

Mobility innovations

Intertraffic Amsterdam is a hotbed for traffic technology development. Whether you're planning to attend the event or not, there are certain new products you need to know about. **Tom Stone** reports

This March 20-23, the Intertraffic trade fair makes its biennial visit to its home city of Amsterdam, in the Netherlands. Visitors and exhibitors from over 140 countries will converge on the famous RAI exhibition center, where they will not only get the chance to meet one another, but also experience demonstrations, attend presentations and find out what the future holds in the all-new ITSUP area – which will showcase startup businesses for the first time at Intertraffic Amsterdam.

A further not-to-be-missed highlight of the event is the Intertraffic Innovation Awards, the nominees for which are showcased over the next five pages. The winners will be announced at the Intertraffic Amsterdam opening ceremony.

"I believe that innovation and entrepreneurship are what drives improvements in global mobility and transportation, and by putting the spotlights on innovation we aim to help accelerate the connecting match between today's challenges and technological solutions," says Peter van der Knaap, who is chair of the Innovation Awards Jury and MD of SWOV – Institute for Road Safety Research, The Hague.

Considering trends within the industry, gleaned from his role as Innovation Awards chairman, van der Knaap continues, "Traffic technology is becoming more and more integrated and I believe this is a good thing. Fewer products are standalone solutions: smart integration, focusing on what people actually need is the norm."

Once the Innovation Awards ceremony is over, van der Knaap is looking forward to plenty of other highlights during his planned week at Intertraffic Amsterdam. "Apart from meeting old colleagues and friends, I look forward to discovering new products and improvements in existing technology – mobility is becoming increasingly connected and smart," says van der Knaap. "Personally, I will particularly focus on systems that can help to increase road safety, both for car occupants, vulnerable road users and – a very important but often overlooked subject – improving safety for road construction workers."

Turn the page to find out more about the Innovation Award nominees and other not-to-be-missed exhibitor highlights.





**Innovation Awards 2018:
Infrastructure nominees**

Weighing the benefits

OptiWIM by Cross Zlín (Czech Republic)
Stand 10.111

Weigh-in-motion (WIM) is an important technology for protecting infrastructure from excess wear and tear from overweight vehicles. The all-new OptiWIM sensor combines free-flow capability, accuracy to 3% (even in free-flow), temperature compensated readings, and RF immunity. A single sensor row can detect vehicle width, number of tires and tire pressure. Non-invasive maintenance and replacement assures a 10-year life.

Flexible friend

FlexyLight Bollard by Saedi (Italy)
Stand 05.337

The pioneering FlexyLight Bollard can be bent up to 90° in any direction without damage. In addition, there are various rigidity setup options. It is illuminated and has a color-change function. There is the option of either solar or network power supply and it is removable in under 20 seconds. Applications include bus stations, turnings and parking garages.

Looking good

Asura Recognition Unit by Asura (Hungary)
Stand 11.107

The Asura Recognition Unit (ARU) is a newly developed plug-and-play solution enabling high-accuracy license plate recognition (LPR) in any existing or new visual data collection system. ARU is camera-independent, works with any IP camera, and delivers high recognition rates with its sophisticated validation algorithms. ARU can store and push LPR results to any application in either MySQL, XML or CSV format.



**Intertraffic
Amsterdam
Highlight**
Kistler – Stand
10.315



Multifunctional WIM

Kistler Group will be showcasing KiTraffic weigh-in-motion solutions

Increasing traffic and heavy vehicles put a strain on infrastructure the world over. Damage to driving surfaces increases exponentially with higher axle loads, which means road owners and operators need to monitor usage carefully.

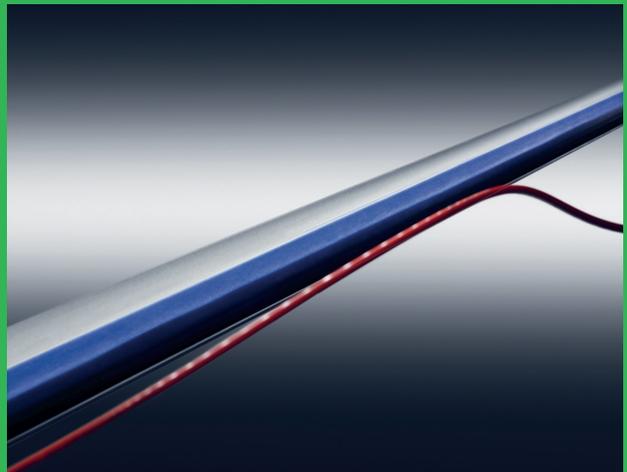
Kistler's advanced, durable weigh-in-motion (WIM) solutions automatically gather traffic and load data without intervening in traffic flow. This provides a reliable basis for weight enforcement for overloaded vehicles, the calculation of toll fees, and the determination of maintenance intervals. The Swiss measuring specialist now additionally offers tailor-made WIM services, such as road analysis and calibration services.

Kistler's solutions enable road and traffic monitoring, weight enforcement and weight-based tolling. The extended KiTraffic service package facilitates a wide range of applications and ensures high performance.

KiTraffic Plus is a new WIM solution for automated road monitoring. Applications include weight enforcement and toll-by-weight. With its Lineas quartz sensors, KiTraffic Plus can measure vehicle loads at different speeds and on a virtually infinite number of lanes.

The completely open and scalable system now operates

using two to eight sensors per lane. KiTraffic Plus is a flexible and expandable solution, which can be combined with camera systems for vehicle identification, among other applications. The data is processed in a protected roadside cabinet. The results and analyses are available in real time via web-based HMI or API interface transfers.





Innovation Awards 2018: Traffic Management nominees

Smarten up

Sprinx Traffic AID
Sprinx Technologies (Italy)
Stand 12.316

Based on the innovative 3D tracking technology, Sprinx Traffic AID running on board Hanwha Techwin WisenetX cameras has considerably enhanced the ability to detect incidents and keep traffic on the move. It offers distinctive advantages over normal cameras by performing not just image capture, but also image analysis and event detection, turning a standard CCTV camera into a smart CCTV camera for professional traffic systems.

Multifunctional counting

CITIX 3D
Eco-Counter (Canada)
Stand 12.328

CITIX 3D, Eco-Counter's latest innovation, is a wide-range counter capable of automatically counting and differentiating pedestrians, cyclists and vehicles, simultaneously. It is extremely easy to set up and can be positioned almost anywhere. Its unique technology is the result of five years of research and development in partnership with a top European Research Lab (CEA).

Road marking maps

Signs to Lines TRO Mapping
AppyParking (UK)
ITSUP Hall

Signs to Lines Mapping is the latest technology that creates the world's most accurate map of all the paint on the street related to traffic and parking management. These regulatory maps are required by law to be kept up-to-date by local authorities. The Signs to Lines mapping technology uses a combination of state-of-the-art vehicle-mounted lidar scanners, photography, AI and machine learning.



Customizable solutions

Tecsidel is showcasing diverse traffic management and tolling technology

Tecsidel is a multinational company focused on development and integration of advanced information systems specialized in stop-and-go tolling, multilane free-flow, back office applications, and turnkey ITS management. Thanks to the quality and innovation of its customizable projects, Tecsidel has become a leading company in the industry.

One of the most important projects it was awarded in 2017 was a free-flow single-gantry in Sweden, which includes new algorithms applied in the processing of data obtained by

the antennas, laser scanners and cameras installed on a gantry.

Tecsidel runs a continuous R&D investment for state-of-the-art solutions such as its Maintenance Management

System (TMMS+), Intelligent Traffic System (ITS+) and system for Management of Electronic Payments (MEP). Such innovations will be showcased in Amsterdam.



Intertraffic Amsterdam Highlight
Tecsidel – Stand 12.314



Intertraffic Amsterdam Highlight
Lumenera – Stand 07.319



Advanced enforcement

Lumenera's cameras are ideal for tolling, red light and speed enforcement

Visitors to Lumenera's stand at Intertraffic Amsterdam will be able to see the company's ITS imaging demo.

High speed: The Lumenera Pregius Global Shutter CMOS cameras, including the Lt345R, Lt545R, Lt945R and Lt1245R, will capture still images via a software trigger from their own video feed – ideal for self-triggered video tolling and multilane red light enforcement.

High resolution: The Lumenera Lt16059H full format CCD camera with 16MP, 12fps, and Canon EF Lens mount for iris and focus control will be hardware-triggered to simulate infractions reported by external sensors such as ground induction loops or a lidar system – these features make these cameras ideal for multilane red light and speed enforcement.





**Innovation Awards 2018:
Safety nominees**

Safe, smart cities

TrafficCam3D
Viion Systems (Canada)
Stand 07.322

TrafficCam3D is a revolutionary lidar smart camera with onboard processing and telemetry for traffic safety and security applications. The camera-processed data can include vehicle classification, average speed, and origin/destination. TrafficCam3D constitutes a critical component of safe and smart cities and highways, delivering actionable intelligence as well as video camera functionality from a single fully integrated, low-cost platform.

Intelligent road studs

SR-90
Sernis Technologic Solutions (Portugal)
Stand 01.336

SR-90 is an intelligent system for physical speed reduction of vehicles in controlled speed zones, for instance in the vicinity of pedestrian crossings. It works with hardwired road studs with two levels of elevation from the soil and corresponding LED signals, which are controlled electronically. The speed control measures are the result of an intelligent algorithm; the level of elevation and the LED's color will change accordingly to the speed that the car approaches the control area.

Speed awareness

SpeedWatch+
Traffic Technology Ltd (UK)
Stand 08.120

Traffic Technology's Community SpeedWatch system is a portable roadside radar that enables volunteer members of the public to take part in non-confrontational speed monitoring surveys. SpeedWatch+ is a roadside VMS that wirelessly interfaces with the SpeedWatch device to let the volunteers inform drivers of their disregard of community road safety. Messages can be selected by the operator including, 'Cell phone use!', 'Fasten seatbelt!' and 'Excess speed!' – providing a direct warning to violating drivers.



The bigger picture

Complete solutions for safety, security and tolling

Safety, security and road-user charging together help to form the backbone of a smart road network – these are the topics that will be addressed in Amsterdam by German machine vision specialist Vitronic.

The company will showcase how its product range can be applied to a host of applications including speed and red light enforcement, average-speed enforcement,

wanted-cars search, border control and electronic toll collection. Vitronic solutions are also provided with clever back office solutions to round off the portfolio.

The pole-mounted Compact City Housing for lidar-based traffic monitoring and the gantry-less Tollchecker Roadside tolling system will be Vitronic's highlights, since they will be presented in Amsterdam for the first time.



Intertraffic Amsterdam Highlight
Vitronic – Stand 12.407



Intertraffic Amsterdam Highlight
Vaisala – Stand 12.822



Weather problems solved

Improving road safety in adverse conditions

Vaisala, a world leader in weather solutions for every application, has been supporting road and highway authorities for over 40 years. Detecting road weather conditions is a big challenge requiring a great deal of experience. Vaisala has this, and regularly consults with customers to improve its understanding. It is currently looking at how



road weather information will become part of connected and autonomous vehicle solutions to improve surface transportation networks.

To tap into this wealth of knowledge, and prepare for the future, you can consult with some of the world's best weather experts on the Vaisala stand at Intertraffic Amsterdam.



**Innovation Awards 2018:
Parking nominees**

Wireless power

Self-powered Parking Sensor
ParkHere (Germany)
Stand 07.410

Parking sensors register whether a car is parked in a spot. This is the first parking sensor that doesn't need any kind of external power supply. It uses kinetic energy harvesting to produce the energy it needs to send a signal to the base station, which forwards the data to a cloud server. It can also inform drivers of the size of a parking space on-street.

Fighting congestion and fumes

The Urban Mobility Control Management Hub
ParkNow, Parkmobile Group (Germany)
Stand 02.105

ParkNow has delivered an integrated parking ecosystem for Paris with its new urban mobility control management and parking system. The total digitization of parking combines cashless apps, parking meters, permits and enforcement data to optimize traffic flow. It processes penalties, and helps reduce emissions during pollution days via dynamic pricing. A unified on-demand dashboard provides hands-on control for a real smart city.

Advanced space reservation

Imapark
Sernis Technologic Solutions (Portugal)
Stand 01.336

Imapark is an on-street intelligent parking management system that helps drivers find and pre-reserve a free parking space on public roads more quickly using sensors, road studs, electronic displays and mobile app. In the app, it is possible to visualize, in real time, parking spots available, reserve a parking space for a certain time, and pay for the service. Solar powered road studs illuminate red to indicate when a space has been reserved.



Model cities

Q-Free to demonstrate solutions with model cityscape on biggest stand ever

The Q-Free stand will feature a combination of the physical and virtual. The centerpiece of the 1,290ft² (120m²) display will be a table-top model of a cityscape, upon which model cars will roam and trigger videos on surrounding screens. These will demonstrate the company's comprehensive range of solutions for parking, tolling and traffic management.

A key product focus will be the new ParQSense in-ground sensor for on-street parking applications. This uses new mass-market NB-IoT communication protocols to reduce the cost and complexity of deployment and operations.

Visitors will also be able to learn how the company has been producing and delivering

backbone solutions for the major Cooperative ITS (C-ITS) pilot schemes.



Intertraffic
Amsterdam
Highlight
Q-Free – Stand
12.309





**Innovation Awards 2018:
Smart Mobility nominees**

In-dash parking solution

On-Street Parking Info (OSPI)
by ParkNow (Germany)
Stand 02.105

BMW's new On-Street Parking Information (OSPI) feature and ParkNow's in-dash payments solve parking pain for drivers. OSPI forecasts space availability based on historic traffic flows, parking meter data and transactions from parking apps. Color-coding on the navigation map shows the likelihood of finding a free spot. Payment is made in-dash.

Cycle priority app

CrossCycle
Dylniq (Netherlands)
Stand 08.524

The CrossCycle app identifies cyclists when they approach an intersection and gives them the green light more quickly. In addition to extending the green light for individual cyclists, the app also makes it possible to give priority to groups of cyclists.

Parking navigator

Find&Pay
EasyPark Group (Sweden)
Stand 02.312

The EasyPark Find&Pay app is the first of its kind in the world to offer payment and turn-by-turn navigation directly to find available parking, on- as well as off-street. The service is based on millions of datapoints that together form an algorithm calculating the optimal route to find available parking as close as possible to your final destination.

**The Intertraffic Amsterdam
Innovation Awards 2018 jury**

- **Dr Peter van der Knaap** (Chairman of the Jury), Managing Director – SWOV
- **Tom Stone**, Editor – *Traffic Technology International*, UKi Media & Events
- **Jorrit Weerman**, CEO, Parking Network
- **Adam Hill**, Editor – *ITS International*, Route One Publishing
- **Dr Ben Rutten**, Program Manager – Strategic Area Smart Mobility, Eindhoven University of Technology



Unlocking location

Here will be demonstrating how its technology will be central to tomorrow's smart cities

Here, the open location platform company, enables people, enterprises and cities to harness the power of location. By making sense of the world through the lens of location, it empowers its customers to achieve better outcomes – from helping cities to manage their

infrastructure or enterprises optimize their assets, to guiding drivers to their destination safely.

At Intertraffic Amsterdam 2018, Here will demonstrate its portfolio of next-generation mobility, transportation and infrastructure services for tomorrow's smart cities.



**Intertraffic
Amsterdam
Highlight**
Here – Stand
08.319



**Intertraffic
Amsterdam
Highlight**
Dylniq – Stand
08.524



Energizing mobility

Dylniq will be showcasing smart, efficient and sustainable transportation solutions

Dylniq is a dynamic, high-tech and innovative company offering integrated mobility, parking and energy solutions. Its mission is to enable people, data and goods to reach their destinations efficiently, sustainably and safely.

Dylniq provides technology solutions under its own name, but also using the name Peek by Dylniq and its subsidiaries YSP and WPS. At Intertraffic Amsterdam, Dylniq will be showcasing the very latest in intelligent infrastructure and traffic systems, as well as reliable and future-proof parking solutions.

