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FORGE

MINING • MINERALS • METALLURGY • IRON & STEEL • SUPPLY CHAIN MAGAZINE



FROM OIL TO ORE

SAUDI ARABIA'S METALS AMBITION

EUROPE'S NEW STEEL WALLS

COPPER: THE SUPPLY GAP

INSIDE THE DRI PLANT

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MINING • MINERALS • METALLURGY • IRON & STEEL • SUPPLY CHAIN

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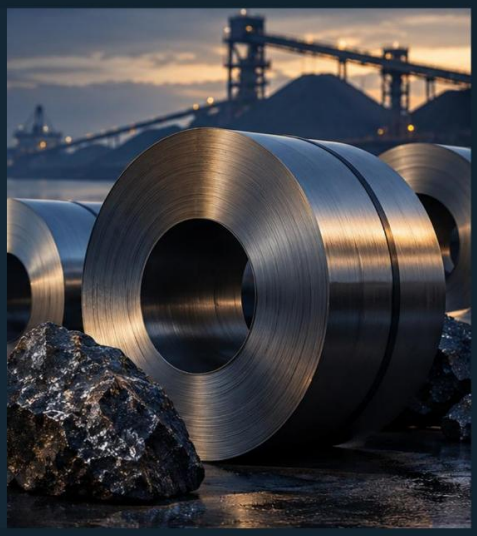
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THE FORGE PERSPECTIVE

FIVE PILLARS, ONE CHAIN

GSR FORGE follows 5 connected pillars: Mining, Minerals, Metallurgy, Iron & Steel and Supply Chain. Together, they trace the journey from geological resources to materials used by industry.

Each stage creates demand for equipment, process knowledge, reliable components and technical services. Performance depends on how well these stages work together.

OUR FOCUS: The industrial decisions behind investment, production and delivery — and what they mean for buyers, operators and suppliers.

SOURCE: GSR Analytix, FORGE editorial framework.

FROM MATERIAL TO INDUSTRY

A mineral deposit becomes an industrial opportunity through exploration, project development, processing and access to markets. Metal production adds further demands for energy, quality and logistics.

FORGE connects these stages with the work of equipment makers, foundries, fabricators, automation specialists and service providers.

Our editorial approach separates resource potential from proven reserves, planned capacity from output, and technology claims from demonstrated operating performance.

SOURCE: GSR Analytix, FORGE editorial principles.





EDITOR'S NOTE

FROM POTENTIAL TO PRODUCTION

Saudi Arabia's metals ambition asks a practical question: how does geological potential become industrial capability? The Kingdom's estimated $2.5 trillion mineral endowment is a starting point, not a measure of proven reserves or immediate production. This issue follows the chain from exploration and mineral processing to steelmaking, manufacturing and logistics. Ma'aden, Hadeed and new industrial partnerships illustrate different stages of that journey. For suppliers, the opportunity lies in understanding what each stage requires: reliable equipment, process knowledge, qualified components and the ability to keep operations running.

Our cover theme, FROM OIL TO ORE, examines diversification through the work needed to deliver it. We explore Saudi buying needs, the Gulf's evolving ironmaking landscape and automotive localisation. Beyond the country focus, we examine copper supply, European steel trade and the realities inside a DRI plant. Across all five FORGE pillars, our editorial test remains the same: distinguish resources from reserves, announced capacity from actual output, and technological readiness from operating performance. The aim is to help industrial readers identify credible opportunities and ask better questions before committing capital.

SOURCE: Ma'aden, Exploration; GSR Analytix editorial perspective.

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(compared to wire screens)

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with KÜPER MAX systems

+50 %
HIGHER THROUGHPUT
with CLEAN rubber
(for critical, sticky materials)

–50 %
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THIS ISSUE AT A GLANCE

FROM OIL TO ORE

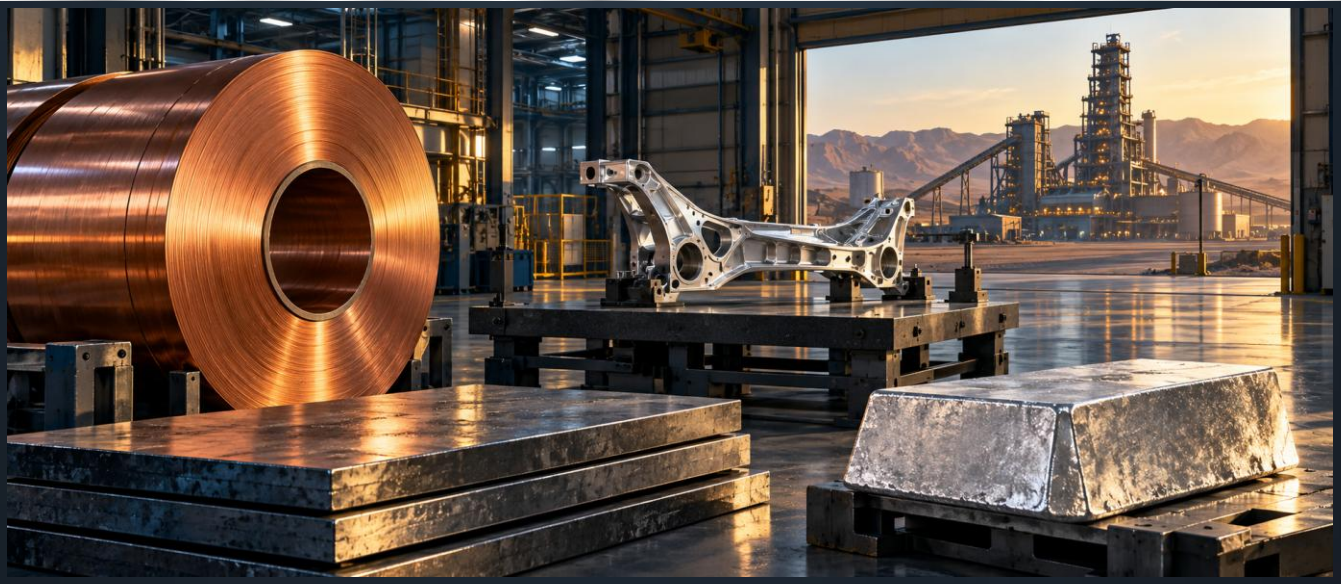
Saudi Arabia takes centre stage in FORGE 26/02. Our country focus follows the industrial chain from mineral exploration to processing, steelmaking and export logistics. We examine Ma'aden's role, the steel investment landscape and the equipment and services that suppliers can bring to operating plants and emerging projects.

The central question is how resource potential becomes productive capacity. Alongside the company profiles, we explore import needs, procurement priorities and market-entry considerations. A Gulf snapshot adds perspective from the UAE and Oman, where ironmaking investment and decarbonisation projects offer useful points of comparison.

Beyond Saudi Arabia, this issue examines Europe's steel trade barriers, critical minerals and copper supply. Our technical section moves inside the DRI plant before covering refractories, ladle metallurgy, crushing, conveying, pipe production and surface protection. Maintenance, laboratory testing and mine safety connect process technology with everyday operating needs.

Three Other Industries pages explore automotive supply chains, castings, forgings and Saudi localisation. Together, these sections connect FORGE's five pillars: MINING, MINERALS, METALLURGY, IRON & STEEL and SUPPLY CHAIN, with practical questions for industrial buyers and suppliers.

SOURCE: GSR Analytix — FORGE 26/02 editorial programme.



GLOBAL BRIEFING I

STEEL DEMAND: FLAT IN 2026

worldsteel forecasts demand of 1,722 Mt in 2026, followed by 1.7% growth in 2027.

SOURCE: worldsteel, 12 Oct 2026.

RIO TINTO: COPPER GROWTH

Oyu Tolgoi's Q3 copper output rose 27% year-on-year. Rio Tinto maintained its annual copper guidance.

SOURCE: Rio Tinto, 14 Oct 2026.

ANTOFAGASTA: Q3 REBOUND

Copper output reached 151,900 tonnes, up 7% from Q2. Nine-month production remained 8% lower year-on-year.

SOURCE: Antofagasta, Q3 2026 Report.

HYDRO: RECYCLING INVESTMENT

Hydro's planned EUR180 million Torija plant is designed to produce 120,000 tonnes annually, processing up to 70,000 tonnes of post-consumer aluminium scrap.

SOURCE: Hydro, 6 Oct 2026.

SAUDI ARABIA: COPPER EXPLORATION

Aramco and Ma'aden signed an agreement for an exploration venture covering about 182,000 km^2. Formation remains subject to approvals and other conditions.

SOURCE: Aramco, 18 Aug 2026.



GLOBAL BRIEFING II.

NUCOR: $105 MILLION EXPANSION

Nucor plans to expand utility-pole production in Indiana with a $105 million investment, subject to approvals.

SOURCE: Nucor, 8 Oct 2026.

BOWAY: COPPER FOIL MILL ORDER

China's Ningbo Boway ordered a new 20-high copper foil rolling mill from Danieli Fröhling.

SOURCE: Danieli, 14 Oct 2026.

STOMANA: ROLLING MILL UPGRADE

Stomana Industry awarded Danieli a contract for rolling equipment supporting compact rebar coil production in Pernik, Bulgaria.
SOURCE: Danieli, 5 Oct 2026.

ORI MARTIN: NEW COLD SHEAR

Italy's ORI Martin ordered a 1,300-ton cold shear from Danieli Service to upgrade its finishing operations.

SOURCE: Danieli, 9 Oct 2026.

HYDRO: TRAIN-TO-TRAIN RECYCLING

Hydro joined a Siemens Mobility-led pilot to recycle aluminium from retired trains into new rail components, working with TSR Group and voestalpine.

SOURCE: Hydro, 11 Sep 2026.



MARKET PULSE — OCTOBER 2026

PUBLISHED REFERENCES — OCTOBER 2026

COPPER: $6.53/lb — 16 Oct
ALUMINIUM: $1.36/lb — 16 Oct
IRON ORE: $90.90/t — 16 Oct
US HRC: $1,230/st — 5 Oct
Copper and aluminium: daily published references.
Iron ore: 62% Fe CFR China swap futures.
HRC: Nucor Consumer Spot Price.
t = metric tonne; st = US short ton.
Different market bases; not delivered Saudi prices.

SOURCE: Daily Metal Price; FT Markets; Industrial Tube & Steel, citing Nucor.

SCRAP & FREIGHT

TURKISH SCRAP

Import scrap deals fell $7.50 per metric tonne CFR during the week reported on 16 October. This is a weekly change, not an outright price.

SOURCE: SteelOrbis, 16 Oct 2026.

CONTAINER FREIGHT

Drewry's World Container Index rose 3% to $4,485 per 40ft container. Shanghai–Rotterdam increased 6% to $3,522. Container rates do not represent dry-bulk ore freight.

SOURCE: Drewry, 15 Oct 2026.





FROM OIL TO ORE
SAUDI ARABIA'S METALS AMBITION

Saudi Arabia is building a broader industrial economy around its estimated $2.5 trillion mineral endowment. The ambition extends beyond extracting ore: it connects exploration with processing, steelmaking and manufacturing.

Ma'aden's mineral operations, Hadeed's steel platform and new international partnerships form different parts of this strategy. The commercial test is whether geological potential can become competitive production, supported by reliable infrastructure, technology and skilled workers.

SOURCE: Ma'aden, Exploration; Hadeed, corporate disclosures.

BUILDING THE INDUSTRIAL CHAIN

In August 2026, Aramco and Ma'aden signed an agreement for an exploration and hard-rock mining venture focused on copper and other transition minerals. Formation remains subject to approvals and other conditions.

FORGE VIEW: The supplier opportunity follows each project's development. Exploration needs drilling and testing; processing requires equipment and engineering; operating plants need maintenance and dependable spares. Announced investment becomes commercial demand through funded projects, awarded contracts and purchase orders.

SOURCE: Aramco, 18 Aug 2026; GSR Analytix analysis.

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THE REFORM ENGINE

Saudi Arabia's Mining Investment Law took effect on 1 January 2021, providing the legal framework for a wider mining sector. The Ministry of Industry and Mineral Resources uses the Ta'adeen platform to connect investors with licensing services and opportunities.
For suppliers, the practical signal is a project's licence status and development stage. An exploration award creates demand for drilling and testing; construction and plant equipment depend on subsequent studies, funding and approvals.

SOURCE: Ta'adeen, Legal Framework and Licensing Services; GSR Analytix analysis.

FROM DATA TO DEVELOPMENT

The Saudi Geological Survey's National Geological Database brings together maps, mineral occurrences, geochemical results and drilling records. Ta'adeen's geospatial portal also identifies licensed areas and locations available for investment.

FORGE VIEW: Better access to data helps investors assess prospects and plan fieldwork. It also helps suppliers identify relevant projects earlier. Geological potential becomes an equipment opportunity as developers move from exploration into engineering and procurement.

SOURCE: Saudi Geological Survey, National Geological Database; Ta'adeen, Open Data; GSR Analytix analysis.





PROJECT & CAPEX TRACKER
BAP AL-KHAIR | STEEL PLATE

The Baosteel–Aramco–PIF venture represents a $4 billion investment, with planned heavy-plate capacity of 1.5 million tonnes a year. Its process combines natural gas-based direct reduction with electric arc steelmaking.

FORGE VIEW: The milestones to track are equipment installation, commissioning and customer qualification. These determine when construction demand shifts towards operating supplies, maintenance and spares.

SOURCE: Saudi Steel Conference, Chen Shenghe profile; Aramco, project announcement; GSR Analytix analysis.

MA'ADEN | PHOSPHATE 3

The wider Phosphate 3 project carries an estimated SAR 28 billion investment. In its August 2026 results, Ma'aden said Phase 1 remained on schedule to start commissioning at year-end.

FORGE VIEW: Commissioning is the next milestone to monitor. Suppliers should track testing, plant handover and ramp-up requirements. The total project investment covers multiple packages; it does not represent a single open procurement opportunity.

SOURCE: Shareek, Phosphate 3; Ma'aden, Q2 results, 9 Aug 2026; GSR Analytix analysis.

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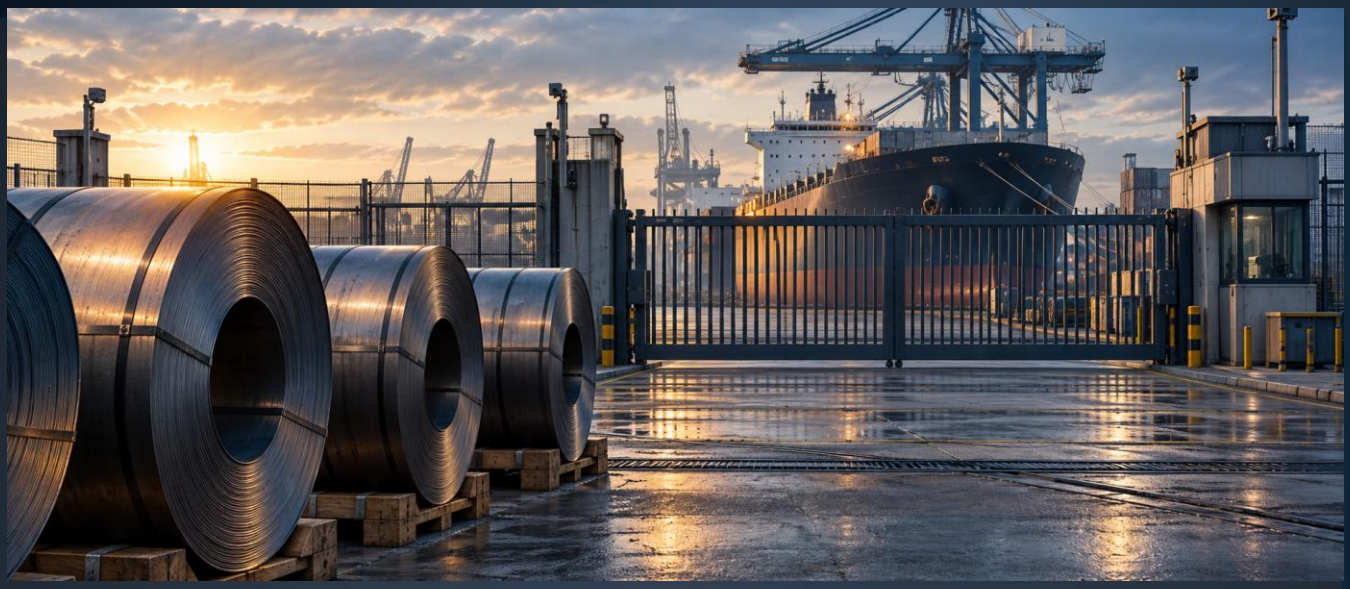
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EUROPE'S NEW STEEL WALLS

The EU's new Steel Regulation took effect on 1 July 2026, setting annual duty-free quotas at 18.3 million tonnes and a 50% duty on out-of-quota imports. EEA countries are exempt from these quota measures.

The European Commission's framework makes market access a central purchasing issue. Buyers must check the relevant product and country allocation alongside price. A competitive mill offer can become substantially more expensive when the applicable quota is exhausted.

SOURCE: European Commission, EU Steel Regulation, 30 July 2026; GSR Analytix analysis.

TRACEABILITY AT THE BORDER

From 1 October 2026, importers must declare where covered steel was melted and poured. The European Commission identifies a Mill Test Certificate showing that country and the heat number as the primary evidence, with specified alternatives permitted during the transition.

FORGE VIEW: Exporters should prepare traceability documents before shipment. Buyers should agree who supplies the evidence and who bears any out-of-quota duty. Delivery planning now requires both quota visibility and a documented production history.

SOURCE: European Commission, melt-and-pour implementing act, 31 Aug 2026; GSR Analytix analysis.

CRITICAL MINERALS WATCH

REFINING REMAINS THE BOTTLENECK

The International Energy Agency reports that critical-mineral investment fell 9% in 2025, while refining became more concentrated. Over the past two years, leading suppliers accounted for more than three-quarters of growth in refined supply.

New mines alone cannot diversify the industrial chain. Separation, refining and material qualification must develop alongside extraction. For manufacturers, access to usable metal depends on processing capability as well as ore availability.

SOURCE: IEA, Global Critical Minerals Outlook 2026, 16 July 2026.

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FROM MINERAL TO COMPONENT

Rare-earth refining shows that diversification is possible: the leading supplier's share fell from over 90% in 2023 to 85% in 2025, supported by new US projects and increased Malaysian production. Yet processing equipment and technical skills remain constraints.

FORGE VIEW: Buyers should map the refiner behind each material supplier and qualify alternatives before disruption occurs. For equipment companies, the opportunity includes separation systems, process control, laboratory testing and technical support.

SOURCE: IEA, Global Critical Minerals Outlook 2026; GSR Analytix analysis.



COPPER: THE SUPPLY GAP

The International Energy Agency's 2026 outlook projects a copper mine-supply gap of around 25% by 2035 against primary requirements under its Stated Policies Scenario. New projects have narrowed the gap from roughly 30% in the previous outlook.

This is a scenario-based projection, not a measure of today's shortage. It compares expected output from existing and announced mines with demand after allowing for secondary supply. Closing it requires additional projects and dependable delivery.

SOURCE: IEA, Global Critical Minerals Outlook 2026, Outlook.

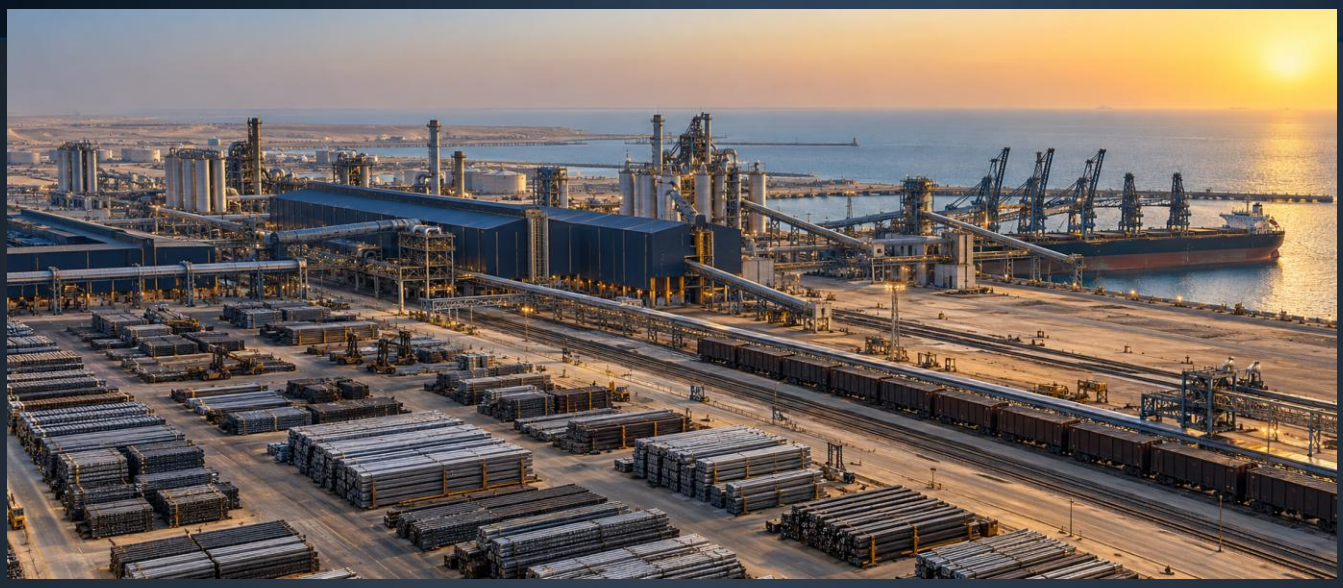
WHAT THE GAP MEANS FOR BUYERS

Electricity networks and emerging technologies underpin copper's long-term demand. The IEA projects about 7 million tonnes of additional copper demand by 2040, highlighting the scale of supply development required.

FORGE VIEW: Cable makers, equipment producers and fabricators should assess delivery commitments alongside price. Qualified alternative suppliers, clear material specifications and scrap recovery can strengthen procurement. Project announcements matter when they become reliable metal of the required quality.

SOURCE: IEA, Global Critical Minerals Outlook 2026; GSR Analytix analysis.





SAUDI ARABIA: COUNTRY PROFILE AN INDUSTRIAL BASE BEYOND OIL

Saudi Arabia combines mineral resources with established metals production and access to Red Sea and Gulf shipping routes. Ma'aden's portfolio spans phosphate, aluminium, gold and copper, with 17 operating sites and exports to more than 30 countries.

The industrial chain already connects extraction with processing and manufacturing. Bauxite from Al Ba'itha feeds Ma'aden's aluminium operations at Ras Al Khair, where smelting and rolling turn mineral inputs into products for regional and international customers.

SOURCE: Ma'aden, Our Story; Aluminium business overview.

WHERE SUPPLIERS FIT

Hadeed adds an established steel platform, producing rebar, wire rod and flat products, including hot-rolled, cold-rolled and galvanised steel. PIF acquired a majority stake in the company in 2024 as part of its metals and mining strategy.

FORGE VIEW: Suppliers should distinguish operating plants from proposed projects. Existing facilities need maintenance, consumables and process upgrades; new developments create different equipment and engineering requirements. A practical market approach starts with the plant, its production route and its purchasing needs.

SOURCE: PIF, Hadeed portfolio profile; GSR Analytix analysis.

SAUDI ARABIA IN NUMBERS

$2.5 TRILLION
Estimated value of the Kingdom's unexplored mineral endowment. This is an estimate of geological potential, not proven reserves or projected revenue.

17 OPERATING SITES
Ma'aden's reported footprint across its diversified mining and minerals business.

30+ EXPORT MARKETS
Countries served by Ma'aden, connecting Saudi production with international customers.

Together, these figures show both the scale of the resource opportunity and an established operating base.

SOURCE: Ma'aden, Exploration; Our Story. built on price assumptions alone.

INVESTMENT, CAPACITY & ACCESS

$4 BILLION
Reported investment in the BAP Al-Khair steel project, backed by Baosteel, Aramco and PIF.

1.5 MILLION TONNES A YEAR
Planned heavy-plate capacity at BAP Al-Khair. Nameplate capacity is not actual annual output.

14 BERTHS
Port infrastructure at Ras Al-Khair, an important gateway for the Kingdom's mineral industries.

FORGE VIEW: Investment value, planned capacity and infrastructure describe different parts of the industrial chain; they should be assessed separately.

SOURCE: Saudi Steel Conference, Chen Shenghe profile; ECZA, Ras Al-Khair; GSR Analytix analysis.



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with polyurethane in wet processing
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+50 %
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MA'ADEN: THE NATIONAL CHAMPION

Ma'aden connects Saudi Arabia's mineral ambitions with operating mines, processing plants and international customers. In Q2 2026, revenue reached $2.9 billion, up 16% year-on-year, while EBITDA rose 3% to $1.0 billion.

Its development pipeline spans different stages. In August, Ma'aden maintained its target to begin commissioning Phosphate 3 Phase 1 at year-end, with first gold from Ar Rjum expected by the end of 2028. These milestones connect investment plans with future operating requirements.

SOURCE: Ma'aden, Q2 2026 results, 9 Aug 2026.

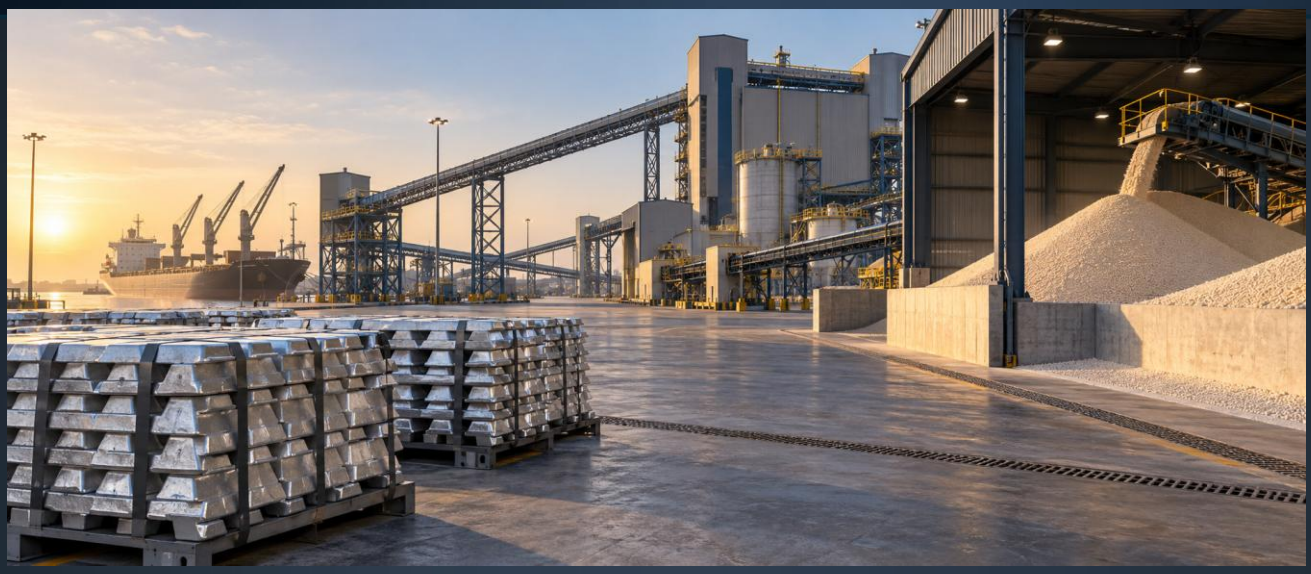
THE SUPPLIER OPPORTUNITY

Ma'aden's Tharwah programme promotes local suppliers, employment and industrial capability across its operations. Its supplier portal provides a formal route for companies to engage with the group and access registration resources.

FORGE VIEW: A credible approach starts with a defined product or service and evidence of relevant plant experience. Pumps, wear parts, process controls and maintenance support address different needs. Suppliers should match their offer to the operating site, technical specification and delivery requirements.

SOURCE: Ma'aden, Tharwah and Supplier Portal; GSR Analytix analysis.





ALUMINIUM & PHOSPHATE CHAIN
ALUMINIUM: FROM BAUXITE TO SHEET

Ma'aden's aluminium chain connects bauxite mining at Al Ba'itha with refining, smelting and rolling at Ras Al Khair. Its $10.8 billion integrated complex serves regional and international markets. The downstream connection is tangible: Ma'aden reports supplying Jaguar Land Rover since 2016, with cumulative aluminium sheet deliveries exceeding 100,000 tonnes. Automotive applications make alloy consistency, surface quality and customer qualification central to the value captured beyond primary

metal.

SOURCE: Ma'aden, Aluminium business overview.

PHOSPHATE: A PROCESS INDUSTRY

Ma'aden's phosphate operations connect mineral extraction with chemical processing, ammonia and fertiliser production. The company reports annual production exceeding 6 million tonnes of phosphate products and 3 million tonnes of ammonia across its key sites.

FORGE VIEW: This chain creates distinct equipment needs: beneficiation and conveying upstream; pumps, valves and corrosion-resistant equipment in processing; storage and handling downstream. Suppliers should identify the process stage and operating conditions before proposing a solution.

SOURCE: Ma'aden, Core Business Units overview; GSR Analytix analysis.

SAUDI STEEL BUILD-OUT AN ESTABLISHED BASE

Saudi Arabia's steel expansion builds on existing production as well as new projects. Hadeed supplies long products such as rebar and wire rod alongside hot-rolled, cold-rolled and galvanised flat steel. PIF acquired a majority stake in the company in 2024.
FORGE VIEW: These product families serve different customers and require different finishing capabilities. For suppliers, the opportunity includes improving yield, rolling accuracy, surface quality and plant reliability across the existing production base.

SOURCE: PIF, Hadeed portfolio profile; GSR Analytix analysis.

ADDING HEAVY-PLATE CAPABILITY

The Baosteel–Aramco–PIF venture targets annual heavy-plate capacity of 1.5 million tonnes. Its planned production route combines natural gas-based direct reduction with electric arc steelmaking, extending the Kingdom's steel offering into heavy plate.
FORGE VIEW: Commercial success depends on more than installed capacity. Plate must meet customer requirements for chemistry, mechanical properties, dimensions and inspection. Equipment suppliers can contribute through process control, testing, finishing and dependable technical support.

SOURCE: Aramco, steel plate complex announcement; GSR Analytix analysis.



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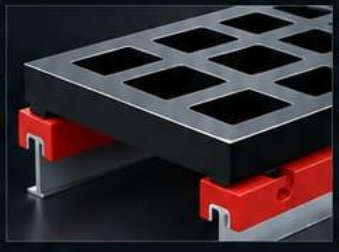
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LET'S SCREEN A BRIGHTER TOMORROW.

MINERALS BENEATH SAUDI ARABIA
EXPLORATION ACROSS THE SHIELD

Saudi Arabia's licensing programme extends exploration across mineralised belts associated with gold, silver, copper and zinc. The Ministry of Industry and Mineral Resources announced Round 10 opportunities covering 13,000 km^2 across five regions.

The areas include extensions of the Ad Duwayhi–Nabitah, Sukhaybarat–Al Safra and Al-Nuqrah belts. These names identify exploration districts with different geological settings; individual licence areas still require drilling, sampling and technical evaluation.

SOURCE: Saudi Press Agency, Round 10 exploration announcement.

TURNING FIELDWORK INTO OPPORTUNITY

Ta'adeen's Round 11 offers eight exploration sites covering 1,878 km^2. The supporting government-funded work includes more than 22,767 metres of drilling, alongside surface, trench and down-hole sampling.

FORGE VIEW: Better geological information helps target the next stage of work. Suppliers can support drilling, sample preparation, laboratory analysis and field logistics. The commercial opportunity depends on each explorer's funded programme, while a mineral occurrence still needs further work to establish an economic project.

SOURCE: Ta'adeen, Round 11; GSR Analytix analysis.





SAUDI IMPORT NEEDS MACHINERY, COMPONENTS & SUPPORT

Machinery, electrical equipment and parts represented SAR 21.1 billion, or 26% of Saudi merchandise imports, in April 2025, according to GASTAT. This broad category covers all industries; it is not a metals-sector import total.

FORGE VIEW: For mining and metals suppliers, relevant opportunities include process equipment, drives, pumps, instrumentation and replacement parts. The strongest offer connects a defined operating need with proven performance, compatible specifications and dependable delivery.

SOURCE: GASTAT, International Merchandise Trade, April 2025; GSR Analytix analysis.

PREPARE THE SHIPMENT

SASO's Saber platform supports product conformity and shipment certification. The applicable route depends on the product and its intended use, so suppliers and Saudi importers should establish the requirements before dispatch.

FORGE VIEW: A complete quotation should address technical documents, certificates, packaging, spare parts and after-sales support. Buyers also need clarity on installation and commissioning responsibilities. Successful supply means equipment that can be cleared, installed and maintained at the receiving plant.

SOURCE: SASO, Saber shipment certification services; GSR Analytix analysis.

PORTS, RAIL & LOGISTICS

CONNECTING MINES WITH MARKETS

Saudi Arabia's mineral industries depend on coordinated inland transport, processing and port access. SAR's minerals network connects mining areas with processing and export facilities at Ras Al Khair on the Arabian Gulf. Ma'aden's plants there are linked by rail to Al Jalamid, Al Ba'itha and Wa'ad Al Shamal. These connections support the movement of mineral inputs through the industrial chain. Reliable loading, unloading and storage are as important as the railway itself.

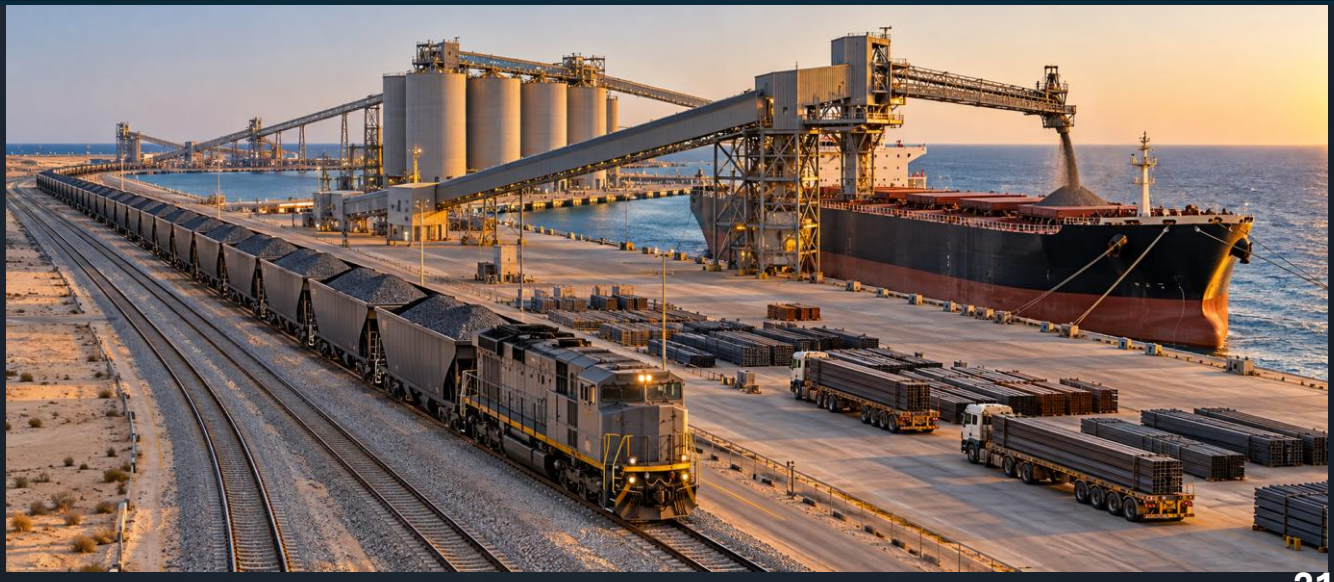
SOURCE: SAR, Our Network; Ma'aden, Annual Report 2024.

PLAN THE COMPLETE JOURNEY

SAR's eastern freight line links King Abdulaziz Port in Dammam with Riyadh over 566 km. On the Red Sea, King Abdullah Port also handles break-bulk cargo, adding another gateway for industrial shipments.

FORGE VIEW: Route selection should start with the cargo: bulk minerals, steel products and oversized machinery require different handling arrangements. Buyers should confirm lifting capacity, storage, inland access and delivery responsibilities. A port booking is only one part of getting material to the plant.

SOURCE: SAR, Our Network; King Abdullah Port; GSR Analytix analysis.



SAUDI ARABIA: KEY PLAYERS THE COMPANIES SHAPING THE CHAIN

Ma'aden anchors the mining and non-ferrous metals sector, with operations spanning phosphates, aluminium, gold and copper. The company reports 17 operating sites and exports to more than 30 countries.

Hadeed anchors steel supply, producing rebar, wire rod and hot-rolled, cold-rolled and galvanised products. PIF became its majority shareholder in 2024, while Hadeed acquired AlRajhi Steel. Together, these businesses connect mineral development with construction and industrial demand.

SOURCE: Ma'aden, Our Story; PIF, Hadeed portfolio profile.

PARTNERSHIPS OPEN NEW MARKETS

Aramco, Baosteel and PIF are partners in a planned integrated steel plate complex with capacity of up to 1.5 million tonnes annually. The project targets applications including pipelines, shipbuilding, offshore structures and pressure vessels.

FORGE VIEW: Suppliers should map each company's role before approaching the market. A mine operator, steel producer and project contractor buy different packages. Identify the asset owner, engineering contractor and purchasing team, then match the offer to the relevant project stage.

SOURCE: Aramco, steel plate JV announcement, May 2023; GSR Analytix analysis.





WHAT SAUDI BUYERS NEED QUALIFICATION & LOCAL VALUE

Aramco reports that its iktva programme reached 70% local content in its supply chain in early 2026. Its next target is 75% localisation by 2030. These are Aramco-specific figures, not requirements for every Saudi buyer. Ma'aden's Tharwah programme also supports local suppliers, skills and industrial capabilities. Both companies provide supplier registration channels. Aramco explicitly states that registration and qualification do not guarantee future business.

SOURCE: Aramco, iktva and Become a Supplier; Ma'aden, Tharwah.

MAKE THE OFFER EASY TO EVALUATE

FORGE VIEW: For pumps, drives, wear parts or automation, start with the operating duty. State capacity, material grade, tolerances and compatibility with the installed equipment. Attach relevant references, test records and inspection documents. Then define delivery time, commissioning, warranty and spare-parts support. Explain who will respond locally and how quickly. A clear service plan helps buyers compare lifetime cost and downtime exposure alongside the purchase price. Keep every performance claim measurable.

SOURCE: GSR Analytix procurement analysis.

SAUDI ARABIA: OUTLOOK & OPPORTUNITIES FROM INVESTMENT TO OPERATIONS

Ma'aden's August 2026 update puts Phosphate 3 Phase 1 on schedule to begin commissioning at year-end, with first gold at Ar Rjum expected by the end of 2028. These milestones point to different purchasing windows across the project pipeline.
FORGE VIEW: Commissioning creates demand for testing, training and start-up support. Operating plants need maintenance, consumables and replacement parts. Suppliers should match their approach to the asset's actual stage and confirmed procurement schedule.

SOURCE: Ma'aden, Q2 2026 results , 9 August; GSR Analytix analysis.

TURN OPPORTUNITY INTO AN ORDER

FORGE VIEW: The strongest opening may be a specific operating problem: premature wear, unreliable drives, material losses or slow laboratory turnaround. A focused offer should define the problem, proposed solution and measurable benefit.
Before committing resources, confirm the budget holder, tender route, technical approval and payment terms. Build service capacity around realistic demand. Project announcements help identify prospects; awarded contracts, commissioning progress and repeat orders provide firmer evidence of business.

SOURCE: GSR Analytix market and procurement analysis.



GULF SNAPSHOT: UAE & OMAN

UAE: ALUMINIUM RESTART IN FOCUS

Emirates Global Aluminium announced on 21 October that 631 of Al Taweelah's 1,262 reduction cells had been restored and restarted. The company continues to expect full smelter production during Q1 2027. The update marks progress following the site's March emergency shutdown. Restarted cells typically need about a week to stabilise and reach full output.

FORGE VIEW: Downstream buyers should check available product grades, delivery schedules and allocation directly with suppliers as

production recovers.

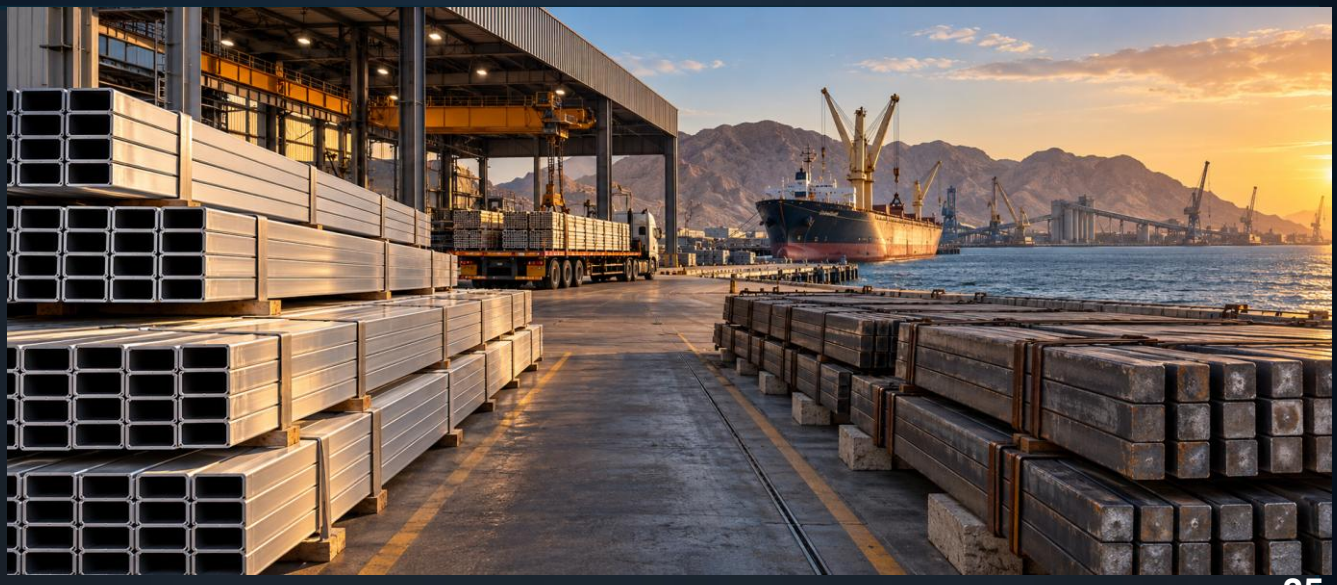
SOURCE: EGA, Al Taweelah restart update, 21 October 2026.

OMAN: A DOWNSTREAM INDUSTRIAL BASE

Sohar Aluminium lists annual smelting capacity of 395,000 tonnes. Its shareholders are OQ, TAQA and Rio Tinto. The company's development includes supplying hot metal to local downstream customers, connecting primary production with further industrial processing.

FORGE VIEW: For equipment suppliers, the opportunity extends beyond the smelter. Casting, extrusion, metal handling and maintenance require different technical packages. Map the individual plant and its purchasing needs before treating Oman as a single market.

SOURCE: Sohar Aluminium, About Us; GSR Analytix analysis.



REGIONAL SNAPSHOT

ASIA & EUROPE

Worldsteel's 70 reporting countries produced 144.2 million tonnes (Mt) of crude steel in August 2026, down 1.2% year on year.

Asia and Oceania produced 106.7 Mt, down 1.4%. Within that total, China fell 3.7% to 74.6 Mt, while India grew 4.6% to 14.8 Mt.

The EU (27) produced 8.9 Mt, down 1.0%. Other Europe, including Türkiye and the UK, reached 3.8 Mt, up 1.2%. Russia, other CIS countries and Ukraine together recorded 6.3 Mt, down 5.6%.

SOURCE: World Steel Association, August 2026 crude steel production, 24 September 2026.

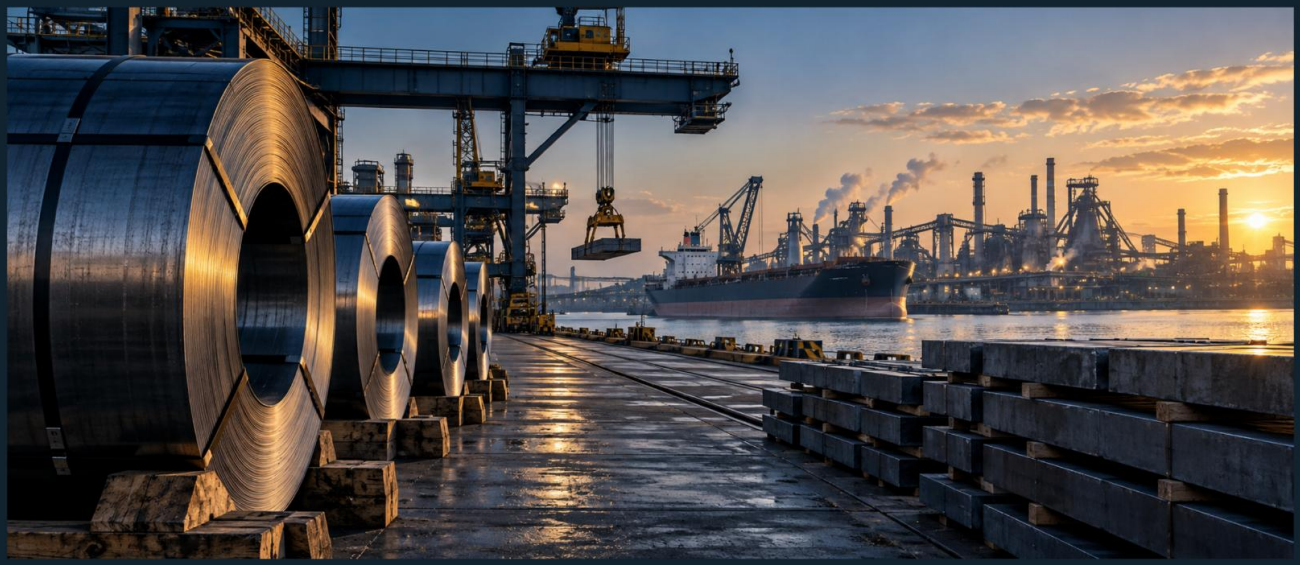
AMERICAS, MIDDLE EAST & AFRICA

North America produced 9.4 Mt in August, up 3.9% year on year. South America moved in the opposite direction, falling 4.9% to 3.4 Mt.

The Middle East produced 3.7 Mt, down 4.6%. Africa reached 2.1 Mt, up 8.8%, although from a smaller production base.

FORGE VIEW: A global decline can conceal growing individual markets. Suppliers should compare regional output with individual mills' investment plans. Buyers still need to check product availability, freight and trade rules for each shipment.

SOURCE: World Steel Association, August 2026 release; GSR Analytix analysis.



SCRAP & RECYCLING

QUALITY SHAPES VALUE

Worldsteel estimates that recycling each tonne of steel scrap saves 1.4 tonnes of iron ore, 740 kg of coal and 120 kg of limestone. Scrap is a valuable steelmaking input, but supply depends on collection and the life cycle of steel products.

Home scrap comes from steelworks and foundries. Industrial scrap comes from manufacturing, while obsolete scrap comes from discarded products. Worldsteel notes that growing steel markets can still have limited scrap availability and underdeveloped collection networks.

SOURCE: World Steel Association, Raw Materials and Steel and Raw Materials fact sheet.

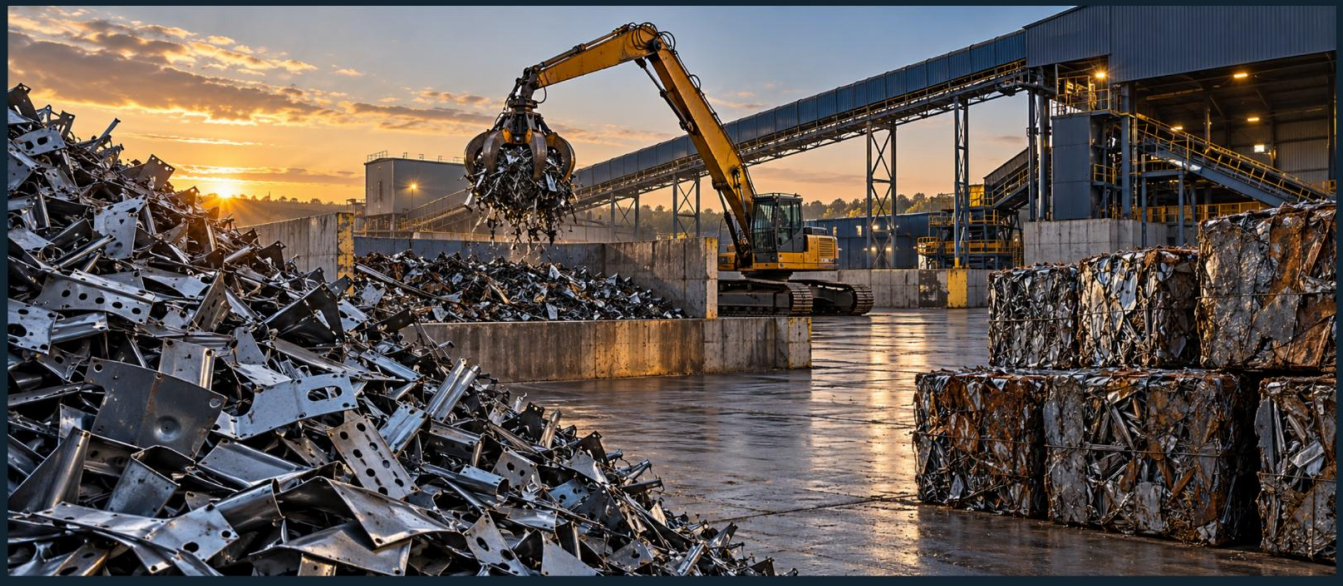
THE BUYER'S CHECKLIST

FORGE VIEW: Compare scrap offers against the furnace's required charge mix. Confirm grade, dimensions and permitted contamination, then agree how the receiver will sample and inspect each load.

Keep clean production offcuts separate from mixed demolition material. Record origin, weight and any quality deductions in the contract.

The useful comparison is cost per tonne of usable metal after freight, handling and yield losses. A lower purchase price may offer little benefit if preparation costs or rejection rates rise.

SOURCE: GSR Analytix procurement analysis.



FREIGHT & ROUTES

RED SEA ROUTE WATCH

UNCTAD reports that more than 80% of world trade by volume travels by sea. For metals and industrial equipment, route changes can affect delivery time and the availability of vessel space.

Maersk's Middle East update of 8 October 2026 says regional conditions remain highly volatile and operational information may change.

FORGE VIEW: Confirm the actual sailing route when booking. A Suez routing, a Cape diversion and a service with transshipment can create different arrival dates and inland delivery requirements.

SOURCE: UNCTAD, Review of Maritime Transport 2024; Maersk, operational update, 8 October 2026.

THE FULL DELIVERY COST

FORGE VIEW: Compare freight offers on the same basis. Ask whether the quote includes fuel and contingency surcharges, terminal handling and inland haulage. Check its validity and the stated transit time.

For steel coils, pipe bundles or oversized machinery, agree lifting arrangements, cargo protection and securing before dispatch.

Allow for storage and detention costs if collection slips. A carrier's regional advisory provides context, while the booking confirmation and cargo-specific terms determine the shipment plan.

SOURCE: GSR Analytix freight and procurement analysis.



INSIDE THE DRI PLANT

ORE TO METALLIC IRON

Gas-based direct reduction removes oxygen from iron ore below its melting point. The resulting direct reduced iron (DRI) provides metallic iron for subsequent steelmaking.

Midrex describes an integrated system of reducing-gas generation, a shaft furnace and heat recovery. Its process supports 3 product forms: cold DRI, hot DRI and hot briquetted iron (HBI).

Hot DRI retains sensible heat for the melt shop. HBI provides a compacted product for handling and shipment.

SOURCE: Midrex Technologies, MIDREX Process and Direct Reduced Iron technology overviews.

RELIABILITY AT EVERY STAGE

FORGE VIEW: A DRI plant depends on more than the shaft furnace. Pellet feeding, gas circulation and solids discharge must work together to maintain stable production.

Maintenance priorities include compressor condition, gas-tight seals, refractory wear and reliable instrumentation. Feed quality and fines handling also influence plant performance.

Suppliers should confirm the process duty, materials and spare-parts needs with the operator and technology provider.

SOURCE: GSR Analytix technical and procurement analysis.



REFRACTORIES

LININGS UNDER PRESSURE

RHI Magnesita describes refractories as materials that remain stable at 1,200°C and much higher. In steelmaking, they protect vessels and support controlled metal flow.

A steel ladle needs different materials for different zones. Slag contact, impact and thermal cycling create distinct wear conditions.

RHI Magnesita identifies both magnesia-carbon bricks and alumina-spinel monolithic materials in ladle lining practice. Selection depends on the process and maintenance strategy.

SOURCE: RHI Magnesita, What We Do; Steel Ladle Lining Management.

CAMPAIGN LIFE & COST

FORGE VIEW: Compare refractory offers by cost per tonne of steel and service performance, alongside the initial material price.

Record heats per campaign, repair consumption and residual lining thickness. Compare results under similar steel grades, slag conditions and treatment times.

Installation quality and the supplier's dry-out procedure matter. Agree inspection criteria and repair planning with the plant team. A longer campaign has value when the lining also meets operational and safety requirements.

SOURCE: GSR Analytix technical and procurement analysis.



LADLE METALLURGY

ALLOYING & TEMPERATURE

The ladle furnace connects melting with casting. Primetals Technologies lists alloying, heating and desulfurisation among its functions, alongside inclusion control and buffering the production sequence.

A conventional AC ladle furnace uses 3 graphite electrodes for heating. Argon stirring helps mix the bath and reduce temperature differences.

Final chemistry and temperature must match the steel grade and casting plan. The treatment route can also include separate vacuum processing where required.

SOURCE: Primetals Technologies, Ladle Furnace; NPTEL, Lecture 23, Ladle Refining.

CONTROL THE ADDITION

FORGE VIEW: Alloy cost depends on recovery into the steel, as well as the price per tonne purchased. Use heat records to compare addition weights with final laboratory results.

Check material identity, weighing accuracy and addition timing. Keep alloy batches traceable and account for slag carryover when reviewing inconsistent results.

For equipment suppliers, dosing reliability and laboratory feedback matter alongside furnace power. The aim is repeatable chemistry with fewer corrective additions before casting.

SOURCE: GSR Analytix technical and procurement analysis.



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CRUSHING & SCREENING

ONE CONNECTED CIRCUIT

A crusher reduces particle size. A screen separates material by size and controls what advances or returns for further crushing. Metso stresses that both machines and their wear parts must work as one circuit.

Feed moisture, rock properties and wear can change performance. Crusher settings affect product size, while screen condition influences separation and the load returning to the crusher.

A blocked or damaged screen can therefore become a plant bottleneck even when the crusher has spare capacity.

SOURCE: Metso, Crushing and Screening: Mining's Dynamic Duo (2026).

CAPACITY BEYOND THE CRUSHER

FORGE VIEW: Check the circulating load before comparing equipment capacities. In an illustrative case, 100 t/h of fresh feed plus 50 t/h returning from the screen gives the crusher a total load of 150 t/h.

Specify feed size, moisture and the required product before requesting a quotation. Review screen media and maintenance access alongside crusher selection.

Track usable output, energy per tonne and wear consumption across the complete circuit.

SOURCE: GSR Analytix analysis and illustrative mass-flow calculation.



CONVEYORS & HANDLING

CONTROL THE TRANSFER

Conveyor performance depends on loading, belt alignment and discharge. Martin Engineering identifies carryback as a source of dust and material buildup on return rollers.

Its 2024 product catalogue says a correctly specified, installed and maintained multiple-cleaner system can achieve 90–95% carryback removal. This is conditional guidance, rather than a guarantee for every conveyor.

Primary and secondary cleaners perform different duties. Selection must account for the belt, material and available service space.

SOURCE: Martin Engineering, Product Catalogue (2024); Controlling Carryback, September 2026.

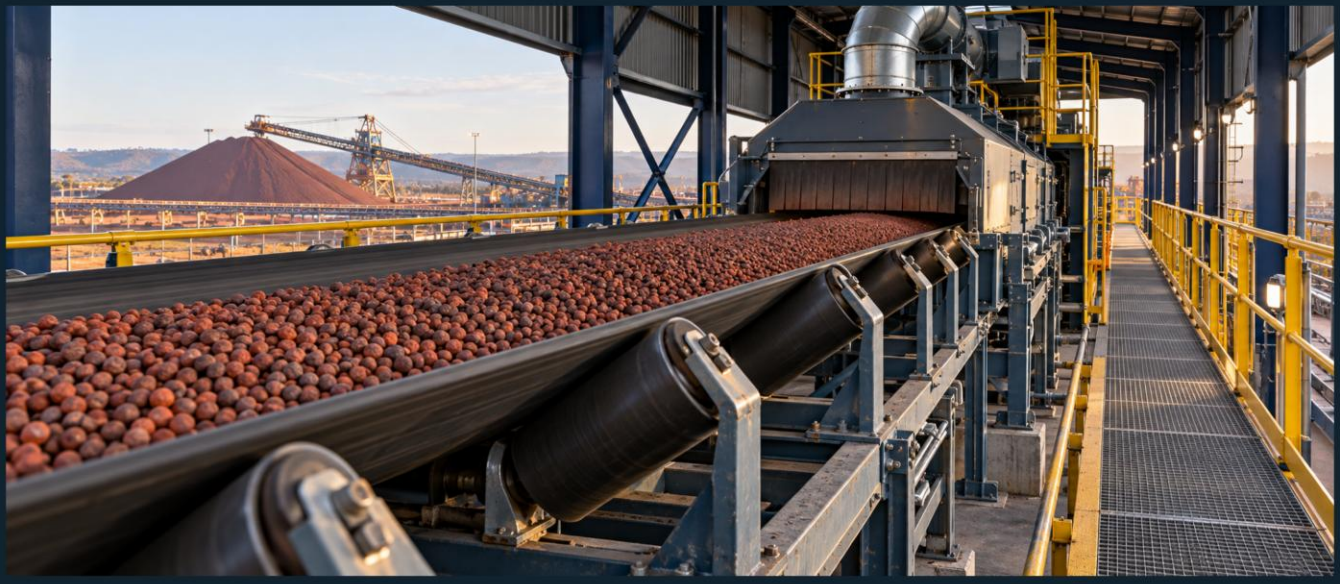
RELIABILITY ALONG THE BELT

FORGE VIEW: Treat the transfer point as part of the conveyor system. Check chute geometry, loading alignment and material containment before increasing belt speed.

Monitor spillage, carryback and idler condition. Recurring cleanup can indicate a design or maintenance problem. Include safe isolation and access in the service plan.

For buyers, compare total operating cost alongside belt and drive prices. Cleaner blades, idlers and wear liners need a practical replacement strategy that matches the material handled.

SOURCE: GSR Analytix technical and procurement analysis.



PIPE & TUBE PRODUCTION

FORMING THE PRODUCT

In an ERW line, steel strip passes through preparation, forming, high-frequency welding and sizing before cutting and finishing. SMS group describes lines that produce 3 cross-section formats: round, square and rectangular.

At the weld station, rolls press the heated strip edges together. Roll condition and alignment therefore matter alongside the welding system.

Seamless tube production follows a separate manufacturing route. The required product and application determine which process is appropriate.

SOURCE: SMS group, ERW Welded Tube Plant; Service Packages for ERW Lines.

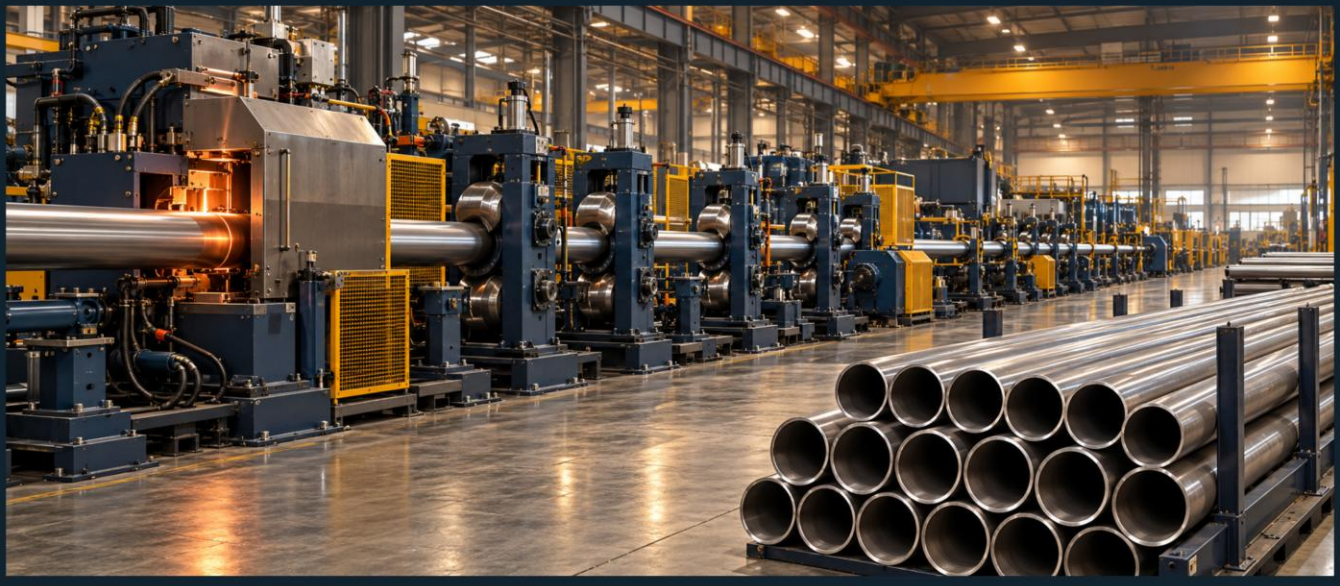
QUALITY THROUGH THE LINE

FORGE VIEW: Specify the grade, dimensions and end use before comparing tube mill offers. Confirm wall-thickness range, changeover requirements and the required inspection plan.

Traceability should connect incoming strip or billet with the finished tube and its test results. Agree dimensional checks and any weld inspection or pressure testing required by the order.

Evaluate yield and rejection rates alongside line speed. Reliable cut-off, handling and finishing help preserve product quality after forming.

SOURCE: GSR Analytix technical and procurement analysis.



COATING & GALVANISING

PROTECTION STARTS CLEAN

The American Galvanizers Association describes 3 basic stages in batch hot-dip galvanising: surface preparation, galvanising and inspection. Clean steel is essential for coating formation.

The fabricated article enters a molten zinc bath, where zinc reacts with the steel surface. After withdrawal, excess zinc drains away and the coating undergoes inspection.

Painting or powder coating over galvanised steel creates a duplex system. It requires suitable preparation of the zinc surface before application.

SOURCE: American Galvanizers Association, HDG Process; Finish and Field Inspection.

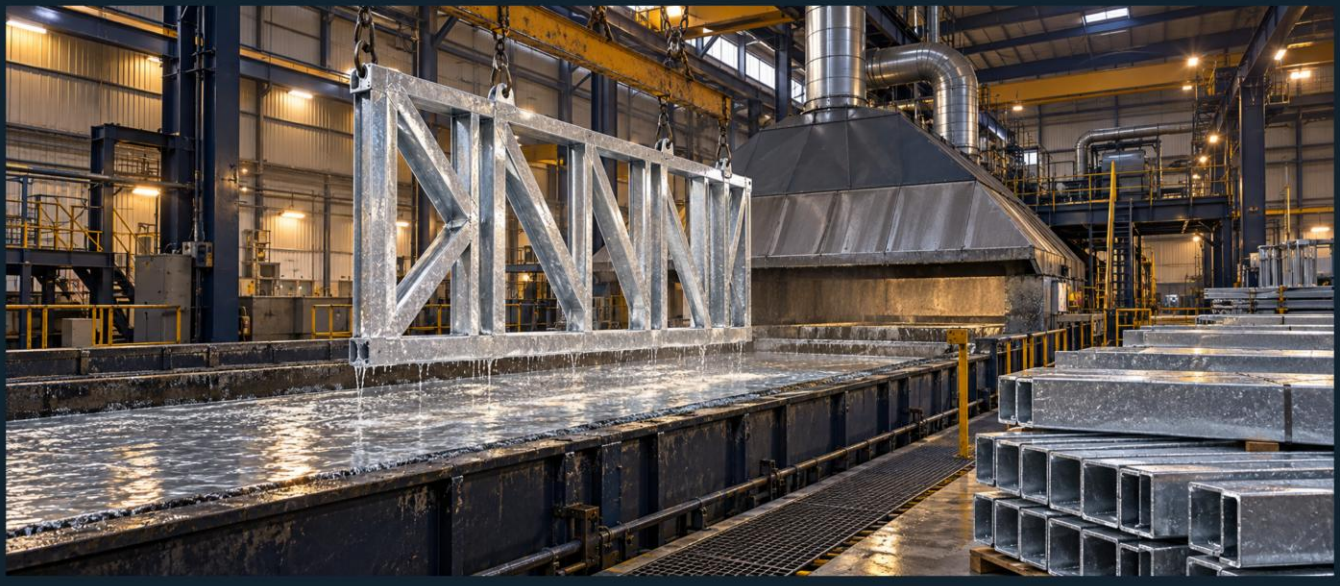
SPECIFY THE SERVICE DUTY

FORGE VIEW: Start with the exposure conditions and intended service life. Agree the coating specification, inspection records and acceptable finish before fabrication.

Discuss component dimensions, venting and drainage with the galvaniser early. Detail design affects processing and coating quality, especially for hollow or complex assemblies.

Check handling and storage after coating. For duplex systems, confirm preparation and compatibility with the paint supplier. Appearance alone cannot establish coating performance.

SOURCE: American Galvanizers Association, FAQs; GSR Analytix analysis.



WEAR PARTS & SPARES
CHOOSE FOR THE DUTY

Wear resistance depends on the application. Metso distinguishes abrasion-resistant white irons from manganese steels that offer impact toughness. Feed size and operating conditions influence the choice.

FORGE VIEW: Compare parts by cost per tonne processed. In an illustrative case, a $10,000 liner lasting 100,000 tonnes costs $0.10 per tonne before installation and downtime.

Record the wear profile and failure mode. Verify that a different alloy or geometry addresses the observed problem.

SOURCE: Metso, Metallic Wear Liners; GSR Analytix illustrative cost calculation.

STOCK FOR THE CONSEQUENCE

FORGE VIEW: Rank spares by the consequence of failure and replenishment time. A low-cost seal can stop a critical machine, while an expensive component may have a serviceable backup.

Confirm part number, drawing revision and equipment compatibility before ordering. Keep material certificates and inspection records where required.

Set stock levels against usage, lead time and storage conditions. Plan lifting equipment and labour for wear-part changes to avoid extending the shutdown.

SOURCE: GSR Analytix maintenance and procurement analysis.



AUTONOMOUS MINING
HAULAGE AT SCALE

Komatsu announced in April 2026 that it had commissioned 1,000 ultra-class autonomous haul trucks. It said customers using FrontRunner had moved more than 11.5 billion metric tonnes since commercial introduction.

Autonomous haulage connects trucks with fleet management and site infrastructure. The system coordinates movement within a defined operating environment.

FORGE VIEW: Base the investment case on the mine's routes and fleet. Deployment scale provides context, while site results determine value.

SOURCE: Komatsu, FrontRunner milestone announcement, 22 April 2026; GSR Analytix analysis.

PREPARE THE OPERATION

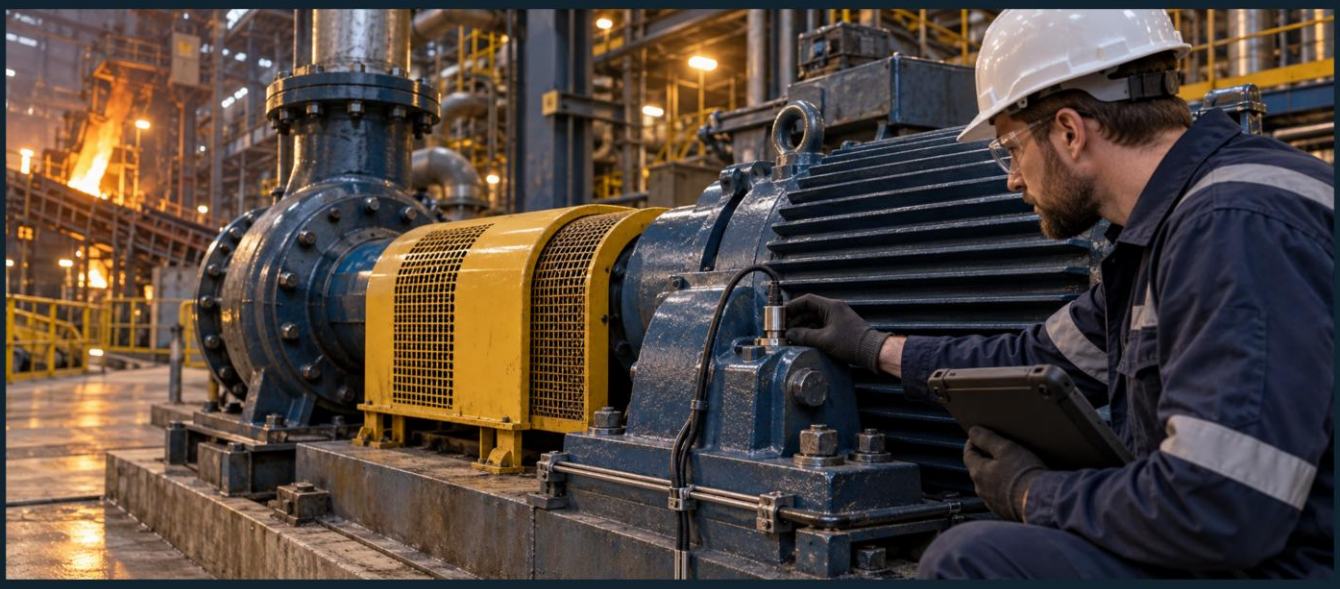
FORGE VIEW: Assess communications coverage, haul-road condition and interactions with other vehicles before deployment. Define how people and manually operated equipment enter controlled areas.

Set clear responsibilities for supervision, maintenance and exception handling. Operators need procedures for outages and changes to the mine plan.

Measure cycle-time variation, utilisation and interventions against a documented baseline. Compare results under similar conditions and include training and support costs in the business case.

SOURCE: GSR Analytix operations and procurement analysis.





PREDICTIVE MAINTENANCE
READ THE EARLY SIGNALS

Vibration and temperature are 2 common signals used to assess rotating equipment. SKF's QuickCollect sensor measures both, helping maintenance teams collect machine-condition data.

Readings need context: speed, load and a consistent measurement position. Compare trends under similar operating conditions before diagnosing a fault.

FORGE VIEW: Start with critical motors, pumps and gearboxes. Establish a baseline and link each confirmed finding to a practical maintenance decision.

SOURCE: SKF, QuickCollect; SKF, basic condition monitoring. GSR Analytix analysis.

TURN ALERTS INTO ACTION

FORGE VIEW: An alert creates value when someone investigates and acts. Assign responsibility for reviewing trends, confirming faults and raising work orders.

Combine sensor findings with inspection, lubrication records and operating history. Agree when to monitor, repair or stop the asset.

Track confirmed defects, response times and downtime against a baseline. Budget for installation, connectivity, analysis and training; a sensor alone does not deliver a maintenance programme.

SOURCE: GSR Analytix maintenance and procurement analysis.



MINERAL ASSAY & LAB TESTING FROM SAMPLE TO RESULT

ALS offers gold fire-assay methods using 30 g or 50 g sample portions. Method selection also depends on the required detection range and the sample's geological matrix.

The laboratory result represents the material submitted. Sampling and preparation must preserve a representative portion of the original material.

FORGE VIEW: Agree the preparation route, analytical method and reporting units before dispatch. Keep sample identity traceable from collection to the final certificate.

SOURCE: ALS, Gold by fire assay; Geochemistry services. GSR Analytix analysis.

BUY CONFIDENCE IN THE DATA

FORGE VIEW: Compare laboratory offers by method, detection limits and quality controls. Ask how reference materials, blanks and duplicates are used and how failed controls are investigated.

Confirm turnaround times, retained-sample storage and the process for repeat analysis. Define how results above the method's range will be handled.

Budget for preparation, freight and re-analysis. Check that the laboratory's accreditation scope covers the work ordered.

SOURCE: GSR Analytix laboratory procurement analysis.

VENTILATION & DUST CONTROL AT THE SOURCE

NIOSH identifies 3 major methods for reducing airborne dust underground: ventilation, water and dust collectors. Their effectiveness depends on the task and the mine environment.

Its industrial minerals handbook covers controls across drilling, crushing, screening, conveying and loading. The aim is to reduce workers' exposure to hazardous dust.

FORGE VIEW: Treat airflow and dust control as connected systems. Review the design when production, equipment or working areas change.

SOURCE: NIOSH, Dust Control Methods (2003); Industrial Minerals Handbook (2019).

VERIFY THE PERFORMANCE

FORGE VIEW: Specify the duty before buying fans, ducting, filters or sprays. Include commissioning, inspection access and replacement parts in the scope.

Verify performance through suitable airflow checks and exposure monitoring. A clean-looking workplace alone does not establish that airborne dust is controlled.

Assign ownership for damaged ducts, blocked nozzles and filter maintenance. Use competent specialists to define site controls and assess applicable exposure requirements.

SOURCE: NIOSH dust-control guidance; GSR Analytix procurement analysis.





HYDROGEN DRI
THE REALITY CHECK

HYBRIT reported in 2024 that its Luleå pilot had produced more than 5,000 tonnes of hydrogen-reduced iron. The result demonstrates the process at pilot scale; commercial economics remain a separate test.

The route combines hydrogen-based ore reduction with electric arc furnace steelmaking. Energy supply and feedstock quality shape the operating case.

FORGE VIEW: Assess hydrogen cost, electricity and ore supply together. A successful pilot does not establish the cost of a new commercial plant.

SOURCE: HYBRIT, research results 2018–2024; IEA, Iron and Steel Technology Roadmap.

TEST THE WHOLE VALUE CHAIN

FORGE VIEW: A hydrogen-ready plant needs a credible conversion plan. Ask which equipment changes, supply contracts and approvals are needed to increase hydrogen use.

Compare delivered hydrogen costs and power availability with the plant's expected operating profile. Include storage, backup and grid connections.

Check emissions across the agreed production boundary. Hydrogen production and electricity sources affect the result; report the method and assumptions behind any low-emissions claim.

SOURCE: GSR Analytix project and procurement analysis.

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+50 %
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with CLEAN rubber
(for critical, sticky materials)

–50 %
SHORTER CHANGEOVER TIMES
with KÜPER plug-in systems

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for reduced operating energy costs

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BUYER'S GUIDE

QUALIFY BEFORE YOU BUY

FORGE VIEW: Use 3 gates to assess an industrial offer: technical fit, delivery capability and lifetime cost. Write acceptance criteria before asking suppliers to quote.

ISO explains that conformity to ISO 9001 concerns a supplier's quality management system. It does not replace evidence that the ordered product meets its specification.

Check certificate scope, relevant references and inspection records. Match the supplier's experience to your duty, materials and operating environment.

SOURCE: ISO, ISO 9001 in the supply chain; GSR Analytix procurement analysis.

COMPARE THE TOTAL COST

FORGE VIEW: Compare offers on the same scope: equipment, freight, installation, commissioning, training and essential spares. Record exclusions alongside the quoted price.

Agree how performance will be tested and who resolves defects. Confirm lead times, warranty terms and local service capacity before award.

Include energy, consumables and planned maintenance in the comparison. State assumptions and the evaluation period so a low initial price can be judged against the cost of operating the asset.

SOURCE: GSR Analytix industrial procurement analysis.





AUTOMOTIVE SUPPLY CHAIN SAUDI ARABIA: THE 2027 TEST

PIF and Hyundai announced in May 2025 that their Saudi joint venture targets annual capacity of 50,000 vehicles. The project sits within the King Salman Automotive Cluster at King Abdullah Economic City.

For 2027, the supplier question is how assembly investment translates into qualified local production and repeat orders. Announced capacity is not actual output.

FORGE VIEW: Track procurement packages, supplier approvals and ramp-up milestones before committing capacity to a new programme.

SOURCE: PIF / Hyundai, groundbreaking announcement, 14 May 2025; GSR Analytix analysis.

WHERE METAL SUPPLIERS FIT

FORGE VIEW: Map opportunities by process: sheet processing, castings, forgings, machined parts, tooling and factory maintenance. Identify which items will be sourced locally.

Automotive buyers need repeatable quality, traceable materials and dependable delivery. Prepare evidence of process capability and a clear route for resolving defects.

Separate launch support from recurring production orders. Plan tooling, inspection and working capital around confirmed volumes, with allowances for ramp-up changes.

SOURCE: GSR Analytix automotive supply-chain analysis.

CASTINGS & FORGINGS

THE GIGACASTING QUESTION

Bühler reported its 50th order for automotive megacasting solutions in June 2025. Large structural castings are attracting investment, but their suitability depends on the vehicle and production plan.

Casting and forging meet different component requirements. Route selection must follow the part's geometry, material and performance specification.

FORGE VIEW: Compare tooling, yield, machining and inspection across the full process. A larger casting changes the production system around it.

SOURCE: Bühler, 50th megacasting order, June 2025; GSR Analytix analysis.

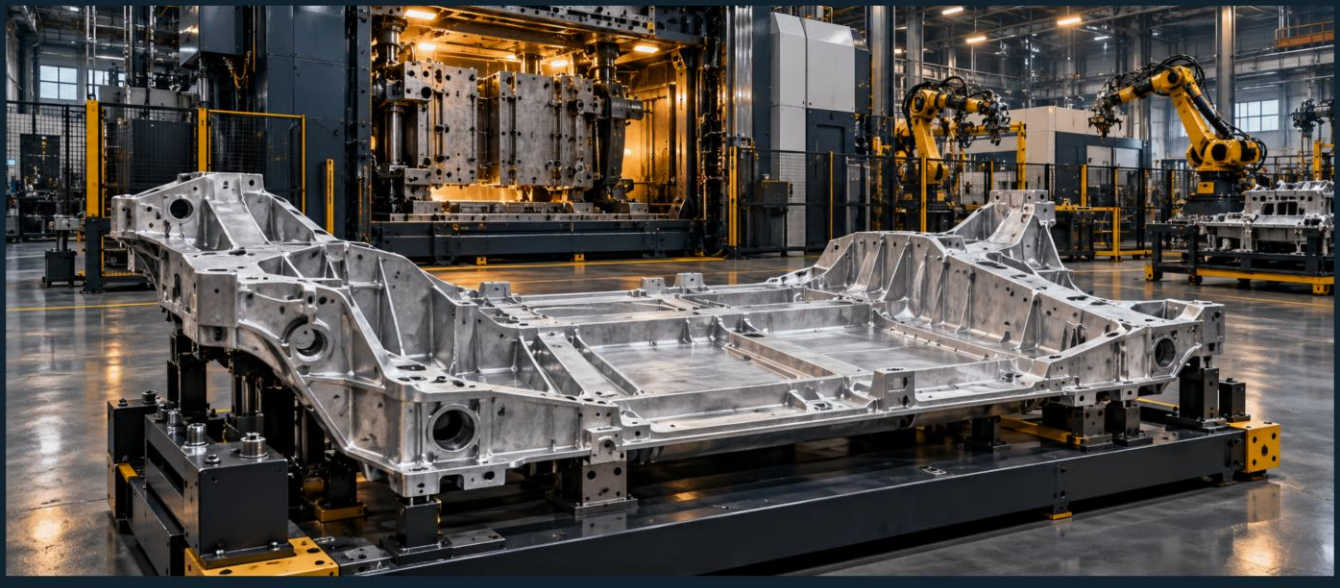
SAUDI SUPPLIER OPPORTUNITIES

FORGE VIEW: Saudi automotive investment creates a reason to assess local component supply. It does not mean every new vehicle programme will use gigacastings.

Seek confirmed part drawings, material specifications and expected volumes. Identify opportunities in dies, machining, heat treatment, inspection and equipment service.

For large cast parts, assess handling, quality verification and the cost of rejected components. For forged parts, confirm material traceability and downstream finishing needs.

SOURCE: GSR Analytix automotive supplier analysis.





SAUDI AUTO LOCALISATION BEYOND VEHICLE ASSEMBLY

CEER said in February 2026 that it targets sourcing 45% of vehicle materials and components from Saudi companies by 2034. This is a future target, not a measured current share.

Its announced partnerships include small stampings, body-shop infrastructure and plans for local supply of door hinges. These connect vehicle investment with metalworking capability.

FORGE VIEW: Follow the individual sourcing package. A localisation target becomes business when specifications, qualification and orders align.

SOURCE: CEER, localisation announcement, 9 February 2026; GSR Analytix analysis.

BUILD A QUALIFIED LOCAL BASE

FORGE VIEW: Local production needs more than a factory address. Assess tooling, process control, inspection skills and the ability to repeat quality at the required volume.

For overseas suppliers, consider a local partner, service base or manufacturing operation against the buyer's actual requirements. Define responsibilities for technology and training.

Build the case around confirmed demand and phased investment. Track local value added separately from imported inputs and keep evidence for customer reporting.

SOURCE: GSR Analytix localisation and supplier analysis.

PROCUREMENT DESK

FROM QUOTE TO EXECUTION

FORGE VIEW: Before issuing an order, close the gaps between the quotation and the site's needs. Confirm utilities, interfaces, installation access and responsibility for commissioning.

Request a delivery schedule linked to drawings, inspection and shipment. Name the people responsible for technical queries and change approval.

Keep a clear record of scope changes, spare-parts commitments and acceptance tests. Handover should include manuals, training records and the evidence needed to operate the asset.

SOURCE: GSR Analytix industrial procurement analysis.

ABOUT NATURE: AFTER MINING

In January 2024, ICMM members committed to at least no net loss of biodiversity at mine sites by closure against a 2020 baseline. This is a commitment, not proof that recovery has been achieved.

FORGE VIEW: Plan rehabilitation while the mine is operating. Link land shaping, soil management and native vegetation to the agreed post-mining use.

Measure ecological outcomes over time, with local knowledge and suitable baselines. Planted area alone does not show that habitat quality or ecosystem function has recovered.

SOURCE: ICMM, nature commitments, 17 January 2024; GSR Analytix analysis.





EVENTS & FAIRS

Q4 2026 – Q1 2027

FABTECH | 21–23 OCT 2026
Las Vegas, USA
Forming, fabrication, welding and finishing.

MEX | 25–28 NOV 2026
Bursa, Türkiye
Machine tools, metalworking and automation.

Future Minerals Forum
12–14 JAN 2027 | Riyadh, Saudi Arabia
Mineral investment and value chains.

Mining Indaba | 8–11 FEB 2027
Cape Town, South Africa
Mining investment and partnerships.

Confirm details with organisers before booking.

SOURCE: Official organiser websites. Dates checked 21 October 2026.

NEXT FORGE: ON THE AGENDA

Our next editorial agenda returns to 3 themes held over from this issue: battery metals, rare earths and exploration.

Battery metals: how processing capacity, project timing and demand affect the supply chain. Rare earths: the route from mineral deposits to separation and magnet materials.

Exploration: geological data, drilling, assay quality and the steps between discovery and a viable project. FORGE will keep the focus on equipment, industrial execution and the decisions that matter to suppliers.

SOURCE: GSR Analytix editorial plan for the next FORGE.

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