

# 3.0 Strategy



# 3.1

## MISSION

To manufacture high-quality metal products for the energy, transport, construction and other industries with an optimal price-performance ratio to best meet the needs of our customers



# 3.2

## VISION

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**OMK** produces high-quality, high-demand metal products that meet consumers' most stringent requirements

**OMK** is an integrated supplier of products and solutions for Russian energy companies

**OMK** is a first-class team of professionals





## 3.3 AREAS FOR DEVELOPMENT

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In 2017, OMK continued to implement its chosen strategy of long-term expansion, improving efficiency and strengthening the company's position in the industry and on the markets.

**Our objective** is to become the key supplier of integrated solutions for the oil and gas industry and the most efficient metals company in Russia.

**The model we have chosen** is based on the development of our own state-of-the-art products, including import-substitution products, which meet customers' most stringent requirements, both current and potential.

- Improving operational efficiency
- Expanding the product line
- Fostering a corporate culture
- Reaching new markets
- Perfecting the business model
- Carrying out projects in partnership with other companies
- Managing critical risks
- Digitalizing production processes and management
- Engaging in responsible business practices

# 3.4 STRATEGY IMPLEMENTATION — NEW PRODUCTS

## DEVELOPMENT OF NEW PRODUCTS



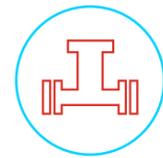
### Pipes

- Large diameter pipes for pipeline sections in areas with active tectonic faults
- Pipes with polyurethane foam coating. A facility has been set up at VSW to apply polyurethane foam insulation to 219–1020-mm-diameter pipes
- Pipes with cladding
- Smooth casing pipes 244.48 mm and 339.72 mm in diameter (strength group J55) per API 5CT requirements with plans to expand pipe sizes to 426 mm, and also high-strength casing pipes
- Casing pipes with premium threads and additional properties
- New large profile sizes up to 300x300 mm, compliant with Russian and international standards, and pipes of structural grade steel
- High strength (category K60) pipes for pipeline construction



# 3.4 STRATEGY IMPLEMENTATION — NEW PRODUCTS

## DEVELOPMENT OF NEW PRODUCTS



### Fittings and valves

- Stamped T-bends for the Portovaya compressor station, the most powerful in the world. The 219.1-mm-diameter item with wall thickness of 28 mm is designed for pressure of 28.45 MPa.
- Fittings and fasteners for nuclear power plants and cogeneration plants
- Import-substitution ball valves for the gas industry and new sizes of 6th-generation high-capacity spring-loaded safety relief valves
- Modular equipment for the oil, gas and energy industries, including the production, storage and processing of hydrocarbons and gas condensate



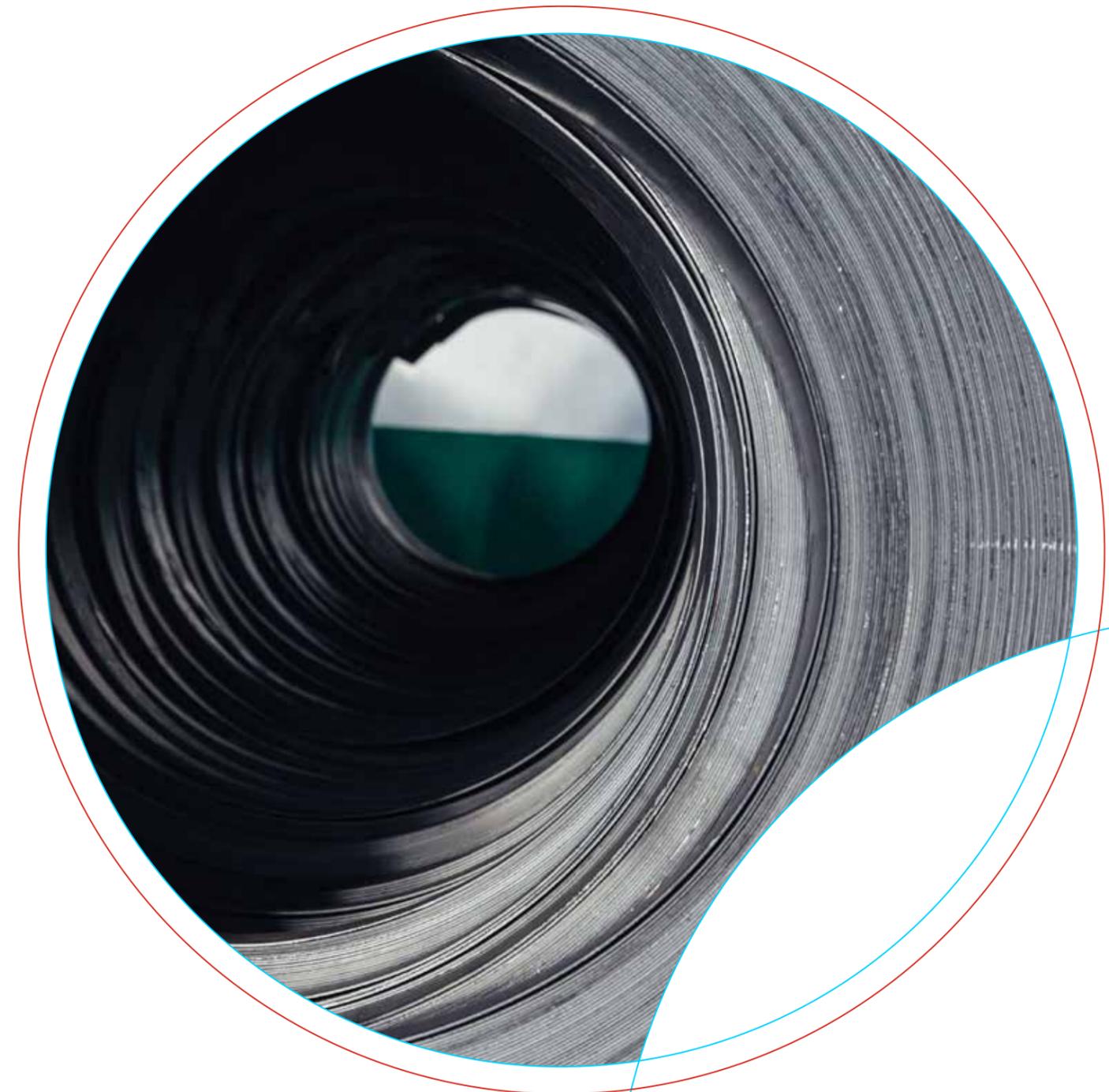
# 3.4 STRATEGY IMPLEMENTATION — NEW PRODUCTS

## DEVELOPMENT OF NEW PRODUCTS



### Railway wheels, springs and steel

- 957-mm-diameter railway wheels made of grade 2 steel of low-stress structure with reduced weight and an increased safety margin
- Steel sheet for construction produced by VSW from grade ST3 and S390 steel up to 150 mm thick and up to 3100 mm wide
- Rolled sheet meeting additional impact viscosity requirements for machine building, construction and the petrochemical and energy industries
- More than 50 new types of automotive springs, including for foreign models



# 3.5 SUCCESSFUL PROJECTS AND CASE STUDIES IN 2017

- OMK plants made significant progress in the development of production systems, especially VSW (which was awarded a silver medal by Toyota Engineering Corporation auditors for the best production system in the global metals industry) and APP (bronze medal)
- An advanced goal-setting system is being introduced in the company with the aim of achieving continuous improvement and the best possible results
- VSW is introducing the Manufacturing Execution System, an automated operational management system. It gathers data on production, optimizes planning, improves process synchronization, etc.

Over a period of four years beginning in February 2017, all pipe and wheel rolling plants will be equipped with advanced information tools for real-time production management

- By creating an integrated production safety management system, including occupational, industrial, transport, environmental and fire safety management, and ensuring the safety of production processes and the occupational health of staff, it has been possible to reduce work-related injuries in the company by 50% over the past three years



# 3.5.1

## NEW PROJECTS WITH PARTNERS

- OMK and Rosatom signed a long-term road map for joint projects to develop new grades of steel, and import-substitution pipeline valves, and to create and use materials for the production of wind energy plants and other areas
- OMK and Metalloinvest signed a long-term contract up to 2027 for the supply of steel blanks for the manufacture of solid-rolled railway wheels. This guarantees reliable fulfilment of all orders and production of VSW wheel products that meet the latest standards and customers' most stringent requirements



# 3.6 INVESTMENT AND R&D

The following key investment projects were launched in 2017:

- Increased output at the Casting and Rolling Mill
- Construction of a shop for production of couplings at VSW
- Installation of a quench tank at VSW pipe shop 3
- Expansion of the VSW machining section
- Establishment of a preservative coating section at VSW pipe shop 5
- Construction of a mill for production of short-sheet springs at CSW

The following projects produced outcomes during the reporting period:

- Modernizing the blank section to change over to production of continuous cast billets (stage 1)
- Upgrading the local heat treatment unit at VSW pipe shop 3
- Setting up a facility for application of polyurethane foam coatings at VSW
- Upgrading the furnace to increase the output of the coupling blanks manufacturing section at VSW
- Increasing the output of the pipe air hardening furnace
- An inductive heating unit in the RV1600 mill's straight-line section was introduced at Trubodetal Plant, enabling OMK products to meet Gazprom requirements



# 3.6 INVESTMENT AND R&D

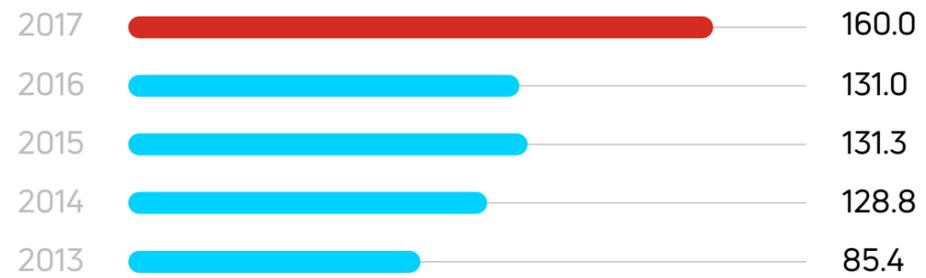
## 12.5

Investment (RUB billion)



## 160.0

R&D expenditure, (RUB million)





# 3.7

## MARKET OVERVIEW

### OMK

products or the oil and gas, transport and other key industries are in demand worldwide. Our company supplies pipes, railway wheels and automotive springs **to more than 20 countries around the world.** Nevertheless, the key markets for OMK are Russia and the CIS.

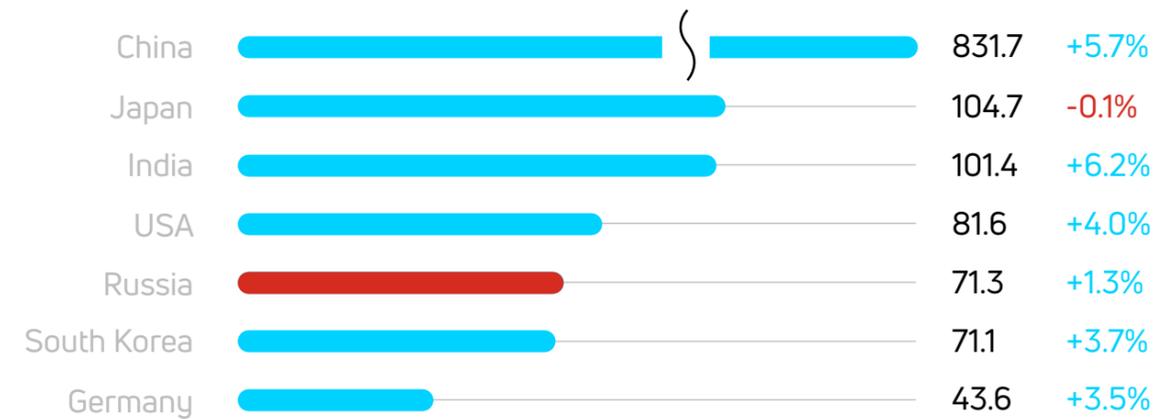
### World steel production in 2017

millions of tonnes

1,691.2 +5.3%

### Largest steel producers by country

millions of tonnes



### GLOBAL STEEL MARKET

According to a report by the World Steel Association (Worldsteel), total global steel production in 2017 was 1,691.2 million tonnes, 5.3% higher than the year before. Growth was observed in all regions except the CIS, where production remained at roughly the 2016 level.

As in the previous year, Russia ranked fifth in terms of production volume, with an increase to 71.3 million tonnes.

# 3.7 MARKET OVERVIEW

## Domestic market

### Pipes, fittings and pipeline valves

Pipes are OMK's key business, accounting for more than 80% of company revenues, so the situation on the domestic tubular product market is crucial.

According to an estimate from the Pipe Industry Development Fund, pipe consumption in Russia increased by 3% in 2017 compared with 2016. The key drivers were OCTG, due to the continuing development of a number of fields, and industrial and construction pipes, due to large-scale infrastructure projects.

However, consumption of large diameter pipes continues to fall. Russian market capacity decreased by 19% in 2017. Total consumption peaked two years ago at over 2.8 million tonnes; in the reporting year it was no more than 1.75 million tonnes. The situation is further complicated by the fact that over the past two years, according to the Pipe Industry Development Fund, an additional 1 million tonnes of excess capacity for large diameter pipe manufacture has appeared in Russia.

The reduction in the number of large oil and gas pipeline projects has had a correspondingly adverse impact on the demand for pipeline fittings and valves.

This trend is expected to continue in the near future. On the other hand, pipes are being used more widely in modern, large-scale construction, from stadiums to shopping centres. This is fuelling a rise in demand for special pipes for the construction industry.

### Railway wheels

After a long three-year decline, the railway wheels market, which is cyclical in nature, began to pick up in 2017. This growth was due to the improvement in the economy, particularly in rail transport, and the deferred demand that had built up over the past three years. Furthermore, production of specialized cars increased by a factor of 1.5. Based on rail car production data for 2017, car manufacturers' reports and consumption statistics, OMK estimates that the maximum demand for wheels on the Eurasian Economic Union market will remain at the 2017 level for the next two years.

### Springs

According to the analytics agency Autostat, the market for new trucks in Russia grew by 28% in 2017, leading to growth in the springs market as well. However, competition in the springs segment continues to increase.



# 3.7 MARKET OVERVIEW

## Foreign markets

Outside the CIS, there is fierce competition between a large number of underutilized pipe manufacturing plants, and this situation has been aggravated in 2017–2018 due to the commissioning of new pipe plants manufacturing straight and helical seam large diameter pipes in Saudi Arabia, the UAE, Turkey and Nigeria.

### Europe

Steel pipe production in the EU increased by 8% in 2017 due to the relatively active expansion of pipeline projects, as well as growth in the automotive and construction sectors. According to forecasts for 2018, production will decrease as the supply of pipes for the main pipeline projects in the region comes to an end.

### Africa and the Middle East

China continues to increase its influence in the African oil and gas sector, competing with American and European companies. Investment by international oil and gas companies in developing the energy sector in African countries increased in 2017. Current energy price levels, however, were insufficient for complex projects to be implemented.

Egypt and Israel were the key drivers of the growth in hydrocarbon extraction due to the opening of gas fields in the Mediterranean. Next year could see a rise in hydrocarbon extraction and consumption of steel products connected with oil and gas projects in East Africa.

In the Middle East, oil and gas companies plan to start work on the construction of large pipelines such as the Iraq–Jordan and TAPI pipelines.

### America

Offshore drilling got underway once more in the US and Canada in early 2017 as the oil and gas companies increased investment after two years of cutbacks.

The number of working drilling rigs in the US rose by 40% in 2017. Oil extraction in the country stood at 9.2 million barrels/day in 2017, with forecasts suggesting it could reach 10 million barrels/day in 2018, the highest level since 1970.

The USA supplied its first shipment of liquefied natural gas to Central Europe in June 2017, and considers that this will contribute to ensuring the reliability of energy supplies to the region. Several memoranda on resuming pipeline construction projects that had been put on hold.

However, in several countries in the region — Mexico, Argentina and Venezuela — drilling decreased.

