

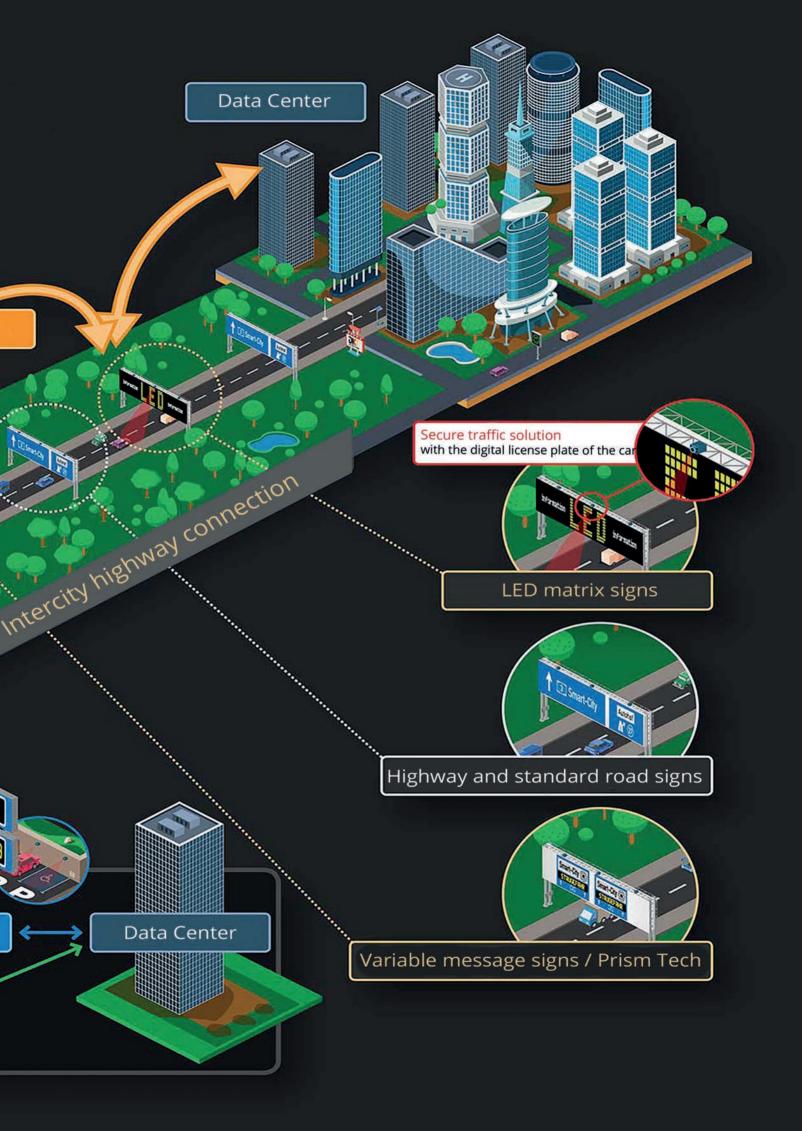
# SECURE TRAFFIC SOLUTIONS

## Secure traffic solutions Made in Germany

DKT Deutsche Kennzeichen Technik develops innovative systems for vehicle registration and for traffic guidance and monitoring. As a manufacturer of license plates and traffic signs of all kinds for international markets, DKT has worldwide expertise in improving road safety.

# Data flow Data Center իր Parking VERIS

# Smart-City Connectivity





## **APOS** Automotive Process Operation System

Vehicle data is created at the first registration, i.e. at the birth of a vehicle. During the vehicle's lifetime, new data and information is generated again and again, such as a change of owner, change of insurance coverage, passing / failing a technical inspection or status information such as theft, etc. This information should be bundled and made available to various interest groups. This is exactly our goal with the introduction of a central vehicle database/file!

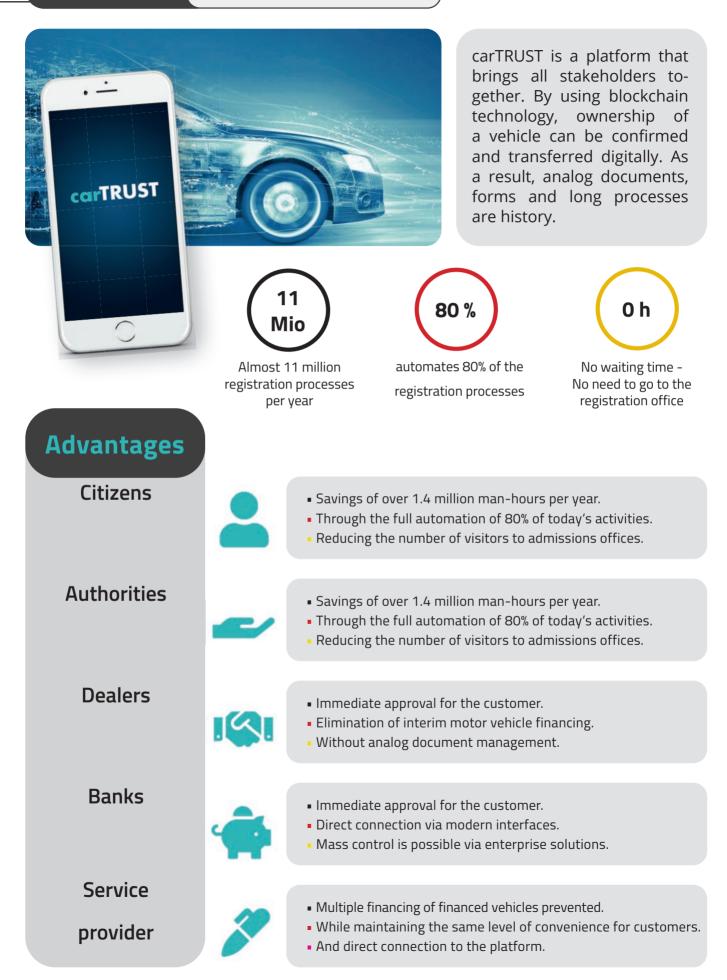
The APOS approach consists of bringing together existing and individual processes and to integrate stakeholders such as ministries, banks, insurance companies, and vehicle inspection organizations. Only in this way duplication of vehicle data can be avoided and process steps can be fully automated, for example by reading out an electronic label.



APOS is: Generic Scalable Modern Safe



**carTrust** 





## Hybrid license plate RFID/NFC



Vehicles that are not properly registered cause high damage worldwide - from lost taxes and vehicle theft to increased security risks, such as manipulation of vehicle ID.

## To Know who is driving on the roads



In addition to the classic aluminum license plates in the front and rear of the vehicle, the third license plate is attached to the inside of the windshield, so it is protected inside the vehicle. In addition, a direct connection between the vehicle and the license plate is already established during the registration process. It offers protection mechanisms against non-destructive detachment. The registration certificate is thus protected against manipulation. The self-adhesive seal bears the vehicle data issued by the registration authority. Identification is possible both in moving and stand-still traffic. In addition to unique vehicle identification, the system covers many areas of application:

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- Automated parking area management
- Electronic vehicle identification
- Traffic management
- Technical inspection
- Access control
- Border control
- Check of correct registration
- Combination of security features
- With UHF and HF functions vehicle data can be read out
- Security features like transparent hologram 2D barcode etc.
- According to ISO 14443 and ISO 15693
- Standard size ID1 format (approx. 86 mm × 54 mm)
- Easy re-labeling with thermal transfer printing
- Stable: UV and temperature resistant, permanently adhesive

## Security features



Production & Tools		As a full-range supplier for license plate technology, we develop and supply embossing presses, hot stamping machines and embossing tools for various performance ranges with our highest quality and safety standards. Modular design and ease of operation with low maintenance you can rely on!		
Vehicle license plates	We have the latest technology for the production of vehicle license plates. This ensures that our customers always receive products of the best quality and exceptional delivery reliability. In the production of our high-quality blanks for innovative license plate systems, we rely on quality "Made in Germany" according to DIN 74069, ISO 7591 and ISO 9001:2015). We manufacture license plate blanks in different sizes, designs and versions for Germany and international markets.			
Embossing machines and tools	All of our embossing presses are CE certified and can be and can be operated with a conventional 230V power sup- ply. They have a maintenance-free hydraulic unit. An addi- tional noise insulation for the hydraulics as well as a rack with space for 270 blocking tools and 1,000 license plate blanks is optionally available.			
Quality and Safety accreditation	DKT has been ISO 9001 certified for nearly 25 years. During this period, DKT has not only developed and maintained quality management systems of the highest level for many orders for the production and supply of license plates, but has always achieved results of the highest quality. Recently, DKT management has been certified to comply with Occupational Health and Safety regulations (in accor- dance with AS / NZ 4801 standard) and ISO 27001, the in- ternational information security standard, into the overall quality system.			
Customer- oriented manufacturing process	troducing becoming serve custo DKT devel processes	ience is the benefit of our customers: When in- vehicle license plates, a local sourcing process is increasingly important to quickly and effectively omers and government systems. ops and advises on customized manufacturing from machinery selection to supplier networks I output with the highest quality standards.		



## Advantages and applications

Placing a third license plate behind the windshield as protection against theft, fraud and tampering is a well-tried security feature. However, combining the "Windshield Tag" with the functionality of two RFID components (HF and UHF) in combination with other security features and tamper evident is an innovation. This makes vehicle identity even more efficient and unambiguous.

	Central vehicle database with connection to the local registration process	
+	Reliable vehicle inspection for authorities and private users	
+	Goal: to provide and use safe and correct vehicle data in real time in stationary and flowing traffic	
+	Simple and reliable validation of license plates on the vehicle with the vehicle database	
+	Mobile applications and queries of vehicle/holder data possible at any time	
+	Other applications such as parking authorizations, access controls, tolls or technical information for technical vehicle monitoring can be combined	
+++	Online verification via smartphone with mobile solu- tions	
	Safe and innovative in conjunction with the most modern traffic sign systems	
+ +	Safe and innovative in conjunction with the most modern traffic sign systems	
	Increased protection against theft, tampering, fraud and counterfeiting of license plates	

## Vehicle Identification



## Hybrid license plate



#### THE VEHICLE BIOMETRICS

enables vehicle recognition at 160 km/h by means of a "face scan" in moving traffic, which is uniquely affixed with a windshield tag including a stored VIN (Vehicle Identification Number). Connected to the registration database, it is possible to determine further information about the vehicle owner, the license plate number or the seller.



#### THE THIRD HYBRID LICENSE PLATE

equipped with innovative RFID/NFC technology, information can be retrieved at any time and in real time in both standstill and moving traffic. This works with simple readers or our CarCon APP. Vehicle registration data or the status of vehicle tax/insurance are checked. Other use cases such as data from technical vehicle monitoring (PTI), parking authorization, tolls or access control are also possible with the hybrid solution.



#### **RFID READERS**

Proven overhead readers and RFID reader products mounted on gantries, toll gantries, or existing road infrastructure such as bridges or overpasses read vehicle data via the UHF antenna. Handheld readers enable vehicle data control even in stand-still traffic or parked vehicles.



#### Software carCON with APP solution

The central database solution compares stored data on the third license plate hybrid with vehicle data and information from the vehicle registration as well as supplementary applications and vehicle information (e.g. insurance, taxes, technical vehicle inspection, etc.). If a match is negative, registration data is incorrect or has been tampered with, or the vehicle has been reported stolen by police authorities, the status is displayed in real time in our mobile APP solution. Different users can have different control and access rights.



## Variable message signs

Variable message signs are available with LED or LCD technology. State-of-the-art technology makes important displays even more visible, increasing safety on the roads. LED variable message signs can be used in all conceivable areas of road traffic. With the ever-increasing traffic volume, the importance of variable message signs is growing. We are specialized in the construction of LED signs according to StVO, RWVZ and EN 12966. We can also manufacture the right sign in LED technology for special circumstances. Traffic signs, warnings or prompts are thus clearly signaled even in a dense traffic, bad weather and at night.

## Advantages and applications

The volume of traffic on highways and country roads is constantly increasing. As a result, the demands on road equipment are also increasing. Those responsible must react ever more quickly to environmental and traffic situations and use traffic control systems to ensure a smooth flow of traffic for all road users.

## Smart City

DKT International plays a leading role for the research and development of RFID products and solutions. We also collaborate with several universities and independent research institutes. Combining road safety and vehicle identification with digital solutions and data applications is our passion!

In Germany and internationally we have strategic alliances and are actively engaged in the areas of secure vehicle data structures, road safety conceptions, intelligent traffic systems and Electronic Vehicle Identification (EVI). As a manufacturer and with over 90 years of experience in the fields of vehicle registration and traffic technology, we know what matters.

## **Traffic solutions**

#### Gantries and cantilevers

Overhead and ground signs require long-term and accurate planning to meet RWB and RWBA requirements. Construction projects of this type are completely calculated and holistically handled by our experienced construction engineers. With our many years of experience, we accompany you from the planning stage through execution and installation to the acceptance of overhead signs on gantries and cantilever signs.



#### Variable message signs (Prisma, LED)

Variable message signs with prism technology are robust and flexible instruments for controlling the flow of traffic on highways and urban roads quickly and effectively. The volume of traffic on highways and urban roads is constantly increasing. As a result, the demands placed on road equipment are also increasing. Those responsible must react ever more quickly to environmental and traffic situations and use traffic control equipment to ensure a smooth flow of traffic for all road users.



#### Speed warning systems

Speed warning systems set new and innovative standards for displaying and evaluating speed measurements. Speed warning systems are among the most cost-effective and reliable methods for collecting traffic data and preventing traffic accidents. The Temposys T03 speed measurement device is particularly suitable for traffic control in traffic-sensitive areas such as schools, kindergartens, retirement homes, construction sites, residential areas and many more. The integrated radar sensor measures the speed of the vehicles. The measurement is immediately displayed on the display panel of the speed warning system and together with time stamps can be used for statistical evaluations.





## DKT DEUTSCHE KENNZEICHEN TECHNIK GMBH INFO@DKT-INTERNATIONAL.COM • WWW.DKT-INTERNATIONAL.COM

## Headquarters

Ladestrasse 1 22926 Ahrensburg +49 4102 80 43 400

### Production

Am Öferl 37-43 82362 Weilheim i.OB +49 881 642-0 Sales, Marketing, Administration

Gewerbestrasse 8 87787 Wolfertschwenden +49 8334 989393 -0