

ADDRESSING INCREASED REGULATION IN THE PRECIOUS METALS SUPPLY CHAIN

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The Responsible Gold Ecosystem is a blockchain-³ASIA PACIFIC based gold supply chain and financial platform CONFERENCE 9-11 June 2019 PARKROYAL on Beach Road, Singapore 0 GOLD SEND INVEST VAULTS **SPEND** MINES LOGISTICS REFINERIES. **FABRICATORS** Market Supply **JEWELRY TECHNOLOGY** MANUFACTURING

Supply Chain

The RG SCA automatically:

- 1. Records the provenance of responsibly sourced gold
- 2. Tracks the transfer of custody of gold along the supply chain, from mine, to refinery, to vault
- 3. Tracks the custody of gold grain beyond refineries and on to jewelers and manufacturers

G-Coin

G-Coin tokens are digital certificates of title to responsibly-sourced gold.

Each G-Coin token equals one gram of gold secured in a vault.

G-Coin tokens are 'minted' on the blockchain and can be bought as an investment, moved instantly to others to transfer wealth, or to make payments.

The Responsible Gold Supply Chain Application automates gold tracking from mine, to refinery, to vault, and on to end users







- Our technology begins tracking gold assets at the mine site.

 We provide miners with unique cryptographic labels ("cryptoseals")
- Miners attach these unique cryptoseals to doré bars when they prepare their shipment
- 3 At time of shipment, miners select a logistics operator and refinery on our mobile application. They then transfer custody to the logistics operator
- Logistics providers accept custody of the bar on the mobile application and upon delivery to the refinery, transfer the bar to the refinery
- 5 The refinery accepts custody on the application.
 After end products are made, the refinery transfers custody on the application to the designated vault
- Gold kilobars are ready for minting to G-Coin or investments.
 Grain is ready to be used for jewelry or manufacturing



Emergent is adding imaging technology to validate kilobar provenance, regardless of location and age





Imaging Technology

- Developing imaging technology that creates secure identity keys from surface scans of gold kilobars
- Software application validates the authenticity and provenance of bars as they move beyond the refinery and from custodian to custodian
- Users validate the provenance and authenticity of kilobars, regardless of location and age
- Process reduces the risk of accepting counterfeit bars, identifies possible non-compliance and streamlines physical gold trading



Benefits: Future proof industry and increase process efficiencies



Providing provenance, transparency and the ability to securely share information moves the gold industry forward.

- Responsiveness: Data sharing capability in an easy-to-use system enables efficient responses to regulators, NGOs, and market bodies.
- Document authentication: Country regulators validate paperwork.
- Clarity on standards: Consolidation of WGC, LBMA and RJC due diligence standards improves customer understanding of mining and refining processes, fostering trust.
- Audits: View-only access of the immutable data on the RG Blockchain can be granted to auditors, enhancing the independent review process and reducing risk.
- Thwart bad actors: Criminal access at all points in the supply chain is shut down.
- Automation: Replace standard, manually-executed contracts with smart contracts.

