



ISWIM NEWSLETTER

Message from the ISWIM president

Welcome to the August edition of the ISWIM Newsletter for 2026. Here in the United States, we are still in the midst of summer while many university students are gearing up for another school year, others are enjoying their last few weeks of leisure.

The last few months have been anything but leisure for ISWIM. We are diligently planning for ICWIM10 in Slovenia next May, and are excited about the program we are preparing for you. Thank you to everyone who submitted an abstract to the conference. We received over 100 entries showcasing the work being done in the WIM and heavy vehicle transport communities. Updates about the conference will be posted on the website, so please check the site for the latest information.

ISWIM had a great 3-day workshop in South Africa which you can read about in this newsletter. We have two other key events we are preparing for this fall: a webinar in partnership with the Commercial Vehicle Safety Alliance and a regional WIM seminar in Brasilia.

Another important outreach activity that ISWIM is committed to is the Young Researcher Award contest. This year we had 12 entries! This is the highest number of submissions we have received thus far. The two winners for the year's contest along with a few other contestants will present their work at an ISWIM-sponsored webinar in September. Please see the article to learn more about the winners and how to join the webinar.

Remember, the ISWIM Newsletter is your newsletter. Thank you to those we submitted articles on the work being done in your part of the world. Keep up the great work and keep the articles coming about your research initiatives, programs, and ideas for advancing WIM technology.

Deborah Walker, President of ISWIM ■ [Deborah Walker](#) | deborah.walker@dot.gov

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10th International Conference on Weigh-In-Motion

The International Society for Weigh-In-Motion (ISWIM) and the International Forum for Heavy Vehicle Transport & Technology (HVTT Forum) have come together again to host a joint international conference. Ljubljana, the capital of Slovenia, will host the venue at the Art Nouveau Grand Hotel Union, located in the heart of the city. The conference dates are from **Sunday, May 9, to Thursday, May 13, 2027**.



The conference duration is 3 full days, each with 3 to 5 parallel sessions depending on the number of accepted papers. The fourth day will be reserved for technical tours and site visits. As part of the conference, there will also be an exhibition where companies and organisations can present their products, solutions and activities. For exhibition and sponsoring opportunities please contact: matija.mavric@cestel.si



City centre of Ljubljana by night

The slogan for the conference is: **Moving Forward Together – Connecting Heavy Vehicles and Weigh-In-Motion.**

The conference will present new concepts and innovative solutions in different areas from both fields. The ISWIM part will focus on infrastructure preservation and the development and implementation of Weigh-In-Motion technologies, while the HVTT part will address developments in heavy vehicle operation, vehicle access and safety, and logistics. The conferences will attract a diverse international audience, including researchers, engineers, consultants, equipment vendors and representatives from government agencies and international organisations.



Disclaimer

The projects described, ideas shared, and claims made in this Newsletter do not necessarily represent the official view or position of ISWIM.

While care has been taken in the preparation of the content of this Newsletter, ISWIM accepts no responsibility in its use, for any omission, or damage that may be caused and does not endorse any specific product or result presented in the Newsletter.

ISWIM Website

Please visit the official ISWIM website: www.is-wim.net. Here you will find information on our society, all Newsletters, past ISWIM Events, the Guide for Users of WIM and links to our all Vendors & Consultants.

New is our online, searchable library with over 450 articles, papers and reports related to Weigh-In-Motion.

ISWIM LinkedIn Group

The ISWIM LinkedIn Group is another way of staying connected with the latest developments in WIM.

In this group, researchers, end-users and vendors can find and post short articles on initiatives, new projects, test results, or other developments related to WIM-technology, applications and data.

The ISWIM LinkedIn Group has currently more than **665** members. If you want to join, please visit:

linkedin.com/groups/13400438

Abstracts have been received and reviewed by a scientific committee involving both academic and industry professionals from ISWIM and HVTT. Accepted papers will be scheduled for presentation in one of the sessions of the joint conference, or as a poster presentation. The papers may be published on the ISWIM and HVTT Forum websites after the conference. The organisers are engaging with an academic publisher to explore the possibility of publishing official conference proceedings, in addition to the standard hosting of papers on the ISWIM and HVTT Forum websites. Key dates for abstract and paper submission are:

- ~~30 April 2026~~ ~~Submission of abstracts~~
- ~~30 June 2026~~ ~~Authors notified of abstract acceptance decision~~
- 30 September 2026 Submission of full papers
- 30 November 2026 Authors notified of full paper review decision
- 31 January 2027 Submission of final full paper
- 9 May 2027 Start of conference



Church on island in Lake Bled Ljubljana, Slovenia

Slovenia is a small, diverse Central European country known for its stunning geography, blending Alpine peaks, Mediterranean coast, karst caves, and Pannonian plains within a compact area. An independent nation since 1991, Slovenia offers a mix of outdoor activities, historic cities, thermal spas, and a unique cultural heritage at the crossroads of diverse European influences. This small green country has its own unique character, not only in its landscape but also in its culture and cuisine. Slovenia will surprise you with its diversity once you discover it.

More information will be made available via the ISWIM and HVTT websites and shared through regular emails to all ISWIM-members and posts at our LinkedIn group.

■ Aleš Žnidarič | ales.znidaric@zag.si
 ■ Matija Mavrič | matija.mavric@cestel.si

ISWIM Board (elected Nov. 2023)

Executive Board:

- Deborah WALKER, United States
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- Gustavo OTTO, Brazil
Vice-President Science
- Matija MAVRIČ, Slovenia
Vice-President Vendors
- Aleš ZNIDARIČ, Slovenia
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Information Officer

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- Vittorio DOLCEMASCOLO, France
- Bernard JACOB, France
- Steven JESSBERGER, United States
- Rish MALHOTRA, Canada
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- Eugene O'BRIEN, Ireland
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Vendors & Consultants College:

- Matija MAVRIČ, Slovenia
- Yoonis GIGLI, Italy
- Rish MALHOTRA, Canada

Promotion Officer:

- Hans VAN LOO, Switzerland



Young Researcher Award 2026

We are excited to announce the winners of the ISWIM Young Researcher Award 2026! This award recognizes outstanding contributions from students and early-career professionals in the field of WIM. From system calibration and data analysis to infrastructure assessment and traffic safety, this year's submissions showcased impressive innovation and passion for advancing WIM technologies. Congratulations to the awardees, whose work is helping to shape the future of WIM research and application.



Joshua Irawan is a PhD candidate at the Graduate School of Engineering, Kyoto University, supported by the MEXT Scholarship. His research focuses on bridge health monitoring through vehicle-bridge interaction, particularly Bridge WIM and the assessment of bridge and pavement conditions using sensors mounted on passing vehicles.

Joshua worked on an Advanced Multi-Objective Optimization BWIM (A-MOO-BWIM) framework. The study focuses on improving axle load identification under practical field conditions, where measurement noise, sensor variability, and uncertainty in the calibrated influence line can affect estimation accuracy. A-MOO-BWIM provides a practical and scalable pathway toward field-robust BWIM and continuous bridge traffic monitoring.

Debojyoti Paul is an emerging expert in Bridge Health Monitoring (BHM), having recently earned his PhD from IIT Patna, India. He has shown a consistent passion for the application of WIM data for bridge assessment, with a particular emphasis on the dual utility of B-WIM systems for both traffic monitoring and structural health evaluation.



His research focuses on enhancing the capability of B-WIM systems for effective damage localization and quantification in bridges through numerical and experimental investigations. Among other things, it proposes a novel methodology for localizing damage across both the span and width using bridge influence surfaces, along with an optimal sensor placement strategy. The findings from Debojyoti's research highlight the potential of B-WIM as a dual-purpose system, offering bridge authorities a reliable and cost-effective solution for real-time condition monitoring, two-dimensional damage assessment, and proactive infrastructure maintenance.

ISWIM Vendors

APM	www.apm.pl
Applied Traffic	www.at.co.uk
Axtec	www.axtec.co.uk
Betamont	www.betamont.sk
CAMEA	www.cameatechnology.com
Captels	www.pesage-captels.com
Cestel	www.cestel.eu
Ciemsá	www.ciemsá.com.uy
Cross	www.cross.cz
Dynaweigh	www.dynaweigh.com
Excel Technology	www.exceltech.com.au
FardEU	www.fardeu.com
GEC Scales	www.gecscales.com
Girwim	www.girwim.com
Intercomp	www.intercompcompany.com
iWIM	www.iwim.it
Kistler	www.kistler.com
Mikros	www.mikros.co.za
Mettler Toledo	www.mt.com/wim
Neurosoft	www.neurosoft.pl
Osmos	www.osmos-group.com
Q-free	www.q-free.com/products
Quarterhill	www.quarterhill.com
Rekor	www.rekor.ai
Sterela	www.sterela.fr
TDS	www.traffic-data-systems.net
Traffic Lines	www.traffic-lines.de
Tramanco	www.tramanco.com.au
VanJee Technology	www.wanji.net.cn

Interested to join the ISWIM Vendors, just contact:

■ **Matija Mavrič** | matija.mavric@cestel.si

■ **Hans van Loo** | hans.vanloo.int@gmail.com

ISWIM Young Researcher Award 2026

Joshua and Debojyoti along with other contestants who submitted entries, will present their work at an upcoming webinar on September 1st from 09:00-11:15 AM EST. Participation is free of charge, and no registration will be needed. Use this link to join the webinar:

<https://teams.microsoft.com/meet/296841333100207?p=SCuErkOdnOMtlnaiKo>

Meeting ID: 296 841 333 100 207, Passcode: BS7G6zp2.

For the topics see the agenda below.

Time	Speaker	Topic
09:00	Sylwia Stawska, USA	Intro to ISWIM Young Researcher Award.
09:10	Joshua Irawan, Japan	Advanced Multi-Objective Bridge-WIM framework for robust axle load identification
09:30	Debojyoti Paul, India	Localization and quantification of damage across length and width of bridges using bridge WIM
09:50	Binyam Wesen, Ethiopia	Cross-regional comparison of axle load spectra and overweight truck patterns using multi-year WIM data
10:10	Felix Obonguta, Japan	Simultaneous optimization of road intervention and overloading penalty policies for user cost minimization
10:30	Kamran Khan, Pakistan	A multidimensional assessment of traffic safety risks on rural road networks in Islamabad, including WIM Systems
10:50	Bowen Young, USA	Safe platooning headways for girder bridges based on Wyoming I-80 WIM data
11:10	Sylwia Stawska, USA	Closure of webinar

For more information on the webinar contact:

■ Sylwia Stawska | SVStawska@modjeski.com

Successful WIM Workshop at SATC

In cooperation with SANRAL (South African National Road Agency SOC Ltd.) ISWIM organized another WIM workshop during this year's SATC (Southern African Transport Conference) in Pretoria, South Africa from July 8 to 10.

The focus of the workshop was on the early results of SANRAL's WIMe project. The WIMe technology trials are a preparation of the future use for WIM systems for direct, automatic weight enforcement. In addition, the workshop also provided an update on the international progress in the development, implementation and standardization of WIM for direct weight enforcement around the world.



ISWIM Consultants

Corner Stone www.corner-stone-int.com

FIMAU www.FIMAU.com

NMI www.nmi.nl

RTS GmbH doupal@hispeed.ch

Static Motion www.staticmotion.co.za

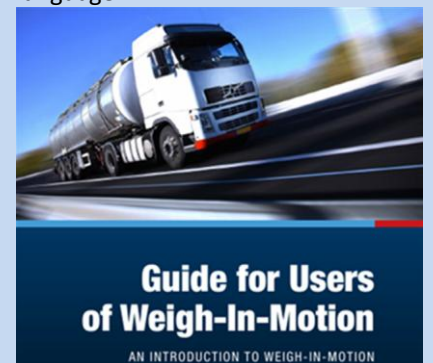
Interested in joining the ISWIM Consultants, just contact:

■ Matija Mavrič | matija.mavric@cestel.si

■ Hans van Loo | hans.vanloo.int@gmail.com

ISWIM Guide for Users of WIM

The ISWIM Guide for Users of Weigh-In-Motion serves as a basic, yet comprehensive introduction to Weigh-In-Motion. The Guide covers different aspects related to the working, specifying, buying, installing, testing, maintaining and using of WIM systems and data. To enhance accessibility for users starting with WIM, these topics are described in easy-to-understand language.



This document covers different aspects related to the working, specification, purchase, installation, testing, operation and maintenance of WIM systems, and the application of the data they produce. A PDF version of the WIM User Guide can be downloaded at the ISWIM website: www.iswim.net/library/wim-users-guide/

■ Hans van Loo | hans.vanloo.int@gmail.com



The ISWIM speakers at the WIM workshop

After the traditional welcoming Braai on Wednesday evening, the programme of the first day consisted of a mix of presentations on the latest developments in South Africa, other countries and concrete examples of successful implementations of WIM systems by a number of ISWIM vendors. The workshop had a record 110 participants mainly from South Africa and a few from other southern African countries.



The second day of the workshop consisted of a Technical Tour to the WIME pilot section and the Mantsole Weigh Station. At the site approximately 70 km north of Pretoria nine WIM systems were installed and tested. The participants showcasing their systems represent a number of well-known national and international WIM vendors and were approved by SANRAL for participation in the trial. All presentation from the workshop can be found at:

www.is-wim.net/events/workshops-webinars/2026-satc-wim-workshop/

■ Hans van Loo | hans.vanloo.int@gmail.com

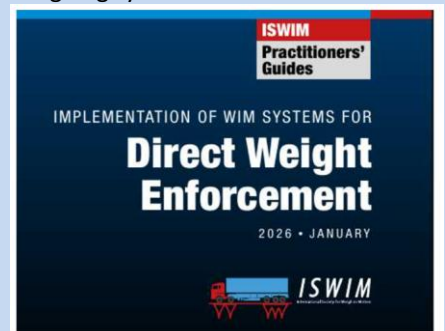
CVSA - ISWIM Webinar 2026

This webinar is the latest in a series of successful events organized in cooperation with the Commercial Vehicle Safety Alliance (CVSA). This edition will focus again on the latest developments in the applications of WIM for weight enforcement. The workshop titled **“Scales and No Scales – WIM for Weight Enforcement”** will held on Wednesday October 7th 2026 from 11:00 – 13:30 EDT.



Guide on WIM Systems for Direct Weight Enforcement

The latest addition to the series of ISWIM Practitioners' Guides is the guide on the **“Implementation of WIM Systems for Direct Weight Enforcement”**. Direct weight enforcement means that the measurements from the high-speed WIM system are used directly for weight enforcement without the need for any legally accepted verification measurements by a low-speed WIM or static weighing system.



This document offers an overview of the different aspects, advantages and challenges involved in the implementation of WIM for direct enforcement. It also provides recommendations based on experiences and best practices from the global WIM industry, and perspectives of agencies involved in enforcement along with published documentation, aiming to assist in the successful implementation of high-speed WIM systems for direct weight enforcement.

It may be used as a basis for the establishment of specific requirements, regulations and procedures for a successful implementation of WIM for direct weight enforcement. It does NOT intend to serve as a standard or to dictate what actions individuals or organizations should take. The Guide is published and available via the ISWIM website: www.is-wim.net/library/published-guides/

■ Hans van Loo | hans.vanloo.int@gmail.com

■ Gerhard de Wet | gerharddw@staticmotion.co.za

Participation in the workshop is free of charge. You just need to register at: [CVSA-ISWIM-Workshop Registration](#). You will receive a link for the ZOOM-meeting, to learn more about the topics see the agenda below.

Time	Speaker	Topic
11:00	Dave Huft, South Dakota Department of Transportation	WIM for Mainline E-Screen: Data Collection and Enforcement
11:20	Captain Steven Holmes, South Carolina State Transport Police	Virtual Weigh Station
11:40	Nebraska State Police and Tyler Haichert, Quarterhill	A confidence-based direct en- forcement WIM solution
12:00	Tanvi Pandya, DOT-NYC, United States	WIM for Direct Enforcement in New York
12:20	Trooper Jason Di Fusco, Rhode Island State Police	Weight Enforcement and More
12:40	Robert Vehovec, Slovenian Traffic Police and Matjaz Sokol, Cestel	Use of a portable WIM for weight enforcement
13:00	All	Questions & Answers
13:30		Closure

For more information on the webinar contact:

■ Kevin Andrews | kevin.andrews@cvsa.org
 ■ Hans van Loo | hans.vanloo.int@gmail.com

4th Regional Seminar on WIM

The Brazilian National Land Transport Agency (ANTT), the Transport and Logistics Laboratory (LabTrans) of the Federal University of Santa Catarina and ISWIM have come together to organize the 4th Regional Seminar on Weigh-In-Motion (RSWIM4). This 3-day event will be held at the ANTT headquarters in Brasilia, Brazil from **Tuesday, Nov. 24 to Thursday, Nov. 26, 2026**.



Coming Events (subject to change)

Commercial Vehicle Safety Alliance (CVSA) + ISWIM Webinar

Virtual Event
7 October 2026
www.cvsa.org

PIARC Workshop

Improving Road Asset Management
22 October 2026
www.piarc.org

ITS World Congress

Annual Conference and Exhibition
Gangneung, South Korea
19-23 October 2026
www.2026itsworldcongress.org.com

RSWIM-4, 4th Regional Seminar on WIM

24-26 November 2026
Brasilia, Brazil
www.gov.br/antt and www.iswim.net

ICWIM-10, 10th International Conference on Weigh-In-Motion

ISWIM and HVTT Forum
9-13 May 2027
Ljubljana, Slovenia
www.is-wim.net

14th Int. Conference on Structural Health Monitoring of Intelligent Infrastructure (SHMII-14)

Naples, Italy
29 June – 2 July 2027
www.shmii-14.com

Southern African Transport Conference (SATC)

Pretoria, South Africa
5-8 July 2027
www.satc.org.za

Commercial Vehicle Safety Alliance (CVSA) + ISWIM Workshop

Annual Conference and Exhibition
Atlantic City, New Jersey USA
22-26 August 2027
www.cvsa.org

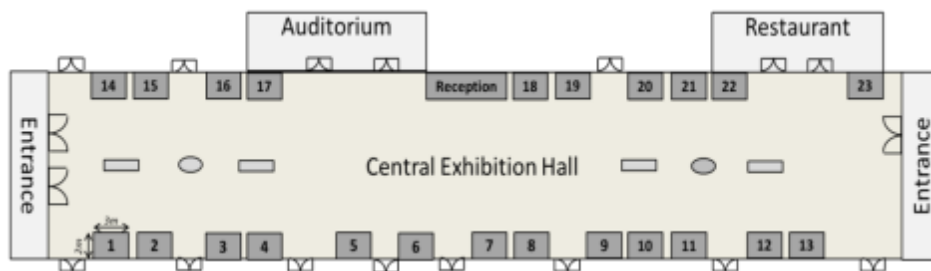
Intertraffic Amsterdam

Amsterdam, The Netherlands
7-10 March 2028
www.intertraffic.com

Do you know other WIM-related events? Please contact:

■ Hans van Loo | hans.vanloo.int@gmail.com

This international event is dedicated to advancing knowledge and best practices in WIM technologies and applications in Brazil, South America and around the world. The first day will focus on the international developments in the implementation of WIM for direct, automatic weight enforcement. A selection of renowned key-note speakers will share their experiences from North and South America, Europe, Africa and Australia. The second day will concentrate on the situation in Brazil, including a short history of WIM in Brazil, the results from the recent WIM Sandbox, examples from show case projects and a panel discussion on the remaining challenges for successful implementation.



Overview of the exhibition hall

On the third day, there will be a technical site visit to the HS-WIM station at Anapolis (Rodovia BR-414/GO km 432+174, Anápolis/GO) near Brasilia. During the seminar there will also be an exhibition where ISWIM vendors will show there latest solutions and developments. Along with the seminar there is an exhibition and sponsorship opportunity open to interested parties and places are filling quickly. For more information on the exhibition and sponsoring opportunities contact one of the persons listed below.

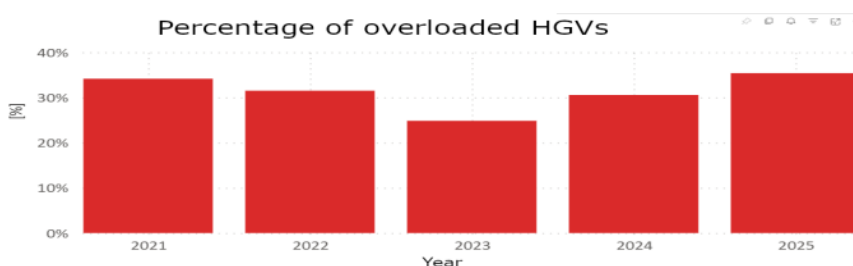
■ Andy Lees | andyleeswork@talktalk.net

■ Gustavo Otto | ottogus@gmail.com

Why WIM is also important for smaller roads

The Slovenian Infrastructure Agency has been doing one-week bridge weigh-in-motion measurements in Stahovica, a small settlement in northern Slovenia with a population of fewer than 200 people, every year for the past 20 years.

Why? It turns out the two-lane regional road, which cuts the village of Stahovica in half, is under immense pressure from heavy vehicles originating in a quarry to the north, a factory in the center of the settlement, and woods and sawmills all around. Additionally, a small river runs along the road. A small river, which, during the catastrophic flooding in August 2023, became a very big river, destroying one of the small bridges in Stahovica.



The percentage of overloaded HGVs detected in Stahovica, Slovenia.

Guide on Calibration of WIM Systems

Another recent addition to the series of ISWIM Practitioners' Guides is one on the **"Calibration of WIM Systems"**. This guide has been developed by a group of ISWIM volunteers and is aimed to assist WIM contractors and transportation agency personnel involved in field WIM equipment calibration. In addition, road owners responsible for developing WIM programs may find this document useful in establishing their specific requirements for a successful WIM operation.



This document will offer recommendations based on proven best practices and published documentation for conducting a successful WIM calibration for in-road and bridge WIM technologies. The purpose of this document is to provide step-by-step procedures to perform an initial or routine calibration of WIM equipment installed for high-speed WIM data collection to support highway monitoring and transportation statistics.

This guide should be used only for systems that are for general traffic monitoring, statistical applications and WIM pre-selection. This guide is not aimed at systems used for legal metrology applications such as direct enforcement and does not circumvent any available standard WIM specifications.

The ISWIM Practitioners' Guide has recently been published and is available via the ISWIM website: www.is-wim.net

■ Andy Lees | andyleeswork@talktalk.net

■ Deborah Walker | deborah.walker@dot.gov

One-week measurements, performed every year with portable bridge WIM systems, gives the agency vital information on traffic loading at these rather remote but important roads. While the one-week sample size may seem small, it is enough to make a year-to-year comparison possible and to give the asset manager a broad assessment on the actual traffic loading.

In Slovenia, such data is gathered at more than 100 similar locations each year, making the Slovenian Infrastructure Agency an infrastructure owner with possibly the largest database of WIM data in the world. With the advent of AI, the value of such a database is immense, as it can be used for advanced planning of road and bridge maintenance works.

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Diversified Connectivity for Reliable WIM Data

A WIM system must remain connected wherever it is installed. Remote transit routes, mountain roads, border corridors and newly developed road sections often lack reliable telecommunications infrastructure. In such locations, satellite communication can be essential for maintaining continuous access to WIM data. Modern WIM solutions, including WIM PRO, support multiple connectivity options adapted to site conditions.

Ethernet provides the highest stability where cable infrastructure is available, enabling fast transmission of vehicle records to traffic management and enforcement systems. Wi-Fi can connect roadside equipment with the control cabinet where laying cables would be difficult or costly. GSM/LTE offers efficient wireless communication in areas covered by mobile networks.

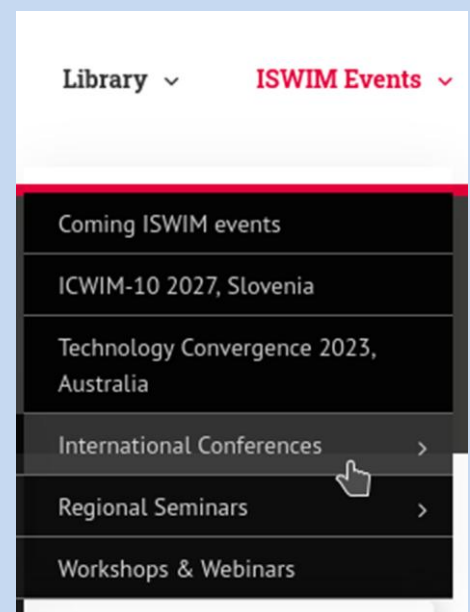


Conceptual illustration of a WIM PRO system with satellite connectivity.

Information on past ISWIM Events

Over the years ISWIM has organized several Weigh-In-Motion related events. This varied from ½ or 1 day workshops, larger regional seminars to full scientific international conferences. We realize that you may have been interested to attend these events but were unable to do so.

That is why at our website www.is-wim.net/events/ we have made a lot of information on the coming and past ISWIM events available to our members.



For most events the program, proceedings, presentations and some video recordings are available to members of ISWIM.

In addition, in our public library at www.is-wim.net/library/, you can also find the papers from the previous International Conferences on WIM (ICWIM4 – ICWIM9).

■ **Hans van Loo** | hans.vanloo.int@gmail.com

■ **Andy Lees** | andyleeswork@talktalk.net



Satellite connectivity extends these capabilities to locations beyond terrestrial network coverage. It enables the transmission of vehicle data, overload alerts, system status information and diagnostic messages from isolated sites. It can also serve as a backup communication channel when primary networks are interrupted. APM PRO has implemented such WIM installations in Poland and other Eastern European countries where Starlink provides satellite connectivity.

This flexibility allows road authorities to install WIM stations where monitoring is most needed, rather than only where communications infrastructure already exists. By integrating diversified communication methods into its WIM solutions, APM PRO helps ensure that critical weighing data, overload alerts and diagnostic information remain available even when terrestrial networks are unavailable or fail. Reliable monitoring and enforcement can therefore be maintained wherever the road network requires it.

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■ Tomasz Konior | tomasz.konior@apm.pl

Strain Gauge Strip Sensor Stability Supports HS-WIM Programs Worldwide

High-Speed Weigh-in-Motion (HS-WIM) has evolved from a traffic monitoring technology into a fundamental component of modern transportation infrastructure, supporting applications such as direct weight enforcement, bridge protection, commercial vehicle screening, tolling, and network-wide traffic management. As these systems assume increasingly important operational and regulatory roles, long-term sensor stability has become a key requirement for sustained measurement performance.

While initial calibration accuracy remains essential, the long-term consistency of sensor output under continuous traffic loading, pavement movement, and seasonal environmental variations ultimately determines operational reliability. Stable measurements reduce recalibration frequency, minimize maintenance interventions, improve system availability, and increase confidence in the weight data used for enforcement and infrastructure management.

Intercomp's strain gauge strip sensors have been deployed in numerous large-scale HS-WIM programs worldwide, where long-term stability has supported reliable operation under diverse climatic, traffic, and regulatory conditions.



Research site in Poland (left) and direct enforcement in Kazakhstan (right).

History of International Conferences on Weigh-In-Motion

So far 9 International Conferences on Weigh-In-Motion have been held and the 10th edition is scheduled for May 2027 in Ljubljana, Slovenia.

The conferences are:

ICWIM-1

Zurich, Switzerland
8-10 March 1995

ICWIM-2

Lisbon, Portugal
14-16 September 1998

ICWIM-3

Orlando, Florida, USA
13-15 May 2002

ICWIM-4

Taipei, Taiwan, ROC
20-23 February 2005

ICWIM-5

Paris, France
19-22 May 2008

ICWIM-6

Dallas, Texas, USA
4-7 June 2012

ICWIM-7

Foz do Iguaçu, Brazil
7-10 November 2016

ICWIM-8

Prague, Czech Republic
19-23 May 2019

ICWIM-9

Brisbane, Australia
6-10 November 2023

ICWIM-10

Ljubljana, Slovenia
9-13 May 2027

All papers of the past ICWIM's can be found at: www.is-wim.net/library/

For questions, please contact:

■ Hans van Loo | hans.vanloo.int@gmail.com

Independent research conducted by AGH University of Krakow in collaboration with the Polish Office of Measures evaluated multiple high-accuracy WIM sensor technologies under identical field conditions. The study demonstrated the high long-term calibration stability of strain gauge strip sensors, indicating verification intervals of approximately 15 months under the evaluated conditions. These results highlight the ability of strain gauge strip sensors to maintain consistent measurement performance over extended periods.

Recent deployment highlights include intelligent bridge protection systems in Germany, certified direct weight enforcement programs in Brazil, nationwide automated enforcement networks in Kazakhstan, and statewide commercial vehicle screening initiatives in the United States. Although these programs serve different operational objectives, they share a common dependence on sensor technologies capable of delivering stable, repeatable measurements over years of continuous highway operation. These recent implementations demonstrate the growing importance of long-term sensor stability as a fundamental requirement for modern HS-WIM systems.

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■ [Tomas Pospisek](#) | tomasp@intercompcompany.com

CAMEA Ranked First in SANRAL WIM-e Accuracy Trial in South Africa

We are proud to share an outstanding result achieved with our partner, Magna Business Consulting (Pty) Ltd, in South Africa. In the WIM-e pilot organized by the South African National Roads Agency (SANRAL) to test high-speed Weigh-In-Motion systems for direct enforcement, our system ranked first of nine participating technologies in the test-vehicle accuracy assessment.

The verification took place in February and March 2026 at the Mantsole Traffic Control Centre, using four test vehicles — from a two-axle rigid truck to a seven-axle interlink — each at 50% and 100% load. More than 400 passes were recorded at speeds of 41–81km/h.



CAMEA's WIM system at WIMe pilot section in, South Africa.

Contact ISWIM

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The results confirmed the system's excellent accuracy: gross vehicle mass was measured with a mean error below 1%, 98.6% of valid results within $\pm 5\%$ and all within $\pm 8\%$ of the static reference, while axle-unit loads achieved 98% within $\pm 8\%$. In the subsequent random sample test under live traffic in May 2026, our submission ranked second of the nine participants. SANRAL has officially accepted the results, confirming eligibility for the upcoming WIM-e national tender.

This success confirms the accuracy and reliability of our WIM technology under real-world conditions and marks an important milestone toward direct WIM enforcement in South Africa. Our thanks go to Magna Business Consulting for the excellent cooperation.

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14th International Conference on Structural Health Monitoring of Intelligent Infrastructure



14TH

INTERNATIONAL
CONFERENCE

on Structural Health Monitoring
of Intelligent Infrastructure



The 14th International Conference on Structural Health Monitoring of Intelligent Infrastructure will be held in Naples, Italy from June 29th – July 2nd 2027. SHMII-14 focuses on the development and implementation of advanced monitoring technologies for critical infrastructure.

During SHMII-14 there will be a Special Session (SS25) on Bridge WIM Systems: Technological Developments and Integration with Structural Health Monitoring. This dedicated session will present the latest advances that are transforming B-WIM from a traffic load estimator into a core component of structural health monitoring frameworks. Topics of interest include:

- High fidelity sensing and sensor fusion strategies
- Enhanced inverse problem algorithms and machine learning integration
- Rigorous uncertainty quantification and real time data processing
- Long term field deployments, case studies, and digital twin integration

The session will demonstrate how BWIM can support continuous performance assessment, early damage detection, fatigue evaluation, model updating, and resilience analysis of bridge assets. We invite contributions to report novel research, field experience, or case studies relevant to BWIM enabled SHM. Submissions need to be submitted via the conference submission portal (www.shmii-14.com) by 30 September 2026.

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