



From Idea to Serial Product

#### KATE LLC

Moscow Avtomotornaya street, 2 Phone: +7 (495) 225 96 30

e-mail: info@katem.ru Web-site: http://www.katem.ru

### **Presentation Content**

- Company
  Establishment
- > Company structure
  - > R&D
    Department
  - Commercial Department
  - Patent
    Department
  - Experimental Production Facility
- Bench Tests
- Vehicle Tests

What we can

5

- > KATE Projects
  - > RL 608/ RLX 608
  - > FT 702/703
  - > R932
  - > RL2
  - > W201

What we have

m

- KATE plant
  - **Location**
  - Main parameters
  - > Views

we suggest

What we

- **Cooperation proposal** 
  - brief introduction
  - special economic zone advantages
  - Russian government support measures
  - some ideas for possible cooperation areas

KATE: from idea to serial product



# 1.1. Company Establishment

KATE (Kaliningrad Automatic Transmission Enterprise) LLC was established in 2004.

#### **Background for company establishment:**

- Absence of automatic transmission (AT) manufacturers in Russia;
- Results of marketing researches in the field of AT production;
- Idea to create new native production that will suit all modern requirements;
- United by the idea of transmission development and production team;
- Scientific school of synthesis theory of planetary mechanisms,
   that provided the basis for beginning of researches and design of AT;

**KATE Mission:** Development of the Russian automotive industry by creating and producing high-tech innovative vehicle components and systems.





# 1.2. Company structure



# **KATE - Development** Kaliningrad

Mission: Construction and operation of manufacturing capacities Low volume serial production

# **KATE - Production** Kaliningrad

Mission: Production management High volume serial production

**KATE:** from idea to serial product © «KATE» LLC COMMERCIAL DEPARTMENT



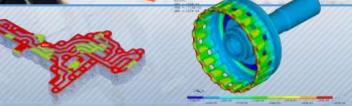
# 1.2.1. R&D Department

- 40 high-qualified engineers;
- Team consists mostly from graduates of MSTU named after Bauman;
- In team there are several experienced candidates and Doctors of technical science;
- Scientific researches and articles in the field of synthesis, calculation and AT design;

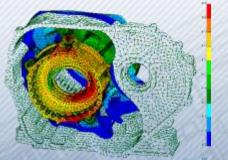
Cooperation with leading international researchers and manufacturers of

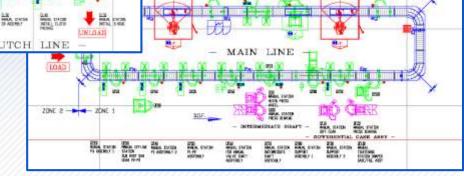
components;











Assembly production development and optimization



**KATE:** from idea to serial product





- Continuous increase of suppliers' database;
- Optimization of delivering processes, decreasing of transport costs;
- Successful components localization in Russia;
- Huge experience in cooperation with leading engineering companies;
- We are working with different international test and certification centers;

**KATE:** from idea to serial product © «KATE» LLC **COMMERCIAL DEPARTMENT** 



# 1.2.3. Patent Department (IP)

- Provides protection of Intellectual Property Objects in form of patents and licenses;
- Cooperation with Rospatent and International patent law organizations;
- Protecting and supporting Patent rights at the territory of the Russian Federation and abroad;
- Received more than 45 patents, including international patents;









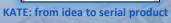
















# 1.2.4. Experimental Production Facility

- It is located in Moscow and is ready for manufacturing of small series and new products testing;
- It is responsible for test programs and procedures definition, test benches and test objects preparation as well as carrying out of required tests;
- Responsible for a technology development;
- Provides recommendations for improvement of product design as well as for assembling and implementing processes;
- Assemble demo-vehicles and prototypes.



Prototype and low volume production assembly

# DEMO and prototype vehicles assembly









**KATE:** from idea to serial product



#### 1.3. Bench Tests

We provide wide range of bench tests for all automatic transmission parts, assembly units and final units.

We have a variety of test benches, such as: hydraulic rig, transmission spin rig, loaded rig with maximum input torque up to 1200Nm and input speed up to 6000rpm



Research and component testing

Loaded testing up to 1300 Nm input torque



Hydraulic control units and lubrication testing



Functional and tilt testing



#### 1.4. Vehicle Tests

All our products at different development stages passes various obligatory vehicle tests. Under results of such tests we provide necessary adaptation, improvement and development of prototypes up to serial product.

We are using a huge proving ground facility near Moscow for road, run testing: 15 types and versions of test roads, with a total length 110 km at 25 km2

area. Availability of different road conditions in one place significantly decrease calibration time.



Real road condition tests cold / warm tests



Tests at proving ground







in-vehicle calibration





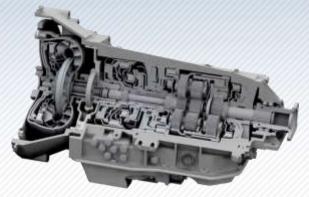
**NVH chamber testing** 







# 2. KATE Projects



Project RL 608 / RLX 608



**Project RL2** 



**Project R932** 

You can find more information about our projects on our website: www.katem.ru



**Project FT703** 



**Project W201** 

COMMERCIAL DEPARTMENT **KATE:** from idea to serial product

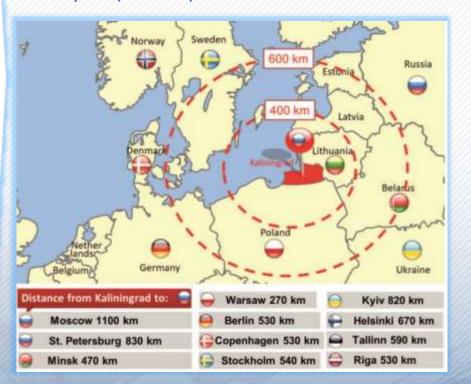


# 3. KATE plant in Kaliningrad

Green field mass-production AT project is on a final construction phase now, with SOP in 2019.

Kaliningrad is the most western part of Russia, located in the heart of Europe on the south-eastern coast of the Baltic Sea. Kaliningrad region is included in the North-West Federal district together with Saint-Petersburg. Two Pan-European transport corridors go through the region. The Kaliningrad railway is the only railway where rail tracks of two standards are used: both Russian (1520mm) and

European (1435mm).



ARCTIC OCEAN

SWE

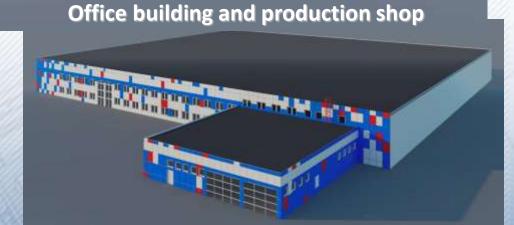
Barrier See

See

Control of the control of the

Kaliningrad seaport is the only ice-free Russian port in the Baltic Sea. Special economic zone regime and industrial parks laws act in the region

**KALININGRAD** 



KATE: from idea to serial product



# 3.1. Production facility location



#### Perfect **LOCATION** for assembly plant:







The port is 12 km away which gives a possibility for convenient shipping logistics for supplies from other countries and continents



International airport is 16 km away







• The production facility with a total area of 80 000 m<sup>2</sup> is located on the Ring road of Kaliningrad near the exit from Alexander Nevskiy street.



# 3.2. Production facility main parameters

- Assembly plant is now under construction at the land area of 80 000 m<sup>2</sup>
- Possible production volume: up to 150 000 AT per year;
- Approximate staff: 180 employees;
- Working spaces: 8 064 m<sup>2</sup> at 2019;

: 16 128 m<sup>2</sup> - planned till 2022;

Start of first assembly line: in the middle of 2019.

#### **Construction Phases:**



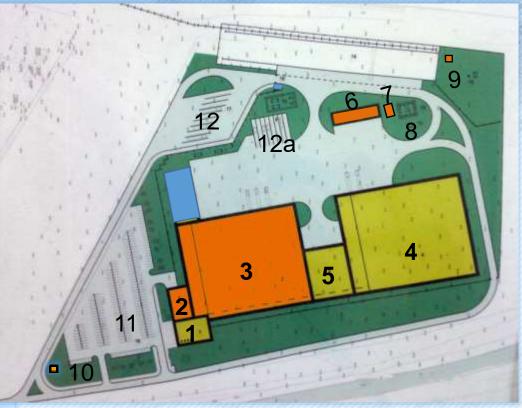
2012



2015



2019



# **Production facility plan:**

1st step (2019):

- 2 Office building (2304 m<sup>2</sup>)
- 3 Production shop (8064 m<sup>2</sup>)
- 6,7,8,9 Auxiliary buildings (water, heating, power supply)

2<sup>nd</sup> step (2022): buildings 1,4,5 and truck parking places 12,12a

There is a technical possibility of connecting to the railway line.

2017



# 3.3. Production facility views



**Assembly shop internal view** 





**Energy block** 



- Connected power capacity 1200 kW;
- Own water supply source and treatment facilities;
- Natural gas maximum hourly consumption –
   224,9 m³;
- Air supply from two compressors with capacity 734, 4 m<sup>3</sup>/h;

15



# 3.3. Localization of production processes

Our goal is – to start high-tech full cycle gearbox production, which includes not only the assembly and final testing, but also the manufacturing of shafts and gears, as well as machining of case parts, carriers and other components of the gearbox.

Machining of shafts, gears, cases and other transmission parts



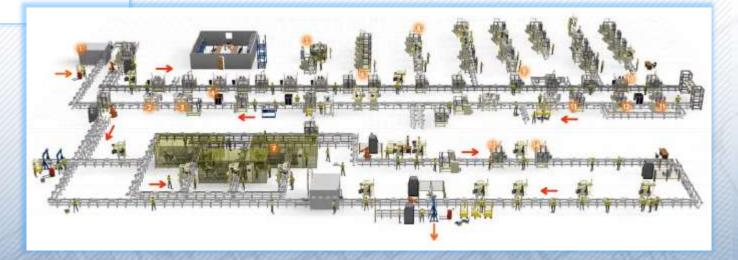


**Conveyor assembly line** 

# **Transmission final testing**









## 4. Cooperation proposal – brief introduction

The number of vehicles, manufactured and sold in Russia, is growing from year to year. We are searching for a partner who would like to be a part of this growth and become a real leader on Russian market.

# COOPERATION

#### **KATE** site:

- KATE is the only one company in Russia familiar with the process of development and production of the most complex autoparts Automatic transmissions. Unique knowledge of serial AT production preparation can be utilized in order to start different transmission part production in Russia, as well as another autoparts;
- KATE is a team of proffesionals in automobile business, ready to solve the most complicated tasks;
- KATE have it's own big assembly plant which have a very attractive location and is ready to be equipped, which gives a huge timing benefit quick SOP and economic advantages, such as customs and tax fees preferences.
- KATE as a Russian industry company have access to different government support programs and preferences.
- KATE is ready to invest into joint production program with well-known OEM's and its suppliers, who have strategic and ambitious plans to grow fast at Russian market.

#### If you are:

- OEM, whose best-selling vehicles in Russian Federation are equipped with automatic transmissions (or manual transmission) and you are interested in the localization of production of transmission or other units in the Russian Federation;
- Supplier of OEM's and want to expand production in Russia;
- A large company, well-established in the auto market, a leader in the production of automotive components in its sector, which wants to localize its products in Russian Federation for business development and sustainable sales.

Then we propose to combine the advantages of each party for the purpose of production localization in Russia. This will give your company the opportunity to take a leading position at the Russian automotive components and vehicles market.

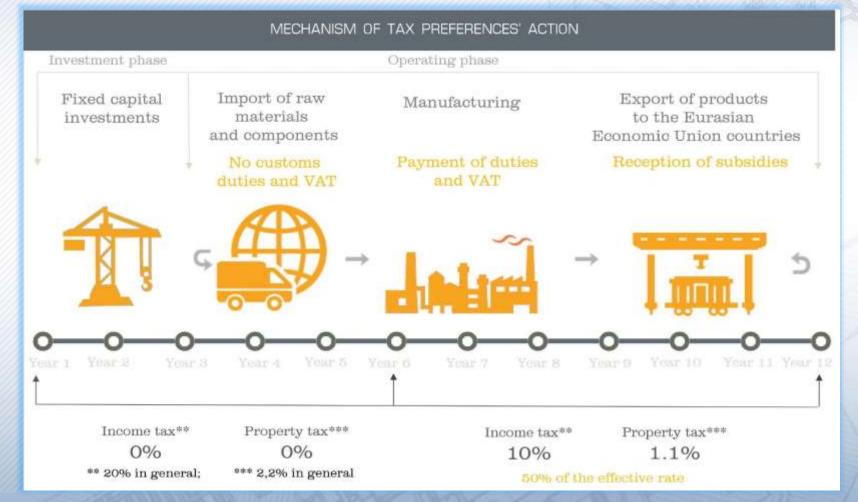


# 4. Cooperation proposal – special economic zone advantages

- KATE LLC plant is located in a special economic zone in Kaliningrad;
- Residents of this special economic zone are granted tax preferences up to 12 years:
  - √ No income tax (<del>20%</del>)
  - ✓ No property tax (<del>2,2%</del>)
  - ✓ No custom duties and fees

In case of the automotive parts production is done in Kaliningrad, Russia – no custom duties and income taxes should be paid during first 6 years, which gives a huge advantage in terms of business, up to 12 year no customs duties and only half of income and property tax is paid.





KATE: from idea to serial product



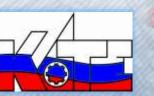
# 4. Cooperation proposal – Russian government support measures

- Russian OEM's are renewing product family, increasing quality and becoming more cost effective;
- This renewal can't be done without strong and diversified auto parts and components production in Russia;
- As all these actions are going inline with Russian government priorities, so the government is ready to support OEM's and their suppliers in organizing modern, high quality and stable production in Russia;
- There are several special government programs to support quick and effective process of localization in Russia;
- KATE is a participant of such programs and can organize very attractive and valuable support measures:
  - ✓ compensation of all development and testing costs;
  - ✓ compensation of the costs for preproduction batch preparation;
  - ✓ borrowings for capital investments at the rate of 1%;
  - ✓ full compensation of the production investments into tooling;
  - ✓ staff training and retraining grants;
  - ✓ Low other loan rates 3-5%
- Moreover there are also big benefits for a local Russian (Kaliningrad) manufacturers in the field of exports to other countries, which gives a big advantage for new European customers attraction with beneficial prices and service

All these measures together with a deep KATE knowledge can bring new projects to a great success!











#### KATE LLC

is an independent Russian company, specialized in transmissions with a large and very experienced team, 100% ready production facilities specially build for automotive parts production with very attractive location and full access to different federal and municipal Russian government support programs. With deep knowledge, classical technical experience and unique advantages we'll support our partner during the complete way to the leadership at Russian market.





We are open to provide all our knowledge to support OEM's and transmission manufacturers in production localization in Russia. We'll bring your transmissions to production in Russia and support you in constant increase of market niche



Please contact us to receive detailed information:

KATE LLC, Commercial department

Moscow, Avtomotornaya street, 2

Phone: +7 (495) 225 96 30

e-mail: info@katem.ru



KATE LLC Moscow, 2018

© IT IS THE PROPERTY OF KATE LLC
REPRINTING, COPYING AND SENDING TO THIRD PARTIES ARE ALLOWED ONLY AFTER RECEIVING
WRITTEN PERMISSION FROM COMMERCIAL DEPARTMENT REPRESENTATIVE OF «KATE», LLC

COMMERCIAL DEPARTMENT KATE: from idea to serial product