Analyst day – Russia & CIS

Transport

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15/03/2012
Agenda

The market

Alstom Transport: Presence and positioning

Strategy
The 1520 market: second network in the world after the USA (227,000 km) and first electrified network (65,000 km)

- **Russia**
  - 85,200 km main lines (42,900 km electrified) + 65,000 km private lines

- **Kazakhstan**
  - 15,100 km (4,100 km electrified)

- **Belarus**
  - 5,500 km (874 km electrified)

- **Ukraine**
  - 22,000 km (9,854 km electrified)

- **Moldova**
  - 1,328 km (0 km electrified)

- **Georgia**
  - 1,323 km (1,323 km electrified)

- **Armenia**
  - 780 km (780 km electrified)

- **Azerbaijan**
  - 2,125 km (1,278 km electrified)

- **Kyrgyzstan**
  - 425 km (0 km electrified)

- **Uzbekistan**
  - 4,200 km (620 km electrified)

- **Tajikistan**
  - 600 km (0 km electrified)

- **Turkmenistan**
  - 3,110 km (0 km electrified)

- **Mongolia**: 1,810 km
  - (133 km electrified)

- **Estonia**: 900 km
  - (133 km electrified)

- **Latvia**: 2,263 km
  - (240 km electrified)

- **Finland**: 5,919 km
  - (3,067 electrified)

- **Lithuania**: 1,749 km
  - (122 km electrified)

- **Moldova**: 1,328 km
  - (0 km electrified)
Russia & CIS: a €10 bn rail market with significant growth in rolling stock

**Average annual rail market (€bn)**

- **Infrastructure**: 0.8
- **Maintenance**: 2.8
- **Signalling**: 0.8
- **Rolling stock**: 5.6

**Split by type of rolling stock (%)**

- **Wagons**: 30%
- **Coaches**: 15%
- **E loco**: 15%
- **D loco**: 10%
- **HS/VHS**: 5%
- **Regional**: 10%
- **Metro**: 10%
- **Tram**: 5%

**Rolling stock growth 2012-2016 = ~10% p. a.**

Source: UNIFE / Alstom Transport estimates
Freight traffic: number 3 in the world

2010
Freight traffic

N°1 USA : 2,773 bn t/km
N°2 China : 2,764 bn t/km
N°3 CIS : 2,527 bn t/km

Market trends
• Recovery of freight market since 1999
• Continuous increase in relation with development of new coal, ores and oil fields
Freight traffic: new development pattern

**USSR: from satellite States towards Russia and Soviet Baltic seaports**

- Transport of goods from peripheral countries to Russia, centre of USSR
- Railways crossing borders of the Soviet Republics
- Main USSR seaports located in Ukraine and Baltic countries

**Russia: development of transit freight and Russian seaport access**

- Export natural resources and develop transit from China to Europe
- Avoid transit through neighboring countries, reinforce national network
- Develop Russian seaports on the Pacific and Black sea
- Increase speed and freight volume
Russia: focus on Russian seaports and Baikal-Amour Magistral

Main Russian seaports:
- NOVOROSSIISK
- UST-LUGA
- SAINT-PETERSBOURG / PRIMORSK

In development:
- Ust-Luga (Estonian border)

Main lines:
- TRANSIBERIAN
- BAikal Amour Magistral (BAM)
- MAIN NEW OR RENOVATION WORKS IN 2010 EXCEPT SOCHI 2014 SPECIAL PROJECT
- TRANSMANCHURIAN (in Russia, section Karymskaya-Zabaikalsk)

Mines to be connected to railways for export and their owners:
- **Iron**
- **Coal**
- **Copper**
- **Various ores**

- **Timir (Alrosa)**:
  - Tayozhnoye
  - Desovskoye
  - Tarynnakhskoye
  - Gorkitskoye

- **Chineiskoye (Deripaska)**

- **Garinskoye (IRC)**

- **Kimkano-Sutarskoye (IRC)**

- **Denisovskoye**

- **Chulmakanskoye**

- **Elevetskoye (Evraz-Severstal-Yenisei)**

- **Udokanskoye**

- **Elginskoye (Mechel previously RZhD)**

- **TIMIR (Alrosa)**
  - Tayozhnoye
  - Desovskoye
  - Tarynnakhskoye
  - Gorkitskoye
Passenger transport: erosion due to old rolling stock

2010 passenger traffic

N°1 China: 876bn p/km
N°2 India: 838 bn p/km
N°3 Japan: 244 bn p/km
N°4 CIS: 218 bn p/km

Market trends

• Long-distance transportation will continue to increase with the launch of new “High Speed” services
• Decentralisation of regional and suburban transport and new private operators
• Urban operators: huge needs for renewal of existing fleets
Russia: long-distance transportation will continue to increase with the launch of new “High Speed” services.
Decentralisation of regional and suburban transport and new private operators

Decentralisation: local governments to finance suburban passenger transportation

- Today: rolling stock owned by RZD (~15,000 cars)
- Spin-off into 26 local suburban passenger companies
- Tomorrow: rolling stock fleet owned by suburban operator

New private operators entering passenger transportation market

- Shareholders: RZD 50% (planning to go down to 25%), Transgroup AS
- Current operation: Moscow airport links and 1 suburban line in Moscow region
- Planning to play active role in suburban and regional transport
Urban market: huge needs for renewal of existing fleets

**TRAMWAYS**

- Total fleet in operation: 13,100 tramways
  - Russia: 9,400
  - Ukraine: 2,700
- Largest networks (worldwide rank):
  - St. Petersburg: 240 km (#2)
  - Moscow: 181 km (#4)
- Passenger traffic: Drop from 35 bn pkm in 2000 to 12 bn pkm in 2009

**METRO**

- Total fleet in operation: 8,500 metro cars
  - Russia: 6,300
  - Ukraine: 1,000
- Largest networks
  - Moscow: 302 km
  - St. Petersburg 111 km
- Passenger traffic: Regular slight decrease from 54.4 bn pkm in 2000 to 49.4 bn pkm in 2009

Moscow investment plan 2013-2014 = €0.3 bn

Moscow investment plan 2012-2016 = €2.4 bn
Client landscape: mainly National Railway Operators

<table>
<thead>
<tr>
<th>ROLLING STOCK</th>
<th>METRO</th>
<th>REGIONAL/SUBURBAN</th>
<th>VHST</th>
<th>Mainlines/Passenger</th>
<th>Freight</th>
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<tbody>
<tr>
<td>Potential clients:</td>
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<tr>
<td>• Trams: &gt; 60 cities</td>
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<tr>
<td>• Metro: 16 cities</td>
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</table>

- National Railways Operators
- Russia: 24 Regional Passenger Companies, Aeroexpress
- National Railways Operators (12) or special purpose subsidiary
- National Railways operators
- Nat. Railways operator/Maintenance company

- National Railways Operators & subsidiaries
- Private Industrial Freight Operators
Competition in Russia: Alstom one step ahead

All figures: Sales 2010/11

1 75% of Siemens mobility
Source: Company reports / Alstom estimates
Agenda

The market

Alstom Transport: Presence and positioning

Strategy
Alstom present on all market segments directly or through partnerships

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<thead>
<tr>
<th>Rolling stock &amp; Services</th>
<th>Russia</th>
<th>Kazakhstan</th>
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<tbody>
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<td>Directly present through Alstom/TMH</td>
<td>Joint venture with TMH and KTZ for Kazakh locomotive production</td>
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<tr>
<th>Signalling</th>
<th>Russia</th>
<th>Kazakhstan</th>
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<td>Promelectronica partnership</td>
<td>Kamkor partnership</td>
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<th>Infrastructure and turnkey projects</th>
<th>Russia</th>
<th>Kazakhstan</th>
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<td>Urban transport: local partners defined on case by case basis</td>
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<td>VHSL: ad-hoc partners, for instance Bouygues, Colas</td>
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Rolling stock & Services
Alstom/TMH : largest Russian company in machinery building

- **Established in 2002 – 50% Russian interests, 25% +1 Russian Railways, 25% + 1 Alstom**

- **Largest Russian manufacturer of rolling stock** (Locomotives, EMU/DMU, Metro cars, Coaches, Freight wagons), **rolling stock components, car castings and diesel engines**

- **13 plants** (12 in Russia, 1 in Ukraine)

- **2011 turnover (goods & services): €2.7 bn**

- **Largest rolling stock supplier to Russian Railways**

- **Export: 10% of turnover** - Representative offices in Hungary, Belarus, Ukraine, Kazakhstan, Uzbekistan, Poland, Finland and Baltic States
Rolling stock & Services
Alstom/TMH: large product portfolio

Locomotives
- Diesel locomotives
- Electric locomotives

Multiple Unit Rolling Stock
- EMU (commuter & regional)
- DMU and rail buses

Metro cars
- For underground and above-ground lines

Passenger coaches
- Up to 160 km/h
- Up to 200 km/h

Freight cars
- Hopper cars
- Platform for container transportation
- Special purpose cars

Components and equipment for rolling stock
- Turbochargers
- Car bodies
- Cabs
- Door modules
- Converters
- Bogies

Car casting
- For railway transport
- For automobile transport
- Others

Diesel engines
- Locomotive
- Marine
- Heavy-duty trucks
- Power plants

~500
~600
~300
~600
~3000

Units sold in 2010

TRANSPORT

ALSTOM
Rolling stock & Services
Alstom/TMH: 12 plants in Russia + 1 in Ukraine

NEVZ    Novocherkassk Electric Locomotive Plant
BMZ     Bryansk Locomotive Plant
Luganskteplovoz (Ukraine) Locomotives
TVZ     Tver Carriage Works
MWM     Metrowagonmash
KZ      Kolomensky Zavod Diesel Engines
PDM     Penzadieselmash
BSZ     Bezhitsk Steel Foundry
Tsentrosvarmash Bogies Plant
DMZ     Demikhovsky Engineering Plant (Components)
KMT     KMT Industrial Group
Transconverter Traction modules
OEVRZ   Oktyabrsky Electric Railway Car Repair Plant
Rolling stock & Services
Alstom/TMH: 2011 sales of 107 B RUB (~€2.7 bn)

Sales of products and services (RUB bn)

<table>
<thead>
<tr>
<th>Year</th>
<th>Sales (RUB bn)</th>
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<tbody>
<tr>
<td>2010</td>
<td>91</td>
</tr>
<tr>
<td>2011e</td>
<td>107</td>
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# of employees (’000 people)

<table>
<thead>
<tr>
<th>Year</th>
<th>Employees</th>
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<tbody>
<tr>
<td>2010</td>
<td>54</td>
</tr>
<tr>
<td>2011e</td>
<td>53</td>
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Transmashholding sales shares in 2010

**Electric locomotives**: 98%

**Diesel locomotives**: 77%

**Passenger Coaches**: 92%

**Locomotive Diesel Engines**: 91%

**Multiple-Unit Rolling Stock**: 78%

**Metro Cars**: 87%

**Hopper Cars**: 45%

**Car Castings**: 21%

Alstom/TMH: largest rolling stock supplier on the Russian market

Transmashholding sales shares in 2010
• Mining and steel companies
• Freight transport companies
• Passenger transport operators - affiliated with Russian Railways or private
• Urban transport operators: Subways of Moscow, Kiev, Baku, Minsk
• Russian Armed Forces and Navy

• Belorussian Railways
• Kazakhstan Railways
• Ukrainian Railways
• Customers in Eastern European countries and Baltic states
Rolling stock & Services
Alstom/TMH: joint development of new products (examples)

**EP20 Passenger Loco**
- 25kV/3kV
- 7,200 kW, 160 – 200 kph, BoBoBo
- Start development: 2009
- Start serial delivery: 09.2012

**2ES5 Freight Loco 25kV**
- 8,400 kW, 120 kph, BoBo+BoBo
- Start development: 06.2010
- Start serial delivery: 01.2013

Total order value for Alstom = ~€800 M
Rolling stock & Services
Alstom/TMH: EP20 prototype presentation at 1520 expo
Rolling stock & Services: EKZ, locomotives manufacturing entity in Kazakhstan

- **Shareholders:** KTZ (50%), Alstom (25%), TMH (25%)
- **700 employees by 2016**
- **Factory in Astana to assemble locomotives under Alstom licence for KTZ and export**
  - Freight (KZ8A)
  - Passenger locomotive (KZ4AT)
- **Cooperation Agreement between all 3 parties**

Total order value for Alstom = ~€800 M
Signalling: JVs in Russia (Promelectronica) and Kazakhstan (Kamkor)

**PROMELECTRONICA**

- Commercialisation of existing signalling products of Alstom and Promelectronica in CIS
- Development of new products adapted to CIS
- JV to become a distributor of point machines manufactured in Kazakhstan

**KAMKOR**

- Manufacturing of point machines Alstom P80 mainly for Russia & CIS
Infrastructure/Turnkey
Ad-hoc selected partnerships (e.g. VHSL Moscow – St. Petersburg)

VHSL Moscow-Saint Petersburg

- **Length:** 660 km
- **Ready for operation in 2017**
- **Travel time:** 2 hr 30 min
Agenda

The market

Alstom Transport: Presence and positioning

Strategy
Strategy: multiplying successes in Russia & CIS

2006 – 2010: Laying the foundation
- First contacts with TMH

2010 – 2012: First successes
- TMH due diligence
- Management support team in TMH
- May 2011: Closing of TMH Sale and Purchase Agreement
- Creation of JVs for development and components manufacturing

2012 – 2015: Multiplying successes
- Locos in Russia and Kazakhstan
  - Allegro: 4 trainsets
  - Creation of maintenance units in Russia and Kazakhstan