

A wide-angle photograph of a car manufacturing plant. In the foreground, a dark-colored car is suspended on a yellow overhead conveyor system. Below it, another car is visible further down the line. Three workers in light-colored uniforms are standing on the floor, working on the cars. The background shows a complex network of yellow and white structural beams, pipes, and equipment. On the right side, there are stacks of cardboard boxes, some labeled with 'KIA' and 'KIA MOTOR'. A large yellow arrow points from the top right towards the center of the image.

Manufacture of cars in Russia and abroad.

За рулем

HOMEWORK

- Bonnet /bɒnɪt/ – капот.
- Wing mirror /wɪŋ mɪrə(r)/ – боковое зеркало.
- Windscreen /wɪn(d)skrɪn/ – лобовое стекло.
- Rear-view mirror /rɪvjuːmɪrə(r)/ – зеркало заднего вида.
- Windscreen wiper /wɪn(d)skrɪn waɪpə(r)/ – «дворник».
- Door – дверь.
- Boot /bu:t/ – багажник.
- Tyre или tire /taɪə(r)/ – шина.
- Wheel /wi:l/ – колесо.
- Headlight /hedlaɪt/ – фара.
- Bumper /bʌmpə(r)/ – бампер.
- Licence (или license) plate /laɪs(ə)ns pleɪt/ – номерной знак.
- Indicator /ɪndɪkeɪtə(r)/ – указатель поворота

Airplanes and security

A few hundred years ago the main forms of transport were walking or riding a horse, donkey, camel and elephant, depending on where you lived. Nowadays, in most countries long journeys involve some form of motorized transport. People today tend to travel longer distances, more often and at much higher speeds. As a result the world has shrunk over the last century and we now live in a global economy. There are great advantages in this, but there is a down side too. More travel has also resulted in noise and air pollution, increased stress and damages to local environments and the larger ecosystem. I am going to tell you about airplane travel. It is the fastest, to my thinking, more convenient means of travelling, because it saves our time and sometimes money. For instance, in the USA, if you travel from east coast to the west by air jet, it results cheaper for you than to travel by train. In 1903, the Wright brothers made the first controlled machine-powered flight. It only lasted 12 seconds but changed the world forever. A century later, air travel is no longer a miracle; it's something, we take for granted. One billion air passengers now fly every year — that's equivalent to a sixth of the world's population. Is it safety to travel by plane? Before September, 11, 2001, it used to be a relatively safe travel. On September, 11, terrorists attacked on America. Since then* security at airports and in the skies has been under scrutiny. That day four passenger planes were hijacked, more than 4,000 people killed.

On busy summer's days, thousands planes travel through skies. To make sure everything runs smoothly, there are air traffic control centres. In addition, every airport has an air traffic control tower. Every square meter of airspace is allocated to an air traffic controller. As an aircraft travels through the air, it is monitored by the controller responsible for that sector of airspace.

To calm fears about terrorist hijacks, airports are looking into new technologies that reveal passengers' identities. Previously in the US, less than 10% of luggage was screened. Under new legislation, every item must be checked by one of three following methods: sniffer dogs, bomb detection machines, extensive manual searches. Around the globe, security firms are working on new devices that can detect materials such as ceramics — which can be made into guns. One such scanning camera has been developed in Britain. It uses thermal imaging technology originally created to help pilots see through fog and cloud.

Questions:

1. What was the main means of transport a few centuries ago?
2. How did travels affect ecology?
3. Is it a miracle to travel by plane today?
4. Is it safety to travel by plane?
5. How do they make sure everything runs smoothly?
6. Why are the airports looking into new technologies that reveal passengers* identities?
7. What are the main methods of baggage checking?,
8. What are security firms working on today?

Vocabulary:

- donkey — осел
- camel — верблюд
- to depend on — зависеть от чего-л.
- to involve — вовлекать
- to tend — иметь тенденцию
- to shrink (past shrank, p.p. shrunk) — зд. сокращаться
- advantage — преимущество
- air pollution — загрязнение воздуха
- to increase — увеличивать
- damage — повреждение, ущерб
- environment — окружающая среда
- convenient — удобный
- air jet — реактивный самолет
- machine-powered flight — управляемый полет на машине
- miracle — чудо
- to take for granted — воспринимать что-либо как само собой разумеющееся
- security — безопасность
- scrutiny — зд. находиться под пристальным контролем/ вниманием
- to hijack — угонять самолет
- to run smoothly — пройти гладко
- air traffic control tower — башня авиадиспетчера
- to allocate — размещать, распределять
- aircraft — авиалайнер
- to monitor — проверять, контролировать
- to calm fears — развеять страхи
- to reveal — выявить, раскрыть
- identity — личность
- to screen — демонстрировать на экране, отображать
- a sniffer dog — собака-ищейка
- thermal imaging — термальное изображение

History

- The Russian Empire In pre-Soviet times, Russia had no automobile industry as a specialized industry. The Russo-Baltic wagon works in Riga, has mastered the production of cars in 1908, during its operation (until the evacuation in 1915) produced 451 passenger car and a small amount of cargo and special vehicles.[7] In August 1915 in Russia on the basis of public credit arose 5 companies, whose aim was the organization of automobile production to meet the needs of the army. Began construction of factories in the Moscow plant of Automobile Moscow society (AMO), near Moscow — the plant of the Board, "Russo-Balta", in Rybinsk plant "Russian Renault", Yaroslavl factory of V. A. Lebedev, Rostov-on-don — Aksay. All of these plants from the 2nd half of 1916 was supposed to produce 6750 3750 cars and trucks a year, but none of the plant by this time was not yet fully built



v-the mill (1896)

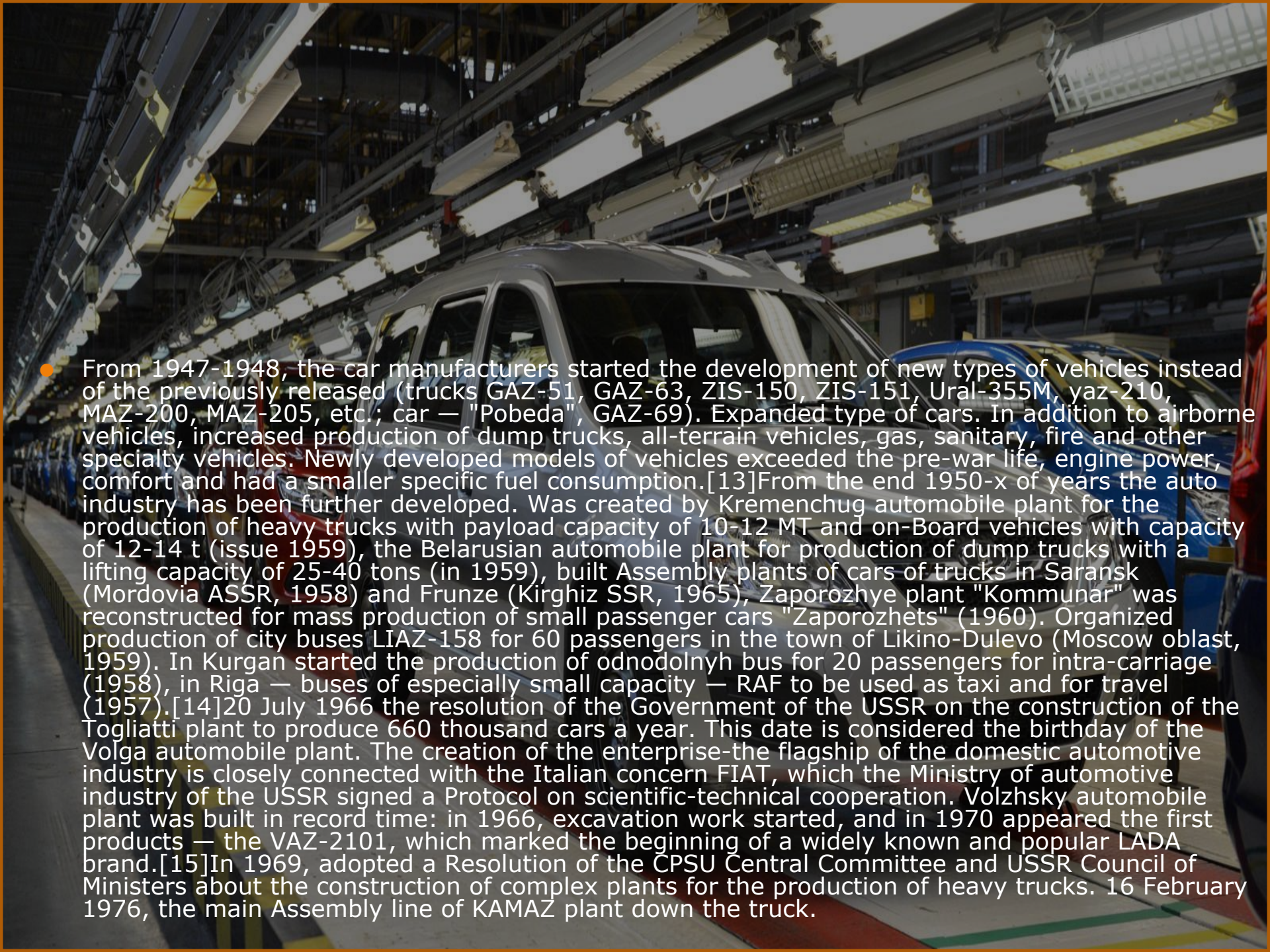
The automotive industry of the USSR

- USSR The development of automotive industry of the USSR passed several stages. In the first period (1924-1930 years) produced mostly trucks individual and serial production in small quantities. In 1924 at the factory AMO was released the first 10 polutoratonny lorries AMO-f-15. In 1925 started the production of cars at the Yaroslavl automobile plant. In the years 1927-1928 in Moscow factory "Spartak" was organized the production of passenger cars US-1. The second period (1931-1941 years) is characterized by the large-scale organization and mass production, creation of specialized automobile production. The industrialization of the country and the collectivization of agriculture has significantly increased the need for road transport. In 1928-1929, decisions were made about the construction of automobile plants in Moscow and Gorky. 1 October 1931 was commissioned the Moscow automobile plant (AMO), reconstructed for the release of 25 thousand 3-ton cars per year. January 1, 1932 was commissioned Gorky automobile plant, designed for 100 thousand cars per year. In 1932-1933 were started to further increase production capacities of factories. Car production grew rapidly.

- In 1932 started production of cars GAZ-the Gorky automobile plant (1936 — cars M-1. In 1936 he started manufacturing cars 6 seater cars ZIS-101 at the Moscow automobile plant. Moscow car Assembly plant. KIM (1930) in 1938-1939, was enlarged and reconstructed for mass production mini-cars, may 1, 1940, was released the first 3 samples before the beginning of the great Patriotic war — about 500 cars, named KIM-10. In 1933, the Moscow automobile plant released 21-seater bus ZIS-8 in 1934 — improved bus ZIS-12, and before the war — bus for 26 passengers ZIS-16. Along with the development of production two-axle trucks were produced off-road vehicles, 1933 — three-axle trucks ZIS-6 with a capacity of 2.5 tons (4 tons — on the paved roads), in 1935 at the Gorky automobile plant — a three-axle truck GAZ-30 in lifting capacity 2 t During these years, was started the production of cars, trucks and chassis for special cars for different purposes.[During the great Patriotic war was built by the Ural automobile plant in Miass (Chelyabinsk region) and components of its plants — forging in Chelyabinsk and aggregate in Shadrinsk (Kurgan oblast). In 1942-1943, the Ural plant supplying car engines and the gearbox Moscow and other plants in July 1944 produced 3-ton trucks.



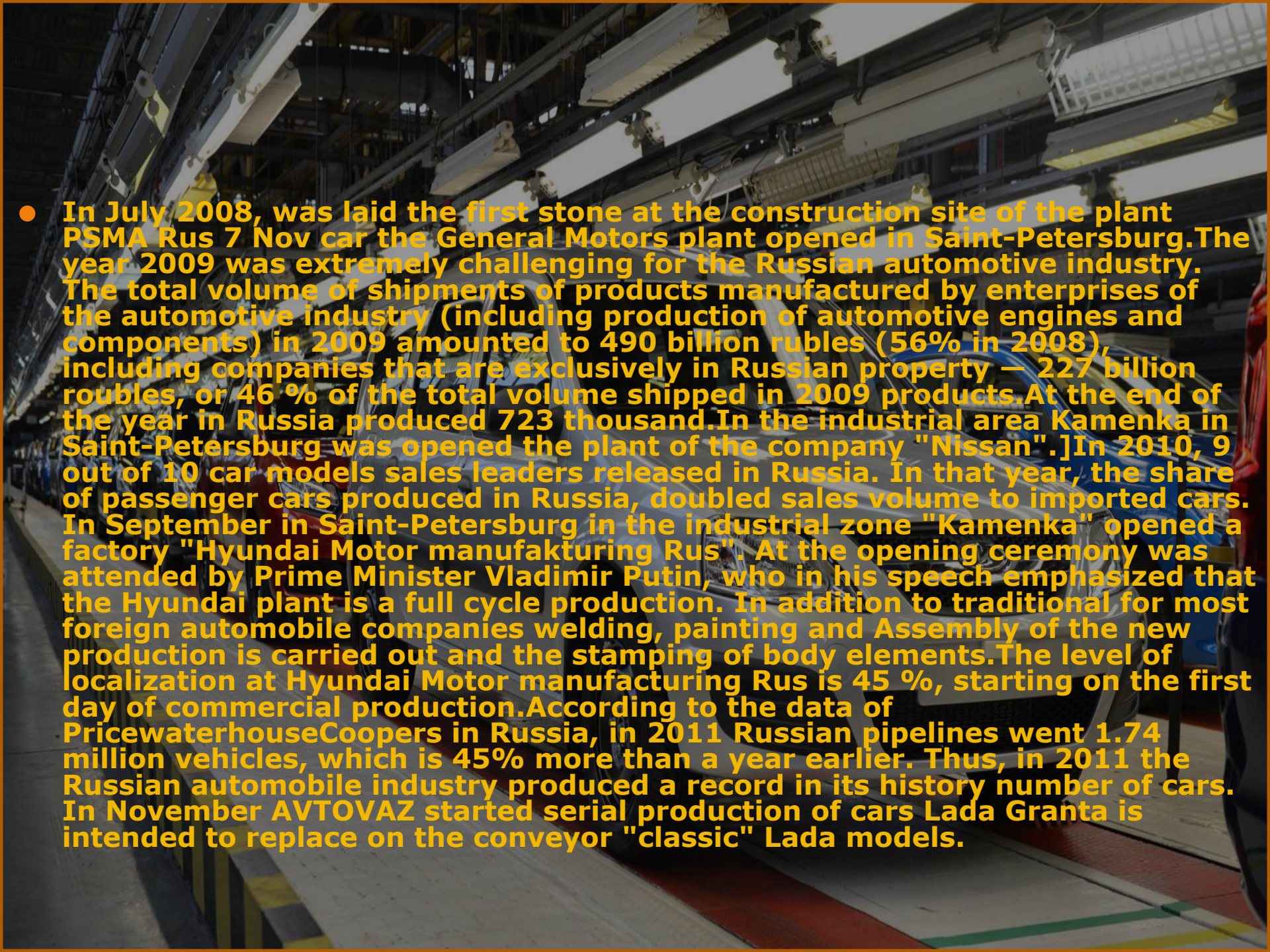
After the war, along with reconstruction and expansion of the existing plants built and started production of the Minsk car plant, designed to produce two-axle trucks with a load capacity of 6-7 tons (1947), Kutaisi — truck ZIS-150 (1951), Ulyanovsk — cars of the raised passableness, the GAZ-69 (edition 1954). At the Moscow plant of small cars in 1947, started production of small cars "Moskvich-400". In 1956 started the production of buses in Lviv, and since 1953 in Pavlovsk (Gorky region) bus factories. In 1945, at the Moscow automobile plant was organized the production of passenger car of the highest class ZIL-110.



- From 1947-1948, the car manufacturers started the development of new types of vehicles instead of the previously released (trucks GAZ-51, GAZ-63, ZIS-150, ZIS-151, Ural-355M, yaz-210, MAZ-200, MAZ-205, etc.; car — "Pobeda", GAZ-69). Expanded type of cars. In addition to airborne vehicles, increased production of dump trucks, all-terrain vehicles, gas, sanitary, fire and other specialty vehicles. Newly developed models of vehicles exceeded the pre-war life, engine power, comfort and had a smaller specific fuel consumption.[13]From the end 1950-x of years the auto industry has been further developed. Was created by Kremenchug automobile plant for the production of heavy trucks with payload capacity of 10-12 MT and on-Board vehicles with capacity of 12-14 t (issue 1959), the Belarusian automobile plant for production of dump trucks with a lifting capacity of 25-40 tons (in 1959), built Assembly plants of cars of trucks in Saransk (Mordovia ASSR, 1958) and Frunze (Kirghiz SSR, 1965), Zaporozhye plant "Kommunar" was reconstructed for mass production of small passenger cars "Zaporozhets" (1960). Organized production of city buses LIAZ-158 for 60 passengers in the town of Likino-Dulevo (Moscow oblast, 1959). In Kurgan started the production of odnodolnyh bus for 20 passengers for intra-carriage (1958), in Riga — buses of especially small capacity — RAF to be used as taxi and for travel (1957).[14]20 July 1966 the resolution of the Government of the USSR on the construction of the Togliatti plant to produce 660 thousand cars a year. This date is considered the birthday of the Volga automobile plant. The creation of the enterprise-the flagship of the domestic automotive industry is closely connected with the Italian concern FIAT, which the Ministry of automotive industry of the USSR signed a Protocol on scientific-technical cooperation. Volzhsky automobile plant was built in record time: in 1966, excavation work started, and in 1970 appeared the first products — the VAZ-2101, which marked the beginning of a widely known and popular LADA brand.[15]In 1969, adopted a Resolution of the CPSU Central Committee and USSR Council of Ministers about the construction of complex plants for the production of heavy trucks. 16 February 1976, the main Assembly line of KAMAZ plant down the truck.

Automotive industry in Russia

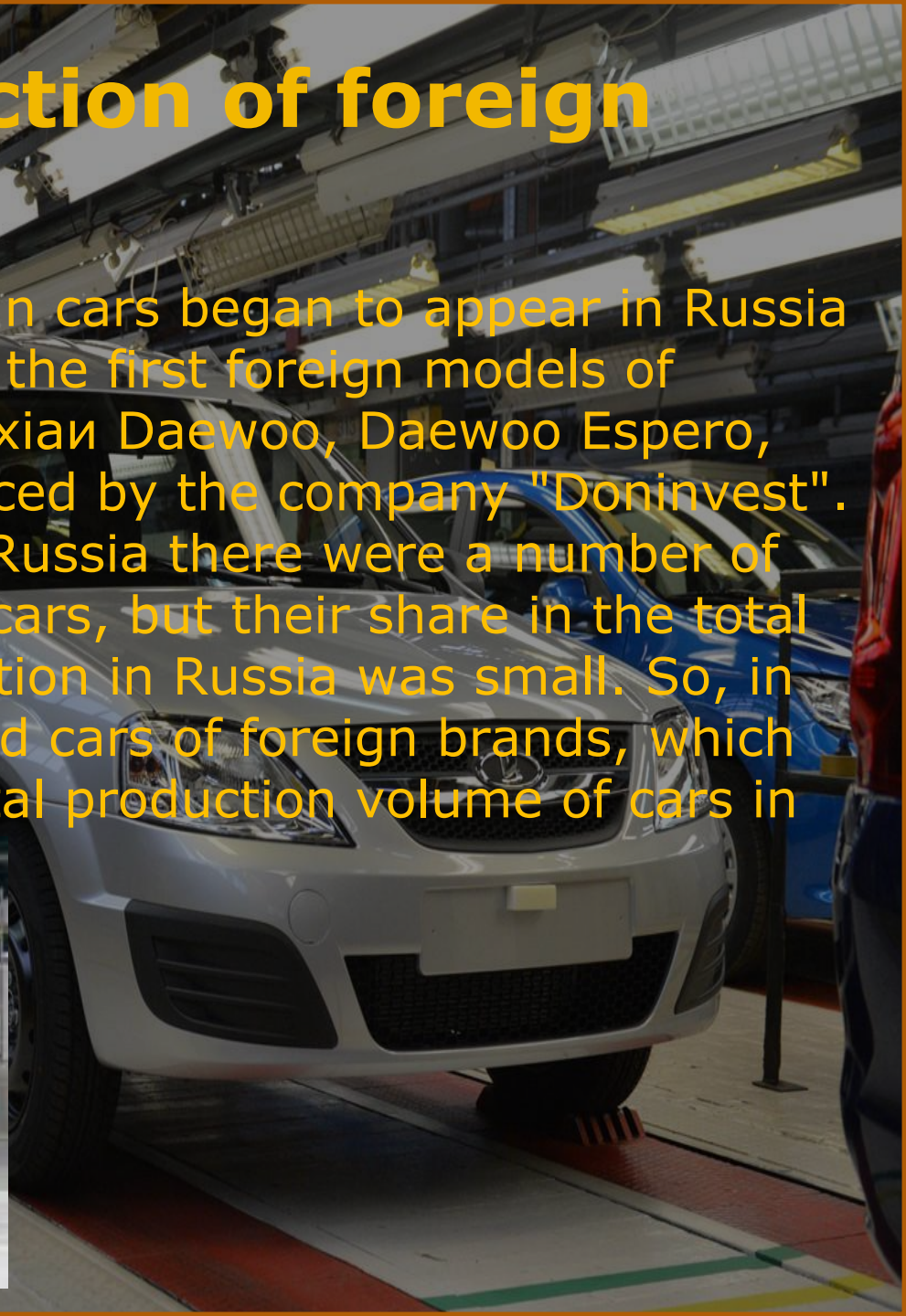
- Since 1991 In 2002 in Vsevolozhsk (Leningrad region) opened the car company Ford In 2002-2003, underwent a series of increases in customs duties on new and old foreign cars as well as used buses. In 2005, the Russian customs tariff was amended to contributing automotive components for industrial Assembly. In Moscow, opened the Renault automobile plant In Naberezhnye Chelny (Tatarstan) opened an auto plant Fiat-Sollers. In June, a decision was made on the construction in St. Petersburg Assembly plant Toyota In 2006 was introduced a zero duties on car components for industrial Assembly. Foreign corporations began to apply for use of the industrial Assembly regime. In particular, from July to work in this mode has moved the company "Ford-Vsevolozhsk". In November construction began on the Volkswagen plant in Russia. In 2007 in Shushary (Saint-Petersburg) opened the car company "Toyota". In Technopark Grabtsevo (Kaluga) opened the automobile company Volkswagen on 8 July began construction of the Nissan plant in Russia

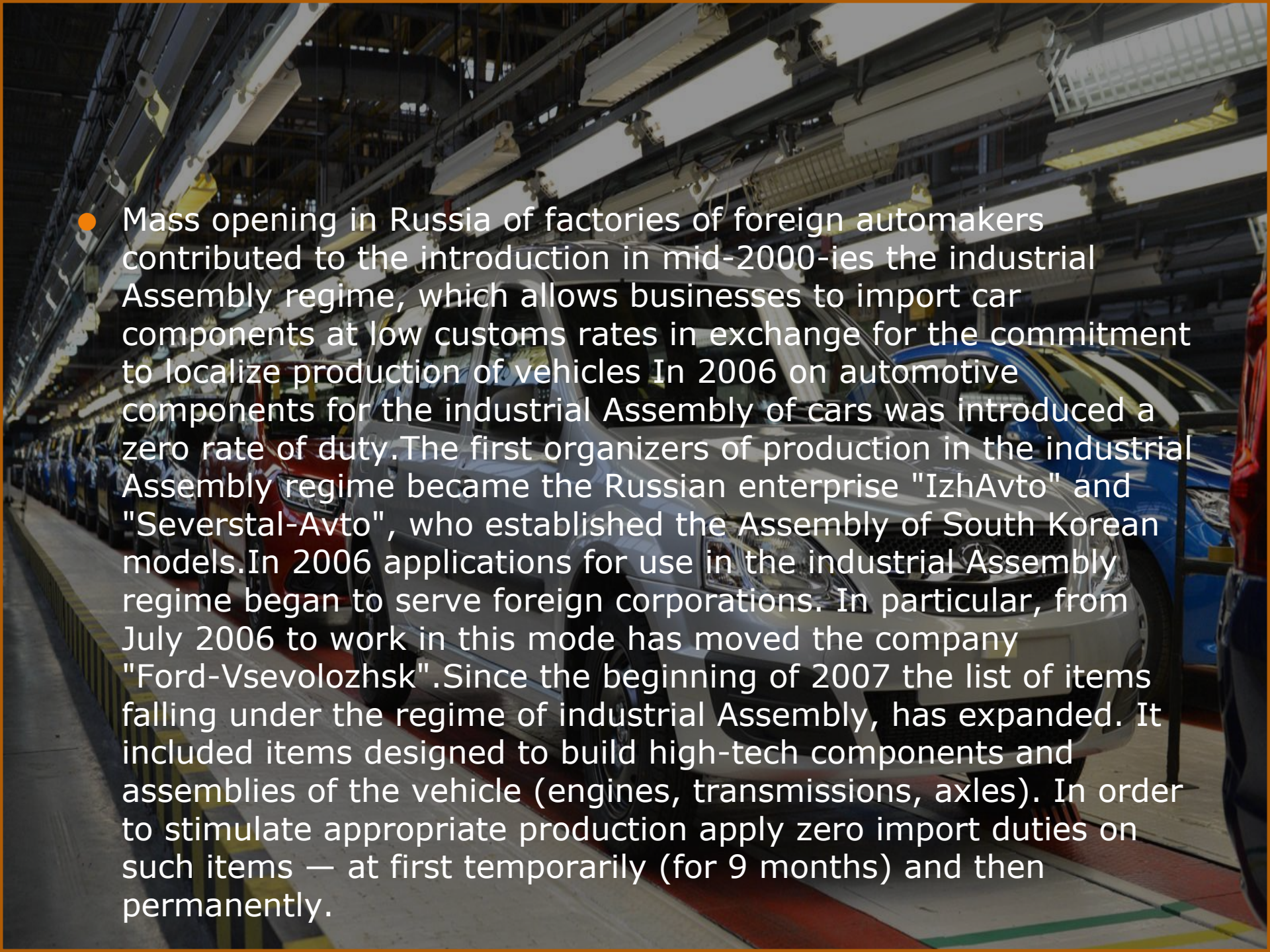


- In July 2008, was laid the first stone at the construction site of the plant PSMA Rus 7 Nov car the General Motors plant opened in Saint-Petersburg. The year 2009 was extremely challenging for the Russian automotive industry. The total volume of shipments of products manufactured by enterprises of the automotive industry (including production of automotive engines and components) in 2009 amounted to 490 billion rubles (56% in 2008), including companies that are exclusively in Russian property — 227 billion roubles, or 46 % of the total volume shipped in 2009 products. At the end of the year in Russia produced 723 thousand. In the industrial area Kamenka in Saint-Petersburg was opened the plant of the company "Nissan".] In 2010, 9 out of 10 car models sales leaders released in Russia. In that year, the share of passenger cars produced in Russia, doubled sales volume to imported cars. In September in Saint-Petersburg in the industrial zone "Kamenka" opened a factory "Hyundai Motor manufacturing Rus". At the opening ceremony was attended by Prime Minister Vladimir Putin, who in his speech emphasized that the Hyundai plant is a full cycle production. In addition to traditional for most foreign automobile companies welding, painting and Assembly of the new production is carried out and the stamping of body elements. The level of localization at Hyundai Motor manufacturing Rus is 45 %, starting on the first day of commercial production. According to the data of PricewaterhouseCoopers in Russia, in 2011 Russian pipelines went 1.74 million vehicles, which is 45% more than a year earlier. Thus, in 2011 the Russian automobile industry produced a record in its history number of cars. In November AVTOVAZ started serial production of cars Lada Granta is intended to replace on the conveyor "classic" Lada models.

Assembly production of foreign cars

- Assembly production of foreign cars began to appear in Russia in the mid 1990-ies — one of the first foreign models of Russian Assembly of steel Nexiaи Daewoo, Daewoo Espero, which since 1995 were produced by the company "Doninvest". By the middle of 2000-ies in Russia there were a number of Assembly production of cars-cars, but their share in the total volume of automotive production in Russia was small. So, in 2003, produced 57.7 thousand cars of foreign brands, which accounted for 5.7% of the total production volume of cars in



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- Mass opening in Russia of factories of foreign automakers contributed to the introduction in mid-2000-ies the industrial Assembly regime, which allows businesses to import car components at low customs rates in exchange for the commitment to localize production of vehicles. In 2006 on automotive components for the industrial Assembly of cars was introduced a zero rate of duty. The first organizers of production in the industrial Assembly regime became the Russian enterprise "IzhAvto" and "Severstal-Avto", who established the Assembly of South Korean models. In 2006 applications for use in the industrial Assembly regime began to serve foreign corporations. In particular, from July 2006 to work in this mode has moved the company "Ford-Vsevolozhsk". Since the beginning of 2007 the list of items falling under the regime of industrial Assembly, has expanded. It included items designed to build high-tech components and assemblies of the vehicle (engines, transmissions, axles). In order to stimulate appropriate production apply zero import duties on such items — at first temporarily (for 9 months) and then permanently.

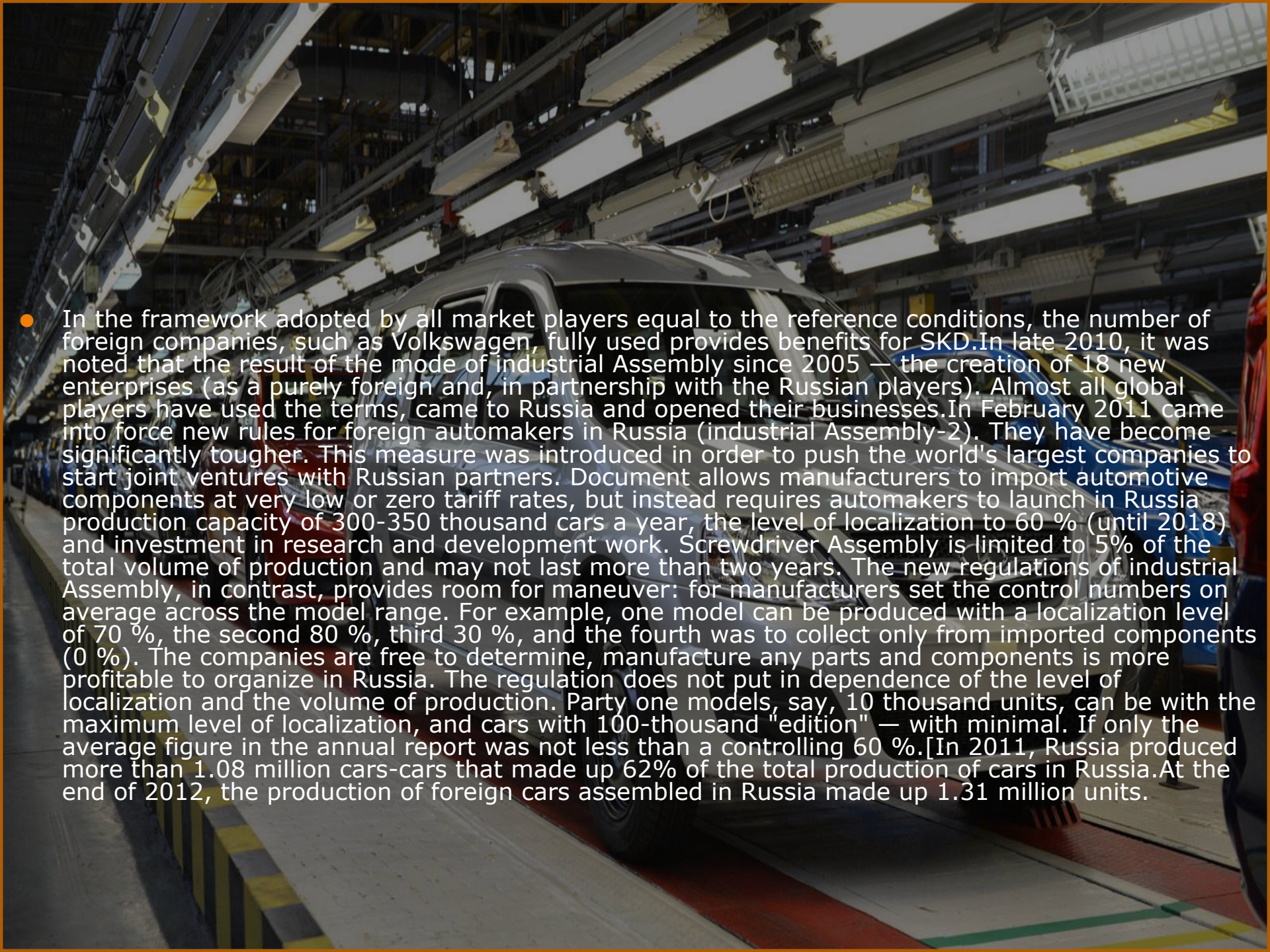
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- In St. Petersburg began to produce the company's products companies General Motors and Toyota, and in June 2009 they were joined by Assembly plant Nissan. In 2010, 9 out of 10 car models sales leaders released in Russia. This was made possible thanks to a combination of targeted support to the industry and consistency of the state policy in the implementation of agreements on "industrial Assembly". As a result, in the last few years, the share of passenger cars produced in Russia, gradually increased, and in 2010 doubled the volume of sales of imported cars.





- In the framework adopted by all market players equal to the reference conditions, the number of foreign companies, such as Volkswagen, fully used provides benefits for SKD. In late 2010, it was noted that the result of the mode of industrial Assembly since 2005 — the creation of 18 new enterprises (as a purely foreign and, in partnership with the Russian players). Almost all global players have used the terms, came to Russia and opened their businesses. In February 2011 came into force new rules for foreign automakers in Russia (industrial Assembly-2). They have become significantly tougher. This measure was introduced in order to push the world's largest companies to start joint ventures with Russian partners. Document allows manufacturers to import automotive components at very low or zero tariff rates, but instead requires automakers to launch in Russia production capacity of 300-350 thousand cars a year, the level of localization to 60 % (until 2018) and investment in research and development work. Screwdriver Assembly is limited to 5% of the total volume of production and may not last more than two years. The new regulations of industrial Assembly, in contrast, provides room for maneuver: for manufacturers set the control numbers on average across the model range. For example, one model can be produced with a localization level of 70 %, the second 80 %, third 30 %, and the fourth was to collect only from imported components (0 %). The companies are free to determine, manufacture any parts and components is more profitable to organize in Russia. The regulation does not put in dependence of the level of localization and the volume of production. Party one models, say, 10 thousand units, can be with the maximum level of localization, and cars with 100-thousand "edition" — with minimal. If only the average figure in the annual report was not less than a controlling 60 %.[In 2011, Russia produced more than 1.08 million cars-cars that made up 62% of the total production of cars in Russia. At the end of 2012, the production of foreign cars assembled in Russia made up 1.31 million units.