

























# SMART MOBILITY SOLUTIONS

PRODUCT CATALOGUE



ARTIFICIAL INTELLIGENCE BY SWISSTRAFFIC INC.

AI:	Artificial Intelligence
ANPR:	Automatic number plate recognition
API:	Application Programming Interface; interface for automatic data transmission from sensor to a server in real-time
D:	Days
GDPR:	EU General Data Protection Regulation
GSM:	Global System for Mobile Communications; fully digital mobile communications network
IMT:	Individual motorised traffic
IoT:	Internet of Things
LoRa:	Long Range Wide Area; enables energy-efficient data transmission over long distances without LTE (see also SIGFOX)
LTE:	Long Term Evolution; a mobile communications standard for 4G, 5G etc
NMT:	Non-motorised traffic, cyclists and pedestrians
MTH:	Months
Multimodal:	Use of different transport modes during a certain period
o-d:	origin-destination
PT:	Public transport
SIGFOX:	Proprietary global communications network for low-energy wireless connection of objects to the internet (see also LoRa)
WK:	Weeks
	Public transport (PT)
	Safety
	LED display
	Violations
	Parking
	Services
	Dashboard
	Artificial Intelligence
	Data protection compliant
	Mobile installation
	Fixed counting station
	Pedestrian
	e-Scooter
	Cyclist
	Motorcycle
	Car
	Car with trailer
	Bus, coach
	Van
	Van with trailer
	Articulated van
	Lorry
	Lorry with trailer
	Articulated lorry



The future of mobility is defined by seamlessly meshing of our work life, home life and leisure time. Just getting from A to B will no longer be enough. What will truly matter in a multi-mobile world are: experience, sustainability and health.

At SWISSTRAFFIC, we believe that mobility is one of the key areas affecting sustainability. All over the world, new products and services are evolving faster and faster, opening up a seemingly endless range of possibilities. But companies, governments, cities and other actors must still draw the right conclusions. Our aim is to support customers and to apply an integral approach to addressing this highly complex issue.

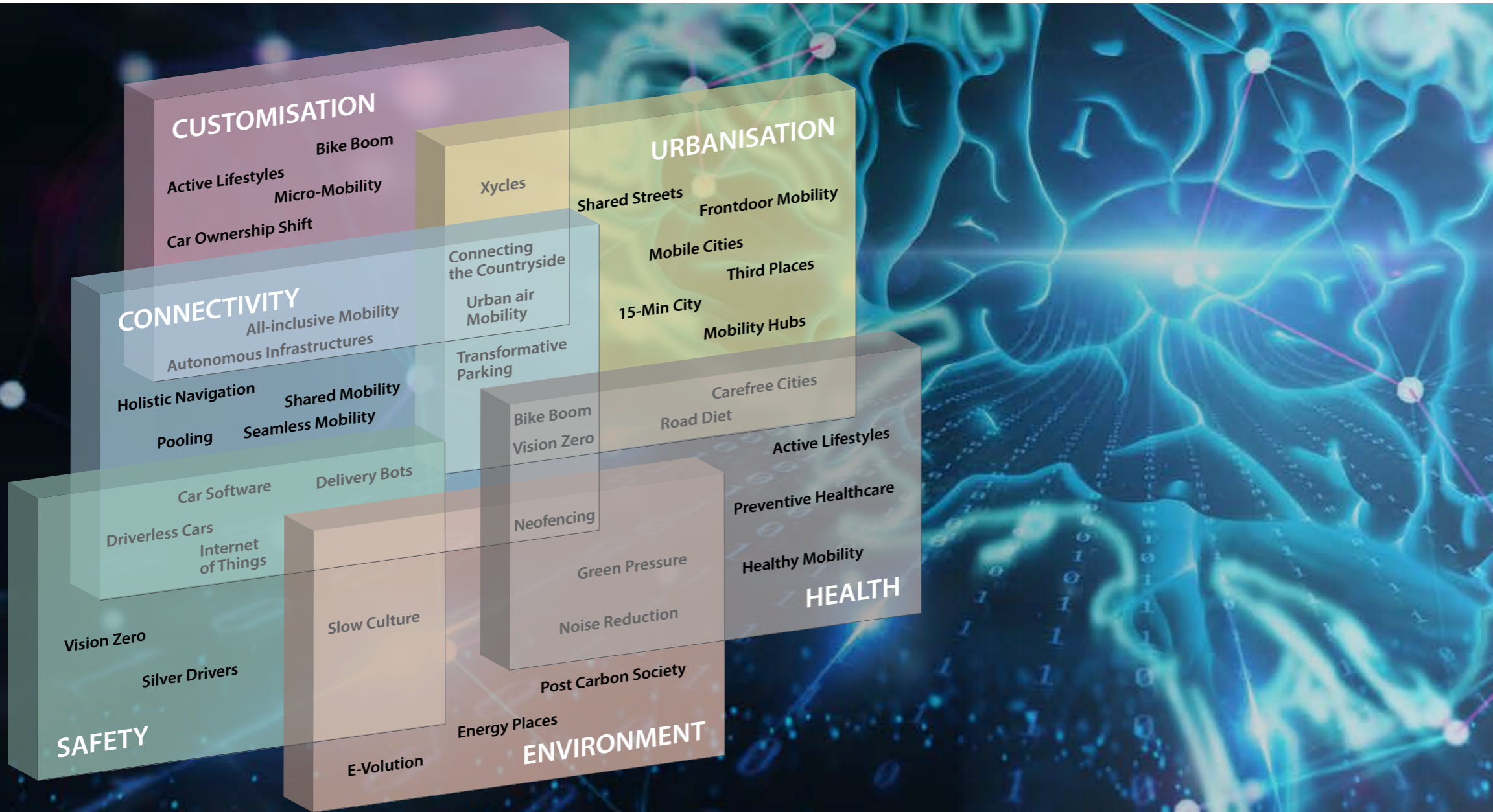
With over 20 years of expertise in mobility, we are your partner for innovative and sustainable mobility solutions.

**Alain Bützberger**  
 Founder & Chairman of the Board

<b>Welcome</b> Foreword by Alain Bützberger	<b>03</b>	<b>24</b> <b>SWISSLASER</b> Logs individual motorised traffic across 2 lanes, also during congestion
<b>Smart Mobility Vision</b> What the future of mobility looks like	<b>06</b>	<b>26</b> <b>SWISSPED</b> Counts pedestrians in zones with a width of 32 metres
<b>Topic search</b> Tailored products	<b>08</b>	<b>28</b> <b>SWISSRADAR</b> Counts individual motorised traffic and speeds
<b>SWISSTRAFFIC AI+LoRa</b> AI-based fixed installation for multimodal counting	<b>10</b>	<b>30</b> <b>SWISSPEOPLE IoT</b> Counts pedestrians and cyclists on footpaths, at events and in parks etc.
<b>SWISSSAFETY AI</b> AI-based detection of violations and misconduct	<b>12</b>	<b>32</b> <b>SWISSNOISE AI</b> AI-based directional noise detection
<b>SWISSSCOUT AI</b> AI-based mobile sensor for multimodal counting	<b>14</b>	<b>34</b> <b>SWISSTRAVEL</b> Real-time logging of travel times and delays
<b>SWISSBIKE+PED</b> Counts cyclist, e-scooter and pedestrian traffic across a width of 4 metres	<b>16</b>	<b>36</b> <b>SWISSPARKING AI</b> End-to-end AI-based smart parking solution
<b>SWISSTRAFFIC+BIKE</b> Counting station for individual motorised traffic or cyclists	<b>18</b>	<b>38</b> <b>SWISSSERVICES</b> Consulting, analysis, measures, concepts
<b>SWISSANPR AI</b> AI-based system to origin, destination and transit traffic as well as hazardous goods etc.	<b>20</b>	<b>40</b> <b>SWISSDASHBOARD</b> Modern, interactive dashboards with prediction and API
<b>SWISSDRONE AI</b> AI-based monitoring and counting of multimodal traffic	<b>22</b>	<b>42</b> <b>Product overview</b> A comparison of all products



# SMART MOBILITY VISION - HUMAN-CENTERED






## THE FUTURE OF MOBILITY




People are longing for peace of mind. Quality of life is becoming an increasingly precious commodity. Cities should be clean, green and quiet.





Experience is now more important than possession. Flexible access to an array of mobility options is the name of the game. Reality is shaped by diversity instead of routine. Seamless mobility blends personal and public concepts.

Autonomous driving is transforming the role that cars play. Driverless concepts reduce the need for parking spaces, expanding time spent in the car.

Cars are increasingly withdrawing from the cities. Bicycles will shape the future of mobility more and more.

APPLICATION AREA	← FIXED COUNTING STATION	📱 MOBILE	
	Counting pedestrians in pedestrian zones	10 - SWISSTRAFFIC AI+LoRa 26 - SWISSPED	14 - SWISSSCOUT AI
	Counting pedestrians and cyclists	10 - SWISSTRAFFIC AI+LoRa 16 - SWISSBIKE+PED	14 - SWISSSCOUT AI
	Counting pedestrians and various other transport users (multimodal)	10 - SWISSTRAFFIC AI+LoRa	14 - SWISSSCOUT AI
	Counting tourists, hikers, cyclists and cross-country skiers etc.	10 - SWISSTRAFFIC AI+LoRa 16 - SWISSBIKE+PED	14 - SWISSSCOUT AI 30 - SWISSPEOPLE IoT
	Counting cyclists and various other transport users (multimodal)	10 - SWISSTRAFFIC AI+LoRa 18 - SWISSTRAFFIC+BIKE	14 - SWISSSCOUT AI 18 - SWISSTRAFFIC+BIKE
	Counting cyclists and pedestrians	10 - SWISSTRAFFIC AI+LoRa 16 - SWISSBIKE+PED	14 - SWISSSCOUT AI
	Preferential treatment and shorter waiting times at the traffic lights	10 - SWISSTRAFFIC AI+LoRa	
	Cyclist behaviour	10 - SWISSTRAFFIC AI+LoRa	14 - SWISSSCOUT AI
	Individual motorised traffic (IMT)	10 - SWISSTRAFFIC AI+LoRa 24 - SWISSLASER	14 - SWISSSCOUT AI 28 - SWISSRADAR
	Transit traffic and rat-running traffic	20 - SWISSANPR AI	20 - SWISSANPR AI
	Travel times	20 - SWISSANPR AI 34 - SWISSTRAVEL	20 - SWISSANPR AI 34 - SWISSTRAVEL
	Nodal flow analyses	10 - SWISSTRAFFIC AI+LoRa	14 - SWISSSCOUT AI 22 - SWISSDRONE AI
	Shares of electric, hybrid, petrol or diesel vehicles	20 - SWISSANPR AI	20 - SWISSANPR AI
	Segmental speeds	34 - SWISSTRAVEL	34 - SWISSTRAVEL
	Noise emissions, impact analyses for 30 km/h speed limits	32 - SWISSNOISE AI	32 - SWISSNOISE AI
	Speeds	10 - SWISSTRAFFIC AI+LoRa 28 - SWISSRADAR	14 - SWISSSCOUT AI 28 - SWISSRADAR
	Parking with origins	20 - SWISSANPR AI 36 - SWISSPARKING AI	14 - SWISSSCOUT AI 20 - SWISSANPR AI
Traffic signal optimisation, traffic flow	10 - SWISSTRAFFIC AI+LoRa		

APPLICATION AREA	← FIXED COUNTING STATION	📱 MOBILE	
	Transfer relationships	10 - SWISSTRAFFIC AI+LoRa	
	Counting passengers	10 - SWISSTRAFFIC AI+LoRa	
	Analyses of near-accidents	10 - SWISSTRAFFIC AI+LoRa	14 - SWISSSCOUT AI 22 - SWISSDRONE AI
	Impact analyses (before, during, after)	10 - SWISSTRAFFIC AI+LoRa 34 - SWISSTRAVEL	14 - SWISSSCOUT AI 34 - SWISSTRAVEL
	Hazardous goods transports	20 - SWISSANPR AI	20 - SWISSANPR AI
	LED pedestrians and/or cyclists	10 - SWISSTRAFFIC AI+LoRa 16 - SWISSBIKE+PED	
	LED compliance with noise limits	32 - SWISSNOISE AI	32 - SWISSNOISE AI
	LED travel times: information about delays	10 - SWISSTRAFFIC AI+LoRa 34 - SWISSTRAVEL	34 - SWISSTRAVEL
	LED segmental speeds	20 - SWISSANPR AI	20 - SWISSANPR AI

APPLICATION AREA	PRODUCT	
	Failure to give way, disregard of stop signals. Unauthorised parking, wrong lane or direction of travel, cyclist behaviour at roundabouts	12 - SWISSSAFETY AI
	End-to-end solution with occupancy rate, payment app, reservation, automatic detection and payment	36 - SWISSPARKING AI
	Consulting, analysis, measures, end-to-end traffic concepts, solutions, maintenance, installations	38 - SWISSSERVICES
	Interactive online display of results in real-time, with predictions	40 - SWISSDASHBOARD





## AI SWISSTRAFFIC AI+LoRa



AI-based fixed installation for multimodal counting in real-time. Use of existing camera infrastructure, if installed. SWISSTRAFFIC AI+LoRa complies 100% with GDPR data protection requirements.

### CLOUD SOLUTION

Customer can install the camera. Dual use as a safety camera. Outstanding accuracy, even for congested objects in urban environments.

Easy use of already existing cameras possible. Encrypted data transmission and analysis in the cloud. API available.

### BOX SOLUTION

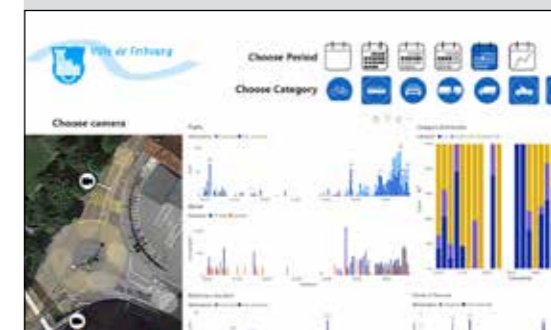
Additional hardware box is installed directly with the camera. Data transmission possible via GSM or LoRa. Easy use of current cameras possible. On-site data analysis. API available.



Customer can install the camera. Can be used simultaneously as a safety camera.



Automatic detection of traffic flow for all moving objects without storing video or image data.



Data visualisation in a neatly arranged dashboard with separate customer portal.



### IDEAL APPLICATION AREAS

- Counting IMT, cyclists, persons
- Counting tourists, hikers
- Traffic signal optimisation
- Cyclist behaviour
- Nodal flow analyses
- Traffic flow
- Transfer relationships
- Analyses of near-accidents
- Impact analyses

### TECHNICAL FEATURES

- Multimodal
- 9 object classes
- Accurate lane tracking
- Real-time data
- Congestion-resilient
- Speeds
- Simple installation
- GSM or LoRa
- Parking

### COMBINABLE PRODUCTS

- Page 12 swissSAFETY AI
- Page 36 swissPARKING AI
- Page 38 swissSERVICES
- Page 40 swissDASHBOARD





### IMPROVED SAFETY AT PEDESTRIAN CROSSINGS ALONG SCHOOL ROUTES

AI- and radar-based system to improve safety by the automatic detection of pedestrian crossings and failure to give way. Signals with special interior lighting and yellow strips attached to the poles can light up immediately during use of the pedestrian crossing to improve visibility, especially at night.

In addition to flashing, an alarm sound can also be emitted in potential "pedestrian-driver" conflict situations or if pedestrians are inattentive (staring at their phones). In case of violations, a brief video sequence can optionally be stored in the system to help with police investigations. As a fixed or mobile installation.



Pedestrians are distracted and tend to notice dangers too late.

### PREVENTING ACCIDENTS

AI technology to analyse trajectories and speeds for the detection of near-accidents at intersections involving pedestrians, cyclists and vehicles or to analyse cyclist behaviour at roundabouts. As a fixed or mobile installation.



Automatic detection of failures to give way at pedestrian crossings in real-time and warnings for road users.

### AWARENESS RAISING IN THE EVENT OF VIOLATIONS

Downstream installation of LED displays, can sensitise transport users to their misconduct in real-time as a contribution to targeted improvement of road safety.



AI improves safety along school routes and at pedestrian crossings.

## AI SWISS SAFETY AI



AI-based detection of violations and misconduct in road traffic. Improved safety for the most vulnerable transport users – pedestrians and cyclists. Can be connected to police caution or fine correspondence.



### IDEAL APPLICATION AREAS

- Improving safety, preventing accidents
- Safety on school routes
- Failure to give way at pedestrian crossings
- Cyclist behaviour at roundabouts
- Detection of near-accidents
- Disregard of stop signals
- Unauthorised parking
- Wrong lane or direction of travel



### TECHNICAL FEATURES

- Fixed or mobile counting station
- Autonomous for up to 7 days if mobile
- Counting IMT, cyclists, persons
- Speeds
- Can be connected to an LED display for awareness raising
- Accurate lane tracking
- Real-time data
- Floating car data



### COMBINABLE PRODUCTS

- Page 20 swissANPR AI
- Page 38 swissSERVICES
- Page 40 swissDASHBOARD







### AI REVOLUTION IN MOBILE TRAFFIC DATA COLLECTION

swissSCOUT AI is revolutionising mobile traffic data collection. The integrated AI software enables on-site multimodal traffic analysis in real-time, without having to save videos or images. The analysed data is uploaded directly to the cloud, where it is then available for visualisation on the swissDASHBOARD.

swissSCOUT AI is the first mobile traffic data collection system with full GDPR compliance.

Please check the swissSCOUT website for further information: [www.swisscout.com](http://www.swisscout.com)



Mobile camera system with integrated AI analysis software for real-time evaluations and presentation on a proprietary dashboard.



Swiss quality. Hardware and software from a single source.

## AI SWISSSCOUT AI



The mobile camera system for multimodal counting is 100% compliant with the GDPR thanks to integrated AI and allows autonomy of up to 7 days. The data is analysed in real-time.

### IDEAL APPLICATION AREAS

- Counting IMT, cyclists, persons
- Counting tourists, hikers
- Cyclist behaviour
- Nodal flow analyses
- Parking with origins
- Impact analyses
- Safety analyses

### TECHNICAL FEATURES

- Multimodal
- Mobile solution with up to 7 days of round-the-clock autonomy
- Real-time data
- Speeds
- Accurate lane tracking
- Congestion-resilient
- Simple installation
- 12 object classes

### COMBINABLE PRODUCTS

- Page 12 swissSAFETY AI
- Page 36 swissPARKING AI
- Page 38 swissSERVICES



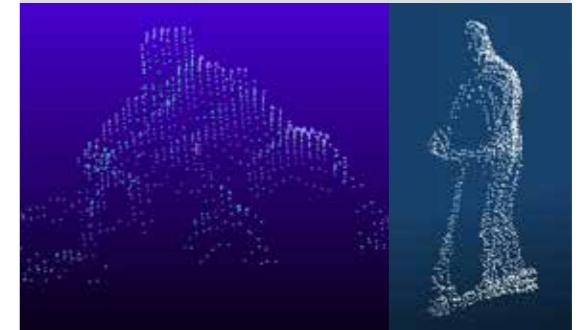




### SOPHISTICATED LASER TECHNOLOGY

The sensor uses a “laser curtain” that is defined during installation to log the cross section in a sequence of consecutive scans (every 16 ms). The laser uses this information to generate a 3D image that is analysed by the algorithms to determine the correct classification. The system accurately registers the direction of travel by detecting which of the 4 laser planes the cyclist, e-scooter or pedestrian reaches first.

The sensor is equipped with a CPU. All signals from the laser scanner are processed directly. A 4G modem is also installed in the laser to transmit text data (no images) to a server in real-time.



A cloud of points indicating a bicycle and an e-Scooter. The sensor software is able to distinguish cyclists, e-scooters and pedestrians.



A typical system for counting bicycles consists of a laser scanner and an LED display.



swissBIKE+PED has a neatly arranged, proprietary dashboard.

## AI SWISSBIKE+PED



Simultaneously counts cyclists and pedestrians in all directions on paths with a width of up to 4 metres. Combinable with an LED display. Counts also e-scooters.

### IDEAL APPLICATION AREAS

- Counting cyclists, persons
- Counting tourists, hikers
- Counting e-scooters

### TECHNICAL FEATURES

- Laser technology
- LED display
- Solar fixed counting station
- Accurate lane tracking
- Real-time data
- Proprietary dashboard

### COMBINABLE PRODUCTS

Page 38 swissSERVICES





### PIEZO INSTEAD OF INDUCTION

Counting with piezo strips is far more accurate than using induction. An electromechanical pulse is triggered by the pressure applied by an object as it crosses the strip, which is then analysed by the system. Passing vehicles or cyclists are detected very accurately, even during congestion when a vehicle may be stationary on the piezo strip.



Mobile/temporary counting station with tubes



Installation of a fixed counting station with piezo technology. Only on smooth surfaces, no paving. Up to 5 m maximum width per lane.



Can count cyclists and pedestrians at the same time and identify their direction of travel.

## AI | SWISSTRAFFIC+BIKE



Uses induction loops, a thermal sensor or piezoelectric strips to count mixed traffic either temporarily or permanently.

### IDEAL APPLICATION AREAS

- Counting cyclists
- Counting IMT

### TECHNICAL FEATURES

- Fixed or mobile counting station
- 3 months autonomous if mobile
- Speeds
- Accurate lane tracking
- Congestion-resilient
- Simple installation
- 5 vehicle classes
- Free analysis software
- Piezo or induction loops

### COMBINABLE PRODUCTS

Page 38 swissSERVICES





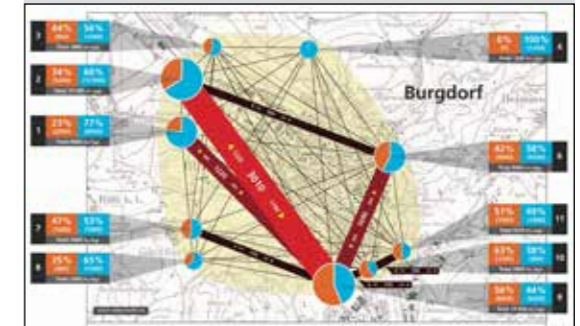


### SMART LICENSE PLATE RECOGNITION

Detection rates of at least 98% – even for mobile deployments in Switzerland and abroad. Different vehicle types are distinguished and matrices are generated per vehicle type, which can be directly incorporated into a traffic model. Graphic visualisation of the results facilitates interpretation.

### SEGMENTAL SPEEDS FOR IMPROVED SAFETY

Average speed detection along a certain section of road – e.g. for school route safety – can be combined with an LED display to sensitise errant motorists. Optionally, the system can be used for the issue of fines by the police.



Graphical visualisation of the origin, destination and transit traffic through a city, municipality or neighbourhood with different vehicle types.



Identification of the share of electric, hybrid, diesel, petrol vehicles and their origins (country, canton, town)



Automatic registration of hazardous goods transports and their cargo types.

## AI | SWISSANPR AI



Precise traffic detection thanks to the use of the latest generation of smart license plate detection cameras with high data quality. swissANPR AI complies 100% with GDPR data protection requirements.

### IDEAL APPLICATION AREAS

- Destination, origin and transit traffic
- Rat-running traffic
- Travel times and routes
- Proportion of electric, hybrid, petrol or diesel vehicles
- Hazardous goods transports
- Segmental speeds
- Traffic models and scenarios

### TECHNICAL FEATURES

- Fixed or mobile counting station
- Autonomous for 5 days if mobile
- LED display
- Accurate lane tracking
- Real-time data
- Congestion-resilient
- Origins: country/canton/town
- SWISS10 (10 vehicle classes)

### COMBINABLE PRODUCTS

- Page 12 swissSAFETY AI
- Page 32 swissNOISE AI
- Page 34 swissTRAVEL
- Page 36 swissPARKING AI
- Page 38 swissSERVICES





**ALSO COVERS WIDER PERIMETERS**

At a suitable height, drones enable coverage of a wider observation perimeter, along with precise tracking and counting of all movements within it. The high resolution of the mounted camera enables visualisation of even the smallest objects such as pedestrians or cyclists using our AI software. All data protection requirements according to the GDPR are observed.

Special drones that receive power via a cable to the ground are deployed for assignments lasting more than 60 minutes.



Routes of travel are also determined, in addition to counting. Provides aerial analysis of how long parking procedures last as well.



Observation and counting of multimodal traffic in wider perimeters and identification of near-accidents (safety deficits).



Autonomous for 60 minutes. Can be extended to several hours if necessary.

**AI | SWISSDRONE AI**



Aerial observation and counting of multimodal traffic situations. Detection of movement patterns for all transport users across a wider perimeter. Prevention of near-accidents.

**IDEAL APPLICATION AREAS**

- Observation and counting of multimodal traffic
- Nodal flow analyses
- Traffic flow
- Parking
- Analyses of near-accidents

**TECHNICAL FEATURES**

- Multimodal
- Autonomy for 60 minutes
- Speeds
- Accurate lane tracking
- Congestion-resilient
- Simple installation
- 9 object classes

**COMBINABLE PRODUCTS**

- Page 12 swissSAFETY AI
- Page 38 swissSERVICES







## TECHNOLOGY

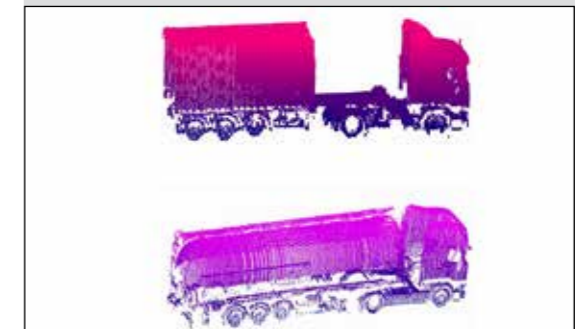
The laser technology emits up to four beams. These are invisible to the human eye and harmless. The point cloud they create replicates the vehicle shape with the exact vehicle dimensions, enabling both precise classification and identification of any height and width restrictions.

The laser can be mounted either at the side or overhead. It also provides highly accurate speed measurements if the "Radar" option is enabled.

The laser complies with data protection requirements, as it does not record or transmit images. Precise laser detection distinguishes between the lengths and profiles of vehicles.



Two lanes can be covered simultaneously if the system is mounted at a height of around 8 m.



The laser point clouds map the precise vehicle shape and therefore differentiate up to 10 vehicle classes.



swissLASER has a neatly arranged, proprietary dashboard.

## AI | SWISSLASER



swissLASER was specially developed for directional counting of individual motorised traffic and to satisfy even the most rigorous accuracy requirements in an urban environment. swissLASER is able to distinguish up to ten vehicle classes according to SWISS10.

## IDEAL APPLICATION AREAS

- Counting IMT
- Detection of congestion
- Parking

## TECHNICAL FEATURES

- 2 lanes simultaneously
- Real-time data
- Congestion-resilient
- No lane encroachment
- Simple installation
- SWISS10 (10 vehicle classes)
- Laser Class 1
- Proprietary dashboard

## COMBINABLE PRODUCTS

- Page 36 swissPARKING AI
- Page 38 swissSERVICES





### PRECISE COUNTING IN PEDESTRIAN ZONES

This unique sensor enables precise counting of pedestrian traffic in pedestrian zones, even in dense crowds. Among its most outstanding features is the wide coverage of up to 32 metres with just a single sensor.



The use of laser technology ensures compliance with all data protection requirements.



4x laser curtain for reliable counting and up to 98% accuracy.



Mounted at a height of up to 20 metres for counting zones with widths of 32 metres.

## AI | SWISSPED



Counts city centre pedestrians in zones with a width of up to 32 metres. SWISSPED complies 100% with GDPR data protection requirements.

### IDEAL APPLICATION AREAS

Counting pedestrians in pedestrian zones

### TECHNICAL FEATURES

- Laser technology
- Width of up to 32 metres
- Mounted at a height of up to 20 metres
- Real-time data
- Simple installation
- Fixed counting station

### COMBINABLE PRODUCTS

- Page 38 swissSERVICES
- Page 40 swissDASHBOARD







## TECHNOLOGY

swissRADAR is characterised in particular by its capability for prolonged autonomous operation of up to three weeks without replacing the battery. Can be equipped with Solar and 4G modules to generate real-time data as a permanent counting station. Un-suitable for locations with congestion or stop & go traffic, as these factors distort the results.



Up to 3 weeks of continuous operation possible.



Extended mounting height of between 1 and 8 metres.



Automatic calibration. Data export via Bluetooth.

## AI | SWISSRADAR



A lateral radar device for intermittent and/or regular traffic counts, the identification of road sections with excessive vehicle speeds and for the collection of data used in urban traffic development plans.



## IDEAL APPLICATION AREAS

- 30 km/h zones
- Counting IMT
- Speed detection



## TECHNICAL FEATURES

- Fixed or mobile counting station
- Autonomous for up to 3 weeks if mobile
- Speeds
- Accurate lane tracking
- Simple installation
- 4 vehicle classes
- GSM



## COMBINABLE PRODUCTS

- Page 12 swissSAFETY AI
- Page 38 swissSERVICES





### TECHNOLOGY

The boxes use digital heat detectors. These components act like miniature thermal imaging sensors.

They concentrate infrared heat radiation when people cross the sensor beam. Digital analysis of this signal can be used to count the number of objects and determine their direction of travel. The speed is also used to distinguish between people and cyclists. These boxes are simple, small, adaptable to any environment and operate autonomously.



Automatic transmission of numerical data by LTE or SIGFOX. Counter visualisation on Android or iOS smartphones.



Counts cyclists and pedestrians.



Installation at the edge of a footpath (1 sensor integrated in a wooden post) possible.

## AI | SWISSPEOPLE IOT



This IoT sensor is specifically designed for the needs of tourist facilities such as parks and trails or for natural settings and is used to count hikers and cyclists, for social clubs or events without ticketing etc.



### IDEAL APPLICATION AREAS

Counting tourists, cyclists, hikers, cross-country skiers, people attending events  
Pavements



### TECHNICAL FEATURES

Autonomous for 1 year  
Real-time data in the app  
Simple installation  
Counting widths of 1–6 metres  
2 object classes  
SIGFOX or GSM  
Plug & count



### COMBINABLE PRODUCTS

Page 38 swissSERVICES  
Page 40 swissDASHBOARD







### NOISE MEASUREMENT USING ARTIFICIAL INTELLIGENCE

The highly sensitive sensor detects ambient noise and uses integrated machine learning software to analyse its profile. This distinguishes between cars, motorbikes and lorries. The sensor also recognises the direction of travel and speed based on the noise emission.

The LED information panel raises awareness and encourages noise-conscious driving. Practical experience has shown significant success in reducing noise at locations fitted with SWISSNOISE AI.

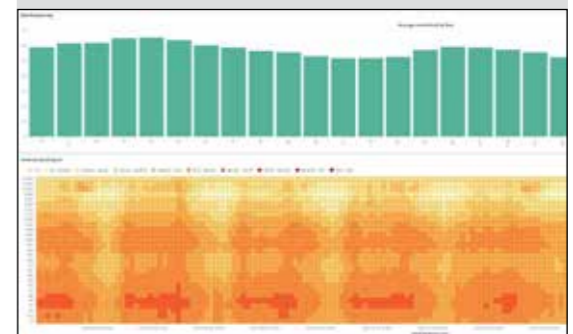
There are plans to extend detection capabilities to also include electric vehicles and electric bicycles.



The LED information panel raises awareness and encourages noise-conscious driving.



The highly sensitive sensor detects ambient noise and uses integrated AI machine learning software to analyse its profile.



SWISSNOISE AI has a neatly arranged, proprietary dashboard.

## AI | SWISSNOISE AI



AI-based measurement of traffic noise from different directions. The downstream LED display raises awareness and encourages noise-conscious driving, which leads to a significant noise reduction in most cases. In turn, this improves quality of life considerably.

### IDEAL APPLICATION AREAS

- Impact analyses for 30 km/h speed limits
- Recording of noise emissions
- Awareness raising among vehicle owners

### TECHNICAL FEATURES

- Fixed or mobile counting station
- Solar-powered if mobile
- Accurate lane tracking
- Real-time data
- With LED display
- Simple installation
- 3 vehicle classes
- Proprietary dashboard

### COMBINABLE PRODUCTS

- Page 20 swissANPR AI
- Page 38 swissSERVICES





### TIME IS A PRECIOUS COMMODITY

Receiving early information can improve the mobility patterns of transport users. Reliable predictions can be made regarding journey times and delays by incorporating AI together with the measurement of real traffic events.

### TARGETED IMPACT ANALYSES

Gains (or losses) in travel times are the best and most effective way of substantiating statements about the impact of infrastructure projects or accompanying measures over a longer period.



Real-time determination of journey times and delays on various routes and optimisation of the traffic flow.



LED display indicating delays.



swissTRAVEL has a neatly arranged, proprietary dashboard for travel times.

## AI | SWISSTRAVEL



swissTRAVEL logs journey times and delays in real-time for both personal transport and cycling. This enables deficiency analyses to be performed and the optimisation of traffic distribution and connections.

### IDEAL APPLICATION AREAS

- Analysis of journey times and delays
- Segmental speeds
- Impact analyses

### TECHNICAL FEATURES

- Bluetooth and WiFi MAC-addresses
- Fixed or mobile counting station
- Autonomous for 7 days if mobile
- Speeds
- Real-time data
- LED display
- Simple installation
- 3 vehicle classes
- Proprietary dashboard

### COMBINABLE PRODUCTS

- Page 20 swissANPR AI
- Page 38 swissSERVICES







## AI SWISSPARKING AI



End-to-end solution for the public sector, private enterprises and private properties. From the issue of access rights and a reservation system, to barrier authentication and automatic shuttle buses, this product supports all of your parking requirements.

### IDEAL APPLICATION AREAS

- Municipal parking facilities
- Tourist or event parking
- Company parking
- Property parking
- On-street or off-street car parking

### TECHNICAL FEATURES

- End-to-end hard- + software solution
- Payment app, dynamic parking fees
- Issue of access rights
- Parking space reservation
- Authentication at the barrier
- Automatic parking buses
- Origins: country/canton/town
- Fixed or mobile solution
- Proprietary dashboard

### COMBINABLE PRODUCTS

- Page 10 swissTRAFFIC AI+LoRa
- Page 12 swissSAFETY AI
- Page 20 swissANPR AI
- Page 24 swissLASER
- Page 38 swissSERVICES

### PUBLIC

The professional, cloud-based platform gives municipalities an end-to-end solution for parking management. swissPARKING AI improves the capabilities of your traffic infrastructure, limits congestion and reduces the search for parking spaces. Car parks must be accessible at all times and well frequented. 85% is considered a benchmark for optimum occupancy.

The price is an effective instrument for controlling occupancy levels in car parks. A carefully selected fee structure balances demand and minimises unnecessary traffic. Prices can be adjusted flexibly to prevent bottlenecks or stimulate use. This means that pricing should certainly be dynamic.

### PRIVATE

Companies sometimes struggle with the increasing scarcity of parking spaces and long waiting lists. Digital parking solutions help them to manage this problem and provide facilities for their staff both easily and efficiently.

In today's world, smart IoT technology and innovative software and app solutions create innumerable opportunities to make better use of available parking capacities. Aside from standard elements like number plate recognition, visitor reservations and an array of app functionalities, swissPARKING AI offers additional modules to enhance your end-to-end solution. swissPARKING AI can even be integrated into existing systems.



Automatic reservation and navigation to free parking space with customisable visitor and employee attributes.



Automatic authentication at the barrier entrance enables entry to the parking space without stopping using automated payment.



swissPARKING AI has a neatly arranged, proprietary dashboard.





WE HELP YOU ACHIEVE STRATEGIC MOBILITY OBJECTIVES – FOR SMART MOBILITY IN TOMORROW’S WORLD.

Our company has a highly qualified pool of specialists. It goes without saying that we operate consistently at the cutting edge of technology and strive to build green and economically viable solutions.

As traffic engineers, we deliver expert planning and competent advice. Professional technology and state-of-the-art technology are used in the execution of all our assignments.

Our engineers have developed processes for mobility intelligence analytics that enable the real-time evaluation of big data. We make use of open data and also collect our own information.

This means we can offer a full service – from planning to implementation – from a single source based on more than 20 years of experience. You are in safe hands with us.



As traffic engineers, we deliver solution-oriented planning and competent advice.



Planning and achievement of strategic mobility objectives.



Installation and maintenance of sensors by qualified SWISSTRAFFIC staff.

## AI | SWISSSERVICES



Our mobility experts assist you from planning to implementation. We offer everything from a single source, including consulting, data collection and collaborative development of a solution.

### IDEAL APPLICATION AREAS

- Traffic flow simulations
- Development planning
- Technical traffic studies
- Performance capability analyses
- Accident analyses
- Reconstruction concepts
- End-to-end parking solutions
- Holistic traffic concepts
- Safety analyses

### TECHNICAL FEATURES

- From identifying the problem to creating the solution
- Mobility engineers & fitters
- Over 20 years of experience
- State-of-the-art technology
- Installation and maintenance

### COMBINABLE PRODUCTS

- Pages 10-35 all swissSENSORS
- Page 12 swissSAFETY AI
- Page 36 swissPARKING AI
- Page 40 swissDASHBOARD





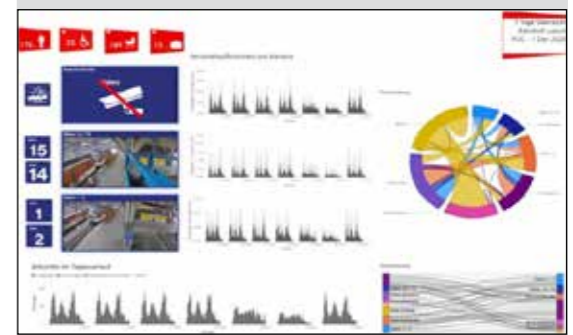
## AI SWISSDASHBOARD



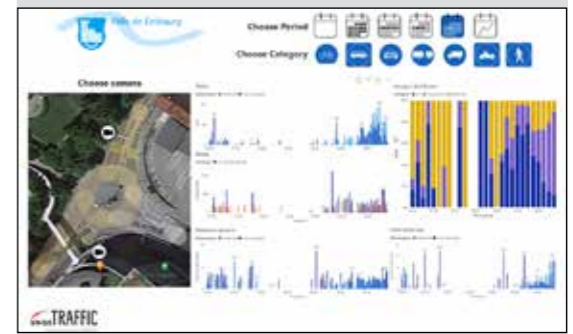
Modern, interactive, customisable, multimodal dashboards with predictions and APIs that map multimodal mobility in real-time.



You select the parameters that matter to you and receive the data neatly arranged in real-time – accessible anytime, anywhere.



Presentation of the transfer relationships and occupancy rates for passenger trains at a railway hub.



Dashboard for traffic experts. A variety of neatly arranged performance indicators are displayed per period and object class at the push of a button.



### IDEAL APPLICATION AREAS

Pairing clarity with KPIs for optimised ease-of-use.

### TECHNICAL FEATURES

- APIs for your own dashboard
- Customisable
- Expandable
- All data exportable
- Predictions
- Meteo

### COMBINABLE PRODUCTS

Pages 10-35 all swissSENSORS

## PRODUCT OVERVIEW

	COUNTING	MOTORIZED TRAFFIC	CYCLISTS	PEDESTRIANS	ORIGIN-DESTINATION, TRANSIT	SPEED	PARKING	LANE RECOGNITION	REAL-TIME	CONGESTION RESISTANT	EASY TO INSTALL	LED DISPLAY	PERMANENT COUNT LOCATION	MOBILE INSTALLATION	NUMBER OF VEHICLE CLASSES	AUTONOMY WHEN MOBILE	ADDITIONAL USES
swissTRAFFIC AI+LoRa	●	●	●	●	◐	●	●	●	●	●	●	✓	✓		9		4/5G, TURN OFF RELATIONS
swissSAFETY AI	●	●	●	●		●	●	●	●	●	●	✓	✓	✓		7 D	RIGHT OF WAY, RED LIGHTS, ILLEGAL PARKING
swissSCOUT AI	●	●	●	●	◐	●	●	●	●	●	●			✓	10	7 D	
swissBIKE+PED	●		●	●		◐	●	●			◐	✓	✓		3		LED DISPLAY, + E-SCOOTERS
swissTRAFFIC+BIKE	●	●	●			●	●	●			◐		✓	✓	5	3 MTH	
swissANPR AI	●	●	◐		●	◐	●	◐	●			✓	✓	✓	10	5 D	ORIGIN, E-VEHICLES, E-CAR, CO <sub>2</sub>
swissDRONE AI	●	●	●	●	●	●	●	●	●	●	●			✓	9	1 HR	
swissLASER	●	●				◐	●	●	●	●	●	✓	✓		10		SWISS10
swissPED	●			●				●		◐	✓	✓			1		PEDESTRIAN ZONES
swissRADAR	●	●				●	●	◐	●				✓		4	3 WKS	4/5G
swissPEOPLE IoT	●			●				●	●	●	●		✓	✓	2	1 Y	
swissNOISE AI	●	●					●	●	●	●	●	✓	✓	✓	5	SOLAR	E-VEHICLES
swissTRAVEL	◐	●	◐		◐	●		●	●	●	●	✓	✓	✓	3	7 D	DELAY TIMES
swissPARKING AI	●	●					●	●	●	●	◐	✓	✓	✓		5 D	

office@swisstraffic.com  
www.swisstraffic.com

Zurich +41 44 200 90 20  
Ittigen +41 31 922 11 22  
Lausanne +41 21 647 47 38  
Brig +41 27 923 33 23  
Sion +41 27 322 31 11

### CONTENTS & DESIGN

The contents and design were produced by SWISSTRAFFIC Inc.

### LEGAL NOTICE

The copyright to all contents of this product catalogue is held exclusively by SWISSTRAFFIC Inc. SWISSTRAFFIC Inc. does not accept liability for errors in the contents of the product catalogue.

2022/Version 1.2



SCAN ME





**NOTHING  
HAPPENS  
UNTIL YOU  
MOVE**