

### Innovative Technologies in the Transportation Process

The scheduled freight traffic organization process using daily energy-optimized schedules has been deployed in railways of the Urals and Western Siberia.

The project is a logical continuation of the development of automated train flow control in areas where traction resources have been integrated with the operation of service stations. It is important that the daily train schedule is generated based on the algorithms using the carrying capacities of limiting hauls and railway sections to the greatest possible extent.

In 2012, pilot operation results confirmed the effectiveness of this technology: the specific energy consumption for the traction of a loaded train in comparable conditions reduced by -4.7%.

The economic benefits of the introduction of this technology form part of the cost saving program of JSC "Russian Railways". In 2013, the technology implementation site will be extended from 2,100 km to 6,700 km.

#### Development of the range of traffic control technologies

Year	Site	Distance, km	Fleet, items	
			Freight Locomotives	Freight cars
2011	Chelyabinsk — Isilkul	660	341	10,500
2012	Chelyabinsk — Inskaya	1,440	580	26,000
2013	Balezino — Altaiskaya	2,406	950	37,000
	Kustarevka — Inskaya	2,180		