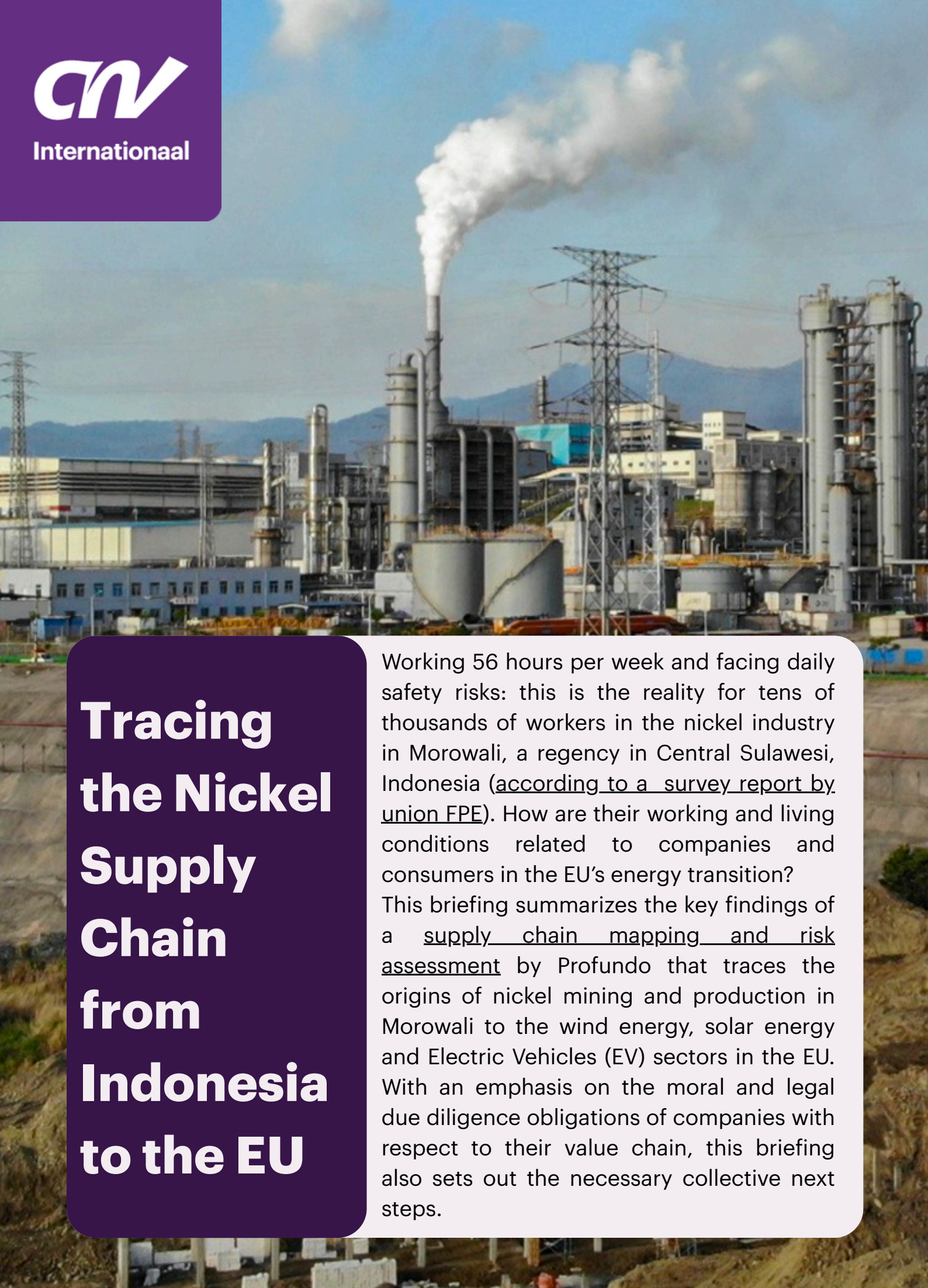


Tracing the Nickel Supply Chain from Indonesia to the EU

Working 56 hours per week and facing daily safety risks: this is the reality for tens of thousands of workers in the nickel industry in Morowali, a regency in Central Sulawesi, Indonesia (according to a survey report by union FPE). How are their working and living conditions related to companies and consumers in the EU's energy transition?

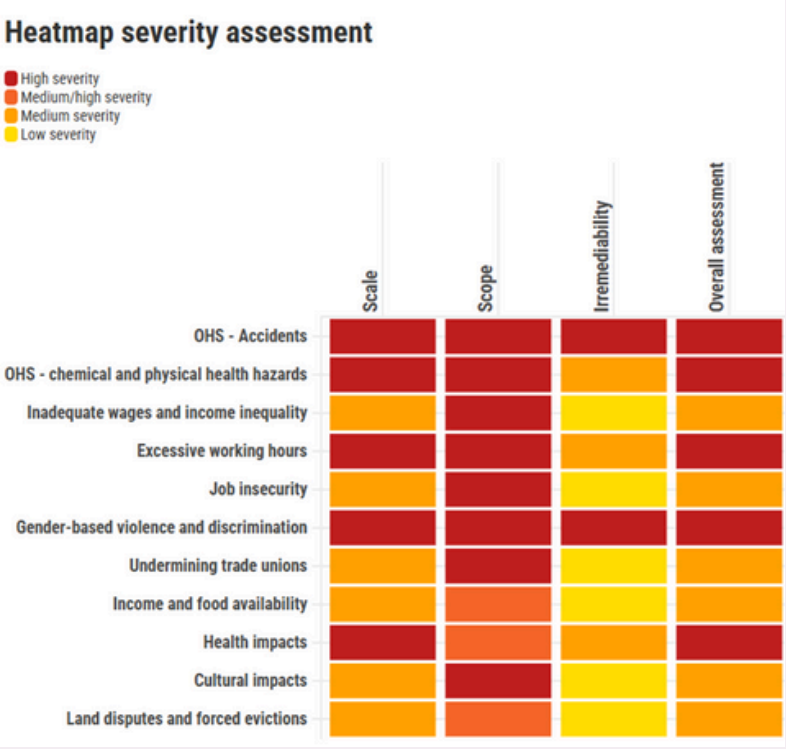
This briefing summarizes the key findings of a supply chain mapping and risk assessment by Profundo that traces the origins of nickel mining and production in Morowali to the wind energy, solar energy and Electric Vehicles (EV) sectors in the EU. With an emphasis on the moral and legal due diligence obligations of companies with respect to their value chain, this briefing also sets out the necessary collective next steps.

Nickel: a core mineral for Indonesia's economy. But at what cost?

Nickel mining and production is a surging industry key to Indonesia's economic growth strategy. Due to Indonesia's downstream policy that includes an export ban on raw nickel, the country is now the world's leading exporter of nickel products. The majority of nickel products are exported to China. Within Indonesia, Central Sulawesi is an important production province, with 117 nickel mining companies in 2023. Indonesia Morowali Industrial Park (IMIP) is a key industrial hub in the province, hosting over 50 companies focused on stainless steel, carbon steel and battery material primarily for electric vehicles. Simultaneously, the nickel industry is characterized by poor working conditions, environmental harm, air pollution, and forced evictions. The heatmap demonstrates the gravity of human and labour rights violations.

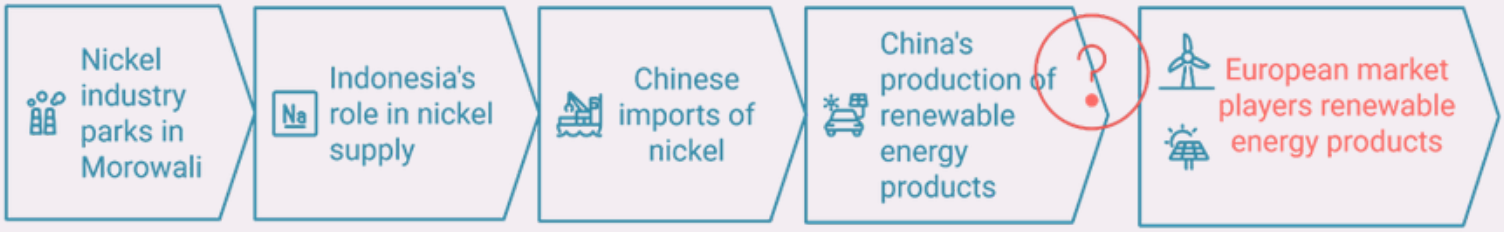
Nickel: a critical mineral for the energy transition

Nickel is the fifth most common mineral on earth and has versatile physical and chemical properties that make it crucial in a large variety of products. Nickel's main intermediate application, accounting for around two-thirds of its use, is alloying with other metals to produce stainless and heat-resisting steels. Nickel enhances corrosion resistance in metals and, thus, extends product lifespan. A smaller part of nickel's use globally is for battery production, although this is expected to grow along with increasing market demand for electric vehicles. The wind and solar power sectors as well as the EV sector rely on nickel both for their batteries as well as stainless steel elements. Each wind turbine is estimated to contain around 2 tons of nickel, while nickel alloys used in the frames and mounts of solar panels contribute to durability and longevity in harsh weather conditions and help protect panels from corrosion.



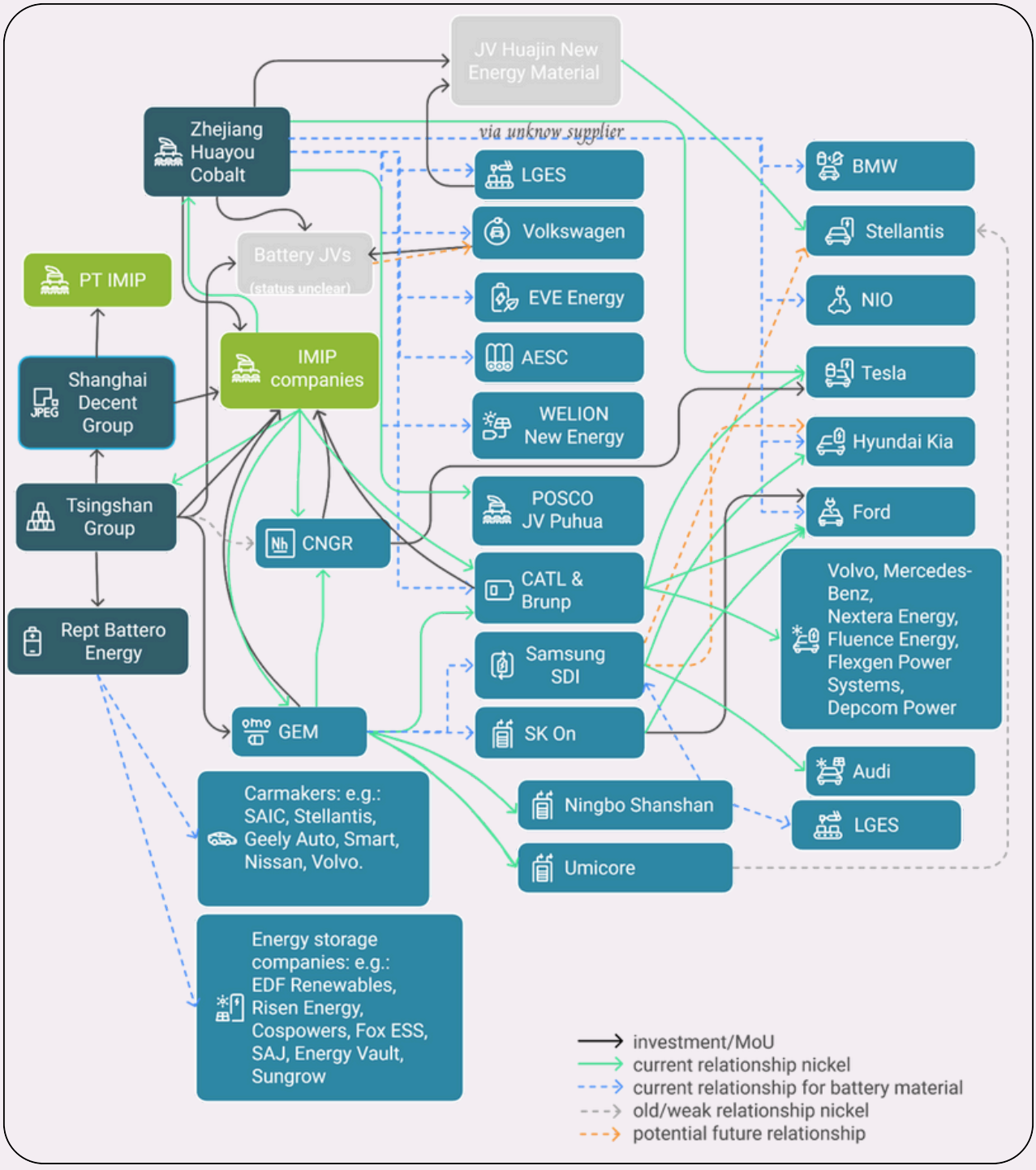
The research report traces nickel from its origin in four industrial areas in Morowali and North Morowali to the end products sold by the renewable energy and automotive sectors on the EU market. The research demonstrates that it is highly likely that many European, American and Korean car brands source nickel from Indonesia and specifically IMIP.

While the report finds (potential) links between nickel produced in Morowali and North Morowali and the electric vehicles industry, such supplier relations are more difficult to trace with regards to solar and wind energy companies in the EU. The renewable energy sector appears opaque, downstream as well as upstream, with several processing steps and companies rarely disclosing their supply relationships publicly.

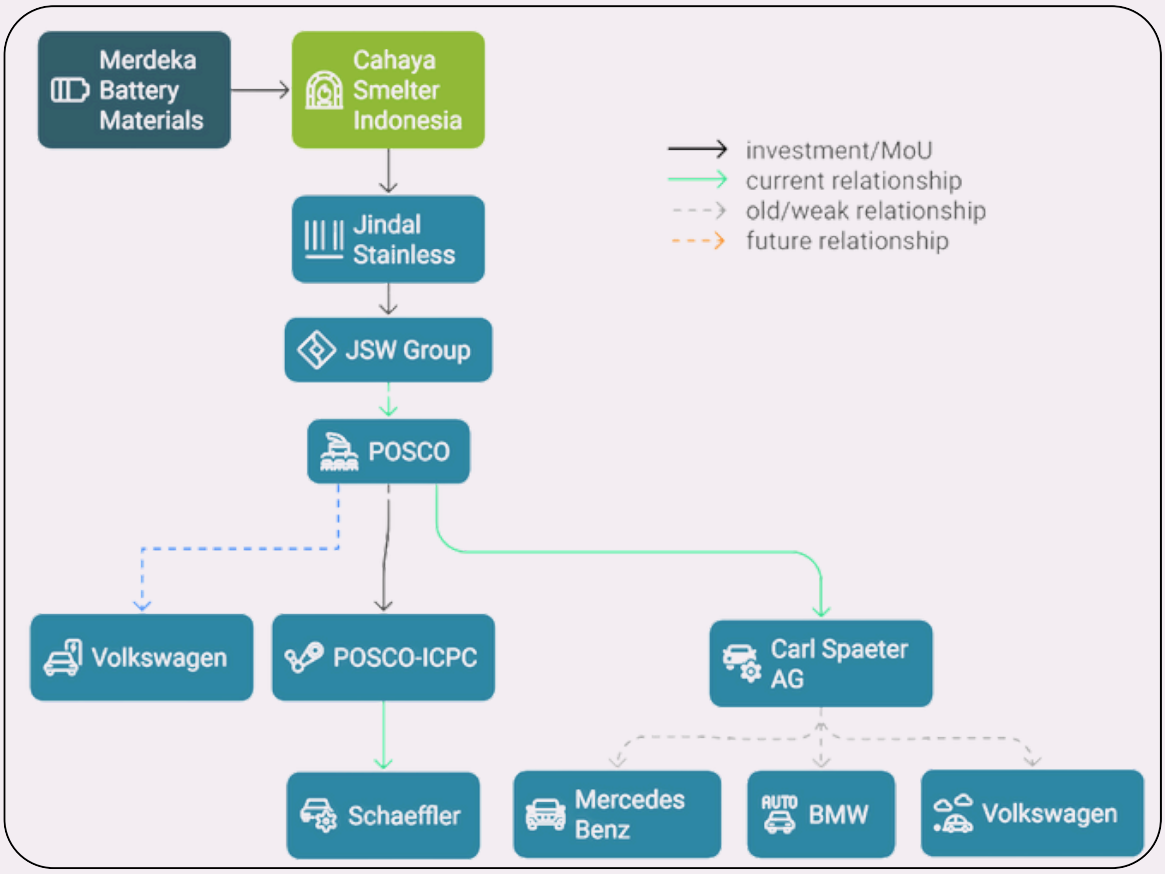


1. Of the four industrial areas, IMIP is the largest in terms of production volume. IMIP hosts the operations of more than 50 companies and covers an area of roughly 5,500 hectares. Tsingshan Group, a Chinese stainless-steel manufacturer, is the majority owner of IMIP, while the Indonesian Bintang Delapan Group, active in mining, oil & gas and chemicals, is a minority shareholder. Three clusters operate within IMIP: stainless steel, carbon steel, and raw materials for electric vehicle batteries. Exposure to nickel from IMIP is highly expected in the cases of known car brands as Volvo, Tesla, Mercedes-Benz, Ford, and Volkswagen. Functioning as key suppliers in the supply chain, linking nickel from Morwali to the EU electric vehicles market, are battery makers such as the Chinese GEM and CATL, or steelmakers such as the Korean POSCO.

TThis figure displays the potential current and future electric vehicles / energy storage battery supply chain exposure to IMIP nickel



This figure displays the future automotive and renewable energy technology supply chain exposure to IMIP nickel



2. The Indonesia Huabao Industrial Park (IHIP) is a second industrial area, but still in development. With the Chinese Zhenshi Holding Group as its leading investor, IHIP is part of China's 'One Belt, One Road' initiative. Zhenshi Group is involved in fiberglass fabrics for wind energy, special (stainless) steel and new composite materials, among others. Based on the Zhensi Group's current ownership and supply relations, the report concludes that a potential link may arise via Thyssenkrupp Materials. Thyssenkrupp is a manufacturer of stainless steel and other steel products that supplies European automakers such as BMW, Ford, Hyundai, Mercedes-Benz, Stellantis, Tesla, Toyota and Volkswagen.

3. Similarly, a third industrial area is in development, operated by PT Vale Indonesia (PTVI). PTVI is owned by Vale Canada, which in turn is a subsidiary of the Brazilian mining company Vale. PTVI already operates a large open-pit nickel mine in South Sulawesi, where it is also develops another nickel industrial area (Pomalaa). Possible future supply chain links might arise from nickel produced in Morowali to Panasonic, Toyota and Tesla for the purpose of energy storage and batteries, via SMM – a Japanese mining, processing and battery materials manufacturer.

4. The fourth and last industrial area subject to our research is PT Gunbuster Nickel Industri (GNI), which is located in North Morowali. PT GNI is in financial trouble. The company is affiliated with nickel miner, smelter, and refiner Jiangsu Delong Nickel Industry, one of China's largest steel producers that went bankrupt in 2024. Due to the financial uncertainty and limited information available, the report finds that Mercedes Benz, BMW, and Volkswagen are possibly exposed to nickel from GNI via stainless steel produced by JSW Steel and POSCO.

Towards a Responsible Nickel Value Chain: Global companies making a Fair Impact for workers and communities

Multi-stakeholder engagement:

Organizing of events and spaces in which workers, CSOs, companies and government are encouraged to together work towards a just and green energy transition in the nickel sector in Central Sulawesi.

Towards stronger social dialogue:

Training and supporting unions to promote effective social dialogue. This ensures labour rights violations and conflicts are addressed and labour standards can be improved through collective bargaining agreements.

Strengthening alliances:

Supporting the collaboration between Civil Society Organisations and unions to stimulate joint advocacy for improved social and environmental standards. Strengthening alliances between CSOs, unions, local and international companies, also building on existing frameworks of multi stakeholder initiatives like IRMA.

Using leverage within the supply chain:

In their position as buyers and sellers, companies can help create more transparency in the value chain. Companies can also jointly advocate for better cooperation between local nickel mining and production companies and local unions and workers in Indonesia - with the purpose of improving working and living conditions.

Click here to watch CNV Internationaal's video on the Nickel sector >

Nickel Supply chain mapping & risk assessment

This briefing summarizes the key findings of the report 'The Destructive Indonesian Nickel Supply Chain A supply chain mapping & risk assessment' written by S. Geurts, B. Kuepper and P. Boev from Profundo. The report was commissioned by CNV Internationaal in the framework of the International RBC Agreement for the Renewable Energy Sector. The full report is availabe on cnvinternationaal.nl/nickel

Who we are and what we do

CNV Internationaal, for 100% fair work
100% Fair work, that is what CNV Internationaal is working for every day in Africa, Asia and Latin America. We do this by working together closely with local partner trade unions and by investing in good cooperation with other partners, such as companies and governments. Fair work means that people can work safely and in all freedom, earning a living wage. Freedom of association and social dialogue are important conditions for achieving this.

Our **Fair Impact Programme** helps companies to apply HRDD by identifying labour risks and providing you with the tools you need to take action.. Our Fair Work Monitor can help you to identify labour risks, and our experience in social dialogue can facilitate addressing them. Let's build supply chains that are not only productive, but truly fair. Together.

Contact

Interested in exploring collaboration or learning more?
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