

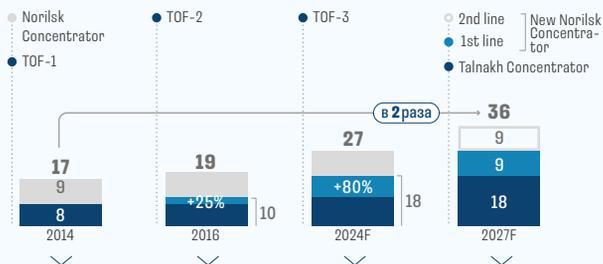
# Production growth and comprehensive infrastructure upgrades

## PRODUCTION CONFIGURATION ROADMAP



### CONCENTRATOR CAPACITY UPGRADES

#### Concentration capacity (Mtpa)



#### Talnakh Concentrator upgrades

##### Phase 1:

Increased and optimised operating rate

Improved nickel recovery rate (+1%)

Upgraded facilities

##### Phase 2:

Capacity increased to 10.2 Mtpa

New technology adopted

##### Phase 3:

Under construction

Target capacity: 18 Mtpa

Improved recovery rate (+4%–7%)

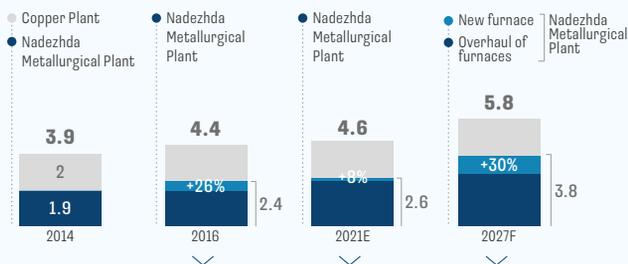
#### New Norilsk Concentrator

Targeted capacity addition: up to 18 Mtpa

New production facility based on proven modern technology

### SMELTING CAPACITY UPGRADES

#### Smelting facilities throughput (Mtpa)



#### Nadezhda Metallurgical Plant

##### Phase 1

Upgrade of flash smelting furnaces to expand throughput to 2.4 Mtpa

Smelting, concentrate drying and filtering facilities upgraded

##### Phase 2

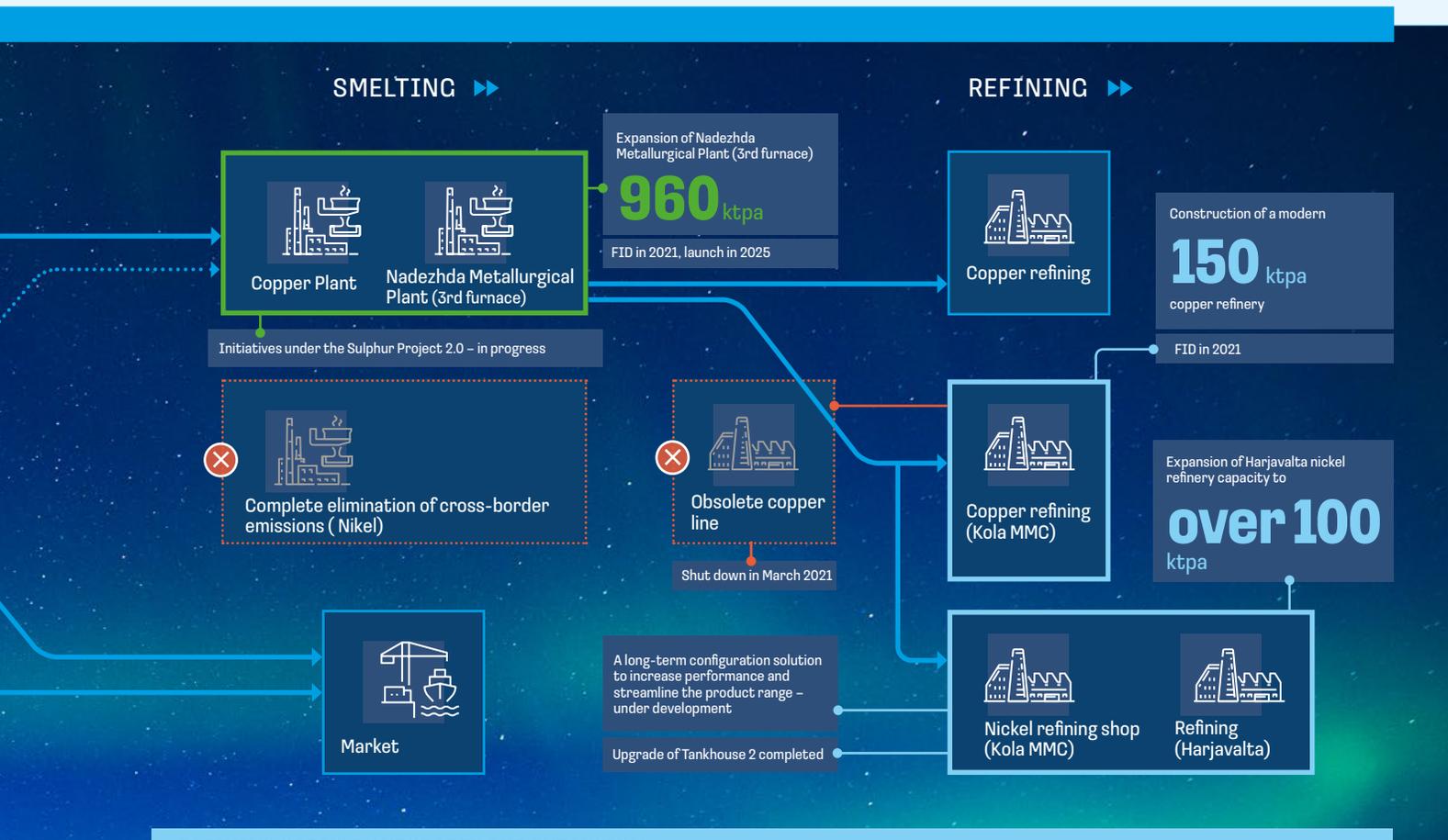
Debottlenecking initiatives

Throughput increased to 2.6 Mtpa

#### Maintenance of flash smelting furnaces at Nadezhda Metallurgical Plant in 2022–2024

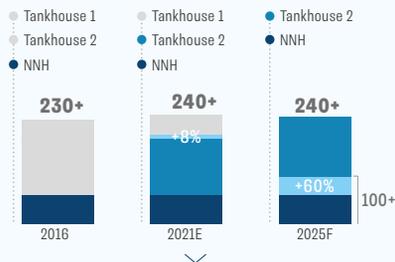
3rd furnace at Nadezhda Metallurgical Plant

Continuous converting complex at Copper Plant



**REFINING CAPACITY UPGRADES AND EXPANSION**

**Nickel refining (ktpa)**

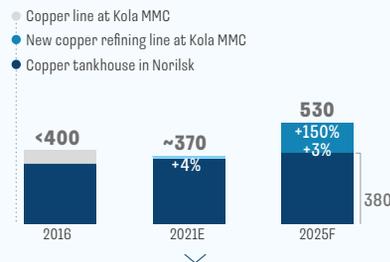


**Kola Division**

Tankhouse 2: Technological upgrade and capacity expansion

Harjavalta (NNH) capacity expansion to 100+ ktpa of high-quality nickel products

**Copper refining (ktpa)**



**Kola Division**

Obsolete copper line in Monchegorsk shut down (March 2021)

Construction of a new 150 ktpa copper refining line using the roasting, leaching and electrowinning technology

**Norilsk Division**

Incremental capacity expansion of the copper tankhouse in Norilsk

**HARJAVALTA NICKEL REFINERY: EXPANSION**

**Project overview**

- Capacity expansion to boost the output of high-quality nickel products
- Capturing operational synergies from existing infrastructures

**Project rationale**

The decision to increase capacity is driven by a growing European market demand for the Company's high-quality battery materials with the industry's lowest carbon footprint

**Project timeline**

2023: Phase 1

**75**  
kt Ni<sup>1</sup>

2026: Phase 2

**>100**  
kt Ni<sup>1</sup>

1 Total capacity