



ORIGINALLUXURY

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 – [FAIRALLOY](#)
- Frederic Albinyana – [CRANE AUTHENTICATION](#)
- Frederik Degryse – [iTraceiT](#)
- Friedrich Klister – [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.

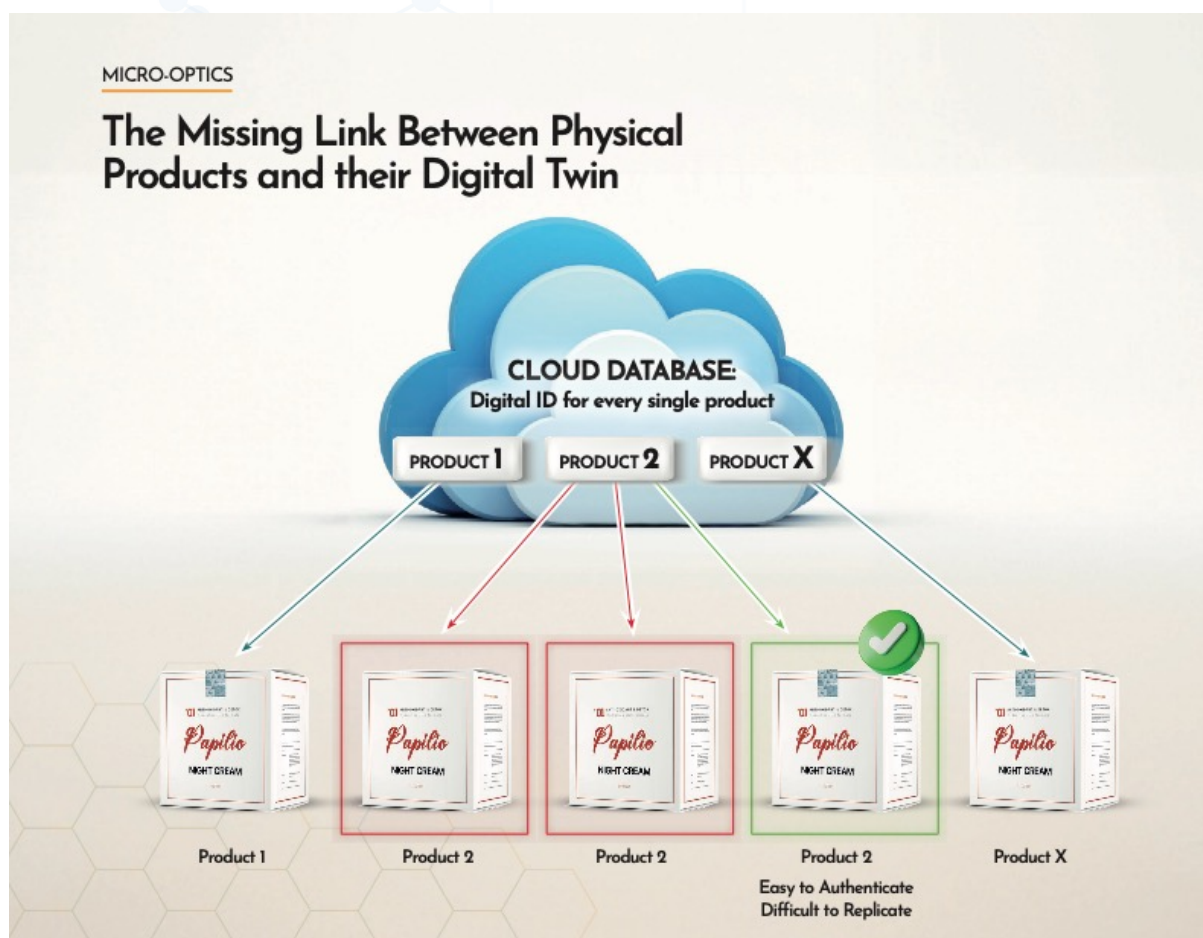
A noteworthy quote from the World Gold Council emphasized that a substantial portion of recycled gold, approximately 90%¹, originates from jewelry, with the remaining percentage sourced from technology. This information implies that pawn shops and Gold For Cash establishments should logically be considered 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 [Crane Authentication](#)'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 professional 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.

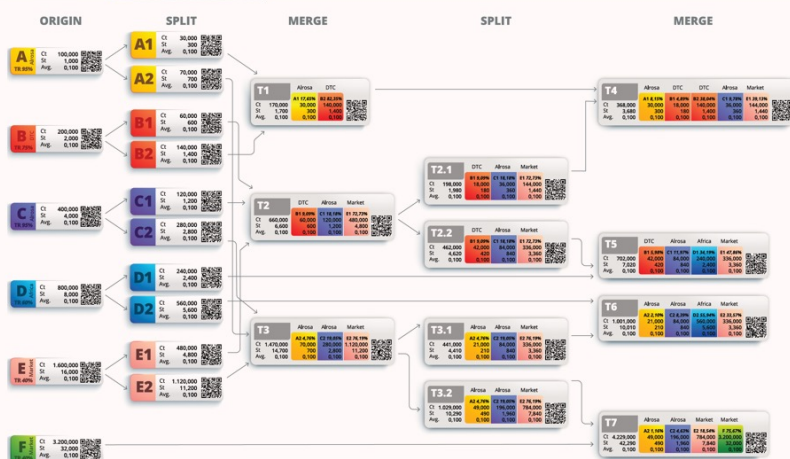
The significance of iTraceiT’s solution extends beyond accessibility. The aggregation of data collected through this process not only facilitates the creation of a Digital Identity Card for each piece of gold but, when combined with the Traceability Report, enables the generation of an ultimate Jewellery 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.



Treasure transparency

Our process

Scan parcel Split and merge Document everything Manage all data Integrate our software



Friedrich Kisters from [Dynamic Element](#) 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/package, 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 Klusters 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 Klusters 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.