Mr. Dürheimer, who is a long-standing member of the FISITA Honorary Committee, gave an inspiring after dinner speech which touched upon his experience at several of the world’s most prestigious automakers including Porsche, Bentley and Bugatti, as well as his responsibility for motorsport throughout VW Group.

In a speech which celebrated engineering excellence, Mr. Dürheimer reminded the audience that these three companies had been started by visionary automotive engineers, namely Ferdinand Porsche, Walter Owen Bentley and Ettore Bugatti, and that their present day success owed much to their founders’ ethos of devotion to innovation, attention to detail and optimal performance at all costs.

The dinner was attended by more than 60 FISITA Council members and their partners. FISITA members can view photos from the evening by logging in to the members’ section of the FISITA web site.
FISITA’s first EuroBrake conference is a big success

Until now, Europe had no dedicated, annual conference where the leading experts from industry and academia could meet to present their latest work, find solutions to common problems and discuss all aspects of braking technology. EuroBrake 2012, FISITA’s first annual braking conference, recognised the part that innovative braking technologies play in improving safety, conserving energy and reducing harmful emissions – the three top priorities for mobility in the 21st century.

With Europe leading the way in the research, development and manufacture of high technology braking systems, Germany was an obvious choice of location for the first event, and the Saxon Capital provided a dramatic backdrop for the three day event that addressed the whole range of solutions from raw materials to advanced electronic systems.
FISITA’s first EuroBrake conference is a big success

Continued from page 2

More than 100 scientific and technical presentations were given by leading experts in the field, including Dr. Peter Rieth, Member of the Management Board, Continental AG; Mr Derek Whitworth, CEO, TMD Friction; and Prof. Stefan Gies, Head of Chassis Development, Volkswagen AG.

The accompanying exhibition featured 53 booths, housing many of the most innovative companies and institutes working in brake system design, manufacturing, materials, testing and analysis.

In addition to the high-level scientific and technical information on offer, social highlights such as the Gala Dinner, sponsored by the Motor Industry Research Association (MIRA), and the technical visit to Die Gläserne Manufaktur (also known as ‘The Transparent Factory’), Volkswagen’s radical re-interpretation of car manufacturing, offered the opportunity to make contacts and build relationships with colleagues from all over the world.

With this first conference, EuroBrake established itself as an essential learning and networking conference for all engineers, scientists and executives concerned with braking systems throughout the value-chain, from OEMs through to friction material suppliers, and demonstrated that Europe is at the very centre of the future of brake technology.

EuroBrake 2013 will take place from 17–19 June at the Maritim International Congress Center, Dresden.

To find out more visit: www.eurobrake.net
The FISITA World Automotive Congress, now in its 64th year, will take place from 27–30 November this year in Beijing. The biennial Congress, FISITA’s flagship event, is the international forum where companies and institutes who will shape the technology content of tomorrow’s vehicles come together, and it attracts thousands of engineering professionals from across the globe.

This year the FISITA Congress will be in China for the second time (the first being in 1994). Today’s China is arguably the most important growth-market for automotive technology, and the FISITA Congress will serve as a bridge between China and the rest of the automotive world at this exciting time.

Presentations will come from leading engineers, scientists and specialists concerned with every aspect of the research, design, development and production of vehicles and their systems. Key areas including powertrains, alternative fuels, vehicle dynamics, safety systems, electronics, manufacturing and Intelligent Transportation Systems will be explored.

Young scientists will be able to display their work on the Islands of Excellence stand in the exhibit hall, whilst engineers and students under the age of 35 are being offered fantastic learning opportunities through the FISITA Travelling Fellowship and Student Congress.

Activities at this year’s Congress include a Ride & Drive where delegates will be able to test some of the leading new energy vehicles on the market; and a host of technical tours, including Beijing Automotive Technology Center/Beijing Hyundai Motor Company Corporation, Beijing Auto Museum and Beijing Institute of Technology. An impressive array of cultural tours are also available, with visits to the Beijing wall, the Forbidden City, Hutong tours, Chinese cooking classes and Tai Chi in the park on offer. In the evening, delegates can immerse themselves in culture at the Beijing Opera, and indulge themselves at the Gala Dinner, held at the magnificent Beijing Hotel.

Beijing itself is a stunning testament to the majesty of centuries of history whilst holding its own as an exciting modern hub. The city’s layout was formed in the Yuan Dynasty, but reached the height of its architectural magnificence after large scale reconstruction during the Ming and Qing Dynasties. Beijing retains much of its rich cultural heritage today, the most famous example being the Forbidden City, which housed emperors and their households for almost 500 years. It would be a mistake, however, to focus on the city’s past, without looking at the astounding changes that are occurring in its present. Beijing is among the most rapidly expanding cities in the world, in size, population and economic growth. New developments are constantly emerging, including the world-renowned ‘Bird’s Nest’ and ‘Water Cube’ stadiums which housed the spectacular 2008 Beijing Summer Olympic Games.

Discover the vast range of scientific, technical, commercial and cultural delights on offer during this year’s FISITA World Automotive Congress: download the Preliminary Programme from: www.fisita2012.com
FISITA has launched a new web site for students and young engineers: www.yourfutureinautomotive.com

Your Future In Automotive is a unique and powerful tool to help young people find out more about working in one of the world’s most exciting and international industries. The site offers both education advice and career guidance, featuring an international database of 120 universities (with more being added all the time) which include in-depth information on engineering and automotive-related courses around the world, as well as a global database of student journal papers.

There are also internships and job opportunities, as well as comprehensive information on all of FISITA’s programmes for young engineers including the Student Congress and Travel Bursaries.

The global automotive industry needs to recruit the brightest engineering and scientific minds to work on advanced technologies ranging from alternative propulsion systems to autonomous driving vehicles, in order to ensure safe and sustainable mobility in the decades ahead. But while the industry offers fantastic career prospects throughout the world, today’s automakers are struggling to hire enough qualified engineering graduates to drive these new technologies forward.

With Your Future In Automotive FISITA seeks to highlight the diversity of roles and celebrate the huge amount of innovation and cutting-edge new technology being developed within the automotive industry. The goal is to share this information with students and young engineers in order to encourage them to consider a future career in the ever-growing automotive industry.

FISITA has teamed up with Bentley Motors, Ford Motor Company, Jaguar Land Rover, Nissan, Tata Motors and Toyota to produce a series of interviews which are accessible on the site and via FISITA’s YouTube channel. The interviews feature graduate and experienced automotive engineers, as well as Human Resources professionals, talking about their experiences and offering tips, guidance and advice to young people interested in a career in the automotive industry.

Marketing materials including web buttons and banners, as well as printed promotional posters and flyers are available from Elliot Maule Education Officer e.maule@fisita.com

www.yourfutureinautomotive.com
www.youtube.com/user/YourFutureInAuto/videos
FISITA Student Congress 2012

The FISITA Student Congress runs at the same time as the FISITA 2012 World Automotive Congress and offers students and young engineers the perfect platform to present their research projects and papers, gain knowledge from their peers and network with Congress delegates.

Prizes for the best three papers presented at the Congress from students and young engineers will be awarded at the Closing Ceremony of the Main Congress:
- **First Prize**: EUR 1000 and Certificate
- **Second Prize**: EUR 700 and Certificate
- **Third Prize**: EUR 500 and Certificate

Apply online at:
[www.fisita2012.com/students/congress](http://www.fisita2012.com/students/congress)

Educators Seminar

As part of the programme for the FISITA 2012 World Automotive Congress, FISITA will again organise its highly popular Educators Seminar.

The title of this year’s Seminar is ‘The future of automotive engineering education - are we going in the right direction?’ and will feature expert viewpoints from academia, industry and the student body.

The seminar will address important questions in engineering education and cover the latest trends and developments from both education and industry perspectives. Delegates will include an international audience of academics, researchers, engineers as well as specialists from industry and vocational / tertiary educators as well as students and young engineers.

Participation is free of charge to all World Automotive Congress participants.

**For more information contact:**
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Education Officer
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e.maule@fisita.com
Legislators around the world are increasingly clamping down on CO₂ emissions.

What contribution can and must the combustion engine make to achieve the targets?

What is the role of biofuel in this context?

Can the targets only be achieved with revolutionary solutions?

What contribution can electrification make with full consideration of CO₂ emission from power generation?

The 24th International AVL conference ‘Engine and Environment’ will examine crucial questions faced by car manufacturers, particularly powertrain developers, from various angles, and describe efficient solutions, including:

- Mobility for a growing world population: climate-friendly, affordable and without sacrifice?
- Law, incentives, technology or image: what induces customers to buy low-CO₂ vehicles?
- Fleet average CO₂ emission as a technology driver?
- Optimisation of the overall powertrain
- Diesel versus gasoline
- Diesel hybrids, mild hybrids
- The transmission as an important system component in CO₂ reduction
- Will the combustion engine remain the main focus of CO₂ reduction?

Ways of achieving 50 g CO₂/km
- The role of biomass-based fuels: CO₂ reduction across the entire energy chain
- Powertrains for gaseous low-carbon fuels
- CO₂ emissions of battery electric vehicles – a realistic assessment
- CO₂ footprint of electricity – legislation versus reality
- Electric vehicles, PHEV, range extenders

For more information visit:
https://www.avl.com/ee-programme-2012

24th International AVL Conference: ‘Engine & Environment’

95–70–50 g CO₂/km – Evolution OR Revolution?

24th International AVL Conference “Engine & Environment”
13th – 14th September, 2012, Helmut-List-Halle, Graz, Austria
Leading chemical companies deal with material issues at JSAE’s Spring Congress

The 2012 JSAE Spring Annual Congress & Exposition was held from 23 to 25 May in Yokohama, Japan attracting an incredible 70,000+ delegates over three days.

Among the many challenges discussed was the crucial role which advanced chemical and materials technologies will play in helping automakers to realise sustainable mobility in the years ahead.

We hear from three of the leading companies in this important field: Mitsubishi Chemical Corporation, Mitsui Chemicals, Inc. and Sumitomo Chemical Co., Ltd.

Takao Kubozuka
Society of Automotive Engineers of Japan

"Chemical engineering plays an important part in achieving driving comfort and is vital for automobiles to solve safety and environment assignments. The future state of the automotive engineering was explored through the discussion among three Japanese chemical companies."

Takayuki Fukui
NISSAN MOTOR CO., LTD.

"Future vehicles will go forward to electric powertrain vehicle. What automotive makers hope, is to apply enormous knowledge of chemical engineering and integrating force. Proposal of high functional development and products from chemical companies are being desired."

Yuji Fujita
Mitsubishi Chemical Corporation

"Mitsubishi Chemical Holding Groups aims to achieve the KAITEKI automobile society with excellence of Sustainability, Health and Comfort by their new technologies. Proposed technologies include power improvements through Li-battery/photovoltaic, weight saving and thermal management by insulation and lower heat capacity."

Yoshio Kawai
Sumitomo Chemical Co., Ltd.

"Sumitomo Chemical Co., Ltd. proposes functional materials that make it possible to perform Environment, Network, and Life Science at a high level, as 'Creative Hybrid Chemistry For a Better Tomorrow'."

Futoshi Hoshino
Mitsui Chemicals, Inc.

"Mitsui Chemicals, Inc. proposes functional materials; interior, vibration absorption, motor, LED, and LIB (lithium-ion battery), which are all useful for weight saving and comfortability improvements of next-generation automobiles."
My name is Frank Klegon and I am the President of FOKUS Associates LLC, a product/technology assessment and development consulting company.

Recently, I was elected by the SAE International membership as the 2012 SAE President. It’s a great honour, and I am looking forward to the next 12 months, as well as the challenges and the opportunities that lie ahead.

Also, I am looking forward to working with many of the best and brightest people as we work to improve and advance the noble profession of mobility engineering.

I’d like to offer a quick glimpse into my professional background. Prior to founding FOKUS, I spent 25 years with Chrysler and DaimlerChrysler. The positions I held included Executive Vice President–Product Development and Design; Vice President–Core Components & Process; Vice President–Truck Platform Team; and Director–Vehicle Development–Large Car Platform. Before that, I served as Senior Manager and Product Engineer with American Motors.

My experience with SAE International has been extensive. I have been a member for 30 years. During that time, I worked with the Formula SAE programme, served on the Commercial Vehicle Congress Executive Planning Council (2005), and served as General Chair of the SAE World Congress (2008).

Being a professional in the industry and an engaged member, I know the value that SAE International brings to all mobility engineering professionals.

In preparing for my tenure as SAE International President, I created a set of focus areas that will help to guide my goals and actions over the coming months. Of course, I will continue on the work by my predecessor Ric Kleine in supporting SAE International’s Vision 2020 and achieving all of the objectives of the organisation’s mission. For those of you not familiar with these, I urge you to visit www.sae.org/about/board/vision.htm.

To help do this, I will work with SAE International’s member and staff leaders to continue to evaluate progress toward the organisation’s goals, ensuring we are on a path to success. We will continue to keep an eye on critical external factors (e.g., economics, competition, technology, etc.) to make sure we are advancing at the appropriate pace.

To ensure that we position to achieve these goals, I have identified some specific areas of focus. These include:

- Increasing engagement of Tier 1 and 2 suppliers
- Expanding involvement with middle and high schools
- Exploring associations with local science centers
- Increasing visibility of social media (Facebook, Twitter, etc.), including job search and career development opportunities
- Engaging in cross-industry sharing by maintaining regular SAE International sector leadership discussions
- Continuing to build relationships with key government agencies and policy influencers.

As you can see from these focus areas, much of my emphasis will be on partnerships, collaboration, and education. I believe that these are the foundations that will help SAE International achieve its goals and help other organisations achieve their goals, as well.

I very much look forward to my tenure as SAE International President. I know the importance of SAE to the mobility engineering industry. I know how it benefits both companies and individuals. SAE International is about solutions, and solutions are what drive mobility engineering forward and help to improve communities around the world.

2012 is about moving forward. 2012 is about building on the successes of the past year and continuing on toward the vision of success that SAE International has set. And, that’s made possible because of SAE members with whom I look forward to working over the next year as we continue to achieve great things.
SAE International has launched a new, interactive video channel that will enable users to view video on SAE International programmes, products and services, including design, electronics and avionics; environment; fuels and energy sources; human factors and ergonomics; maintenance and aftermarket; materials; power and propulsion; and safety; to name just a few.

‘Digital video has become a media mainstay for most people today, especially SAE International members,’ William Cariello, Manager of Web Strategy and Operations for SAE International, said. ‘The new SAE Video Channel provides a resource for all things video related to mobility engineering. And, it does it through an interface that is easy-to-use for both those uploading video and viewing video.’
When did you first become interested in automotive engineering?
I can’t remember a time when I was not interested in automotive engineering. As a child I was obsessed with Jackie Stewart’s Elf Tyrell, and drew it over and over again in my sketch books. I would have been 4–5 years old, and even then I had some sense of how that rounded front wing shielded the wheels and reduced drag.

What ambitions do you have for SAE Australasia?
Woody Allen once said that if you want to make God laugh, tell him your plans. I’m hesitant to publish a wish-list of what I would like to achieve in my time here, but my driving ambition is to tap into the energy and enthusiasm of our younger generation to build a more vibrant and dynamic society.

What is the most important challenge facing the society?
The most important challenge we face as a professional society is to define where we now ‘fit’ in this information-rich age. A business model that relies on the trade of technical information is no longer relevant when there is so much of it freely available. Similarly, the status of simply belonging to a professional society doesn’t cut it these days. We have to think hard about what services a professional engineer might want or need, and the final product will necessarily look very different to what we have offered in the past. I’m enjoying the challenge.

What do you like most about working in Australia?
We have a rich diversity of people and cultures here, and that makes for a similarly rich diversity of opinions and ideas. The weather is pretty good too. It makes up for all the deadly spiders, snakes and crocodiles that we have to deal with on a daily basis.

What do you do to relax?
When I get the chance I’m a keen motorcyclist and bicycle rider, and I generally just enjoy making and fixing stuff. Spending time with family and friends is high on the priority list too.

If you could drive any car in the world, what would it be?
It is a real joy to drive a car which you’ve helped to design and build yourself – and I’ve had that pleasure through Formula SAE. But to round out things out nicely, I’d have to say Jackie Stewart’s 1972 Elf Tyrell.
A record 134 student teams from 34 countries registered for world’s largest student motorsport competition.

Student teams from 50 UK universities took on students from across the globe at Formula Student 2012, held at Silverstone on 13–15 July.

Run by the Institution of Mechanical Engineers, Formula Student challenges student engineers to design, build and race a single seat racing car in one year. The cars are then judged on their speed, acceleration, handling and endurance in a series of time-trial races, while the teams are tested on their design, costing and business presentation skills.

Jon Hilton, Chairman of Formula Student, said: ‘Formula Student not only acts as one of the best testing grounds for young engineers, but it is also one of the most exciting competitions on the motorsport calendar.’

Formula Student 2012 was the first to pit electric and petrol-powered cars against each other, featuring 20 electric cars as well as one hydrogen-powered racer from Delft University of Technology, Netherlands.

The competition also featured more countries than ever before. Silverstone played host to universities from as far afield as Australia, Thailand, Egypt, Iran and South Africa.

In the closest competition in the event’s history, Chalmers University of Technology in Gothenburg, Sweden beat the electric car from Delft University of Technology by only 2.4 points out of a maximum 1,000. Monash University from Melbourne, Australia, took third place.

Last year’s winner, the University of Stuttgart, came fifth.
The Society of Automotive Engineers Thailand, TSAE, is proud to host the 17th biennial Asia Pacific Automotive Engineering conference (APAC-17) from 1–4 April 2013 in Bangkok, Thailand.

The theme of the conference is Innovative Technology for Next Generation Mobility and TSAE expect to bring together experts on key mobility subjects, and to provide a platform for exchanging ideas as well as an opportunity to broaden professional networks in an environment where the West and East of the auto industry can meet and prosper.

The conference will be held in conjunction with 34th Bangkok International Motor Show and the exhibition will be open for local as well as international automotive engineering and testing companies.

There is still time to submit your abstract for this important meeting.

Find out more at: www.apac-17.org

Challenge Kart Low Cost 2012

Challenge Kart Low Cost (KLC) is an exciting new student competition, resulting from a cooperation between Université de Bourgogne, ISAT de Nevers, France and the University of Pitesti, Romania.

The 2012 KLC event was hosted on one of Renault-Dacia’s test tracks near city of Pitesti, Romania on 18 May under the patronage of Romanian FISITA society, SIAR with support from Group Renault Romania. The event was part of a series of festivities organised during this year to celebrate the 50th anniversary of the University of Pitesti.

This year, taking into account the current orientation of the automotive industry, the organisers decided to introduce a new challenge: electric propulsion. Thus, two competitions took place: one with thermal engine powered karts and the other with electric motor powered karts.

University of Pitesti came with 3 thermal engine powered karts and 1 electric kart, while ISAT de Nevers had 2 engine powered karts and 1 electric. The ‘thermal competition’ was won by ISAT de Nevers, while the electric competition was won by the University of Pitesti.

KLC requires student teams to develop a kart over one academic year, whose cost is not to exceed EUR 2000 (for IC engined vehicles) or EUR 3000 (for electric ones), with the aim of participating in a motor-sport / academic competition in May.

The project underlines the basic competences of an engineer including:
● Teamwork/organisation of a team in such way that deadlines are met
● Capability to select engineering solutions within constraints of budget and time
● Ingenuity

KLC is much more than a simple go-karting race. It’s a technological, educational and human challenge and the winner is not necessarily the fastest!

APAC-17 Important Dates

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The conference will be held in conjunction with 34th Bangkok International Motor Show and the exhibition will be open for local as well as international automotive engineering and testing companies.

There is still time to submit your abstract for this important meeting.

Find out more at: www.apac-17.org
Call for papers issued for SAE 2013 World Congress

Authors are invited to submit abstracts of 200 to 300 words including the title and author’s contact information by 1 September 2012.

Abstracts can be submitted at www.sae.org/congress to one session only. Paper acceptance will be based on organiser-moderated peer review of a review-ready manuscript.

Paper offers are being solicited in the following technology areas:
- Electronics & Electrical Systems
- Environment/Emissions/Sustainability
- Materials
- Integrated Design and Manufacturing
- Propulsion/Powertrain
- Safety/Testing

SAE 2013 Submission Deadlines

- 1 September 2012 Deadline for submitting paper offers
- 23 October 2012 Review-ready manuscripts due to session organizers
- 25 January 2013 Final manuscripts due to SAE

Contact update

Geoff Pearsons is the new Executive Director of SAE-Australasia

Mr. Antonio Megale is the new President of AEA Brazil

Dr. Unkoo Lee is the 2012 KSAE President

Adisak Rohitasone is the new TSAE President

Frank Klegon succeeds Ric Klein as President of SAE International

Evgeniy Shmelev is the new AAE President

Prof. Dr.-Ing. Rodolfo Schöneburg (Daimler) succeeds Christoph Huss as President of VDI FVT

Itai Voller is the new ISME-AS Secretary

Dr. Chris Brace succeeds Peter White as IMechE AD Chairman

Mr. Takao Asami (Corporate VP, Nissan Motor Co. Ltd.) and Mr. Satoshi Maeda (Corporate VP, Fuji Heavy Industries Ltd.) join the FISITA Council representing JSAE

FISITA diary

27–30 November 2012 FISITA World Congress
Beijing, China

30 November–1 December 2012 Council, Executive Board, Committees

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