TCFD Sa

Key characteristics of climate scenarios

Scenario	Rapid Transition SSP1-2.6	Sustainable Palladium SSP2-4.5	Global Growth SSP5-8.5
Strategic focus	Low-carbon development paradigm with the global community's efforts focused on the reduction of GHG emissions	Maintaining current socioeconomic trends. Traditional industries remain centre stage along with the green economy	Abandoning efforts to curb climate change with further rapid economic growth fuelled by hydrocarbons
Inflation	High	Moderate	Low
Resource/Energy intensity	Low	Moderate reduction	High
Climate regulation	Strict	Moderate	Insignificant
Carbon price	Strong growth	Moderate growth	At 2021 levels
Temperature change by 2060	+1.9 °C	+2.2 °C	+3 °C
Probability	20%	75%	5%

The underlying assumptions vary between climate scenarios, with these differences directly linked to the Company's product portfolio. The Sustainable Palladium scenario is considered baseline; it provides for traditional industries to remain centre stage along with the growing green economy. For example, internal combustion engine (ICE) vehicles will retain a large market share, contributing to robust demand for palladium in the long run. The other two scenarios are used to stress-test the Company's financial performance.

Nornickel has identified potential transition risks and opportunities based on global economic and climate change scenarios, analysis of proposed carbon regulation initiatives, market trends, and stakeholder expectations.

Identified transition risks and opportunities

TCFD Sa, IFRS S2 10a, IFRS S2 10b

Regulatory risks

- Compliance with carbon regulations in the Company's export markets
- Compliance with national carbon regulations

Regulation-related opportunities

- Use of ESG financing tools
- Sale of carbon credits generated by climate projects

Technology risks

- Failure to achieve decarbonisation targets due to lack of access to advanced foreign low-carbon technologies

Market risks

- Restrained demand for primary platinum group metals due to declining sales of internal combustion engine vehicles
- Restrained demand for primary nickel due to the development and mass production of new nickel-free batteries
- Restrained demand for primary metals due to increased recycling

Market opportunities

- Higher demand for primary nickel and copper, driven by transport electrification, the expanding hybrid vehicle market, and the growth of renewables
- Growing demand for primary platinum group metals due to the use of platinum and palladium in the hydrogen economy and of palladium in vehicle hybridisation

Reputational risks

- Increased protest activity by non-profit organisations and local communities, including indigenous peoples of the North

To mitigate risks arising from the need to comply with carbon regulations, the Company regularly monitors legislation both in Russia and in its export markets.

The introduction of the CBAM[1] in the European Union does not pose any risk to the Company in the short term, as non-ferrous and platinum group metals are not currently covered by the cross-border carbon tariff. The Company continues to monitor developments in carbon regulation and to forecast the potential associated costs going forward.

In the long term, Nornickel relies on its competitive advantage – one of the lowest product carbon footprints in the industry.

The Company is also exploring opportunities for trading carbon credits that may be generated through the implementation of climate projects.

Sustainability assessment of Nornickel's product portfolio

TCFD Sb, TCFD Sc, IFRS S2 13a, IFRS S2 13b, IFRS S2 22a

One of the key drivers of Nornickel's long-term strategy is the growing demand for the Company's metals to support the development of a low-carbon economy. By supplying green metals to the market, the Company is already actively contributing to the global transition to cleaner modes of transport and renewable energy.

Key climate change factors affecting demand for the Company's products

Factors	Ni	Pd/Pt	Cu
Growth of battery electric vehicle (BEV) market share	↑	↓	↑
Expansion of the hybrid vehicle market	↑	↑	↑
Growth of the fuel cell market and the hydrogen economy	→	↑	→
Increased power generation from renewables / low-carbon fuels	↑	↑	↑
Expansion of energy-storage and charging infrastructure to support growth in EVs	↑	→	↑
Net effect	↑	→	↑

IFRS S2 25b

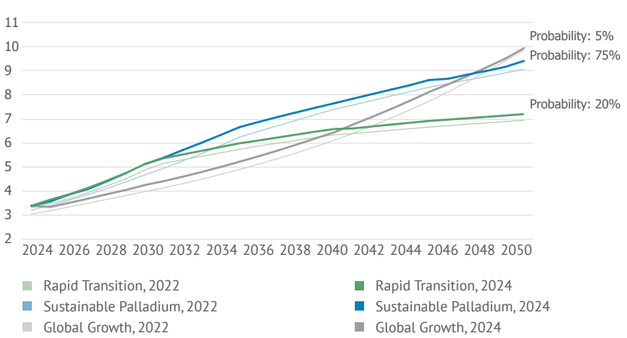
To assess market-related transition risks and opportunities, Nornickel modelled changes in demand for key metals under its three proprietary global economy and climate change scenarios.

Based on the updated 2024 scenarios, the Company revised its metal consumption forecasts.

[1] Carbon Border Adjustment Mechanism.

Nickel

Primary nickel consumption, mln t



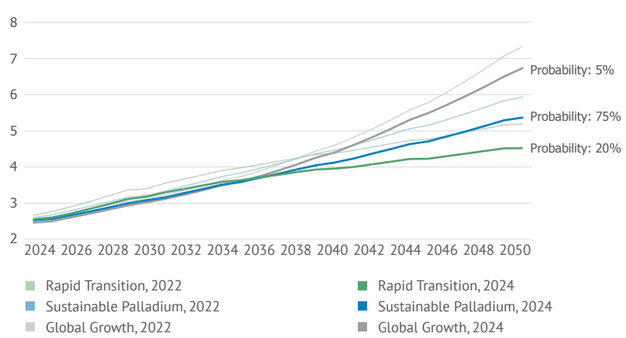
Nickel is a key material for the production of stainless steel, which is widely used across various sectors – from mechanical engineering and construction to renewable energy. In addition, nickel is a primary metal used in the production of next- and future-generation batteries, which in turn are crucial for the development of electrified transport.

Despite strong decarbonisation efforts and a shift to electric vehicles in the Rapid Transition scenario, higher nickel demand is expected in the Sustainable Palladium scenario due to faster GDP growth and greater production of electric vehicles, and under the Global Growth scenario on the back of a significant increase in demand for the metal from the stainless steel and alloy industries.

Nickel forecasts have been revised slightly upwards: in the Rapid Transition scenario, this is driven by projected higher consumption in the renewable energy sector, while in the Sustainable Palladium scenario, it reflects rising global sales of electric vehicles.

Copper

Primary copper consumption, mln t



Copper is a critical metal for the transition to a low-carbon future, widely used in high-tech equipment, including components for renewable energy systems. More than 70% of global copper output is used in the production of cable and wire products. Copper consumption is expected to at least double by 2050.

Similar to the nickel demand outlook, higher GDP growth and greater electrification of transport are expected to drive increased long-term copper consumption under the Sustainable Palladium scenario compared to the Rapid Transition scenario. The highest demand for copper is projected under the Global Growth scenario, supported by the strongest GDP growth and the resulting peak copper needs in sectors such as transport, air conditioning and refrigeration, construction, heavy engineering, and consumer goods.

The downward revision in copper consumption forecasts reflects a reassessment of the intensity of copper use in electric vehicles, solar panels, and wind power, as well as a lower projected average annual global GDP growth rate.

Palladium

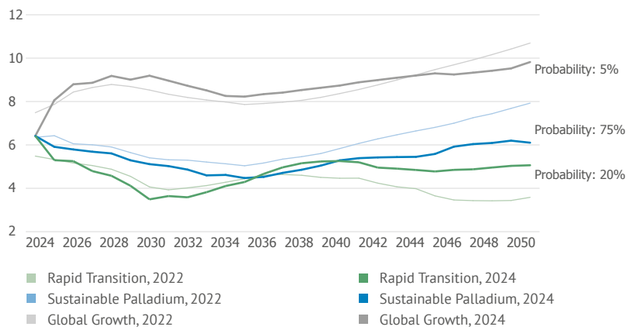
More than 80% of medium-term palladium demand is driven by catalytic converters (“catalysts”), primarily used in petrol engines, including hybrids. The installation of catalysts in vehicles is mandatory and legally regulated in most countries.
The remaining share of palladium consumption comes from the electronics, dental, jewellery, chemical, and pharmaceutical industries. Palladium also has potential applications in technologies for long-distance hydrogen transportation and purification.

In the Sustainable Palladium scenario, which the Company has adopted as the most likely, demand for palladium remains stable through to 2050, supported by the continued high share of ICE vehicles and moderate electrification of transport.

The lowest demand for palladium is expected under the Rapid Transition (green) scenario, which assumes a decline in the total number of vehicles and a gradual phase-out of ICE cars in key global economies.

The highest demand is expected in the Global Growth scenario, driven by robust GDP growth and strong demand for palladium, primarily in the transport sector due to increased hybrid vehicle production, as well as in the jewellery industry.

Primary palladium consumption, Moz



In the updated Sustainable Palladium scenario, the forecast for ICE vehicle sales has been revised downward, which negatively impacted the palladium demand outlook. Conversely, in the Rapid Transition scenario, the outlook for palladium has improved due to an expected uptick in ICE vehicle sales.
In the Global Growth scenario, however, a decline in palladium consumption in other sectors by 2050 is attributed to a lower average annual global GDP growth rate.

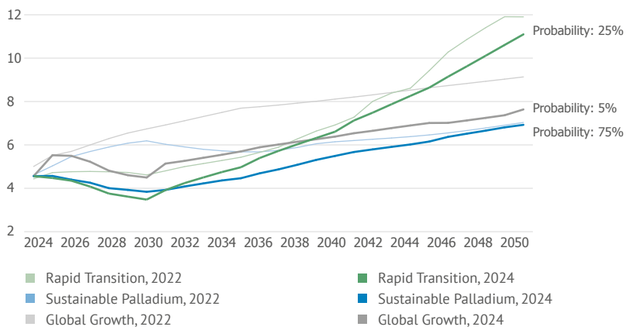
Platinum

40% of platinum consumption comes from the automotive industry, where it is used in catalytic converters for vehicles with internal combustion engines, including hybrids. A further 25% of platinum demand comes from the jewellery industry. Platinum is also used in the glass and electronics industries. In addition, platinum is a critical component of catalysts used in electrolysers for green hydrogen production and in fuel cells deployed in both transport and stationary hydrogen energy systems.

Platinum demand is expected to increase across all scenarios. In the Global Growth and Sustainable Palladium scenarios, demand is primarily driven by the continued high share of ICE vehicle production.

The Rapid Transition scenario is projected to show the highest demand by 2050. Despite a decline in ICE vehicle sales, this scenario sees stronger growth in hydrogen energy and the fuel cell market, leading to greater platinum demand compared to the other two scenarios.

Primary platinum consumption, Moz



The downward revision of platinum consumption forecasts across all updated scenarios is attributed to a lower average annual global GDP growth outlook, as well as increased substitution of platinum with palladium in automotive catalysts. In the Rapid Transition scenario, the decline is further driven by lower sales projections for hydrogen-powered vehicles. In the Sustainable Palladium scenario, it stems from reduced forecasts for ICE vehicle sales, while in Global Growth, it reflects a downward revision in overall vehicle sales.