

Press Release - 50th Annual IMIA Conference Meeting.

The International Association of Engineering Insurance (IMIA) had its 50th conference anniversary at the Hotel Westin Grand, Munich, Germany from 2nd to 6th September 2017. President of the conference was Jens Lison, the Chairman of the Technical Commission of the German Insurance Association GdV, the host and very generous sponsor of this conference. While Mr. Lison welcomed the IMIA Delegates on the reception evening, Friedrich Scholz (GDV / AXA) replaced him for the rest of the conference.



Chairman O. Treceño and President F. Scholz

The 50th Conference was an occasion at which IMIA had a look back into the past and highlighting the steps of development on its way to where it is today. After the IMIA Chairman, Oscar Treceno had opened by the conference emphasising GDV's continuing support to IMIA's expanding representation, goals and objectives, Detmar Heidenhain (EC Member and Chairman in previous years) gave an illustrated view back from the year IMIA was founded to where it is today. IMIA also produced a chronicle of the 50 years existence and development which was distributed to all Delegates.

The Chairman continued with an overview of IMIA's current value proposition - the forum for promoting technical understanding and best practice within Engineering insurance. Technological advancement continues unabated bringing increasing speed, structural size and complexity. The need to maintain an increasing understanding of such factors becomes essential. IMIA's success has traditionally focussed on:

1. Knowledge - emphasised by positive commitment to the Academy, Working Group Papers, IMIA Academy Seminars and the IMIA Index.
2. Risk Management and Governance - the dedication of the Executive Committee;
3. Network and Platform - contribution to Web Page, News Sheets, participation in the Annual Conference.

Areas of future focus will cover: Expansion of Member base – product and geography, additional Resources (Secretariat assistance and reinforcement to the Executive Committee - Dieter Spaar (HDI Global SE) was co-opted at the Conference for Committee Membership), greater claims contributions from members.

Stephan Lämmle gave an excellent presentation on **“What has happened in the Engineering Insurance Market in the last 12 months?”** which included an overview of large global civil engineering projects under Construction with an indication given of the size, scale and complexity of such contracts. A desired initiative to promote design and build cross border infrastructure (road and rail) projects linking continents was apparent and the gradual transitions witnessed within the Energy sector in shifting and securing the balance and security of electricity supply to the ‘Renewable’ generation.



The potential of huge new projects worldwide pipeline remains significant. This development will coincide with a significant increase in IT technology geared to monitor and track individual Construction project timeline and integrity. The presentation also reported the most significant natural catastrophe events that have occurred over the past 12 months with particular emphasis on the overall losses. It is believed that significant exposure to infrastructure projects will continue.

Utz Groetschel presented the **IMIA Premium and Claims Statistics for 2014 to 2016**. Engineering Premiums across the IMIA membership had reduced despite a strong industrial development during 2016. It was suggested that a continuing weak insurance market may be behind the reasons for this reduction. The overall loss ratio increased slightly despite most countries reported that in 2016 again large loss events were very moderate. Certain countries did demonstrate a notable increase in losses (the Netherlands, Italy, Mexico and Japan).

Oliver Hauner, GDV reported on **“How the German Market works”** The GDV serves the interests of German insurers, representing the insurance industry in the press and media and provides services for member companies. The Association also aligns its activities with other national and international organisations e.g. IMIA and recognises the need to maintain a technical and commercial knowledge of the key drivers and influences of the German insurance industry.

Engineering premiums in Germany were estimated to be US\$ 1,600 in 2016 (and an estimate of a world figure would be to US\$ 8.25 billion). In excess of 50% of the German premium income related to the traditional Engineering classes (Machinery Breakdown and Electronic Equipment). The overall loss ratio is estimated at 68%. A significant percentage of the premium is now focussed towards the investment being directed towards Power Generation and the support provided to the Renewables sector in particular. GDV launched the 9th edition of their Renewables brochure during 2017.

Presentation of the 2017 IMIA Working Group papers

Christina Hall: - Diesel Engines

The paper focussed mainly on large-scale heavy duty Diesel Engines in power generation application. The diesel engine relies on the ability to convert the power of combustion into mechanical work and ultimately produce electrical energy. Diesel engines have distinct benefits when compared with other power generation applications: robust and reliable; high energy density; relatively low upfront costs; rapid start-up; quick ramping to full load; flexible load response and operation in challenging environments.



Risk assessment features include an evaluation of internal exposures: maintenance and inspection requirements, operator experience and training, physical environment and socio/political considerations. Relevant additional features for evaluation with this technology include: fire protection, control systems, maintenance guarantees and service agreements, fuel quality and lead times for major components.

Pascal Luethi: - Inconsistencies in Insurance and Reinsurance Contracts

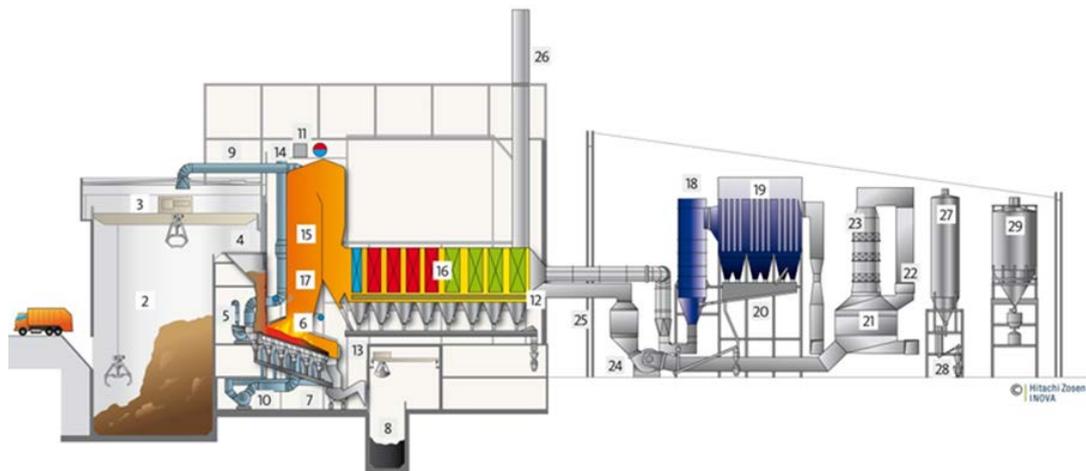
The presentation commenced with an overview of the methods typically used to place reinsurance and made a demarcation between the basis of treaty and facultative reinsurance. A summary of common contractual inconsistencies was provided and this included: the insurance period, underwriting capacity and limits exceeding reinsurance contract stipulations, extent of policy cover, wider than granted by the reinsurance treaty. Reference was also made to other areas that can lead to a differences in insurance and reinsurance contracts: the basis of law and jurisdiction, the approach stipulated towards ex-gratia payments, inconsistencies that emanate from interpretation / translation from difference languages, territorial regulation and compliance differences at Insurer and Reinsurer, interpretation of complex policy language e.g. pollution, sanctions and natural perils. The presentation concluded with an overview of loss examples where inconsistencies were apparent.

Martin Frey: - Adequacy of the Sum Insured

Establishing the correct sum insured is fundamental to all Engineering insurance policies. Getting this basic principle incorrect can lead to significant problems. It is recognised that the values can change significantly through the life cycle of the insurance policy. This presentation focussed on: the difficulties of determining the sums insured initially; what influences can mean revisions to the sums insured during the currency of the contract works; how the adequacy of the sum insured is traditionally handled within insurance policies; the implication of getting it wrong; providing underwriters with guidance on traditional approaches that can be taken and providing claim examples and lessons learned in extreme cases where inconsistencies have been identified.

A memorable presentation that was staged replicating the 'Who wants to be a Millionaire' game show which guaranteed active participation from the delegates.

Simon Dejung/Adam Casselman - Waste to Energy



The presentation included an overview of the significant investment that is being allocated to the Energy from Waste sector globally, gaining an appreciation of the challenges facing the EfW sector, an understanding of inherent hazards associated with operation and maintenance. Significant sums are being allocated to new projects particularly in Europe, the Middle East and the Asia Pacific region – the industry is expected to grow at a rate of 5% year on year. The presentation covered a risk management update on previous publications, risk engineering assessment and recommendations - particularly an outline of repair/replacement procedures. A summary of relevant policy wording clauses was highlighted including the importance of the application of design defects and maintenance, delay in start-up/business interruption and the risks associated with the transition from construction to the operational phases.

Christoph Guntersweiler - Rolling Stock

The paper involved an overview of definition and values to gain an understanding of the rail transport market and the rolling stock industry including technology development, maintenance, testing, security, standardisation and regulation. The presentation also included some loss examples and underwriting aspects and pricing approach guidance including loss estimate determinations. The future growth in the development of rolling stock operations including rail freight, passengers and urban rail is expected to be significant.

An insight into accidents and failures involving rail transportation was provided. Instances were dominated by train collisions, derailments and fire.



It was suggested that often human error was the largest source of loss incidents.

Contractual obligations on rolling stock projects can often prove to be very complex. New technologies with lighter weights and higher speed continue to evolve resulting in the need for the Engineering underwriter to maintain an understanding of the increasing risks as technology development continues.

Other presentations

Mike Robertson: - Financial Evaluation of Construction Contract Parties

Engineering insurers have traditionally focussed on 'technical' features in their risk assessment processes when evaluating Construction projects – however, evidence may be beginning to emerge that a trend may exist between the financial integrity of Construction contract parties and an increase in the probability of losses.

This presentation provided an overview of those industry elements that can encourage financial uncertainty and outlined an evaluation as to the reasons why Construction projects have traditionally failed - a number of these factors included some form of financial implication.

The consequences of financial failure can have severe implications on the ability to complete the project on time and within prescribed budgets. An overview was provided of certain relevant financial metrics which upon review, could assist underwriters in making a more qualified judgement in completing the risk assessment process. Certain models that are currently in use by other Specialty lines can assist Engineering underwriters in this process. The presentation concluded with examples of how the more profound world of 'Analytical' study can assist in this process.

Dr. Manfred Dangelmaier, Fraunhofer IAO - Engineering 4.0: Digital Product Creation

The presentation commenced with an introduction to Engineering 4.0 and the impact that would be provided by digitization and Engineering 4.00, digital product creation and immersive engineering and construction. A number of mega-drivers of change would occur at a much greater pace and these included the challenges associated with demographic change, digital transformation and the impact of globalisation within this context. Rapidly expanding technologies would become apparent in all domains and sectors including additive engineering, big data analytics, artificial intelligence and virtualisation. An increase in the number and complexity of digital platforms would emerge to collate product and manufacturing data in collaboration with the internet and cloud.

Immersive engineering would develop through a complex process and this will include all processes associated with the planning, realisation and operational usage. Some practical examples were provided of the adoption of these techniques in support of actual construction projects.

Jürgen Kolbe - Reduction of Availability (MBI)

The presentation provided the opportunity to review loss adjustment processes to be evaluated in significant detail underpinned by a range of practical examples. A detailed explanation was provided of loss involving the tripping of a steam turbine. An overview was provided to the basis of loss settlement procedure including an assessment of concepts and definitions, the loss investigation process and a detailed evaluation of the incident adjustment procedure – essentially what components are available for indemnity under a business interruption policy and those areas that should traditionally be excluded? A detailed summary was provided of mitigation of loss procedures as well as an in depth evaluation of the power plant availability influences.

Panel Discussion: 'Construction 4.0' – Facilitator: Max Benz

Panel Members: Marc Thiel (Hochtief), Tim Kania, Michael Johst, Andreas Arnold.

The session was commenced with an overview being provided by Marc Thiel on the contractor's approach to the adoption of Building Information Modelling (BIM). The approach attempts to provide a practical method of optimizing the development of the development, planning, execution and operation of building and infrastructure facilities using integrated computer models and linked information – the approach has and will continue to bring increased knowledge, improvement in quality and lower costs.

The conclusion to the debate agreed with the concept that the use of the BIM would bring the following advantages: professional, standardised production processes established on one site, timely data acquisition - more time to react, better project control with less risk; more accurate data creation and processing, less set up time for construction teams, incorporation of supply chain data and processes, better handover data and less re-work.

Kick Off Meetings for 2018 Working Groups:

The 2018 Working Group subjects were introduced and this included a brief overview of relevant features that could be used as a guide to the structure of each Paper. The new topics are:

- WG 106 (18): Construction in Mountainous Areas
- WG 107 (18): Offshore Oil and Gas Platforms
- WG 108(18): Automation in the Construction Industry
- WG 109 (18): Construction/Operation of Scientific Instruments
- WG: 110 (18): Electrical Failures not associated with Natural Perils
- WG 111 (18): Ageing Plant and Maintenance

Topics discussed in Break-Out Sessions:

Design Exclusions - Are they still applicable?

Definitions of 'defect' and 'damage' are different across jurisdictions. Do Engineering underwriter's feel design exclusions provide the necessary protection? For large projects, LEG 3 tends to be a standard provision. For smaller/medium sized projects, LEG 2 is more commonly used. Engineering underwriters believe that they 'win' more disputes than are 'lost'. There remains uncertainty surrounding the interpretation and application of the LEG 2 exclusion. The soft market continues to mask these concerns.

Do Cycles still exist in Engineering Insurance?

It is believed that Cycles still exist in Engineering insurance. The premium associated with the Engineering line however, is small. There are tremendous influences from the financial industry. Evidence of some short-term hardening is evident. Nevertheless, Engineering projects are long tail and it takes time for change to occur. Positive rate stabilisation and movement is considered marginal at the current time.

Automation within Engineering Insurance

Information Technology support to Engineering Insurance requires significant investment. Going forward, risk selection may become highly automated. Positives: Better quality of information. Highly efficient administration. Improved service to client base. Negatives: Increase in Cyber risk exposure. Intellectual property may become vulnerable. Loss of expertise. Reducing price and margins.

How will Engineering insurers use Analytics?

Mature and accurate data set for evaluation is essential. Different insurance parties will have different needs: Insured: data that can be used to impact pricing levels. Broker: information that influences revenue and efficiencies e.g. facilities. Insurer: detailed analysis that can improve profitability. Overall, such initiatives will bring better management decisions, improved product development, influence loss control and claims management and assist in marketing and distribution sales.

Expectations from IMIA over the next 10 years?

Currently, there is tremendous focus on the Annual Conference along with significant interest in sustaining commitment to IMIA activities throughout the year. Client focus: greater interaction at a regional industry level with Consumers e.g. round table discussions geared to improving product development. Research and development focussed on new developing technologies. In addition to the IMIA Academy, enhance and improve training processes e.g. Video on specific subjects, background and interpretation of policy wordings. It should allow individuals and groups the opportunity to present the conclusions to this work at the Annual Conference.

The future role of the Broker?

Reduced role in small/medium sized businesses as 'facilitation' escalates. Greater focus on the mega Construction projects. Transition from 'transactional' role to 'consultancy' will become evident. Analytical differentiation for 'commoditised' products e.g. Annual CAR. Increase in management services - Risk Engineering, MGA's. Improve expertise - train the 'next generation'.

Tunnelling and Offshore Codes of Practice - Reviews were given:

Tim Chapman, Cedric Wong:

The International Tunnelling Insurance Group (ITIG) comprises representatives from insurance companies and industry bodies including the International Tunnelling Association and the International Association of Engineering Insurers (IMIA). The group provides a platform for knowledge sharing between the tunnelling and insurance industries and to discuss best practice in the risk management of underground projects.

The original Tunnelling Code of Practice was introduced in 2003 in response to a series of significant tunnelling incidents to develop a Joint Code of Practice. After re-examination, it was decided to re-visit the original Code in more depth to assess the experience of tunnel projects before/after the release of the Code and with/without the application of the Code. This would include a review of the need to expand certain areas such as instrumentation and monitoring and keep pace with industry developments e.g. BIM. ITIG will issue a short survey to be completed by all interested parties - once the responses are received, ITIG will prioritise revisions to the existing Code.

Stephen Michna:

The Offshore Code of Practice aimed to establish a guideline for a risk management framework on Offshore Wind Farms launched in 2010 by a number of European insurers. The GDV, European Wind Turbine Commission and the Offshore Energy Foundation all supported the initiative. This resulted in the GDV publishing the first version of the Code in 2014. In addition to outlining risk management guidelines, an outline of prevalent Offshore Wind Farm exposures were detailed whereby the role of the Marine Survey Warranty surveyor was clarified.

The risks detailed included: the foundations of offshore wind turbines, transportation and Construction/Erection of transformer stations, the erection of towers, nacelle and rotor and cabling. Next steps in further developing the Code would include: registering greater interest and scope, the technical update of the cable section, discussions and further review with industry partners and the formal establishment of an industry working group.

IMIA Index - Stephan Lämmle

The IMIA Index will be a standard indicator published on an annual basis to track Engineering Insurance rates. It will allow insurers to keep a track of current pricing levels, compare them with past levels and use the information to complement or fine tune available rating tools. Rates within the Index will be based on a significant number of standard risk profiles and IMIA members will be invited to provide information about rate changes of risks within their portfolios. All data will be provided anonymously, abnormal results will be verified and eventually a market trend for each type of risk will be obtained.

Results will always be relative rate indications against a benchmark year for selected typical industry and object codes. It is hoped that the data collected from Insurers will ensure that a global picture is realised.

The Index will attempt to capture the following sectors: CAR/EAR (including building construction, civil engineering, manufacturing industries) and Operational (including Oil and Gas, Power Generation and Heavy Industries). Collation of results will be subject to strict compliance regulation being mindful of Anti-Trust regulations. The approach has been simplified significantly since its first launch in 2014 – thus far 14 completed forms have been received. It was pleasing that the first set of results was presented at this Conference. All delegates were asked for their support in sustaining the effort in ensuring that this initiative is successful.

The next IMIA Conference is planned to take place in Singapore in 2018: