aggregating platforms could serve across metals, and standards could be fur-ther aligned between LBMA and CME14. Similarly, awareness-raising campaigns should span across metals to develop convincing storylines and render the externalities of invisi-ble metals (e.g. hidden in phones and batteries) more graspable. At the end of the day, participants defined individual takeaways and action points for collaboration, moderated by the Professors.



¹³ https://www.nytimes.com/2022/08/03/world/europe/switzerland-russian-gold-imports.html

¹⁴ CME=Chicago Mercantile Exchange - main exchange for commodities

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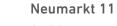
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