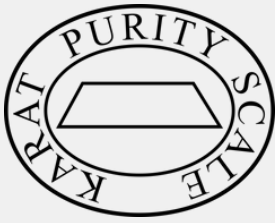




The ESG & KPS™ Report

PREPARED BY

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Executive Summary

For Investors & Institutions:

Global capital is shifting toward sustainability, but ESG disclosures remain fragmented. Purity is rarely reported, even though it directly affects material performance and carbon intensity. Without a universal metric, investors lack the transparency needed to assess risk, compare producers, or measure ESG credibility. The Karat Purity Scale™ (KPS™) fills this gap by unifying purity grading (0–24 scale) with carbon intensity reporting, enabling a single, auditable language for metals markets. XRF guns and technology enables portable testing and grading elements

For Consumers & the Public:

Shoppers want sustainability they can trust - not just marketing claims. Yet current purity marks (18k, 925, 950) are inconsistent and confusing, and they say nothing about the carbon footprint behind the product. The Karat Purity Scale™ makes purity easy to understand (one 0–24 number for all metals) and links it directly to carbon impact, giving buyers confidence and empowering informed choices.

Core Message:

Purity has always mattered. Sustainability now matters more than ever. KPS™ brings them together.



The Challenge

For Institutions

- Fragmented purity systems (karats, 925, ppm) hinder comparability.
- ESG reports rarely disclose purity, limiting alignment with EU Taxonomy, SEC rules, and ISO frameworks.
- Lack of transparency increases risk of disputes and greenwashing.

For Consumers

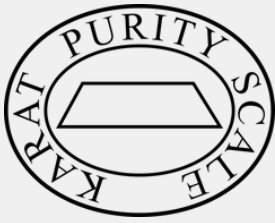
- Marks like 18k and 925 are confusing; most buyers misinterpret them.
- “Sustainable” claims are often vague or unverifiable.
- Without clarity, trust erodes, especially among younger digital-native buyers.

The KPS™ Framework

- Purity on a 0–24 scale, universal across metals.
- Carbon intensity reported alongside purity, in tCO₂e/tonne.
- Dual disclosure model: one label, two truths (quality + sustainability).

Example:

- Gold 18k (75%) → KPS 18.0 Au | 6.5 tCO₂e/t.
- Silver 925 (92.5%) → KPS 22.2 Ag | 3.1 tCO₂e/t.
- Copper 99.9% → KPS 24.0 Cu | 4.2 tCO₂e/t (primary mine source).
- Copper 98% (recycled) → KPS 23.5 Cu | 2.1 tCO₂e/t.



Why This Matters

For Investors

- Comparability: Apples-to-apples data across metals, markets, and geographies.
- Compliance: Ready alignment with ESG disclosure regimes.
- Decision-making: Identifies efficiency, waste, and hidden carbon liabilities.

For Consumers

- Clarity: One number makes purity instantly understandable.
- Confidence: Transparent labels prevent fraud and reduce confusion.
- Choice: Buy by purity *and* by carbon footprint, not just by marketing spin.

Copper: Then and Now

- Ancient Case Study: The Ea-Nāšir complaint (c. 1750 BC) - the world's oldest written customer complaint - was about copper purity.
- Modern Relevance: Copper is critical to electrification, renewables, EVs, and digital infrastructure.
- Lesson: Purity mattered then, purity matters now. With KPS™, copper finally receives recognition as a precious and essential metal.

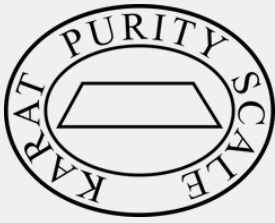


Implementation & Methodology

1. **Purity Measurement** → KPS™ (0–24 scale).
2. **Carbon Intensity** → kgCO₂e per tonne at given KPS™ rating.
3. **Dual Disclosure** → All ESG and consumer labels report both together.
4. **Verification** → Aligns with ISO 14064-3 and GHG Protocol.
5. **Digital Integration** → Blockchain certificates, QR code product passports, smart ESG dashboards.

Reporting Template

Metal	KPS™	Purity %	Source	Carbon Intensity (tCO ₂ e/t)
Gold	18.0	75,0%	Primary (South Africa)	6,5
Silver	22,2	92,5%	Primary (Mexico)	3,1
Cu	24,0	99,9%	Primary (Chile)	4,2
Cu	23,5	98,0%	Secondary (EU recycling)	2,1



Benefits of KPS™ + ESG Integration

1. For Institutions & Investors:
2. Stronger ESG alignment.
3. Better comparability across producers.
4. More accurate pricing of carbon risks.
5. For Consumers & Public:
6. Simple, transparent purity marks.
7. Real carbon impact at the point of sale.
8. Greater trust in brands and certifications

Conclusion

- The world needs a universal system that unites purity and sustainability. KPS™ provides that - one number for purity, one clear link to carbon intensity.
- For investors: better data, lower risk, stronger compliance.
- For consumers: simplicity, confidence, and real transparency.
- For copper, silver, gold, and beyond: recognition as critical resources measured fairly.
- One scale. All metals. Total clarity.