Public and Public-Private Partnership (PPP) Funding of Transport Infrastructure – Best practices and common challenges

Long experience in public funding – the experience of the Russian Federation

Mr. Dmitry TVARDOVSKIY, Adviser to the Minister, Ministry of Transport of the Russian Federation

25 February 2013
Участки автомобильных дорог с уровнем загрузки более 0.7, имеющие протяженность более 5 км

Характерные участки автомобильных дорог с уровнем загрузки более 0.7 протяженностью 5 км и менее с локальными включениями участков между ними, имеющих уровень загрузки менее 0.7

Участки автомобильных дорог с уровнем загрузки менее 0.7, имеющие протяженность более 5 км

**АВТОМОБИЛЬНЫЕ ДОРОГИ:**
- Федеральные
- Основные региональные
- Зимники
INVESTMENT DEFICIT FOR TRANSPORT INFRASTRUCTURE

**Infrastructure expenditures, % GDP**

- **Russia**: 3.2%
- **Eastern Europe, Eurasia**: 3.3%
- **East, Africa**: 3.6%
- **Other industrial countries**: 3.9%
- **India**: 4.7%
- **Japan**: 5.0%
- **China**: 8.5%

**PROPORTION OF TRANSPORT EXPENSES, % GDP**

- **Investment deficit comparing to countries with DEVELOPING infrastructure**: 6.1%
- **Investment deficit comparing to countries with DEVELOPED infrastructure**
  - -3.9%
  - -0.8%
  - 3.0%
  - 2.9%

*Including oil and gas infrastructure

Источник: OECD, HIS Global Insight, McKinsey

- Losses of economy because of infrastructure underdevelopment
- Limited participation of private investors participation in infrastructure projects because of low level of return
- Big number of private investors, including foreign equity funds to infrastructure projects with the support of state budget

Источник: Mintrans, Boston Consulting Group
Total amount of investments
394,7 млрд. $

Total volume of financing the Program 2013-2020 y. is 394,7 bln. $:

- Regional budgets: 1,7 bln. $
- Private: 150 bln. $
FEDERAL PROGRAMS
Projects with federal budget finance

Implementing new technologies, financial instruments and management resources of the private sector using PPP mechanism

Planning the development of the infrastructure according to the principles of balance and coordination

Concession law

Investment agreements

Three year planning Budget

INVESTMENT PROGRAM IS BASED ON PPP PRIORITY
PPP UNITS ARE IN ALL TRANSPORT INDUSTRIES
INSTRUMENTS

ADDITIONAL TAXES AND TOLLS FOR USERS

BONDS AND LOANS WITH FEDERAL GUARANTIES

CONCESSIONS

STATE FUNDS (INVESTMENT FUND, ROAD FUND, RDIF)

CURRENT INSTRUMENTS FOR PRIVATE FINANCE IN TRANSPORT INFRASTRUCTURE ARE ALREADY ON
PROJECT FINANCING ISSUING INFRASTRUCTURE BONDS AS AN ADDITIONAL SOURCE OF FINANCING IN THE SITUATION OF STRONG DEFICIT

Advantages of project financing
- Rising financial leverage
- Attracting financial and strategic partners
- Technical and financial project control
- Project results partly influencing financial stability of mother company

Major terms
- Payback period should be appropriate for investors and lenders
- Guarantee of cashflows
- No consolidation at mother company balance
  - IFRS 10: no control and <50% share in SPV
MECHANISMS OF DEVELOPING STATE OWNED TRANSPORT INFRASTRUCTURE

MARKET RULES, private investments

- Privatization
  - Selling the stake to a private owner

Concession
  - Procurement with innovative specifics
  - Standard procurement

Concession gives the opportunity to invest private funds in state owned infrastructure

STATE CONTROL, budget investments
## PPP Models Applied

### Concession contacts

<table>
<thead>
<tr>
<th>Direct toll concession</th>
<th>Availability payments concession</th>
<th>Long-term agreements</th>
<th>O&amp;M contracts</th>
<th>Investment agreements at pre-project stage</th>
</tr>
</thead>
</table>

### Subject

- Construction (reconstruction)
- CAPEX investments
- Maintenance & operation, toll collection arrangement
- Optional: project design, site preparation

- Automated traffic mgt system (ATMS) set up
- Maintenance and operation
- Toll set up collection system

- Feasibility study
- Project design

### Terms

- Depending on asset lifecycle: 20-30 years
- 10-15 years
- Up to 4 years

### Return on investment

| Toll | Concession fees:  
- Availability payments  
- Investment payments (return on investments, performance payment) | Compensation by the Concessionaire |
|------|-----------------------------------------------------------------|----------------------------------|


# Tender Types

<table>
<thead>
<tr>
<th>Contract</th>
<th>Regular procurement</th>
<th>Investment related</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(supply contract,</td>
<td>Investment</td>
</tr>
<tr>
<td></td>
<td>contractual agreement,</td>
<td>agreement</td>
</tr>
<tr>
<td></td>
<td>service agreement)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Concession agreement</td>
</tr>
<tr>
<td>Legal basis</td>
<td>procurement activity policy</td>
<td>Avtodor internal tender regulation</td>
</tr>
<tr>
<td>Tender type</td>
<td>Auction</td>
<td>1 stage tender</td>
</tr>
<tr>
<td></td>
<td>Big request</td>
<td>2 stages tender</td>
</tr>
<tr>
<td></td>
<td>1-stage tender</td>
<td></td>
</tr>
<tr>
<td>Tender terms</td>
<td>~ 30-40 days</td>
<td>~ 2-6-12 months</td>
</tr>
<tr>
<td></td>
<td></td>
<td>~ 6-12 months</td>
</tr>
</tbody>
</table>
POSSIBLE WAYS OF RISING INVESTMENT ATTRACTIVENESS OF TRANSPORT INFRASTRUCTURE PROJECTS

• Investment component in tariff and principle «user pays»
• Stimulating investments of potential users
  o Complex projects where transport infrastructure is additional to the project with high level of revenue (any type of production or other)
• Stimulating investments of construction companies as co-investors
• Minimizing expenditures along the whole contract period by means of:
  o Outsourcing expertise and technologies
  o Project control
• State support of the project
  o Budget grants as co-financing project cost
  o Budget guaranties for SPV bonds issuing
  o Guarantee of minimal revenue
TRANSPORT PPP PROJECTS IN RUSSIA

**Main tendencies**

- Total number of PPP projects in Russia is about 270
- The biggest number of projects in housing and communal services, the biggest volume of investments is in transport infrastructure
- Investment fund of the Russian Federation is financing 47 projects with the total volume of investments **33 bln.$** from all sources:
  - Investment fund **7,4 bln.$**
  - Regional budgets **0,39 bln.$**
  - Municipal **0,05 bln.$**
  - Investors/concessioners **17,2 bln.$**
- For developing road infrastructure and stimulating private investors in toll roads was created state company Russian Highways. During next 17 years Avtodor is planning to get >**12 bln.$** of private investments
<table>
<thead>
<tr>
<th>№</th>
<th>Highway</th>
<th>Terms</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>M-1 Belarus Federal Highway</td>
<td>2013-2025</td>
<td>457 km</td>
</tr>
<tr>
<td>2</td>
<td>M-3 Ukraine Federal Highway</td>
<td>2013-2022</td>
<td>517 km</td>
</tr>
<tr>
<td>3</td>
<td>M-4 Don Federal Highway</td>
<td>2012-2019</td>
<td>1,522 km</td>
</tr>
<tr>
<td>4</td>
<td>Moscow – Saint-Petersburg Highway</td>
<td>2012-2018</td>
<td>669 km</td>
</tr>
<tr>
<td>5</td>
<td>Central Ring Road (Moscow region)</td>
<td>2015-2025</td>
<td>521 km</td>
</tr>
</tbody>
</table>
## ROAD INVESTMENT PROJECTS PIPELINE

<table>
<thead>
<tr>
<th>№</th>
<th>Project</th>
<th>Length, toll sections (km)</th>
<th>PPP Model</th>
<th>Tender terms</th>
<th>Construction terms</th>
<th>Investments in total, EUR bln. *</th>
<th>Private capital share</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><strong>M-1 Belarus</strong> km 33 – km 456</td>
<td>347,4</td>
<td>Availability payments concession</td>
<td>2013</td>
<td>1 phase: 2015-2018 2 phase: 2019-2025</td>
<td>4.94</td>
<td>35%</td>
</tr>
<tr>
<td>2</td>
<td><strong>M-4 Don</strong> km 21 – km 225</td>
<td>150.5</td>
<td>O&amp;M contract</td>
<td>2013-2014</td>
<td>2014-2015</td>
<td>0.19</td>
<td>45%</td>
</tr>
<tr>
<td>3</td>
<td><strong>M-4 Don</strong> km 633 – km 715</td>
<td>84</td>
<td>Availability payments concession</td>
<td>2014-2015</td>
<td>2015-2017</td>
<td>0.83</td>
<td>25%</td>
</tr>
<tr>
<td>4</td>
<td><strong>M-4 Don</strong> km 1,091 – km 1,319</td>
<td>207.4</td>
<td>O&amp;M contract</td>
<td>2013-2014</td>
<td>2014-2016</td>
<td>0.35</td>
<td>50%</td>
</tr>
<tr>
<td>5</td>
<td><strong>Moscow – Saint-Petersburg</strong> km 58 – km 149</td>
<td>90.1</td>
<td>Direct toll concession</td>
<td>2013-2014</td>
<td>2015-2017</td>
<td>1.63</td>
<td>40%</td>
</tr>
<tr>
<td>6</td>
<td><strong>Moscow – Saint-Petersburg</strong> km 543 – km 684</td>
<td>141</td>
<td>Availability payments concession</td>
<td>2013-2014</td>
<td>2014-2017</td>
<td>2.96</td>
<td>25%</td>
</tr>
<tr>
<td>7</td>
<td><strong>New M-7 Volga exit from Moscow Ring Road (MKAD)</strong> (Balashikha and Noginsk bypass)</td>
<td>69</td>
<td>Direct toll concession</td>
<td>To be adjusted</td>
<td></td>
<td>1.21</td>
<td>50%</td>
</tr>
<tr>
<td>8</td>
<td><strong>Central Ring Road</strong> (section 3)</td>
<td>104.5</td>
<td>Availability payments concession</td>
<td>To be adjusted</td>
<td></td>
<td>1.83</td>
<td>35%</td>
</tr>
<tr>
<td>9</td>
<td><strong>Central Ring Road</strong> (section 4)</td>
<td>96.5</td>
<td>Availability payments concession</td>
<td>2015-2017</td>
<td>2017-2020</td>
<td>1.73</td>
<td>35%</td>
</tr>
<tr>
<td>10</td>
<td><strong>Central Ring Road</strong> (section 1)</td>
<td>74.5</td>
<td>Availability payments concession</td>
<td>2015-2017</td>
<td>2017-2020</td>
<td>1.88</td>
<td>35%</td>
</tr>
</tbody>
</table>

*2012, incl. VAT, ex rate EUR / RUB = 40.79
THANK YOU

MINISTRY OF TRANSPORT
MOSCOW, RUSSIA
TDV@MINTRANS.RU
+7 495 626 9721