We offer products, systems and services for high-performance **intelligent transportation systems (ITS)** as a one-stop shop and cover the entire value creation chain of our customers with our end-to-end solution portfolio.

<table>
<thead>
<tr>
<th>Key facts:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual revenues</td>
</tr>
<tr>
<td>Headcount</td>
</tr>
<tr>
<td>Global headquarters</td>
</tr>
<tr>
<td>Worldwide presence</td>
</tr>
<tr>
<td>R&amp;D competence centers</td>
</tr>
</tbody>
</table>
### We make your traffic flow.

<table>
<thead>
<tr>
<th>Road user charging</th>
<th>Urban access and parking</th>
<th>Road safety enforcement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manual or electronic tolling (Satellite and terrestrial tolling)</td>
<td>Urban Road user charging, Limited Access Zone, Low Emission Zone, Dynamic Parking</td>
<td>Red Light and Speed Enforcement, Weigh-in-motion, Lane Enforcement, Traffic Surveillance</td>
</tr>
<tr>
<td>Components, subsystems, systems and complete end-to-end tolling solutions</td>
<td>Full range of charging policies, based on the time of the day, the length of the stay, the vehicle’s pollution class or the traffic</td>
<td>Comprehensive and fully integrated solutions for enforcing traffic laws</td>
</tr>
</tbody>
</table>

**Manage traffic intelligently, systematically create added value.**
### We make your traffic flow.

<table>
<thead>
<tr>
<th>Commercial vehicle operations</th>
<th>Electronic vehicle registration</th>
<th>Traffic management</th>
<th>V2X cooperative systems</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inspection and pre-clearance of trucks</td>
<td>Registration of vehicles through electronic readable tags</td>
<td>Incident Detection, Traveller Information Services</td>
<td>Core technology for managing and improving traffic safety and mobility in the future</td>
</tr>
<tr>
<td>Check of vehicle weight</td>
<td>Centralized management of vehicle registration data</td>
<td>Solutions for monitoring and controlling road traffic</td>
<td>In-vehicle components, roadside stations or complete solutions</td>
</tr>
<tr>
<td>Improvement of road safety and the productivity of fleets</td>
<td>Automated monitoring by regulatory authorities</td>
<td>Improved traffic flow and protection of the environment</td>
<td></td>
</tr>
</tbody>
</table>

**Manage traffic intelligently, systematically create added value.**
Kapsch History:

- **Foundation of Kapsch Group**: 1892
- **Entry into road traffic telematics business**: 1990s
- **Acquisition of Combitech Traffic Systems AB, Sweden**: 1999
- **Acquisition of DPS S.A., Argentina / Chile**: 2000
- **Acquisition of TechnoCom Corp., USA**: 2002
- **Formation of Kapsch TrafficCom AG**: 2006
- **Acquisition of 20.47% stake in Q-Free, Norway**: 2007/8
- **IPO on 26 June 2007**: 2009
- **Acquisition of MARK IV IVHS**: 2010
- **Kapsch TrafficCom wins major contracts in Russia, Portugal & U.S.A.**: 2011

In communications, digital telephony, consumer electronics, for almost 100 years.
Values. Future transport infrastructure.

- Healthy & clean
- Nutritious & refreshing
Values. Future transport infrastructure.

- Available & (fair) accessible
- Supply- & distribution function
Values. Future transport infrastructure.

- Continuous & fluent
Value = Awareness + Pricing.
2018. Regulative framework for local road user charges and access schemes
Situation. Cities and communities in transition and competition.

- Migration into cities, urbanization:
  - Centralization and withdrawal of infrastructure from regions
  - Rather a fact than a possible development
  - Infrastructure scarcity, limitations of city spaces
  - Exploding, growing, shrinking cities

- Competition:
  - Position as business location; attractiveness triggered by economic situation and labour market
  - Criteria for quality of life and infrastructure (Mercer study); power and water supply, communication, public transport, fluent traffic, airport, spatial and traffic planning, interaction of private/public sector

- Disparity of mobility:
  - Basis and engine of economy, social cohesion
  - Traffic, emissions, limitation of quality of life

….. Are we different?  
….. What are our strengths?  
….. What do we want?  
….. What are we opting for?
Strategy, what to do. Regulative framework for local road user charging and access schemes.

- City as a system; energy management, water, waste, assisted living, traffic management
- Aspects; political, functional (system), environmental, human, economic
- Role of the government is to operate the system and to organize “smart” technology

MOBILITY

- To decouple growth of cities and resource consumption
- To use digital data
- Incenting people to use environmentally friendly modes
- Cross-regional land use planning
- Three tuning levels for decision makers
  - Manage supply
  - Manage human demand
  - Make infrastructure adoptive

Local Empowerment:
- Self-definition, Positioning
- Fiscal powers for road user charges

- leads to improvement of the price/performance ratio of the public service
- user acceptance through transparency and use of funds (As important as revenue neutrality... OECD/ITF 2010)
„In 2018, a regulative framework is created allowing cities and communities to charge for the use of their road infrastructure and to implement related policies independently.“
2020. Equal, non-discriminatory rule application, fair access and development of the „user- and polluter pays“ principles.
Situation. Development of the “user and polluter pays” principles.

Regulates and prevents discriminating road user charges on motorways

„User pays principle“ for HGVs > 12t (1999)

Introduction of HGV emission classes I-V

“Polluter pays“ for HGVs > 3.5t (2006)

Calculation scheme to internalize external costs (noise, congestion, air pollution) (2011)

Art 191/2 EU Treaty: “..the polluter should pay”
Strategy, what to do. Fair and effective application of rules.

- Legislation to make sure that users rather than taxpayers are to pay the infrastructure they use:
  - Consistent application of “user- and polluter pays” principles
  - Phasing out vignettes, make tolls the only legal way of charging vehicles for road use (time-based => distance-based charging)
  - Dynamic pricing according time and place (long-term)
  - Replacing distortionary taxes and subsidies with fair pricing (e.g. policy recommendations for Austria, OECD economic peer review, July 2013)
  - Principles of Non-discrimination, Proportionality, Fairness

... leads to „Value Pricing“

... user acceptance through transparency and revenue allocation ( ... as important as revenue neutrality ... OECD/ITF 2010)
"In 2018, a regulative framework is created allowing cities and communities to charge for the use of their road infrastructure and to implement related policies independently."

"In 2020, same rules apply to all users of road infrastructure."
2030/2050. Halving/banning the use of conventionally-fueled vehicles in urban transport.
Situation. Requirements on European level (EU 2011 White Paper)

- **Emissions**
  - 100% in 2013
  - Halve the use of conventionally-fueled vehicles in urban transport
  - Essentially CO2-free city logistics by 2030
  - -60% Greenhouse gas emissions by 2050 (base 1990)

- **Non-fossil fuel mobility**
  - 0% in 2013
  - European rail high speed network completed

To develop the future – An eco-friendly transport infrastructure

**Motorised Private Transport**
- Fossil fuel mobility (Conventional passenger cars, motorcycles, …)

**Parking**
- Parking Management
- Park & Ride

**Alternatives to Motorised Private Transport**
- User based models (Car Sharing, Rental Cars, …)
- Higher share of public transport
- Clean and efficient cars
- Better infrastructure for walking and cycling

**Spatial and Traffic Planning**
- Public space and local recreation
- Co-Housing, Village in the city, shared space
- Traffic optimization

<table>
<thead>
<tr>
<th>Emissions</th>
<th>ITS</th>
<th>Information</th>
<th>Restriction</th>
<th>Enforcement</th>
</tr>
</thead>
<tbody>
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<td></td>
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</tbody>
</table>

To develop the future – An eco-friendly transport infrastructure
Implementation in the temporal context.

Emissions

100%

50%

0%

2013

2030

2050

Access/ Restriction

Halving the use of conventionally-fueled vehicles

Non-fossil fuel mobility

Spatial and traffic planning

- 60% Greenhouse gas emissions by 2050 (base 1990)

Essentially CO2-free city logistics by 2030

European rail high speed network completed

To develop the future – An eco-friendly transport infrastructure
In 2018, a regulative framework is created allowing cities and communities to charge for the use of their road infrastructure and to implement related policies independently.

In 2020, same rules apply to all users of road infrastructure.

In 2030, there are only half as many conventionally-fueled vehicles as of today.

... in 2050, such vehicles are completely banned from urban transport.
“We can't solve our problems by using the same kind of thinking we used to create them..”  (Albert Einstein)
Keywords. To develop the future – An eco-friendly transport infrastructure.

Assumption: Conventional challenges are valid

- Scarcity of resources, Urbanization, new technologies, …
- Two topics through all perspectives; environment & volume (scale of infrastructure, traffic volume)
- Traffic infrastructure shapes mobility. Mobility shapes quality of life.
- Traffic infrastructure is the basis of an integrated single market.

“Transport of values”

- High/Adequate service of (traffic) infrastructure has a value. Pricing as the fine-tuning tool.
- Challenges do not stop at national borders. Value projection? To promote a set of rules?
  - Across governments and organizations (UN, EU, OECD, …)
  - Across the private sector, to the advantage of the economy (Green Industry, Green Jobs, competitive advantages, value chain, …)