FISITA

Promoting excellence in mobility engineering

FISITA Annual Report 2018–2019

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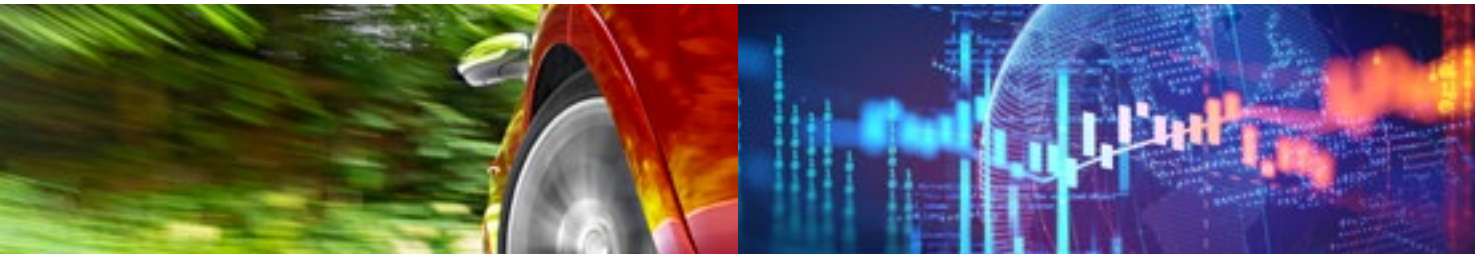


Introduction

Welcome to the FISITA Annual Report, which focuses on key FISITA activity and a variety of projects, events and initiatives spanning across our global membership platform through 2018-19.

The report has been compiled with the help of FISITA's Regional Vice-Presidents who have developed a close relationship with the members in their region – we are extremely grateful for their continued support.

Today, our network of Member Societies and Corporate Members extend a reach to over 210,000 engineers in 37 countries, placing us at the heart of the industry and enabling members to connect with each other, network, share technological advancements and collaborate in a pre-competitive environment. FISITA facilitates dialogue between engineers and industry, governments, academia, and environmental and standards organisations, across all areas of automotive and mobility systems technology.

Our international events provide a valuable platform for the mobility systems engineering community to collaborate and engage in crucial industry discussions. Our one-day conference FISITA PLUS continued to gain momentum in 2018, featuring some of the world's leading mobility technologists and professionals at County Hall in London, UK – it was a fabulous occasion for us to continue exploring the future of mobility engineering.

Hosted by our colleagues at SAEINDIA, FISITA 2018 took place in Chennai, India and was a spectacular conference, bringing together our global technical community, while welcoming new players within our exciting industry. The congress culminated with the traditional handover of FISITA Presidency, as Dan Nicholson concluded his two-year period by welcoming Prof Frank Zhao from Tsinghua University to the role for 2018 - 2020, with Nadine Leclair, Senior Vice-President and Expert Fellow at Groupe Renault, becoming President-Elect. Nadine has already begun working together with Frank and Dan in strategic planning to ensure a consistent vision, organisational development and delivery of plans through the transitional periods.

In 2018 we took the World Mobility Summit to Shanghai, China, for the first time, where delegates gathered to discuss key ideas, issues and opportunities around the theme of 'Vehicle Connectivity', while we headed to The Hague, Netherlands for EuroBrake, once again demonstrating why it is the world's largest braking technology conference.

2018 was another successful year for FISITA, with significant progress made in all areas of the organisation. We continue to deliver on the FISITA 'One Plan', which has aligned our planning process and allows FISITA colleagues greater ownership and collaboration with their relevant VPs.

As we look to develop our 2019-2020 planning, we are excited to see further growth for FISITA, where our focus will be:

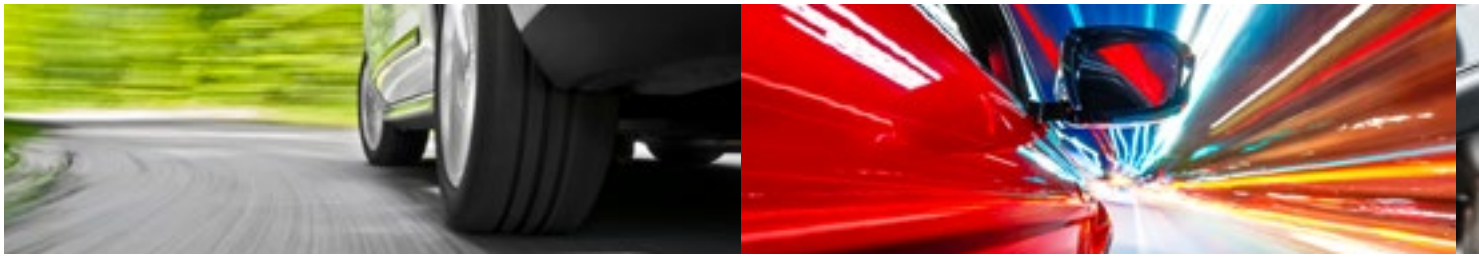
- **Quality**
- **International Profile**
- **Commercial Maturity**

We will report on these important milestones next year, but for now, please enjoy reading about the fantastic activities that have been taking place here at FISITA and around our regions in the last year.

Engineers create solutions, FISITA continues to support them to do so.

Prof Frank Zhao
FISITA President 2018 -2020

Chris Mason
Chief Executive



Europe

As FISITA VP Europe my role is to promote technical events in my region organised by more than one European Member Society, and it is also my responsibility to identify technical experts who can contribute to the relevance and success of the many initiatives of FISITA.

Dr.-Ing Carles Grasas, VP-Europe

VDI

Due to a significant increase in the interest of VDI members and the industry in general, VDI established a technical committee on unmanned aerial vehicles (UAV) in December 2018. The technical committee in particular plans to initiate standardization on suitable topics. For this purpose, a first list of topics has been developed, which will be further discussed and prioritized at the upcoming meetings. Suitable topics for standardization are:

- **Maintenance of UAV**
- **Counter-UAV**
- **Cyber security**
- **Operating procedures for platform-independent and tethered systems and for lighter-than-air systems**
- **Minimum standards for training and training content (theory and practice)**

In November 2018, VDI held an expert forum on autonomous railway operations. The participants received a varied program from 11 speakers, highlighting numerous practical examples, critically examining technical solutions, questioning security concepts, addressing compatibility issues between rail companies and between railways and the supplier industry, and the need to develop series production solutions were discussed. The VDI technical committee on railway technology plans to repeat an event of this kind every two years.

New Publications

VDI Fields of Action - Berlin Declaration on Vehicle Safety

The goal of halving the road traffic fatalities between 2010 and 2020 is endorsed by the safety experts of the VDI Society Automotive and Traffic Systems Technologies. They are currently examining the potential and risks of automated driving with regard to road safety until the year 2030. Find out more in the "Berlin Declaration on Vehicle Safety".

VDI Status Report Automated Driving

Automated driving is currently playing a prominent role in the media and in the political and societal discussion. With this status report, the VDI Society Automotive and Traffic Systems Technologies would like to make an active contribution to structuring the various approaches and concepts of automation. It sums up the current state of research and technology and gives valuable recommendations for the successful introduction of automated driving.

More information: VDI Status Report Automated Driving

SIAR

AMMA 2018 is the annual international Congress of the Society of Automotive Engineers of Romania (SIAR) and was organised under FISITA Patronage by the Technical University of Cluj-Napoca and SAE International (Society of Automotive Engineers) as co-host.

The Congress purpose is to gather members from academia, industry and government and present their possibilities for investigations and research, in order to establish new future collaborations in the automotive engineering and transport domain.

Students were also invited (free of charge) to take part and learn the most recent developments in their field of interest. With 333 participants and 143 papers presented the event was a great success for SIAR; the conference topics included:

- **Hybrid and electric vehicles**
- **Powertrain and propulsion**
- **Advanced engineering, software and simulation**
- **Road safety, traffic control and transportation engineering**
- **Manufacturing technologies and materials**
- **Green Vehicle Solutions**

Technical University of Cluj-Napoca

SIA

Changes have been made within the SIA; in 2018 they reshaped 11 experts' communities in France in major fields such as engineering, mobility of tomorrow and manufacturing. Also, there was a tightening of governance, ensuring board representation from major companies within the French automotive industry.

Each year SIA organises more than 10 events for the French automotive industry. From study days to international congresses, they connected 3,700 engineers, expert leaders, top managers and students at their events during 2018.

The SIA Powertrain Congress, held every year, was a great success in 2018 for the SIA with 600 attendees and 40 exhibitors; it was also the first time they used the mobile SIA Events App.

Students also enjoyed MonJob@FuturAuto - for SIA, the engineers of tomorrow are as important as the engineers of today. It is designed to develop connections between students and companies as well as share information on the latest transformations in the automotive sector together with the opportunities for a young engineer in the automobile of tomorrow. The event was held in Paris and gathered more than 800 students together, who exchanged ideas and connections with 15 major automotive companies.

SIA Powertrain Congress

CAS

The Czech Automotive Society (CAS) organises regular seminars for students and professionals, which take place at Czech Technical University in Prague (CTU). During 2018, seven seminars were held.

The AutoSympo conference was held in Roztoky from 31 October - 1 November 2018, and the theme was the alternative drivelines and autonomous vehicles. The first day was devoted to the reduction of emissions and alternative propulsion of vehicles and the second day focused for the second time on the issue of automated driving.

The Ministry of Transport closed the Platform for Fully Autonomous Driving. The CAS representative, Ondřej Vaculín, worked as a joint representative of TÜV SÜD Czech and CAS as Chairman of Working Group 5 - Pilot Verification and Conformity Assessment.

Europe

CROSEV

In 2018 members of the CroSEV were active in several scientific R&D projects dealing with the lowering of the ICE emission impacting on the environment, and they participated in publishing papers in scientific journals and at FISITA 2018.

CroSEV encouraged Formula Student activities at universities in Croatia. Formula Student activities in Croatia date from 1995, where strong and devoted student activity is evident at the Universities in Zagreb, Split and Rijeka.

Students and members of the Formula Student teams at the Universities of Zagreb and Rijeka are now preparing the electric cars for competitions in the 2019 Formula Student season.

2019 Formula Student

SATL

SATL hosted The International Automotive Aftermarket Fair in association with The Finnish Trade Corporation, for Professionals in Finland. The exhibition is held biennially, with the first exhibition in 1980. During the next exhibition they will celebrate their 40 years' history of exhibitions.

SATL made a decision to carry out a new international annual event, SATL Automotive Aftersales Summit, for decision makers involved in aftermarket sales. The event will be organised first time at Helsinki Messukeskus Expo and Convention Centre, targeting aftermarket sales decision-makers, influential persons, education and inspection services, the regulatory organization and other organizations in the field. The theme of the first event is 'the image of the future and new business models for aftermarket sales in the automotive industry'.

SATL published a hardcover book of the history of automotive education in Finland. It's a first part of the series covering the years 1900 to 1970 and it has 250 pages. Publishing the book was supported by Henry Ford Foundation.

SATL and AKL Autoalan Keskusliitto ry (The Central Organisation for Motor Trades and Repairs in Finland) publish the magazine Suomen Autolehti. Suomen Autolehti is an independently published professional magazine for the Finnish automotive industry, distributed by subscription. Suomen Autolehti was founded in 1933.

Suomen Autolehti is targeted to the professionals working within the technical and commercial areas of the industry. The magazine is published ten times a year with 9,600 copies printed. Suomen Autolehti discusses automotive technology, vehicle repair technology, body repair and painting technology, parts and accessories, vehicle legislation changes, business management and financial statements and other issues and news related to the automotive industry.

The International Automotive Aftermarket Fair

STA

This past year, STA took the decision to target new audiences in order to broaden the scope of its activities and respond to new demands.

The automotive industry is undergoing a major transformation in which new technologies, fields of study and a variety of professionals are redefining its future and what fuels it: mobility.

With such a challenge ahead, STA carried out two new activities:

- **Kart Academy competition,**
- **Electric Vehicle Infrastructure Forum.**

Electric Vehicle Infrastructure Forum

Following the example of Formula Student whose goal is to help companies recruit future professional engineers, Kart Academy is a vocational-training-student competition which aims at proving the abilities of these technicians who will later work in the automotive and mobility industry.

Students have the support of their school and professors to design and build a kart. Once the vehicles pass the scrutineering test, the pilots are allowed to drive their kart in a Formula 1 circuit: the Barcelona-Catalunya Circuit.

Just like Formula Student teams, Kart Academy teams have also to present a business plan and a design and costs report, adapted to their studies plan.

In the first edition in 2018, six teams managed to compete with their kart in the Circuit. There were three electric karts and three internal combustion engine karts.

Kart Academy competition

Asia

My role is to encourage activities of Asian Member Societies. In our region education / professional development and technological advancement are the most urgent issues that should be addressed. I would like to contribute to enhance communications between the countries in this region, thus building good relationships, and to solve our issues, hoping such best practices will spread to even more countries. To that end, as the VP Asia, I will keep good communication with the leaders in other regions too.

Mr. Yuichi Azuma, VP-Asia

ISAE

The first International Conference of Modern Powertrain Technologies in road, rail, air, sea and stationary applications with special focus on electric vehicles – battery, fuel cell and solar-powered vehicles – took place at Iran University of Technology (IUST) from 26-27 February 2019.

The purpose of this conference was to initiate a dialogue between industry experts of automotive industry at national and international scale and connecting researchers with facilities around the globe.

Conference topics included:

- **Design, modeling and control of EVs**
- **Advanced materials and manufacturing techniques for production of EVs**
- **Policies for electric vehicles development**
- **Supply chain and maintenance of EVs**
- **Infrastructure for EVs development**

Keynote speakers included –

- **Manucherhr Manteghi** – Head of Iranian Association for Management of Technology (IRAMOT)
- **Abbas Eftekhari** – Dean for Mathematics Science, Technologies & Business Northern Virginia College Annadale Campus
- **Noureddine Takorabet** – Professor, Genie Electrique Université de Lorraine
- **Chris Mason** – CEO at FISITA

China SAE

China SAE successfully organised the 2018 China SAE Congress & Exhibition (2018 SAECCE) from 6-8 November 2018. With "Gateway to the Future Automobility" as the theme, 2018 SAECCE focused on topics including intelligent and connected vehicles, NEV and lightweight body and material. Over the course of three days, China SAE organised two plenary sessions, two high-level panel discussions, two academic forums, 36 special sessions, 34 technical sessions, three parallel sessions, two high-level closed-door summits and 11 release and award ceremonies. During the same period of 2018 SAECCE, 128 exhibitors participated in the technology exhibition with an exhibition area of 16,000 square meters. 2018 SAECCE attracted 3,036 delegates and 14,012 professional visitors from 20 countries including China, the United States, Japan, Korea, Germany, Sweden and Holland.

China SAE Congress & Exhibition 2018

KSAE

KSAE Baja/Formula/EV

KSAE Baja/Formula/EV is a series of student competitions organised by KSAE since 2007, in which teams compete to design, develop, build and race with their off-road vehicles. In August 2018, 96 Universities took part, featuring 184 teams and 2,430 participants.

The KSAE Autumn Conference has been held every autumn since 1986. In November 2018, the conference consisted of a Keynote Speech, Technical Sessions (Oral, Poster, International), Workshops and Seminars. At the Exhibition, automotive companies exhibited their products, services and technical capabilities. 1,242 participants attended, including 657 papers and 40 exhibition booths.

The International Conference on Automated Vehicle Development and Standardization consists of a Keynote Speech, Automated Vehicle Strategy Speech and Panel Discussions. Over 200 delegates from six countries attended.

SAEINDIA

In 2018, the 37th FISITA World Automotive Congress took place in Chennai, India, one of the biggest cultural, economic and educational centres in South India.

The FISITA 2018 theme was Disruptive Technologies for Affordable and Sustainable Mobility. Alongside the technical programme, the Congress featured a global exhibition, special sessions, student and young engineers' activities, technical visits and social events.

SAEINDIA worked alongside FISITA in putting together a fantastic congress, the opening ceremony featured an esteemed panel of mobility experts including congress patron Dr. Pawan Goenka, FISITA Immediate Past President Dan Nicholson (2016-2018) of GM and MM Murugappan, Executive chairman of Murugappa Group.

Key session reflected the congress theme 'Disruptive Technologies for Affordable and Sustainable Mobility':

- **Four plenary sessions**
- **Panel discussion on policy framework**
- **300 technical paper presentation**
- **Leaders forum**
- **Technology theatre presentations**

SAEINDIA also organised an inviting programme of social events and cultural visits for all delegates, the highlight of which was a spectacular Gala Dinner, which included an evening of fabulous food and spectacular entertainment.

FISITA 2018 featured over 1,000 Technical Abstracts, sponsorship of $500,000, an exhibition of 1968 sq. ft and footfall of over 6,000 people across the three days.

FISITA World Automotive Congress 2018

Asia

JSAE

Focusing on the automated driving, with the aim of discovering excellent technology, advanced ideas and talents, the Japan Automotive AI Challenge was held on 23 and 24 March, at the Institute of Industrial Science, the University of Tokyo.

The event was jointly planned with the AI Edge Contest organised by METI, a contest competing for the accuracy of image recognition technology indispensable for automated operation, which was held via the internet from 19 November 2018 to 27 January 2019.

The qualification to participate in the Japan Automotive AI Challenge was to become the prize-winners of the Object Detection Competition and the Segmentation Competition in the AI Edge Contest. As a result, a total of four teams among the top rankers in the AI Edge Contest were selected as the competitors of Japan Automotive AI Challenge.

The following team was awarded for its outstanding performances;

TEAM MTL LAB from the Graduate School, the University of Tokyo were awarded Best Performance Award and Best Control Award.

Japan Automotive AI Challenge

SAE-A

Formula SAE-A

The SAE-A Board continues to work hard to rebuild the Society and throughout 2018 they made great achievements in rebuilding their finances which allowed delivery of industry-relevant training courses, such as the Technical Accident and Reconstruction, Fasteners, Failure Mode and Effects Analysis (FMEA) course, an industry networking dinner and our annual Formula SAE-A. They have also achieved a repositioning of the VTE industry magazine and secured sponsorship to support these activities.

SAE-A is now in a position to gradually return to full member services albeit at a pace that doesn't affect the gains already made and they are well on our way to rolling out our 2019 program which includes industry facility tours.

The Americas

As Executive Advisor – Global, of SAE International, I am responsible for developing and maintaining SAE's strategic alliances with its global partners. I support and advice to SAE President, Chief Executive Officer, and key staff leaders on key global issues.

As VP of Americas, I represent and serve our North and South American societies. I have been recently given charge of the African region and look for opportunities for FISITA. I represent societies from both continents in the Internal Relations Committee as well as the Executive Board and Council of FISITA.

Mr. Murli M. Iyer, VP-Americas/Africa

SAE International

Automotive Vehicle Safety Consortium

SAE International, along with Ford, General Motors (GM) and Toyota created the Automated Vehicle Safety Consortium™ (AVSC) that will work to safely advance testing, pre-competitive development and deployment of SAE Level 4 and 5 automated vehicles.

The AVSC will fill a critical need by providing a safety framework around which autonomous technology can responsibly evolve in advance of broad deployment. The work will ultimately inform and accelerate the development of industry standards for autonomous vehicles (AVs) and harmonize with efforts of other consortia and standards bodies throughout the world.

The consortium will leverage the expertise of its current and future members to establish a set of AV safety guiding principles to help inform standards development. The first output from the AVSC will be a roadmap of priorities. The roadmap is intended to be applicable for developers, manufacturers and integrators of automated vehicle technology and focuses on data sharing, vehicle interaction with other road users and safe testing guidelines.

AEA

At the invitation of the MDIC - Ministry of Industry, Foreign Trade and Services, the AEA became the main mediation channel for the Thematic Groups technology in the new program called ROTA 2030.

The neutrality and representativeness of the AEA allowed for relative and comprehensive sectoral discussions on topics essential for the predictability of technological exchanges for safety, electronics and electricity, electrification and hydrogenation, high octane fuels, Emission Electronics, Manufacturing 4.0.

AEA ended 2018 with over 209 meetings by technical commissions and tasks forces, in addition to various meetings by the Rota 2030 groups. There were 20 board meetings, 19 meetings with Federal Government's representatives in Brasilia, 3 meetings with international entities, 8 events,11 courses, 2 workshops and 2 awards.

SIMEA 2018

Affiliate Members

ISTVS

Annual conferences have been held every year since 1962 to allow researchers in the field from around the world to meet and collaborate. The ISTVS annual conference for 2018 took place in Kyoto, Japan, in July as the Joint 10th Asia-Pacific Conference of ISTVS and 39th Annual Meeting of Japanese Society for Terramechanics.

93 participants came from all over the world, representing universities, research centres and companies active in the field of terramechanics. 45 papers were presented in 12 technical sessions. Presenters' topics covered a wide range, including: vehicle-terrain interaction; modeling and characterization; agricultural, forestry, construction, and mining equipment and vehicles; land locomotion, off-road vehicles, and operation on snow and ice; mobile robotics for ground applications, planetary, and exploration; innovative system designs for terrain and road-vehicle applications.

To provide a view into the development of the state of advanced electronic systems and the application of modern technologies to construction work, the conference also conducted two technical tours, at the headquarters of Murata Manufacturing Co., Ltd., and at the Aigawa Dam Construction Site.

To further support its professional and scientific community, ISTVS created an online Jobs Board and Research Opportunities page.

ISTVS Vice-President Dr. Corina Sandu, of Virginia Tech, has recently become a corresponding member of the FISITA Intelligent Safety Working Group.

The ISTVS conference 2018

Strategic Partners

IMI – The Institute of the Motor Industry

During the past year the IMI has been focusing on supporting members through the provision of events, flexible skills development products and services. This has resulted in an increase in membership of almost 63%. They will continue to grow the community of like-minded automotive professionals next year with a target of 100,000 members in 2020 in celebration the IMI's centenary.

Other areas of focus have been the development of new and innovative skills solutions to meet the needs of industry. Whilst continuing to refresh and update their portfolio of qualifications, of which they have awarded approximately 62,000 this year, the IMI are also developing a range of solutions that support the changes in the Apprenticeship landscape and include the development of products, e-learning and End-Point Assessment services across 11 Apprenticeship standards.

IMI INSTITUTE OF THE MOTOR INDUSTRY

EUCAR

EUCAR facilitates the development of high-quality projects with industrial relevance. With 36 projects in 2018/2019 and an overall budget of more than 500m Euro, EUCAR addresses research and innovation for 'sustainable propulsion', 'safe and integrated mobility', 'affordability and competitiveness' and 'commercial vehicles'. With the flagship projects 'L3PILOT' and 'ENSEMBLE', EUCAR members pave the way for safe introduction of connected and automated vehicles.

In 2018-2019 EUCAR developed and published three key documents for R&I:

- **EUCAR Perspective on Future Sustainable Propulsion**
- **EUCAR Perspective on Urban Mobility**
- **EUCAR Perspective on Connected and Automated Vehicles**

eucar
EUROPEAN COUNCIL FOR AUTOMOTIVE R&D

MaaS Alliance – Mobility as a Service Alliance

The Mobility as a Service (MaaS) Alliance, hosted by ERTICO – ITS Europe, is a public-private partnership, laying foundations for an open market of new mobility services, centred on users' needs.

Since its establishment, the MaaS Alliance has been growing rapidly in terms of visibility and influence globally, being now a partnership of over 70 members.

In 2018, the MaaS Alliance was recognised as the best organisation in the field of MaaS by BMaaS. it also penned a partnership with ITS America agreeing to share global best practices in MaaS and to collaborate to avoid duplication of work, when supporting the broad implementation of Mobility as a Service and Mobility on Demand.

ERTICO – ITS Europe 2018

ERTICO

As a stakeholder in the mobility discourse, ERTICO was present at the 2018 Mobile World Congress in Barcelona with its newest project 5G MOBIX, an essential component of the 5GPPP, collaboration between the European Commission and industry that will test and push forward 5G market deployment. With a consortium of over 45 Partners, it will assess and validate 5G deployment scenarios for CCAM across border corridors in Turkey/Greece and Spain/Portugal.

Partners joining the ERTICO Partnership enhance their profiles as innovators in transport and mobility. They benefit from engagement in a wider network across different sectors allowing them to innovate in their area of activity. ERTICO offers a platform for networking, information sharing and relationship building among partners through the regional and world ITS Congresses hosted annually in a different European city, yearly Think Tank events, "Focus On" topical workshops, Innovation Platforms and stakeholder workshops.

FISITA Events

EuroBrake 2018

EuroBrake 2018 took place in The Hague, Netherlands. Offering a unique combination of city life, with a rich culture and history, while also being close to the coast. The Louwman Museum, based in The Hague, houses the world's oldest vintage car collection, while Delft Technical University, one of the leading institutions for engineering and technology worldwide, is also close by.

The technical programme for 2018 consisted of 24 technical sessions and over 140 technical presentations, while nearly 100 international organisations also took part in the exhibition.

The Opening Keynote presentations were delivered by Dr. Wolfgang Bernhart Senior Partner Automotive, Roland Berger GmbH and Prof. Dr. Arno Kwade CEO, Institute for Particle Technology, while a special panel discussion helped to raise important issues and generate lively debate about brake emissions.

Attracting over 1,100 participants, EuroBrake 2018 offered a compelling agenda with an increased focus on global rail braking technology. For the first time, parallel to other sessions, an entire day of the conference was dedicated to this subject including both technical sessions and the Rail Strategy Panel.

FISITA PLUS

FISITA PLUS took place for the second year running in July 2018, again at the iconic County Hall, London. We welcomed over a hundred of the world's leading mobility technologists and professionals through the door. The event was sponsored by Toyota Connected and attracted an unrivalled line up of speakers in a new format for 2018.

Three sessions were carefully put together by our guest Curators Olivia Walker, Head of City Development - Mobility Solutions, Bosch, Dr. Geoff Davis, CSO, Horiba MIRA and Professor Chris Brace, Professor of Automotive Propulsion and Deputy Director of the Powertrain Vehicle Research Centre, University of Bath.

The sessions entitled 'The Mobility Eco-System', 'Future Technologies' and 'Energy and Propulsion Systems of the Future' each featured three outstanding speakers who delivered visionary and inspiring presentations to an extremely engaged audience.

Iain Wright, Business Development Director, Williams Advanced Engineering rounded off the day in the Headline Speaker slot.

For the second year running, a highlight of the day was the Leadership Interview hosted by Paul Mascarenas and featured Charlie Zhang, VP Industry Development, NIO.

NIO also brought along their Formula E race car to display outside the building and this attracted attention from both delegates and tourists alike.

FISITA Events

FISITA 2018

As reported earlier, the 37th FISITA World Automotive Congress took place in Chennai, India, attracting more than 1,500 people from 32 countries. We are delighted to report that FISITA 2018 was a huge success – many thanks to all our colleagues at SAEINDIA for being fantastic hosts.

Held for the first time in India, delegates were presented with a leading technical programme, focusing on 'Disruptive Technologies for Affordable and Sustainable Mobility'. They had the opportunity to attend a variety of sessions and connect with some of the world's most prominent figures within the mobility systems industry.

The FISITA Medal was also announced within the Opening Ceremony, awarded to Dr. Akihiko Saito, in recognition of his long and successful career with Toyota Motor Company. In addition, the Committee were keen to highlight Dr. Saito's commitment to the industry through his fantastic efforts in raising the status of FISITA. Sadly Dr. Saito was unable to join us so Mr. Yuichi Azuma, Executive Director of JSAE, and FISITA VP Asia, collected the Medal on his behalf.

This year's Congress featured significant initiatives specially designed for students and young engineers: the Student Congress, Educating the Mobility Engineers of Tomorrow session, Travelling Fellowship and Islands of Excellence.

We now look to FISITA 2020, where our Member Society, Czech Automotive Society, will host delegates in Prague, Czech Republic, on 14 - 18 September 2020, under the theme 'From automobile to mobility. New roles. New challenges'.

FISITA World Mobility Summit

The FISITA World Mobility Summit took place in Shanghai, China in November 2018. With a refreshed title, FISITA acknowledged the incredible evolution our industry is progressing with a renewed focus and intent for this important, global technical leadership event. The event was also co-organised by China SAE and partnered by SF Motors.

During the two-day Summit, with the theme of 'Vehicle Connectivity', delegates received more than ten innovative and inspiring presentations, covering key topics:

- **Policies and Strategies**
- **Communications and Applications**
- **Applications and Infrastructure**

We welcomed speakers from a wide range of both automotive and partner industries including China SAE, FEV, Strategy Analytics, Michigan Dept. of Transportation, Toyota Info Technology Center Co., Lts, Robert Bosch GmbH, T-Systems, Huawei and DiDi with the Closing Presentation given by Prof. Keqiang Li, Professor of Automotive Engineering, Tsinghua University.

Delegates started their Summit with a tour of the SIAC EVZONE which included the EVZONE, Shanghai EV Data Center and V2X Testing.

The World Café session has become a regular feature of the Summit, allowing for peer-to peer dialogue and creative collaboration. This discussion from 2018 will lead into the publication of the Summit Briefing Paper, an important technical resource for our community.

FISITA Education

FISITA's diverse and innovative range of education initiatives encourage students and young engineers around the world to showcase their ideas and learn from their peers and experts, whilst building confidence in their mobility engineering abilities. FISITA is committed to inspiring the engineers of the future to develop their skills, knowledge and a passion for mobility solutions – to support this we have partnered with a number of organisations including the International Association for the Exchange of Students for Technical Experience (IAESTE).

The 'Your Future in Automotive' section of the FISITA website continued to grow in terms of information and visitors through 2018, with a focus being on case studies from Travel Bursary recipients, highlighting their experience and how the funding from FISITA has helped them. Advice, information and guidance is available for students, graduates and young engineers focused on pursuing their passion for mobility engineering.

Our International University Guide is a unique online database, designed to provide information on engineering universities worldwide to prospective students. Through 2018 the Guide expanded to include over 320 universities from around the world and will continue to increase as more universities are added.

As one of the world's leading advocates for careers in mobility engineering, FISITA sustains the drive to encourage the best and brightest minds to join our developing industry through our education resources and established links with leading automotive and mobility companies.

The FISITA International Engineering Community (FIEC) initiative is an online portal bringing together students, academics and industry professionals to collaborate, share, engage and learn from one another. Key features include the Discussion Forum and the Jobs and Internships listings with some of our Corporate Members.

The Academic Advisory Board (AAB) was set up with a group of founding members from international universities and academic institutions who are leaders in engineering education. The AAB successfully contributed to the development and delivery of the Engineer 2030 initiative in collaboration with the Industry Committee, along with support from the Education Committee and Technical Committee. The AAB is committed to supporting the growth and success of the FISITA education activities whilst providing a link and dialogue between FISITA and academia.

The FISITA Travel Bursary continued to receive applications from students attending placements around the world:

- **Since its launch in 2006, FISITA has awarded over EUR 360,000 to more than 300 students from 35 countries**
- **Students have carried out placements at 160 different companies around the world**
- **In 2018 FISITA received 62 Bursary applications**
- **In 2018 FISITA awarded Bursaries to 35 applicants**

FISITA Education

Travel Bursary

Europe

Name: **Cameron Boyle**

University: **Heriot-Watt University, Scotland**

Member Society: **IMechE**

Placement: **Adient Automotive Seating and Interiors, Slovakia**

"My internship in Slovakia not only allowed me to gain an appreciation for how mechanical engineers operate in a commercial environment but also make some invaluable international contacts and friends for life. I am extremely grateful as if the opportunity had not been advertised by FISITA for the position and Travel Bursary I would not have been able to be a part of such a great opportunity."

Americas

Name: **Hannah Waters**

University: **University of Rhode Island, USA**

Member Society: **SAE International**

Placement: **ZF Padova, Italy**

"The FISITA Travel Bursary has immensely helped cut down the cost of studying abroad. I can't wait to see what the future holds, and I know it wouldn't be possible without the FISITA Travel Bursary!"

Asia Pacific

Name: **Arpita Saldana**

University: **University of Adelaide, Australia**

Member Society: **SAE-A**

Placement: **Daimler Trucks Asia**

"The travel bursary enriched my experience of working in another country. It made it easier to sign up for new experiences without worrying about the cost. In many ways the bursary gave me a chance to invest in my career and helped reduce the stress of a lifestyle change that comes from moving to a foreign country."

EuroBrake Student Opportunities Programme 2018

The success of the EuroBrake Student Opportunities Programme served to demonstrate that FISITA's reach is extending around the world, guiding more students and young people towards choosing mobility engineering as their destination career. Thanks to a number of sponsor companies we were able to support 50 students to attend the event in The Netherlands, learn about braking and mobility engineering and network with academic and industry experts.

FISITA 2018

Students from around the world attended FISITA 2018 and participated in the Student Congress, Islands of Excellence and Travelling Fellowship.

We were also pleased to invite a panel of international engineering education experts to a session on 'Engineering the Mobility Engineers of Tomorrow'.

FISITA World Mobility Summit

We were delighted to offer a unique opportunity to a select group of students in China to attend the Summit in Shanghai. They participated in the full event and had the chance to network with mobility executives from around the world.

FISITA Organisation

Vision

Promoting excellence in mobility engineering

Mission

To promote knowledge sharing among stakeholders in a way that positively contributes to the development of safe, sustainable and affordable mobility solutions and helps guide the future direction of the global automotive engineering profession.

FISITA (UK) Ltd Board

FISITA (UK) Ltd is the UK registered company responsible for all operational activities of its parent company, the French registered Fédération Internationale des Sociétés d'Ingénieurs des Techniques de l'Automobile (FISITA).

The FISITA (UK) Ltd Board is responsible for the supervision, and corporate governance of FISITA worldwide, as well as financial and operational activities of the organisation as delegated via the FISITA Constitution – the Board is accountable to the membership of FISITA for the success of the organisation.

All FISITA (UK) Ltd Board members are appointed to serve in the best interests of the entire membership of FISITA, its stakeholders and the automotive mobility engineering profession. They are committed to the development and implementation of FISITA's strategic vision, financial and business plan.

FISITA (UK) Ltd Board Members

Paul Mascarenas OBE
Chair
Independent Director,
Technologist and Advisor

Dipl.-Ing. Remi Bastien
Non-Executive Director
Renault Nissan

Richard Gotch
Non-Executive Director
Consultant

Graham Hutchins
Non-Executive Director
NCL Technology Ventures Lt

Katie Milbourn
Non-Executive Director
SMMT

Karl Siebertz
Non-Executive Director
Ford Motor Company

Chris Mason
Cheif Executive Officer
FISITA

Executive Board Members 2018–2020

President	**Prof. Frank Zhao**
President-Elect	**Ms. Nadine Leclair**
Immediate Past President	**Mr. Dan Nicholson**
Director	**Dr. Li Jun**
Chief Executive Officer	**Mr. Chris Mason**
VP - Americas/Africa	**Mr. Murli Iyer**
VP - Asia	**Mr. Yuichi Azuma**
VP - Europe	**Dr.-Ing. Carles Grasas**
VP - Education	**Mr. Luděk Hynčík**
VP - Internal Relations	**Dipl.-Ing. Christof Kerkhoff**
VP - Technical	**Prof. Mike Ma**
VP - Finance	**Dr. David Schutt**
Delegate General & Treasurer	**Dipl.-Ing. Remi Bastien**
VP - Strategic Planning	**Dr. Matthias Klauda**
VP - Industry	**Mr. Hiroaki Okuchi**

Finance

FISITA Consolidated Report & Financial Statement for the year ended 31 December 2018, a full copy of which is available on request:

Financial year	2018	2017	Variance
Turnover	**£1,567,064**	**£1,432,323**	**£134,741**
Operating costs	£1,622,799	£1,429,952	£192,847
Operating profit	**£(55,735)**	**£2,371**	**£(58,106)**
Interest receivable	£(11,540)	£(12,555)	£1,015
Investment income	£(96,178)	£113,374	£(209,552)
Profit for the year	**£(163,453)**	**£103,190**	**£(266,643)**

Turnover in 2018 increased 9% on 2017, delivering against the established 'Growth Phase One' objective of continued organic revenue growth, which has delivered 37% growth over its three-year period 2016 - 2018. 2018 also saw the continued strategic investment in the development of the EuroBrake, World Mobility Summit and FISITA PLUS technical events activities, which created an upturn in costs of 13%. The global downturn in stock markets during 2018 resulted in a disappointing performance from the FISITA and FISITA (UK) Ltd investment portfolio.

In conclusion, FISITA is financially strong and working diligently through investment in its ongoing modernisation programme, which will deliver the continued, sustainable business operation over the long-term, as the organisation moves into 'Growth Phase Two' and delivers against its Commercial Strategy for 2019 - 2021.

www.fisita.com

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