

# Autobusiness<sup>®</sup>

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first quarter results

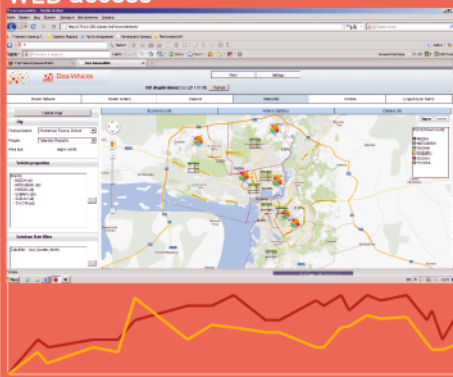
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## First quarter results

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## Car Market

The car segment of the first quarter of 2013 is characterized by a pronounced stability of its indices. The production and sales growth was insignificant, in comparison with the first quarter of 2012. The increase in the share of foreign cars in the car production and sales structure also slowed down.

### Car Production

Over the first three months of 2013, in Russia, 452.5 thousand cars were manufactured, which is only a 0.62% increase on the production result for the same period of 2012.

Shares of Russian and foreign cars in the production structure also remained almost unchanged. In January-March 2013, 140.6 thousand cars of Russian brands were produced, which amounted to 31.07% of the total production volume. For comparison, in January-March 2012, their share was equal to 31.11%.

Despite the total production volume stability, in the first quarter of 2013, the dynamics of cars, produced by various manufacturers, differed significantly. So, most enterprises, producing cars of Russian brands, showed the negative production dynamics.

AVTOVAZ's car production decreased by 4.63%, in particular, due to the assembly termination of Lada Kalina cars of the previous generation and preparation for the production of a new model of Kalina cars.

The car production of Ulyanovsk Automobile Plant also decreased, by 14.1%. In January-March 2013, the enterprise produced 6.7 thousand cars. The production at the «Derways» automobile plant in the Karachay Cherkessia Republic also decreased by 17.95% and amounted to 6.4 thousand cars. However, the production reduction of Russian-branded cars was fully compensated for by the production growth of Lada Granta cars at IzhAvto plant. In the first quarter of 2013, the IzhAvto's production increased by 175% to 12.1 thousand units.

Manufacturers of foreign-branded cars show the multidirectional production dynamics. Avtoframos showed the highest production growth over the first three months of 2013 – 16.75%. Its car production reached 53.9 thousand units, of which Renault Duster model accounts for over 40%.

### Car Production Dynamics in Russia, Q I, 2012-2013

Region	Automaker	Total production in a region, Q I, 2013, Thousand Units	Total production in a region, Q I, 2012, Thousand Units	Production Dynamics, Q I, 2013/ Q I, 2012, %
Samara region	AVTOVAZ, GM-AVTOVAZ	135.7	142.2	-4.57%
Kaliningrad region	Avtotor	56.9	56.1	1.43%
Moscow region	Avtoframos, IMS	53.9	46.4	16.16%
Leningrad region	General Motors Auto, Toyota Motor Manufacturing, Hyundai Motors Manufacturing Rus, Nissan Manufacturing Rus, Ford Motor Company	122.5	119.9	2.17%
Kaluga region	Volkswagen Group Rus (Volkswagen Rus), PSMA-Rus	51.4	54.9	-6.38%
Republic of Udmurtia	OAG (IzhAvto)	12.1	4.4	175%
Rostov region	HT Avto, TagAZ International, TagAZ	1.6	2.2	-27.27%
Ulyanovsk region	UAZ	6.7	7.8	-14.10%
Republic of Tatarstan	Ford Sollers Yelabuga, Sollers – Yelabuga	1.2	1.1	9.09%
Primorye territory	Sollers – Far East, Mazda Sollers Manufacturing Rus	3.9	6.8	-42.65%
Karachay Cherkessia Republic	Derways	6.4	7.8	-17.95%
Other	Other	0.2	0.1	100%
Total		452.5	449.7	0.62%

Source: data by companies, analysis by Russian Automotive Market Research (NAPI).

### New Car Sales

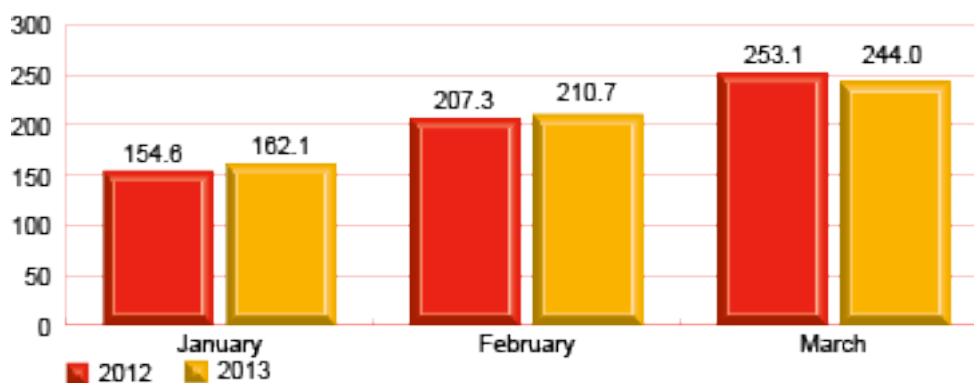
According to the AEB Automobile Manufacturers Committee, in the first quarter of 2013, in Russia, 616.8 thousand new cars and light commercial vehicles were sold. In comparison with the same period of 2012, the sales volume in the Russian market remained unchanged.

The first three months of 2013 did not show the unified sales dynamics. The year started with a market growth: in January, sales of new cars and light commercial vehicles increased by 5% in comparison with January 2012. February showed an increase by 2%, unlike the March sales, which did not continue the positive dynamics. In March 2013, the Russian car market decreased by 4%.

In the first quarter of 2013, many automakers announced special actions for cars of the 2012 year of manufacture, which enable not only to vacate a warehouse, but also revive sales at the beginning of the current 2013 year. Such actions offered to receive a discount or to purchase a car at a favorable price. Depending on the brand, model and configuration, discounts or savings varied from 23 thousand rubles (for Chery cars) to 100 thousand rubles (for Toyota cars). In addition, automakers offered special financial programs to purchase a car for a limited period of time.

At the same time, in the first quarter of 2013, prices for many popular car models were updated. Simultaneously car modifications were upgraded by adapting a set of options in accordance with the Russian consumers' needs.

New Car and LCV Sales Dynamics in Russia,  
Q I, 2012/2013, Thousand Units



Source: data by AEB Automobile Manufacturers Committee, analysis by Russian Automotive Market Research (NAPI).

Lada cars remain an irreplaceable leader in the rating of sales of new cars and light commercial vehicles in Russia. In January-March 2013, 107.4 thousand Lada cars were sold, which is a 2% decrease on the first quarter of 2012. Over the first three months of 2013, the share of the brand also declined by 2% and amounted to 17.42%.

Among foreign cars Renault brand with its 48 thousand cars sold in the first quarter 2013 is on the first place by sales of cars and light commercial vehicles. Sales of Renault cars grew by 22%, which is the highest figure in the Top-10 list of brands. In January-March 2012, Nissan brand, which sold 42 thousand cars, was a leader in sales among foreign cars.

KIA brand with its 41.7 thousand cars sold in the first quarter of 2013 is on the third place by sales volumes in the Russian market. Its sales growth amounted to 6%.

Hyundai, Chevrolet, Nissan, Volkswagen, Toyota, Ford and Opel brands also entered the TOP-10 list of brands leading in sales in January-March 2013. All of them, except for the Opel brand, showed the decrease in sales: in some cases, it was insignificant, within 1% (Hyundai, Volkswagen brands), in other - the weighty one, from 12 to 15% (Toyota, Ford and Nissan brands).

In general, in the first quarter of 2013, the composition of the TOP-10 list of brands practically did not change, in comparison with the same period of 2012. Skoda brand, which was on the tenth position in this rating in the first quarter of 2012, left the TOP-10, forced out by the Opel brand, which showed the sales growth by 14% in January-March 2013.

New Car and LCV Sales in Russia, By Brand, Q I, 2012-2013

Brands	Q I, 2013	Q I, 2012	Sales Growth, Q I, 2013/ Q I, 2012, Units	Sales Dynamics, Q I, 2013/ Q I, 2012, %	Share in Sales Structure, Q I, 2013, %	Share in Sales Structure, Q I, 2012, %
Lada	107427	109388	-1961	-2	17.42	17.79
Renault*	48030	39303	8727	22	7.79	6.39
KIA	41724	39310	2414	6	6.76	6.39
Hyundai*	40714	41174	-460	-1	6.60	6.69
Chevrolet	36406	38248	-1842	-5	5.90	6.22
Nissan*	35916	42117	-6201	-15	5.82	6.85
VW	35274	35761	-487	-1	5.72	5.81
Toyota*	29333	33226	-3893	-12	4.76	5.40
Ford*	23654	27231	-3577	-13	3.84	4.43
Opel	19832	17384	2448	14	3.22	2.83
Mitsubishi	19140	13065	6075	46	3.10	2.12
Skoda	18619	19176	-557	-3	3.02	3.12
GAZ Commercial	16983	16603	380	2	2.75	2.70

Vehicles*						
Daewoo	15898	14092	1806	13	2.58	2.29
UAZ*	11155	11861	-706	-6	1.81	1.93
Mazda	10625	12905	-2280	-18	1.72	2.10
BMW	8818	7244	1574	22	1.43	1.18
Mercedes-Benz	8595	7119	1476	21	1.39	1.16
Peugeot*	8307	10535	-2228	-21	1.35	1.71
Audi	8278	7174	1104	15	1.34	1.17
SsangYong	7103	6328	775	12	1.15	1.03
Suzuki	6033	6762	-729	-11	0.98	1.10
Citroen*	5947	7687	-1740	-23	0.96	1.25
Honda	4948	2922	2026	69	0.80	0.48
Great Wall	4685	2733	1952	71	0.76	0.44
Land Rover	4500	4322	178	4	0.73	0.70
Lifan	4321	4545	-224	-5	0.70	0.74
Geely	4261	2766	1495	54	0.69	0.45
Chery	4157	3402	755	22	0.67	0.55
Subaru	4009	2929	1080	37	0.65	0.48
VW Commercial Vehicles*	3466	3606	-140	-4	0.56	0.59
Lexus	3212	2414	798	33	0.52	0.39
Volvo	2908	3621	-713	-20	0.47	0.59
Infiniti	2819	2847	-28	-1	0.46	0.46
FIAT*	1244	3164	-1920	-61	0.20	0.51
ZAZ	930	3115	-2185	-70	0.15	0.51
SEAT	860	248	612	247	0.14	0.04
Jeep	845	854	-9	-1	0.14	0.14
Mercedes-Benz Commercial Vehicles*	835	674	161	24	0.14	0.11
Porsche	777	637	140	22	0.13	0.10
Bogdan	777	1666	-889	-53	0.13	0.27
MINI	559	499	60	12	0.09	0.08
Vortex	517	824	-307	-37	0.08	0.13
FAW*	506	0	506	-	0.08	0.00
BAW*	483	348	135	39	0.08	0.06
Cadillac	378	563	-185	-33	0.06	0.09
Jaguar	321	329	-8	-2	0.05	0.05
Izh	251	592	-341	-58	0.04	0.10
BYD	100	256	-156	-61	0.02	0.04
Haima	83	390	-307	-79	0.01	0.06
TagAZ*	64	115	-51	-44	0.01	0.02
Dodge	51	49	2	4	0.01	0.01
Chrysler	39	35	4	11	0.01	0.01
Smart	24	0	24	-	0.00	0.00
Isuzu*	23	81	-58	-72	0.00	0.01
Foton*	6	33	-27	-82	0.00	0.01

VIS**	0	745	-745	-	0.00	0.12
Total	616770	615017	1753	0	100.00	100.00

Notes:

\* LCV sales, if any in the brand's product line, are included in the total sales; for some brands they are indicated separately LCV<3.5 tons (in some cases, the gross weight reaches the upper limit of 6 tons).

\*\*Beginning January 2013, vehicles, assembled by «PSA VIS-AVTO» Ltd are included in LADA total sales.

Source: data by AEB Automobile Manufacturers Committee.

#### TOP-10 Brands' Quarter Growth and Sales Volumes Ratio, Q I, 2013



Source: data by AEB Automobile Manufacturers Committee, analysis by Russian Automotive Market Research (NAPI).

In general, in the first quarter of 2013, SEAT brand, which gathers pace in the Russian market, showed the highest sales growth, 247%, although its sales figures are still small in absolute terms. As for other brands, Chinese Great Wall and Geely brands with their 71% and 54%, respectively, and Japanese Honda, Mitsubishi, Subaru and Lexus brands with the growth from 69% to 33% had the most significant sales increase.

Haima, ZAZ, FIAT, BYD, Bogdan brands were the least successful in the Russian market in the first three months of 2013. Their sales decreased by over 50% in comparison with the same period of 2012. The TOP-10 list of brands with the lowest sales in January-March 2013 also included Citroen and Peugeot brands (-23% and -21%, respectively).

#### TOP-10 Brands with the Highest Quarter Sales Growth, Q I, 2013

Rating	Brand	Sales Volume, Q I, 2013	Sales Volume, Q I, 2012	Sales Growth, Q I, 2013/ Q I, 2012, %
1	SEAT	860	248	247
2	Great Wall	4685	2733	71
3	Honda	4948	2922	69
4	Geely	4261	2766	54
5	Mitsubishi	19140	13065	46
6	Subaru	4009	2929	37
7	Lexus	3212	2414	33
8	Renault	48030	39303	22
9	BMW	8818	7244	22
10	Chery	4157	3402	22

Source: data by AEB Automobile Manufacturers Committee, analysis by Russian Automotive Market Research (NAPI).

## TOP-10 Brands with Negative Quarter Sales Growth, Q I, 2013

Rating	Brand	Sales Volume, Q I, 2013	Sales Volume, Q I, 2012	Sales Growth, Q I, 2013/ Q I, 2012, %
1	Haima	83	390	-79
2	ZAZ	930	3115	-70
3	FIAT	1244	3164	-61
4	BYD	100	256	-61
5	Bogdan	777	1666	-53
6	TAGAZ	64	115	-44
7	Vortex	517	824	-37
8	Cadillac	378	563	-33
9	Citroen	5947	7687	-23
10	Peugeot	8307	10535	-21

Source: data by AEB Automobile Manufacturers Committee, analysis by Russian Automotive Market Research (NAPI).

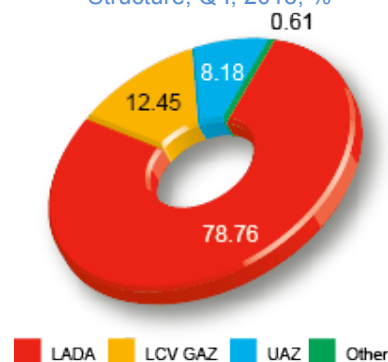
In the first quarter of 2013, the total share of Russian brands in the car and LCV sales volume amounted to 22.11%, which was a slight decrease of 0.67% on the same period of 2012.

In absolute terms, in January-March 2013, 136.4 thousand cars of Russian brands were sold. Lada brand accounted for 78.8% of them.

New Car and LCV Sales Structure, By Origin, Q I, 2013, Thousand Units



New Russian-branded Car and LCV Sales Structure, Q I, 2013, %



Source: data by AEB Automobile Manufacturers Committee, analysis by Russian Automotive Market Research (NAPI).

In the first quarter of 2013, Lada Granta was the most popular model in the Russian market; its sales amounted to 37.2 thousand units.

In January-March 2012, Lada Granta was on the seventh position in the TOP-10 list of the most saleable models, and the first two places belonged to other AVTOVAZ models, Lada Kalina and Lada Priora, with sales volumes of over 27 thousand units each. In 2013, Kalina and Priora models occupy the fourth and the seventh places, respectively.

Hyundai brand is an irreplaceable leader among foreign cars. As in the first quarter of 2012, so in January-March 2013, Hyundai Solaris remains the most popular model among other models of the foreign brands.

At the same time, over the first three months of 2013, Hyundai Solaris sales decreased by 6.7% to 25.4 thousand cars in comparison with the same period of 2012. In January-March 2013, the total sales of Lada Granta and Hyundai Solaris cars amounted to 10% of the Russian car market.

New KIA Rio with its 19.8 thousand cars sold in the first quarter of 2013 is on the third place in the TOP-10 list of the most popular car models. Lada Kalina, which took the fourth position, has almost the same sales figure. One of the novelties 2012, Renault Duster with the sales of 18.3 thousand units in January-March 2013 occupies the fifth place of the rating.

Ford Focus, Lada Priora, Volkswagen Polo, Chevrolet Niva and Renault Logan cars also entered the TOP-10 list of the most popular models in the Russian market in the first quarter of 2013. In comparison with January-March of 2012, the list of models changed insignificantly. It should be noted that Lada Samara, whose production AVTOVAZ plans to terminate at the end of 2013, left the ranking list.

## New Car and LCV Sales in Russia, By Model, Q I, 2012-2013

TOP-10 Models in Q I, 2013			TOP-10 Models in Q I, 2012		
Rating	Car Model	Sales, Q I, 2013, Thousand Units	Ranking	Car Model	Sales, Q I, 2012, Thousand Units
1	Lada Granta	37.2	1	Lada Kalina	27.8
2	Hyundai Solaris	25.4	2	Lada Priora	27.4
3	KIA New Rio	19.8	3	Hyundai Solaris	27.1
4	Lada Kalina	19.5	4	Ford Focus	19.6
5	Renault Duster	18.3	5	KIA New Rio	18.3
6	Ford Focus	16.7	6	Renault Logan	17.1
7	Lada Priora	16.5	7	Lada Granta	16.9
8	VW Polo	15.2	8	VW Polo	15.3
9	Chevrolet Niva	12	9	Lada Samara	14.6
10	Renault Logan	11.8	10	Chevrolet Niva	14.1

Source: data by AEB Automobile Manufacturers Committee, analysis by Russian Automotive Market Research (NAPI).

## Major Events for Russian and Foreign Car Manufacturers, Q I, 2013



### JANUARY

#### Change in recommended retail prices for Lada cars

The price was increased at average by 3%. The change in recommended retail prices covered only cars with vehicle certificates, received in 2013, and took account of the demand structure for some Lada models and configurations.

#### Launch of the production of the commercial batch of LADA Granta cars with automatic gear box and 15-inch light alloy wheels

Currently AVTOVAZ equips top versions of LADA Granta cars with automatic gear box with 15-inch wheels. In the future, it plans to equip other «luxury» LADA Granta cars with 15-inch wheels.

#### Action for the purchase of LADA Kalina cars with vehicle certificates, received in 2012

A discount of 30 thousand rubles was effective from January 19 to February 28, 2013. Under the action, the price for these cars started at 265.9 thousand rubles (for LADA Kalina Standard hatchback, configuration 11193-41-040).

### FEBRUARY

#### Launch of the production of LADA Granta Sport cars

LADA Granta Sport is a low volume car with the manual gear box. The recommended retail price for a car amounted to 443 thousand rubles. LADA Granta Sport sales were launched in the second quarter of 2013. In 2013 it is planned to produce 1000 cars.

### MARCH

#### Discounts for LADA Granta cars with automatic gear box

The action was effective from March 4 to March 31, 2013. Under this action a discount for all configurations LADA Granta with automatic gear box of the 2012 year of manufacture (by the date of a vehicle certificate issue) amounted to 29.8 thousand rubles, of the 2013 year of manufacture - 20 thousand rubles.

### **AVTOVAZ discontinued production of Lada Kalina cars of the first generation**

In March, 2013 the enterprise readjusted its production under welding, painting and assembly of the new generation of the model. In addition to external changes, Lada Kalina of the second generation will have a new manual gear box (the model will be completed also with automatic gear box) and running characteristics will be improved, there will be new options.



#### **FEBRUARY**

### **Launch of a special action for the model line-up of GAZ commercial vehicles**

Financing terms under the «It does not get any easier than this!» action were developed jointly with the «Element Leasing» company. Under the action, the vehicle can be purchased on lease with minimum overpayment, which is lower than rates under standard leasing programs by 0.2-1.1%. The action was effective from February 6 to March 31, 2013 inclusive at all dealer centers in Russia, except for authorized GAZ dealerships in Nizhny Novgorod.

### **Opening of a GAZ firm dealer center in Orenburg**

«Avtocenter GAZ Tourist Plus» will be engaged in sales of whole product line of Gorky Automobile Plant. The show room, department of spare parts and accessories, client zone and service zone designed for simultaneous service of ten cars are located in a car center.

The total area of a center is 2.5 thousand m<sup>2</sup>. A service station consists of nine service posts.



#### **FEBRUARY**

### **Launch of the production of Toyota vehicles in the Far East**

A joint venture of «Sollers» and Mitsui & Co («Sollers-Bussan») in Vladivostok launched the serial production of Toyota Land Cruiser Prado vehicles. Estimated outputs of a joint venture at the first stage will make about 1 thousand cars a month.

#### **MARCH**

### **UAZ and «Europlan» concluded a partner agreement on leasing and lending**

When buying UAZ vehicles, financial instruments of the «Europlan» company are available in a form of leasing products for small and medium-sized enterprises, and in a form of lending programs from «Europlan» commercial bank - for individuals.



#### **FEBRUARY**

### **Launch of the test assembly of TAGAZ AQUILA vehicles**

At the first stage, a vehicle will be available in one configuration. TAGAZ AQUILA is equipped with 1.6 l Mitsubishi engine and a manual five-speed gear box. Its price will make 415 thousand rubles on condition of self-delivery from the plant.

### **TAGAZ will work under external control**

An external control was put into «Taganrog Automobile Plant» JSC for a period of 18 months. During observation procedure 112 requirements of creditors from which 67 are included in the register for a total amount of 25, 8 billion rubles came. TAGAZ plans to recover its financial solvency within two years and to cancel creditor indebtedness within eight years.



# RENAULT

## FEBRUARY

### **Announcement of Russian sales of the new Renault Fluence**

New Renault Fluence will go on sale to the Russian market in the spring of 2013 and will be offered to buyers at the former price level. In addition, since the spring of 2013 its production starts at the plant Renault in Russia.

### **Renault-Nissan Alliance create a joint venture with UniCredit Bank**

The alliance Renault-Nissan and UniCredit agreed about creation of a specialized bank for offering of financial services to clients and dealer enterprises of the brands Renault, Nissan and Infiniti in Russia. The joint venture will be supervised by the alliance which will get 60% of shares. It is expected that the joint venture will start working until the end of 2013.

### **Termination of sales of Renault Symbol cars in Russia**

Sales of the car Symbol within the territory of Russia are stopped in connection with alternation of car generations. Sales of these cars in Russia aren't planned further.

## MARCH

### **Launch of sales of Renault Kangoo with a diesel engine in Russia**

The Renault Company offered the cargo and passenger version of the Kangoo vehicle with 1.5 L diesel engine, priced at 648 thousand rubles for a cargo version and at 680 thousand rubles - for passenger one.

### **Launch of sales of Renault Master L4 with an extended body and wheelbase**

The length of Master L4 with back drive makes 6, 9 meters, at the capacity of luggage compartment in 15, 8m<sup>3</sup>. The car is equipped with turbo diesel engine capacity of 125 HP. Renault Master L4 is offered at the price of 1324 thousand rubles.



# CITROËN

## MARCH

### **Announcement of serial production of a Citroen C4L sedan**

The Kaluga plant «PSMA Rus» will launch production of a new model – sedan Citroen C4L on April 2013. The output of Citroen C4L sedans at the «PSMA Rus» plant in Kaluga will make about 2-2.5 thousand cars a month.



# KIA MOTORS

## JANUARY

### **Announcement of sales of KIA Quoris in Russia**

Since March 1, 2013, Kia begins sales of the first car of a representative class Quoris. The model is presented in four versions at the price from 1 999 900 rubles to 2 569 900 rubles.

## FEBRUARY

### **Launch of a special lending program of KIA and Sberbank of Russia for corporate clients**

The program offered two products: «Business auto» (individual interest rates and unlimited loan amount) and «Express-auto» (decision on a loan in the shortest possible time). A special emphasis was placed on the provision of an

opportunity to purchase a car on credit for individual entrepreneurs and legal entities, working under the simplified system.

#### **Announcement of special prices and terms for KIA cars**

Savings on the purchase of a car amounted from 50 to 90 thousand rubles, depending on the model. The action was effective until February 28, 2013.

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## **HYUNDAI**

### **JANUARY**

#### **Announcement of prices for Hyundai Solaris cars of the 2013 year of manufacture**

The price for the most available version of a sedan Classic with 1.4 L engine starts at 459 thousand rubles, prices for configuration Optima with an expanded set of options start at 489 thousand rubles, for Hyundai Solaris sedan in a configuration Comfort - at 537 thousand rubles. The cost of the top modification of a sedan Family is 638 thousand rubles. In this configuration the model is available only with 1.6 L engine. Prices for the hatchback begin from 445 thousand rubles, for the better equipped configuration Active - from 492 thousand rubles, for the five-door Hyundai Solaris in a version Style - from 528 thousand rubles. The price for the top hatchback - 629 thousand rubles, it is available only with 1.6 L engine.

### **FEBRUARY**

#### **Launch of the action for some models of the 2012 year of manufacture**

Under the action, a discount of 30 - 80 thousand rubles was provided for Veloster, Elantra and Grandeur models of the 2012 year of manufacture.

#### **Changes in configurations of i30 hatchback and MPV**

Classic configuration is the most available one of the version Base of a hatchback. Its price remained unchanged and amounted to 649 thousand rubles. The Optima configuration is now replaced by the version Active. The price for a configuration Active, in comparison with Optima one, did not change and amounted to 719 thousand rubles with a manual gear box, and 769 thousand rubles - with automatic gear box. Configurations Vision and Citivision were equipped with new options, but their cost remained unchanged - 899 thousand rubles and 949 thousand rubles, respectively.

#### **Launch of sales of a three-door Hyundai i30 hatchback**

Hyundai i30 3dr is offered in three levels of equipment - both with a manual and with a 6-speed automatic gear box, and two types of engine at choice (1.4 L engine with the capacity of 100 HP and 1.6 L engine with the capacity of 130 HP). Prices for the most available version of three-door hatchback i30 begin from 599 thousand rubles. The car is available in three configurations - Start, Classic and Active.

#### **Announcement of prices for ix35 crossover of the 2013 year of manufacture**

In the Russian market Hyundai ix35 crossover is sold in nine configurations with two types of engines. The price for the front-wheel drive modifications of the ix35 crossover of the 2013 year of manufacture with 2 L petrol engine in capacity 149.6 HP starts at 899 thousand rubles, for all-wheel drive ix35 version with a five-speed manual gear box - at 999 thousand rubles.

#### **Opening of a dealer center Hyundai («TransTechService» company) in Ufa**

The total area of a new dealer center is 2400 m<sup>2</sup>, from which a showroom occupies 670 m<sup>2</sup>, service rooms - 1225 m<sup>2</sup>.

#### **The production launch of the upgraded Hyundai Solaris of the 2013 model year**

Hyundai Solaris of the 2013 model year got headlights with LED running lamps, lensed optics, and also new design of wheel rims. Buttons of window regulators will be highlighted, and side blinkers will respond to a lever contact with a triple blinking. The fold-out key got new design with a separate button of luggage carrier opening.

### **MARCH**

#### **Announcement of prices and versions of the upgraded Hyundai Solaris of the 2013 model year**

In comparison with prices for Hyundai Solaris sedans, announced at the beginning of the year, the cost of a version Comfort increased - its initial price grew by 12 thousand rubles, and of the top configuration Family – by 51 thousand rubles. Prices for Hyundai Solaris hatchbacks in a version Style increased by 11 thousand rubles and for the maximum configuration - by 50 thousand rubles. Prices for a modification with 1.6 L engine also grew.

#### **Changes in configurations of ix35 hatchback and MPV**

Beginning March 2013, all cars of this model with front and all-wheel drive, petrol or diesel engine has been equipped with a heated wheel. The price for a front-wheel version of the ix35 crossover amounts to 1 085 thousand rubles, and for all-wheel drive version - 1 155 thousand rubles.

#### **Changes in configurations of Hyundai Santa Fe crossover**

Hyundai Santa Fe of the 2013 year of manufacture is presented in six levels of equipment, one of which - Base – is launched to the Russian market for the first time. The price for a new configuration Base begins from 1199 thousand rubles, for the configuration Comfort - from 1339 thousand rubles, for the version Dynamic Version - from 1535 thousand rubles, and for the configuration Sport - from 1629 thousand rubles. The version High-Tech is available at the price from 1749 thousand rubles. The cost of the configuration Family with foldable third row seats amounts to 1629 thousand rubles.

#### **Opening of a dealer center Hyundai in Balashikha**

The total area of the Hyundai AG Motors Balashikha is 2750 m<sup>2</sup>, from which a showroom occupies 688 m<sup>2</sup> and service rooms - 1898 m<sup>2</sup>.

#### **Announcement of new prices for H-1 minivan of the 2013 year of manufacture**

Minivan H-1 is an eight-seat minibus. In a version Base H-1 is offered with the diesel engine (2.5 CRDi WGT) in capacity 116 HP. The price for this version amounts to 1319 thousand rubles. The configuration Comfort with 4-speed automatic gear box and 2.4 L petrol engine with the capacity of 173 HP will cost 1329 thousand rubles. Dynamic configuration was offered at a price of 1459 thousand rubles. Cars in this configuration are equipped with a five-speed automatic gear box and a diesel engine with the capacity of 170 HP

#### **«Avtotor» launched the production of Hyundai cars**

Avtotor began the production of a new model - Hyundai i40 which will be produced in two bodies –sedan and MPV. Assembly of a sedan Hyundai Equus which will be produced also including in the version “limousine” will begin soon. Earlier, «Avtotor» produced only Hyundai trucks.



#### **JANUARY**

##### **VTB 24 and General Motors launched a joint auto lending program Chevrolet Finance**

A new auto lending program enables to purchase a Chevrolet car on credit with minimum documents, without a fee and at an interest rate, which differs from the standard bank terms. The minimum initial payment amounts to 15% of the car value, the interest rate - from 13.5%.

#### **FEBRUARY**

##### **GAZ Group launched the production of Chevrolet Aveo**

GAZ Group began the assembly of Chevrolet Aveo sedans; assembly of the model with a body hatchback will be launched in the future. The planned annual output amounts to 30 000 cars. Produced cars will be sold in the Russian market. Investments of the sides into development of GAZ car production under output of Chevrolet Aveo made 29 million dollars.

#### **MARCH**

##### **Launch of sales of the diesel Chevrolet Orlando car**

Orlando seven-seat minivan with a diesel engine is offered in a version LTZ at the price from 998 thousand rubles. The car is equipped with 2.0 L 163-powered diesel engine and a six-speed automatic gear box. Before that, Orlando was available in Russia only with 1, 8 l petrol engine.

### **Announcement of prices for a new Chevrolet Trailblazer SUV**

New SUV from Chevrolet is offered in four versions at the price from 1444 thousand rubles to 1777 thousand rubles. These four configurations are different combinations of diesel or petrol engine with manual or automatic gear box.



FEBRUARY

### **Launch of the leasing program Nissan Finance**

The program offered special financing terms to corporate clients when purchasing Nissan cars. The program is intended to support representatives of both large and small and medium business.

### **Announcement of prices for a new Nissan Almera car in Russia**

The front-wheel drive sedan of B-class, Nissan Almera, will be offered with 1.6 L engine with the capacity of 102 HP, a five-speed manual and four-speed automatic gear boxes, and be on sale at the price from 429 000 to 565 000 rubles.



FEBRUARY

### **Launch of sales of Toyota RAV4 of the fourth generation in Russia**

The standard version is offered with 2 L petrol engine and six-speed manual gear box at a price from 998 thousand rubles. The most powerful engine in 2.5 L is available only with automatic gear box and in a version «Elegance» at the price from 1 470 000 rubles. For the diesel version available only with CVT and in a version «Elegance», it will be necessary to pay 1 460 000 rubles.

MARCH

### **Announcement of sales of Toyota Venza in Russia**

Toyota Venza is the first model which will be supplied to Russia from the USA. The booking beginning from the Russian clients is planned for April 2013; the model will be on sale in a dealer network in Russia in the summer of 2013. Import volumes of the model Toyota Venza to Russia at original stage are planned to the extent of 4 thousand cars a year.

### **Special terms for Toyota Corolla and Toyota Highlander of the 2012 year of manufacture**

From March 1 to March 31, 2013 a discount of 30 thousand rubles (VAT inclusive) of the recommended retail price was provided for the model Toyota Corolla. From March 1 to March 28, the action for Toyota Highlander cars of the 2012 model year was also effective: a discount of 60 thousand rubles (VAT inclusive) of the recommended retail price was provided.

### **Launch of sales of the upgraded Toyota Land Cruiser 200**

The start price for the seven-seat version «Lux» with a diesel engine amounts to 3382 thousand rubles (VAT inclusive). Also the upgraded Toyota Land Cruiser 200 is available in a five-seat version with the luggage compartment capacity of 909 liters. The recommended retail price for Toyota Land Cruiser 200 in a five-seat version «Lux» with a diesel engine starts at 3252 thousand rubles (VAT inclusive). Simultaneously with the launch of sales of the upgraded model special terms for Toyota Land Cruiser 200 of the 2012 year of manufacture were offered. The retail price for the model was reduced by 100 thousand rubles.

### Opening of an authorized dealer center Toyota in Abakan

«Toyota Center Abakan» belongs to the group of companies «Krepost». The total area of a new authorized dealer center makes 4625 m<sup>2</sup>. The center includes a showroom and client premises of 968 m<sup>2</sup> area, a service zone with the area of 2022 m<sup>2</sup>, the warehouse of spare parts and accessories (203 m<sup>2</sup>) and a tire warehouse (218 m<sup>2</sup>). The service area of a dealer center has 14 bench repair posts, 8 body repair posts, 1 paint spraying booth, 3 washing areas and 3 direct acceptance posts.

### Toyota Tested program covered a greater number of Toyota dealer centers

Toyota Tested program was launched in five Toyota dealer centers on December 7, 2012. In March 2013, the number of authorized Toyota dealer centers, which offer used cars certification services, was increased to nine centers. Currently, the Toyota Tested program is effective in six dealer centers in Moscow («Toyota Center Kuntsevo», «Toyota Center Kashirsky», «Toyota Center Rublevskiy», «Toyota Center Sokolniki», «Toyota Center Novorizhsky» and «Toyota Center Izmailovo»), two centers in Saint Petersburg («Toyota Center Piskarevsky», «Toyota Center Pulkovo»), as well as in «Toyota Center Perm».



### JANUARY

#### A new version of Ford Explorer - Sport

The car is equipped with the bi-turbo EcoBoost 3.5-V6 fuel injection engine with the capacity of 360 HP and a six-speed automatic gear box. The price for this version amounted to 2158 thousand rubles.

### FEBRUARY

#### Ambiente Plus - a new series for Ford Focus cars

Ambiente Plus series is available for Ford Focus sedans and hatchbacks with 1.6 L engine in capacity 105 HP and a manual gear box. The price for the hatchback in a version Ambiente Plus amounted to 598.5 thousand rubles, for a sedan – 608.5 thousand rubles. Options available for a series Ambiente could be also ordered for a series Ambiente Plus.

### JANUARY

#### Announcement of the transaction completion on the reorganization of the «ROLF Import» capital structure

In accordance with the agreement between Mitsubishi Corporation and Mitsubishi Motors Corporation they acquired 9% of ROLF Import's shares each. As a result of the completed transaction Corporation Mitsubishi Corporation, Mitsubishi Motors Corporation and ROLF Group of companies now owns 49%, 9% and 42% of «ROLF Import», respectively.

#### Russian presentation of the upgraded Mitsubishi ASX

Both the exterior and the interior of the car changed. The suspension was also upgraded and a brake system of the car was improved. The price for Mitsubishi ASX did not change and begins from 699 thousand rubles.



## MARCH

**Opening of the Mitsubishi Motors dealer center in Bratsk**

The area of a showroom «Mitsubishi Center Bratsk» («North Auto» LLC) is over 400 m<sup>2</sup>. A service zone of the area of over 370 m<sup>2</sup> can serve up to 10 cars a day; it is equipped with 7 posts. ROLF Import and Major signed a cooperation agreement, under which it is planned to open new dealer centers on the territory of the Russian Federation, built taking into account standards and requirements of Mitsubishi Motors Corporation, to increase sales of Mitsubishi cars, and also develop high-quality service of Mitsubishi cars in Russia.



## JANUARY

**Acceptance of orders for Yeti 1.4 TSI DSG**

This modification is characterized by a combination of 1.4 L petrol engine with the capacity of 122 HP and a seven-speed dual clutch automatic gear box.

## FEBRUARY

**The resumption of orders acceptance for Yeti with a diesel engine**

«SKODA AUTO Russia» announced about the resumption of orders acceptance for SKODA Yeti 2.0 TDI 4x4. This model is available with 2.0 L diesel engine of 140 HP capacity and automatic six-speed dual clutch gear box. The all-wheel drive compact SUV with a diesel engine is offered in versions Ambition and Elegance, priced from 1089 thousand rubles and 1149 thousand rubles, respectively.



## JANUARY

**Announcement of prices and versions of Peugeot 208**

The new Peugeot 208 is offered with 3 petrol engines at choice (1.0 L 68 HP and 1.2 L 82 HP with a manual gear box, and 1.6 L VTi 120 HP with the automatic gear box). Furthermore, a 1.6 L HDI diesel engine with the capacity of 92 HP and a five-speed manual gear box became available. The model is offered in three-door and five-door versions. The car is available in three configurations at choice: Access (499 thousand rubles), Active (576 thousand rubles) and Allure (626 thousand rubles).

## FEBRUARY

**Announcement of sales launch of Peugeot 301**

Official sales in Russia were launched on May 13, 2013.

## MARCH

**Launch of sales of Peugeot 208 in Russia**

Official sales of Peugeot 208 in Russia were launched on March 1, 2013.

**Supply of ambulance cars on the basis of Peugeot Boxer in the Republic of Bashkortostan**

Cars for medical facilities of regions of the Republic of Bashkortostan were supplied by «Tan-Auto» company, an official dealership of Peugeot in Bashkortostan.

**Announcement of prices and versions of the upgraded Peugeot RCZ**

The car, equipped with 1.6 L 156-powered engine and a six-speed manual gear box, was offered at a price of 1199 thousand rubles, and a version with 1.6 L 150-powered engine and a 6-speed automatic gear box - at the price of 1259 thousand rubles. The cost of Peugeot RCZ with 1.6 L engine in capacity 200 HP and a six-speed manual gear box amounts to 1299 thousand rubles. Peugeot RCZ cars are available at dealer centers Peugeot beginning April 2013. Local content of production of Peugeot 408 in Kaluga reached 33%. Russian components for the model 408 are body stamping, glasses, interior panels, seats, wheels, tires and some other components.



## MARCH

**The «Hull insurance under special terms» action**

Under the «Hull insurance under special terms» action, the actual buyer's hull insurance expenses for a new Audi A4 or A5 car for one year amount to 0% of its value when a seller offers a special price for a car. A special price could be offered to the buyer, purchasing a car for cash or on credit and insuring it in Ingosstrakh from February 1 to May 31, 2013.



## FEBRUARY

**Special prices for Suzuki Grand Vitara SUV of the 2012 year of manufacture**

Savings on a purchase of the car amounted to 50 thousand rubles. Suzuki Grand Vitara was offered at a price from 845 thousand rubles (for a three-door version) and from 965 thousand rubles (for a five-door version). The action was effective till March 31, 2013, and covered upgraded versions of cars of the 2012 year of manufacture.

**Launch of service of Suzuki cars with the brand motor oil**

Suzuki Motor Oil Line-up of oils was presented by an energy saving Suzuki Motor Oil 0W-20 oil, which ensures easy start and a fuel economy, and by environmentally friendly Suzuki Motor Oil 5W-30 oil. Original oils of the Suzuki Motor Oil line-up are available only at authorized Suzuki dealer centers.

**Opening of a new dealer center Suzuki in Ufa**

The total area of a new center «Bashavtokom» makes 3500 m<sup>2</sup>, from which a showroom occupies 690 m<sup>2</sup>, a service centre with 7 posts - 1028 m<sup>2</sup>. The daily capacity of a zone is up to 50 vehicles.

**Opening of a new dealer center Suzuki in Murmansk**

The total area of a new dealer center makes 847 m<sup>2</sup>. A showroom with an area of 390 m<sup>2</sup> is designed for a simultaneous demonstration of 7 Suzuki cars. Service center with an area of 328 m<sup>2</sup> has 5 posts, its daily capacity - 15 cars.



## FEBRUARY

**Announcement of prices for a new Honda Accord**

The price for the base modification Elegance with automatic gear box and 2.4 L engine started at 1149 thousand rubles. The cost of the configuration Sport with 2.4 L petrol engine and a five-speed manual gear box begins from 1259 thousand rubles, and of the version with an automatic gear box - from 1289 thousand rubles. The price for the configuration Executive with 2.4 L engine and automatic gear box starts at 1339 thousand rubles, and for the configuration Premium with 3.5 L petrol engine and a six-speed gear box - at 1619 thousand rubles.

## MARCH

**Upgraded configuration of the new CR-V with 2.4 L engine**

For Russian buyers this version of the CR-V is offered in 4 configurations - Elegance, Sport, Executive and Premium. Sales of the car were launched in April 2013.

**Launch of the Finance and Insurance programs**

Honda Motor RUS Company together with banks-partners launched Finance and Insurance programs, which will enable to purchase and insure cars of the whole Honda model line-up. Banks-partners of the Finance program: «UniCredit Bank» JSC, Raiffeisenbank JSC and «Gazprombank» JSC, of the Insurance program: «Alliance» insurance company, «Ingosstrakh», «Soglasie» insurance company.

**Launch of sales of a new Honda Accord**

In the Russian market a new model was offered in two versions: with 2.4 L petrol engine (180 HP) and a six-speed manual or a five-speed automatic gear box, and with 3.5 L engine (280 HP) and a six-speed automatic gear box.



## FEBRUARY

**Opening of an updated dealer center ROLF Avtoprime in Saint Petersburg**

ROLF Avtoprime will offer vehicles of not only the Land Rover brand, but also Jaguar brand. After the reconstruction the area of a dealer center's showroom increased from 427 to 614 m<sup>2</sup>. A service zone of ROLF Avtoprime occupies an area of 470 m<sup>2</sup> and has seven repair posts, as well as one online acceptance post.



## JANUARY

**«Lifan Motors Rus» and «GazPromNeft – lubricants» signed an agreement on strategic partnership**

Companies began to cooperate in July 2012, when the production of Gazpromneft Lubricants was delivered for the first filling of Lifan cars, manufactured by Derways company. In the future companies intend to develop the already achieved agreements on a joint participation in the project of the development of a network of authorized dealer centers Lifan and to expand the program of marketing initiatives.

**Opening of a dealer center Lifan in Minusinsk**

Automobile motor show Pikomovsky became an official Lifan dealer center in the Krasnoyarsk region and Khakassia.

## FEBRUARY

**Opening of a dealer center Lifan Motors in Barnaul**

A center was opened by «AGAS-Holding» company. The new dealer center Lifan has a show room with an area of 400 m<sup>2</sup>.

**«Lifan Motors Rus» and VTB 24 signed a cooperation agreement**

Under the «Lifan Finance» program VTB 24 will be the third largest bank-partner, along with such banks as «URALSIB» and «Kreditevpobank». Under the program of preferential auto lending of individuals «Lifan Finance», VTB 24 offers three auto lending programs – «Avto Standard», «Avto Light» and «Avto Express».

## MARCH

**Sberbank of Russia became a financial partner of Lifan**

«Lifan Motors Rus» LLC and «Sberbank of Russia» JSC signed the long term relationships agreement under the «Lifan Finance» program. «Sberbank of Russia» JSC offers two lending programs: «Classic loan» and «A loan by two documents».

**Opening of an authorized dealer center «Lifan Motors Rus» in Krasnoyarsk**

The showroom of a new dealer center «AVTODOM» presented the whole model line-up of Lifan vehicles and the needs of a service center are covered by its own warehouse of spare parts and accessories.



## JANUARY

**Opening of a monobrand dealer center Chery in Pskov**

The total area of a new center is about 400 m<sup>2</sup>. Equipment of a service center enables to carry out all types of car maintenance and repair. Investments in the project amounted to about 5.5 million rubles.

## FEBRUARY

**Opening of a new dealer center Chery in Ryazan**

The area of a showroom of the dealer center «Ostrovsky» is 305 m<sup>2</sup>, of a service center - 1300 m<sup>2</sup>, of the paint and body shop - 320 m<sup>2</sup>, the number of diagnostic points - 9. In the nearest future it is planned to open the paint and body zone with the paint spraying booth, anticorrosive processing zone and an area of additional equipment installation.

## MARCH

**Discounts for all Chery models of the 2012 year of manufacture**

Discounts of up to 23 thousand rubles, depending on the model and configuration, for the purchase of Chery Very and Chery Bonus cars of the 2012 year of manufacture in configurations BN12BP, BN12C, BN12LX and VR12BP, VR12C, VR12LX are provided. The action was effective from March 11, 2013 to April 30, 2013.



## FEBRUARY

**Reduction of prices for security systems Driver Support**

A set of technical solutions Driver Support for Volvo S80, S60, XC70, V60 and XC60 could be purchased at the price of

99.9 thousand rubles (previously 129 thousand rubles). Additional options, included in the Driver Support package, are now available separately as well. Hull insurance discounts of up to 10% are provided for by Volvo CAR Insurance.

Volvo Car Russia introduced a new system of hull insurance discounts under the program «Volvo Car Insurance» for cars under the factory warranty. Discounts are provided for owners of vehicles, equipped with safety systems (City Safety, Volvo on Call and Driver's Support package). If the car is equipped with one of these systems, the discount will amount to 5%, with two systems - 7%, with all three systems - 10%. The program is implemented by Volvo Car Russia in partnership with «Alfa-Insurance» insurance company. The program will be effective till July 31, 2013.



**FEBRUARY**

**Announcement of sales of Fiat Freemont**

«Chrysler Rus» company plans to begin sales of a crossover Fiat Freemont created on the basis of the American minivan Dodge Journey in Russia in June 2013.

**MARCH**

**A special offer for the purchase of commercial vehicles of the 2012 year of manufacture**

Until May 31, 2013 Fiat offered to purchase commercial vehicles Fiat Doblo Cargo and Panorama of the 2012 year of manufacture with the saving of up to 50 thousand rubles.



**JANUARY**

**Opening of a new dealer center Seat in Moscow**

Seat company in partnership with the group of companies «Avtoport» opened a new authorized dealer center «Avtoport CITY» in the Moscow region Mitino. The total area of a dealer center makes 715 m<sup>2</sup>.

**FEBRUARY**

**Announcement of new Seat models for Russia**

The company SEAT plans to bring three new models to the Russian market in 2013: at the end of spring there will be Ibiza CUPRA and new Leon (a five-door hatchback), and in the summer a minivan Alhambra will come to the market.



**MARCH**

**The Russian premiere of the MINI Paceman**

MINI Cooper Paceman is available at the price from 1 080 thousand rubles, MINI Cooper S ALL4 Paceman - from 1365 thousand rubles. The retail price for the modification MINI John Cooper Works Paceman amounted to 1675 thousand rubles.



## JANUARY

**Launch of sales of a sedan FAW V5 in Russia**

FAW V5 is a sedan of B class, equipped with 1.5 L engine with variable valve timing system (VCT-I). The price for the car starts at 379 thousand rubles.

## FEBRUARY

**«QueenGroup» started cooperation with a leasing company Europlan**

The «QueenGroup» Company, official and exclusive distributor of the Chinese corporation FAW in Russia, signed a cooperation agreement with auto leasing company Europlan, which enables customers to purchase the whole range of FAW models on lease under Europlan's special programs.



## JANUARY

**Creation of a subsidiary Haima in Russia**

«Haima Automobiles Rus» LLC will be fully responsible for the import, sales, delivery of spare parts, brand promotion and after-sales service of Haima vehicles in Russia.

## FEBRUARY

**Announcement of the production of Haima 3 at the «Derways» automobile plant**

Taking into account changes in customs rates after the Russia's accession to the WTO, Haima company announced about its intention to resume an industrial assembly at the «Derways» automobile plant. It will assemble the new Haima3.

**Announcement of sales of Haima 7 SUV**

Haima 7 is the first Haima model, which entered the Russian market after the creation of «Haima Automobiles Rus» LLC. Haima 7 was chosen to launch sales, firstly, in the connection with a steady growth in SUV segment in Russia, and secondly, due to success in other markets. The first batch of Haima 7 vehicles, imported to the Russian market, will be equipped with 2 L engine and will be supplied both with a five-speed manual and automatic gear box.



Great Wall

## FEBRUARY

**Launch of sales of Great Wall Hover M2 in Russia**

Sales began with a front-wheel version of the model with 1.5 L petrol engine (99 HP), working together with a manual gear box. The crossover with all-wheel drive should appear in the Russian market in the middle of 2013. New Great Wall Hover M2 is offered in three versions: Standard (519 thousand rubles), Luxe (528 thousand rubles) and Elite (566 thousand rubles).

## Commercial Vehicles

*In the first quarter of 2013, in Russia, the production of both trucks and buses decreased by 9.7% and 8.8%, respectively. The share of Russian-branded vehicles remained almost unchanged in the segment of trucks, and decreased by 8.7% in the bus segment.*

### Truck Production

Over the first three months of 2013, in Russia, 42 thousand trucks were manufactured, which is a 9.68% decrease on the production result for the same period of 2012.

Russian brands dominate in the truck production structure. In January-March 2013, 36.2 thousand trucks of the Russian brands were manufactured, which amounted to 86.38% of the total production volume. In comparison with the first quarter of 2012, the share of Russian-branded trucks decreased by 1.6%.

Truck Production Structure in Russia, Q I, 2012-2013, %

	Q I, 2012	Q I, 2013
GAZ Group	35.36%	39.21%
KAMAZ Group	34.52%	28.05%
Sollers Group	13.37%	20.99%
Other	16.76%	11.75%

*Source: data by companies, analysis by Russian Automotive Market Research (NAPI).*

Following the results of January-March 2013, such leading manufacturers of commercial vehicles in Russia as GAZ Group, KAMAZ Group and Sollers Group showed the different production dynamics.

The number of vehicles, produced by GAZ Group in the first quarter of 2013, did not change in comparison with the first quarter of 2012.

The total production volume of enterprises of KAMAZ Group decreased by 26.25%: from 16 thousand vehicles in January-March 2012, to 11.8 thousand vehicles in January-March 2013. In January and partially in February 2013, KAMAZ JSC worked only four days a week in order to reduce the production volume as the demand for trucks is traditionally low in the first quarter of the year.

The truck production of Sollers Group increased by 41.94% in January-March 2013. This growth is connected with a significant increase in the production of Ford commercial vehicles at Sollers enterprise in Yelabuga. In comparison with the first quarter of 2012, the production of Ford vehicles in the Republic of Tatarstan increased six-fold and reached 3.2 thousand units.

Mercedes-Benz Trucks Vostok LLC, BAW Motor Corporation LLC, Iveco-AMT LLC should be noted among other manufacturers, which have significantly increased their truck production volumes in January-March 2013. The first two companies doubled their production volumes, the third one showed the growth by 100%.

In the first quarter of 2013, the production of Volvo Vostok JSC, FUSO KAMAZ Trucks Rus LLC and AMO ZIL decreased by 53.33%, 71.43% and 90%, respectively.

Truck Production Dynamics in Russia, By Manufacturer, Q I, 2012-2013

Manufacturer	Q I, 2013, Thousand Units	Q I, 2012, Thousand Units	Production Dynamics, Q I, 2013/ Q I, 2012, %
GAZ Group	16.4	16.4	0%
KAMAZ Group	11.8	16	-26.25%
Sollers Group	8.8	6.2	41.94%
Volvo Vostok JSC	0.7	1.5	-53.33%
Mercedes-Benz Trucks Vostok LLC	0.6	0.4	50%
BAW Motor Corporation LLC	0.6	0.4	50%
Scania Piter LLC	0.2	0.2	0%
FUSO KAMAZ Trucks Rus LLC	0.2	0.7	-71.43%
Iveco-AMT LLC, Miass	0.2	0.1	100%
AMO ZIL	0.05	0.5	-90%
Avtotor	0.02	-	-
Other	2.4	4.1	-41.46%
Total	42	46.5	-9.68%

*Source: data by companies, analysis by Russian Automotive Market Research (NAPI).*

## Bus Production

In the first quarter of 2013, in Russia, 10.3 thousand buses were produced, which is 8.8% decrease on the first quarter of 2012, when automotive enterprises manufactured 11.3 thousand buses.

In January-March 2013, the share of buses, produced under Russian brands, also decreased in comparison with the same period of 2012. In the first quarter of 2012, the share of Russian-branded buses in the production structure amounted to 78.8%, or 8.9 thousand units, and in the first quarter of 2013 – 70.1% or 7.3 thousand units. The share growth of the foreign-branded buses was due to the significant production increase in two companies-body builders namely ST Nizhegorodets LLC and PKF Luidor. In January-March 2013, the bus production at these enterprises increased by 63.6% and 33.3%, respectively, in relation to January-March 2012.

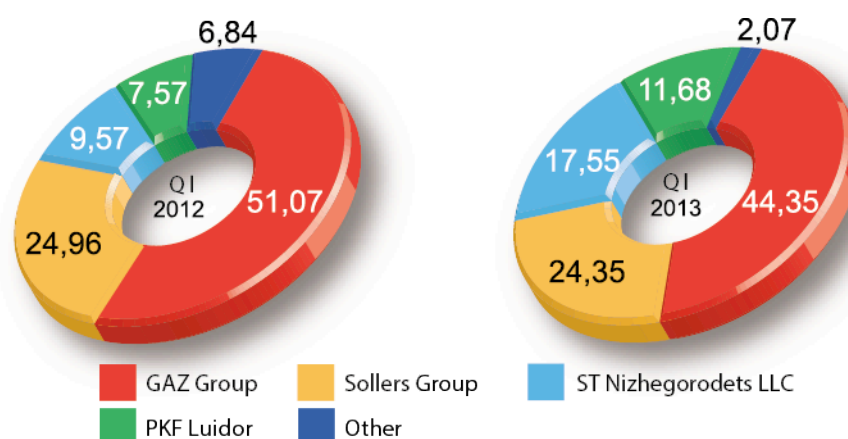
Over the first three months of 2013, the production of GAZ Group, the largest enterprise manufacturing buses in Russia, decreased by 20.7%. Ural Automobile Plant and LIAZ plant showed a slump of the production by 62% (to 60 units) and 66.4% (190 units), respectively. The production of KAVZ plant was also down by 31.3%, to 110 units.

GOLAZ showed a significant production increase in three times, in comparison with the same period of 2012. However, in quantitative terms, its production result is not so considerable and amounts to only 62 buses.

The main production volume of GAZ buses was provided for by GAZ Automobile Plant and PAZ LLC. Over the first quarter of 2013, the production of the first enterprise decreased by 24.3% to 2.3 thousand units, and that of the second one increased by 2.8% to 1.9 thousand units.

In January-March 2013, the bus production of Sollers Group decreased by 10.7%, of Volzhanin Bus Production LLC – by 75% and of KuzbassAvto LLC – by 50%.

Bus Production Structure in Russia, Q I, 2012-2013, %



Source: data by companies, analysis by Russian Automotive Market Research (NAPI).

Bus Production Dynamics in Russia, By Manufacturer, Q I, 2012-2013

Manufacturer	Q I, 2013, Thousand Units	Q I, 2012, Thousand Units	Production Dynamics, Q I, 2013/ Q I, 2012, %
GAZ Group	4.6	5.8	-20.70%
Sollers Group	2.5	2.8	-10.70%
ST Nizhegorodets LLC	1.8	1.1	63.60%
PKF Luidor	1.2	0.9	33.30%
NEFAZ JSC	0.1	0.1	0%
Volzhanin Bus Production LLC	0.05	0.2	-75%
KuzbassAvto LLC	0.02	0.04	-50%
KAMAZ-Marco JV	0.02	-	-
Other	-	0.4	-
Total	10.3	11.3	-8.8%

Source: data by companies, analysis by Russian Automotive Market Research (NAPI).

## Major Events for Russian and Foreign Truck Manufacturers, Q I, 2013



### JANUARY

#### **Announcement of the production of a test batch of long-haul tractors KAMAZ-5490 in cooperation with Daimler**

Trucks will be produced at the end of 2013. The first models of vehicles for long-distance transportation pass tests now. They are made with the use of Daimler components – axles, engines, Axor cab frames.

#### **Supply of a batch of KAMAZ trucks under a leasing agreement**

Under the agreement for a period of three years, «Avtobau» JSC, an authorized dealer of «KAMAZ» JSC in Novy Urengoy, delivers 10 dump trucks KAMAZ-65222-010 to the lessee in the Yamalo Nenets Autonomous District. It is planned to use the new vehicles for the ground transportation.

#### **Updating of a Strategic Development Program of the company for the period till 2020**

The program was updated with consideration of the last market trends. The company revised the truck market forecast on the basis of a conservative scenario, adjusted truck sales volumes (60 thousand units in 2015, 80 thousand units in 2020) and revenues (170 billion rubles and 350 billion rubles, respectively). The share of foreign sales is expected to be 18% in 2015 and 25% in 2020.

### FEBRUARY

#### **Announcement of sales of truck engine oils for year-round use under the KAMAZ brand**

Customers can choose among mineral, semisynthetic and synthetic oils developed as a result of the agreement between KAMAZ JSC and LUKOIL JSC on the common technical policy and partnership to assure the quality of fuels and lubricants. These oils are supplied and sold by Uralskaya Manufaktura LLC.



### JANUARY

#### **Announcement of the price reduction for dump trailers NEFAZ-9509-30 and NEFAZ-9509-32**

Customers could purchase oval semitrailers with capacity of 30 m<sup>3</sup> and the weight of a transported cargo of 33 and 33.7 tons, respectively, at the price of 960 thousand rubles including VAT; for dealers, the price was reduced by 10 thousand rubles. The offer was effective till April 30, 2013.



JANUARY

**A new model of Hyundai trucks is mastered at Avtotor**

Hyundai ND-170 model with a loading capacity up to 10 tons is one of the commercial vehicles, produced by Avtotor.

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MARCH

**Acceptance of orders for Hyundai ND 78 and ND 120 vehicles with Euro-4 engines**

An exhaust gas recirculation system (EGR) is used in new engines; a catalyst and the new electronic engine control system software are installed.

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FEBRUARY

**Opening of a new dealer center Mercedes-Benz Trucks Vostok in Podolsk**

A new dealer center belongs to the «Rusbusinessavto» company, an authorized dealer of Mercedes-Benz Trucks Vostok in sales and service of trucks and buses Mercedes-Benz in Moscow and the Moscow region. A center of the 22 100 m<sup>2</sup> area includes: a warehouse of equipment with an area of 1020 m<sup>2</sup>, a service zone - 1460 m<sup>2</sup>, a warehouse of spare parts - 170 m<sup>2</sup>, client zone and administrative offices.

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FEBRUARY

**Special terms for the purchase of a new truck tractor Volvo FH 4x2 Storm**

The truck acquisition was funded by Volvo Financial Services Vostok LLC, a subsidiary company of Volvo Vostok JSC. In the framework of this action, VFS Vostok LLC offered the low financing rate in rubles, insurance, the transport information system Dynafleet (a tool to increase the business efficiency in terms of the fuel economy and transportation planning). The action was effective till March 15, 2013.

## Major Events for Russian and Foreign Bus Manufacturers, Q I, 2013



### FEBRUARY

#### **GAZ Group became a supplier of buses for the Olympic Games 2014**

By the end of 2013 GAZ Group will supply 709 large and extra-large GOLAZ buses for the transportation of guests and athletes during the XXII Winter Olympic Games and XI Winter Paralympic Games 2014 in Sochi. The total value of buses exceeds 6 billion rubles. The contracts include supply of 282 large GOLAZ-5251 Voyage buses, 370 extra-large GOLAZ-6228 buses and 57 GOLAZ-52911 Cruise coaches. The versions of GOLAZ buses on Scania chassis were developed by GAZ Group in cooperation with Scania Rus, which is also a supplier for the Olympic Games 2014 in Sochi.

#### **Delivery of LIAZ buses to Omsk**

«GAZ Group» will supply 20 buses of large class LIAZ-5256 to the passenger motor transportation enterprise No. 2 of Omsk.

#### **Delivery of LIAZ large buses to Saint Petersburg**

Buses are delivered in the framework of a three-year regional program of the Saint Petersburg's public transport park renewal. A total of 183 LIAZ-5292 buses will be supplied to this city through the authorized dealer «Piter-Bus Center». The total contract value amounts to over 1.4 million rubles. Buses will be delivered within three years. By the end of 2013, the company will supply 83 buses to Saint Petersburg.

#### **Modernization of cataphoresis priming site of the LIAZ painting line**

Investments in the modernization exceeded 80 million rubles. The modernization of the cataphoresis priming line will make it possible to paint products in accordance with ISO 9001 international standard, adopted in the paint and automotive industries.

#### **Announcement of bus supplies to the Moscow region**

GAZ Group will deliver 29 large buses LIAZ-5292 of an environmental standard EEV «Euro-5 +» on amount more than 230 million rubles to the Moscow region. Buses will be supplied to the customer - State Unitary Enterprise «Mostransavto» - by summer of 2013.

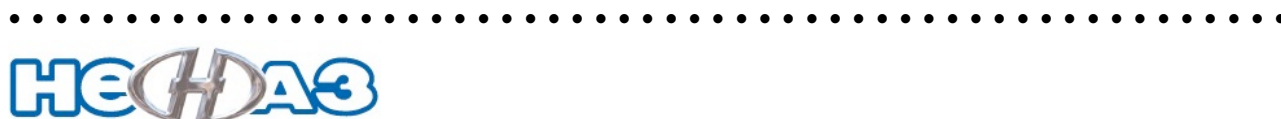
### MARCH

#### **Delivery of PAZ-3203 small buses to Armenia**

The total cost of buses exceeds 12 million rubles. Buses will be used as city public transport in the capital of Armenia. The contract for delivery of buses is signed after service tests of vehicles on routes of Yerevan.

#### **Delivery of LIAZ gas buses to Belgorod**

Until the end of March GAZ Group will supply 82 gas buses of large class to the administration of the Belgorod region. The total cost of vehicles exceeds 515 million rubles. Within the contract 65 buses LIAZ-5293 with the low floor level and 17 buses LIAZ-5256 in city and suburban configuration will be supplied.



### FEBRUARY

#### **Presentation of a new city bus of a small class BRAVIS**

The bus of a JV KAMAZ-MARCO was presented to the heads of transport companies, representatives of the Ministry of Industry and Trade of the Republic of Tatarstan, the Ministry of Economics of the Republic of Tatarstan and the Transport Committee of the Kazan administration.



## JANUARY

**Supply of a batch of Ritmix buses to Balashikha of the Moscow region**

The batch includes 15 medium sized buses Ritmix, produced by Volgabus holding company in cooperation with partners from the Indian Corporation Ashok Leyland. They will be used as a shuttle, which will bring people to transport facilities and shopping complexes. In 2013 Volgabus Group of companies plans to increase its capacities for the production of these buses and launch a serial production of intercity version of buses on the chassis of the Czech manufacturer Avia.

**Announcement of the production of Volgabus gas buses**

Small and medium sized buses will be equipped with six-cylinder compressed natural gas engines in capacity 185 HP. Currently buses undergo a certification. Samples of gas buses will be produced in 2013, and serial production will be launched in 2014.



## JANUARY

**A new school bus on the basis of Fiat Ducato**

In a standard version, Fiat Ducato bus is equipped with the air conditioner and a parking heater. The heat insulation of a ceiling, doors and walls was also carried out.

**Presentation of a school bus on the Ford Transit basis**

The vehicle has a «vehicle type approval» and conforms to all necessary parameters for the passenger transportation.

## FEBRUARY

**Delivery of 65 ambulance vehicles to the Republic of Tatarstan**

Ambulance vehicles of C class are made on the Ford Transit basis.

**ST Nizhegorodets received a status of Renault's qualified body builder**

Specialists of the company developed and produced a prototype vehicle for the passenger and cargo transportation on the basis of Renault Master.



## JANUARY

**Production of the first batch of small buses on the basis of Volkswagen Crafter for transportations during the Olympic Games 2014 in Sochi**

PKF Luidor produced the first 42 vehicles. The company will manufacture a total of 185 small buses based on Volkswagen Crafter.

## Foreign Investors: Business Organization in Russia

*For successful implementation of the projects with participation of foreign investors it is necessary to be familiar with the main possibilities and limitations related to establishment of an enterprise and carrying out of its activity. Russian laws stipulate a rather wide range of variants to create business and apply bonuses and privileges.*

*In order to choose an optimal law and financial structure of the project it is necessary to take into consideration both the particularities of a certain project and the law enforcement practice existing in Russia. Anna Afanasyeva, a partner of international law firm BEITEN BURKHARDT, reports about the particularities of business creation in Russia which are important for foreign investors.*



**Anna Afanasyeva**

Partner of international law firm BEITEN BURKHARDT

A foreign investor who intends to set up an industrial organization and enter the Russian market will have to make several important organizational decisions. Depending on the form of the activity (supply of goods through the network of distributors or establishment of its own business in Russia) the business may be organized in the form of a branch of a foreign company or an independent legal entity (a subsidiary or a joint venture with a Russian partner).

The advantages of establishment of an independent legal entity in Russia primarily include the possibility to use different preferences provided for by the domestic laws. Besides, the established company becomes a resident of the Russian Federation which is more convenient in terms of organization of certain types of business which relate to the special requirements of the law.

### Selection of the Legal Entity's Form of Incorporation

In case of establishment of a Russian legal entity – a subsidiary or a joint venture – an investor shall clearly understand what will be the way of its financing, including the method of generation of the authorized capital as well as the procedure for property transfer to the established legal entity.

Besides, a separate group is represented by the issues of creation of the governing board structure managing the Russian company. The matter of principle which shall be resolved by the investor first of all is the issue of selection of the Russian legal entity's form of incorporation.

The most popular forms of incorporation are a limited liability company (Russian: OOO) and a joint stock company (Russian: AO). Depending on the tasks set by the investor he may select one or another form. It seems that the form of incorporation with limited liability is a little easier in managing and financing. At the same time a joint stock company is provided with more severe regulation of the rules of the shareholder's rights fixation which may be attractive for investors, especially if it is a case of joint venture.

### Stages of Registration of a Legal Entity

Establishment of a Russian company does not radically differ from the similar procedures in European countries but it has a range of specific features which are primarily related to preparation of documents for registration.

When establishing a legal entity there may be subdivided the following basic stages. At the first stage the founders shall prepare and approve the documents for the company's incorporation. At the second stage it is required to prepare and duly draw up the application and a package of documents containing the data on the founders, legalized in the country of incorporation and translated into Russian. The third stage stipulates generation of the authorized capital: it may be transfer of monetary funds to a special account or insulation of the property to be transferred as such deposit. At the fourth stage there is directly carried out registration of a legal entity by presenting of all the required documents to the registering body.

The period for state registration provided for by the law amounts to not more than five working days upon the date of presenting of documents to the registering body. In general, the registering body violates this period very infrequently.

### Joint Venture Establishment

Establishment of a joint venture with a Russian partner may be performed according to two scenarios.

"Contractual" model stipulates conclusion of a so-called cooperation agreement. This agreement may also be called a simple partnership agreement the essence of relations under which is as follows. A few persons – partners –

consolidate their deposits and jointly act in order to receive profit from their commercial activity. There occurs no legal entity thereat.

The parties of simple partnership agreement concluded for carrying out of entrepreneurial activity may be exclusively the individual entrepreneurs and (or) commercial organizations. A partner's deposit is considered to be all that the partner invests into the joint activity including without limitation the monetary funds, other property, professional and other knowledge, skills and abilities as well as goodwill and business relations.

When carrying out of joint activity each partner is entitled to act on behalf of all the partners unless the simple partnership agreement stipulates that carrying out of activity is performed by particular participants or together by all the participants of the simple partnership agreement.

When carrying out of activity there exist the special rules regarding the partners. Thus, following the general rule, in order to conclude every transaction it is required that all the partners agree to the same. If the simple partnership agreement relates to carrying out of entrepreneurial activity by its participants the partners shall bear joint and several liabilities for all the general obligations irrespective of the grounds for their occurrence. It means that all the partners shall bear liability in the amount of all the property existing as of the date of incurrance of liability for the obligations.

A cooperation agreement represents a "non-corporate" form of association of persons. Apart the same, there is possible not only association of persons but also association of capitals, but it will be to the extent of the "corporate" model.

A corporate model stipulates establishment of a legal entity. To establish thereof the partners shall conclude a corporate agreement which will determine the procedure for establishment of such company and the rights and obligations of the partners to act in a certain way. After the company's establishment the participants or shareholders are entitled to conclude a special agreement the parties of which shall exercise the rights in a certain way and (or) abstain from exercising of the said rights.

The agreement may stipulate the obligation for its parties to vote in a certain way at the general meeting, coordinate the voting variant with other shareholders, purchase or dispose shares or parts at a preliminary determined price and (or) in case of occurrence of particular circumstances, abstain from disposal of shares or parts before occurrence of particular circumstances as well as consistently carry out other actions related to managing the company, its activity, reorganization and liquidation.

In the corporate model there may be subdivided a range of important aspects which the partners shall take into account and foresee when establishing a joint venture and its subsequent management.

Among these issues there particularly are assessment of the partners' property deposits in the authorized capital of the established company; distribution of the partners' rights regarding the company's management and decision making under the key management issues; subdivision of the issues of the company's activities and the activities of the parties establishing thereof; procedures for coordination of transactions, executed by the company, with participants or shareholders; settlement of the procedures for the participant's or shareholder's withdrawal from the project; preparation of internal reporting and determination of liability of the company's director because, thereat, there may occur the interest of the founder who has much influenced the appointment of such director; the issue of distribution of shares or parts among the project partners (for example, if the voting parts or shares are equally distributed there may occur the situation when it is impossible to take certain decisions and therefore it is necessary to foresee and document the variants of resolution of these situations well in advance).

#### Director's Powers

The foreign investors should pay a special attention to the status of the company's director which is a little different from the common one in the majority of European countries. Unlike in European countries, in a Russian company the director can be just one individual. The director acts on behalf of the legal entity without a power of attorney and is empowered to take decisions on almost all issues of the company's current activity.

These powers include a rather wide list of issues of the company's current business activity: employment and dismissal of the company's employees at his/her own discretion, granting of powers of attorney, and conclusion of transactions.

In some cases the director's powers may be limited. The laws provide for the standard control mechanisms over the so-called material transactions and interested party transactions.

Material transactions mean the transactions related to purchasing, disposal or the possibility of disposal of property the cost of which amounts to 25% and more of the company's property determined based on the data of the accounting statements for the last reporting period (calendar year).

Regular business operations related to the activity actually performed by a Russian company shall not be considered material transactions. The company's Article of Association may stipulate other cases of transactions which are not subject to the procedure for approval of material transactions.

In the Russian laws interested party transactions mean the transactions the performance of which may be interesting for a member of the Board of Directors (Supervisory Board), a person carrying out the functions of the Sole Executive Body, a member of the Collegial Executive Body or the company's participant owing (together with his affiliates) 20% and more of the general number of votes as well as a person entitled to give instructions binding for the company.

The decision on approval of material transactions and interested party transactions shall be taken by the management bodies empowered by the company — General Meeting of Participants or Shareholders and, in the cases provided for by the laws and the company's documents, by the Board of Directors (Supervisory Board).

Besides, the participants or shareholders of a Russian company shall take into consideration that enlargement of the range of transactions to be approved by the General Meeting or Board of Directors not only causes additional document flow but also may lead to complication of legal mutual relations with the company's counterparties.

It relates to the fact that very often the counterparties play safe demanding from the suppliers to confirm approval of any transaction if the documents of the supplying company stipulate special cases of transaction approval. This is the reason why in case of inclusion of special cases of transaction approval into the company's Article of Association there is required an exceedingly balances approach.

## Financing of an Enterprise

As for financing of legal entities it is important to draw attention to the particularities related to the company's form of incorporation and the possibility to apply tax preferences as well as to the limitations provided for by the Russian laws.

Both for a limited liability company and for a joint stock company the financing may be performed due to increase in authorized capital. The monetary funds received by a Russian company when increasing the authorized capital are not imposed by the value added tax and corporate profit tax.

The second method of financing of a limited liability company or a joint stock company is granting of a loan to the Russian company by the parent company (participant or shareholder). In this case it is necessary to take into consideration the aspect called "thin capitalization rules".

The adverse consequence of using these rules may be the impossibility of acknowledgement of the entire amount of interest from the loan or its part as the expenses for taxation purposes of a Russian company as well as the necessity to pay dividends from such amount because without being credited to the expenditure budget it shall be considered income.

However, the said rules are applied only in case the amount of indebtedness to the parent company directly or indirectly owing more than 20% of the authorized capital of a Russian organization or acting as a guarantor of a debt liability exceeding the amount of the Russian company's owned capital by more than three times.

A limited liability company may be financed by a participant due to the so-called property deposit. Thereat, such monetary deposit will not be subject to VAT, and if the participant's share exceeds 50% of the authorized capital of the limited liability company and in case of any increase of net assets of the Russian company at the participant's discretion such deposit will also be released from VAT payment.

In spite of the fact that the civil procedure laws do not stipulate making a deposit into the property of a joint stock company or provision of free financial aid to a Russian company registered in the form of a joint stock company, even in this case there may be applied the tax preferences because officially the tax laws of the Russian Federation do not prohibit the property deposits on the part of the parent company.

In this case the shareholder executing the financing shall take into consideration a negligible risk of occurrence of disagreements with the tax body if the latter decides to apply the legal provision of the civil procedure laws relating to prohibition of granting a gift between the commercial organizations in Russia.

## Receiving of Profit

An equally important issue for the investors is the issue on the methods of receiving of profit gained as a result of carrying out of the Russian company's activity. The main method of receiving of the accumulated profit by a Russian legal entity (subsidiary or joint venture) is payment of dividends.

A standard tax rate in case of dividend taxation amounts to 15%. Thereat, in some cases a foreign investor may use the advantages of double taxation treaties. In many treaties there is stipulated the possibility of application of a reduced tax rate generally amounting to 5%.

To use such a rate a foreign shareholder or participant shall perform direct investments into a Russian company in a certain amount depending on the terms and conditions of the treaty.

In practice, a foreign shareholder may also use the mechanisms of double taxation treaties with regard to interest loans and income from the rights to intellectual property objects which are generally applied in Russia in accordance with the provisions of these international treaties.

To use the treaties a foreign investor shall provide the Russian party with the confirmation of the fact that he is a tax resident of another country with which Russia has signed the double taxation treaty. Such confirmation shall be issued by an authorized body of a foreign country.

As for conclusion of the contracts with the parent company (for example, consultancy service contract), it is necessary to take into consideration that the actuality of provision of these services shall be documentarily confirmed. Besides, it is advisable to pay attention to availability of the mechanisms of price control regarding the transactions between mutually depended entities.

The parties shall analyze and indicate in the contracts the price level corresponding to the market level. Otherwise, there is a great risk of lodging of claims on behalf of tax authorities concerning reasonableness of the transactions concluded between the Russian and foreign company.

## Foreign Law Application

Regarding the transactions concluded between foreign and Russian companies, it is advisable to pay attention to the following basic aspects. First of all, the parties shall determine the applicable law. But even in this case, when the parties have agreed in the contract to follow the foreign law, it is necessary to take into consideration the special mandatory provisions of the Russian law.

It primarily refers to the so-called administrative and regulatory aspects which particularly include the issues of antimonopoly and bank laws, foreign currency and customs regulation. Besides, application of the foreign law is impossible between two Russian companies. Separate difficulties may be related to interpretation of the foreign law provisions in case of execution of a contract or judicial decision in Russia. Among these aspects there is the issue on the selection of court and the issue on separate contract provisions not having the analogues in the Russian laws.

Due to the fact that the decisions of national courts of foreign countries are not subject to execution in Russia, when selecting a court there are two variants to determine the court empowered to consider the disputes: Russian State Arbitration Court or Commercial Arbitration Court, including the one in a foreign country.

When selecting the court the contracting parties shall pay attention to the amount of legal expenses generally related to consideration of the cases by foreign commercial arbitration courts. Besides, decisions of these foreign courts are enforced through Russian national courts, and therefore there is still the risk (although a hypothetic one) of the Russian court's refusal to enforce the foreign judicial decision by the reason of its incompliance with the fundamental principles of the Russian law.

## Conclusion of Contracts

It is necessary to take into consideration the mandatory requirements to the form and procedure for the contract conclusion with a Russian company. First of all, it relates to the written form of the contract.

Nowadays, the requirement regarding the written form of a foreign economic transaction is clearly stipulated in the laws. In spite of the fact that there are considered the draft laws which stipulate the possibility to conclude the foreign economic transactions not only in written form the requirement to provide the written form of the contract also covers all the transitions among legal entities.

The written form of the contract enables to the transaction parties to document the existing arrangements which facilitates to provide argumentation of the party's position in case of occurrence of any disagreements. The authorized representatives of the parties are recommended to sign all the pages of the document and ensure the document binding as well as to affix the contract with the parties' seals.

When formulating the terms and conditions of the contract it is advisable to foresee the possibilities of penalty sanctions for violation of the obligations and the possibility of recovery of such sanctions in addition to recovery of the damages incurred.

It is also recommended to include into the contract terms and conditions the provisions of the so-called severability which mean that in case of invalidity of any of the contract provisions it will not cause invalidity of the entire contract. This provision will enable to minimize the risk of the contract invalidation and the party's refusal to perform the transaction.

As it has been remarked above when concluding a contract a special attention shall be paid to the issues of correct formulation of the subject-matter of the contract. A usual example is selection of the contract type: supply contract or distribution contract.

As a distribution contract is less formalized from the legal point of view than the supply contract, then when selecting the distribution contract it is necessary to very attentively analyze the text with a view to availability of limitations which are inadmissible in terms of the antimonopoly laws, for example.

Another typical example is supply of the equipment requiring mounting or consultation on the issues of its assembly and operation. In this case it is necessary to clearly differentiate the equipment price and the price of additional services or work which is required for an adequate assessment of the cost of the contract subject-matter by customs and tax authorities.

In addition, the parties of such transaction shall take into consideration the requirements lodged to construction organizations and the aspects of migration laws if mounting, commissioning and launch of the equipment are performed in Russia by the forces of a foreign supplier.

It is also advisable to pay attention to the issues of marking with the trademarks and using of the rights to intellectual property objects. Besides, it is necessary to foresee the possibility of guarantee repair in the texts of supply contracts regarding certain types of goods.

Otherwise, the parties may face the situation when execution of guarantee obligations by the supplier (for example, a guaranty return) will be impossible or significantly complicated.

## Auto component sector – no way out?

*The Russian auto component market development in many ways depends on the situation on the Russian automotive market. Sales growth, especially in the car segment, allowed many Russian auto component producers to restore their position. At the same time representatives of the Russian auto component sector face the same problems they experienced before the crisis which aggravated the situation. The major problems are: shortage of financial resources for development, low technology and equipment level, staff shortages.*

*What do auto component market players think about the situation on the Russian market? Why do some producers fail to work efficiently while others succeed? How do successful companies achieve such results?*



**Alexey V. Safronov**  
ZAO "Administration company Autocomponent", General Manager

– Today on the auto component market you can feel a sort vigilance, which is caused by vehicle sales decline in Europe and Russia. At the same time the auto component market itself is growing. It is explained by foreign companies' production in Russia - Volkswagen, Toyota, Ford, GM and others.

It is important to note that the Russian auto component market faces fierce competition on the part of foreign producers which occupy a very strong position after they launched production in Kaluga, Togliatti, Nizhny Novgorod and Leningrad regions and others.

After Magna, Valeo, Faurecia, Lear, Bosal and other companies opened their production in Russia, Russian producers encountered a number of problems. Although they experienced some of the problems before, the entrance of overseas producers into the market made them more evident.

The first problem is the outdated model range of the components which primarily targets Russian auto makers. That was one of the main reasons why foreign producers came to the Russian market and launched their production here.

Secondly, Russian component producers use old outdated equipment which cannot produce components that would meet world quality standards. Russian component producers have to buy modern equipment abroad which requires big investments.

Thirdly automakers have considerably tightened their quality and safety requirements to component producers. Suppliers are to comply with the international ISO 9001 standard. Foreign OEMs prefer to buy from those producers whose components comply with ISO TS 16949 standard and passed internal quality audit.

Besides, to execute orders from foreign OEMs, component producers are to use materials and parts produced in Europe, according to engineering documentation. As for localization, we can see that there are just a few material and part suppliers whose products comply with European standards.

To add to this, Russian component producers bear higher purchasing costs than their foreign competitors. Global European companies have huge buying volumes so they get a good discount while Russian companies can hardly get them.

Another big problem for Russian producers of original components is counterfeited components. The government should pay more attention to this problem. We face this problem every day. Numerous "grey" producers of counterfeited components damage the image and reputation of law-abiding companies as they produce low quality products under our brand names. Besides, the financial damage they cause to OEMs, the government, and "white" auto components producers is also evident.

The price often makes the customer choice. "Grey" producers offer their counterfeited products at a lower price as they use low quality materials. It has a negative impact on our sales volumes and what is more important puts the customer's life at risk.

Another problem all Russian component producers face is a shortage of well-qualified staff. To meet OEM's requirements, producers have to have high-precision machinery, CNC-controlled equipment, robotized systems. Only well-qualified staff can use them. Russian educational establishments do not prepare such specialists.

Besides, blue-collar jobs are not popularized. Some years ago teenagers could learn a trade at school, blue-collar jobs were considered prestigious. The situation has changed. I believe, it's of utmost importance to make blue-collar jobs and engineering more popular through mass media, improve the image of a worker, an engineer with the help of feature films.

To solve the problem of workforce shortage we developed our own training programs and had them licensed. Now we prepare specialists we need.

Foreign companies (e.g. Engel) set an example: they set up vocational schools on the premises and teach the staff they need.

To remain competitive we use only modern advanced equipment for plastic parts production. The equipment is produced by Engel, Eisenmann, Krauss-Maffei and others.

Together with Toyota engineering corporation our company developed and implemented the Autocomponent Production System. The system which is adjusted to the Russian conditions allowed to cut internal losses and to effectively arrange working places.

After the 2008-2009 crises we made a decision to diversify our business and to start production of polymeric products for industries other than automotive. We have orders from Bosch as well as other companies on tools and household appliances.

We are also developing the "gas theme". May 22, 2013 «Autocomponent» company group together with the Norwegian holding Hexagon Composites opened a plant, the first in Russia, to produce polymeric composite gas cylinders.

Our strategy is to divide our product range 50/50 between the automotive direction and non-automotive direction. Each of them will make around 50% in the production structure.

At that we also try to reduce the influence of one global consumer on the automotive direction structure. Thus the shares of consumers have to be equal approximately. Our consumer list includes: GAZ GROUP, AUTOVAZ, Renault, Volkswagen.

To conclude, I would like to note the good impact of foreign component producers on the Russian market. Cooperation with foreign partners provides new technologies, developments and production processes to Russia, which allows to produce competitive auto components and meet shareholders', OEM's, suppliers' and partners' interests.,



**Dmitry Khmara**  
Deputy Director ZAO "Samara's Experimental plant for aluminum"

– The state of affairs of many domestic auto component producers is far from stable. There are a few reasons for it. The first is connected with the overall situation on the automotive market. We can see that domestic car makers are losing ground. Consequently the position of component producers gets much worse as they mainly target this segment.

Naturally the crisis of 2008 also had a negative impact on the position of domestic auto component producers. The sector representatives took great pains to overcome the consequences of the crisis.

Domestic producers could strengthen their position by supply of their products to the companies producing foreign brands in Russia. Foreign manufacturers came to the Russian market before the economic downturn. So domestic companies had time to build up conditions for future cooperation. In fact, however, it is very difficult to become their supplier, especially the supplier of technologically advanced products.

To make the idea clearer, I will give an example of my company. Our company suffered heavily from the 2008 crisis. In the first quarter of 2009 vehicle production fell by 60-70% on the previous year. We started looking for new markets in order to reduce the share of the auto component sector in the production structure, we cut costs.

Later by the end of 2009, our situation improved in general, partly due to the scrappage scheme, which allowed our customers to recover. Production volumes came back to the level of 2008.

In 2010-2011 the company entered the market of Kenwood household appliances production. In 2011-2012 the company had negotiations with foreign auto component producers. The factors that hurdled cooperation were low technological level and the lack of experience in working with foreign suppliers.

In particular, some European producers demand installation of fully automated casting complexes. At the same time, even if the company complies with this requirement, there is no guarantee that the company will win the contract. Moreover, the economic efficiency of the project is out of the question – it is loss making. To make it profitable the company needs larger production volumes.

Some foreign auto component producers refer to the experience they got in China where they launched production of a new engine model together with the local producers in 2012. It should be taken into consideration, however, that the local manufacturers have been producing the old engine model for 20 years. Quite naturally they have gained technological expertise and the experience of dealing with the consumer. That's why transition to the new model was evidently less difficult than developing modern production from scratch, to add to this, we will have to deal with small production volumes.

Let's consider another situation. One of the global suppliers which specializes in auto component production, suggests manufacturing a product which has been produced for 20 years. All the processes are worked out meticulously. Labour input is very low. Production volumes are rather big. There is a big difference in the prices, however, - the target price and our price- up to 30%.

Production in South-East Asia (SEA) is given as an instance to provide grounds for the target price. At that foreign auto component sector representatives take no consideration of a totally different fixed costs rate in Russia and in SEA. Competition in direct costs in mass production is possible only through the difference between logistics expenses. Thus, bearing in mind our own experience, we can come to the conclusion that global suppliers of complex auto components are not interested in Russian companies.

I believe there are two key aspects in the situation in the Russian auto component sector and industry as a whole.

Firstly there is no one who can be held accountable for the automotive industry development strategy implementation

results till 2020. Four years have passed since the Strategy-2009 was developed. There has been no result analysis made yet. The question 'How is the strategic task of maximizing added value at every stage of vehicle production in Russia solved?' is rhetorical.

Secondly, the overall analysis of the Russian automotive industry must be deep and open. First of all it concerns the vehicle production volumes. The official data draw a bright picture of production growth in Russia. If the information is structured, however, it does not look so promising. The areas which show growth are CKD and SKD, which is rather a tax optimization scheme. In reality, automotive and auto component production show a steady downward trend. We will not have any cars produced in Russia soon, and the share of domestically produced components is also declining.

Production volumes claimed under the mode of industrial assembly do not look promising either.

The model range presented by such producers is wide, production volume of each model, however, is quite low. This is a discouraging factor for representatives of the Russian auto component industry who could be suppliers for those companies which produce foreign brands. Even if domestic producers manage to meet all the requirements of foreign automakers which operate in Russia, it does not make any financial sense to organize low volume production.

The most problematic components in terms of localization are those with the biggest share of added value, gear boxes, engine components, block, steering system components, alternators, starters.

There are a few factors which hinder the auto component production launch. Apart from those mentioned above – low foreign brand production level – it is global producers' lobby of foreign suppliers' interests.

Another reason is the crisis in Europe. As long as there is recession in Europe, global producers will do their best to keep jobs and the maximum added value rate in their countries.

I believe, the major problem for Russian auto component producers consists in the absence of tight localization regulations. In the long run it will lead to significant weakening of the position of Russian auto component producers, and in the car segment there is a threat of total loss of ground.

Currently the opportunities for mid-size and small-size Russian auto component producers are limited. Large-size and small-size stamping, bracket casting, part assembly from foreign components, - these are the operations that Russian auto component producers can develop for foreign brand manufacturers in Russia.

Engineering should be paid special attention to. Engineering is mostly carried out in Europe. From our experience we know that nobody is willing to share their expertise and experience, even if they are offered big sums of money. There is a clear understanding that expertise and experience are the main business assets of the company.

Domestic producers are losing ground as there is no effective system of governmental support of industry. It would be wrong to say that nothing is being done. There are some changes. The structures whose major function is to support industries, are beginning to help, indeed. Just it takes time to gain experience. And for this period the domestic market needs protective measures, and a clear, effective and fruitful industry development policy. It's time we learned from Europe and US experience of deindustrialization which is connected with relocation of production to South-East Asia in order to avoid the mistakes they made.

Speaking about concrete solutions, the position of Russian auto component producers could be improved by the law on industrial policy. In my opinion, it should be the main goal of expert community, and all those who are interested in the industry development in Russia.

Besides, *Кроте торо*, it is necessary to have a law on public procurement stipulating regulations similar to those applied in the US. The public budget can be spent only on goods produced locally. The law should also stipulate a high localization level – 70% and the deadline of two years to achieve it. The largest economy in the world does not allow to spend public funds on creating jobs abroad.

Besides, it is necessary to provide for the use of universal terminology which will be adopted by all market participants. In particular, Russian products – products produced on the territory of origin (in this case Russia) – should imply only products with added value produced on the territory of Russia amounting to 65% of the total cost of the products. Such norms work in Europe. Why not here?

Meanwhile Russian auto component producers are looking for various ways out as well as their development prospects, open new business directions which are sometimes not related to the automotive industry.

I believe that new players will come to the auto component market. New auto component producers will appear. Foreign auto component sector representatives will play an important part in the process. Most likely we will see the establishment of companies which will produce components that are unprofitable or inconvenient to transport from abroad.

There is a likelihood that production of engines and probably transmission elements for mass models will be launched. But most likely these will be companies with 100% foreign capital investment. That means that the strategic task of maximizing added value at every stage of vehicle production will not be solved.

I am convinced that we must do our best not to lose metallurgical production, engineering in pre-production and part design and Russian automobile production as a whole.

## DMS: Auto Dealers' Experience

*Dealer Management System (DMS) means a complex system of automobile business management forming single information space at the enterprise. DMS enables to logically connect and automatize business processes – sales of vehicles, spare parts, after-sales services, to promptly prepare the centralized reports under all sales directions. Nowadays, DMS market in Russia is under active development. Following the users' experience, in order to create a successful DMS the developers have to reach a compromise between userfriendliness and broad functionality of the system.*

### DMS Market

Nowadays, the Russian auto dealers are offered both foreign and domestic DMS-solutions. Among foreign software for dealers there are the solutions based on Incadea (MS Navision), AutoMaster, SAP, MS Axapta, AutoLine (ADP). Russian research works are represented with 1C (Alfa-Auto or specially designed configurations), MT, Turbo Service, Logic Stars Avto etc.

It so happened that in Russia similar management programs developed from the accounting systems the majority of which were created based on 1C platform. Nowadays, among the domestic research works Alfa-Auto produced by 1C: Rarus is the most popular one.

Its popularity is explained by availability and comparatively low price, scalability, interoperation with accounting programs, large number of 1C specialists in the labor market as well as wide distribution of other solutions based on this platform by virtue of which the personnel is familiar with the program interface and understands it.

As it is remarked by Nikolay Kuybida, the Head of Project Office of GK (Group of Companies) Avtomir, Alfa-Auto solution is the most popular among small dealer centers dealing in sales of one make of car.

Foreign products generally cost much more in comparison with Russian research works; however, this is not the only choice factor. It was required to simplify certain program products, such as SAP, in order to adapt them to the needs of automobile business which is difficult to do in the system where all the components are interrelated. As it is explained by Sergey Shcherbinin, analyst of business processes of Wagner, this is one of the reasons why SAP rather slowly accommodates in Russian DMS market.

Another mental structure of business processes represents one more problem of foreign DMS solutions which cannot be resolved by translating the program interface into Russian. However, in some cases dealers prefer foreign prepared DMS because it is subject to the vehicle manufacturer's requirements.

### Do-It-Yourself

It is necessary to note that all software products require adaptation to certain enterprise, especially in the cases when dealers deal with several car makes. This is the reason why, after selecting the DMS solution, it is adjusted in accordance with the needs of the enterprise. Certain auto centers select another way – development of their own original DMS.

In case of adjusting of the final product auto dealers more often take the 1C solution as a basis and adapt it either using their own forces or attracting third party specialists. As Fedor Vinogradov, the Technical Director of VERDI, points out, these days there is an increase in demand for finished DMS solutions which do not require additional personnel for their maintenance and updating.

Functional of the modules is mostly additionally worked through in respect of sales units, service and accounting because the requirements of different vehicle manufacturers for the same are significantly different, says Nikolay Kuybida. Additional optionalities of DMS relate to integration with the systems and websites of manufacturers and insurance companies to reduce time for document flow, to receive actual information on review campaigns, to prepare reports according to the importer's requirements.

Updating of the program product may cover both the specific processes for certain brands and different wishes of the dealers regarding optimization of modules – addition of modules for management of resources, stock, assets, personnel, bonus program, accounting of vehicles in courtesy vehicle feet etc.

The requirements of vehicle manufacturers play a major role not only in choice but also in updating of DMS solution. Following the importer's wishes there may be updated the modules of separate makes of car which enables to determine certain addressees of the updating and to free other users from irrelevant information.

Thus, for example, in Wagner this is the module under Volkswagen brand enabling to deal with Volkswagen Group Rus. It ensures loading of the data received from the importer in primary format as well as integration with different systems of the importer.

Narrowly-specialized solutions for DMS generally relate to particular periphery: fiscal data recorders, barcode scanners, ATC, smartcard readers and RFID-marks, systems of management of lifting gates and parking lots.

It is remarkable that in case of DMS, updating of the system very often turns into a permanent process. Obviously, creation of the required program configuration represents a certain final work stage. However, continuous improvement of business processes which the auto dealer and vehicle manufacturer are interested in, new development directions of the enterprise and other changes stipulated by market factors require constant inclusion of new elements into the program.

If the auto dealer prefers to create its own DMS solution, very often for its development and implementation there is attracted a contractor. There also exists creation of this program product exclusively by its own force. Dealers' research works are performed on very different instrument platforms – starting from Access up to the newest platforms of the leading world manufacturers; 1C is also actively used.

Development of their own original programs is organized by the dealers due to the impossibility to select in the market the DMS solution which would completely meet the requirements of the business and of the importer. Frequently, a dealer needs the functional which is not provided for in standard modules, such as planning of preliminary recording

based on actual recourses of a service station and body section, accounting of materials and enterprise working schedule (for example, readjustment according to lunch break).

The development of its own DMS solution – ASCADA – in AutoSpecCenter Group can serve as an example. Developed by AutoSpecCenter specialists ASCADA represents a system of management and complex automatization of an auto dealer enterprise elaborated based on MS SQL Server and C# application.

It is interesting to note that ASCADA is prepared as a commercial product which is in demand in the DMS market due to its maximum compliance with the requirements of a dealer enterprise. At present, ASCADA is being implemented in one of the dealer networks.

At the same time, the “hidden dangers” are possible in case of selection of any approach, either purchase and updating of finished DMS or DMS creation using its own forces.

Thus, Oleg Charkov, the Head of Toyota Nevsky auto center, explains that the enterprise started using of DMS having purchased the finished solution of one of Russian IT-companies which had a closed source and was updated in compliance with business requirements just by the developer. Afterwards, the auto center faced the problem of significant delays in the program updating periods as a result of which it refused using this product. The second way – development of its own DMS solution – also turned out to be rather difficult because the IT-specialists engaged by the dealer were unacquainted with the specific character of automobile business, and their work was subsequently essentially adjusted by the staff programming personnel of the enterprise.

## DMS Modules

As the goal of DMS using is simplification and reduction of time for performance of standard business processes and procedures, in the ideal situation the system shall cover all business processes of an auto dealer. A standard DMS solution shall include at least “Automobile Showroom” and “Automobile Service” modules.

ASCADA system used in AutoSpecCenter Group ensures automatization of all the main and intermediate business processes of a dealer enterprise and the optimal management of the enterprise’s resources (manufacturing, personnel and financial resources).

ASCADA enables to manage the mutual relations with clients, counterparties and enterprises manufacturing vehicles. It contains the modules forming the operative managerial and marketing reporting, KPI of the employees of different level and up to the Balanced Score Card indices of an enterprise as a whole. There is organized integration with the manufacturers’ systems, portals for clients and suppliers, with the systems of personnel and accounting record keeping.

The system contains the instruments of adjusting and managing of business processes and separate functions of the enterprise employees, enables to organize a transparent and convenient management process at any level.

In Avtomir the DMS solution includes the following modules: CRM, sales of vehicles (with different working schemes under new and second-hand vehicles), sales of spare parts, service maintenance of vehicles, vehicle insurance, stock accounting, supplies and logistics. There is also provided integration with the systems of importers and manufacturers.

In the opinion of Nikolay Kuybida, CRM is the most complicated module as it represents an interlink among all the modules. Interrelation is carried out as follows: for example, when selling a vehicle in the module of service maintenance there automatically appears the task which invites the client to pass technical maintenance in half a year, and upon request of the client – to buy an insurance policy; the data on the client and the vehicle are automatically displayed in the corresponding module of the system. In this case there appears the task for prolongation of the insurance policy in a year.

MT DMS used in Wagner Group contains MT Cars (automatization of the activity of an automobile showroom dealing in vehicle sales includes “Crediting” and “Insurance” blocks), MT Workshop (implementation of services and stock management), MT Time (accounting of effective time of operating personnel, including manufacturing personnel), MT Appt (planning of repair area capacity and distribution of work) as well as MT Show (information screen showing operational information) and MT Appt Show (screen of preliminary recording showing the on-line information on the service consultants and clients) modules.

In the module of stock management there is stipulated the opportunity to subdivide the nomenclature into groups according to liquidity, price, consumption stability, novelty. For each of them there are applied separate rules for ordering, being in stock and pricing.

When using DMS in a dealer center an employee of the department of vehicle sales, adding into the sales transaction a package of additional equipment, simultaneously generates a service purchase order. It enables an auto center to get along without a staffing position of a specialist of additional equipment.

Therefore, the system undertakes a part of processes: notification of clients on arrival of spare parts, generation of the offer regarding the spare parts’ ordering based on the accumulated statistical data, congratulation of clients with their birthdays, assigning the task in the scheduler etc.

In Toyota Nevsky auto center the DMS program has been created taking into consideration the stages of interaction with clients and represents a comprehensive solution for all the specialists of the dealer center. Its functional ensures convenience of work according to the approved procedures with the possibility to handle any information within the frameworks set up in accordance with particular interface positions.

For example, in case of a client’s call in the interface of a telephone operator there takes place its automatic identification (personal data and the vehicle’s number plate) with displaying of the information on the latter contact, arrangements reached, employees contacting with the client and the employees who are able to continue the work at the moment.

Different interfaces use single information but present it in different ways. For example, in case of interactive coordination of additional work there are engaged the mechanic performing the work, the service advisor contacting with the client and the employee responsible for delivery of additional spare parts to the post station. This process is visualized and provides the possibility to display the statuses.

When applying for repair the system automatically assesses the available resources (starting from availability of spare parts at the warehouse up to loading of the repair area considering the qualification of the specialists) and offers

the variants convenient for the clients. In this case bench and body production shall be different in calculation algorithms.

Working on the Internet it is possible to receive from the system the complete information on the vehicle's history from the national service database, the history of guarantee repairing, availability of the required spare parts at the distributor's central warehouse, lists of admissible changes, information on service campaigns, technical bulletins regarding this vehicle according to the model code etc.

Using of this database enables to keep the information on all the cases of interaction with clients and on all the manipulations with vehicles. Thus, when a clients applies the dealer center there is already available such information on the same as previous applications, assessment of activity, history of paid repairing, probability of agreement for additional work, the client's proneness to conflict based on the amount of his adverse reviews.

Regarding the vehicles, there is reflected the information on recommendations of the previous purchase order, the vehicle's card and its history, insurance policy type, running dynamics which is also an original instrument of auto center Express-Assessment of Actual Events for a Vehicle.

The module of warehouse logistics integrated into DMS includes the blocks of automatic order, selection and delivery of spare parts, detailed analysis of the entire activity of the warehouse.

Automatization of body section includes integration with Audatex calculation, progress control at each stage of complex process of body repair of the vehicle. Following the recommended scenario the employees of the Client Relations Department use the instrument "Investigation" in case of revelation of deviations from the admissible standards.

Using "My Profile" the clients can independently observe the history of their vehicle, coordination status, prices for work and spare parts applicable for a particular vehicle taking into consideration the discounts under accumulative loyalty card, availability of spare parts at the warehouse.

As the program is prepared on the basis of 1C, coordination with the programs of book-keeping and tax accounting is simplified to the maximum extent. For interaction of the employees there exist the instruments of automatic reporting, exchange of messages, schedulers etc. In the system, there is implemented the mechanism of limited access to the information in accordance with the position held and the system's user rights.

## DMS Costs

The expenses when implementing DMS can be subdivided into two groups – expenses on the required infrastructure (equipment) and the direct expenses on the system implementation.

The cost of infrastructure for DMS depends on the scale of the dealer's activity. Thus, GK Avtomir uses its own center of data processing. All software operates using virtual servers based on the unified equipment. According to Nikolay Kuybida, the expenses on this equipment were rather significant; however, if it is referred to one monobrand auto center then the cost of equipment will be much less.

MT program used by Wagner Group is launched on the server and does not require local installation on each computer. In this case the server speed determining the expenses on its purchase is of great importance. There is the possibility to use the so-called "cloud" structure renting the server in another city or even in another country.

In general, Toyota Nevsky auto center spent 3.07 million rubles on IT-infrastructure for its own DMS. This amount contains the cost of three servers including repository of database, work stations (4 plasma display panels, 2 tablet computers and 40 stationary work places), ATC upgrade (additional module to connect with 1C, three computer headsets for operators), additional equipment (30 barcode scanners, cash register machines, banking terminal for payment without cash participation) as well as the license for 1C (3 server licenses and 130 user licenses).

As for the cost of directly the program, the price for MT DMS (developer is VERDI) amounts to from 20 to 30 thousand rubles per one working place depending on the configuration and the set of options. As it is remarked by Sergey Shcherbinin (Wagner Group) these are not all the expenses. There are also the expenses on training to work in the program, user track and consultations to be provided by the developer at an extra charge.

Very often the cost of the program product depends on the number of the system users. However, as it is remarked by Leonid Lein, Director of IT Group of AutoSpecCenter, the pricing policy of DMS supplier may be different. In this case the cost of its own software does not depend on the company size but it influences the cost of implementation including training of all the employees.

In GK Avtomir, there was chosen the way to assign the contractor a complex task on automatization of the company's activity. Thereat, there was determined the preliminary budget of the project and achieved the arrangement regarding the fact that the contractor shall not bear the risks of enlargement of the project scale.

Toyota Nevsky auto center having developed its own DMS based on 1C spent 5.8 million rubles on the services of IT-specialists on outsourcing basis. This amount included payment for the work of four programmers at the stage of implementation, two programmers – at the stage of updating as well as the services of the company on creation of Internet-portal.

Following the experience of the said companies, it is possible economize on DMS implementation, and particularly at the stage of task assignment of auto center's automatization. The more widespread and elaborated the technical task is for the developing company the more money will be subsequently economized by the dealer without application to the developer once again in case of the necessity of additional functions of the system. Another economizing article is training of new users of the system not by the forces of the contractor but by the forces of its own employees who have already passed the contractor's training.

## Time Costs

What are the time expenses on implementation of DMS solutions? It depends on the fact if the dealer purchases the finished program product or develops its own program product (either by its own forces or engaging a contractor).

As it is remarked by Fedor Vinogradov, the Technical Director of VERDI, the standard periods for implementation of the finished product amount to 4-6 weeks. Thereat, the interest of key business representatives in changing of DMS

solution is of great importance.

Following the experience of Wagner, training of personnel shall be started 2-3 weeks before transferring to the new work system. One more week will be required for technical launch (trial transfer of data and attempt to perform in the system the processes taking place at the enterprise by the end users). Having transferred to the new system it is advisable to ensure actual presence of the developer's representatives at the enterprise to maintain the work processes within a week approximately.

Directly during the process of transferring (1-2 days) the auto center may project the load reduction – organize a short day with the subsequent performance of inventory check at the warehouse, reduction of preliminary recording for service maintenance on the day following the launch to minimize the possible failures in business processes.

Leonid Lein also confirms the actuality of these periods. Following his experience of implementation of ASCADA system in 11 dealer centers, in case of a definitive technology of DMS implementation in a dealer center for 250 users starting from the primary meeting with the management board of the dealer center up to signing of the Act on the Implementation Completion there elapses one month and a half (taking into consideration updating in accordance with the specific requirements, data exchange, training and maintenance after the launch till the state of confident usage of the system).

In case of independent development of the DMS solution by the dealer the implementation process may take much more time. The minimum period for elaboration of the module under one direction may amount up to 6 months while the complex solutions covering all the basic spheres of the dealer's activity are usually developed within 1.5-2 years. Thus, ASCADA system was developed by the specialists of AutoSpecCenter Group within one year and a half.

As it is explained by Oleg Charkov, Head of Toyota Nevsky auto center, planning of the project on implementation of original DMS based on 1C at the enterprise started in April 2010. The following two months – May and June – were dedicated to description of the existing business processes. Another two months were required for generation of the program architecture.

IT-specialists started to write the program part according to the blocks only in October. The work was finished in February 2011. It was followed by running-in and testing of the program (March and April 2011), data standartization and synchronization, data migration into the unified database of the new DMS (May 2011).

The system started to be used in test run in June 2011, more than a year after the beginning of the project. Updating of the system in accordance with the requirements of the enterprise continues and there is performed constant maintenance of the users.

At present, Toyota Nevsky auto center continues independent DMS development and prepares the new system taking into consideration the latter tendencies of automobile business which includes the integrated online store, mobile applications, more profound analysis of the efficiency of employees and work time expenditures, new logic of management of stock resources, consideration of the clients' psychological makeup when distributing the records for service consultants, identification of number plates, identification of the missing additional equipment for a vehicle etc.

## DMS Replication

In VERDI, the cost of MT DMS for several dealer centers consists of the expenses on licensing of the product and training of personnel which means that in order to connect a new dealer center it is enough to buy up the licenses for simultaneous number of connections.

Besides, there is the possibility to purchase the license for the so-called central base which may ensure synchronization of data and interaction among the dealer centers of the same holding-company located in different cities. The price for such license amounts to about 2 thousand rubles per one working place.

As it is remarked by Oleg Charkov, the Head of Toyota Nevsky auto center, replication of the program for the required number of dealer centers is carried out without restraint especially if these dealer centers are of the same brand. In this case the cost of replication consists of the expenses on additional equipment and purchase of licenses. In case of replication of the system for multibrand centers there is required adaptation for the work with the distributor's portals, preparation of reference books (regarding work, spare parts, replacement, vehicle models etc.).

It is necessary to note that in the process of implementation of the system there may occur the problem of opposition and disaffection on behalf of the company's employees related to changes of the habitual actions, necessity to undergo training out of hours, requirements to the level of PC user competence for the personnel categories whose work was not automatized before.

In this case constant support of the users by the specially assigned employees as well as changing of the motivational policy may help.

## Operating Efficiency with DMS

The result of automatization in Toyota Nevsky auto center has come up to expectations of the management board and the funds invested to the project. In 2012, in the year following DMS implementation in the company, the auto center became the leading Toyota dealer center in Russia based on the results of the research of absolute satisfaction of clients in the sphere of vehicle purchasing which was carried out by the vehicle manufacturer on a timely basis.

Thereat, in 2010 the auto center was the third in the all-Russian rating among Toyota dealers while in 2011, during the process of DMS implementation, it was not presented in the list of the best at all. At present, the level of satisfaction of clients continues to improve.

The efficiency of DMS implementation is also evident in terms of financial results: both the overall indices of the auto center's profit and the profit from one visit of the technical maintenance section and from one visit of the repair section increased.

## A Car on Demand

*The Russian taxi market is relatively young by foreign standards. Naturally, taxi services were available in Russia even in the Soviet period, but as a market with its rules and competition, the taxi system began to form after the country's transition to the new economic relations.*

### A New Basis

The modern taxi sector in Russia was largely green field. Major taxi companies as separate transportation facilities became a thing of the past along with the Soviet era. Some taxi companies were discontinued in the 90s, a difficult period for the country, when the demand for the most necessary goods and services was also low.

But even the low demand for taxi services had to be met. With the market economy development companies, which specialized in provision of such services, were created. The new business was not always set up by representatives of the Soviet taxi companies. Quite often, these companies were established by enterprising people with a little knowledge of this activity.

The Russian taxi park has been changing along with the development of the Russian automotive market. In addition to Volga cars and classic vehicles of the VAZ family, foreign cars began to appear in a taxi park.

The further income growth of the population had a positive impact on the taxi sector development. Parks of taxi companies were growing, their composition was changing; the image component became more and more important. As for foreign cars a preference was often given to new models, indicating that this business reached a higher level.

The business technical equipment also changed: location detectors and modern communication systems, which ensure an effective communication process for all participants of the taxi system, were purchased.

To order a taxi by phone was always the most common channel of communication with a potential client. To receive and process the call data some taxi companies began to create their own dispatching services.

For the company advantages of its own dispatching service were connected with the possibility to control each order, which is especially important in settlement of disputes with clients. Most customers' claims concerned the waiting and traveling time, as well as the trip cost.

At the same time, for any company the work of its own dispatching service is connected with the additional personnel expenditures, dispatching and equipment expenses.

Some companies used outsourcing in the work with clients' applications. At that the taxi company had no opportunity to control the execution of each order, as in the case of the own dispatching service.

The Russian taxi market began to actively develop in the 2000s. After the crisis of 2008, development processes in this area slowed down. But it should be noted that only a few carriers showed positive changes even before the crisis.

Currently the taxi market gradually recovers. Obviously, its development rates could be much higher, but according to legal taxi drivers, their growth is hindered by shadow sector activities.

### Key Link

The Customer is a key element for any client-oriented taxi company. When the demand for taxis was decreasing during the crisis of 2008, clients were attracted by various means. Despite the revenue reduction, many taxi companies began to cut prices.

Some legal carriers began to more actively use special actions, such as those connected with the granting of discounts for the next trips, presenting gifts after making a certain number of trips, lotteries and etc.

Each company has its own particular features of the client policy. Some taxi companies put emphasis on their regular customers.

These companies believe that this group of consumers largely ensures the business stability. To keep these customers the company's service should meet all their expectations. These companies support their clients' loyalty by various marketing actions.

As for new consumers, companies need to find and win them. But to keep them, companies need to understand their requirements for a successful establishment of the further relations. An involvement of marketing professionals is the best variant to solve such tasks.

However, not all companies, even relatively large ones, have marketing services or marketing experts. At the same time, the absence of a marketing service does not mean that these aspects are neglected. In some companies, leaders cooperate with new clients by themselves.

Each company solves its problems of interaction with new customers in its own way. Some companies do not pay attention to the building of long-term relationships with new clients, or it is not among company goals. In these cases the company's activity is based on a principle «the order is received – the order is executed». At that, a strategic situation vision remains in the shadow.

### Economic Innovations

The Russian market of passenger transportation is interesting not only to Russian participants, that is confirmed by the high competition level from foreign companies, which come to Russia and offer the new advanced experience of doing the taxi business.

In this context, an example of GetTaxi Company, founded in Israel, is the most illustrative. Later its activities began to develop in other countries, including Russia.

The client is always a company's number one priority. One of the main ideas, underlying the GetTaxi concept, is to achieve the maximum similarity of the provided taxi with the private car. The client should not feel the difference between a personal car and a hired vehicle. That is the thing that makes the GetTaxi concept original: it competes not at the level of other taxi companies, but on a radically different plane.

The main way to implement this idea is to create the highest comfort level. The modern comfortable car and clean interior play an important role in the goal achievement. Staff is not less important. Driver's work and service quality in the company are evaluated directly by customers after each trip. Drivers, who received the lowest appraisal grades from their clients, leave the company. This system has already proved its efficiency.

Another important component in the company's work concerns technological innovations, connected, in particular, with the ensuring of effective communication process. To call a taxi, the company's client with an iPhone needs to press only one button, programmed for this function. Due to the modern equipment in the car, a taxi driver will see both his location on the road and the client's location and choose the best route to the customer.

## Various Segments

With the increase of the population solvency new needs for the car transportation began to form. This process was especially obvious in such megalopolises as Moscow, Saint Petersburg and other cities with the high income level.

An extremely fast pace of life and a tight working schedule with various corporate events and active leisure require not only the mobility to move around the city. Often it is necessary to meet specific requirements, which a common taxi is unable to do.

For example, a person has to arrive at a formal ceremonial event by the car of a certain price category, brand, model, class. But his own car may not comply with the criteria necessary for this event or be under a long-term repair, or a person has no car at the moment. To rent a car for one night is not always convenient, as the order can take a lot of time.

Another important condition is that after the event the client has to leave by the same car with the professional driver at the wheel. Services of this driver are provided by the same transport company, where the car was taken. By a specified time, the driver should arrive at the event and take the client to the required destination.

There are other variants of taxi services. For example, there is a demand for taxis, oriented to the transportation of customers with children. At that, child safety seats are not the only distinctive feature of these taxis. A common taxi should also provide such seats if a trip with children is planned in it.

Cars of specialized companies have appropriate interior elements. For example, when traveling by this car, a child can listen to the children's music.

There are taxis even for the pet transportation. It is a rather unusual type of service, which has received wide spread only in megalopolises.

There is a «female taxi» service in a number of Russian cities. Drivers in these taxis are only women. Everyone knows that women can drive much more carefully than men, and it is an important factor for accident prevention, and is of high priority for many potential customers, among whom there are a lot of women.

Usually «the female taxi» offers the high service level, accuracy of the order execution, appropriate etiquette, the taxi interior is always clean and comfortable.

## Basic Rule

Recently a legal taxi sector has been changing significantly largely due to the implementation of Federal Law No. 69-FZ «On amendments to Certain Legislative Acts of the Russian Federation».

This law was adopted by the State Duma on April 11, 2011, and approved by the Federation Council on April 13, 2011. A part of the law provisions entered into force on May 6, 2011. A number of other provisions have been implemented in several stages: beginning September 2011, January 2012, July 2012, as well as January 2015.

Amendments, which will take effect from the beginning of 2015, cover the already formed taxi system. Regulation of the passenger taxi system is provided by other fundamental law articles, which came into force previously. Thus, amendments, which will be implemented beginning 2015, are mentioned only in article No. 9, Part 23 and 24. They, in particular, concern the procedure for the passenger taxi system forming, including their number, on the territory of RF constituent entities since 2015.

In general, law No. 69-FZ «On amendments to Certain Legislative Acts of the Russian Federation» implies amendments and additions to the Federal Law «On Traffic Safety». However, a part of articles of this document is devoted directly to the system of passenger and luggage transportation by taxi. Therefore, this law came to be better known as the «Law on Taxis».

This document is largely intended to regulate the Russian taxi market, make it more transparent and safe primarily for passengers. Law provisions concerning taxi transportations imply stricter requirements to the representatives of the taxi business.

In particular, to work in the taxi market all taxi drivers are required to have permission. This requirement is stipulated by an article No. 9, one of the main law articles, connected with the taxi market regulation system.

Part 1 of the article 9 of this law, in particular, specifies that «a legal entity or individual entrepreneur operating on the transport of passengers and luggage by taxi on the territory of the constituent entity of the Russian Federation is required to have a permission for the passenger and luggage transportation by taxi, issued by the authorized executive body of the corresponding constituent entity of the Russian Federation (an authorized body hereinafter)».

The same law article prescribed the procedure for receiving such permissions: «a permission to carry out the passenger and luggage transportation by taxi (permission hereinafter) is issued upon application from a legal entity or an individual entrepreneur for a period of not less than five years. The permission is valid on the territory of the constituent entity of the Russian Federation, the authority of which has issued it, unless otherwise provided for by agreements between RF constituent entities».

Taxi business representatives have different opinions on last provisions of part 1 of article 9, expressed their cases «against» and gave their example: a taxi executes an order for passenger transportation. This route runs between settlements, each of which is located near the border with the neighboring constituent entity of the Russian Federation. Will the permission issued in one constituent entity of the Russian Federation be invalid if there are no corresponding agreements between constituent entities?

What measures will be taken in this case against taxi representatives? Are any sanctions justified, if a taxi driver has committed no serious violations connected with hazard to life and health of passengers or other road traffic participants? He only executed the order in accordance with the client's wishes.

Part 3 of article 9 specifies that «the permission should be issued for each vehicle used as a passenger taxi». This provision also dissatisfied some representatives of the taxi business. They believed that it would be more reasonable to issue permissions not for a vehicle but for a particular person. However, legislators decided that the permission for each vehicle is quite reasonable as it enables to exercise closer control over the use of a specific vehicle.

The nature of data, which should be included in permissions, is defined in part 4 of article 9. In particular, the permission should include data on the brand, model and vehicle registration number as well as on the authorized body, which issued this document, and on the representative of the taxi business.

For legal entities these are the name, the legal form of organization and its address; for individual entrepreneurs - surname, name, patronymic, place of residence and other identity document data. Also, the permission should include the data on its validity, number and date of its issue.

Part 7 of article 9 specifies another significant provision, which defines the final goal (something for which such permissions are issued), according to which different persons may exercise control. Part 7 of article 9 sets that «the permission must be in the taxi cabin and shown on demand of a passenger, officer of the authorized body or State Traffic Safety Inspectorate».

The presence of permissions can be checked on the official website of the authorized body. If the authorized body has no official website, this information is placed on the official site of the constituent entity of the Russian Federation. Data must be updated within five days from the date of making amendments in the register. Such a procedure is defined in part 9 of article 9.

The law also prescribes requirements to the vehicle exterior and safety control measures. In particular, to identify the passenger taxi among other taxis it must have a special color symbol on the body sides, the so-called «checkers» - «a color scheme, a composition of staggered contrasting squares».

The orange marker lamp must be mounted on the taxi roof. These requirements are set out in article 9, part 16, paragraph 1, subparagraph b) and d). Also a passenger taxi must be equipped with a taximeter, as defined in article 9, part 16, paragraph 1, subparagraph e).

Part 16 of article 9 implies a whole range of safety requirements. In particular, a passenger taxi must pass the technical inspection every six months (article 9, part 16, paragraph 1, subparagraph (a)).

Only experienced drivers are permitted to drive a passenger taxi. In particular, according to article 9, part 16, paragraph 2 «a taxi driver must have a driving experience of not less than three years, confirmed by documents specified by the labor or civil legislation, or a total driving experience of not less than five years».

In addition, a legal entity or an individual entrepreneur carrying out passenger and luggage transportation by taxi shall be obliged to: provide the passenger taxi maintenance and repair; carry out pre-trip check of a technical condition of vehicles, provide taxi drivers with the pre-trip medical examination». These requirements are defined in paragraph 3, part 16, article 9.

Part 16 of article 9 of this law is one of the most important ones among other law provisions concerning the passenger taxi system regulation.

In particular, if a legal entity or an individual entrepreneur fails to meet the requirements of paragraphs 1 or 3, part 16, article 9, firstly they will receive an instruction to rectify violations found.

Violations of requirements, set out in paragraph 1, part 16, article 9, are connected with the irregular technical inspection, absence of checkers on the vehicle body, taxi body mismatch to the unified color scale (if these terms are adopted in a particular region), absence of the marker lamp on the roof, as well as a taximeter in the vehicle.

Violations of paragraph 3, part 16, article 9, cover failure of representatives of the taxi market to fulfill obligations on safety measures: in particular, if they do not carry out maintenance and repair of taxis, or the pre-trip technical check; or do not provide the taxi drivers with the pre-trip medical examination.

An instruction to rectify violations found specified in paragraph 1 or 3, part 16, article 9, is issued by the corresponding authorized body. Violations must be remedied within a period not exceeding one month. An entrepreneur or a legal entity should send a report on the instruction implementation to the authorized body, confirming the violation correction by appropriate documents. The report should be sent within the period, prescribed by the instruction. This procedure is specified in paragraphs 10 and 11, part 16, article 9.

If the taxi business representative provided documents after the deadline or the report did not confirm the execution of instructions within specified time periods, the permission may be suspended for up to one month. Decision to suspend the permission is made by the authorized body. However, the total permission period of validity remains unchanged, even if detected violations are subsequently remedied.

For example, if the permission was initially issued for five years and was suspended for one month, after the permission resumption the total period of its validity would not be prolonged by this «excluded» month. Thus, the actual permission period of validity is not five years or 60 months, but 59 months.

If, within five years the permission was suspended for a maximum period - one month - several times, the total period of validity would be reduced by the corresponding value. This mechanism of violation regulation is defined in paragraph 12, part 16, article 9. It should stimulate representatives of the taxi business to observe the law requirements.

Permission becomes valid again if the individual entrepreneur or legal entity presents documents, confirming the execution of instructions, to the authorized body until the end of the period for which it was suspended.

If requirements to rectify violations are repeatedly ignored, it entails stricter measures, down to the permission revocation through the court. These measures threaten to individual entrepreneurs and legal entities, if they «do not present these documents to the authorized body prior to the expiration of the permission suspension term, or these documents do not confirm the fulfillment of the specified instruction».

At that the permission should be suspended before the court decision comes into the legal force. The procedure for the permission resumption or terms for its abolition are defined in paragraph 13, part 16, article 9.

In addition to the mentioned procedure for the permission revocation, there are other terms for their abolition on the

basis of a court decision, specified in paragraphs 1, 3 and 4, part 14, article 9. These measures will be taken if within the permission validity period the representative of the taxi market repeatedly violates the requirements provided by: paragraph 1, part 16, article 9 (regular state technical inspection every six months; «checkers belt»; unified color scale (if it is specified in the region), orange marker lamp on the roof; taximeter) and paragraph 2, part 16, article 9 (requirements to the driver's experience and its confirmation).

Permission may also be rescinded by court if the taxi driver was involved in a traffic accident, which caused «death or a serious or moderate bodily injury of the passenger or third parties».

Another law provision, which at first seems less significant, concerns terms for taxi coloring, defined in article 9, part 16, paragraph 1, subparagraph c). Decisions to introduce the unified taxi color scale and its characteristics, as has been noted above, are taken at the level of constituent entities of the Russian Federation.

The introduction of the unified taxi color is caused by several factors. These taxis stand out in the total traffic flow on roads or in the street that facilitates the execution of a task both for consumers and different control services, in particular, STSI. With the introduction of a certain color, taxi business gets a completely different status and improves its image. Taxi service is taken as a civilized system of passenger transportation.

There is no unified taxi color in Russian regions. Each region has its own terms for colors. For example, in Perm there are three colors to choose from - yellow, white or black. In Moscow it was planned to introduce yellow taxis.

Requirements to taxi colors caused a lot of disputes and discontent, first of all, on the part of taxi representatives. In some regions taxi drivers protested against the introduction of requirements for the vehicle color. Such mass gatherings of taxi business representatives were named «lemon revolutions» because yellow can become the most common taxi color.

Taxi drivers adduced various arguments in favor of their position on taxi colors.

Firstly, the automaker may not always have the required color in its color palette. As a result, they will have to recolor new cars.

Secondly, the majority of companies have already formed their taxi parks and many of the cars do not meet the color requirements and therefore are also subject to repainting.

Thirdly, some companies employ drivers with their own cars, which are often the only vehicle in a family. And for some vehicle owners the work in a taxi service is not the main one and they are unlikely to agree to paint their cars another color, for example, the yellow one.

Fourthly, the coloring of a whole vehicle is rather expensive. According to taxi business representatives, costs for one vehicle will amount to 30 thousand rubles in this case. In such conditions, in taxi drivers' opinion, it is easier and cheaper to withdraw into the shadow sector and pay a fine if the STSI officer stops «an illegal taxi driver» and proves he is a private carrier.

In addition to questions concerning the introduction of the unified color scale, taxi drivers also discussed other problems connected both the «Law on Taxis» and with the general sector condition.

Among negative moments of the «Law on Taxis» taxi business representatives noted too strict requirements to the taxi system in general and strict sanctions for law violations. In particular, taxi drivers frowned on the level of fines.

With the introduction of new rules for taxis the law also provided for administrative measures for their violations, with making corresponding amendments to the Russian Federation Administrative Violation Code.

In particular, article 3, part 3 of the law prescribes to add article 11.141 «Violation of the rules of passengers and luggage transportation by taxi» to this Code. This article defines various sanctions. For example, there are penalties for «the absence of information, stipulated by the Rules of passenger and luggage transportation by vehicles and urban ground electric transport, in the taxi cabin». The administrative penalty for the driver amounts to 1 thousand rubles, for officials - 10 thousand rubles, for legal entities - 30 thousand rubles.

If a taxi driver does not provide a passenger with the receipt, confirming the taxi service payment, as defined in the «Rules of passenger and luggage transportation by vehicles and urban ground electric transport», penalties will be the same as in the previous case: 1 thousand, 10 thousand and 30 thousand rubles, respectively, depending on the violator status.

Drivers are also fined for the absence of the taxi coloring scheme and (or) marker lamp on the roof. For the driver it amounts to 3 thousand rubles, for officials - 10 thousand rubles, for legal entities - 50 thousand rubles.

Among other problems of the Russian legal taxi sector, in addition to strict requirements of the «Law on Taxis», representatives of this market take note of active illegal taxi drivers.

According to some data, the shadow sector is several times as big as the legal taxi business. According to estimates of legal taxi drivers, with the introduction of the «Law on Taxis», which, seemingly, is aimed to legalize the market, the illegal sector position will only strengthen. Legal taxi representatives think that it will be caused by the transition of legal taxi drivers to this segment.

Among measures, planned from the beginning of 2015, parts 23 and 24 of article 9 of the law provide for the adjustability of the maximum taxi number at the regional level. The concluding parts of article 9 specify that «the maximum number of taxis, set by the law of a constituent entity of the Russian Federation in accordance with part 23, cannot be less than the number of existing permissions as of July 1, 2014. If the number of submitted applications for permissions exceeds the maximum taxi number, as defined in part 23 of this article, their issue will be carried out by results of the auction, held in accordance with the legislation of the RF constituent entity. Organization, conducting and announcement of results of the auction are carried out by the authorized body».

## Territorial Factor

Each region has its own features of the taxi sector. The main factor, which determines its level and pace of the development, is connected with the region's welfare.

As a rule, there are a lot of taxi services in the developed cities. These companies have a sufficient park to meet the customers' needs. In addition, in megalopolises special legal taxi sector programs can be developed. One of these initiatives is adopted in Moscow.

Vehicles to be operated as taxis can be leased on favorable terms and at a reduced rate: the part of the interest will be compensated for by the city government.

In less developed and remote regions opportunities of clients and taxi companies are usually limited. In these areas, it is quite difficult to call a taxi late in the night, early in the morning or just at the rush hour: execution of the order will take much time or will be simply impossible due to the absence of vacant taxis.

Along with the level of region's economic development and population income, other factors also play an important role in the taxi service development. In particular, in megalopolises traffic jams deeply impede the taxi work. They significantly increase the travel time of taxi drivers, and it is not always possible to choose the bypass road. It essentially increases the customer's expenses if the trip cost is based only on a time criterion. As a result, customer satisfaction level decreases.

In Moscow in order to solve these problems legal taxis are allowed to use the lanes for public transport vehicles. But it becomes more difficult to ensure proper control over «dedicated lanes» so that off-schedule passenger-free taxis, do not abuse them. A similar issue arises in respect of illegal taxis.

The control over the use of dedicated lanes in Moscow is expected to be carried out with the help of special technical equipment. Special electronic cards, a kind of permits, will be offered to legal taxi drivers to be admitted to dedicated lanes.

It is possible to identify the legal taxi, moving on «dedicated lanes» out of the working schedule with the help of special technical devices, gps navigators in the STSI monitoring service. To make the system function, taxi companies need to closely cooperate with STSI. Taxi companies should provide STSI with the information on the work schedule of each vehicle.

Such a system, which enables to reduce the taxi travel time on dedicated lanes, can be used only in cities with such traffic lanes. There are no special lanes for public transport in many cities with heavy traffic and traffic jams. Their appearance in the near future is also hardly possible because there are no conditions to widen the road or construct the alternate roads.

Another problem, typical for cities, is the absence of parking areas and parking places for taxis. In many Russian cities areas congested with taxis are territories around airports, railway and bus stations. Often there is not a sufficient number of parking places for these cars. The problem of taking a taxi in the very heart of the city, where it is difficult to park a car, remains unsolved.

In Moscow, to improve the taxi work it is planned to create a sufficient number of parking places. Naturally, only legal representatives of this market with appropriate permissions will be able to use them. Taxi drivers will be admitted to such parking areas on presentation of special electronic cards.

## Power Plant

About a dozen companies, including facilities of large Russian manufacturers, produce automobile engines in Russia. Geographically, most of engine plants are located in the Central and Volga regions.

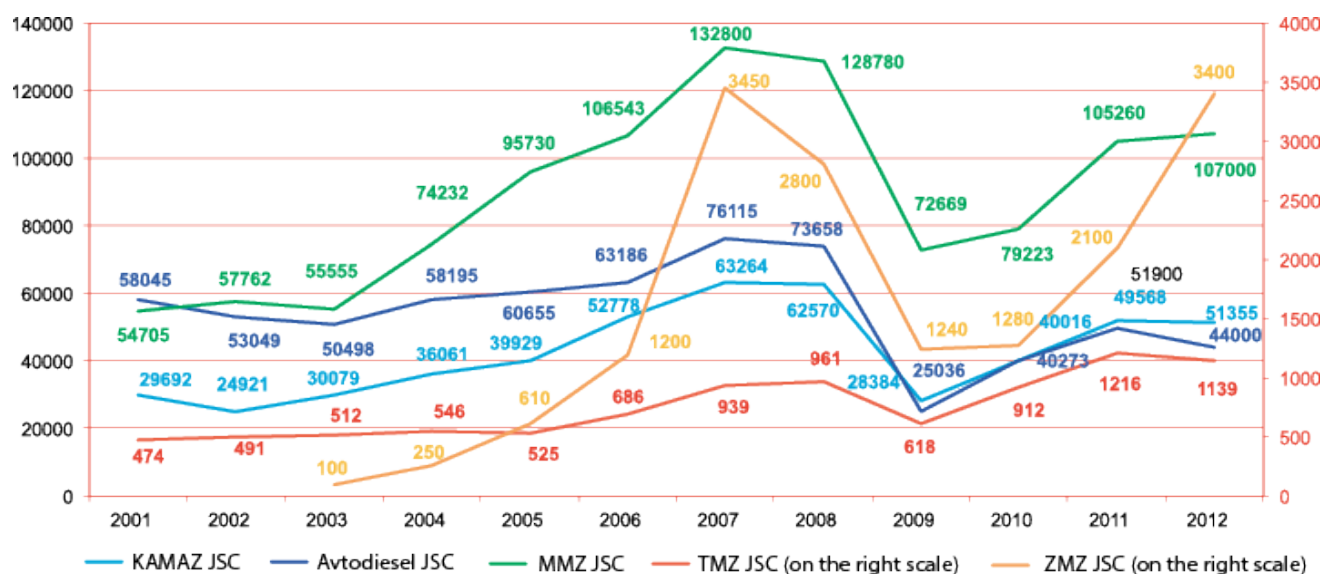
The majority of Russian motor plants are a part of automotive holdings or structural subordinates of automakers. These engine manufacturers are largely oriented to meet the needs of their automobile plants.

Ulyanovsk Motor Works and Avtodiesel (Yaroslavl) are divisions of GAZ Group. Yaroslavl Diesel Equipment Plant, also a member of GAZ Group, does not produce automobile engines, but components for them. Another GAZ enterprise, «Barnaultransmash» plant, specializes in the production of diesel engines only for special purpose vehicles as well as for shipbuilding and industry.

Zavolzhsy Motor Plant of «Sollers» company is mainly focused on the demands of Ulyanovsk Automobile Plant.

A part of the motor plants' production is intended to satisfy the needs of other manufacturers. In addition to automobile engines, many manufacturers produce engines for other transportation means, in particular, water or railway transport, as well as industrial engines and necessary spare parts for them.

Production Dynamics of Tractor Diesel Engines, 2001-2012, Units



Source: data by Tutaevsky Motor Plant.

The level of technologies in the Russian engine production sector is lower than the foreign one. The foreign engine market is characterized by a fierce competition, the earlier introduction of strict environmental standards and a wider model line-up of engines. Advanced technologies in a field of the engine production, both diesel and petrol ones, primarily come to the Russian market from abroad, where they were initially designed, tested and put into serial production.

As a rule, foreign engineering companies develop new engines. Avtodiesel Yaroslavl Motor Works developed its YaMZ-530 engines with the support from AVL Company (Austria). To organize the production of engines with the capacity from 190 to 312 HP, KAMAZ created a joint venture with Cummins Company with ready design and technological solutions.

Not all engine manufacturers are able to withstand the competition. In particular, Ufa Automobile Engines Plant terminated its engine manufacture.

However, in Russia new facilities for the automobile engine production are established. A large-scale project was the creation of a new plant for the production of medium in-line engines at Yaroslavl Avtodiesel.

New capacities for the manufacture of engines for foreign vehicles, produced in Russia, are also created. Such a plant is created in the Kaluga region, near the «Volkswagen Group Rus» automobile enterprise. Its annual production capacity is estimated in 135-150 thousand engines. The plant is focused on the production of 1.6 L engines of a new series EA211. In addition to the vehicle facility in Kaluga, Volkswagen's products meet the needs of the contract production at capacities of the GAZ plant in Nizhny Novgorod.

In the spring of 2013, Ford Sollers began to build the engine plant in Yelabuga. Mainly Ford Focus models will be equipped with the new engines.

The enterprise is expected to start work in December, 2015, and to produce 1, 6 L petrol engines Duratec with three variants of capacity - 85 HP, 105 HP and 125 HP. The plant's planned capacity – 105 000 engines a year with perspective of increase in annual output of engines to 200 000.

## Two Segments

Recently, one of the trends in the Russian engine market has been connected with the strengthening of diesel engine positions. They are widely used, first of all, in a sector of commercial and special purpose vehicles. Against the background of the recovery of this segment the demand for diesel engines also stabilized.

A segment of diesel engine manufacturers is represented by KAMAZ» JSC (Naberezhnye Chelny), including a joint venture with CUMMINS Company, Avtodiesel JSC (Yaroslavl) and Tutaevsky Motor Plant JSC. ZMZ JSC also produces diesel engines.

Experts estimated that in 2012 in Russia the production volume of diesel engines for trucks with the gross weight of 14-40 tons amounted to about 100 thousand units.

KAMAZ JSC (54%) and Avtodiesel JSC (45%) are the largest manufacturers of diesel engines for trucks with the gross weight of 14-40 tons. The share of Tutaevsky Motor Plant in this production segment is about 1%.

In-line or V-type six - and eight-cylinder engines with the capacity of 230-300 HP and 370-420 HP are the most popular ones in the diesel engine segment.

Along with Russian diesel engines the Russian market is presented by products of Minsk Motor Plant, which manufactures in-line four - and six-cylinder engines for medium duty vehicles, buses, agricultural and other machinery.

Minsk Motor Plant developed the production of engines with the capacity from 160 HP to 350 HP. In partnership with Tutaevsky Motor Plant, MMP JSC produces engines with the capacity from 425 HP to 600 HP in a mode of industrial assembly.

The main customers of MMP's engines are: GAZ Group - in the Russian market, Minsk Automobile Plant (MAZ) - in the local Belarusian one.

According to automakers' estimates, the Russian market needs 1.2-2.0 L in-line four-cylinder diesel engines with an average boost pressure.

Light diesel engines are not produced in Russia largely due to the sophisticated technology of basic parts manufacturing and the fuel equipment absence.

However, these engines are quite attractive, as they have low fuel consumption, high torque in a wide crankshaft speed range. Also these engines are characterized by a relatively low maximum capacity, which enables to save on a transport tax. All cars, including SUVs, can be equipped with these diesel engines in the required configuration.

The buyers' interest to diesel engines in the Russian car segment is connected not so much with the demand for engines themselves, as with the crossovers segment growth.

The introduction of environmental standards «Euro-4» in Russia beginning January 1, 2013, was a significant event for diesel engine manufacturers.

Engine manufacturers use different technologies to correspond to «Euro-4» parameters. In YaMZ engines Euro-4 is achieved using the EGR (Exhaust Gas Recirculation) system, in KAMAZ and Cummins engines - SCR (Selective Catalytic Reduction) system.

Development of the Russian diesel engine production largely depends on the activity of Russian auto component manufacturers. Their technological level and possibilities can not satisfy all needs of the Russian diesel engine producers. Situation with the production of diesel engine fuel supply systems may be an example.

The fuel supply system (FSS) is a key engine component. Their cost usually amounts to 16-22% of the total price for the engine. Major engine parameters such as capacity, fuel efficiency, environmental performance, reliability and service life largely depend on FSS. In its structural complexity and accuracy of manufacturing of separate parts this engine component is unique.

It is planned to use foreign components in the production of many new diesel engines in Russia. However, in Russia there are three main enterprises, developing and manufacturing fuel supply systems for motor and tractor diesel engines. These are Yaroslavl Diesel Equipment Plant, Altai Precision Components Plant and Noginsk Fuel Equipment Plant. In the Soviet period, the number of manufacturers of these systems was much higher.

One of the acute problems in the diesel engine design improvement is connected with a low quality fuel. This fuel quickly makes modern high-precision components of supply and exhaust systems inoperative.

Other factors also influence the development of the Russian diesel engine market. In particular, these are the relatively high diesel fuel cost, which is comparable with that of a high-quality gasoline. In addition, versions of vehicles with diesel engines are often offered to customers at a higher price, which adversely affects the customers' choice.

Some buyers refuse to purchase a vehicle with the diesel engine because of stereotypes that it is difficult to operate such vehicles, in particular, in the winter.

As for the sector of petrol engines, they are produced by Zavolzhsy Motor Plant JSC (the Nizhny Novgorod region), Ulyanovsk Motor Works JSC, AMO ZIL (Moscow) and AVTOVAZ JSC with its own production. 1.4-1.6 L petrol engines are in the greatest demand in Russia. Many popular models of B and C classes as well as crossovers of an average price segment are equipped with them. 1.5-2.0 L in-line four-cylinder naturally aspirated petrol engines are also much in demand.

One of the significant trends for the Russian engine market is connected with the need to reduce noxious emissions and the fuel consumption. These measures are implemented through the transition of vehicles and engines to alternative fuels, in particular, to the compressed natural gas.

## AVTOVAZ JSC

AVTOVAZ largely satisfies its needs for engines on its own. In particular, the plant produces engines for LADA Granta, Kalina, Priora, Samara and LADA 4x4 cars.

In addition to its own engines, the plant uses engines of third party manufacturers. In particular, for LADA Largus cars 8-valve engines are imported from Romania, 16-valve ones - from Spain. It is planned to localize the assembly of 16-valve engines for LADA Largus cars.

AVTOVAZ has its own metallurgical production for the manufacture of the main engine parts (block, cylinder head,

crankshaft and camshaft) and a mechanical assembly production for the work piece machining and engine assembly.

Some engine elements are supplied to the plant. In particular, these are electrical parts, cooling system, intake and exhaust system as well as the light weight connecting rod and piston group for corresponding modifications of engines. AVTOVAZ produces the so-called «heavy» connecting rod and piston group.

A special attention is also paid to the preparation for the production of license engines of Renault-Nissan Alliance with an annual capacity of about 500 thousand units. The license production of two models of 1.6 L petrol engines will begin in Togliatti in 2015. Renault, Nissan and Lada cars, produced in Russia, will be equipped with these engines.

Engine Range for LADA Cars

Engine Name	Structural Features	Capacity, HP	Car Models
21116/11186	8 valves, light weight connecting rod and piston group	87 HP	Granta, Kalina, Priora cars
21111/11183	8 valves, light weight connecting rod and piston group	82 HP	Granta, Samara cars
21126	16 valves, light weight connecting rod and piston group	98 HP	Granta, Kalina, Priora, small serial Samara cars
21127	16 valves, light weight connecting rod and piston group, dynamic induction system	106 HP	Kalina, Granta, Priora (in future) cars.
21214	8 valves	83 HP	LADA 4x4 cars.

Source: data by AVTOVAZ JSC.

Recently the range of engines, used by AVTOVAZ, has changed. The production of some models was terminated. At the same time, new engine models appeared.

In particular, engines for classic models were excluded from the production range as LADA 2105 and LADA 2107 cars were abandoned. In addition, the plant ceased to use 1.4 L 16-valve engines for LADA Kalina cars, because similar technical and operational characteristics were achieved in 8-valve engines.

Since 2008, AVTOVAZ has been producing two new engines, 21116/11186 and 21127, and since 2011 - upgraded 1.6 L 8-valve engines, 21116/11186. The improved engine capacity increased to 87 HP (depending on the intake and exhaust system) and a maximum torque - to 140 Nm.

Use of the light weight connecting rod and piston group is the main structural innovation in the production of these engines. In addition, AVTOVAZ applied graphite piston plates in its 8-valve engine for the first time. Another innovation is connected with the use of thinner piston rings. As a result of these and other structural changes, the engine service life increased from 120 to 200 thousand km, with the possibility to achieve the higher indicators. This engine, as all engines for front wheel drive LADA cars, produced today, is equipped with the drive by wire throttle (E-gas).

AVTOVAZ began to install the upgraded engine 21116/11186 in LADA Priora sedans and hatchbacks in a version «standard». LADA Granta cars were subsequently equipped with these engines too.

Engine 21127 was created by the modernization of engine 21126, in particular, due to changes in the intake system. As a result of changes, the maximum capacity of engine 21127 increased from 98 to 106 HP and a maximum torque - from 145 to 148 Nm.

Engine Supply Volumes to AVTOVAZ JSC, 2011-2013, Units

Supply Type	2011	2012	Q I, 2013
Supply of engines to AVTOVAZ's assembly line	617236	583364	119197
Supply of engines for spare parts and assembly kits	120287	110037	31860
Total	737523	693401	151057

Source: data by AVTOVAZ JSC.

AVTOVAZ successfully carried out the transition of vehicles to environmental standard «Euro-4», new for the Russian market. In the framework of the «Euro-4» introduction in Russia, all LADA cars were appropriately upgraded. Granta model, which was originally designed to meet this standard, was the only exception.

The Russian market began its preparation for environmental standards «Euro-4» with the introduction of the engine management system, based on the drive by wire throttle (E-gas). Then electronic engine control module calibrations were optimized and a catalyst with the increased precious metal loading was applied.

At that, the quantity of precious metals was significantly reduced in comparison with foreign analogues. To be certified according to the new requirements, each LADA model was tested for a toxicity, noise and electromagnetic compatibility. Over 200 tests were conducted.

Along with measures targeted towards meeting «Euro-4» requirements for the Russian market, AVTOVAZ continued to equip export versions of cars with engines, corresponding to the higher environmental standard «Euro-5».

Environmental standard Euro-5 has been effective in Europe since January 1, 2011. In October 2010, AVTOVAZ launched the production of export three-door LADA 4x4 cars in a version, adapted to the requirements of environmental standard «Euro-5». The production of export Kalina and Priora cars in a version for «Euro-5» was started in the first half of 2011.

In May 2013, AVTOVAZ began to equip its Lada cars with new engines. Characteristics of the power plant were improved. In particular, the engine capacity was increased from 98 to 106 HP, a maximum torque - from 145 to 148 Nm (an increase up to 10% in the range from 1000 to 2500 revolutions per minute). A feature of the new power plant is an adjustable intake.

LADA Kalina was the first model with a new engine. In summer of 2013, LADA Granta and LADA Priora cars will be also equipped with the engine 21127.

Also AVTOVAZ develops directions of engines, running on alternative types of fuel and energy. In particular, it developed a bi-fuel version of vehicles, running on the natural gas and gasoline. But due to the absence of refueling

infrastructure such vehicles have not been produced so far.

Another event significant for AVTOVAZ is connected with the electric car production. Recall that AVTOVAZ has been carrying out development works in a field of electric vehicles from the 70's.

At the present stage these works result in the production of EL LADA electric cars. In 2012, AVTOVAZ for the first time switched from prototypes of electric cars to the small batch production and sales of such vehicles.

EL LADA is a low volume electric car, based on the model Lada Kalina. To design and manufacture EL LADA AVTOVAZ used the experience of previous projects. The electric drive structure includes the original reduction gear and a wheel drive, produced by AVTOVAZ. Other components of the electric drive are of import production.

Also, in the framework of a public tender, AVTOVAZ works on vehicles with hybrid power plants.

In the future, AVTOVAZ will continue to develop its own engine building. Under such projects, it plans to produce new engines, in particular, equipped with variable valve timings. In addition, AVTOVAZ will master the manufacture of 16-valve engines under the Renault-Nissan Alliance license.

## GM-AVTOVAZ

GM-AVTOVAZ equips Chevrolet NIVA cars with engines, produced by AVTOVAZ JSC.

Chevrolet NIVA has in-line four-cylinder petrol engine with the volume of 1.7 L, a maximum torque of 128 Nm, and the nominal power of 59 kW.

Engines meet the requirements of «Euro-4». Beginning December 1, 2009, GM-AVTOVAZ completely switched to the production of Chevrolet NIVA 1.7L complying with Euro-4. Implementation of Euro-4 had impact on the exhaust and engine management systems. GM-AVTOVAZ also works over an issue, connected with the transition to the higher environmental standards. In particular, in the framework of the translation to «Euro-5», the company introduces an electromechanical accelerator and orifice tube, the new composition of the converter catalytic filler to the structure, as well as works to change the converter position in the exhaust system.

According to the automaker, it does not intend to produce these engines to meet Euro 6 standards.

The immediate prospects of the company are connected with 1.8 L petrol engines, designed to equip Chevrolet NIVA cars of the new generation.

## KAMAZ JSC

KAMAZ JSC has its own manufacture of engines under the same brand name KAMAZ. In addition, engines are produced at the joint enterprise «CUMMINS KAMA» in Naberezhnye Chelny.

The produced model line-up of engines covers all company's needs in engines, which are installed in all KAMAZ and NEFAZ vehicles and buses.

KAMAZ Engine Plant produces 37 main models of diesel and gas engines and over 200 of their various modifications and configurations. The product range includes V-type eight-cylinder engines with the capacity from 240 to 440 HP.

The range of Cummins ISBe engines, produced by the CUMMINS KAMA JV, is presented by four - and six-cylinder in-line engines with the 185-300 HP capacity.

In recent years the range of engines, mounted in KAMAZ vehicles, has changed. In particular, in the transition to the production of restyled KAMAZ-65226 trucks, the company decided to abandon the Deutz engine (544 HP) in favor of the Cummins engine (535 HP). Recently the share of Cummins engines in the model line-up of engines, used to equip KAMAZ vehicles, has been gradually growing.

Another trend is connected with the increasing capacity of used engines. In particular, to meet Euro-4 engines with the capacity of 320 HP and 360 HP for KAMAZ-6520 dump trucks were replaced by engines with the capacity of 400 HP and 420 HP.

In the first quarter of 2013, KAMAZ facilities produced 11057 units of power plants, which is a 23.3% decrease on the same period of 2012, when this figure amounted to 14416 units, including products of the CUMMINS KAMA JV.

During the last years KAMAZ JSC has been actively working to bring the engine model line-up into compliance with Euro-4 and to make structural changes in the exhaust gas post processing system, including due to the SCR system. In addition, in the framework of this transition, a special attention was paid to the improving of consumer performance of KAMAZ trucks; in particular, to the fuel consumption reduction by using the Common Rail fuel equipment.

KAMAZ JSC gives a great attention to the development of directions, connected with the use of engines, running on alternative fuels.

Currently, KAMAZ Research and Development Center and Innovation center LLC launch a project of energy-efficient vehicles KAMAZ-2020, which includes the study of all promising technical solutions: the use of alternative fuels, hybrid technologies (electric hybrid, kinetic hybrids), electric drives (battery operated electric shoes and using the Range Extender technology), composite materials and other solutions. A design group for the project implementation was formed in addition to KAMAZ Development Centers in Saint Petersburg and Moscow.

Today KAMAZ produces trucks, running on the compressed gas (methane). But these vehicles have an insignificant share in the total sales volume (up to 1%).

According to the results of 2012, 286 units of compressed gas vehicles, KAMAZ trucks and NEFAZ buses, were sold. The growth reached 108% in comparison with 2011, when 137 units of these vehicles were produced. Compressed gas vehicles are sold both in Russia and abroad.

In the future, KAMAZ JSC plans to increase its production volumes of engines on alternative fuels and to prepare for the production of engines, complying with the higher environmental classes Euro-5 and Euro 6.

## Cummins

Cummins Inc. is a large independent manufacturer of diesel engines with the capacity from 60 to 3500 HP. Cummins's headquarters is located in the American city Columbus and its production facilities - in the USA, UK, China, India and Russia.

Cummins manufactures engines for automotive, road-building, mining vehicles, as well as railway and water transport and oil and gas industry. Cummins has over 500 distributors and 6500 dealers in 190 countries.

Cummins Engine Range in Russia\*

Engine Model	ISF2.8	ISF3.8	ISBe4.5	ISBe6.7	ISLe	ISMe	ISX15	ISB5.9G	ISLeG
Dimensions, mm	639x 656x 718	810x 695x 806	787x 723x 819	1047x 711x 873	1130x 778x 1013	1340x 838x 1184	1567x 984x 1216	1067x 862x 750	1125x 1167x 956
Dry weight, kg	220	365	375	485	760	990	1345	413	680
Nominal capacity, min/max, HP	129-161	141-168	140-200	210-300	310-400	340-440	450-600	150-230	250-320
Maximum torque, min/max, Nm	310-360	450-600	550-760	800-1100	1200-1700	1700-2080	2250-2500	440-680	1000-1350

\* Including engines, produced at Cummins Kama JV and imported from abroad.

Source: data by Cummins representation in Russia, «Cummins Kama».

In Russia the joint venture of CUMMINS Inc. and KAMAZ, CUMMINS KAMA JSC, located in Naberezhnye Chelny (Republic of Tatarstan), produces Cummins engines.

The company's annual production capacity is estimated in 25 thousand engines. CUMMINS KAMA is focused on the production of Cummins ISBe engines, complying with standards «Euro-4» and «Euro-5». The company has already developed the engine prototype, which meets the «Euro-5» standards.

Currently CUMMINS KAMA JSC performs a full cycle of works on the engine assembly and continues taking measures for the localization of engine components in Russia. In particular, the company has already completed localization of cylinder heads, crankshafts, flywheels, harnesses, air compressors. Localization of cylinder block castings, hardware, and other components will be soon finished too.

Localization is carried out by KAMAZ jointly with the world known companies Knorr Bremse, Leoni, etc.

The introduction in Russia of new environmental standards (Euro-4) created no difficulties for Cummins Company due to the fact that Cummins has all important resources and subsystems: electronic control system, air pressurization system, fuel systems, combustion process control technology, filtering and exhaust gas post processing systems.

Cummins engines were certified according to the standards «Euro-4» using SCR or EGR system - at customer's discretion.

The use of an integrated Cummins system makes it possible to achieve a high level of the performance and the fuel efficiency along with the increase in technical inspection intervals and the low noise level. It creates prerequisites to transit with confidence to «Euro-5» standards with minimum engine modifications.

In 2012, CUMMINS KAMA produced about 10 thousand engines. In 2013, the company plans to increase its production volumes. At that, the major part of the products will be supplied for KAMAZ JSC.

Products of CUMMINS KAMA JSC are under the world Cummins warranty. ISBe engines, including those produced at the joint enterprise in Russia, may be serviced in more than 190 countries of the world.

In addition to the engine production, Cummins and KAMAZ actively develop their service. As a result Cummins received an access to the largest dealer and service network in Russia and the CIS, and KAMAZ dealers – to the new engine service technologies.

In Russia and the CIS countries the main consumers of Cummins engines, produced at the joint venture and imported from abroad, are the largest Russian manufacturers of commercial vehicles and buses.

Vehicles with the gross weight from 12 to 38 tons, as well as small, medium sized and large buses are serially produced with CUMMINS KAMA engines.

GAZ Group equips its upgraded model line-up of light commercial vehicles «Gazelle Business», «Valday» and «Gazelle NEXT» with Cummins ISF 2.8/3.8 diesel engines. «Russian Buses» company equips its PAZ buses with ISF 3.8 diesel engines, KAVZ and LIAZ buses - with ISBe engines, produced in Russia. The company's model line-up is also presented by gas engines CNG/LNG, supplied to Russia from abroad.

In the Russian market the main conveyer consumer in a segment of medium-duty vehicles, equipped with engines in the capacity from 180 to 300 HP, is KAMAZ JSC, for which CUMMINS KAMA and imported engines are supplied. Among other consumers are MAZ (Belarus) and RIAT JSC.

Cummins actively develops the production of gas engines. For the present moment, these engines are produced only at the production facilities abroad, in particular, in the USA. Engines, which meet the toxicity standards «Euro-4» and «Euro-5», are supplied to the Russian market. In particular, engines, complying with Euro-5, are delivered to PAZ, with Euro-4 – to LIAZ, to which it is also possible to supply Euro-5 engines.

To produce these engines the company uses the latest alternative fuel technologies, which have all advantages of «clean combustion» engines. Cummins constantly develops this direction. Some of the latest novelties were presented in September 2012 at the exhibition in Hanover: these are gas versions ISL G, ISX 12 G and ISX 15 G of the «Euro-6» standard.

Euro-6 ISL G natural gas engine with the volume of 8.9 liters has a capacity from 250 to 320 HP and a maximum torque of 1356 Nm. This engine optimally suits buses and trucks, running on the alternative fuel.

The exhaust gas recirculation system (EGR) combined with the stoichiometric fuel combustion, which showed good results in a cooler operation, are applied in the ISL G engine. It enables to use a highly efficient three way catalyst.

Application of this technology is intended for engines, which meet not only the Euro-5 standard, but Euro 6 too. It is an effective passive device, a part of the exhaust muffler, ensuring the continuous emission control without the need to install a diesel particulate filter (DPF) or SCR system.

Euro-6 ISL G engine is also supplemented with a manifold crankcase ventilation system (CCV) and upgraded electronic control.

ISX12 G natural gas engine with the volume of 11.9 L, capacity from 330 to 400 HP and a maximum torque of 1966 Nm was also presented in the Hanover in autumn 2012. This series is designed for high-power trucks, running on the alternative fuel, and has been serially produced in North America since the beginning of 2013.

ISX12 G natural gas engine is based on a platform of Cummins ISX12 diesel engine, the newest representative of the Cummins high power engines family. It can run on the compressed natural gas (CNG) or liquefied natural gas (LNG), using spark plug ignition with the stoichiometric fuel combustion process and the exhaust gas recirculation technology (EGR).

As in the ISL G engine, TWC technology is used in the ISX12 G engine. ISX12 G engines are manufactured at a Cummins factory in Jamestown, New York State, the USA. This engine is the first Cummins gas engine with the additional engine brake function. Cummins developed another gas engine, ISX15 G. This engine will be produced on the basis of the 15 L diesel engine with the use of the same technologies to ensure low emissions, as in the ISX12 G engine. The nominal capacity of the ISX15 G engine will amount to 500 HP at a maximum torque of 2370 Nm.

### Ulyanovsk Motor Works JSC

Ulyanovsk Motor Works, a part of GAZ Group, is one of the Russia's largest manufacturers of power plants. It is an enterprise of a complete production cycle, including the production of castings, the development of engines, their production and testing.

At the plant's industrial site there are foundry, machining, galvanothermic, press and assembly units. A park of equipment, used directly for the production of engines, numbers about 1.7 thousand units. The common equipment base of the enterprise includes 3.5 thousand units.

Engine production technologies of Ulyanovsk Motor Works are highly mobile, due to which the company can quickly switch to the production of 2.5-3 L engines.

The plant manufactures power plants of various modifications for trucks, cars and special purpose vehicles, produced by GAZ and UAZ.

The plant's primary products are UMZ-4216 petrol engines and their bi-fuel (natural gas and gasoline) versions, which conform to Euro-4 standards.

These engines are used in light commercial vehicles produced by GAZ (GAZelle, Sobol). In total, the product range of Ulyanovsk Motor Works is comprised of 10 engine models, about 80 versions of these engines as well as over 1500 engine spare parts.

The equipping of all modifications of UMZ-4216 engines with the polychain accessory drive belt should be noted among significant technical modifications, undertaken in 2011. Also the company used the modified structure of the starter and camshaft drive gear cover, an improved phase detector, new piston pins and ignition coils. All these changes enhanced the reliability and increased the engine service life.

The enterprise was ready to transit to Euro-4 standards as early as mid-2012, when it produced a pilot batch of petrol and gas-petrol engines of this environmental class.

A number of changes were made in the engine design to comply with new standards, in particular: electronically controlled throttling device Delphi (electronic gas pedal), which ensures the better handling and reduces the fuel consumption; fuel injectors Delphi of the new generation, providing the fine fuel atomization and its precise metering; camshaft with optimized phases, improving environmental characteristics of the engine and ensuring its steady operation in idling; the crankcase ventilation system with oil separator, which reduces the oil consumption through burning.

In autumn of 2012, GAZ launched sales of the new modifications of «Gazelle Business» vehicles with bi-fuel gas-gasoline engines of Euro-4 class UMZ-421647 in its dealer network. GAZ-3221 minibuses, GAZ-2705 all-metal vans and GAZ-33023 drop side double cabin vehicles were equipped with these bi-fuel engines.

In new Gazelle Business modifications there is the combined engine control module with the mass airflow sensor. In comparison with a separate motion management on the petrol and on the gas, the combined module ensures a smooth switching from one fuel to another, and maintains the optimum air and gas ratio in the fuel mixture.

In February 2013, Gorky Automobile Plant produced a pilot batch of pre-series Gazelle Business vehicles, equipped with UMZ-421647 bi-fuel engines, running on the petrol and methane.

The company also develops the promising UMZ engines, which meet the «Euro-5» environmental class with the further possibility to comply with Euro 6.

### Avtodiesel Yaroslavl Motor Works

Avtodiesel JSC is one of the major Russian engine manufacturers.

Along with multipurpose engines, the plant produces clutches, gearboxes and spare parts for them, as well as stationary units based on them.

Engines, manufactured by Avtodiesel JSC, power trucks, line haul trains, mine dump trucks, buses, tractors and harvesters, construction machinery.

Enterprise mastered the production of engines of several families: YaMZ-650 family of heavy six-cylinder in-line diesel engines, capacity from 362 to 412 HP, YaMZ-530 family of medium four- and six-cylinder in-line diesel engines, capacity from 120 to 320 HP, and two families of six-, eight- and twelve-cylinder V-type diesel engines with the capacity from 150 to 800 HP.

One of the most significant projects of the enterprise was connected with the production in 2007 of the YaMZ-650 heavy in-line engine under a license from Renault Trucks.

Recently, the main Avtodiesel's project has been the mastering of a serial production of YaMZ-530 engines, conforming to Euro-4 and Euro-5. YaMZ-530 engines were developed by the engineering and design center of Avtodiesel with assistance from AVL List Company (Austria).

In the framework of this project, in autumn 2011, the construction of the YaMZ-530 medium in-line engine production site was completed. The total project investments amounted to about 10 billion rubles, of which 5.8 billion rubles were loaned by Vnesheconombank.

The area of the production facilities of the new enterprise, with the equipment of Grob Werke, Heller, Thyssen Krupp Krause, Liebherr, JW Froehlich, Riko, Durr Ecoclean, Carl Zeiss and other companies, is 53.5 thousand m<sup>2</sup>. The enterprise manufactures high technology products.

The introduction of «Euro-4» standards in Russia affected not only YaMZ-530 and YaMZ-650 engines. The company also developed a Euro-4 conforming engine on the basis of the V-type engine, as well as the Common Rail system on the basis of the «Compact-40» pump with the participation of specialists of another GAZ enterprise, Yaroslavl Diesel Equipment Plant (YaZDA).

During the process of the engine development, the company used the YaZDA pump and purchased some components from third party suppliers. In particular, these are injectors, electronic unit and sensors. In the future Avtodiesel plans to continue this cooperation with YaZDA, in particular, to produce engines, conforming to Euro-5 and Euro 6 standards.

Also it is planned to develop YaMZ-530 engines to ensure the Euro-5 class conformity. These engines are rather environmentally friendly and do not require significant modifications.

The development of natural gas engines, based on the YaMZ-530 engine family, YaMZ-534 and YaMZ-536, is one of the promising directions for Avtodiesel. Methane is a fuel for these engines.

In May, 2013 Avtodiesel signed an agreement with Westport Company, a leading manufacturer of automotive natural-gas systems and components, to develop a line-up of natural-gas engines for CNG-powered motor vehicles, road construction and agricultural machinery.

YaMZ-530 natural gas engines are designed for GAZ Group vehicles such as GAZ medium-duty trucks, Ural trucks and PAZ, LIAZ, KAVZ buses. In addition, these engines may be supplied to other customers in Russia and abroad. Avtodiesel plans to produce engines, which will meet Euro-4 and Euro-5 environmental standards. It is expected that the gas engine production will start in 2014.

The cooperation of GAZ Group and Daimler is another important direction of activity. For this purpose, the production of engines for Mercedes-Benz Sprinter vehicles is organized at Avtodiesel.

The basic consumers of the company's production in the Russian market and the CIS countries are Ural Automobile Plant, Likino Bus Plant (LIAZ), as well as MAZ, BELAZ and AvtoKrAZ.

### Zavolzhsy Motor Plant JSC

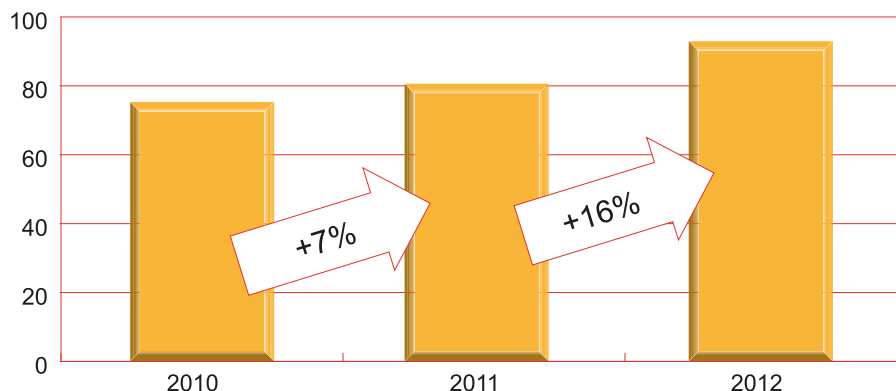
Zavolzhsy Motor Plant JSC (ZMZ JSC) produces more than 80 modifications of petrol and diesel engines with the volume from 2.2 to 4.67 L for SUVs, light commercial vehicles, PAZ buses, as well as spare parts for them.

Petrol engines account for the majority of the engine range. However, the plant also developed diesel engine versions.

At the end of 2011, an assembly of the first Euro-4 diesel engine was done. It is a small displacement diesel engine of the new generation ZMZ-51432 (2,2l) with the fuel supply system «Common Rail». The company used 100 original parts and units to produce this engine: a cylinder head, piston group, fuel equipment, turbo compressor, recirculating gas cooler, EGR valve, vacuum pump and etc.

Along with the environmental compliance, the basic operating characteristics were improved. In particular, the maximum engine capacity was increased from 97 HP at 4000 rpm to 114 HP at 3500 rpm; a maximum torque - from 23.5 kg/m at 1800 rpm to 27.5 kg/m, and the minimum specific fuel consumption was reduced.

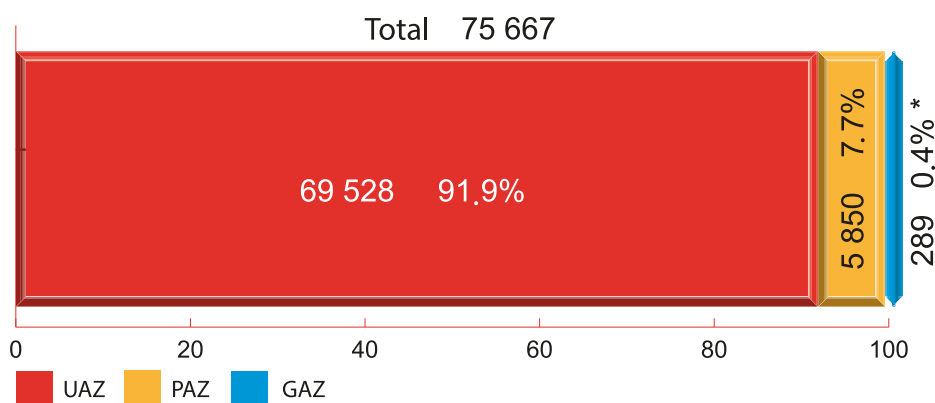
ZMZ Engine Production Dynamics, 2010-2012, Thousand Units



Source: data by ZMZ JSC, analysis by Russian Automotive Market Research (NAPI).

A large part of produced engines is supplied for the conveying equipment. According to the results of 2012, 76.2 thousand engines or 81.9% of the total engine production volume were delivered to automobile plants. In 2012, over 16.8 thousand engines were sold in the after sales market.

## ZMZ Engine Corporate Consumers Structure, 2012, Units



\*Under the government order.

Source: data by ZMZ JSC, analysis by Russian Automotive Market Research (NAPI).

Ulyanovsk Automobile Plant and «Pavlovo Bus» JSC are the main ZMZ consumers in the Russian market.

Geography of ZMZ supplies covers not only Russia, and the CIS countries, but also South-East Asia and Latin America.

Along with the engine production, ZMZ expands the range of automotive components under requests of Russian and international automotive companies, working in RF territory. At the end of 2011, ZMZ announced about the project to master technological processes of crankshafts for Avtodiesel diesel engine compressors under the contract with «Knorr-Bremse» company. In case of positive results, it was planned to continue the cooperation that subsequently happened. Previously, ZMZ had already delivered crankshafts for compressors of KAMAZ vehicles to Knorr Bremse.

In addition, it was decided to prepare for the production of a third crankshaft type for engine compressors under the «Cummins-KAMA» project. Also on the Knorr Bremse request, ZMZ launched a project to develop the KAMAZ compressor case production.

As a result, in March 2012, ZMZ announced that it successfully underwent the technological examination on technological processes of new products and launched their serial production. Thus, under the contract with «Knorr-Bremse» ZMZ mastered technological processes of two new types of crankshafts for Avtodiesel diesel engine compressors and for the compressor to the engine of the «Cummins KAMA» project. Also technological processes of the KAMAZ compressor case were approved.

### Tutaevsky Motor Plant JSC

Tutaevsky Motor Plant is an enterprise of the full cycle, from the manufacture of castings and work pieces to the output of finished products.

The plant was created as an enterprise for the production of heavy diesel engines for MAZ heavy trucks and tractors of the K-701 type. In 2013, Tutaevsky Motor Plant will celebrate its 45<sup>th</sup> anniversary.

Tutaevsky Motor Plant JSC specializes in the production of heavy diesel engines for various industries, including automotive one. In addition, the company produces engine components and gearboxes.

The dimension range of engines is represented by V-type eight-cylinder engines with the capacity from 425 to 650 HP and a maximum torque from 195 to 285 kg/m.

In accordance with its Development Program, in 2008 Tutaevsky Motor Plant began to develop a new family of V-type eight- and twelve-cylinder diesel engines with the dimensions of 140x150 mm. These engines are designed for a variety of industries such as automotive, agricultural industries, transport machine building and etc.

Commercial eight-cylinder engines should have the capacity up to 885 HP, twelve-cylinder ones - up to 1400 HP. First engines of the new family with the 600 HP capacity for the conveyor equipment were produced in May 2010. They meet the modern requirements on the efficiency, working life, weight dimension parameters and ecology with the possibility of the further improvement of characteristics.

KAMAZ JSC, Ural Automobile Plant, Bryansk Wheeled Tractors Plant, Cheboksary Plant «Promtractor», Saint Petersburg Tractor Plant are TMZ engine consumers in the Russian market.

The production of engines, conforming to the higher environmental standards, is not difficult for a manufacturer, because the structure of mass-produced engines and engines of the new family enable to do it.

In the future, Tutaevsky Motor Plant plans to increase its production volumes. According to the plant's development program till 2020, it is expected that the output of engines will increase to 400 units, or 11.1% in the engine production structure for all industries, by a specified time.

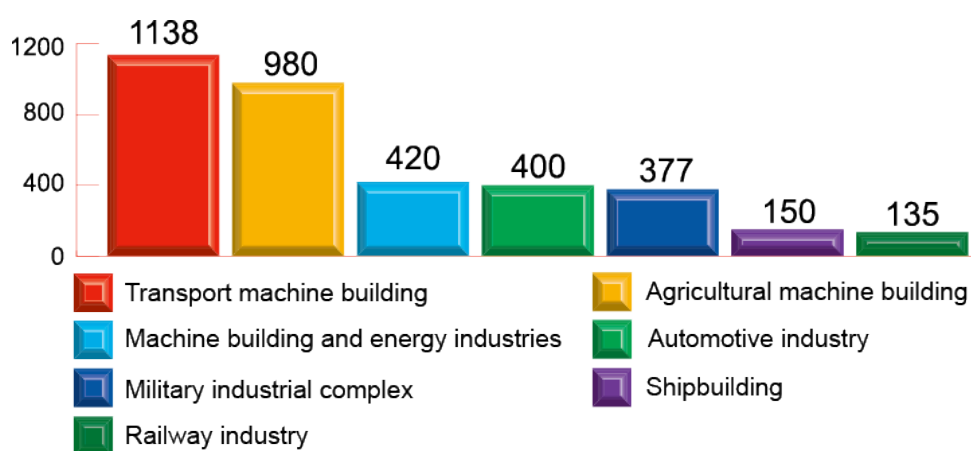
An assortment policy will be also cardinally changed. The replacement of the existing model line-up of engines will be carried out beginning 2015.

TMZ Engines Range and Main Technical Characteristics

Engine Model	8437.10	8424.10-032, 8491.10-032	8431.10	8424.10-033, 8492.10-033	8463.10	8543.10	854.10
Nominal capacity, kW (HP)	312,5 (425)	330,9 (450)	345,5 (470)	345,5 (470)	367,65 (500)	441 (600)	478 (650)
Maximum torque, Nm (kgf/m)	1913 (195)	1764 (180)	1860 (190)	1860 (190)	1960 (200)	2577 (263)	2795 (285)
Nominal speed, min <sup>-1</sup>	2100	2100	2100	2100	2100	2100	2100
Engines applicability	Tractors for MAZ, MZKT (Minsk) road trains with the weight up to 52 tons, BelAZ (Zhodino) dump trucks with the carrying capacity from 30 to 45 tons, BAZ (Brynsk), MZKT special chassis						

Source: data by Tutaevsky Motor Plant JSC.

TMZ 500-2000 HP Diesel Engines Production Forecast for 2020, Units



Source: data by Tutaevsky Motor Plant JSC.