You Can't Import Your Way Out of a Supply Chain Crisis

Why South Africa's downstream industry must support its local supply chain - before it no longer exists

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ArcelorMittal South Africa has shut down its Newcastle blast furnace. That is not an abstract industry statistic. It is a live warning - delivered in steel and fire - to every manufacturer, fabricator, and construction firm in this country that relies on locally processed steel. The question is whether anyone downstream is paying attention.

The Chain That Runs Beneath Everything

Most downstream buyers think about their immediate supplier. They know where they order from, what the lead time is, and what the invoice price looks like. What they rarely consider is what sits two or three steps above - the secondary processors, the primary producers, the furnaces and mills that make local supply possible in the first place.

Frankwen Forge occupies that secondary tier. Established in Benoni, Gauteng, in 1981, the company is an open-die forging operation supplying forged components to the mining, rail, heavy industrial, and power transmission sectors. We are not the mine, nor are we the finished product.

We are the critical processing step between primary steel production and the fabricators, manufacturers, and industrial customers who use steel in their work every day. That positioning means we feel every tremor that originates upstream - often long before those tremors reach the end user. And what we have been feeling for some time now is serious.

> *"When a primary steel producer struggles, it is not their problem alone. It becomes everyone's problem - sequentially, and without warning."*

AMSA's closure of its Newcastle blast furnace is the clearest possible illustration of this dynamic. Load-shedding, escalating energy costs, cheap imported steel undercutting domestic prices, a weakening rand, and the slow withdrawal of downstream support have pushed South Africa's primary steel producer to the edge. Its Vanderbijlpark furnaces continue to operate, t hough not without their own pressures. When a furnace goes cold, it does not warm up quickly. The capability to supply locally takes years to build and very little time to lose.

The Global Signal South Africa Should Be Heeding

This is not a uniquely South African conversation. Across the world, serious industrial operators are reaching the same conclusion: the era of purely low-cost global sourcing is over. The logic that drove procurement decisions for two decades - find the cheapest input, ship it in, absorb the lead time - is being tested by geopolitics, freight volatility, and a post-pandemic reckoning with supply chain fragility.

Robert Hlepas, President of Unior, a Slovenian industrial forging company with a century of manufacturing history, put it plainly in a recent interview: “The market has moved beyond a purely low-cost logic. A local-for-local model provides far greater flexibility, faster response times and shorter lead times through proximity to the customer. It also delivers a more resilient and stable supply chain, addresses geopolitical risks and supports the environmental dimension.”

He went further: “Some studies have revealed that we might be creating more CO_2 with overseas shipments than with manufacturing itself.” This is not green posturing. It is an operational reality that procurement teams are only beginning to factor in seriously, as carbon accounting moves from voluntary to mandatory across major supply chains.

> *“The market has moved beyond a purely low-cost logic.”* - Robert Hlepas, President, Unior

For South Africa, this global shift should be an opportunity. A country with primary steel production capability, skilled secondary processors, and a manufacturing base that has survived extraordinary hardship is exactly what the “local-for-local” model requires. But that opportunity evaporates if the supply chain is allowed to hollow out in the meantime.

Investing in the Argument: What Frankwen Has Actually Done

It would be easy to write this article and leave it at rhetoric. Instead, we want to be specific about what commitment to local supply chain resilience looks like in practice - because Frankwen has been living it.

In April 2025, Frankwen Forge commissioned a new, state-of-the-art gas carburising heat-treatment facility - an 18-month build housed in a repurposed 2000 m² building on the company's existing Benoni site. The facility is one of a kind in South Africa for the size range it can accommodate, which is open to the external market.

> FACILITY SPEC: Three vertical electrically powered furnaces with sealed retorts - up to Ø2m x 5.6m long. 60 000-litre oil quench tank. On-site nitrogen generator. Full backup power. ~40 tons/month capacity.

Carburising is a case-hardening process that increases the surface hardness and wear resistance of steel components - such as gears, shafts and pinions - while maintaining a ductile core. It is critical to the gear and power transmission sector, and until now, South African manufacturers requiring large-format carburising have had limited local options. That gap has quietly driven imports - not because local capability did not exist, but because it did not exist at the required scale.

The investment directly serves the South African gear and pinion manufacturing market and brings an entire category of heat treatment back onshore. Components that previously had to travel - with all the lead time, freight costs, quality risks, and currency exposure that entails - can now be processed locally by an accountable, ISO-compliant operation with a phone number that gets answered.

> *"A gap in local capacity is not a reason to import permanently.*
> *It is a reason to invest."*

But the carburising plant is not the only investment. Over the past few years, Frankwen has consistently invested in new machinery and in improving the factory's operational layout to run

more smoothly and efficiently, with greater energy efficiency. Most significantly, the company has installed nearly 800 kW of solar generation capacity on its roof, as well as a cumulative 2000 kVA of diesel generation - a direct response to energy cost pressures and load-shedding risks that have destabilised so many South African manufacturers and contributed directly to AMSA's difficulties.

That solar and generator investment is not incidental. It is a statement that energy vulnerability is a known risk, and that a serious local manufacturer absorbs that risk through capital investment rather than passing it on to customers or using it as a justification to wind down.

Frankwen also operates Franktech, a SANAS-accredited metallurgical testing laboratory on the same premises. In-house hardness testing, grain structure verification, dimensional control, and mechanical testing are not outsourced. The quality conversation is not conducted by email across a continent. It happens on-site immediately, with test witnessing available under accreditation and accountability.

The Real Cost of Importing: What the Invoice Doesn't Say

There is a cost to importing from distant markets that almost never appears on a purchase order. It is paid in man-hours, production delays, and quality management - and it has been quietly absorbed into operations for so long that most companies have stopped noticing it.

Quality inconsistency in steel and forged components imported from lower-tier Eastern mills is well known in the industry. Tolerance variations, certification gaps, and material inconsistencies are real and recurring. What is less acknowledged is that the receiving end has developed informal systems to manage this - rework on arrival, re-inspection, adjustment machining, and material substitution - and that these systems have become invisible overhead.

The production manager who spends two hours sorting a consignment. The QC team that re-checks every batch from a particular origin. The rework that occurs on the floor before the material reaches the customer. None of this is attributed to the import decision that caused it. It simply gets absorbed as “operational cost” while the procurement report continues to show imports as cheaper.

> *“The comparison is always landed cost versus local price. It is never true cost of ownership versus local price. Those are very different calculations.”*

A reputable local secondary processor eliminates this entire category of cost. Communication is direct and occurs within the same time zone. Standards are shared and understood. ISO accreditation provides verifiable quality assurance. When something is not right, it is resolved by phone rather than by an email chain spanning eight time zones that yields nothing actionable. The relationship is accountable in a way that a distant supplier, already on to its next shipment, simply cannot be.

This is not sentiment. It is a structural cost advantage that most companies have never properly calculated because they have never had to - the cost has always been there, hidden in plain sight.

When It Matters Most: A South African Refinery in Crisis

Theory is useful. A live case study is better.

In early 2026, a major South African fuel refinery - one of the country’s critical processing facilities - was undergoing a planned shutdown when an urgent technical problem came to light. A high alloy heat-resistant cast waste heat boiler baffle had warped and bent, creating both bending and bowing issues that could not be left unresolved. With South Africa already under severe pressure from fuel shortages and oil prices climbing in the wake of the Middle East conflict, getting that refinery back online was not a maintenance issue. It was a national priority. Every day offline had real consequences for fuel supply and the country’s economy.

The project came to Efficient Engineering, which brought it to Frankwen Forge. Two requirements arrived simultaneously: straighten and restore the existing high alloy heat-resistant casting so it could

return to service immediately, and forge a brand-new solid stainless slab into a billet that would be machined into a permanent replacement baffle.

Neither task was routine. Straightening a warped high alloy heat-resistant casting of that scale - a material notoriously unforgiving to rework - was, in the words of Efficient Engineering's project manager, a first-of-a-kind operation for the Frankwen team. The stainless billet forge required immediate reprioritisation of the production floor. Both had to be done in parallel, under pressure, with a refinery waiting.

The baffle was successfully restored. The stainless billet was delivered ahead of schedule.

> *"Your team responded with immediate commitment and professionalism ... the turnaround on the stainless billet was exceptional. Despite the urgency ... your team delivered not only within the required timeframe, but ahead of schedule."* - **Vincent Grealey, Project Manager, Efficient Engineering**

Vincent Grealey, Project Manager at Efficient Engineering, formally wrote to Frankwen's directors to place on record what had been achieved. "What stands out most is your willingness to prioritise our needs at short notice, your technical capability in executing unfamiliar and demanding work, and your commitment to delivering results under pressure. This level of service and collaboration is highly valued and does not go unrecognised."

The refinery's own project team echoed the sentiment, noting the value of different teams and expertise coming together effectively under pressure - and describing it as a good sign of what can be achieved through close collaboration.

Now ask a simple question: could an imported component have solved this in time? Could a supplier eight time zones away have received the brief, assessed the baffle, reworked a high alloy heat resistant casting under pressure, forged a stainless billet, and delivered ahead of schedule - while a refinery sat offline and fuel prices climbed? The answer is self-evident.

The only reason this was solvable within the timeframe was that the capability existed locally, the relationship was already established, and the phone call was answered.

The Free Rider Problem

There is a harder truth underneath all of this, and it is worth stating directly.

When downstream buyers consistently opt for imported alternatives - finished components, processed steel, and fabricated parts from distant suppliers - they are not merely making a procurement decision. They are quietly defunding the supply chain that would protect them if global supply were to become unavailable. They are free-riding on a system they are simultaneously undermining without realising they are next in the cascading supply chain.

AMSA is the proof of concept. A primary steel producer that the market treated as optional - something that could always be replaced by an import - has found itself closing its Newcastle blast furnace and operating its remaining Vanderbijlpark capacity under sustained pressure. The downstream customers who assumed AMSA would always be there are now discovering what "always be there" actually required: consistent support from the customers it served.

> *"Downstream customers who assume local supply will always be there have not considered what 'always' actually requires."*

What Enlightened Self-Interest Looks Like

Supporting local supply chains is not charity. It is not nationalism masquerading as procurement policy. It is a straightforward act of safeguarding your own supply security. A downstream business that actively supports its local secondary processors is investing in shorter lead times when global freight is disrupted. It is investing in quality accountability when distant suppliers become unresponsive. It is investing in a supply relationship that can withstand a geopolitical shock, a port closure, a currency move, or an energy crisis. It is investing in the kind of supply chain resilience that cannot be purchased on demand once it has been allowed to disappear.

The calculation is simple once it is made honestly: what is the true cost of the import model, including rework, lead-time risk, quality management, carbon liability, and supply-chain fragility? And what is the true cost of losing local capability entirely, once the furnaces have gone cold and the processors have closed? Frankwen has made its answer clear - through capital investment, through new capability, through solarand diesel generation, and through an 18-month build that brought world-class carburising back onshore. The question now is whether downstream industry will meet that commitment with one of its own.

About Frankwen Forge

Frankwen Forge is a South African open-die forging operation established in 1981, based in Benoni, Gauteng. The company supplies high-integrity forged components to the mining, rail, power transmission, petrochemical, and general engineering sectors, with capabilities spanning billet preparation, forging, heat treatment, carburising, and rough and final machining.

Frankwen operates Franktech, a SANAS-accredited on-site metallurgical testing laboratory. The company is one of the few South African operations offering a consolidated solution for large, complex steel forgings.

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