



# COMPLEX ICT SOLUTIONS FOR AUTOMOTIVE

Alexey Toskin, CEO, T-Systems CIS

**T** · · Systems ·

# T-SYSTEMS – DEUTSCHE TELEKOM'S SUBSIDIARY FOR MAJOR CORPORATIONS. A GLOBAL PLAYER WITH GLOBAL RESOURCES.

## International presence:

Offices in 27 countries, global delivery capability

## Focus:

Large corporations, multi-national companies, **automotive**, public-sector and healthcare organizations

## Market position:

**# 1 Automotive & Manufacturing in Germany**

**The biggest SAP hosting provider worldwide**

**# 1 ICT provider in Germany**

**# 2 Systems Integration in Germany**

**Among TOP #5 Big Data / Analytics in Germany**

## Revenue:

Approx. €8,2 billion (2015 figures)

## Employees:

Approx. 46.000 (2015 figures)

Including 5.000 experts in automotive

## In Russia:

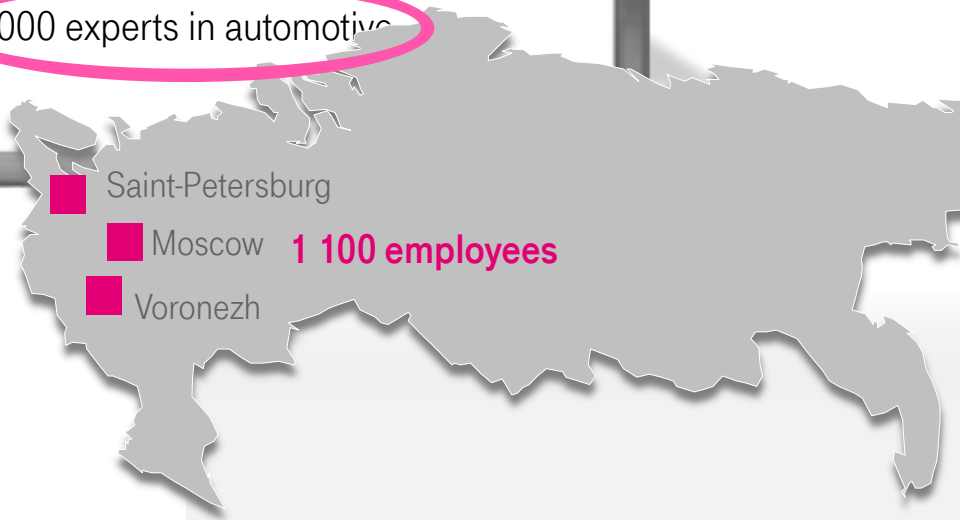
■ Saint-Petersburg

■ Moscow **1 100 employees**

■ Voronezh



**T · · Systems ·**



# AUTO & IT CHALLENGES

## SOME KEY INDUSTRY CHALLENGES

### INDUSTRY 4.0 + IOT CONNECTED CAR



4 out of 10 German industrial enterprises still use Industrie 4.0 appliances.  
By 2018, from 60 to 90 % of new cars will have an embedded telematics solution/

### BIG DATA



Acquiring actionable data will become increasingly critical for the design and operation of systems, drivetrains, safety features, and more.

### GROWING CLOUD ADOPTION



Over 70% of manufacturing companies are using cloud applications somewhere in their supply chain, with another 25% considering it.

### TIME-TO-MARKET GAINS IN IMPORTANCE



28% feel lateness to market as one of the top reasons for innovation failure.

### DIGITAL SALES CHANNEL



Since about half of sales leads of automotive purchases will come from digital sources, 70 percent of the marketing budget is expected to go towards digital efforts.

### IMPACT OF CUSTOMER LOYALTY



By 2016, only 20% of Manufacturers will have an integrated approach to delivering service that allows them to directly measure its impact on customer loyalty and revenue.

Sources: Mc Kinsey, Frost & Sullivan, IDC, Accenture

# NEEDS OF OUR CUSTOMERS



„Connectivity will dominate our future. The digital, connected world is an important area for differentiation and growth, especially for a premium provider.“

„We will enlarge our offering of mobility services.“

**PROVISIONING OF BEST OF BREED  
DATA- AND CONNECTIVITY NETWORK.**



“In order to keep our independency from regional markets, we target a balanced worldwide sales split.”

**ENSURE GLOBAL DELIVERY  
CAPABILITIES  
AND PROVIDE NETWORK  
INFRASTRUCTURE.**



“We want to be leading in customer satisfaction and quality via deploying intelligent innovations and technologies.”

**PARTNER FOR INNOVATIVE INDUSTRY-  
SOLUTIONS AND ENSURING HIGH  
QUALITY DELIVERY (ZERO OUTAGE).**

“The increasing digitalization and connection, the integrated support of business processes and the establishment of new locations permanently generate new challenges for our group IT.”

**IMPLEMENTING OF A MODERN,  
CUSTOMIZED IT INFRASTRUCTURE  
(CLOUD).**

“New technologies for the analysis of mass data (Big Data) and the connection of the car with it's environment are sampled within our VW Data LABs.”

**TRUSTED PARTNER FOR BIG DATA/BI.**



„Daimler fulfills customer wishes and defines a new digital driving culture with the help of modern information technologies, as well as online-communication and services within and around the car.“

**PROVISIONING OF INNOVATIVE CONNECTED CAR  
AS WELL AS SALES AND AFTER SALES SOLUTIONS.**

“By significantly enlarging our portfolio we generate the basis for profitable growth.”

**SUPPORT OF PRODUCTION PROCESSES AND PLM.**



„[...] in order to develop the innovative potential of our company we have to push stronger towards integration and connectivity. Therefore we will implement a digital strategy, which reduces decision processes, release cycles [...] and helps us to produce more efficiently.

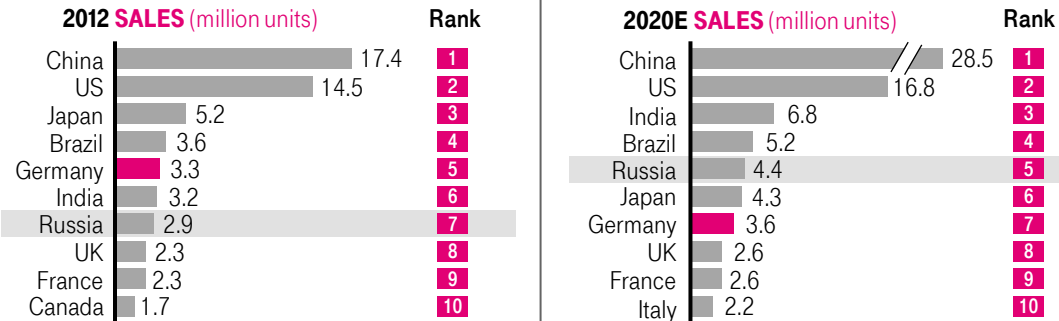
**CONSULTING & EXECUTION OF  
DIGITAL STRATEGY INCL. ENABLER  
TECHNOLOGIES (E.G. PLM CLOUD).**

Source: Annual Reports

# GROWTH TRIGGERS IN THE AUTOMOTIVE MARKET

## CUSTOMERS TARGET EMERGING MARKETS

### NEW AUTOMOTIVE MARKETS IN 2020



(Global Insights/BCG)

### NEW ASSEMBLY CAPACITIES IN EMERGING MARKETS

#### Global: Regional Assembly Topline Outlook 2014



(PwC, Autofacts)

### NEW PLANTS

**Audi** launched new plant in San José Chiapa (Mexico) in 2016 for the successor of the Q5.

After the opening plants in Foshan and Ningbo, **Volkswagen** established another plant in Chachsha in 2015.

To react to the increasing demand **Toyota** introduced the second plant in Indonesia to produce nearly 120,000 vehicles.

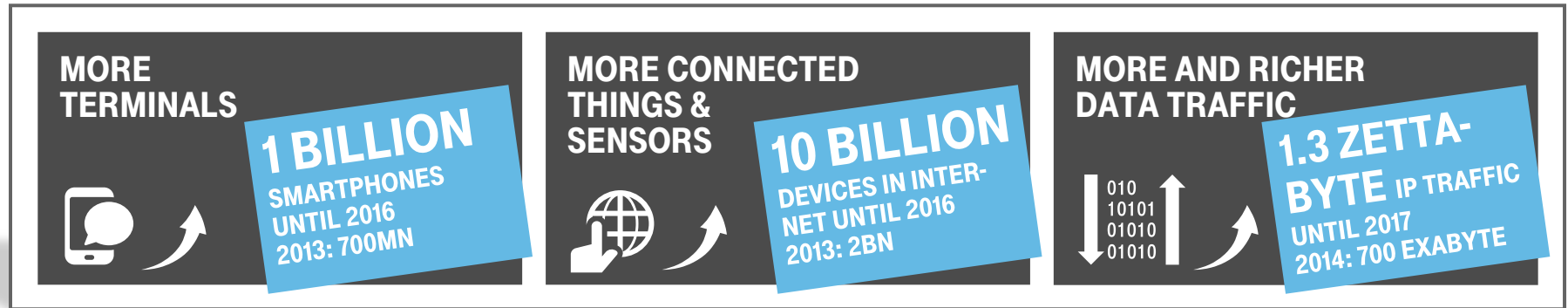
In 2015 **Honda** built a new factory in Itirapana (Brazil) to produce ca.120,000 vehicles.

In Autumn 2014 **BMW** will open an automobile factory in Brazil being the first plant in South America.



# DEVELOPMENT TRIGGERS IN THE AUTOMOTIVE MARKET

3 MAJOR TRENDS DRIVE 4 MEGA GROWTH TOPICS



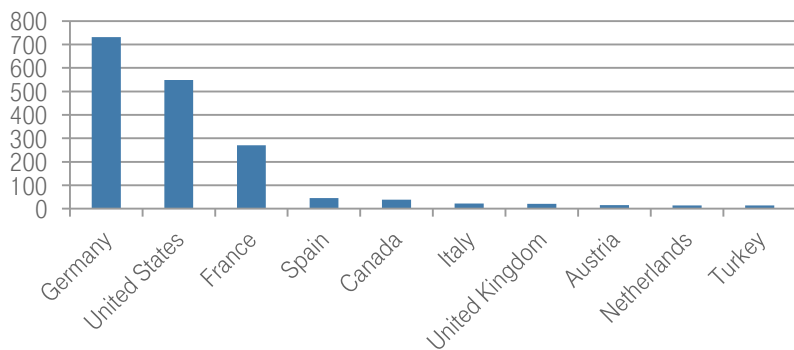
HOW TO BRING THESE TOPICS INTO BUSINESS SUCCESS?

# ENX – EXTRANET SOLUTION FOR AUTOMOTIVE



- T-Systems provides access to the ENX network - the European network of data exchange between automotive companies and companies from related industries. ENX network unites the members of ENX Association, which was established in 2000 and employs 1815 members in 39 countries (May 2016 ). ENX network is also widely used by enterprises of aircraft industry.
- **ENX NETWORK** provides secure data transfer and operation of specialized applications (including computer modeling systems, supply chain management, etc.) between the members of the Association for the IP protocol. For its users ENX is an open and flexible as the Internet. Users connect to the network through a certified ENX service providers. T-Systems is the first and largest provider of certified ENX service provider..

TOP 10 countries with ENX members



Russia – 3 ENX members

## T-SYSTEMS TELECOM SERVICES IN RUSSIA

### •SERVICES BASED ON INTRASELECT MPLS PLATFORM

- IntraSelect Fixed Connect
- IntraSelect Remote Connect
- Extranet Solution ENX

### •OVERLAY SERVICES

- Управляемые LAN
- Обеспечение эффективной работы корпоративных IT-систем
- Обеспечение безопасности корпоративных сетей

### •CLOUD SERVICES BASED ON OPEN TELEKOM CLOUD

# MANAGED LAN & SECURITY CONSULTING SERVICES

## MANAGED LAN

- Control of data and voice LAN ports, server ports in data centers, WLAN access points
- Full service cycle
  - Consulting
  - Planning
  - Purchase and rent of equipment
  - Installation of equipment at the customer's site and its tuning
  - Proactive monitoring and maintenance 24/7
- Transparent and flexible pricing model
- Access in 100+ countries
- Unified SLA for all countries
- Qualified personnel in the 3 monitoring centers

## SECURITY CONSULTING

- Implementation and steering of ISMS
- Security auditing
- Architecture consulting and transformation to enhance security level
- Implementation of data security and access methods
- Risk and vulnerability management
- Penetration Testing
- Comprehensive analysis of cyber threats
- Online problem solving
- Legal support when considering security issues in the courts
- Detection of incidents related to security systems and solutions
- The development and certification of security applications



# MAIN APPROACHES TO PROVIDE TELECOM SERVICES

## OUR APPROACH: ZERO DISTANCE

Your IP VPN connects enterprises, individuals, information, and applications

## MODULAR, FLEXIBLE, MADE-TO-MEASURE

### IP VPN solution offering:

- scalable, secure solution to connect your sites at home and abroad
- connection options include xDSL, mobile connectivity, and Ethernet up to 10 Gbit/s
- secure global access for mobile desktops, including via the Internet
- modular services delivered in line with user requirements

Flexible solutions tailored to the needs of your organization and your internationalization strategy.

## END-TO-END SERVICE LEVEL AGREEMENTS

### General service level agreements:

- for delivery and operation
- covering the entire network, individual connections or other solution elements
- including monitoring and documentation
- featuring monthly or daily reports on the quality of the agreed services

One provider, one contact, one point of responsibility.

## FULLY MANAGED IP VPN

### Your benefits:

- rent existing infrastructure
- reduce up-front investment and free up capital
- tap into T-Systems' experience and expertise
- focus on your core business
- leverage state-of-the-art technology
- open your business to new, innovative applications

An end-to-end solution to meet your individual needs.

# ENSURING YOUR NETWORK RUNS LIKE CLOCKWORK

## OUR APPROACH: ZERO OUTAGE

We go the extra mile in terms of technology and service – ensuring maximum IP-VPN performance



## MAXIMUM AVAILABILITY

- Rollout does not disrupt ongoing operation
- Protection against downtime thanks to pro-active network management
  - ... end-to-end monitoring
  - ... 24/7 monitoring in network management centers
  - ... redundant infrastructure design

You benefit from guaranteed availability of up to 99.99 %.

## END-TO-END SECURITY

- Inherently secure technology thanks to MPLS production platform
- IPSec encryption for access via mobile networks or the Internet
- Optional value-added services:
  - ... mail/content security
  - ... firewall services

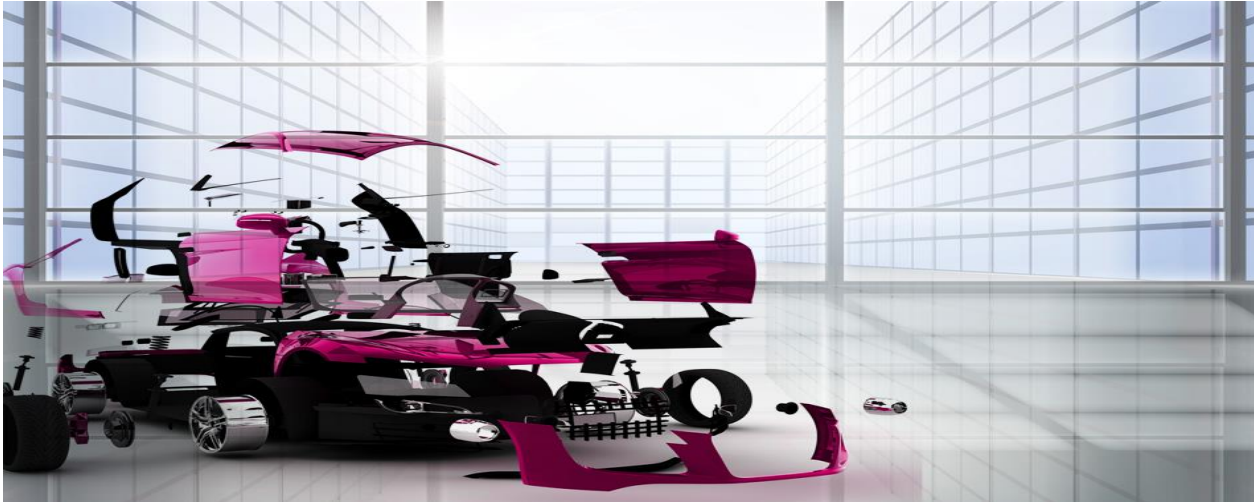
You benefit from the very highest international security standards.

## DEFINED DATA TRANSMISSION BEHAVIOR

- Data transmission according to defined service classes with clearly specified service parameters
- Defined latency for data packages
- Maximum jitter defined for data packages
- Low packet loss rate during data transmission

You benefit from best possible quality of service and fast, reliable data transmission.

# POINTS OF PRODUCTION IN SAINT-PETERBURG AND VORONEZH

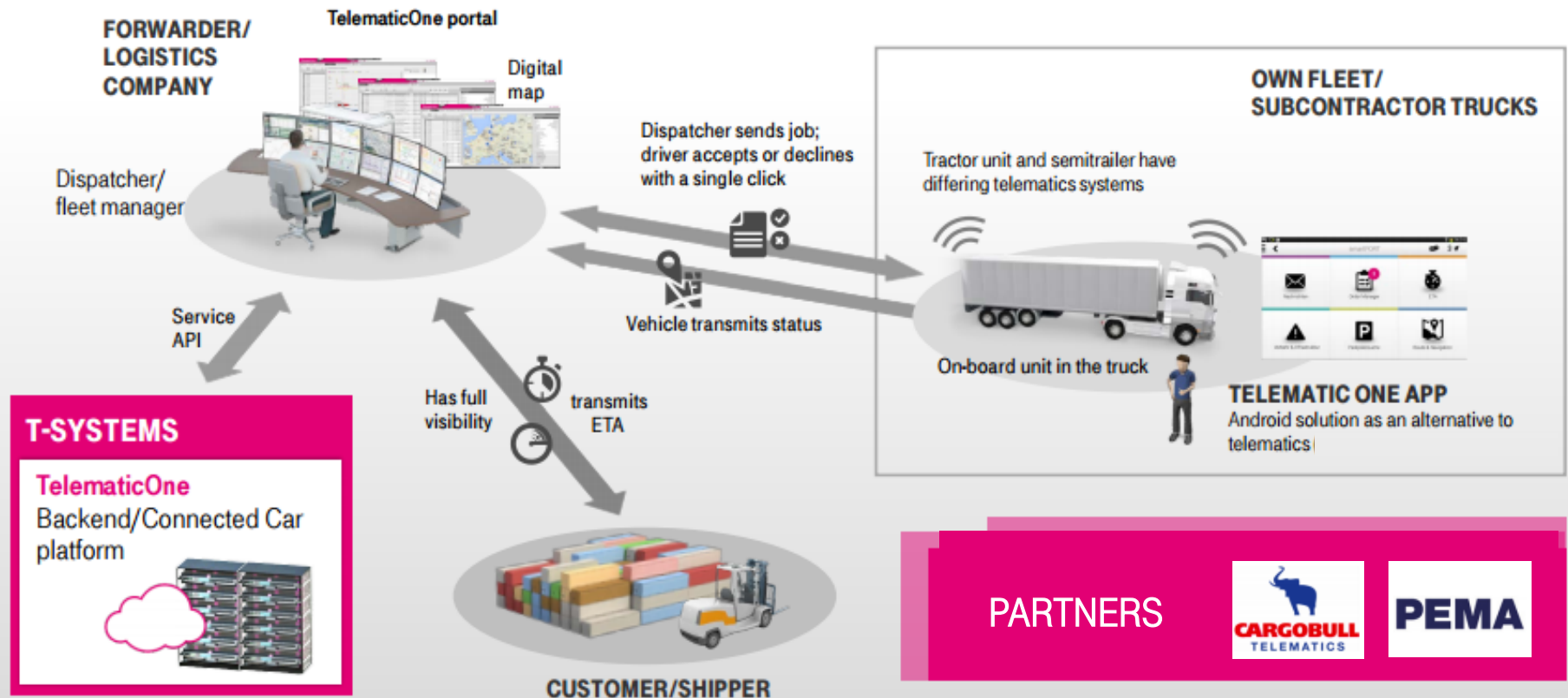


## PROJECTS

1. Telematics and logistic solutions for CONNECTED CAR platform
  - innovative portal **Portal2.0** development based on open source WSO2 platform.
  - development of the automotive cloud portal **TelematicOne**
  - GPRS solution to manage track fleet with the aim of routes optimization, payload maximization and increasing fuel economy
  - software for data processing of the electronic onboard recorders
2. Automotive Sales & After Sales software used by European car dealers for order processing of 20 000 users.
3. Global Application Service Desk as a single point of contact (SPOC) for various T-Systems Services

# TELEMATICS FROM THE CLOUD

## COMPONENTS OF TELEMATIC ONE



PARTNERS



PEMA

# THANK YOU FOR YOUR ATTENTION



Toskin Alexey

CEO, T-Systems CIS

## T-Systems contacts

- Address: 9, Zemlyanoy Val,  
Moscow, 105064
- Tel: +7 (495) 644-47-00
- Fax: +7 (495) 644-48-00
- E-mail: [tc-sales@t-systems.ru](mailto:tc-sales@t-systems.ru)