



USD **4.4–4.8** bn

Investments in core projects, 2018–2020

## Key investments

The framework investment programme provides for large-scale modernisation and expansion of the production capacities, consistent renovation and upgrade of the infrastructure, development of the Talnakh ores, and maintaining a stable production level. The Chita project, one of the largest greenfield projects in Russia’s mining industry, is also part of the framework investment programme.



Over the next three years, we will be going through a higher CAPEX stage which will allow us to both maintain stable production levels and establish a strong foundation for new high-potential projects.”

**Vladimir Potanin**

# Large-scale asset modernization and development of the mining base

# Mining projects

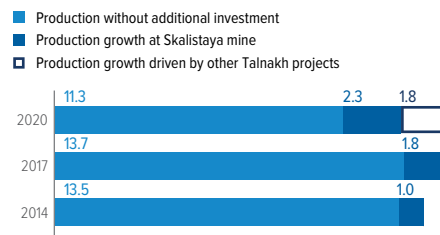
## Taimyr Peninsula Polar Division

### In the mid-term, the investment programme will ensure a stable level of production

- Increased rich ore production at Skalistaya mine will preserve metal content in commercial ore at the current level.

- The resource base of the Talnakh Ore Cluster has a strong potential for further development. In 2018–2019, the Company will make decisions on expanding the production capacities at the Oktyabrskoye and Talnakhskoye Fields.

### Production volumes at Talnakh Ore Cluster // mt



USD **1.5** bn

investments in Talnakh mines development in 2018–2020

# Development project

## Chita Project GRK Bystrinskoye

### Achieving target financial indicators is one of the MMC's key priorities

- Hot commissioning started in November 2017.
- Planned processing capacity post-2021 – 10 mt.
- Target metal output in concentrates:
  - ~70–75 kt of copper,
  - ~250–260 koz of gold,
  - ~2,900 kt of magnetite concentrate.
- Life of the project – over 30 years.

The reserves are estimated at

**336** mt of ore

 **295 t**


 **2.3 mt**

 **73 mt**

Project investments

~USD **1.7** bn

More details on the project

 p. 93

# Reconfiguration of the processing capacities

## Kola Peninsula Kola MMC

### Establishment of a nickel refining hub at Severonickel Plant

Works are underway to expand nickel refining capacities from 165 ktpa to 190 ktpa and to switch nickel electrolysis shop-2 to a new chlorine leaching technology.

## Taimyr Peninsula Polar Division

### Upgrade and ramp-up of Talnakh Concentrator

The capacity of Talnakh Concentrator increased from 7.5 mtpa in 2015 to 10.2 mtpa in 2018. Nickel content in nickel-pyrrhotite concentrate increased by more than 60%.

### Upgrade of the flagship Nadezhda Metallurgical Plant

We have upgraded and ramped up smelting capacities of Nadezhda Metallurgical Plant, which has become the smelting hub for all nickel feedstock of Polar Division. Compared to 2014, the capacity grew by 26%.

#### Nickel Plant shutdown

In August 2016, the Company shut down Nickel Plant, which had been in operation since 1942. The shutdown involved providing strong social guarantees to the plant workers. The project resulted in 30–35% reduction of SO<sub>2</sub> emissions in the residential area of Norilsk.



**+25** ktpa

nickel refining capacity expansion at Kola MMC

**+2,7** mt

concentration capacity expansion at Talnakh Concentrator by 2018

# Infrastructure upgrades

## Project highlights

As part of its strategy, Nornickel will allocate USD 1.1–1.2 bn to infrastructure renewal and upgrades during 2018–2020. The projects include a large-scale infrastructure renewal: renovation of worn out gas transportation and hydropower facilities, replacement of power units, and reconstruction of critical production assets, transport infrastructure, and power grid.

**USD 1.1–1.2 bn**

investments in infrastructure projects, 2018–2020

### 2018–2022 targets



#### Power supply

- Gradual replacement of six retiring power units with the total capacity of 550 MW



#### Auxiliary operations

- Replacing the required resources, including construction of a new limestone quarry



#### Core operations

- Replacing core types of equipment to enhance its overall performance
- Transition to new rock bolting systems to improve safety



#### Transport infrastructure

- Reconstruction of critical facilities (airport, seaport, oil depot, warehouses, etc.)



#### Power and utilities

- Parts of the comprehensive programmes: power line replacement (30 km), gas distribution networks (111 km), drinking water supply to Dudinka, etc.

[More on gas and power assets](#)

[p. 94](#)

Scheduled for replacement in 2018–2022 are:



six power units with the total capacity of

**550 MW**



gas distribution networks with the total length of

**111 km**



a power line with the total length of

**30 km**