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**PERU MINING
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Political Wrangling Unravelling

Peru and its mining industry prepare for elections in 2026

Finally, after nearly a decade of turmoil, it is official: Peru is on tracks to elect its new president on April 12, 2026. For many, this date will not only mark the end of a period defined by instability, social polarization and frustration, but also, hopefully, promise a brighter future for the mining sector.

On March 25, Dina Boluarte addressed the nation from the Government Palace in Lima to call for general elections, stating: "We hope, for the sake of Peru and for present and future generations, that the 2026 elections will not only allow our citizens to exercise their right to vote, but also put an end to a period of instability that has led Peru to have six presidents in recent years, fueling polarization that has only divided us, delayed investments, and worsened the wave of insecurity."

Of the the six Peruvian presidents since 2016, Boluarte will be the only one to complete her mandate.

Polarization is indeed a term that carries weight. On April 12, 2025, the National Jury of Elections (Jurado Nacional de Elecciones) closed party registration for the upcoming general elections. The result? 43 parties will compete, almost double the 23 that registered for the 2021 elections. If this is not a clear reflection of polarization, and a sign that Peruvians are searching for an as-yet-unseen alternative on the political landscape, what is?

For now, predicting the future scenarios is impossible: "With so many parties expected in the next election, candidates with only a small share of the vote could reach the second round, creating unpredictable outcomes. Those who move forward may not have strong support, making it hard to build lasting political stability.

"As a government, we are pushing for a 'regulation shock'. The goal is not to regulate for regulation's sake, but rather to listen to the private sector and identify unnecessary procedures or delays that slow down investment."

José Antonio Salardi,
Minister of Economy
and Finance,
Government of Peru



This worries investors in key sectors like mining, where a stable environment is needed to develop big projects," commented Marcial García, partner at EY.

The president's reference to "delayed investments" is particularly relevant, as Peru's mining project portfolio has remained stagnant in recent years. However, the issue of "delayed projects" must also be analyzed alongside another statement made by Boluarte during her speech: "We want a campaign focused on proposals that ensure growth, social justice and development, and that keep public works moving forward so Peru does not come to a standstill."

According to Miguel Hidalgo, general director at Grupo Hidalgo, the viability of a mining project in Peru depends 80% on social/political factors and only 20% on technical aspects such as studies and engineering. He emphasized that ideological and political interference - particularly during election campaigns - often complicate community relations. "Peru's political class and its decisions often send a dangerous 'anti' message that jeopardizes investment in extractive industries. Just four words, 'Water yes, gold no,' were pronounced by Huamala (later President) during his campaign and harmed mining investment in Cajamarca. Today, that same region is once again facing extreme poverty in its communities," he insisted.

One thing that must be acknowledged about Boluarte is that, at the very least, she has not directed negative messages about the industry to Peruvians as Castillo did. "Mining remains a key driver of the national economy, creating jobs and infrastructure and promoting development across the country," stated Boluarte during her appearance at the XV Simposio, held in May 2024 in Lima.

"From a foreign investor's perspective, Peru currently stands out as one of the most solid and stable options in South America, which is surprising given its challenges. Political stability is a key factor. While the current government's management may not be the best, it has at least allowed for some progress, which could help build investor confidence. The current government must complete its term, and the upcoming elections must be transparent and democratic to strengthen Peru's image as a reliable foreign capital destination," Javier Mendoza, general manager at Anddes Peru and Ecuador reflected.

"While there are modest advances in some major projects, such as Tía María and Zafrañal, it is crucial to establish strong incentives and address structural issues to better capitalize on international conditions and attract more foreign investment," commented Marcial García, partner at EY.

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“Unlike previous cycles driven by juniors, today’s mining boom follows a different pattern. Today, capital favors faster returns, sidelining exploration, a shift that could jeopardize future projects.”

Jorge Granda, CEO, AK Drilling



The reality is that those two projects and several others in the pipeline have been in development for a long time. Grupo México, the owner of Southern Peru (the subsidiary that owns Tía María), has increased the project’s CapEx to US\$1.8 billion. Meanwhile, Zafrañal (a joint venture between Teck and Mitsubishi) is progressing, and the newly appointed general manager, Gisella Lombardi, stated that the detailed engineering is expected to be completed in the second half of 2025.

Most mining leaders are optimistic about Peru’s future: “If the upcoming electoral campaign and elections do not negatively impact mining investment but, on the contrary, drive it to continue growing, we will see a wave of new mining projects that have been on hold for years. With their activation, the demand for environmental impact studies, baseline assessments, and other key analyses will increase,” asserted Guillermo Barreda, general manager at Knight Piésold in Peru.

César Kahatt, senior vice president and regional mining practice leader for Marsh McLennan, acknowledged that while elections tend to generate uncertainty in investments, greenfield projects will not be significantly affected: “It can take more than 10 years for a project to progress from exploration to production, and they are more likely to move forward regardless of the electoral context, as their execution horizon is much broader. Companies whose project’s feasibility study is already completed, and are about to start construction, or seek financing, might choose to wait and see the outcome of the elections,” he concluded.

Julia Torreblanca

President, National Society of Mining, Petroleum and Energy (SNMPE)



During your term, what will be the main focus for the SNMPE?

During my term as president, we will encourage the active participation of our members to strengthen institutional frameworks and continue collaborating to ensure that the State provides the necessary guarantees to attract more private investment that can help close infrastructure and social gaps. We will work to ensure the sector’s sustainability and competitiveness, with the challenge of becoming the driving force in the global energy transition. According to the INGEMMET, Peru is rich in eight of the 17 critical minerals needed for the transition - copper, iron, lead, molybdenum, silver, zinc, indium and graphite - so our potential must resonate worldwide.

What needs to be improved in Peru to attract more mining investments?

In some cases, excessive red tape causes the exploration phase to take more than 36 months - while in countries like Chile, this process is shorter and more agile. Moreover, mining revenue in taxes fails to translate into effective investment to reduce infrastructure gaps and improve Peruvian’s well-being because they are used inefficiently. We need to simplify the legal and regulatory framework, ensure legal certainty, and promote the efficient management of resources.

How should the problem of illegal mining be addressed?

Peru needs to develop a clear state policy, and authorities must collaborate to target and pursue those involved in illegal activities. Furthermore, the State should finalize the formalization process extension following the REINFO registry’s cleanup and provide technical and financial support to those who genuinely wish to formalize.

What final message would you like to share?

Peru contains 10% of the world’s copper reserves, 22% of silver, and 9% of zinc. Our exploration portfolio amounts to more than US\$1 billion in investment across 84 projects. We have a significant portfolio of mining projects that the MINEM estimates to be around US\$62 billion. ■

Jorge Luis Montero

Minister of Energy and Mines, Government of Peru



How is the Ventanilla Única Digital (VUD - One Stop Shop) advancing?

Implementing the VUD requires considerable investments in terms of technology and highly specialized personnel, so it has been complex and challenging. However, the path seems clear, and we must opt for more immediate solutions - even if they come with a higher price.

What progress has been made with the exploration portfolio?

Exploration is picking up, which is great because, in Peru, exploration always leads to finding resources—thanks to its rich and diverse geology. This year, our portfolio has grown substantially, going from US\$600 million to US\$1 billion, with more than 20% of that capital coming from Peruvian investors—an interesting change as it seems that Peru is beginning to bet on its own development.

What are the benefits of an incentive-based formalization model?

We want to push formalization with real incentives - not just a bureaucratic process. We must facilitate access to credit, improve commercialization channels and offer technology to recover more ore - as only 60% of the current ore is used, while the rest is lost due to inefficient methods. If we turned formalization into a profitable business opportunity instead of just a costly bureaucratic process, small-scale miners would be more likely to join.

What is your final message for GBR’s international mining community?

Today, we need mining more than ever before because it is directly linked to energy. Human development has gone hand in hand with an increase in energy consumption, and to fight poverty, the demand for energy will rise, which in turn requires more metals. However, it is not enough to extract resources from the ground; it must be done responsibly and in alignment with local communities’ diverse realities and needs. We are at a key moment. Now is the time to optimize processes and strategically take advantage of the momentum. ■

(De)Regulation shock

Several initiatives have been introduced into the mining policy conversation. One of them is the Ventanilla Única (one-stop-shop, or VUD). Since it was first unveiled in 2019, implementation of the VUD has been ongoing, with exploration permitting included in February 2024. The system promises integrated digitalization, thereby reducing form filling – both physical and digital – and bringing together permitting processes across government departments. Subsequent phases will incorporate mining exploitation activities and benefit concessions processes. Additionally, water permitting – previously a separate and sequential step – was integrated into the broader DIA licensing process in 2023, illustrating an avenue for efficiency savings in environmental permitting. However, the VUD is not expected to be fully implemented until July 2025.

Another interesting and recent initiative was establishing a multisectoral committee in October 2024 to formulate the National Multisectoral Mining Policy for 2050 (PNMM 2050). The PNMM 2050 is a state policy with a long-term vision aimed at identifying and addressing national priority issues related to the sustainability and competitiveness of mining. Jorge Luis Montero, the current Minister of Energy and Mines (MINEM), told GBR that the goal of the PNMM 2050 is to set clear guidelines and service priorities that support the industry—from small and medium-scale operations to large-scale mines—along with local communities and authorities. For him, the MINEM has mostly acted just as a permit-granting organism and, instead, should have a more proactive role: "We are not seeing the big picture and we are missing a strategic framework

"Without any doubt, illegal mineral extraction should not even be called mining. It is an affront to our country's longstanding mining tradition. We prefer to call it 'illegal economy'."

Darío Zegarra,
President,
Peruvian Institute
of Mining Engineers
(IIMP)



that defines clear objectives and directions. Therefore, we are working on developing an actual multisectoral national policy for mining," urged Montero.

"In some cases, excessive regulation causes delays of up to 36 months just in the exploration phase, while in other mining countries like Chile, the process is much faster," commented Julia Torreblanca, the recently appointed president of the National Society of Mining, Petroleum and Energy (SNMPE).

She is right and the rest of the industry shares the same frustration, because Peru has everything the world wants and needs, from copper to gold and other base metals. Mining also means economic development: "No one is saying that standards should be lowered, but the process does need to be more predictable. Mining also has great value as an industry that brings different players together," emphasized Leandro García, CEO of Buenaventura.

"[Mining projects] have a multiplier effect on the economy, attracting service companies that either did not operate in Peru before or are looking to expand their presence," agreed Edgardo Portaro, partner at GSA Legal.

In this context, where countries around the world are competing to attract capital for the development of future deposits, the Ministry of Economy and Finance, as part of the multisectoral effort mentioned by Montero, is working alongside the SNMPE to address the long-standing challenge of red tape: "As a government, we are pushing for a `regulation shock'. The goal is not to regulate for regulation's sake, but rather to listen to the private sector and identify unnecessary procedures or delays that slow down investment," assured José Antonio Salardi, current Minister of Economy and Finance, during an interview with GBR.

Will this "push" materialize in the upcoming months, and how will this unfold? "This reform effort is happening in a pre-election year, with elections set for April 2026, which adds a layer of political uncertainty, as different candidates may take positions either for or against mining," warned Alberto Varillas, partner at GSA Legal.

Don't call it mining

"Without any doubt, we firmly believe that illegal mineral extraction should not even be called mining. It is an affront to our country's long standing mining tradition. We prefer to call it 'illegal economy'," stressed Darío Zegarra, president of the Peruvian Institute of Mining Engineers (IIMP).

In June 2024, the SNMPE, together with the Instituto Peruano de Economía (IPE), released a report titled *Comparative Analysis of Governmental Response to Illegal and Informal Mining in South*

America, a study that compared how different South American countries are addressing illegal and informal mining within their borders. Some key takeaways are that it is estimated that nearly 30% of Brazil's gold exports, 44.4% of Peru's, 50% of Bolivia's, between 70% and 77% of Ecuador's, 85% of Colombia's, and between 70% and 90% of Venezuela's, come from illegal mining. Alarming, nearly half of the total illegal gold exported from South America, 44% in fact, comes from Peru. "In mines such as those in Pataz, over a thousand security personnel have lost their lives, reflecting the severity of the problem and the urgent need for more control," added Giulio Valz Gen, CEO at Howden Perú.

In recent months, the REINFO and the new proposed Ley MAPE have taken center stage in Peru's mining policy discussions. The REINFO (Registro Integral de Formalización Minera), initially created in 2016, has been repeatedly extended. In late 2024, the Cabinet of Peru approved a draft of the Ley MAPE, which is intended to replace the REINFO. "The new Ley MAPE is under debate, but the REINFO was extended for another six months, with a possible extension until the end of the year. There is a draft, but the outlook remains uncertain, especially with the absence of clear leadership and the upcoming elections. However, it is evident that change is necessary," stated Marcelo Santillana, general manager of Minera Poderosa, one of the companies most affected by illegal mining.

In light of recent events related to illegal mining, one can only wonder if there are specific insurances to help mitigate this pain. Andrés Guiulfo, CEO at Lockton Perú, an insurance broker, said: "There are insurance policies that cover riots, strikes, malicious damage, terrorism and sabotage. However, if attacks on formal mining operations become frequent and severe, the risk level becomes so high that no insurer would accept it without a tangible mitigation plan. If the problem grows too large and there are no clear strategies to address it, it simply becomes an uninsurable risk."

The industry is asking for more governmental support: "Without clear incentives, formalization is hard to sustain. Out of 80,000 registered in REINFO, only 2,000 have made progress, and many struggle to stay in the system. It is essential to improve access to technology, productivity and labor standards," emphasized Zegarra.



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We don't have enough people

"2025 has started with more momentum than in previous years, with a noticeable increase in work in Peru and abroad. In the last quarter of 2024, our engineering division saw a strong surge in industry demand—almost like a wake-up call—driving the need to meet tighter deadlines and expand services. It took a considerable effort on our part," commented Guillermo Barreda, general manager for Peru at the consultancy and engineering firm Knight Piésold.

The recent uptick in mining activity has met with a shortage of qualified talent. "Sometimes, we need more than 1,500 people to address a plant shutdown. Companies are competing for the same workers, and we even had cases where technicians have left to other companies just before heading to the mine for a minimal salary difference," shared Roxana Burgos, general manager at Movitécnica, a conveyor belt company.

What was once a challenge seen in countries like Australia, Canada and the United States has now reached Peru, affecting the entire value chain, from engineers to conveyor belt suppliers and drilling contractors. It seems that while companies previously complained about the lack of projects, now the shortage of talent is insufficient to meet the demand brought on by the activation of new projects. "Among the challenges of 2024 was the lack of experienced professionals in the job market, but using our global professional network and growing our engineering and environmental teams enabled us to overcome these challenges," commented Daniel González, business development manager at AtkinsRéalis.

"In the short term, labor shortage can be mitigated with better wages or increased automation. However, technology on the ground often lags behind the pace of innovation."

Eduardo Cossio Chirinos, CEO, INCIMMET



It is a paradox, considering Peru is one of the mining countries producing the most graduates. "While companies need around 100 engineers each year, universities are graduating over 1,000, creating intense competition, frustration, and in some cases, pushing graduates toward informal work," commented Raúl Benavides, president of Cetemin.

Many of these graduates are poorly qualified. Armando Gallegos, Rector of GÉRENS Graduate School, illustrated this: "In our study, on average, less than 10% of graduates were ready to join the sector, because of universities with outdated curriculum, professors disconnected from industry, poor university governance and weak ties to society, as well as limited funding, inadequate infrastructure, and poorly equipped labs."

The use of AI, automation and remote operations may offer a short-term solution, but many believe it acts more like a sedative than a cure, and that this should be addressed at a regional level: "As a company, we have internal initiatives, but they remain isolated efforts within the industry. I believe the time has come to propose solutions collectively, as an industry, as a country, and why not, as a bloc of mining nations like Peru, Chile, and Mexico. Everything should be integrated to find medium- and long-term solutions," asserted Eduardo Cossio Chirinos, CEO at INCIMMET.

From the Silk to the Amazon Road

"Our goal is to become the Singapore of Latin America, ensuring that port cargo passes through here on its way to Asia," stated Raúl Pérez Reyes Espejo, Peru's Minister of Transport and Communications, referring to the recently inaugurated Chancay Port.

Built by China, the Chancay port is set to become South America's largest commercial hub. After eight years of construction, the first phase of this mega-port has been completed. It is owned by a joint venture between Cosco Shipping, a Chinese state-owned company (60%), and Volcan, a Peruvian zinc and lead producer (40%). Inaugurated in November 2024 by Peru's President Dina Boluarte alongside China's Xi Jinping, the port, 70 km north of Lima, has become a flagship project under China's Belt and Road Initiative.

For Peru, it represents a significant trade opportunity, and it is aiming to capture a share of the US\$580 billion in annual commerce between China and South America.

Carlos Tejada, deputy general manager at Cosco Shipping (Puerto de Chancay), detailed the port's four-phase development plan, with a total investment of US\$4 billion: "In this first phase, we have already invested US\$1.3 billion, which includes the construction of four docks totaling 1,500 m, with two dedicated to general cargo and bulk shipments. Additionally, there is an 860 m berthing front for container ships."

Much hype surrounds the port's impact on the mining industry. Due to Chancay's location in an archaeologically significant area, Tejada noted that it currently handles general cargo and containerized minerals but lacks permits for bulk mineral exports. Whether bulk minerals will be included in future phases depends on market demand. "We have exported silver concentrates to other countries, but it is still uncertain whether bulk mineral handling will be incorporated," said Tejada.

The new port is expected to shorten transit times to and from Asia, reducing shipping duration from 45 to 23 days, according to Tejada, and reduce costs. "The Port of Chancay should significantly lower the cost of imported goods from China. Delivery time for supply, like grinding balls and tires, could be cut in half, reducing logistical and storage expenses, allowing companies to avoid maintaining large and costly inventories," commented Pamela Florian, country manager for Peru at Hatch.

However, opinions are mixed. Adolfo Vera, president and CEO of Southern Peaks Mining, acknowledged that shorter voyages might slightly influence prices, but he expects it to be a gradual and moderate impact. "The stabilization of urea prices or potential pressure on OPEC to increase oil production could have a greater influence on costs," he noted.

Roxana Burgos, general manager at Movitécnica, remains skeptical of Chancay's short-term economic benefits. "We primarily import from Asia and assemble our products in Peru. However, we do not foresee Chancay making a difference in the short term. We still operate through Callao, as Chancay is not yet fully operational.

Additionally, inland transportation costs remain high due to the lack of alternative roads connecting the Chancay's port to Lima," she explained.

Cecilia Batallanos, managing director of Leschaco, said: "Rising fuel and energy costs, droughts in the Panama Canal, and instability in the Red Sea have driven volatility in freight rates, impacting importers worldwide. While prices are beginning to stabilize, climate change remains a serious risk, reducing the water flow in the Panama Canal, which limits both the frequency and volume of maritime traffic."

In this context, the hype around Chancay is also driven by Peru's potential to become a regional logistics hub: "Chancay is a multipurpose project that could connect Atlantic-facing countries like Brazil," noted Tejada.

In March 2024, Brazil's Minister of Planning and Budget, Simone Tebet, met with Peru's Minister of Transport and Communications to explore synergies and integration through intermodal routes. Later that year, Brazil launched the 2024 Report on the South American Integration Routes Projects through Brazil's Novo PAC (New Growth Acceleration Program), highlighting five intermodal corridors with its neighboring countries, two of which end in Chancay: the Amazônica and the Quadrante Rondon routes. "Chancay is a game changer," said Cecilia Batallanos: "It offers Peru the chance to become a regional logistics hub by reducing transit time to Brazil by up to 15 days. Plus, the country has skilled labor and the conditions to develop free trade zones and maquilas around the port, increasing its commercial appeal," she added. ■

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Sustainability and Local Communities

Financing and energy

When GBR interviewed Adriana Tejada, corporate banking deputy manager at Banco de Crédito del Perú (BCP) – the largest and oldest bank in Peru – she not only commented that they are seeing a rise in M&A opportunities in the mining sector but also that companies have been looking for more Sustainability-Linked Loans (SLL): "These loans are structured based on KPIs that must be both ambitious and relevant to the sector. In the case of mining, they are often tied to efficient water use, waste management, occupational safety and community engagement," explained Tejada.

For example, the line they have structured with Buenaventura for US\$100 million, the first by BCP, with which Buenaventura will have a "safety net" to finance San Gabriel, its new greenfield gold project. "Following that first transaction, many companies have shown interest in this type of financing, and we are already in conversations with other mining firms," she added.

GBR also spoke with Fernando Kaelin, corporate banking manager at Banco Santander Peru, who confirms that during the last few years, many companies within the sector have sought to improve their environmental management by betting on sustainable practices and certifications supporting their environmental commitment. As such, the bank's ESG team has been promoting 'green financing' for projects that reduce contamination or mitigate their environmental impact: "Banco Santander acquired WayCarbon in 2022, a global consulting firm specialized in providing comprehensive services related to climate change and sustainability. It is already operating in Peru and advising firms using software to measure their carbon

footprint and design emissions reduction plans," explained Kaelin.

According to Arturo Caballero, CEO at A2G, many companies now link the management bonus to carbon footprint reduction, encouraging commitment to cut emissions at all levels, even extending to service providers. As a result, tenders are benefiting or rewarding those who adopt sustainable practices. "However, these suppliers do not always speak the same language. We need to train them and show them how their own reductions benefit the environment but are also necessary to continue being hired," Caballero stressed.

Carlos Barrientos, regional director for the Andean Region and Mexico at Séché Group, described how committing to ESG principles up to the very end of the mining process can add value to operations: "Waste segregation is a puzzle that requires careful assembly, but when done, it significantly impacts sustainability and operational efficiency. However, both suppliers and customers must be on the same page and see it as a long-term investment, not a cost," he underlined.

Phelan Green Energy is a South African/Irish international energy developer that pivoted from Chile to Peru to develop a US\$2 million green hydrogen project in Santa Rita, Arequipa. According to Paschal Phelan, chairman, the plant will have the capacity to produce 80,000 t/y of green hydrogen, which will then be converted into 444,000 t/y of green ammonia for export. "Production will cater to both domestic demand and international markets with the green ammonia geared for export to Japan and South Korea," he shared.

"The technology for cadastral issues exists, but the real challenge is the fragmented public sector. Municipalities and ministries have different maps that often do not match, creating a labyrinth of contradictory information."

José Antonio Núñez,
General Manager,
JP Planning



"Peru needs a proper carbon tax mechanism pushing companies to use greener products and energy sources, so that the country can decrease its carbon footprint and trade products internationally without incurring carbon fees and penalties."

Paschal Phelan,
Chairman,
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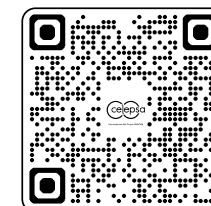
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"We all know Peru is a mining country at heart. As energy providers, we are especially interested in seeing the projects in the pipeline come to life, particularly those that focus on sustainability, create real value, and support Peru's growth."

Eduardo Rivas,
General Manager,
Celepsa



"The key challenge is balancing digitalization with sustainability: replacing fossil fuels, reducing inputs, and optimizing opex. But the real elephant in the room is the need to cut operational emissions across existing mines."

Santiago Thomassey,
CEO,
Siemens Peru
and Ecuador



While the plant is not expected to produce the first molecules at Matarani until the end of 2028, GBR asked if he sees the potential to use green hydrogen to power mining operations locally: "There is definitely the potential to sell the products to the Peruvian mining industry [...], but Peru will have to introduce a proper carbon tax mechanism to meet its Paris commitments that will push companies to use greener products and energy sources so that the country can decrease its national carbon footprint and also trade products internationally without incurring carbon fees and penalties," he assured.

Celepsa, part of the UNACEM Group, is a Peruvian clean energy company that has leveraged the SSL previously explained by Adriana Tejada. For a total amount of US\$100 million, the company plans to use those funds to develop a pipeline of renewable energy projects, according to Eduardo Rivas, general manager of Celepsa: "We have a portfolio of over 1,000 MW in renewable energy projects. Our priority is to meet the conditions required for the construction of our Solimana solar project in Arequipa, which will have a capacity of 250 MW," he pointed out.

Regarding the mining industry, in December 2024, Celepsa and Glencore's Antapaccay (one of the top copper producers) signed a renewable energy supply agreement for 160 MW. "It was the most important transaction in the electricity market in 2024," said Rivas, who added: "Demand for renewable-origin certified energy from the mining sector continues to grow, propelling us to ensure enough supply to meet this need. We have already certified our El Platanal and Maraón hydroelectric operations as 100% renewable, allowing us to issue I-REC certificates to our clients. The ongoing challenge now is to develop a solid portfolio of solar and wind projects and to evaluate new hydroelectric opportunities."

The social aspect

Mining will inevitably return to the political debate as the general elections campaign kicks off. It will either be addressed as the economic engine it is, contributing over 10% of the country's GDP, or become the target of electoral slogans like "Mining no, water yes." Once again, communities will be at the center of the discussion.

Social Capital Group is a consultancy firm that focuses 100% on the social aspect of mining from exploration through construction. Alan Dabbs, CEO, told GBR: "We started in 1999, just when Peru's mining boom was taking off, bringing with it new operations and a level of social complexity that could not be ignored."

26 years later, things have definitely changed in Peru, and according to Dabbs, the change has been radical. Today, companies are more conscious, and the way they communicate with local communities, as well as how they distribute profits, has become more structured. "It is no longer enough to simply be present; we must create real opportunities, develop local suppliers, and ensure that growth happens in a sustainable way," he commented.

Producers and juniors are not the only ones that have changed; communities have developed a firmer stance too. "Expectations are no longer the same. Today, local communities ask what benefit they will receive, how it will come, and whether it will be better than before. Everything revolves around expectations that continue to rise," added Dabbs.

Marcelo Santillana, general manager at Minera Poderosa, provided an example that illustrates how expectations have shifted: "We are negotiating with a community in the Montañitas area, but their economic request exceeds our exploration budget. As such, we are pursuing a broader dialogue, explaining the project and focusing on concrete solutions to their needs, such as access to water and sanitation."

Dabbs suggests companies must turn risks into opportunities: "If you just focus on the conflict, you overlook the potential. Now, if it is addressed with a clear strategy and transparent information, other doors might open. In that sense, the social aspect is no longer just about compliance; it has become a central part of the business strategy."

Acquiring lands is no exception. For JP Planning's general manager, José Antonio Núñez, it is critical to understand the existing land rights before even starting any project and to design a solid land acquisition strategy, a process that is especially complex in Peru, where the land cadaster or land registry seems to be either outdated or inconsistent between different public entities: "From municipalities to ministries, they have different cadastral maps that often do not match, creating a labyrinth of contradictory information. To make it even worse, regional governments have the authority to modify these maps without notifying property owners, relying on technical criteria that can be questionable. For example, if an official decides that part of a property is a ravine, that area could be unilaterally transferred to the State, triggering legal conflicts," explained Núñez.

The solution? "Standardizing criteria and using available technological tools would provide greater legal certainty and help boost investment in the mining and infrastructure sectors," concluded Núñez. ■



Image courtesy of Las Bambas

Production

Will we see more M&A activity and new projects in Peru soon?

Peru's copper production between 2023 and 2024 observed a slight decline, falling 0.73% to 2.73 million t/y from 2.75 million t/y. As such, Peru plainly failed to meet SNMPE expectations of a 4% rise in copper production. Meanwhile, the United States Geological Survey (USGS) estimates that the Democratic Republic of Congo's production exceeded 3.3 million t/y in 2024.

Once again, the Central African country has overtaken Peru for second place in global copper production. With projections now suggesting that Peruvian copper production may continue on this plateau through 2025, hopes to recover that symbolic position rest with new projects in Peru's pipeline, like Zafranal, Tía María, and upcoming expansions to key projects.

In the meantime, however, the list of Peru's top 10 copper producers has remained mostly unchanged. Cerro Verde, despite its 3.7% drop in production (449,096 t/y compared to 466,463 t/y produced in 2023), retained the top spot as Peru's leading copper producer. Meanwhile, Antamina remained the country's second-largest copper producer, recording a smaller decline of 0.3%, from 435,378 t/y to 434,238 t/y. Both Cerro Verde and Antamina had extensions given the green light in 2024, growing their production rates and lengthening their mine lifespan.

In third place, Southern Peru recorded an 11% increase in production from 374,149 t/y to 415,258 t/y, which makes it the fastest growing of Peru's top 10 copper producers over the last year. With production now projected to begin at the company's Tía María project in 2027, and an expected production rate of 120,000 t/y, Southern may well climb this list, depending on progress at Cerro Verde and Antamina.

In fourth and fifth place, Las Bambas (4th) and Anglo American's Quellaveco (5th) traded places compared to the previous year—the only movement in this list. While Las Bambas saw a 6.4% production growth, from 302,039 t/y to 321,425 t/y, Quellaveco's declined by 4% to 306,299 t/y, starkly, if understandably, contrasting the 216.9% growth it saw in 2022-2023 as its operations ramped up to full-scale production.

Las Bambas celebrated a double anniversary in 2024: 20 years of operations, with the last 10 under MMG's stewardship. Reflecting on the mine's significance for Peru—and vice versa—Jing Zhao (Ivo), appointed in 2025 as CEO of MMG, said: "Over the years, we have contributed more than S/ 2.3 billion in royalties and over S/ 470 million in mining taxes, helping to position Apurímac among the fastest-growing regions in our country. We hope that Las Bambas will continue to be the economic engine that has played—and continues to play—a key role in Peru's growth."

Operations at Las Bambas have frequently made headlines due to the mine's complex relationship with local communities. "Las Bambas has faced over 700 days of blockades throughout its history, which at critical moments affected our production capacity," Zhao commented.

Recently, Las Bambas has been stable, allowing it to achieve the above mentioned copper production results. Looking ahead to 2025 and 2026, the company aims to increase production further after securing the fourth modification of its Environmental Impact Assessment (MEIA-d) for the subsequent phases at Ferrobamba, the open-pit currently in its fifth exploitation phase. MMG plans to reach phase eight by 2027. Additionally, construction at Chalcobamba is 60% complete, and the company aims to begin mining at Sulfobamba by 2030—both satellite pits. "By 2026, we expect to maintain a production level between 360,000 and 400,000 t/y. Reaching 400,000 t/y would position us among the top 10 copper producers globally. Las Bambas is already a key player in the industry, but we are still a young company with much more to develop," Zhao remarked.

Moving further down the list of Peru's largest copper producers, Chinalco, placed sixth, was the last of the top 10 to have recorded a production boost, growing 3% to 206,392 t/y, compared to 200,317 t/y the previous year. Antapaccay (7th) and Marcobre (8th) recorded declines exceeding 15%, while Hudbay (9th) and Sociedad Mineral El Brocal saw drops of 1.5% and 2.5% respectively. Notably, Teck Resources expects its Zafranal project, awaiting its construction permit, to average 128,000 t/y in its first five years of production from when it begins in 2029. At current production rates, the project would rank 8th on this list.

"Due to permitting constraints, we must optimize recovery and improve performance of low-grade deposits. Our goal is to increase copper recovery from 91% to 95%, and gold recovery from 80% to 90%, to support organic growth."

Adolfo Vera,
President and CEO,
Southern Peaks Mining



In the case of Hudbay Minerals, a mid-sized producer, the company's portfolio spans Canada, the US and Peru, where it operates the Constancia mine and its satellite pit, Pampacancha. Javier del Río, senior US business unit vice president, commented that Hudbay plans to move forward with the feasibility study for Copper World in Arizona this year (2025). The new project, expected to add around 85,000 t/y of 'made in America' copper, could be ready by mid-2026 to begin construction. "This would position Copper World as the third or fourth largest copper mine in the US by production. It is also worth noting the low capital intensity of its first phase, with an investment of approximately US\$16,000 per t/y, making it highly competitive compared to other projects," he added.

But how important is Peru to Hudbay now? "Peru is fundamental, not only because of its geological richness but also because we already have a highly skilled team there. The country has not lost its strategic importance for Hudbay. On the contrary, as we grow, more opportunities are opening up, including the possibility of participating in due diligence processes to identify new, larger-scale operations," he said.

Hudbay already has two projects in the pipeline (María Reyna and Caballito) and is exploring opportunities in the Eocene-Oligocene Andahuaylas-Yauri belt, home to mines like Las Bambas, Antapaccay (Constancia, of course) as well as promising projects such as Haquira from First Quantum Minerals. Del Río believes that having existing infrastructure in the region gives Hudbay a strategic advantage. "Having a processing plant already in place gives us a

"Our growth in Peru is creating new opportunities, including the potential to take part in due diligence processes to identify larger-scale operations."

Javier del Río, Senior VP US Business Unit, Hudbay Minerals



significant edge, as infrastructure costs are sunk costs. We would only need to cover additional operational expenses for any new project. This makes us optimistic about the potential for new discoveries in the region," he concluded.

Southern Peaks Mining (SPM), a solely Peru-focused producer, has not ruled out expanding by acquiring new projects. This year, Adolfo Vera, president and CEO, mentioned that while inorganic growth remains an option—particularly in southern Peru—the process is lengthy and requires caution. "Negotiations are complex, but we are in no rush. We prefer to move forward with well-considered decisions to avoid mistakes and ensure long-term success," commented Vera.

For now, the mid-sized underground producer will focus on ramping up production at its Condestable mine, where in 2024, it processed approximately 3 million t of ore and produced 95,000 t of copper concentrate, equivalent to 24,000 tons of copper. Over the past year, SPM has fine-tuned its operations to take advantage of favorable commodity prices and the flexibility provided by Resolution No. 125-2024-MINEM/DM, which allows Peruvian producers to increase output by up to 10% of existing capacity. "This year, we are seeing promising results. Condestable is more efficient, and we are accessing areas that exceed our expectations, with an 8% to 10% improvement in mining grades. While increasing production requires more preparation, we achieved a 7% volume increase in January. With these advancements and stable prices, we expect an even better 2025," Vera explained.

One common theme among producers is their cautious approach, even amid strong price performance. For example, Zhao from Las Bambas noted that while many miners face declining ore grades, permitting complexities add significant weight to the OpEx: "We deal with permitting challenges in every country, as well as environmental and social investment standards that impact the OpEx. Being aligned with the ICMM means we comply with local regulations and international standards, which increases our operating costs," he commented.

Vera echoed this sentiment, adding that SPM is investing in AI for flotation, exploration and metallurgical innovation: "Given the permitting challenges, we need to optimize recoveries and manage low-grade deposits to produce more copper with existing resources. We aim to increase copper recovery from 91% to 95% and gold recovery from 80% to 90% to drive organic growth."

Precious metals

Contrasting copper's slight decline, Peru's production of precious metals saw strong growth. Overall, Peru's production of gold grew 6.9% to 3.47 million oz in 2024, up from 3.24 million oz in

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2023. Meanwhile, gold prices continued to climb to new heights, reaching an all-time peak of US\$3,244.09/oz on 11 April 2025, while some even say that they could soon surpass US\$4,000/oz.

Peru's leading gold producer, Newmont's Minera Yanacocha, saw another year of strong growth. Having expanded its production by 13.1% in 2023, in 2024 it grew even more rapidly, recording a 28.6% increase in gold produced – reaching 354,330 oz/y, up from 275,723 oz/y.

Newmont has focused on implementing injection leaching technology, becoming the company's primary production mechanism. The program began as a pilot two years ago and entered commercial production in March 2023. It allows for the recovery of metals from closed leach pads, maximizing resource utilization. "Yanacocha has been evaluating this project for a long time to fully leverage the resources in its pads. [...] It is now operational and delivering tangible benefits, contributing to the recent increase in gold production in Peru," commented Guillermo Barreda, general manager at Knight Piésold, an engineering firm that worked on the project.

Newmont's growth opened a more substantial gap to the second-placed gold producer, Minera Poderosa. Expanding production at a rate of 8.5%, Poderosa's output totaled 292,887 oz of gold in 2024 versus its previous year's 269,246 oz. Importantly, Poderosa faced attacks from illegal mining groups at its operations in La Libertad through 2024 and also during the first quarter of 2025, stunting its ability to increase production: "Illegal mining continues to be a big challenge for us, especially with current gold



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“We are expecting to initiate production at Arcata by the second half of 2025 and then ramp up to 2,500 tons per day within a year.”

Graham Speirs,
CEO,
Sierra Sun Group



prices. We estimate that it affects around 25% of our reserves, impeding us to reach 300,000 oz of gold,” explained Marcelo Santillana, general manager.

Santillana noted that Poderosa continues to have a strong pipeline of exploration projects, totaling an investment of US\$180 million. The company has a greenfield project named Palca in the pipeline, which could start production this year, depending on the pending permits: "If everything turns as we plan, Palca will contribute between 300 and 500 t/d, allowing us to increase our processing capacity and move closer to a production level of 300,000 oz/y in the next few years," pointed out Santillana.

A rapid growth rate of 33.3%, following up on its 68.7% expansion in 2023, saw Minera Boroo Misquichilca climb further up the table from fifth to third. With a total production of 234,068 oz/y, compared to 175,498 oz the previous year, it thus surpassed Consorcio Minero Horizonte and Minera Aurífera Retamas, both of which saw production declines.

Boroo Misquichilca, a subsidiary of Singapore-based Boroo, owns the Lagunas Norte mine in La Libertad. Barrick operated this mine until 2021 when it was sold to Boroo. Although it was placed on care and maintenance in 2019 and its closure was anticipated by 2024, the company announced in January 2025 the completion of a PFS for the CMOP Expansion (Carbonaceous Material Optimization Project, formerly known as PMR). The study includes updated mineral resource and reserve estimates, extending the LOM to 12 years.

Another notable development comes from Buenaventura, which recently announced the start of operations at its San Gabriel greenfield project in Moquegua by mid-2025. The project's estimated CapEx is around US\$650 million, and while commissioning is expected to start mid-this year, commercial production will not begin until later 2025. Once San Gabriel reaches a nameplate capacity of 3,000 t/d, Buenaventura anticipates an annual production between 120,000 oz and 140,000 oz. Leandro García, Buenaventura's CEO, said: "San Gabriel will be our backbone for gold production."

To finance the project, Buenaventura sold its 1.8% net smelter return royalty in Newmont's Yanacocha mine to Franco-Nevada, and also secured two credit lines totaling US\$200 million from the BCP, Banco Santander and BBVA. However, García clarified that Buenaventura does not expect to use them: "These credit lines are available and ready for us to use as the project progresses, but they remain untouched. They are more like an insurance to guarantee the construction of San Gabriel and, fortunately, the dividends we received from Cerro Verde have been favorable, so we do not expect to touch them."

PPX Mining is another company making strides, having begun constructing its own plant for the Callanquitas/Igor silver and gold mine in La Libertad. The mine has been operating for nearly six years, and the ore was previously sent to a facility near the Ecuadorian border, incurring additional costs. "That made it clear we needed to build our own plant, which is now under construction. We have secured all the permits, signed the contract, and already paid for half of the major equipment. Earthworks at the site began in February, and the plant, designed to process 350 t/d, will treat both oxide and sulfide ore. We plan to produce a high-grade silver-gold concentrate and bullion, with the goal of having the plant operational by October," said interim CEO John Thomas.

Meanwhile, over the course of 2024, silver's spot price rose from US\$23.56/oz to US\$28.90/oz. Like gold, silver is often bought to act as a store of value and hedge against inflation. However, like copper, silver is also expected to face supply shortages and high demand as another key metal for the energy transition.

In Peru, silver saw an even steeper ramp up in production than gold, growing 15.4% – an increase from 107 million oz/y in 2023 to 123 million oz/y in 2024. That includes some especially notable rises: chief among them, Buenaventura jumping from ninth place to first among Peru's top 10 producers, with a 264.8% increase in silver production from 3,751,562 oz/y to 13,684,462 oz/y. That leap in production came with the initiation of full-scale production at Yumpag and Uchucchacua, operational only since Q4 2023. "In March 2024, we obtained the final permit for Yumpag, and its production, together with output from our other operations, allowed us to regain that momentum that has always defined us, taking back the number one place in silver production in Peru. This complex (Uchucchacua-Yumpag) will be the foundation of our future development at Buenaventura," shared Leandro García, Buenaventura CEO.

Pushed into second place by Buenaventura, and with a slight decline in production of 6%, from 13,800,232 oz/y to 12,978,313 oz/y, was Antamina, while the rest of the top 10 saw some movement as companies including Chinalco (3rd), Volcan (4th), Minera Ares (5th) and Southern (6th) recorded a mixture of increases and drops in output.



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"San Gabriel is the only greenfield project starting production this year. It is not a Quellaveco, but every project adds value, especially when its reserves ensure continuity for the next 15 years."

Leandro García, CEO, Buenaventura



Base metals

Peru's base metals output presented a mixed picture in 2024. Zinc saw an overall production drop of 13.5%, falling from 1,469,127 t/y in 2023 to 1,270,646 t/y in 2024. Most significantly, Antamina, which in 2023 contributed 36% of the country's zinc production, reduced its output by nearly 40%, dropping from 527,979 t/y to 319,069 t/y. It nevertheless remained the leading producer, though now with a reduced share of 25.1%. Volcan – with a 4.7% decline to 163,046 t/y – and Nexa – growing 10.1% to 93,247 t/y – maintained their second and third places, respectively. Rising to fourth place, with a notable 60.6% jump, was Minera Shouxin, growing its output from its tailings processing project at the Marcona mine.

Across other base metals, lead saw a 6.6% increase in national production, rising to 291,319 t/y; molybdenum grew 25.3% to 41,942 t/y produced; and tin rose 23.2% to 32,317 t/y.

"Peru still has vast geological resources yet to be developed. From giants like Antamina and Cerro Verde to projects like Chapi, Peru offers opportunities for many investors."

Víctor Gobitz, CEO, Quilla Resources



M&A: from maintenance to production

Peru has also been home to some M&A activity in the past couple of months, along with announcements of old mines coming back online. Regarding M&A, Sierra Sun Group, a polymetallic producer with a strong focus on precious metals, acquired the Arcata and Azuca mines from Hochschild, both assets placed on maintenance back in 2019.

At Arcata, Sierra Sun is on track to bring the mine back into production, and the expectations are that it will produce over 8 million oz of silver and between 15,000 and 20,000 oz of gold annually. According to the company's CEO, Graham Speirs: "Such a production level will place the company in an entirely new league [...] We are completing the rehabilitation of the infrastructure and plant at Arcata and dewatering the lower sections of the mine. We are expecting to initiate production by the second half of 2025 and then ramp up to 2,500 t/d within a year."

"Reaching 400,000 t/y would position us among the top 10 copper producers globally. Las Bambas is already a key player in the industry, but we are still a young company with much more to develop."

Ivo Zhao, CEO, MMG Las Bambas



As for Azuca, the company plans to resume production sometime in 2026, as it will focus all its efforts on Arcata. In addition to Antapite, a silver-producing mine, Sierra Sun completed an NI 43-101 for the Cachi Cachi project (a gold placer deposit with rare earths) and has Sumaq Rumi (a zinc project) in its portfolio. However, as Speirs emphasized, Sierra Sun wants to be a full precious metals player: "Sierra Sun has 100,000 hectares of prime concessions, 87,000 hectares of which are precious metals. For the remaining 23,000 hectares, which are our green metals portfolio, we hope to find an investor who would allow us to have free resources to develop and explore our precious metal concessions," he finalized.

Another announcement that caught everyone's attention within the Peruvian mining industry since the beginning of 2025 was Quilla

"Palca is a greenfield project that could start production in 2025, helping us reach 300,000 ounces of gold production in the coming years."

Marcelo Santillana, General Manager, Minera Poderosa



Resources' decision to revive its Chapi asset. The company, led by Víctor Gobitz, who stepped down as CEO of Antamina in December 2025, has eyes for base metals in the Andean region, targeting three specific types of assets: "We are interested in producing mines with ramp-up potential, projects under maintenance, and advanced-stage exploration assets," commented Gobitz.

Chapi sits within the same metallogenic belt as Cerro Verde, Cuajone, Quellaveco and Toquepala, and already has the infrastructure in place to produce copper cathodes. Quilla plans to restart operations by the end of 2025, and while the plant may not immediately reach its full capacity of 10,000 t/y, Gobitz emphasized that his priority is to generate cash flow as soon as possible and start using it to explore across the company's concessions. ■

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Junior Exploration

The billion-dollar opportunity

PDAC, the Prospectors & Developers Association of Canada, is the go-to global event for junior exploration companies, so the Peruvian delegation paid close attention to the speech by Jorge Montero Cornejo, the minister of Mines and Energy, when he announced that Peru's exploration project portfolio had grown from US\$644 million in 2024 to US\$1.03 billion in 2025. A remarkable increase, indeed. Now, that pipeline has yet to materialize. How much of that has actually translated into real exploration activity so far?

In 2024, Peruvian exploration budgets jumped by over 28%, totaling US\$568 million, versus US\$443 million in 2023. That makes 2024's exploration investment the highest since 2014. With just 0.3% of Peru's territory being explored, the highest exploration investment in a decade, and a metals market predicted to grow rapidly, the question is: can a rising tide float all boats? As Montero Cornejo said to GBR: "We are at a key moment. Now is the time to optimize processes and make strategic decisions to take advantage of the momentum."

More than working bees

In 2024, greenfield exploration budgets fell 8% to an all-time low share of total nonferrous exploration expenditure, continuing their downward trend since 2001. S&P reports that market conditions and risk aversion have pushed budgets towards expanding preexisting resources, where infrastructure and prior study make for low-cost if lower-return options.

For juniors, though, contributing 47% of greenfield and 70% of late-stage exploration globally, those lower-risk options often simply do

"There is no energy transition without Peruvian or Chilean copper—but even more than investment, we need to build trust and ensure local communities see real, lasting benefits. Without that, new projects simply will not happen."

Alan Dabbs,
CEO,
Social Capital
Group



not exist, leaving them more exposed to negative markets and limited liquidity. Chris Buncic, president and CEO of Condor Resources, a junior company with 20 years of experience discovering and developing a polymetallic portfolio of mine prospects in Peru, explained: "Majors are not allocating many resources to greenfield exploration, so junior exploration is critical."

Condor, in transition from a project generator to a traditional explorer model, has diversified its income across shareholder investments, joint venture and option agreements, and sales from its portfolio so that Condor ultimately relies on advancing the projects to sustain the company. At the company's flagship Pucamayo project, an epithermal gold target in Ica, a DIA permit to start on a second phase of drilling has been a frustratingly long process for Buncic. "There needs to be a concerted effort to help companies that lack the resources of the largest players," he argued – for the long-term benefit of the sector at large.

Ian Gendall, president and CEO of DLP Resources, also recognized the indispensable role juniors have played in exploration: "In the past decade, only about 4 million t of new copper supply have been added through discoveries," he explained, adding: "Juniors, however, have been doing most of the exploration work, and majors are relying on us to help fill their supply gaps."

DLP's Aurora project, sitting in the underexplored Miocene sub-Andean belt, has shown high-grade results in its large porphyry system – up to 0.6-0.8% copper equivalent for 200-300 m, alongside 0.1% to 0.3% molybdenum. Gendall said this puts Aurora among the highest-grade known molybdenum deposits on Earth – highlighting that this is an especially unusual trait for a South American asset. In further metallurgical studies, high recovery rates of 86-96% for copper, molybdenum and silver were also confirmed.

In February 2025, DLP announced its maiden mineral resource with 1 billion t of inferred mineral resources. Consequently, as the project moves towards a PEA and PFS, it presents a well-developed and highly valuable asset for senior miners. "We believe Aurora is an interesting opportunity for major players, potentially bridging the gap between exploration and large-scale development," said Gendall.

Meanwhile, highlighting the senior acquisition potential of Forte Minerals' most recent development asset, Patrick Elliott, president and CEO, commented on the Alto Ruri gold project: "Prospects like this are incredibly hard to find. It is the type of property juniors look for to build into eventual takeovers by major gold companies."

Discussing Forte's value-generating methodology, Elliott explained that downturns in the mining industry cause major companies to reduce expenditure, relinquishing exploration assets quickly and refocusing on low-risk targets. In such periods, he said: "Large companies focus on optimizing production, or expanding brownfield exploration around their existing operations, so early-stage exploration is limited."

Forte takes advantage of this by picking up promising assets during those slow periods, when prices are low. For Elliott, all of this is a game of great patience: "Assembling assets like ours and advancing them to this status takes an entire mining cycle to execute," he said.

It is through this methodology that the company has brought its copper-gold portfolio across Peru, including Miscanthus, Pucarini and Esperanza, to drill-ready, DIA-approved status – the type of projects that mid-tier and major companies may look to acquire as demand continues to rise.

It appears, too, that demand is indeed returning. Even with his nearly two decades in mining and precious metals mergers and acquisitions (M&A), Dan Symons was still struck by the extent of activity on his arrival to the copper market as president and CEO of C3 Metals: "The world's biggest copper producers are doing due diligence all the way down to early-stage explorers, examining M&A and joint venture opportunities," he explained.

Senior mining companies, Symons suggested, are looking beyond developing companies with known deposits, into higher-risk, earlier-stage prospects, seeking to fill their pipelines with copper prospects in anticipation of future demand. "Majors are looking more long-term, with higher potential for discovery. I think we will only see more M&A over the coming years," he predicted.

Across its two Peruvian portfolio projects, Jasperoide and Khaleesi, a pair of porphyry-skarn copper-gold projects in Cusco, and two in Jamaica, Symons explained that C3's approach is to test and develop 'low-hanging fruit,' geologically speaking. Then, when projects reach higher levels of capital intensity or technical complexity, the company seeks to move forward with partnerships or divestments.

BHP is one of the tier-one producers paying attention to this gap mentioned by some junior companies. Thus, it launched BHP Xplor, an accelerator program to support early-stage projects with funding and technical support. In Peru, Firetail Resources was one of the eight

"Aurora is an interesting opportunity for major players, potentially bridging the gap between exploration and large-scale development."



Ian Gendall,
President and CEO,
DLP Resources

companies selected for the BHP Xplor 2025 Accelerated Exploration Program. "Being selected for the BHP Xplor 2025 Accelerated Exploration Program is an excellent validation for our Picha project. They are helping us operate better as a company while advancing the project, and the opportunities and networks we have by being involved in the program are enormous," commented Glenn Poole, managing director at Firetail, which has received an equity-free grant of around US\$500,000.

Picha is a coper-silver project located on the border of Moquegua and Puno. It was drilled in 2023 and 2024, but Poole shared that they want to focus on targeting porphyry and intrusive-style anomalies.

Copper

Over 60% of the world's copper production arises from operations focused on porphyry systems. Typically enormous in size, porphyries can offer vast quantities of copper, as well as valuable secondary commodities such as gold, silver and molybdenum. It is not uncommon for such systems to exceed 1 billion t of ore. That scale offers certain key advantages: economies of scale can afford low operating costs per unit of production, and mine lifecycles can stretch to over 100 years.

Peru's copper mining industry, like that of the world at large, primarily centers itself on porphyries, including several of the country's largest projects like Cerro Verde, Las Bambas and Toquepala. Across Miocene, Eocene-Oligocene and Paleocene belts, Peru's known porphyry network stretches along its full length, north to south. Alongside other mineralization systems, like sediment-hosted and skarn deposits,

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www.dlpresourcesinc.com
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Main Office: Calle Sevilla 185, Miraflores, Perú
Website: www.geofisicos.com

Peru's copper reserves combine to 12% of the global total – surpassed only by neighboring Chile, the geology of which is also dominated by porphyries.

For junior miners, then, copper porphyry systems clearly offer the best potential for massive discoveries. With the vast majority of Peru's national territory still unexplored, and the presence of porphyries already proven throughout the country, the search for the next major prospect is well underway.

"We are well advanced, with just a few things that needed fixing. Cañariaco is a resource capable of producing 150,000 to 160,000 t/y of copper. There are not many that have that potential, and fewer still with the major backing we already have," said Giulio Bonifacio, executive chair and CEO at Alta Copper.

Alta Copper is a Vancouver-based exploration company that has published a PEA for its Cañariaco porphyry-copper project in 2024: "At our base price of US\$4, the PEA illustrates an after-tax NPV of US\$2.3 billion and an internal rate of return (IRR) of 24% - fantastic for a big project. Every US\$0.25 increase in the copper price over that base increases that NPV by US\$425 million. At current copper prices of US\$5, the after-tax NPV increases to US\$4 billion with further opportunities to reduce the current tax impact," commented Bonifacio, who added that the company will drill once again in Q3 2025 and move to feasibility and an EIA by early 2026.

Camino Corporation's portfolio includes two copper porphyry projects, newly acquired Puquios in Chile and Maria Cecilia in Peru, and its Los Chapitos iron oxide copper-gold (IOCG) project in Peru. President and CEO, Jay Chmelauskas, is seeking to take advantage of a healthy copper market by advancing as fast as possible to production: "The average time to build a mine is around 17 years – at Puquios, we are looking to build a copper-producing business in the next several years."

Puquios is shovel ready, with a new PFS expected in Q1 2025. "It is a good-size mine for us to start our production profile," reckons Chmelauskas.

Camino's 50% joint venture partner Nittetsu Mining will take charge of the construction and operation of the mine. The project's timing, Chmelauskas stressed, is critical: "With copper prices on the way up, the market is placing high value on developers and producers, so production is our main focus for 2025."

Element 29 Resources is also placing its sights firmly on copper. At its flagship project, Elida, a phase three drill program has infilled existing resources, improved grades (up to 0.56 g/t copper, 0.4 g/t molybdenum, and 3.49 g/t silver), and moved beyond previous pit-constrained estimates for its porphyry system. For CEO Richard Osmond, a lack of gold in Elida's mineralization is a major advantage for the project: "Gold in porphyries tends to imply arsenic content, which makes recovering copper more challenging – it can be as much as double your OpEx," he explained.

Elida enjoys excellent access to infrastructure, including the new Chancay mega-port. Osmond was effusive about Peru's copper potential, citing the country's trade agreements with the US and Canada, the robustness of its wider mining industry, and the unexplored opportunities in the country as key pull factors for explorers: "Companies go around the world looking for big porphyry copper projects, but they always come back to Peru."

Yet, while the scale of porphyry systems is certainly an opportunity, it can present difficulties for exploration and development. Establishing the size and mineralization of such enormous resources, especially from grassroots, is typically time consuming and costly. It requires large-scale mapping, sampling and drilling, with a resultant upscaling of permitting and social access requirements – often stretching exploration timelines to over a decade. For Ian Gendall, president and CEO of DLP Resources, the impressive size of the Aurora project's copper-molybdenum porphyry project illustrates these hurdles, as well as opportunities for partnership as the project moves ahead. "Aurora's scale demands significant financing, which can be challenging for a junior company. Raising US\$30-40 million introduces substantial dilution, making strategic partnerships crucial," he said.

Solis Minerals is a company that has recently raised A\$4.5 million (around US\$2.5 million), which will be enough to fully-fund the upcoming 7,500 m drilling campaign in two of its assets: Chanco al Palo (in April, targeting 2,500 m) and Ilo Este (in late April or early May, targeting 5,000 m). "Being in a strong cash position, we were delighted to have recently received the permit to commence drilling at the Chanco al Palo target, and we expect the approval for drilling the Ilo Este target imminently," added Mitch Thomas, CEO.

Bruce Smith, president and CEO at Radius Gold, also shared that exploration is becoming

harder: "Exploration always gets more difficult as the easy and outcropping deposits have been discovered, and now we are looking for more complex and hidden deposits. Getting to these complex deposits requires deeper drilling and more technology, which is more capital-intensive," he commented.

Radius Gold is a new player in Peru. In mid-2024, it came across the Tierra Roja copper project in southern Peru and announced an option agreement to acquire it by September. "Signing an option agreement on Tierra Roja was a great deal as it allows Radius to start drilling without too much expense, and our interests are aligned with our local partners in making a significant discovery," added Smith.

Precious metals

In a commodity market seeing volatile copper prices, gold has trended upwards to new all-time highs. Some juniors may be drawn towards precious metal exploration, where scales are smaller and timelines shorter. For Andrew Thomson, president and CEO of Palamina, an explorer focused on developing a portfolio of gold projects in the lesser-explored Puno Orogenic Gold Belt, the

time-scale of porphyry copper exploration is simply too long: "There are many exploration companies out there chasing porphyry copper deposits that take decades to get to production," he said.

At Palamina's Usicayos gold project, scout drill programs have returned high-grade intercepts – up to 24 g/t gold over 0.5 m, and 0.75 g/t over 56 m. Thomson, naturally, was bullish on gold exploration: "With gold prices at all-time highs, majors are beginning to fund juniors with large-footprint early-stage projects."

He also predicted that the silver market, which he sees as undersupplied in the face of coming demand from the global push for electrification, is likely to rise alongside gold.

James Tworek, CEO of Element79 Gold, explained how the company is moving its Lucero project in Arequipa towards small-scale gold production while continuing to explore its high-grade development opportunity. Describing Lucero's geological profile, Tworek shared: "Lucero is an exceptionally high-grade asset: past production rates of 150 t/d yielded between 20-40,000 oz/y AuEq – producing around 14 g/t gold, and 373 g/t silver."

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Having previously focused on projects in Nevada and Canada, Element79's move to Peru in 2022 came as the company sought to create a revenue-generating mining business. In a strong contemporary gold market, dry-stacked tailings on the Lucero site from historic production by former owner Buenaventura also offer a possible avenue for production. "There are approximately 50,000 oz of recoverable gold equivalent sitting in these tailings piles, which stands as a solid source of potential revenue over the coming 15-20 years," Tworek explained, with the company planning to build a facility on site to process the piles in the near-term, pending resource estimates and economic assessments.

Permitting

A particular point of pain for junior miners in Peru in recent years has been the country's permitting timelines. For junior explorers, navigating the 'red tape' of permitting can prove to be costly, with any delay stretching tight budgets ever thinner and potentially causing investor interest to wane.

Amongst its top-10 risks and opportunities for global miners in 2025, EY cited the lengthening of timelines caused by regulatory red tape as a key blockage in the pipeline of new projects. To illustrate, the Democratic Republic of Congo's (DRC) widely-reported reeling-in of Peru's long-held place as the world's number-two copper producer has been linked to Peru's more stringent and, ultimately, time-consuming permitting regime. The time for a project to advance from discovery to production in Peru at marginally below the global average of 23 years is around 50% longer than the DRC's 15 years. For junior miners, much of

“Cañariaco is a resource capable of producing 150,000 to 160,000 tons of copper per annum – there are not many that have that potential, and fewer still with the major backing we already have.”

Giulio Bonifacio,
Executive Chair and
CEO, Alta Copper



whose work at the early stage of a project's life-cycle is fundamentally shaped by permitting processes, that difference could be critical to a choice between entering one jurisdiction or another.

While acknowledging that Peru's permitting timelines have improved in recent times, Chris Buncic from Condor Resources said: "While thoroughness is greatly appreciated, when a 30-day timeline turns into months due to tangential follow-up questions, that is a problem."

Peru's government has been working in recent years to streamline permitting timelines via a range of methods. Lars Dahlenborg, president of Hannan Metals, told us that he has observed tangible improvements in permitting speeds. At Valiente, a vast 1,100 km2 holding across a newly uncovered Miocene porphyry belt in central-eastern Peru, Hannan recently attained a DIA in November 2024 after less than 12 months of processing, whereas its previous DIA for the San Martin project took nearly 15 months until its approval in January 2024. Dahlenborg said: "This improvement is huge, especially for a junior explorer, as it allows us to get to the site and start testing our ideas more quickly."

Dan Symons from C3 Metals has seen a marked improvement too. He said: "The pendulum has been swinging back the right way – I commend everything the Peruvian government has been doing to make that happen... The permitting process for Khaleesi, where we hope a DIA will be in place by H2 2025, is moving tremendously faster than for Jasperoide just a few years ago."

However, some things require patience. At Coppernico Metals' Sombrero copper-gold skarn-porphyry project, the project's social access agreement and drill permits took around nine years to realize, and involved extensive agricultural programs and job creation work. Ivan Bebek, CEO, said: "Building community relationships is something you cannot speed up, and it will pay dividends once we make our discovery."

Concerning the environmental permitting process Bebek nevertheless still recognized room for improvement: "Exploration does not involve heavy use of chemicals, but juniors have been treated as if they are fully operating mines."

As such, Bebek was grateful for Coppernico's robust finances, having raised C\$19.4 million in a financing round in 2024 – including C\$8.8 million in backing from Teck Resources – meaning the company can weather the time necessary for permitting. Coppernico is advancing Sombrero's maiden drill program, yielding high-grade results, including an intercept of 0.5% copper for 20 m. Bebek hopes to expand drilling at the project, growing to a larger area based on its highest-grade vectoring and permitting up to 200 drill pads by the end of 2025. ■

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mented, so we must push for more consistent and sustained progress. This edition of ProEXPLO will focus on proving that intentions can be turned into tangible actions with already-identified projects.

In addition to technical presentations, we are organizing field trips with routes designed for geologists to have a first-hand look at the projects under development. Additionally, attendees can look at maps and areas with high investment potential at the booths in the core shack.

What developments have you seen in women's participation in the mining industry?

In 2022, Women in Mining (WIM) and the UNDP conducted a study identifying education as the primary challenge to be overcome, as back then, few women were choosing degrees such as geology or mining engineering. Since then, many things have changed. Now, more and more young women are becoming interested in the industry. However, in order to enact change, this is something we need to address earlier—often at school level—by supporting girls to remain in education, as high school dropout rates among girls continues to pose a significant challenge in Peru. Therefore, I view this not as a settled issue, but as an ongoing process that is already yielding promising results. ■

What can the GBR audience expect from ProEXPLO 2025?

We are excited to welcome everyone from May 5th to 7th. ProEXPLO 2025 will feature more than 60 presentations, a dedicated space for investment exchange, a core shack, and will count on leading experts, students and professionals. We want the world to see Peru as it is: a polymetallic-rich mining jurisdiction with real opportunities to invest and do business.

What will be new in this proEXPLO to showcase exploration potential?

Although mining investment has recovered, the challenge is ensuring more projects move from paper to execution. Only 39% of today's projects in the pipeline have been imple-




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Engineering, Consultancies and Contractors

Schedule is packed

The buzz of activity in the mining industry during the final months of 2024 and the first quarter of 2025 has spread across the entire value chain, reaching well beyond producers. But what is keeping consulting and engineering houses so busy in Peru? It is certainly not a massive new mining project.

Open-pit projects such as Cerro Verde, Quellaveco and Antamina were capital-intensive and provided this segment with opportunities to grow due to the resources required. For example, Quellaveco's CapEx was US\$5.5 billion; Cerro Verde, when it decided to expand its concentrator facilities to triple production from 120,000 t/d to 360,000 td/d, allocated a CapEx of around US\$4.6 billion, along with

another additional US\$1 billion to build a new leach pad and SX/EW facilities. Antamina, for its part and more recently in 2023, announced a US\$2 billion CapEx for its expansion.

Leaving aside Antamina's expansion, most of the more mature projects coming online today are not of that size. For instance, if we look closer at the most recent greenfield gold project coming online, Buenaventura's San Gabriel underground mine in Moquegua, we will see it has an estimated CapEx of US\$650 million.

Another project in the same region and same size, though focused on copper and molybdenum, is Minera Hampton's Los Calatos. With production expected by 2029, it has an estimated CapEx of around US\$700 million. This comparison, however, is not meant to diminish the significance of San Gabriel or Los Calatos. On the contrary, it is to highlight that even medium-size projects are crucial for a country that has not seen new projects since 2022, and their impact on the economy is still relevant. As Buenaventura's CEO, Leandro García, put it: "San Gabriel is the only greenfield project scheduled to begin production in 2025. It is not a Quellaveco, but that does not make it any less important—every project, no matter how small, adds value, especially when its reserves ensure continuity for the next 15 years."

Additionally, these projects serve as an opportunity for consulting and engineering firms to be more creative. As Gonzalo Morante, Walsh Peru's general manager, explained: "Large projects are more complex, because they must integrate multiple operations. Small and medium-sized projects, on the other hand, have limited budgets and require creative solutions to meet regulations and maintain high standards within established margins. Such creativity allows projects to be successful and helps set new industry standards."

The main revenue drivers for consultancies and engineering firms are currently brownfield projects and mine life extensions. "New mining projects, specifically greenfield projects, are somewhat of an outstanding issue in Peru. This is why, at present, our main projects are focused on sustaining existing ones," commented Javier Mendoza, general manager for Anddes Peru and Ecuador.

Sustainability

The general sentiment among consultancy and engineering firms has been positive in Peru, partly due to the bullish outlook markets have on metals. High prices immediately benefit producers, motivating them to maximize output, especially in Peru after the approval of Ministerial Resolution No. 125-2024-MINEM/DM, which amended Article 3 of Supreme Decree No. 030-2016-EM, allowing mining

companies to ramp up production by 10% within existing capacity without requiring additional permits.

"When mineral prices rise, everyone rushes to take advantage of the peak in the cycle. The key is to act quickly and strategically to maximize profits before the market adjusts. This often means reevaluating processing rates and adjusting mining operations, which in turn drives demand for expansion and optimization studies—an area where we have seen significant growth," shared Christian Osorio, the general manager for Inti Mining Smart Solutions (IMSS).

Osorio added that the shift to a cleaner energy matrix is also driving demand for the company's service: "It is not just about extracting more, but about doing so more efficiently and sustainably, adapting to the new demands of the market and the environment."

María de Lourdes Bahía, VP of mining and metals and AtkinsRéalis, agreed: "Projects today are focused on reducing CO₂ emissions and engaging with and benefiting communities. There is no demand for projects that do not care about their environmental and social footprint."

"For example, we worked on a project where the pit was quite close to a group of houses. We suggested the client utilize acoustic barriers and dust suppressor equipment to minimize noise and powder emissions to the community," added Daniel González, business development manager at AtkinsRéalis.

"The industry has seen protests about environmental contamination for decades, even where standards and results have improved. Climate change is a factor too. Across the length of the Andes, glaciers are melting – if a mine is in their vicinity, the likelihood that it will be blamed for their disappearance is high," commented Dan Etheredge, vice president and principal for Latin America at Kohn Crippen Berger (KCB), emphasizing that maintaining a good reputation is a constant challenge and that one misstep can overshadow years of hard work.


Walsh's general manager, Gonzalo Morante, believes that fresh approaches can help. To this end, the company has been undergoing a digitization process and integrating new talent with its experienced team: "This combination allows us to maintain a balance between price and quality. The new generations bring a fresh perspective and, with training, are more



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“The idea of ‘nature positive’ is gaining traction, but very few companies are putting it into practice the right way. There is still a lot of work to be done.”

José Carlos de Pierola,
Country Manager
Peru and Ecuador,
ERM



focused on environmental issues. What was once considered normal is no longer acceptable, and this presents challenges, especially in older mines where operations from the 1970s cannot be expected to meet current standards,” he explained.

For Fernando Rodríguez, senior partner at Quarsus Consulting, investment in sustainability should be seen as a strategy to strengthen reputation and secure the industry's long-term future: “Minsur is the only Peruvian-owned mining company in the ICMM. Meeting these standards requires thorough assessments, investment and a shift in mindset.”

EPCM

WSP's regional director for mining, Gustavo Bravo, and Peru's general manager, Virgilio Gonzales, highlighted how ESG has evolved: “The ESG agenda has become a cornerstone for the mining industry and WSP. It is no longer an emerging issue but an essential requirement, as reflected in studies on climate change, environmental monitoring, governance of tailings dams, water stewardship, energy and social diligence studies.”

To continue adding value, WSP wants to diversify and venture into the EPCM sector without neglecting its core business: mining consulting. Its “Future Ready” program is at the heart of the company's sustainability and global growth strategy, intended to anticipate the future and identify new technologies. Gonzales continued: “Although the initial investment may depend on commodity prices, in the long term, these initiatives lead to a reduction in operational costs. Additionally, technologies like High-Density Sludge (HDS), help enhance safety, efficiency, and project operability, strengthening our commitment to a sustainable and profitable approach.”

“Our new tailings laboratory aims at developing technologies to store tailings with less water, optimizing their disposal and reducing environmental and safety risks.”

José Luis Lara,
General Manager,
Lara Consulting



Amphos 21, a Spanish consultancy and engineering firm with deep knowledge of the whole water cycle, is also betting on the EPCM model. Miguel Mendoza, operations manager, explained: “From a strategic point of view, by getting involved in a mining operation with operational services we can tap into new opportunities to offer consulting on large-scale projects, which allows us to boost our sales.”

Desalination for Peru

As has been a tradition at every PDAC that the Peruvian delegation attends, during Peru Day, the current Minister of Mines is one of the key speakers. This 2025, it was Minister Montero Cornejo's turn. After providing a general overview of the opportunities Peru has to offer from an energy-mining point of view, he moved on to topics that have long been featured in GBR's reports, such as dry tailings techniques, reuse of mining water, and the importance of easing tensions between the mining sector and society.

This year, Montero Cornejo invited the audience to explore the use of sea water, emphasizing that by desalinating water, the industry could take water off the negotiation table and preempt political slogans such as “water yes, gold no”, previously used by anti-mining groups.

According to ACADES (the Chilean Desalination Association), Chile's desalination capacity can provide 80% of the water required by the mining industry, a percentage that will increase to 85% in 2025. However, how feasible is this option for Peru?

Chile is narrow whereas Peru is wide, geographically rugged, and with operations above 3,000 m above sea level. “Water is a controversial topic in Peru, but there are already a few mining operations using desalinated water: Cerro Lindo, and Mina Justa. All of them are located close to the coast, which makes the process viable in terms of cost and efficiency. However, at 5,000 m above sea level, desalination is no longer a feasible option,” stated Miguel Mendoza, operations manager at Amphos 21.

When comparing Chile's reality with Peru's, José Carlos De Piérola, country manager for Peru and Ecuador at ERM (Environmental Resources Management), noted that in the former, infrastructure is shared, while in the latter, mining companies tend to reject this model because they cannot control certain risks: “In Chile, desalination is the only viable option, that is why they have been successful at adopting it. However, Peru has other options, such as diverting water from the rainforest, but Peru has a poor management, especially when it comes to investing and maintaining existing infrastructure. Many reservoirs are already silted up, posing a serious risk in areas with heavy rainfall.”



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"If we followed strictly GISTM's criteria about the capabilities an EoR must have, there would not be enough of them. Many firms have the expertise but not the means to cover all projects."

Roxana Ugaz,
Director,
Water, Waste & Land
(WWL)



For Marcelo Caddeo, general director at Thiessen del Perú (TDP), the broader adoption of desalination in Peru could potentially boost the company's business there, as representatives of McElroy, a manufacturer of HDPE pipe fusion equipment: "Mines operate as hydraulic systems reliant on fluid movement. There are multiple projects in both Chile and Peru where we have supplied HDPE piping and desalination opens a major opportunity for us," he said.

Indeed, water is a controversial issue, especially in a country where mining and agriculture take place in close proximity. Tía María is one such case. Located above the Tambo Valley in southern Peru, it has long sparked conflict, with the slogan "Agro sí, minería no" ("Agriculture yes, mining no") becoming a rallying cry. Authorities,

"If the upcoming elections do not negatively impact mining investment, we will see a wave of long-paused projects moving forward, driving demand for EIAs, baseline studies, and other key assessments."

Guillermo Barreda,
General Manager,
Knight Piésold Peru



such as former minister Rómulo Mucho, have attempted to ease tensions by assuring the society that both industries can coexist. In fact, once operational, Tía María will use desalinated water. While some consultancies are finding innovative ways to support desalination and cut water use, others are tackling challenges tied to tailings, with a different goal: "democratization".

That is the case with WWL (Water, Waste & Land). Roxana Ugaz, WWL's director, explained that the GISTM introduced rigorous standards that large mining companies can adopt thanks to their strong capital support, which not all mining companies have: "Through AI, we make the expertise of senior Engineering of Records - who may have over 40 years of experience - accessible without the need for constant on-site presence or disproportionate costs. This has opened up new opportunities and sub-services that allow us to stand out in the market," she added.

Big fish

"In 2024, we saw strategic moves with new acquisitions and alliances, highlighting how copper is essential for the energy transition and has become a strategic resource," commented Pamela Florian, country manager of Hatch.

High commodity prices are only rewarding when costs do not rise simultaneously. For Florian, Peru's copper industry is at a turning point where competition drives the need to boost productivity, improve efficiency, and reduce operational costs. "In a market where the 'big fish' are eating the smaller ones, every mining unit must become more efficient and competitive. Reducing delivery times and optimizing the supply chain directly impacts operational costs and enables companies to be more agile and better respond to market demands," she added.

Angie Sakata, Peru's recently appointed country manager at Stantec, pointed out that declining ore grades and other challenges make it difficult to maintain long-term sustainability goals: "We need a strategic approach that allows companies to capitalize on high prices without comprising the viability of their projects."

For Lara Consulting, which specializes in designing, constructing, operating and closing tailings facilities, 2024 was an outstanding year according to its general manager, José Luis Lara: "We outperformed the sector, achieving 30% growth."

The company is now planning to launch a laboratory in Peru that will analyze and replicate the conditions of mining operations to develop innovative technologies for storing tailings with reduced water usage and help with the costs of operations. "The idea is to create an experimental space that focuses on the real needs of

"Technologies like High-Density Sludge (HDS) help improve project safety, efficiency, and operability, all while reinforcing our commitment to sustainability and ongoing productivity gains."

Virgilio Gonzales,
General Manager
Peru,
WSP



operators, something that is often missing in more specialized labs. [...] We want this lab to serve as a hub for research and innovation, allowing us to develop our talent by attracting local and international projects and offering our clients safer and more cost-effective tailings facilities," Lara explained.

There is room for everyone

The Peruvian contractor segment is served by a mix of local and international companies, with new companies like Milicic and Construplan from Argentina and Mexico also entering the market.

For STRACON Group, Peru accounts for 40% of the company's activities. According to Steve Dixon, STRACON Group's CEO, Peru still offers plenty of room for growth: "We have a very robust backlog, of around two and a half times our annual sales, and so we are focused on performing for those clients [...] Of course, we keep adding new clients too. In 2024, STRACON designed and built a water treatment plant at Cerro Corona for Gold Fields, and we have been working on Cerro Verde's new input crushing system. These are new services with new clients and part of our growth and diversification."

Grupo JJC is another Peruvian contractor that specializes in EPC projects. According to Sebastián Martín, the company's general manager, it is experiencing an exciting time: "Large-scale mining projects are coming back, with key projects such as the extension of Antamina's mine life, the return of Tía María, the launch of Zafranal, and new investments



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WORK ON PROGRESS

“From a foreign investor’s perspective, Peru stands out as one of the most solid and stable options in South America, which is impressive given the challenges it faces.”

Javier Mendoza,
General Manager
Peru and Ecuador,
Anddes



in Quellaveco. They are moving forward thanks to ongoing bidding processes, which are creating a sense of optimism across the sector."

Construplan has been working with Nexa Resources at the Atacocha and El Porvenir mines, which has allowed it to generate US\$90 million in revenue. Rafael Ríos, Construplan's country manager, explained how Construplan adjusted its entry criteria to include more local talent and provided them with specialized technical training: "The challenge was not only technical but also strategic. We had to keep the corporate team calm amid an unprecedented situation when the project was halted by community blockades. This scenario demanded creativity, patience, and extraordinary effort. Without a doubt, it was an experience that left us with valuable lessons, a sense of satisfaction, and two years of work in Cerro de Pasco marked by a level of social peace that had not been seen in a long time."

According to Marian Milicic, general manager of Milicic, the Argentinian contractor focuses on medium-sized projects, often by partnering with Peruvian players: "We are already exploring some joint ventures with Peruvian companies, both larger and smaller than us, to complement our capabilities. We excel in earthworks and civil construction, while other companies focus on structural assembly. This allows our clients to have a full solution. We have always had a collaborative approach, which has been key to our growth in Argentina."

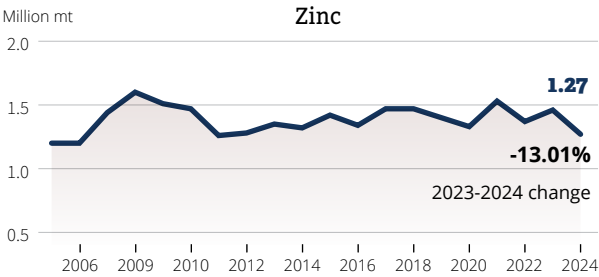
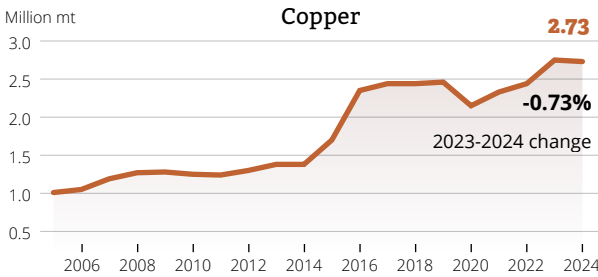
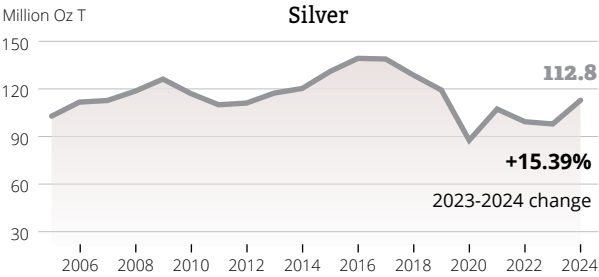
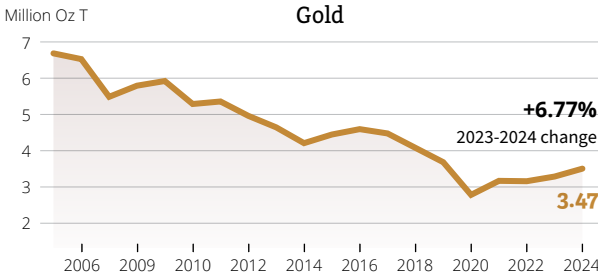
Alejandro Vásquez, commercial manager at Mur, noted that bidding processes have become more aggressive as the market becomes more dynamic: "We are taking advantage of all the opportunities emerging," commented Vásquez.

Underground contractors

As we get deeper into the value chain and it becomes more specialized, it is interesting to observe that while rising commodity prices increase the demand for studies from engineering and consultancy firms, the effect on more niche companies like underground contractors is less pronounced: "As a specialized company, we do not depend directly on commodity prices. For us, they are more of a reference point. Our focus has always been on delivering more value with the resources we have. Instead of solely focusing on price, we aim to do more with the same, or even less, ensuring that everything is done safely, with the highest quality possible," commented Guillermo San Miguel, AESA's CEO.

INCIMMET is another underground contractor whose CEO, Eduardo Cossio Chirinos, concurs: "Higher mineral prices have a positive impact, but it is marginal. A price increase can revive or boost the value of greenfield and brownfield projects, but that does not necessarily translate to better prices or margins for service providers [...] Selling

Peru, A Diversified Metal Producer



Source: Ministry of Energy and Mines, GBR

more does not necessarily mean higher profitability... Managing more or larger projects can mean hiring more people, which brings the labor shortage challenge. As a service provider, the real benefit comes from efficiency and maintaining a healthy project portfolio."

It seems that while high mineral prices are certainly beneficial, post-COVID inflation has driven up operational costs, especially salaries and equipment prices, which have led to adjustments in mining tariffs. "In Peru, the shotcrete market is small, with no more than 20 mines requiring it. That is why adaptability and efficiency are key to delivering sustainable solutions and expanding our services to other countries," explained Robocon's CEO, Enrique Sattler.

To remain flexible and competitive, Robocon manufactures its own shotcrete and narrow-vein equipment, custom-tailored to its clients' needs. "It allows us to optimize ground support in line with the production cycle and ensure safety and efficiency. We provide specialized compact equipment and concrete plants, but we also collaborate with leading suppliers to develop and improve conventional tools," Sattler concluded.

GEMIN Associates began as a consulting and engineering firm but identified a niche for growth as an underground contractor after working with Redpath on Newmont's Yanacocha Sulfuros project. According to Marco Zavala, the company's general manager, 2024 marked a turning point as GEMIN solidified its position in this segment through its work at Equinox Gold's Aurizona underground mine in Brazil. Throughout the year, the company focused on designing critical infrastructure, primarily ventilation and pumping systems. "This project strengthened our expertise in underground operations and built on our experience in Peru, where we have conducted inspections and designed vertical shaft extraction systems," Zavala explained.

Now, GEMIN wants to grow its geographical footprint in Central America, starting with Costa Rica. ■

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Companies are establishing new facilities across the country. Trucks and other vehicles are getting bigger, with higher capacities. Service providers regularly introduce all-new methodologies and options for their clients. Automations are becoming more intelligent, more integrated, and delivering more efficiency. Frequently identified impulses for this period of apparently rapid expansion included a buoyant commodity market, global trends including moves toward sustainability and intelligent technologies, and businesses' ambitions to expand further into new, often international markets.

Mining equipment

"In Peru, demand is growing especially for higher load capacity products, both in dump trucks and tractor-trailers [...] When prices rise, mines seek to produce more, which means they need more machinery and more productive equipment," commented Jorge Masías, general manager for Peru at Volvo.

Comparing pre-pandemic sales to those in 2024, Masías highlighted that the number of 16-ton trucks sold in Peru has grown by at least 40%, from 6,000 to over 8,500, indicating heightened demand for these high-capacity vehicles.

Julio Molina, CEO of Komatsu-Mitsui Maquinarias del Perú (KMMP), explained: "Rising copper prices are driving investment, but

"The simplest solutions tend to be the most effective, and excessively complex solutions often turn into new problems."

James Valenzuela,
CEO, Resemin



machinery purchasing decisions depend on factors such as permits and customers' ability to expand operations."

With projects such as Antamina and Cuajone set to expand, Molina expects increased investment to follow: "Many operators are investing in fleet renewal, especially in new trucks and equipment with more advanced technologies."

KMMP is also looking to further develop its offer for underground miners and grow its presence in Arequipa.

Giorgio Mosoni, co-general manager at IPESA (local dealer for Wirtgen and John Deere), is planning to introduce DAF dump trucks,

which can provide a more integrated service for those clients who already rely on John Deere equipment, such as loaders, because contractors are under pressure to do more with less and every minute matters: "It is not just about selling equipment; the number one priority is keeping it running at 100%. We offer service contracts, continuous monitoring, and cutting-edge technology to ensure our clients experience minimal downtime," he explained.

Nikolas Gremler, general manager at Divemotor, which distributes trucks, buses, and other vehicles from brands including Mercedes-Benz, Freightliner and Jeep, observed increasing momentum for low-emission and electromobility in Peru's mining transport market: "As mines adopt international regulations that demand more sustainable technologies. At Divemotor we continue to drive solutions that help our customers meet these standards, optimizing their operations without compromising performance."

Ricardo Begazo, ABB's local division manager, shed some light on transportation's CO2 emissions footprint and the importance of embracing e-mobility: "In large-scale mining operations, up to 70% of emissions come from heavy haul trucks. Electrifying these fleets could cut these emissions while also boosting productivity as much as 25%."

Zamine Perú is the local representative of Hitachi and, more recently, expanded its offerings suite to represent the Chinese-based Tonly. During the last year, Zamine partnered with San Martín Contratistas Generales to supply the contractor with a fleet of 62 Tonly TLH135 hybrid trucks to be deployed at Shougang Hierro's Marcona iron mine. "These hybrid trucks will save around 15% to 20% of fuel. I am more than confident that this will catch the attention of other

"The uptick in mineral prices has fueled Peru's mining sector, a fast-paced market where every minute counts for contractors and operators. It is not enough to sell a machine; keeping it 100% operational is what truly matters."

Giorgio Mosoni,
Co-General Manager,
IPESA



contractors who would consider this solution an option for their operations as it serves as an intermediate step to electromobility," explained Yuji Tanaka, Zamine's general manager.

A primary concern when adopting expensive new and clean technologies is always return on investment. For Víctor Cano, general manager at the contractor San Martín, it all boils down to the length of the contract itself: "Depending on the solution, timelines vary from five to 15 years. The problem is that many contracts are short-term, which makes it hard to recover the investment. In those cases, the contractor assumes a bigger risk, which usually translates into higher rates. Clients must adopt a long-term planning mindset to ensure these solutions are both viable and mutually beneficial," Cano said.

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Reducing fuel consumption by 20% is every miner's dream, especially when fuel accounts for 30% to 40% of a mine's operational costs. Luciano Macías, general manager for Peru and Ecuador at Terpel, explained that keeping fuel clean can save between 4% to 5%. Since 2018, Terpel has invested US\$13 million in its plant to boost capacity and modernize its packaging system to cut downtime. Now, Terpel is moving further by using data analytics to assess used oil and predict equipment health. Macías said: "Analyzing oil is like running a blood test because it shows the current health of the machine. By taking samples every 500 to 1,000 hours, operators can track changes over time and anticipate catastrophic failures while extending the life span. No other company in the market currently offers this kind of predictive capability."

Underground equipment

A market that has been stagnant for a while seems now to be expanding, at least for the technology and equipment sector. For instance, Buenaventura awarded a US\$31.8 million contract to Sandvik for three of its mines (Uchucchacua, Yumpaq, and El Brocal), an order that included 36 machines, featuring various models such as the Toro low-profile loader and the DD322i and DD312i jumbos.

Armando Sugobono, general manager of Sandvik Peru, was bullish on the potential for automation to spark major evolution in Peru's underground mining sector: "In surface mining, Peruvian companies are already aligned with global trends," he said, "but the real opportunity lies in underground mining. Many companies, such as Buenaventura, are already investing in automation, which

"In a niche market like raise drilling, work is limited. That is why we have sought new sources of revenue, product innovations and new markets beyond Latin America."

Carlos Dellepiane,
Sales and Marketing
Director,
Tumi Corp



means that we will see this technology become widespread in the next few years."

Having observed two key trends in mining equipment – autonomous technology and lowering pollution – Sandvik's product releases aim to match market demand. Heightened commodity prices, he added, have been a key factor in their adoption: "The rise in copper and gold prices has led many mines to renew their equipment, with underground mines in particular betting heavily on automation to reduce risks for operators," commented Sugobono.

Buenaventura also awarded a contract to Epiroc to supply underground drilling rigs, rock bolting equipment, and loaders for its San Gabriel project. Epiroc has grown through more than 20 acquisitions, targeting companies specialized in electrification, fleet control, data transmission, to build a complete ecosystem without requiring clients to rely exclusively on a single brand or OEM: "The idea is to give our clients the freedom to choose what fits them the most and provide them the autonomy they are looking for. True transformation happens when each company has the freedom to adopt the most advanced solutions on the market, and our role is to enable that leap into the future by providing the tools they need to make those decisions on their own terms," said Alfredo Bertrand, general manager for Epiroc's Andean Region.

James Valenzuela, general manager of Resemin, takes a broadly more conservative approach to automation, and argued that often less can be more: "The simplest solutions tend to be the most effective, and excessively complex solutions often turn into new problems."

Entirely automated equipment often fails to meet expectations. "Fully automated equipment generally requires constant support, such as specialized engineers, which increases operational costs," he asserted.

This is not to imply, however, that Resemin's product offering contains no automation – indeed, its 'one-hole automation' system available for its drilling rigs is contributing to the company's international growth, with it recognized as a stand-out provider in a range of African markets.

A bigger cake

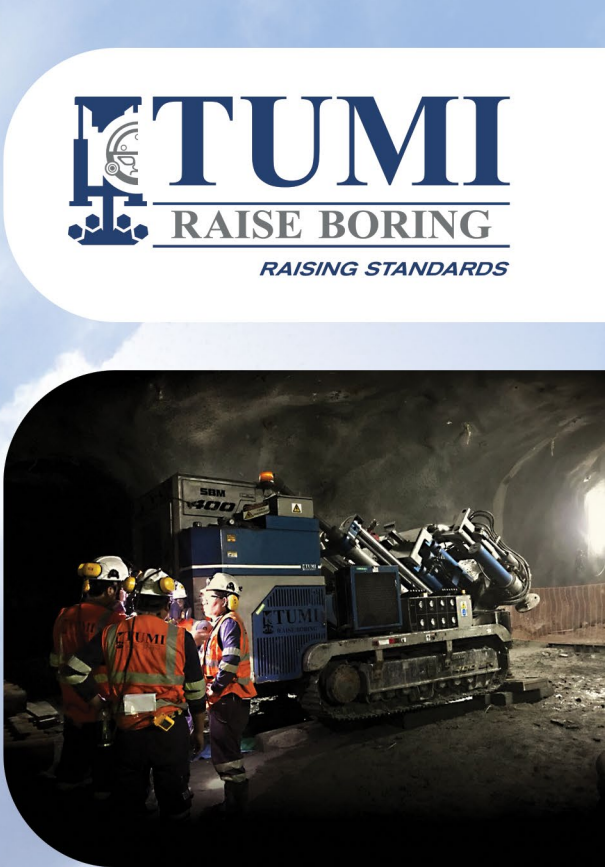
Automotive OEMs also serve the mining industry, though their vehicles are mainly used for transporting workers within the mine or from nearby cities using pickups. Jaime Obreros, president and CEO of Nissan Peru, estimated that around 35% to 40% of the company's pickup sales go to the mining industry. According to Obreros, mature and consolidated industries like mining cannot afford to remain stagnant: "Companies are focusing on their core business and outsourcing fleet management to specialists. While many keep

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their own fleets, outsourcing is becoming increasingly common, as it offers access to better solutions and direct support from experts," he said.

Also providing outsourcing service, we find SK Rental, part of Chile's Sigdo Koppers Group. Whether through traditional short-term renting, long-term renting, or the sale of semi-new and used equipment, Edmund Egg, general manager, believes there is still plenty of room for growth in Peru—especially when compared to Chile, where the market is more mature and receptive to this business model: "We are now focused on increasing our share of the Peruvian market. We want a bigger piece of the pie, but we also believe the pie itself can grow," said Egg.

SK Rental has also worked with Buenaventura at San Gabriel. To increase its share of the market - particularly in the underground segment - it has been actively participating in bids to deploy its jumbos, scoops, dumpers and drilling rigs: "There will always be critical assets that large contractors prefer to buy, especially for earthworks or leach pad expansion. However, in production contracts, having the knowledge to operate an asset safely and efficiently is more important than the asset itself. We are a compelling option because we can take care of the equipment, and our clients can focus on their core business," Egg continued.

The jewel of the south

Located near several of Peru's largest mining projects, among them Cerro Verde, Cuajone, Toquepala and Quellaveco, Arequipa is a hub of mining activity, hosting the all-important biannual PERUMIN conference

"Fuel accounts for 30% to 40% of a mine's total costs, so keeping it clean can generate savings of 4% to 5%—a significant figure for any operation."



Luciano Macías,
General Manager,
Terpel Peru

and serving as a primary or secondary base for a wide range of mining sector companies. The advantages of an equipment provider's presence in the city are obvious: proximity to the aforementioned range of major mining projects, as well as other mid-tier and junior operations; access to excellent, mining-tailored infrastructure, including Puerto Matarani, which is set to receive investments totaling US\$600 million by 2029 for upgrades; and, as an increasing number of businesses establish themselves there, a close-knit enterprise network in one of Peru's most important industrial cities.

Bosch Rexroth, offering a suite of mining processing products including valves, hydraulics and conveyors, opened a new headquarters in Arequipa in November 2024. According to the company's general manager for Peru, Kai Rothgiesser: "This was an important step that reflects our confidence in the Peruvian market."

Bosch Rexroth's Arequipa branch will work on the assembly of its HydraForce valve system and will be equipped with a workshop for servomotors used in automated equipment, among other products and services. Predicting that other businesses will likely elect to make a similar move, Rothgiesser continued: "Lima remains key for decision-making and clients, but I see the beginning of a movement to Arequipa that promises to intensify, marking an interesting evolution in the sector."

Another of the businesses within that evolution is Metso, manufacturers of a wide range of processing equipment and machinery. Although the company already has a well-established base in Arequipa – where around 25-30% of its staff are based – it is expanding its presence to a new plant. With a planned investment of around US\$15 million and a footprint of over 20,000m2, the facility, said Joe Pezo, Metso's vice president of services for Peru and the Andean countries, offers benefits both in the short and long term: "Our new plant not only helps us be closer to clients, but it also reflects our commitment to developing local talent."

Metso aims to help clients achieve both efficiency and sustainability through its products. Fernando Samanez, vice president of equipment for minerals in South America, pointed to the possibility to retrofit older processing equipment with modern attachments, potentially providing significant productivity boosts at older mines as the industry works to meet rising commodity demand, and highlighted how the company's Arequipa service center will contribute to that task: "We will have a space dedicated to the repair and manufacturing of hoppers for any OEM, which has attracted much attention from our clients, and represents a US\$80 million market."

Weir, has also expanded to Arequipa with a new facility that contains a remote monitoring control room to help the clients with predictive and preventive maintenance services: "Through our



Enrique Sattler,
CEO,
Robocon

cloud-based intelligent system, NEXT, our team can analyze the data and provide recommendation to optimize energy and water consumption, and the overall efficiency of our equipment at our clients' site," explained Juan Daniel Rojas, managing director at Weir Peru.



Roxana Burgos,
General Manager,
Movitecnica

Conveyor belts and material handling

Daniel Bacigalupo, managing director for Spanish-speaking Latin America at Weir ESCO, noted another trend spurred by rising commodity prices as miners seek to produce more in response to a strong market: "This implies operating more hours, working at greater depths, and reallocating equipment to move more ore, which naturally increases the consumption of wear parts," he said.

Weir ESCO, which in 2024 launched Nexsys, a rope-shovel lip system promising a 30% reduction in repair time and improved worker safety, is also betting big on automation and intelligent solutions. Nexsys integrates with the ShovelMetrics system offered by its sister company, Weir Motion Metrics, which monitors wear-and-tear in real-time, alerting operators to lost or broken Nexsys teeth – of increased importance given the increased wear speed Bacigalupo mentioned.

Describing Weir Motion Metrics' wider offer, with five modular, automatic monitoring solutions usable individually or in a centralized 'ecosystem,' Bacigalupo explained that efficiency gains are possible virtually throughout the mine production cycle: "Motion Metrics' systems allow tools to work together, optimizing every stage of the mining process, from the shovels to the crusher feed."

Eduardo Espinosa, managing director for the Andean Region at Martin Engineering, observed that investments are increasingly directed toward technologies that maximize tonnage per hour and ensure operational continuity: "With integrated solutions like air cannons and dust suppression systems, we can reduce a plant shutdown frequency. Where operations once stopped every 30 days, we are now extending that window to 90 or even 120 days," he explained.

Roxana Burgos, general manager at Movitécnica, pointed out that shutdowns are no longer a technical hurdle but a skilled labor one: "Planned shutdowns are standard in mining, but the real challenge is that many operations schedule them around the same time, creating a shortage of qualified personnel, as the demand spikes across multiple sites," she explained.

To address this, Movitécnica is exploring partnerships with technical institutes and even the Armed Forces to train technicians and ensure a steady pipeline of workers.



Daniel Bacigalupo,
Managing Director
Latam, Weir ESCO

Technology

Vixora is a company from Ferreycorp, recently acquired a 20% stake in Torsa, a Spanish start-up focused on anti-collision systems that has been long working in Peru and Chile. It is promoting an 'Open Lab' platform where start-ups from around the world propose solutions to three specific gaps that Vixora has identified in the Peruvian and Chilean mining market: increasing production by focusing on the ore grade without boosting throughput, detecting and removing uncrushable elements, and optimizing fuel consumption: "We estimate that these three gaps represent a TAM (total addressable market) of US\$1.75 billion between 2025 and 2030. There are many opportunities and potential for us here," added Carlos Calderon, managing director at Vixora.



César Castillo,
Professional Business
Director, Qroma



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Against the odds, many Peruvian-based companies have identified gaps left by big players. For Fernando Sagastegui, CEO and founder of Astay Systems, big companies' business models are built on maximizing profitability and grow by acquiring scalable and standardized products. That is precisely where they can help, by developing custom solutions without the delays of corporate bureaucracy: "Although these niches may seem small, they have allowed us to grow sustainably and finance the development of products like our digital twin, in which we have invested over US\$1 million," he said.

Today, all mines use some sort of automation, the difference lies in the level of integration and the speed of implementation. "Each operation has a different level of automation, and not all have the necessary infrastructure that enables data extraction. In brownfield projects, integrating these infrastructures can take months or even years, depending on the level of existing digitization. Once the mine has overcome this phase, the next challenge is to train the staff to leverage automation. Professionals with an agile mindset are required, capable of managing technological projects within the mining operation and ensuring that automation translates into efficiency and safety," explained Santiago Thomassey, CEO for Peru and Ecuador at Siemens, when discussing how mining is embracing AI.

Thomassey remarked that greenfield projects are already exploring new communications protocols, such as MQTT and Python, for data analytics. However, he highlighted that this would necessitate a stronger focus on cybersecurity: "Progress comes with cybersecurity challenges, so the industry is adopting defense-in-depth strategies and

"Current stability has encouraged investments in new technologies, making innovation and productivity growth essential for the industry's development."

Kai Rothgiesser,
General Manager Peru,
Bosch Rexroth



working on the architecture of its systems to minimize vulnerabilities and prevent operational disruptions," concluded Thomassey.

Mining and Metals ISAC is a not-for-profit industry-owned information sharing and analysis center that provides an annual report on the cyberspace of the mining industry. Based on its data, around 40% of new projects related to innovation are canceled or delayed, or their scope is reduced because of security concerns in cyberspace; additionally, cyberattacks have increased to number 30 reported in 2024 compared to 10 in 2023. "Cyber risk is a real threat, yet we have found that many large corporate clients and mining companies do not buy cybersecurity policies. It remains a sensitive topic, especially in mining, where many companies prefer not to discuss their vulnerabilities," shared Andrés Guiulfo, CEO at Lockton Perú, when referring to the risks miners face that are often left uninsured. ■

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The next 12% of GDP?

Antonio Castillo, managing director of Peru's National Industrial Society (SNI), affirmed in February 2025 that within five years mining suppliers will grow to account for as much as 12% of Peru's national GDP, based on expected investments in the mining industry of around US\$52 billion. In early 2025, this sector's contribution was estimated to account for just 3.5-3.8% of GDP. What opportunities are service providers in the industry seeing to grow this much?

Geophysics and LiDAR

For service providers in Peru's mining industry, including laboratories and geophysical surveyors, getting bigger often means virtually the opposite – diving down into the smallest, most technical details. As Arce Geofísicos celebrates its 65th anniversary of operations in high-technology geophysical exploration services, head geophysicist José Arce told GBR how the company has continued to bring new, ever-more precise techniques to Peru and other markets across South America: "We work closely with geophysics equipment manufacturers for constant improvements. For geophysical quality control and processing, we have developed many proprietary tools that allow us to have better precision and quality in the final results."

That has included innovations in the application of gravimetry studies – previously challenging due to Peru's rugged topography – with advanced mathematical correction solutions, and the recently increasing use of magnetotelluric (MT) methodologies. Arce Geofísicos has focused primarily on major producers, including Minsur, Marcobre and Buenaventura, though Arce said that its client base also includes juniors aiming for the highest operating standards.

Led by Gloria Fernández, Real Eagle Explorations is another Peruvian geophysics contractor and she expressed concern about how the industry has yet to recover from juniors' decline in exploration investment: "The drop in exploration by juniors started way before the pandemic, with sharp declines in 2008 and 2015. Activity is slowing picking up, but the sector has not yet bounced back," she argued.

Fernández shared Arce's comment on the growing need for gravimetry studies and MT technologies: "In the past, we were exploring at depths under 600 m. Now, we must go much deeper. We have recently acquired a magnetotelluric system capable of reaching depths beyond 70 km, though, for mining purposes, we will design studies focusing on depths under 5 km," continued Fernández.

Mónica Abarca, CEO at qAIRa, a company specializing in drones and LiDAR, explained that while LiDAR can detect subtle terrain

variations, other technologies, like hyperspectral cameras, are more advanced for exploration purposes. However, she emphasized that producers are the ones that could benefit the most from using LiDAR-equipped drones in underground mining: They can generate a "virtual protection shield" to avoid walls, the roof, and cables, avoiding collisions and helping to create 3D models of the mine. "Many clients have had bad experiences with drones, and some have crashed just after being deployed, raising doubts on the value of an investment of such a size, especially when the equipment is expensive. That is why training is critical in helping companies understand how to operate a drone properly," she concluded.

Drilling and raise boring

Mining is about making holes. Whether major or junior, surface or underground, for exploration or construction, production or infrastructure, mining operations revolve around excavation. Two important methods contributing to this endeavor are drilling and raise boring.

Jorge Granda, CEO of AK Drilling International, lamented that junior companies are no longer driving the mining boom in the current cycle. He explained that investors now prefer to allocate their capital to faster-return investments, and that this will jeopardize the pipeline of new projects. "We have always remained committed to the junior market – even during crisis – because of their role in our beginnings. Working with majors gives us continuity, talent and high safety standards, but juniors are the ones that give us agility and visibility to the business," he asserted.

"We work closely with geophysics equipment manufacturers for constant improvements. For geophysical quality control and processing, we have developed many proprietary tools that allow us to have better precision and quality in the final results."

José Arce,
Head Geophysicist,
Arce Geofísicos



"We are innovating by incorporating oil and gas technology to drill directional water wells from the top of the pit, avoiding interference with mining operations."

Miguel Ángel Arenas,
General Manager,
Geotec



At PDAC, Minister Jorge Montero announced that the 2025 mining exploration project portfolio has grown to 84 projects across 17 regions, totaling approximately US\$1.04 billion—a 61% increase compared to the 2024 portfolio. The challenge is turning that into exploration work that drives growth for companies like AKD.

Geotec is another Peruvian drilling contractor, which has been adding new equipment and services, including an in-situ injection leaching system used on leach pads, in which a hole is drilled, via reverse-circulation, directly to a deposit in the pad, and a solution is pumped in to pull the material up through the hole extracting leached ore that was previously inaccessible. "Our client managed to increase its production by 50% to 55%, which shows the great potential of this technology to optimize resources and revitalize operations," said general manager Miguel Ángel Arenas.

Separately, Geotec has also been incorporating technology from the oil and gas industry, developing a new method to drill directional water wells for dewatering of open-pit mine operations. Conventional dewatering methods require equipment to be placed within the pit itself, which can interfere with mining operations. In this innovation, Geotec locates the equipment outside of the pit, drilling into it from above, cutting out those inefficiencies. Arenas assured: "This unprecedented project could revolutionize the way drainage is managed in mining."

Another company incorporating new methods and technologies into its products and services, this time primarily

"We know we are not alone in the market; competition is fierce, and while pricing is important, we are not looking to enter into a price war."

Edmund Egg,
General Manager,
SK Rental Peru



based in the boring sector, is TUMI Raise Boring. For Marc Blattner, CEO of parent company TUMI Group, this continual development is something of an existential question for the company: "We never want to stagnate. In a niche market like raise drilling, work is limited. That is why we have sought new sources of revenue, product innovations, new markets beyond Latin America, such as Zambia and India, and our new corporate branch in Houston," he pointed out.

As such, Blatter and his colleague Carlos Dellepiane, general manager at TUMI Raise Boring, have been moving the company's focus increasingly towards production drilling and mine development, applying their expertise on raise boring techniques and technologies to wider mining operations. One example is a boxholing machine undergoing testing in Brazil, which allows for the creation of a 'burn hole' – a cavity for blasted rock to fall into – making production processes more effective. For the company, they say, "The introduction of this new product into the mining production area is synonymous with efficient and safe operations. Ultimately, our contribution to the process lies in sustainable and highly profitable management for our clients." More broadly, the company has focused closely on safety and automation and is seeking to expand its operations to new markets. In 2024, TUMI opened a new headquarters in Houston, Texas, from which it distributes its machines to wider North America and beyond.

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Chemicals, blasting and coatings

Chemical and blasting companies are the most vulnerable to the consequences of logistics bottlenecks, as their products, like flocculants or ammonium nitrate for blasting companies, are either sourced from Asia or Europe. "We have manufacturing facilities in both Asia and Europe, which allows us to stock the same quality and quantity of product and maintain a balanced supply," explained Rogério Issa Pedro, country manager for Peru at Solenis, a US-based specialty chemicals provider for water-intensive industries like mining. "For example, when shipping rates from China rose to as much as US\$15,000 per container, we could shift supply from Europe, and vice versa when those rates dropped," he added.

The chemical industry has also been surfing a wave of M&A in the last few months. For example, Solenis acquired BASF's mining flocculants business unit: "Even though we were already a 'major' player in flocculants and coagulants, BASF brought deep mining application expertise, specialists, and key product lines like Rheomax and Magnafloc, reinforcing the importance of the human factor in this business. It was the perfect marriage, and thanks to these acquisitions, we now serve large-scale mining operations in Peru," remarked Issa.

In the blasting segment, Ricardo Porto, vice president for Latin America at Dyno Nobel, explained that since 100% of ammonium nitrate in Peru is imported and that the Russia-Ukraine war disrupted its logistics chain, all blasting providers are now competing under the same conditions: "So, when we think about

how to differentiate ourselves, cost is always the starting point, but we need to look beyond and focus on technology and service," he continued.

Dyno Nobel plans to have modular plants in Arequipa by the end of 2025, allowing the company to scale up easily, move operations onto its client's sites, and continue production while simultaneously replacing the plant with another one. "As service providers, we have limited ability to deliver results that are immediately visible in operations. For instance, proposing a 10% cost reduction on a US\$30 million budget might not catch the CEO's attention. However, if we propose a 10% increase in processing capacity, we are talking about tens of millions of dollars - that definitely makes it onto the CEO's agenda. The same goes if we show that a mine could operate with three trucks instead of eight or that a blast will not release nitrous gases. Cost alone is on the agenda but becomes a priority when you couple it with performance, productivity, and social management," said Porto.

Qroma, a paints, coatings, and chemicals company from the Beca Group, shares a similar philosophy or mindset that serves the mining industry through its JET line. According to César Castillo González, professional business director at Qroma, the company realized it could support large-scale mining by shifting from being a simple service provider to becoming a "strategic partner": "Today, we are the only company in the sector that structurally integrates social projects into its operations, aligning ourselves with a modern approach to mining that aims to create shared value with local communities," Castillo explained.

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"I suggest mining companies consider the opportunities that air transportation offers, as it can improve productivity and reduce worker turnover, especially at remote sites."

Carlos Dammert,
President, Servicios
Aéreos de los Andes



The same logic applies to coatings as to lubricants. "The coating system represents less than 1% of the total cost of an asset, yet it protects 100% of it and the people who operate it. [...] Investing in surface protection is not an expense; it is a way to ensure the continuity, integrity, and safety of the entire mining operation," said Castillo.

Laboratories

At Bureau Veritas Perú, economic opportunities presented by rising mineral demand are opening up avenues for new services, techniques and innovations. 2024 brought about a new strategic partnership on an historic project: the reprocessing of tailings at Cerro de Pasco's Quiulacocha mine, encompassing new drilling, transport and testing techniques – including the need to freeze drill cores, due to challenges in their handling. "This has required innovation at all levels," said Steffano Raffo, general manager for Bureau Veritas' metals and mining division. It will enable the extraction of highly in-demand critical minerals: "The tailings contain essential elements for modern industries such as electronics, semiconductors, catalysts and electric vehicles," he explained.

Erika Gabriel, general manager of BIZALAB, another laboratory focused on mineral analysis, revealed how the company's focus on innovation is helping it adapt to newly emerging market challenges: "We have incorporated innovative techniques, such as automated mineralogy, which have allowed us to overcome complex challenges in the mining sector, such as the treatment of minerals with particular characteristics [...] Lithium and other critical minerals are usually in low concentrations, which requires specialized equipment for their processing. We know that we have to adapt to these needs, using new techniques and equipment."

According to Jonathan Campbell, deputy general manager at Certimin, laboratories used to invest in new technologies to stay ahead and avoid the commoditization of their services, but things have changed, and now, price seems to be the decisive factor: "In the past, contracts were awarded primarily based on technical criteria, capabilities, and experience, but now price dominates. Some lab analyses that were once specialized services are now treated as basic commodities," he stated.

For José Tord, country manager at Cotecna, price is just one of three factors in the equation that mining companies consider when choosing a lab. The other two are trust in the reproducibility of results (how consistently an assay delivers the same outcome across different labs) and speed: "While quality and pricing are regulated by the market, turnaround time is something we control and have turned into our main competitive advantage," noted Tord.

Logistics and transportation

Acoinsa is a company that transports heavy cargo for the mining industry and mining providers, but 2024 was a year of consolidations where it has been growing in transportation of hazardous material and over-dimensioned cargo such as eolic turbines: "On the OpEx side, things have been going smoothly; we actually are short on trucks to meet demand, which is pointing out that we will grow. On the CapEx side, we see a bright future shaped by some projects that are already underway and others about to start, giving us hope that our segment will pick up again," opined Aurelio Palacios, general manager at the company.

In Peru, ground transportation is still producers' preferred commuting method for their miners. Peru's helicopter market has shrunk dramatically, going from 34,000 annual flight hours a decade ago to just 6,000 today. Currently, only Servicios Aéreos de los Andes and Helisur are operating under long-term contracts. "Our mining contracts are typically long-term, and the only one of this kind in the country for personnel transport is the one we have with Las Bambas," said Carlos Dammert, president of Servicios Aéreos de los Andes.

Dammert believes that the industry's reluctance to break the status quo is holding back improvements in the miners' quality of life and work productivity. He shared that, at Las Bambas, the shift rotation is 20x10, and the workforce is based mainly in cities like Lima, Arequipa or Cusco; while a helicopter flight from the mine to Cusco only takes 25 minutes, transportation by bus/car can take up to 9 hours: "I suggest mining companies consider the opportunities that air transportation offers, as it can improve productivity and reduce worker turnover—especially at remote sites," he stressed. ■



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If you wish to be interviewed for the report, please contact Braulio Tresguerres Grima (btresguerres@gbreports.com)

Senior Project Director: Braulio Tresguerres Grima
Project Coordinators: Serena Sablone and Maya Kellie-Smith
Executive Editor: Mungo Smith
Graphic Design: Özgür Ergüney
Operations Director: Miguel Pérez-Solero
General Manager: Alfonso Tejerina

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