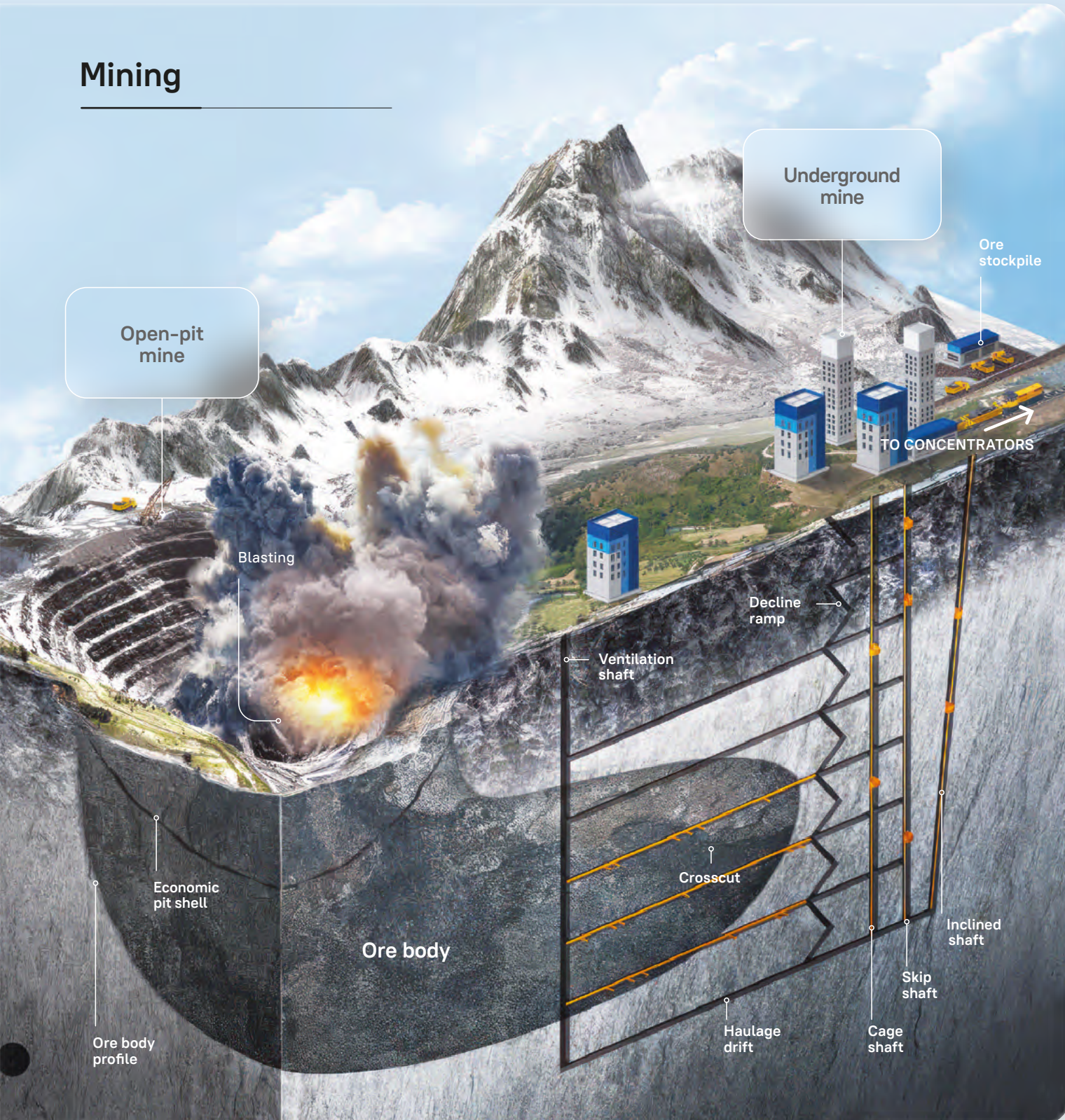


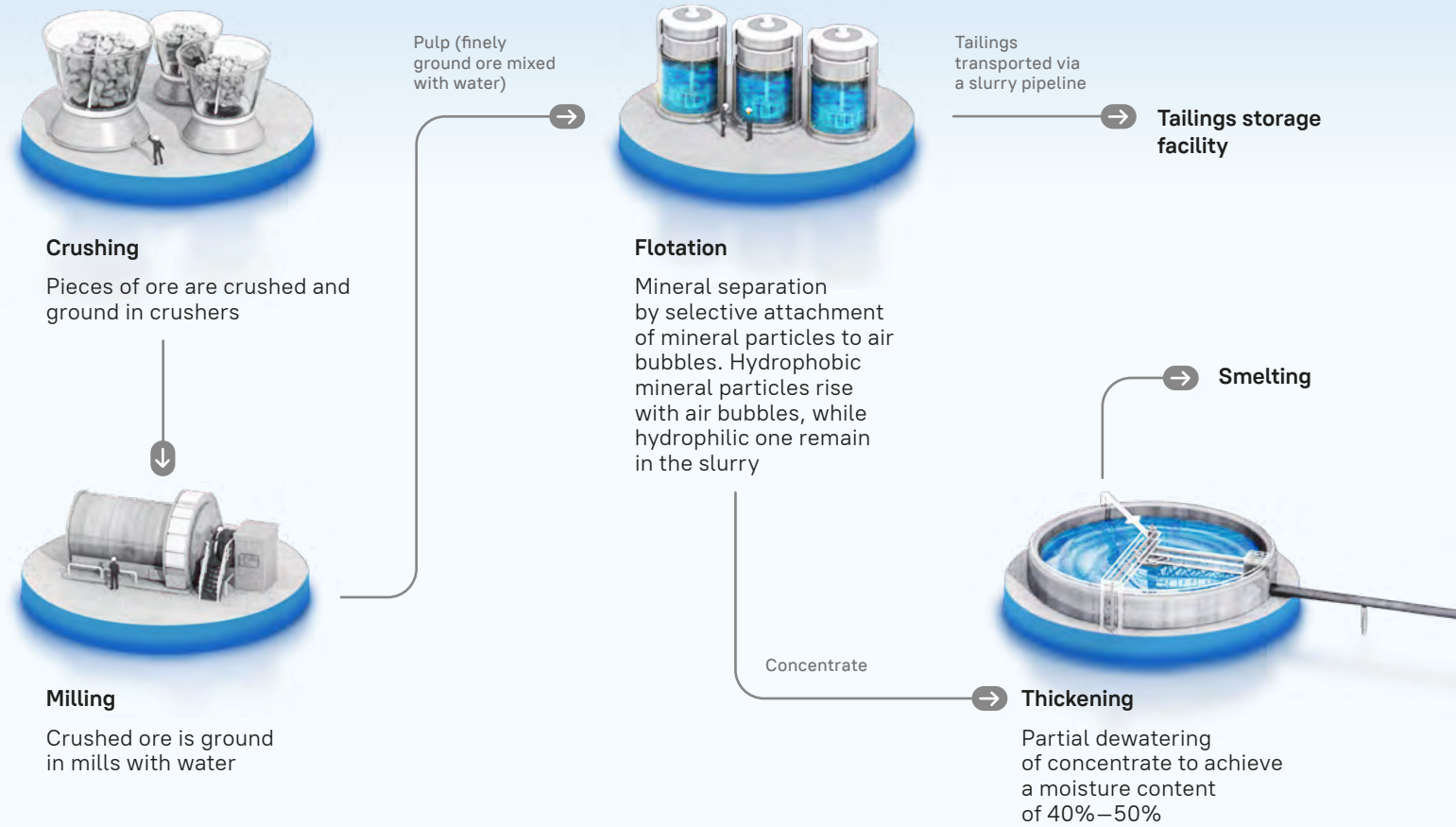


# Production chain

## Mining



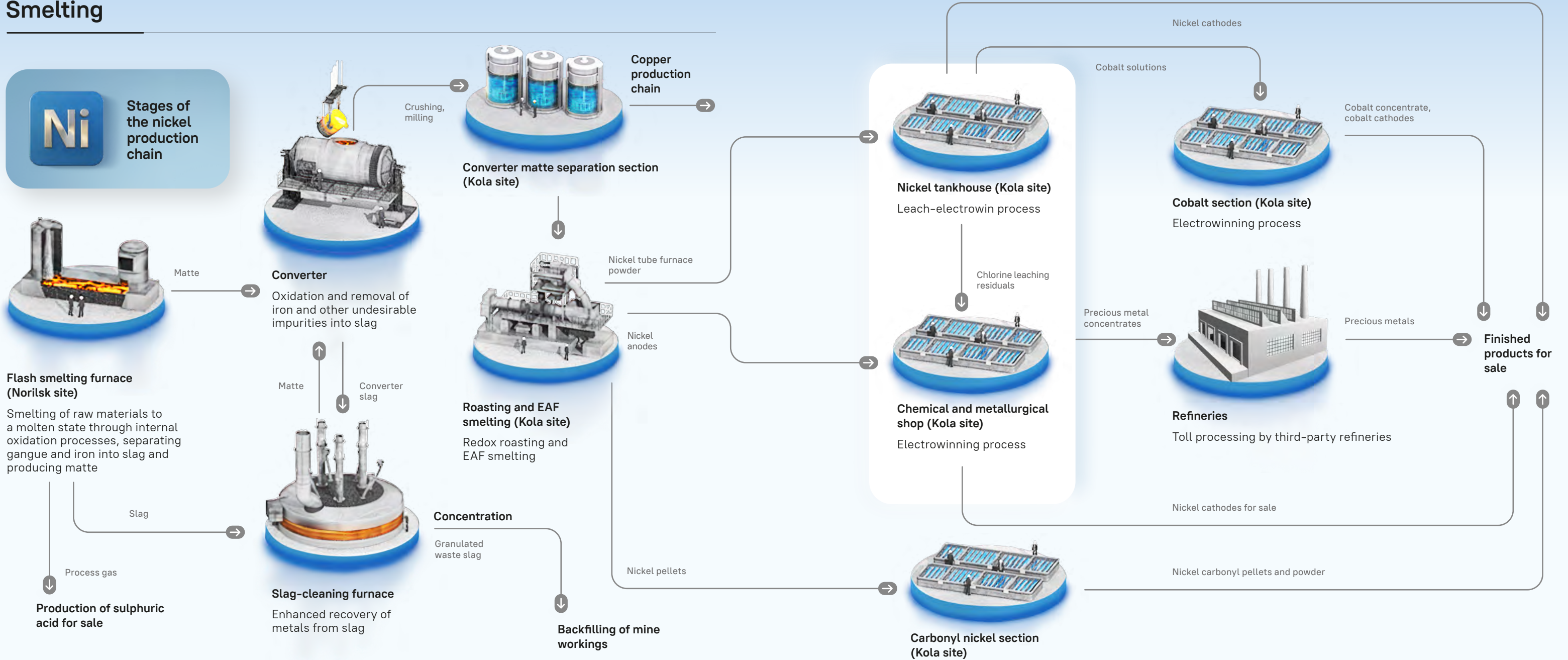
## Concentration





# Smelting

**Ni** Stages of the nickel production chain





Cu

Stages of the copper production chain



Matte



Blister copper



Copper anodes



Copper cathodes

Electrolysis

Dissolution in electrolyte and deposition of pure metal on cathodes. Precious metal impurities insoluble in the electrolyte fall to the bottom of the electro-winning cell in the form of sludge

Finished products for sale



Sludge

Selenium



Metallurgical shop (Norilsk site)

Processing of sludges and semi-products with high precious metal content

Precious metal concentrates



Refineries

Toll processing by third-party refineries

Precious metals

Vanyukov furnace

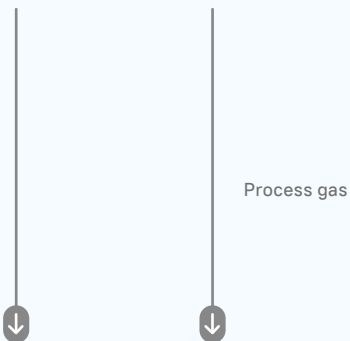
Smelting of raw materials to a molten state through internal oxidation processes, separating gangue and iron into slag and producing matte

Converter

Oxidation and removal of iron and other undesirable impurities into slag

Anode furnace

Removal of impurities into slag



Waste slag

Process gas

Production of commercial sulphur and sulphuric acid for operational needs

