Copper, by Nuton

Inspired by nature, powered by innovation

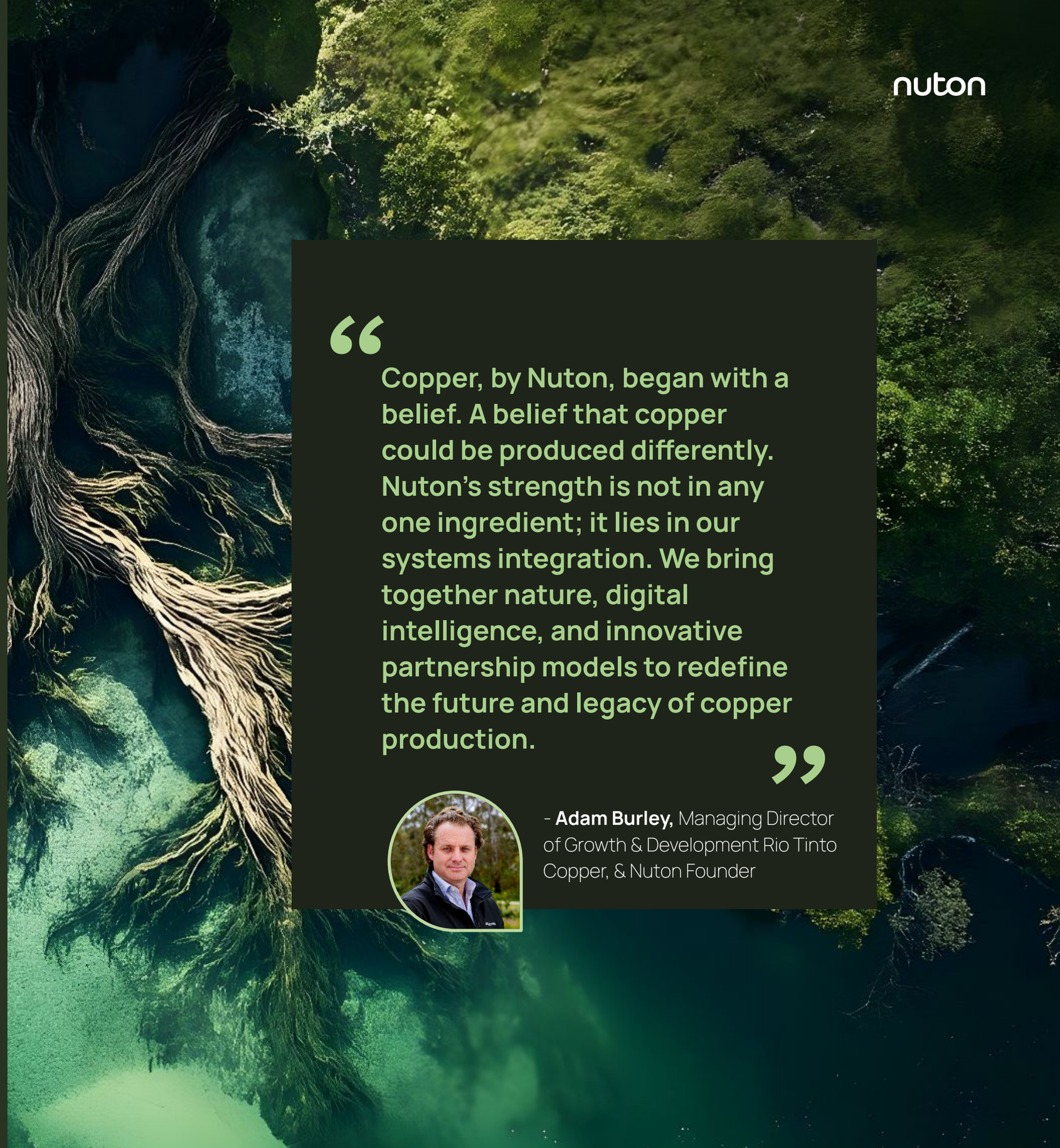
nuton | A Rio Tinto venture

Hello

We are Nuton

An award-winning mining technology venture on a mission to redefine the future and legacy of copper production. Built on proprietary bioleaching Nuton® Technology, we use nature-based alchemy to unlock copper from hard-to-leach ores, including primary sulfides. These ores represent more than 70% of the world's remaining copper resources. Our technology makes them economic, delivering more copper with less impact. Our ambition is Positive Impact — copper that gives back more than it takes.

Copper, by Nuton, begins here.



> **Copper, by Nuton, began with a belief. A belief that copper could be produced differently. Nuton's strength is not in any one ingredient; it lies in our systems integration. We bring together nature, digital intelligence, and innovative partnership models to redefine the future and legacy of copper production.**

- **Adam Burley,** Managing Director of Growth & Development Rio Tinto Copper, & Nuton Founder

Why ‘Nuton’?

We deliver a ‘Nu’ ton of copper

Leveraging a pioneering technology, a new commercial model, and aspirations to produce copper with the lowest environmental footprint in the market.

And of course, a nod to Sir Isaac Newton: scientist, innovator and original thinker with the courage to disrupt existing paradigms.

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Copper
Done differently

Why we exist

The world needs more copper — and better ways of producing it.

Who are we

We are an award-winning mining technology venture.

What we do

Nuton works with mine partners to unlock copper by playing two key roles:

- **Technology Provider**
  Licensing tailored solutions to unlock complex copper ores.
- **Investment Partner**
  Backing projects with flexible commercial models.

Mining Magazine AWARDS 2025

Mining Technology EXCELLENCE AWARDS 2025

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Proven, industrial-scale production.

Johnson Camp Mine (Arizona)

Over 75x scale up of the Nuton® Technology in 2025.

We've turned 30 years of technology development into real-world results:

8
Partnerships

Nuton is the partner of choice, proving our versatility across ore types.

7
Countries

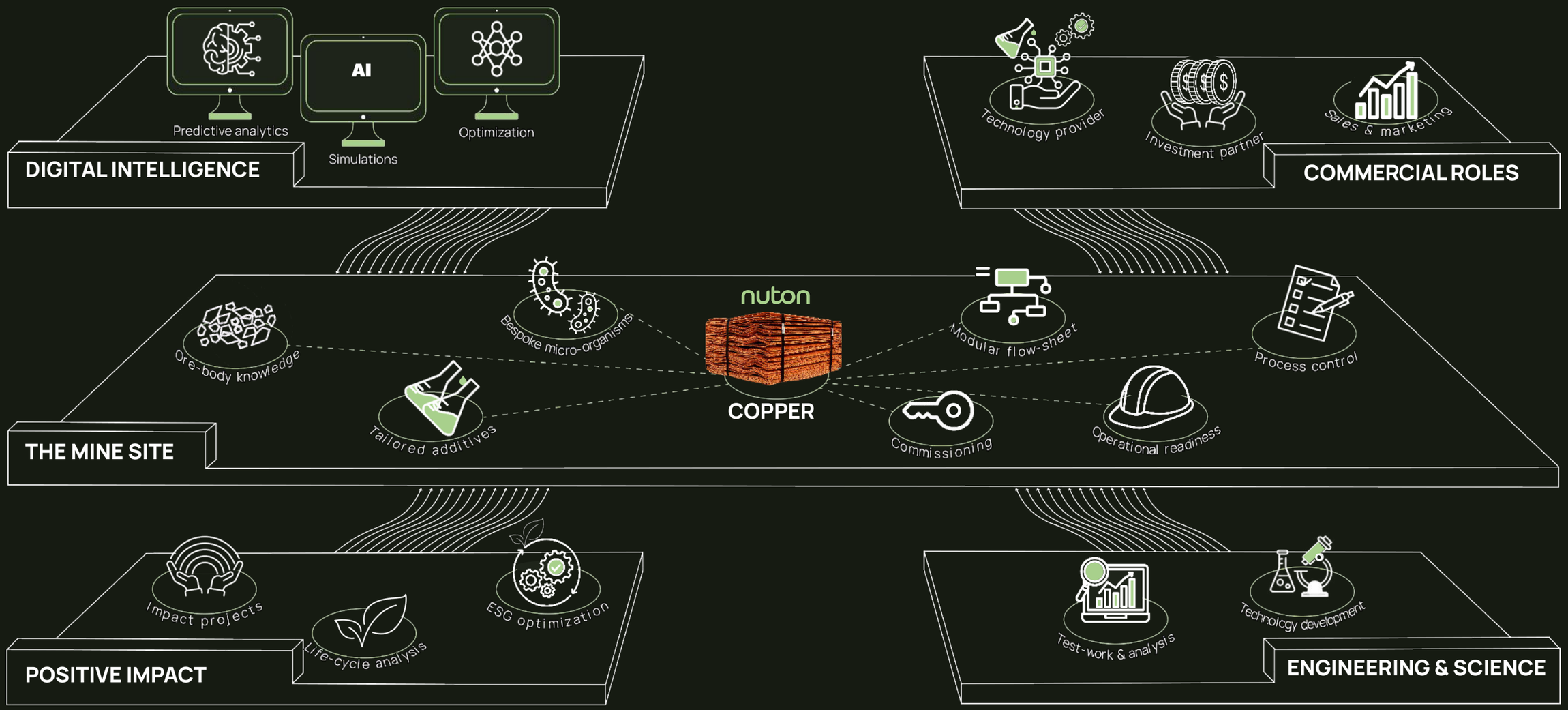
Nuton's global footprint proves our adaptability across countries.

50+
Team Members

Nuton is powered by a team unafraid to do copper differently.

How we do it

Nuton is not a single-ingredient solution. We are a systems integrator. We bring every component together, optimizing our technology for the ore, the site, and the partner, to deliver value from ore to impact.



Our impact

We aim for Positive Impact: giving back more than we take.

The Nuton® Technology unlocks copper from primary sulfides, capturing more copper, from more places, with the lowest environmental footprint.

By understanding our inputs and the potential of the environments that we deploy into, we aim higher — not just to reduce impact, but to give back more than we take.

Positive Impact is a mindset, embedded in how we think, operate and partner. We optimize ESG performance first, then advance together — one pillar at a time. Measured rigorously. Shared transparently. That's how we prove Positive Impact and hold ourselves accountable for what we control and influence.

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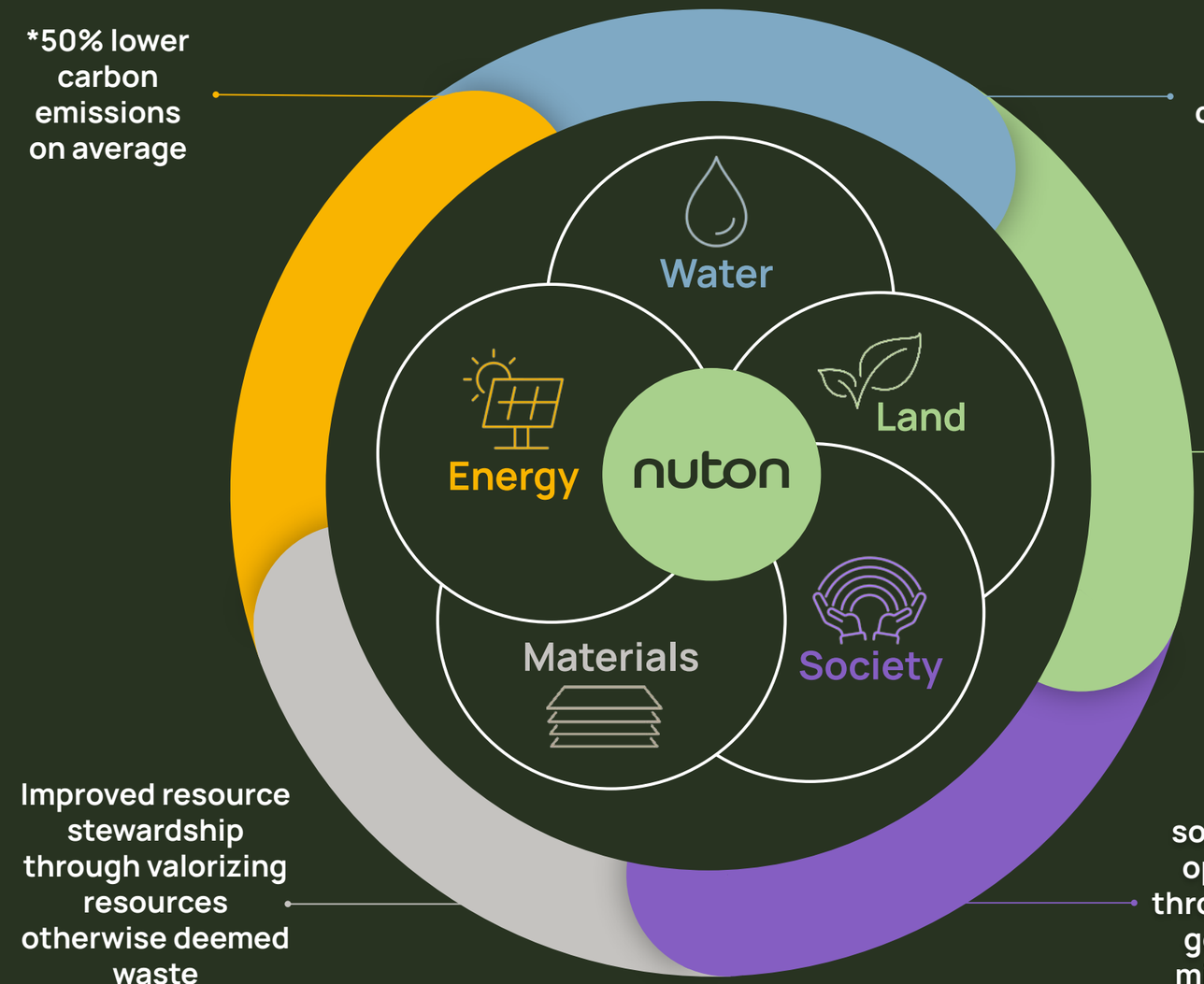
Positive Impact Pillars
& baseline performance compared to incumbent technologies*



*Results are based on independent life cycle assessments (LCA) conducted in accordance with ISO guidelines using internal mine-planning data that compares Nuton heap leach performance against concentrator operations. Performance varies by site and will be verified through ISO-compliant LCAs and actual operational data.

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FOLLOW THE FLOW OF COPPER BY NUTON

Why we exist

The world needs more copper and better ways of producing it.

29

Cu

COPPER

63.546

Why more copper?

Copper is essential to electrification - from power grids to consumer electronics - and as the energy transition accelerates, a step-change in supply is critical.

Copper Properties

Malleable, Soft, Excellent Conductor, Ductile, Recyclable.

Where does copper come from?

Under here...

Copper is found in different types of copper-bearing minerals.

Primary sulfides represent more than 70% of the world's stranded copper resources

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Why do we need better ways of producing copper?

Delivering additional copper is becoming harder and more expensive.

Deposits are deeper, grades are declining, and both capital and operating costs continue to rise—while expectations for how copper is produced have never been higher.

Traditionally, oxides are leached and sulfides processed through flotation and smelting. But oxide reserves are dwindling, and the conventional sulfide route is increasingly capital- and emissions-intensive. For more than a decade, the industry has sought a viable way to leach primary sulfides at scale.

Nuton meets that challenge..

Our breakthrough processing technology combines proprietary advantages - from custom biology to tailored additive levers and digital optimization - in an integrated package that is modular and scalable, unlocking new copper supply and new pathways to value.

In a world of rising demand and growing pressure, Nuton enables more copper, from more places with less impact*:

CO_2-eq emissions:	**50% lower carbon emissions on average**
Water consumption:	**60% lower water consumption on average**
Land requirements:	**no permits for tailings required**
Supply chain:	**cathode produced on site and in country**

*Results are based on independent LCAs conducted in accordance with ISO guidelines using internal mine-planning data that compares Nuton heap leach performance against concentrator operations. Performance varies by site and will be verified through ISO-compliant LCAs and actual operational data.

Our origin story

In 2019, a determined trio at Rio Tinto Copper in Chile asked a transformative question:

“What if we could produce copper naturally?”

This sparked a global search for a better way to produce copper. The team’s commitment led them to unearth a nature-based bioleaching technology with over 30 years of development in Australia.

They called the technology Copper Leaf.

As they secured support within Rio Tinto to commercialize it, they realized this was bigger than just a technical breakthrough. To truly redefine copper production, they needed an entirely new way of doing business—a venture-led model designed for partnership and scale.

And so, a new leaf was turned.

The Copper Leaf technology became the foundation for **Nuton: a global business venture.**

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Today, Nuton operates across continents, a mining technology venture blending world-class expertise, and nature-based innovation **to unlock copper, naturally.**

8	4	50+	4
Partnerships	Project Evaluation Countries	Team Members	Country Based Offices

What began as the vision of three passionate individuals has grown into a global team united by a mission to **redefine the future and legacy of copper production.**

13
Doctorates

21
Languages spoken

44%
Under 40 years of age

30
Specialist degrees

36%
Field-based team

The team

Unlocking value with our partners.

Our global team unites world-leading minds in copper production, sustainability, hydrometallurgy, biochemistry, and project development, backed by deep mining industry experience and disciplined governance.

We operate under a hybrid governance model that blends venture agility with world-class oversight by Rio Tinto and a group of independent advisors.

Nuton's Board combines technical depth and strategic vision. Membership includes the Rio Tinto Copper CEO, CFO, Managing Director of Growth and Development, and the Nuton CEO, among others.

As a venture, we uphold Rio Tinto's rigorous standards and policies that reflect our commitment to transparency and accountability.

"Our team is as diverse as the challenges we're solving. Visionaries and specialists, scientists and strategists, builders and doers — because it takes different people to do copper differently."

Cecilia Perla
Acting CEO and Vice President Growth & Sustainability

Two roles, one purpose

Nuton plays two key roles to unlock copper.

Technology Provider

We work hand-in-hand with our partners, delivering end-to-end tailored technology solutions to meet site-specific challenges. In this role, Nuton develops, packages, and licenses its technology, collaborating closely with partners to produce copper cathode, combining our innovations with their operational expertise.

Investment Partner

As an investor and equity partner, we enter partnerships through flexible commercial models that unlock copper resources. By bridging the technical and financial gap, we enable new copper revenues and make cathode production from primary sulfides commercially viable.

We have the technology and expertise to unlock primary sulfide ores at partner sites.

We can invest in your project and bring more copper to the market, together.

> Our intent is **to be a true partner — working together to deliver copper while revolutionizing the industry.**

Roberta Kuehne
Vice President Commercial

Delivering the turnkey package

Nuton partners with operators to unlock value at every stage, with workflows to bring this to life.

Nuton's technology pathway reduces risk and accelerates outcomes. From early ore assessment to deployment, we tailor design, testing, and flowsheets to each site, ensuring partners move forward with confidence. By embedding ongoing optimization and support, partners achieve consistent, real-world performance, and copper with the lowest environmental footprint.

Nuton's investment approach unlocks copper by providing financial support to projects and partners. Through innovative commercial models, including TopCo equity and asset-level investments, Nuton creates value, shares risk, and shares in the upside. Nuton's commercial partnerships keep the partner in control as asset operator, while enabling more copper to reach the market.

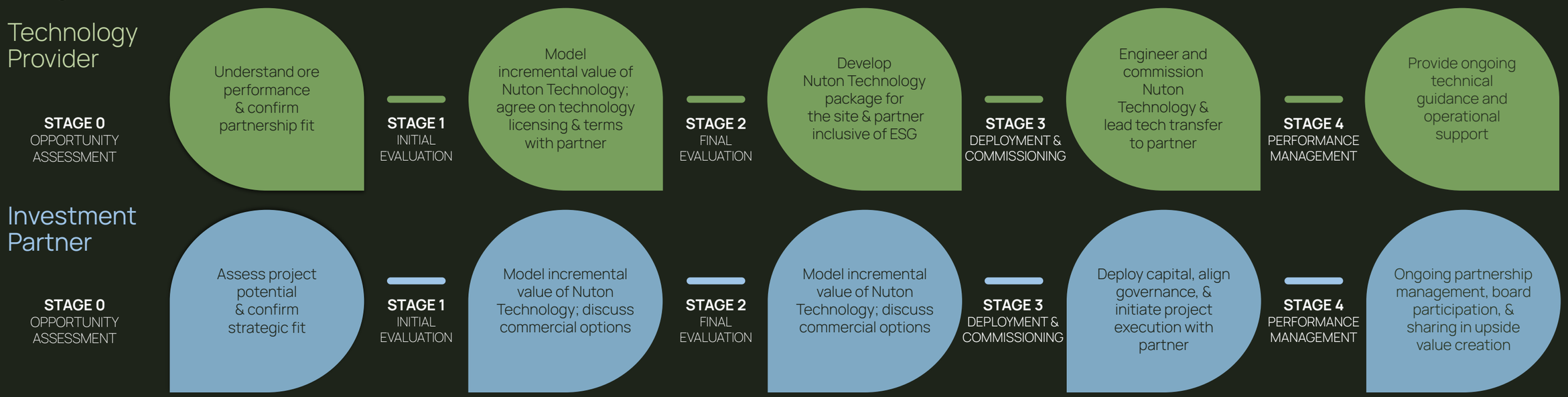
Together, these pathways deliver tailored turnkey solutions that are site-specific, scalable, real-world ready, and designed for the lowest environmental footprint.

Looking ahead, our digital intelligence platform will connect data, models, and engineering insights into one system, enabling faster decisions and greater partner value.

> *"Nuton doesn't just apply a technology — it engineers outcomes. They tailored a flowsheet for our site and, as a shareholder and partner, are invested in our success and share in the upside of our project."*

Rob McEwen
Chairman and Chief Owner of McEwen Inc.

Integrated workflow



Copper at lower cost

High recovery. Structural cost advantage. Capital efficient by design.

Nuton delivers structural capital advantages through a modular configuration, standardized engineering, and reduced supporting infrastructure requirements,* while also delivering structural opex advantages through higher copper recoveries and the elimination of subsequent smelting and refining.

Capex efficiencies

Under the defined modeling assumptions, the Nuton processing route delivers lower processing capex, lower total project capex, and lower process capital intensity than a conventional concentrator.**

Up to **50%** Lower capital intensity than conventional technologies

~40% Lower processing capex than a concentrator***

~50% Lower total capex than a concentrator

- Nuton's modular configuration and standardized engineering delivers a **~ 40% lower processing capex than a concentrator.**
- Nuton avoids major infrastructure spend associated with a concentrator, such as concentrate pipelines, tailored port facilities or larger desalination plans, **resulting in a ~50% lower total capex.**
- Nuton remains a more capital-efficient and value-accretive option, with lowest process capital intensity.

Opex efficiencies

Nuton delivers structural opex advantages through higher copper recoveries and the elimination of subsequent smelting and refining.

85% Copper recovery

~40-80% Lower opex than a concentrator on a $/t ore basis

~25-75% Lower opex than conventional leach****

- **40-80% lower than a concentrator on a $/t ore basis,** as it avoids power-intensive grinding and flotation. This cuts power, reagents, maintenance and operating supply costs*****.
- **30-70% lower than the concentrator route on a $/lb Cu basis,** once treatment charges are included. It can also be **25-75% lower than conventional leaching.**

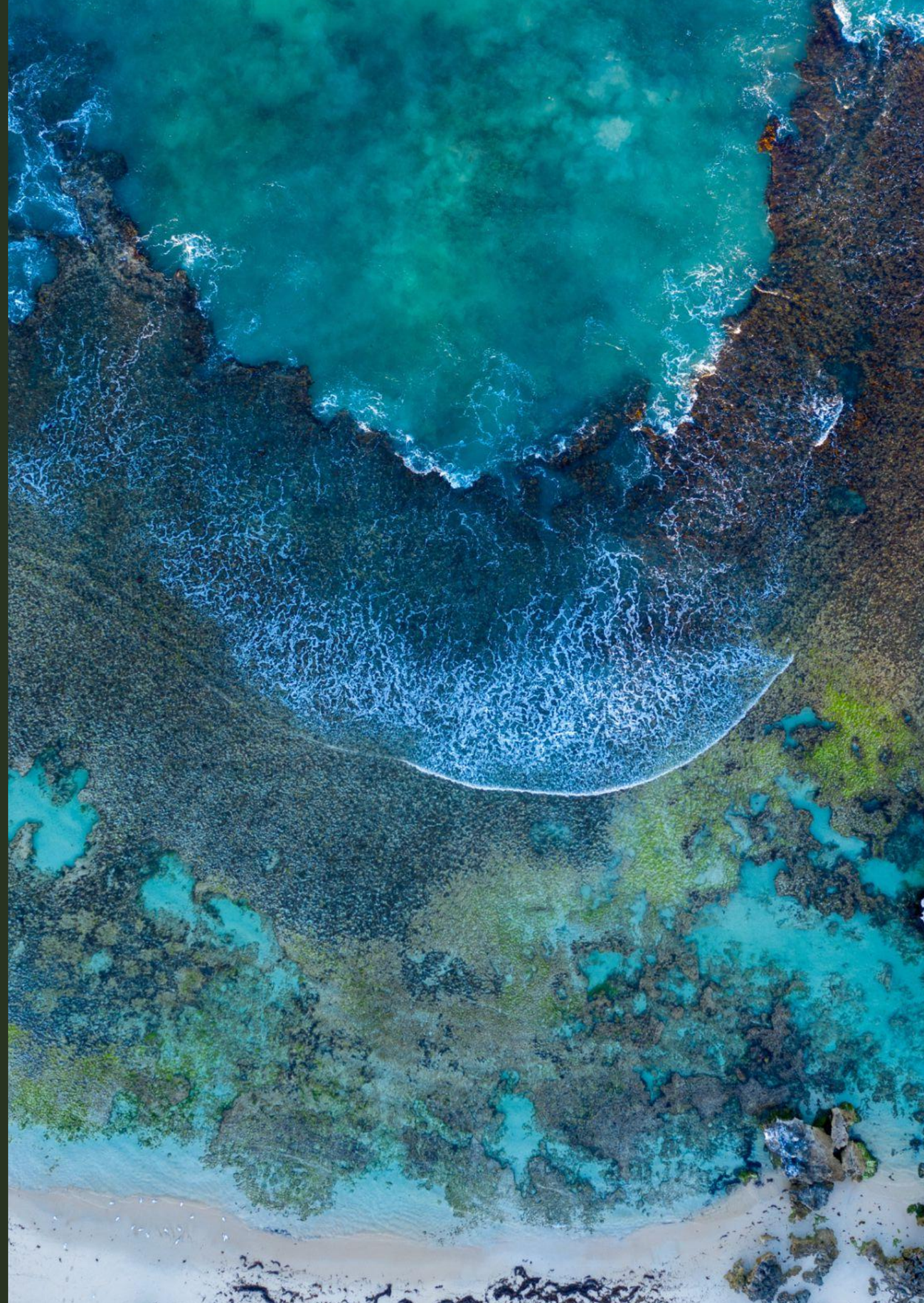
* Concentrator infrastructure capex includes concentrate pipeline, port facilities, desalination plant and water pipeline
**Assumes 20 Mtpa throughput (Q4-2025 USD), 0.45% Cu sulfide ore, and recoveries of 35% (leach), 82% (Nuton), and 90% (concentrator), forming the basis of capex and opex estimates.
*** Capex comparison considers only direct costs. No contingency or owner's costs are included. All values are presented in real USD, Q4 2025
****Conventional leach and concentrator estimates are based on bottom-up costing for a generic high-Andes porphyry deposit, benchmarked against comparable projects using Capital IQ Pro data to ensure robustness.
*****Nuton opex based on bottom-up estimates from Nuton partner sites, which have been independently reviewed and validated by a third party Qualified Person.

How

we do it.

Our
* Nuton® Technology

Our
* **Positive Impact strategy**



nuton® Technology

Bioleaching isn't new. How Nuton does it, is.

While bioleaching has been used for decades, Nuton builds on that legacy with a step-change in performance.

Our proprietary nature-based technology has been refined through extensive research and development to increase recovery rates, expand the range of viable ore types, and reduce environmental impact.

"Designed to turn challenges into opportunities."

Harald Muller
Chief Technology Officer

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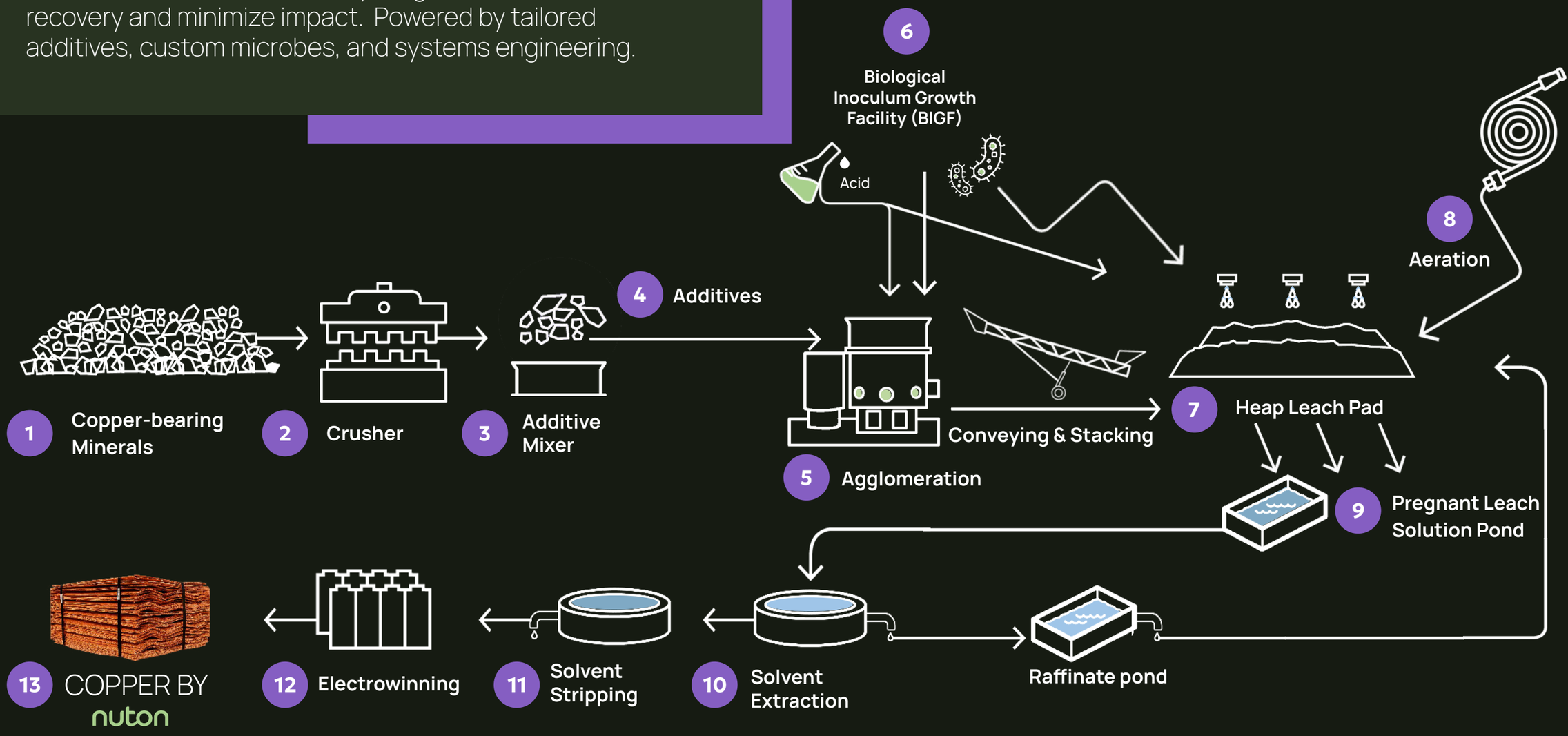
Your **Challenges**		Nuton's **Solutions**
Operators looking for a competitive alternative to a concentrator for primary sulfide ores	→	Alternative to concentrators for primary sulfide ores
Complex ores (e.g., arsenic-rich)	→	Maintains high copper recovery while retaining the arsenic in the heap
Rising cost base	→	Unlocks lower-grade and complex ores with lower capital and operating intensity
Declining oxide ores / high sulfide capex	→	Uses existing leach infrastructure for sulfide leaching
Market/business urgency to cut carbon emissions	→	*~50% lower carbon emissions on average
Water-stressed sites	→	*~60% lower water consumption on average
Land-constrained sites	→	Produces more copper from the same footprint and without a tailings site
Declining concentrator head grades	→	Provides a complementary route for lower-grade ores and optimizes concentrator feed

*Nuton's technical and environmental performance is expected to vary by site, depending on ore feed and local setting. An LCA will be performed at each site to set performance expectations.

nuton® Technology Flowsheet

This is how we do copper differently.

From mineral to cathode, every stage is built to maximize recovery and minimize impact. Powered by tailored additives, custom microbes, and systems engineering.



Our Technology maturity

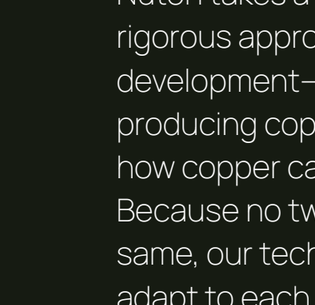
Innovative. Scalable. Ready.

Nuton takes a deliberate and rigorous approach to technology development—this is not just about producing copper, but redefining how copper can be produced. Because no two deposits are the same, our technology is designed to adapt to each partner's mineralogy, environmental conditions, and operational realities, underpinning our confidence.

Built on more than 30 years of Rio Tinto R&D, Nuton has rapidly accelerated this foundation over the past several years, progressing from column tests to a 70,000-tonne heap and now a 5.5–6.0 million-tonne industrial-scale deployment.

This track record, together with Nuton's portfolio of partners, positions us to advance through to commercial demonstration.

Our confidence is built on evidence, not aspiration.



~30
Global sites sampled

~250
Samples from global sites

10kg - 2t

~1,000
Column tests

~300t
Processed Cribs

~70kt
Processed in pilot heap

~6Mt
Industrial-scale deployment

We are here!
Let's dig deeper into Johnson Camp Mine (JCM)

PAGE 16 HOW?

Johnson Camp Mine: Advancing Nuton® Technology.

located in the Cochise Mining District of Arizona

JCM, operated by our partner Gunnison Copper Corp., is the site of Nuton's industrial scale technology deployment - a 75x scale-up from the previous pilot heap.

Over this 4 year deployment program, Nuton is validating all elements of its technology in a live operating environment, capturing data to feed into the digital intelligence platform.

The scale and insights from JCM will set the foundation for Nuton's first commercial demonstration.

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A 75x scale-up in action

- **5.5–6 Mt***
  Crushed & agglomerated ore
- **4 lifts**
  400 × 245 m, 40 m high
- **280 tph**
  Design throughput rate
- **~30,000 tonnes targeted****
  ~14,000 tonnes from Nuton***

Producing the lowest-carbon copper in the U.S., powered by renewable energy and verified through LCA. The first products made from our copper will flow to Amazon Web Services as part of a cornerstone collaboration to power the future of digital infrastructure.

aws

*Million metric tonnes.
**Refer to Capital Market Day 2025 presentation: https://www.riotinto.com/en/invest/investor-seminars.
***~16kt from run-of-mine leaching and ~14kt from Nuton technology over a 4 year deployment period.

Our Technology transfer

Nuton's approach to technology transfer is not a transaction, it's a transformative partnership.

We tailor our modular technology package to each partner's site, defining core engineering, equipment, and process flows while allowing flexibility for site-specific conditions. With scientific rigor and engineering precision, we ensure every system performs as intended.

By standardizing what matters and adapting where it counts, we reduce deployment time and cost while building confidence in performance.

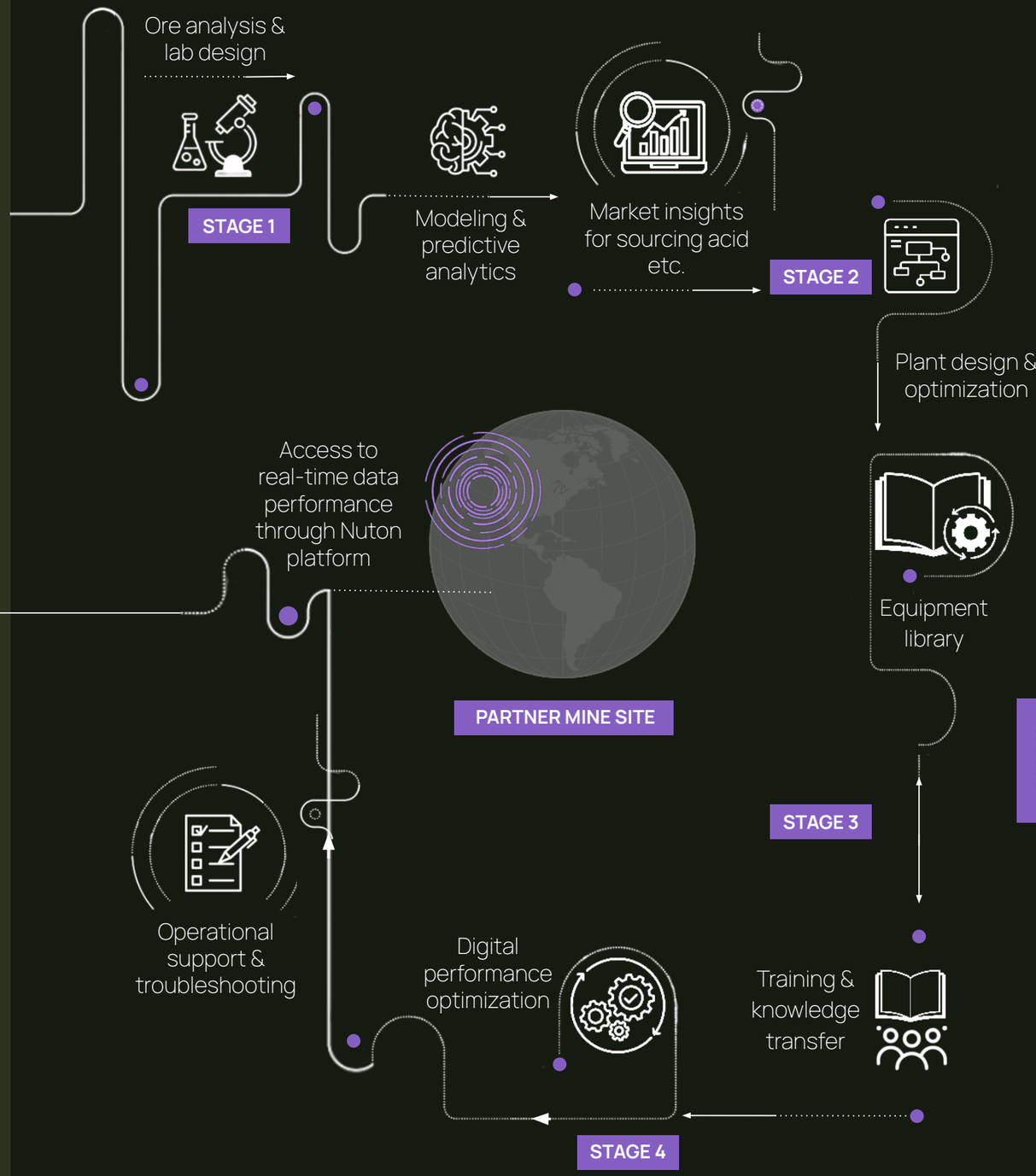
We work across disciplines to integrate every component into a cohesive, optimized system, and alongside our partners to transfer knowledge, train teams, and build lasting capability — making our partnerships truly transformative.

> Systems integration is about making every component perform at its best as part of one system, so our partners get **consistent, optimized results.**

Antonio Pucci - Chief Operations Officer

Systems integration

Nuton brings every component together, optimized for the ore, the site, and the partner



Our Positive Impact strategy

We know what we take. That's how we know what to give back.

At Nuton, we understand our technology inputs — energy, water, and materials — as well as the environments we deploy into: their limits, needs, and potential. This depth of understanding gives us the confidence to aim higher — not just to minimize impact, but to give back more than we take.

It's not a target, but a mindset.

We embed Positive Impact into how we think, operate, and partner, shaping how our technology performs.

Is it ambitious? Yes.

That's why, wherever we deploy, we strive to produce the world's lowest-footprint copper and deliver Positive Impact across energy, water, land, materials, or society—working with partners who share our values.

> Positive Impact isn't a future pledge — it's a 24/7 ambition that shapes how we work with our partners, every day, at every site.

Cecilia Perla - Acting CEO and Vice President Growth & Sustainability

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Positive Impact pillars

Materials

We aim to valorize resources otherwise deemed waste or a liability in volumes larger than the residues produced through the Nuton Technology.

Energy

We aim to support the generation of more renewable energy than the energy consumed by the Nuton Technology.

Water

We aim to replenish or restore more water, of the same quality or better, than the water withdrawn or consumed in the Nuton Technology.

Land

We aim to regenerate or repurpose more land, at a greater quality, than the land used by the Nuton Technology.

Society

We aim to increase socioeconomic opportunity by improving governance across our ecosystem and using fewer resources to produce copper, leaving more available for society.

Proving Positive Impact

Rigorous measurement. Radical transparency.

Delivering Positive Impact means Nuton operates beyond a traditional technology provider or investment role, applying an impact-driven collaboration approach to how we work. We partner with operators where they are today, strengthen ESG maturity, and focus on actions that deliver lasting Positive Impact over time.

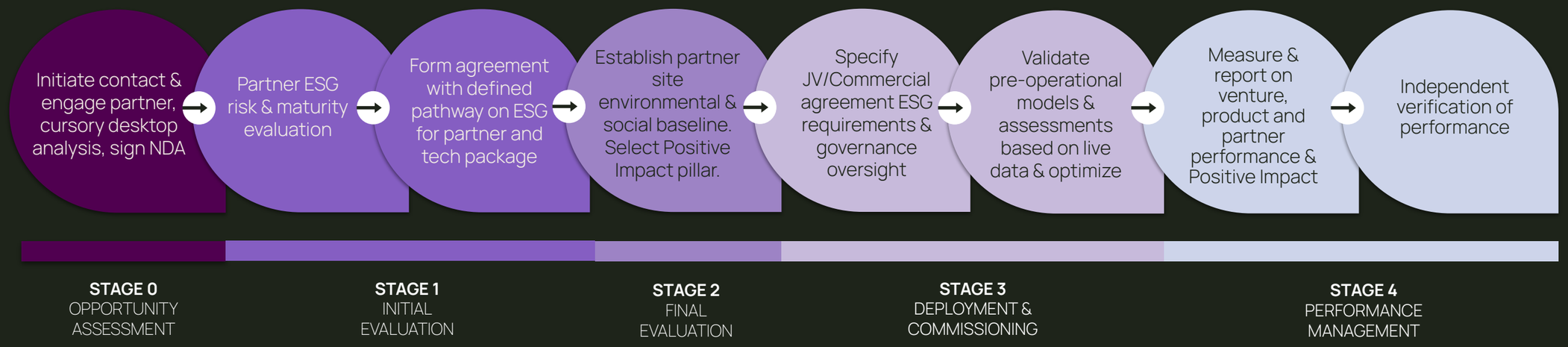
Our Positive Impact pillars reflect where the Nuton Technology most directly interacts with nature, society, and the communities and operators we partner with — recognizing clear boundaries between what we control and where we can influence.

Within this, we commit to Positive Impact at two levels:

- **Venture** — demonstrating organizational and team accountability for behaviors and decisions.
- **Product** — controlling the flowsheet and technology package to deliver copper with the lowest environmental footprint.

We believe in independent verification and radical transparency - proving progress, not just promising it - by pursuing the highest independent standards and certifications.

Impact Collaborator workflow



Delivering measurable impact

Our technology delivers the lowest environmental footprint copper by design* - and with partners, we will turn it into Positive Impact.

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INPUTS

Water

60% lower Water consumption on average*

133 m^3/ t Cu **Concentrator water use**	53 m^3/ t Cu **Nuton water use**

Energy

65% lower energy intensity on average**

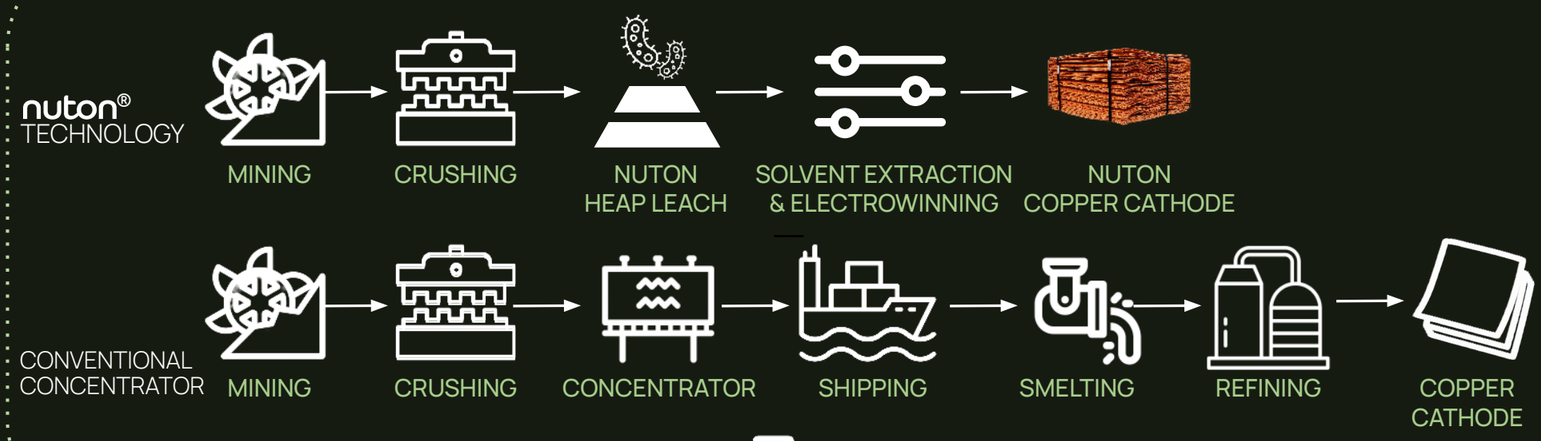
225 Gj/t ore processed **Concentrator energy use**	77 Gj/t Cu processed **Nuton energy use**

Land

Smaller operational footprint & no tailings

FLOWSHEET

POWERED BY RENEWABLE ENERGY***



OUTPUTS

Carbon

***50% lower carbon emissions on average**

4.3 tCO_2e / t Cu **Concentrator emissions**	2.3 tCO_2e / t Cu **Nuton carbon emissions**

*Results are based on independent LCAs conducted in accordance with ISO guidelines using internal mine-planning data that compares Nuton heap leach performance against concentrator operations. Performance varies by site and will be verified through ISO-compliant LCAs and actual operational data.All industry benchmarks from Skarn Associates.
**Comparable energy use per ton of Cu (*47.8 Gj/ tCu (Concentrator) energy use and 39.7 Gj/tCu (Nuton) energy use). All industry benchmarks from Skarn Associates.
***Through renewable electricity procurement.

The world needs more copper & better ways to produce it

Nuton is the future.

For enquiries, email nuton@riotinto.com

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