CREATING A NETWORK OF ULTRA-HIGH-SPEED LINES IN RUSSIA

ULTRA-HIGH-SPEED LINES IN RUSSIA

The VSM – a specialist double-track electrified railway line with speeds of

200–400 kph

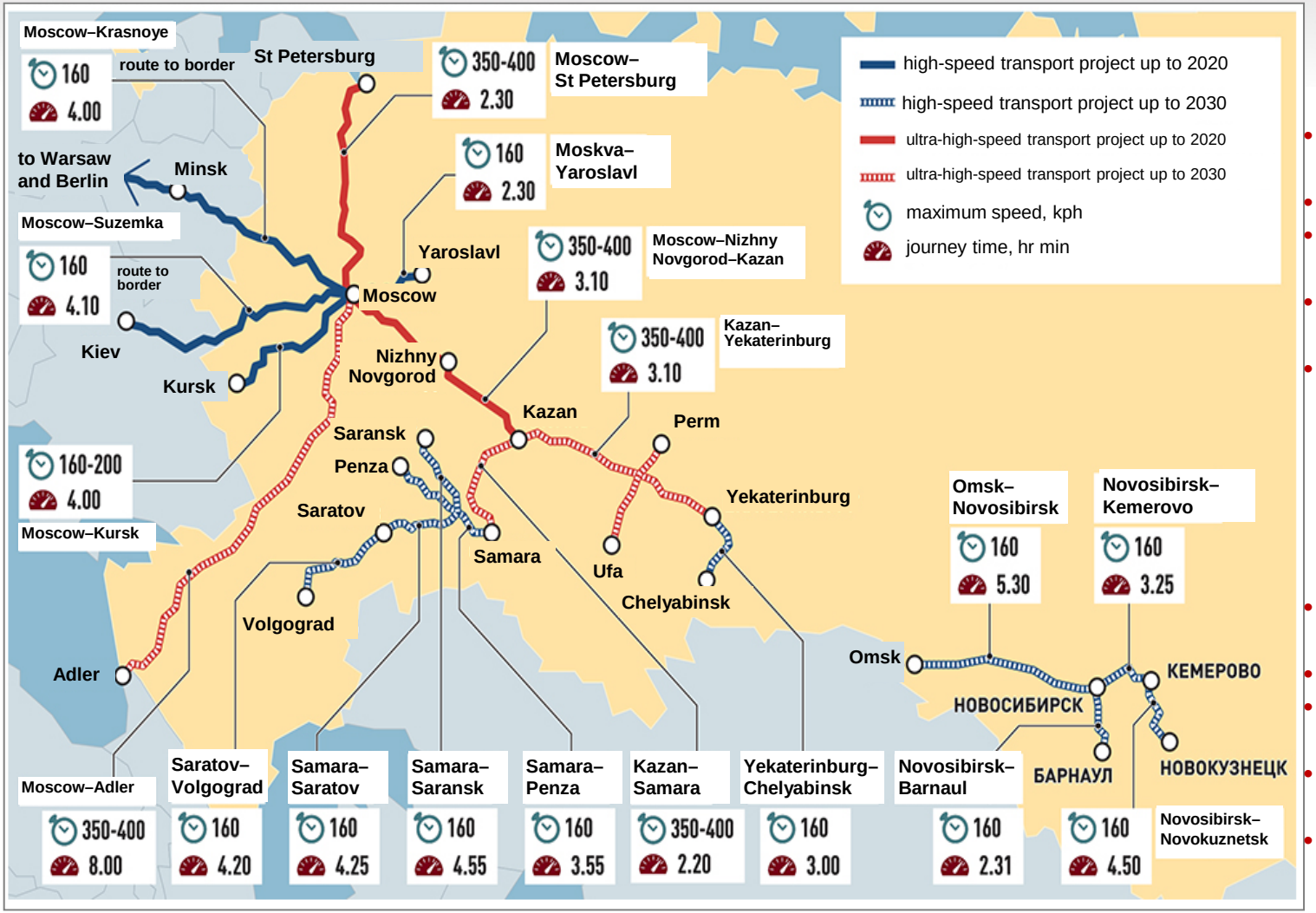
Russia's transport strategy

includes construction of

4,200 km of ultra-high-speed lines

by 2030

HIGH-SPEED AND ULTRA-HIGH-SPEED TRANSPORT PROJECTS IN RUSSIA



2009

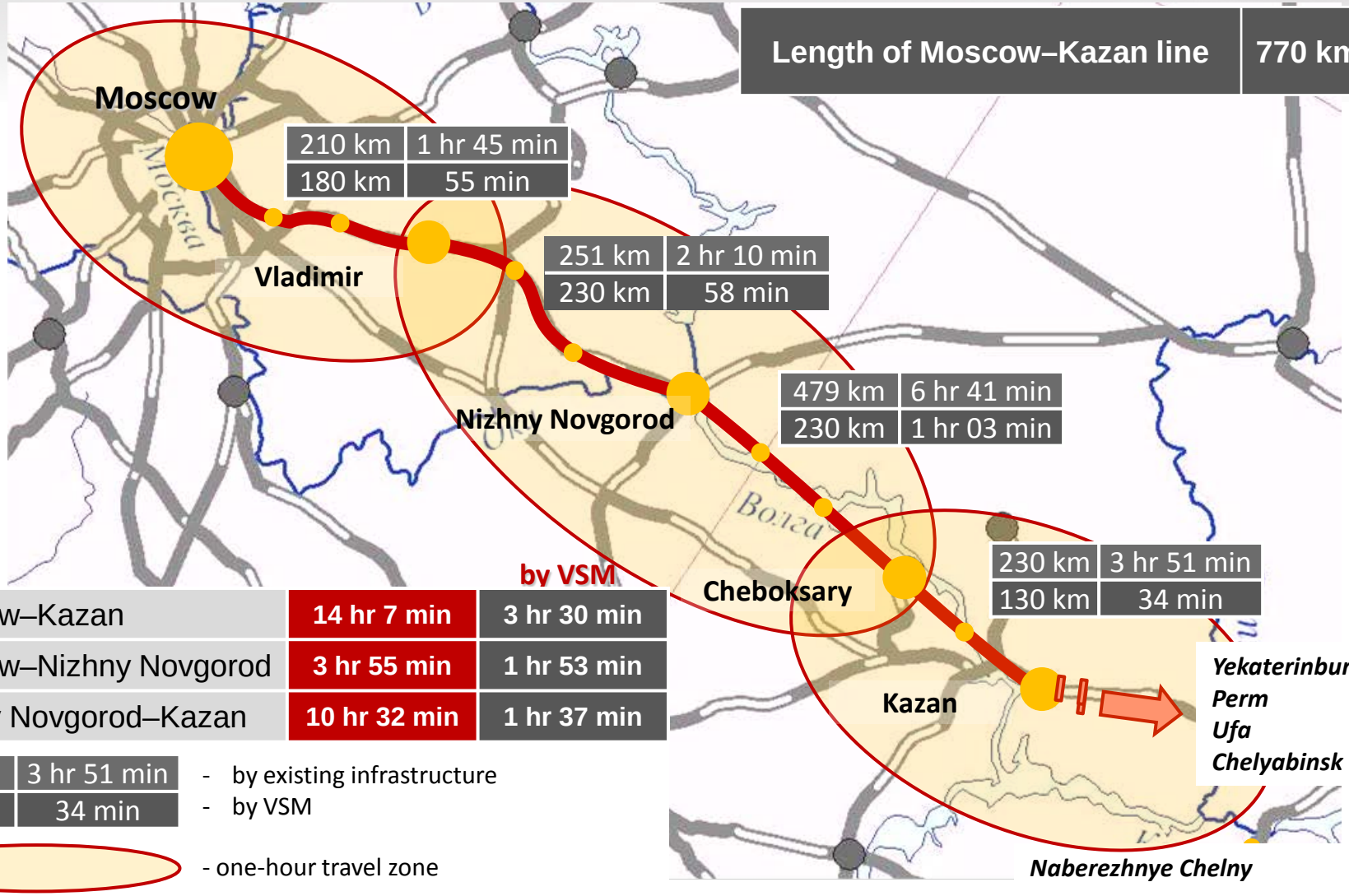
- First high-speed SAPSAN train brought into operation
- Speeds of up to 250 kph
- 8 trains per day on the St Petersburg—Moscow—Nizhny Novgorod route
- About 10 million passengers carried since train introduced on this line
- Train's seat occupancy rate > 80%

2010

- First ALLEGRO international high-speed train in Russia brought into operation
- Speeds of up to 220 kph
- 8 trains per day on the St Petersburg — Helsinki route
- About 1.5 million passengers carried since train introduced on this line
- Train's seat occupancy rate > 80%

MOSCOW–KAZAN VSM PILOT PROJECT

Length of Moscow–Kazan line	770 km



	by VSM	
Moscow–Kazan	14 hr 7 min	3 hr 30 min
Moscow–Nizhny Novgorod	3 hr 55 min	1 hr 53 min
Nizhny Novgorod–Kazan	10 hr 32 min	1 hr 37 min

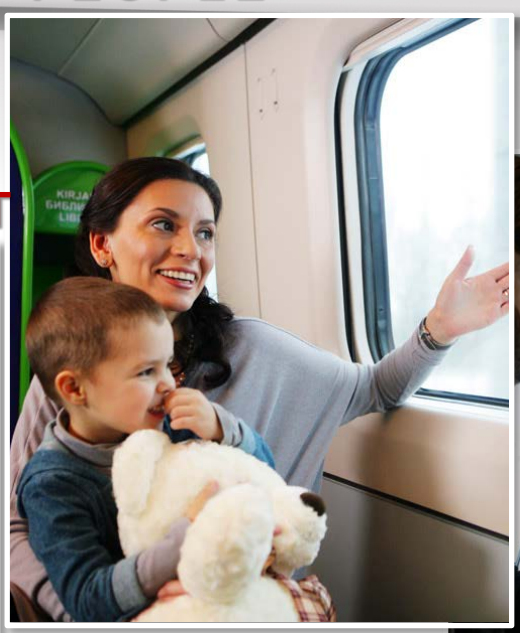
230 km | 3 hr 51 min
130 km | 34 min

- by existing infrastructure
- by VSM

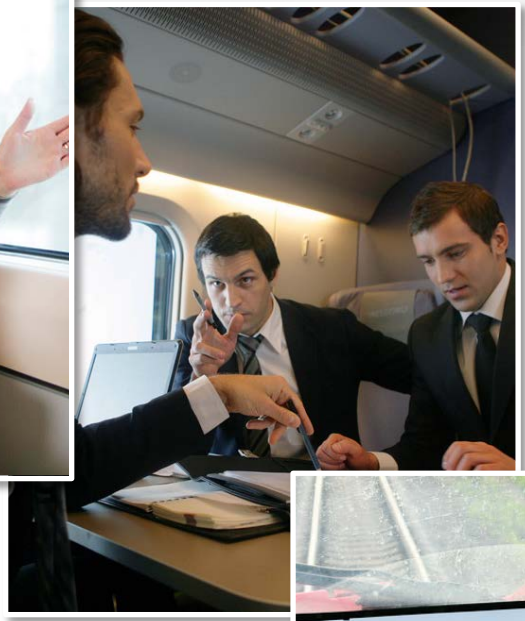
- one-hour travel zone

VSM FOR EVERYONE

PEOPLE



BUSINESS



REGIONAL DEVELOPMENT

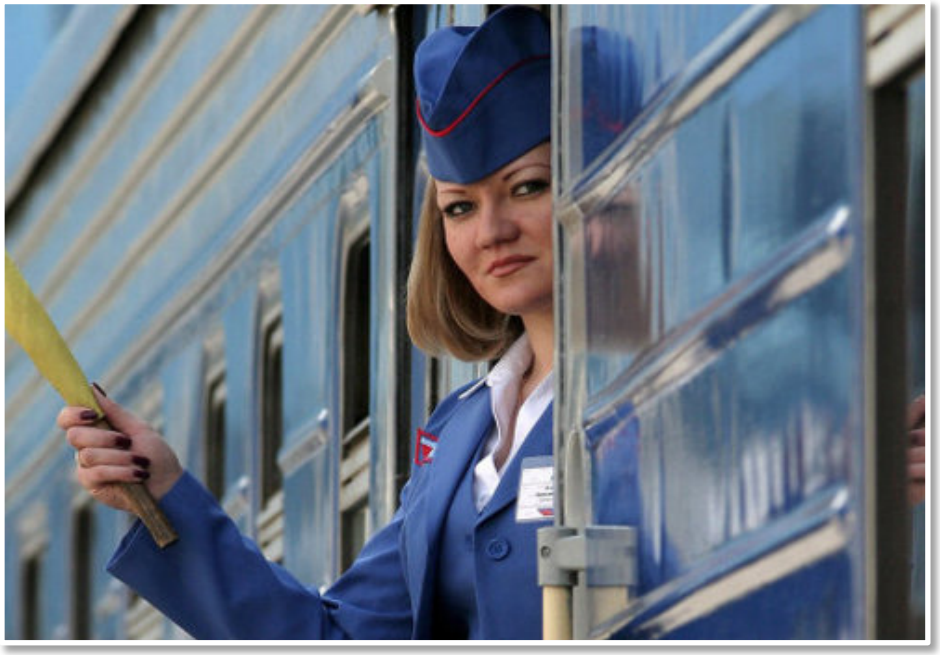
RAILWAYS

SCIENCE

INDUSTRY

CREATING NEW JOBS

- At the construction stage: **80,000 jobs, including 45,000 jobs** in related industries
- At the operational stage: **30,000 jobs, including 15,000 jobs** in related industries

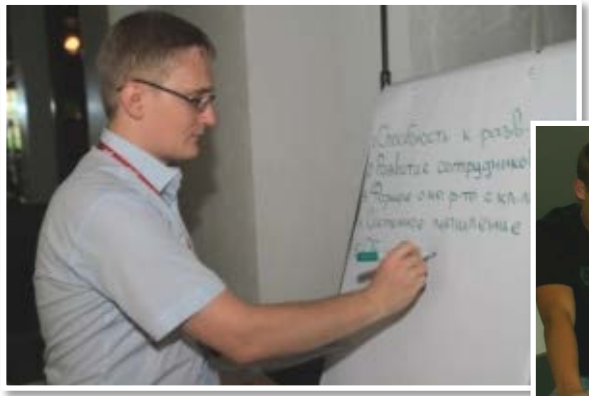


BENEFITS OF THE MOSCOW–KAZAN VSM PROJECT

LOCALISING CUTTING-EDGE GLOBAL TECHNOLOGIES

- Developing systems for designing and building infrastructure facilities
- Organising production in Russia of ultra-high-speed rolling stock capable of speeds of up to 400 kph and high-performance construction equipment

DEVELOPING SCIENTIFIC SCHOOLS AND TRAINING WORLD-CLASS ENGINEERING STAFF



BENEFITS OF THE MOSCOW–KAZAN VSM PROJECT

BIGGEST ORDER IN RUSSIAN INDUSTRY

Material type	Quantity	Estimated cost, billion roubles	Proportion, %
Non-metallic minerals, crushed stone	133 million cu m	86.1	32.3
Precast reinforced concrete and concrete, structures, poured concrete	19.4 million cu m	124.6	45.4
Steel and steel structures	1 million tonnes	19.6	10.0
Rails	0.2 million tonnes	5.7	2.1
Points	600 sets	1.2	0.4
Sleepers	4 million	10.3	3.8
Cable products, wire and materials	0.3 million km	26.4	6.0
Total		**273.9**	**100**

ROADMAP FOR IMPLEMENTATION OF THE MOSCOW–KAZAN VSM PROJECT

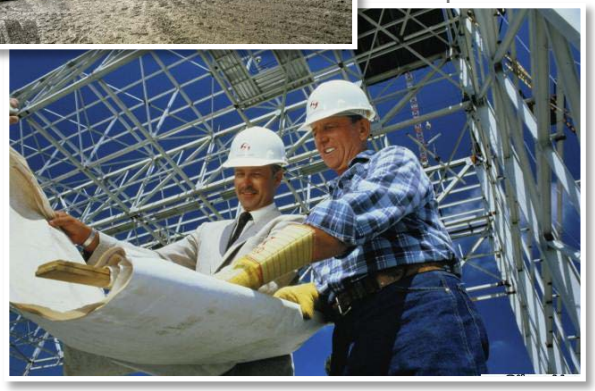
2013 2014 2015 2016 2017 2018

Preparatory actions

Design of pilot line

Construction and equipping of Moscow–Kazan VSM

Service brought into operation



- ✓ About 770 km of railway track
- ✓ More than 340 manmade structures
- ✓ Super-large bridges across the rivers Oka, Sura and Volga
- ✓ About 800 intersections with other types of transport infrastructure