ORIGINALLUXURY

T4T Tech Partners

PROVENANCE PROOF

Technology for Transparency Report
3rd Edition

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PROVENANCE PROOF

Company Information:

Provenance Proof

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Website:

www.provenanceproof.com

Company Description:

Provenance Proof provides products which enable stakeholders within the gem and jewellery industry to participate in transparency. By integrating advanced DNA markers and secure blockchain technology, Provenance Proof provides unparalleled and provable traceability throughout the supply chain, from the rough gemstone to the finished jewellery piece. These technologies not only promote responsible sourcing but also enhance customer trust and loyalty, helping brands meet modern expectations of transparency and sustainability.

The DNA- based Provenance Proof Physical Tracers combat counterfeiting and fraudulent claims by embedding invisible, unique physical markers into gemstones or jewellery at any stage of the supply chain. These tracers ensure an indelible, verifiable physical link to the product's origin, safeguarding brands from unauthorised replicas and strengthening consumer confidence.

The Provenance Proof Blockchain provides a secure, tamper-proof record of a gemstone's journey. The underlying blockchain technology ensures the integrity of the stored information throughout the supply chain which at the same time remains exclusive and private to the owner of the asset. With over 35 million gemstones and jewellery items recorded and more than 750 professional stakeholders registered, the Provenance Proof Blockchain has become an industry benchmark for transparency and accountability.

Number of employees: 1-10

Company's tagline:

Transparency Redefined

MISSION

Provenance Proof's mission is to enhance transparency and trust within the global gems and jewellery industry through innovative technologies.

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Solution:

Solution Name

- Provenance Proof Physical Tracer

Solution Overview

- Provenance Proof provides physical tracers that enable the traceability of gemstones and diamonds back to their place of origin.

Description

- The DNA-based Provenance Proof Physical Tracers combat counterfeiting and fraudulent claims by embedding invisible, unique physical markers into gemstones, diamonds, watches, or jewellery at any stage of the supply chain. These tracers provide an indelible, verifiable physical link to the product's origin, protecting brands from unauthorised replicas and boosting consumer confidence. Each partner receives a unique DNA marker that securely connects their products to their company and values. Our physical tracers are resistant to aging and common industry cleaning procedures. They are easily scalable to large volumes and can be seamlessly integrated into existing production processes. The DNA tracers can be detected and the information read through simple PCR tests at any time.

Target Audience

From miners to cutters, traders, and manufacturers, we provide this solution to all stakeholders who add value to gemstones, diamonds, pearls, jewellery, and watches.

Geography

- Global

Traceability & Transparency Enhancement:

Traceability & Transparency Goals :

Our Physical Tracers address several critical traceability and transparency challenges, including supply chain risk management, product mixing, and counterfeiting. By embedding unique, invisible markers in gemstones, diamonds, pearls, and jewellery, our tracers provide an indelible link to the product's origin, ensuring its authenticity and protecting brands from counterfeit goods. They also eliminate the risk of product mixing at any stage of the supply chain, providing clear identification and verification. Additionally, our tracers streamline internal quality control processes, enhancing efficiency and accuracy in verifying product provenance. Overall, our solution builds trust in the final product and helps businesses comply with both internal and legal frameworks, offering a credible, evidence-based approach to provenance assurance.

Consumer persecutive:

Our Physical Tracers help our customers overcome key traceability and transparency challenges like counterfeiting, product mixing, and inefficient quality control. By embedding unique, invisible markers in products such as gemstones, diamonds, pearls, and jewellery, our tracers provide an indelible, verifiable link to each product's origin, effectively combating counterfeit goods and fraudulent claims.

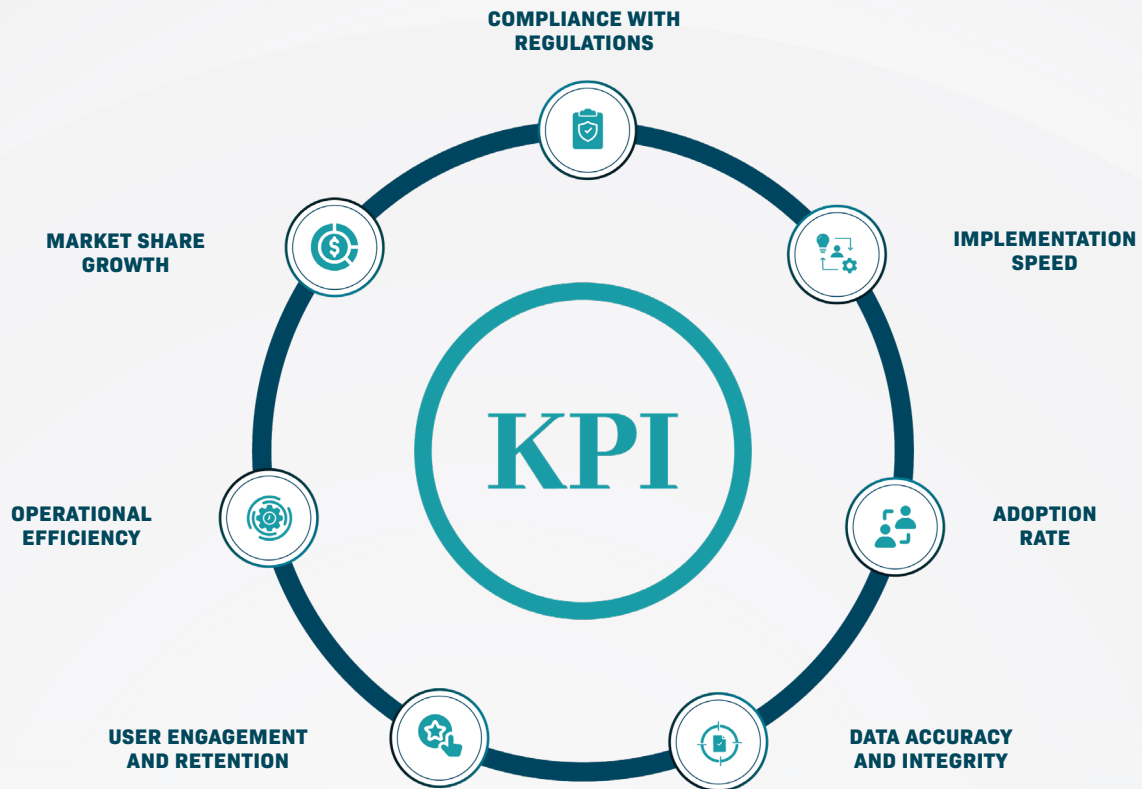ORIGINALLUXURY

Technology Used:

Implementation:

Since 2017, we have been marking rough emeralds at the Kagem mine in Zambia (Gemfields), enabling physical traceability back to their exact origin.

In 2024, we launched a program to enable traceability for melee-sized diamonds. This project, in collaboration with KGK Suisse, ensures the verifiable traceability of tiny diamonds throughout the supply chain.

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KPIs used to measure the effectiveness of our solution.

COMPLIANCE WITH REGULATIONS

IMPLEMENTATION SPEED

MARKET SHARE GROWTH

KPI

ADOPTION RATE

OPERATIONAL EFFICIENCY

USER ENGAGEMENT AND RETENTION

DATA ACCURACY AND INTEGRITY

Data Points for solution:

- Number of items benefiting from our solution
    - In the millions: All kinds of gemstones, pearls, and diamonds
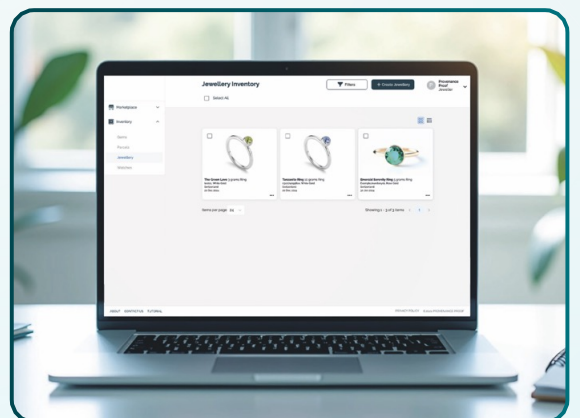
Solution II:

Solution Name

- Provenance Proof Blockchain

Solution Overview

- The blockchain permits to create comprehensive digital twins of assets. These digital twins can travel together with the physical item along the supply chain and any further added value will be tracked. Jewellers have the option to convert the digital twins into comprehensive digital twins of their final products and pass these on to their customers.

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Description

- The Provenance Proof Blockchain offers a secure, tamper-proof record of a gem's journey, ensuring the integrity of information throughout the supply chain. This blockchain technology guarantees that all data remains private and exclusive to the asset's owner. With over 35 million gemstones and jewellery items recorded, and more than 750 professional stakeholders registered, the Provenance Proof Blockchain has become the industry benchmark for transparency and accountability. It empowers jewellers and watchmakers to create comprehensive digital product passports for each item, allowing them to securely pass on verified provenance details to their customers.

Target Audience

- All the stakeholders within the gems, jewellery and watch industry.

Geography:

- Global

Technology Used:

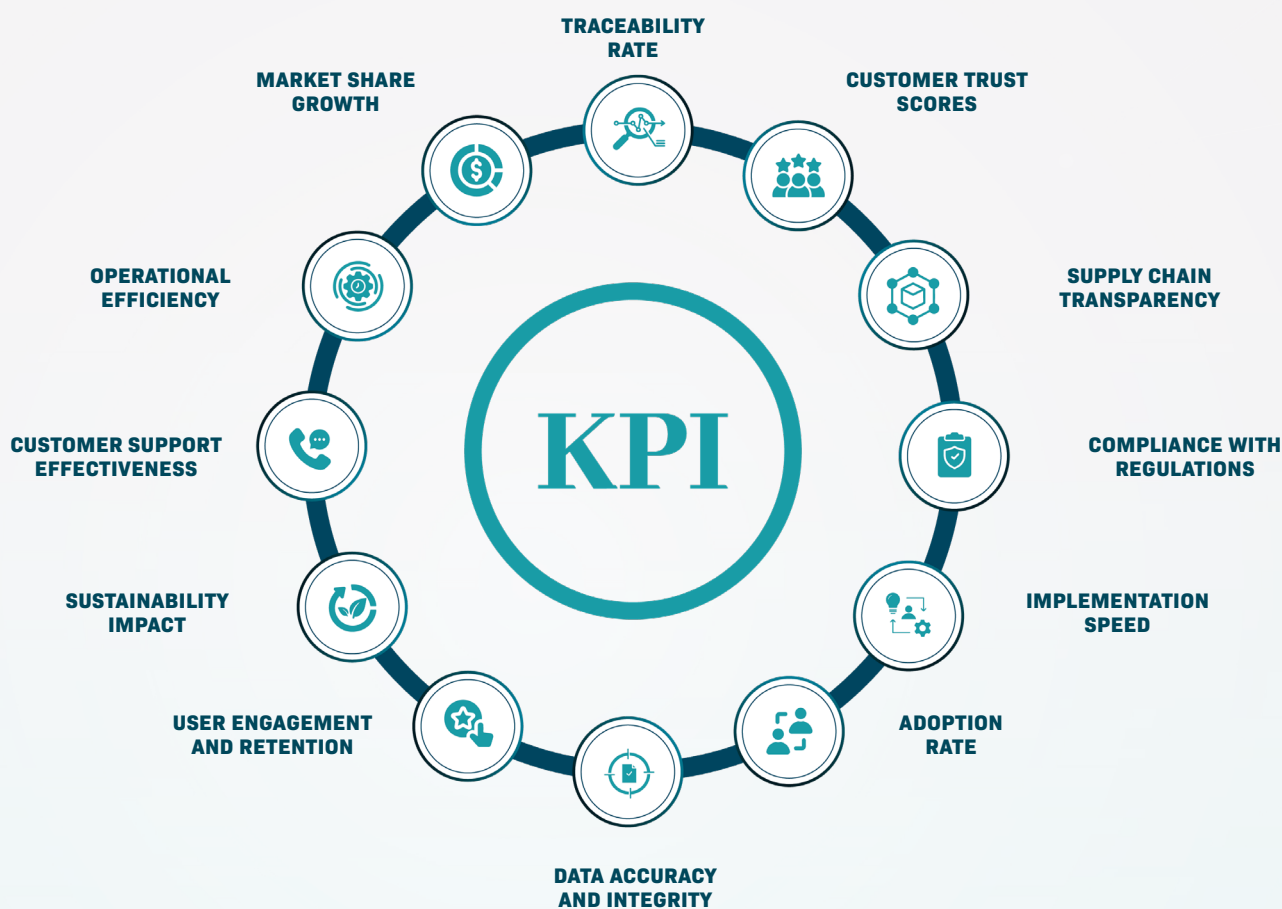## Traceability & Transparency Enhancement:

Traceability & Transparency Goals :

Our Provenance Proof Blockchain addresses several key traceability and transparency challenges. It ensures data integrity by providing a secure, tamper-proof record of a product's journey through the supply chain, preventing counterfeiting and fraudulent claims. The blockchain guarantees exclusive ownership of asset data, allowing the owner to control and protect the information while maintaining privacy. It also tackles the challenge of lack of transparency by offering clear, accessible records to all stakeholders, enhancing accountability. Additionally, it enables the creation of digital twins, providing consumers with verifiable provenance details and strengthening brand trust.

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Consumer persecutive:

Our Provenance Proof Blockchain helps our customers overcome key traceability and transparency challenges like ensuring data integrity, preventing tampering with product information, and offering full visibility throughout the supply chain. By securely recording every transaction, our blockchain guarantees an immutable, tamper-proof record of a product's journey, providing an unaltered and trustworthy history. This combats issues like fraud and counterfeiting, as each product's provenance can be easily verified. Additionally, it simplifies compliance with regulatory frameworks by offering a secure, easily accessible solution for tracking product origin, ensuring that businesses meet legal requirements and provide verifiable proof of authenticity to their stakeholders.

KPIs used to measure the effectiveness of our solution.

KPI

- TRACEABILITY RATE
- CUSTOMER TRUST SCORES
- MARKET SHARE GROWTH
- SUPPLY CHAIN TRANSPARENCY
- OPERATIONAL EFFICIENCY
- COMPLIANCE WITH REGULATIONS
- CUSTOMER SUPPORT EFFECTIVENESS
- IMPLEMENTATION SPEED
- SUSTAINABILITY IMPACT
- ADOPTION RATE
- USER ENGAGEMENT AND RETENTION
- DATA ACCURACY AND INTEGRITY

Data Points for solution:

- Number of items benefiting from our solution
  - Over 30 million items
- Number of brands/suppliers adopting the solution
  - Over 650 from more than 60 countries

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Qualitative Data for solution:

List Client Names

- https://www.provenanceproof.com/blockchain/participants

Client Testimonials

- https://www.provenanceproof.com/

Solution III:

Solution Name

- Proof of Authenticity

Solution Overview

- Proof of Authenticity is a cutting-edge solution that combines Provenance Proof Physical Tracers and Blockchain technology to provide businesses and consumers with verifiable proof of origin and authenticity for jewellery, and watches.

Description

- The Proof of Authenticity solution works by marking luxury items with a unique synthetic DNA-based tracer, which is invisible to the naked eye and resistant to tampering, wearing and alteration. This tracer ensures that each item's authenticity is securely recorded and traceable throughout the product's life cycle. Once marked, the item receives a Proof of Authenticity Certificate, which can be shared with customers to offer full confidence in its origin.

The product is also recorded on the Provenance Proof Blockchain, creating a secure, immutable digital record that serves as a permanent proof of origin. This ensures businesses protect their brand from fraud and counterfeiting.

Target Audience

- Jewellery and watch manufacturers who face counterfeit products on the market.

Geography:

- Global

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Technology Used:

The wheel diagram shows PROVENANCE PROOF at the center surrounded by:
- CYBERSECURITY (CY)
- BLOCKCHAIN (BC)
- PRODUCT AUTHENTICATION (PA)
- SMARTPHONE APPLICATION (SA)
- INDUSTRY SPECIFIC SOLUTIONS (ISS)
- SECURE TRACEABLE LABELS (STL)
- DIGITAL TWINS (DT)

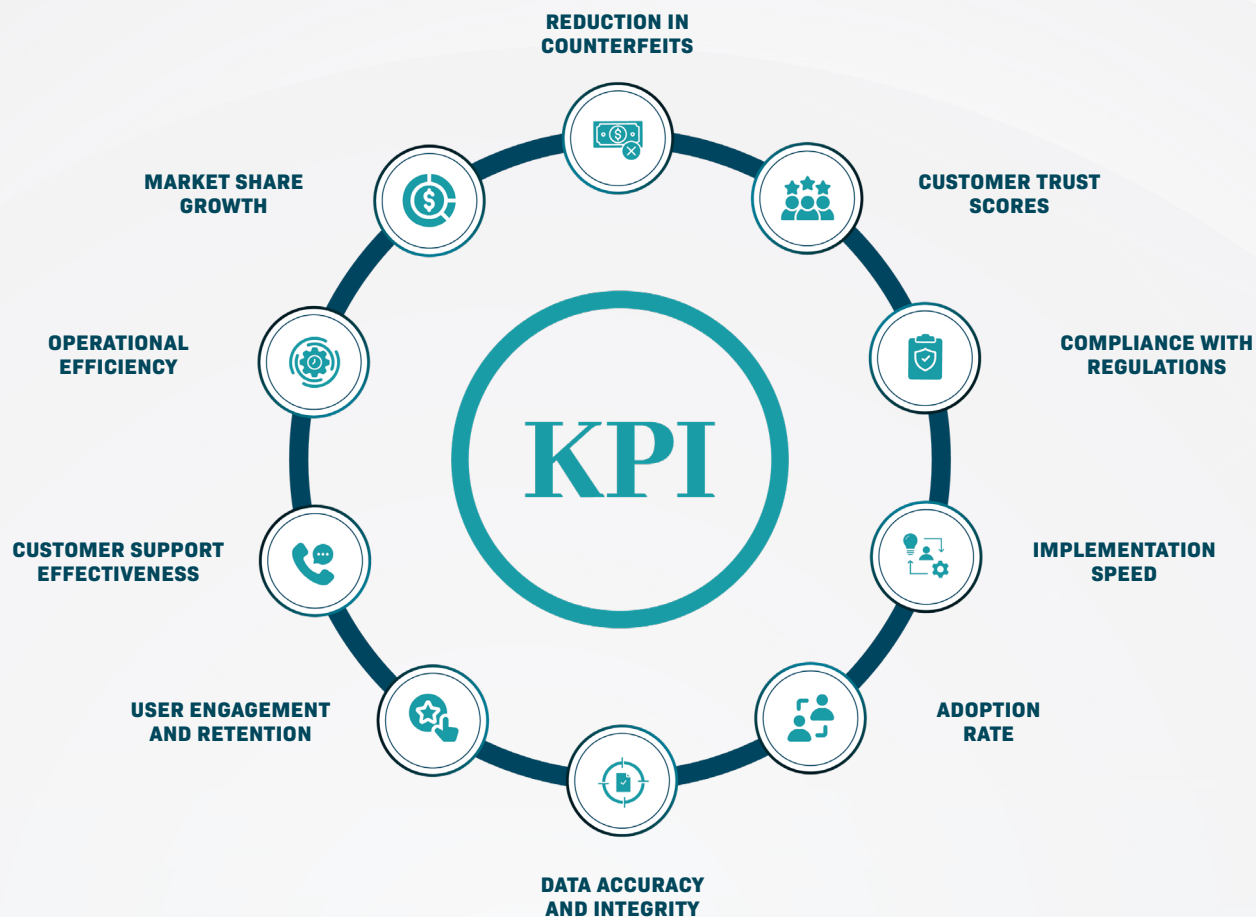## Traceability & Transparency Enhancement:

Traceability & Transparency Goals :

Proof of Authenticity addresses key traceability and transparency challenges by combating counterfeiting and fraud with unique synthetic DNA tracers. It builds consumer trust by providing Proof of Authenticity Certificates and digital twins, allowing businesses to offer irrefutable proof of authenticity and origin to customers, enhancing confidence in their purchases. This empowers businesses to protect their brand, reduce fraud, and offer customers complete confidence in their purchases.

Consumer persecutive:

Proof of Authenticity helps customers overcome challenges such as counterfeiting and fraud by providing tamper-proof synthetic DNA tracers that verify product authenticity. Additionally, it builds consumer trust by offering Proof of Authenticity Certificates and digital records, allowing businesses to provide irrefutable proof of origin and authenticity. At any stage later, consumers can gain the confidence of holding a real watch or jewellery item in their hands

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KPIs used to measure the effectiveness of our solution.

REDUCTION IN COUNTERFEITS

CUSTOMER TRUST SCORES

MARKET SHARE GROWTH

COMPLIANCE WITH REGULATIONS

OPERATIONAL EFFICIENCY

KPI

IMPLEMENTATION SPEED

CUSTOMER SUPPORT EFFECTIVENESS

ADOPTION RATE

USER ENGAGEMENT AND RETENTION

DATA ACCURACY AND INTEGRITY

Contact Information :

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