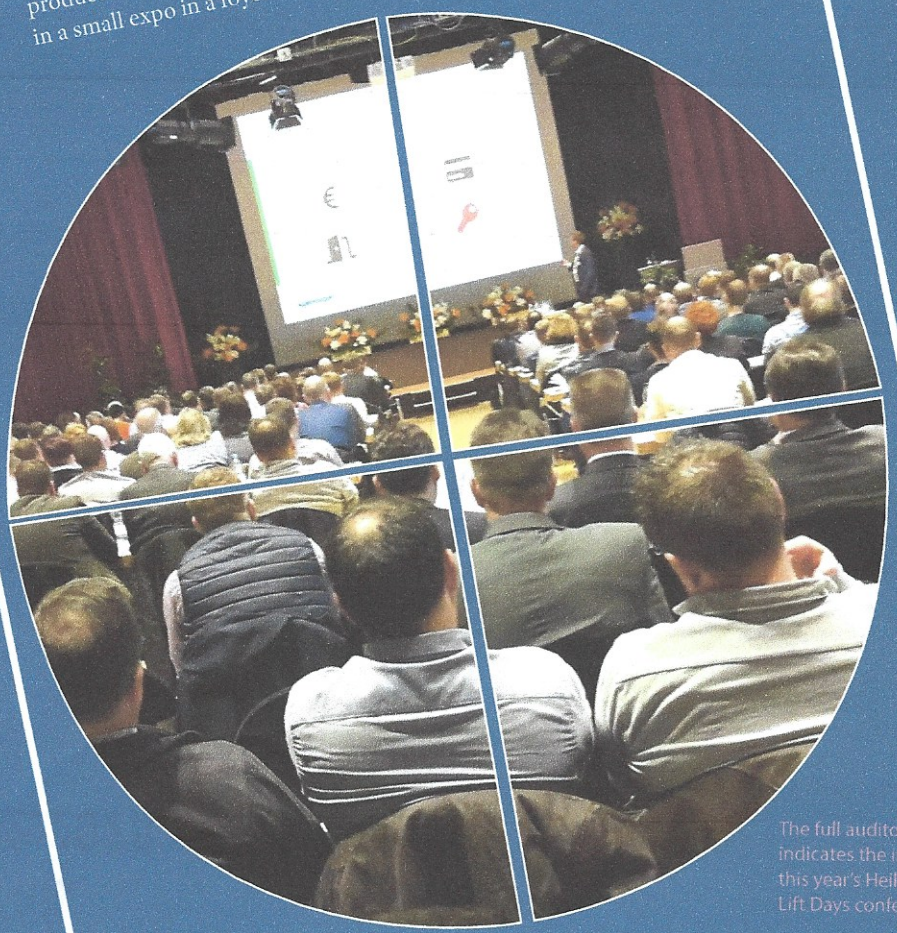
Tradition, Modernity Meet at Heilbronn Lift Days

Standards, safety and technology are among the topics for 36th annual conference.

by Undine Stricker-Berghoff

Gathering under the theme "Mastering Innovations Safely," 301 visitors met on March 12-13 for the 36th Heilbronn Lift Days, organized by the Technical Academy Heilbronn (TAH) in Heilbronn, Germany. Groups representing surveillance providers, lift manufacturers, politicians and government administrators participated in the event, and about 25 exhibitors demonstrated products and services related to lift construction and components in a small expo in a foyer near the meeting room.



The full auditorium indicates the interest in this year's Heilbronn Lift Days conference.

The trade exhibition was popular and busy.

After a welcome address by conference host Prof. Georg Clauss of TAH, Klaus Dietel of TÜV Nord, conference chair for the seventh time, told ELEVATOR WORLD Europe (EWEU) that digitalization is driving innovation in the lift industry: "All interested parties have to learn to live with it. We will support them on their way."

Legislation and Standardization

Dr. Gerhard Schiffner of thyssenkrupp presented his traditional report on "European Directives, New European Standards." He reviewed the guidelines accompanying Lift Directive (LD) 2014/33/EU May 2018. He noted the paper provides interpretations and statements; e.g., when a lift is to be considered new and must fully comply with the directive. According to the European Commission, no revision of the LD is planned, but a call by the commission for proposals for the revision of the Machine Directive (MD) 2006/42/EG runs until mid-2019. The European Lift Association (ELA) has contributed the alignment of the LD to the discussion. A study on a Product Legal Ordinance for lifts for the Ecodesign Directive runs until October 2019. Two reports of seven subtasks were presented in the first quarter of 2019.

To better understand the work on various European lift standards, Schiffner explained in detail which deadlines of standards exist and which are set. At the moment, the final vote is on for a new Annex ZA for/to EN 81 Parts 20, 22, 50, 72 and 73. According to the European Union (EU) Commission, existing certificates remain unchanged. There is a delay in the process and application resulting from flaws in some EN 81 parts that were uncovered during a legal review. Some new standards in 2018:

- EN 81-26, Remote Emergency Call Systems
- EN 81-70, Accessibility of Lifts
- EN 81-77, Lifts in Earthquake-Prone Areas
- EN 81-80, Rules for Improving The Safety of Existing Lifts

Schiffner stated upon request of EWEU that ISO 8100-1/-2 would be published in coming weeks, being 99% congruent with EN 81-20/-50. An acceptance as EN ISO under the Vienna Agreement is planned, when the running revision of A1 of EN 81-20/-50 will be taken into ISO 8100-1/-2. Its publication is not expected before 2022. Further information on the convergence process to CEN/ISO was expected after the International Organization for Standardization (ISO) plenary session in the first week of April 2019.

Ulrich Nees of Ulrich Nees Lift Systems and Consulting dealt with the "new DIN 8989 Noise Abatement in Buildings With Lifts." As residents and users react sensitively to noise, this paper receives high priority in construction. Many objections from acousticians and builders had been noted. As critical contributions in the media have shown, the discussion of this topic is ongoing. Generally, the German Federal Pollution Control Act regulates the protection of humans when "e.g., trains or planes are thundering by." DIN 4109-1 Noise Abatement in Buildings Part 1: Minimum Requirements of January 2018 calls for maximum allowable A-weighted sound pressure levels; for example, for living rooms and bedrooms less than or equal to 30 dB(A). VDI 4100 Noise Abatement in Buildings - Dwellings has three grades: less than or equal grade I 30, grade II 27, and grade III 24 dB(A). These requirements are usually found in contracts and represent a challenge to lift builders. DIN 8989 now demands to secure these values, among other measures, by a wall thickness of 2,400 kg/cbm of normal concrete in specific areas.

The noise measurements in rooms requiring protection are made for all building services systems in the building according to DIN EN ISO 10052. The structure-borne sound measurement is carried out according to DIN 52221. Nees pointed out that, according to the standard, the result of a

measurement is not the final result. As primary measures for the reduction of airborne and structure-borne noise, he mentioned, among other things, the selection of the lift machine, construction and guides of the counterweight, design/construction of the rail brackets, construction of the machine frame, as well as vibration isolation. Secondary measures include location of the machine room/shaft relative to the area requiring protection, area-related mass between the shaft wall and the room in need of protection, avoidance of openings in the lift shaft to the staircase, as well as adequate shaft dimensions.

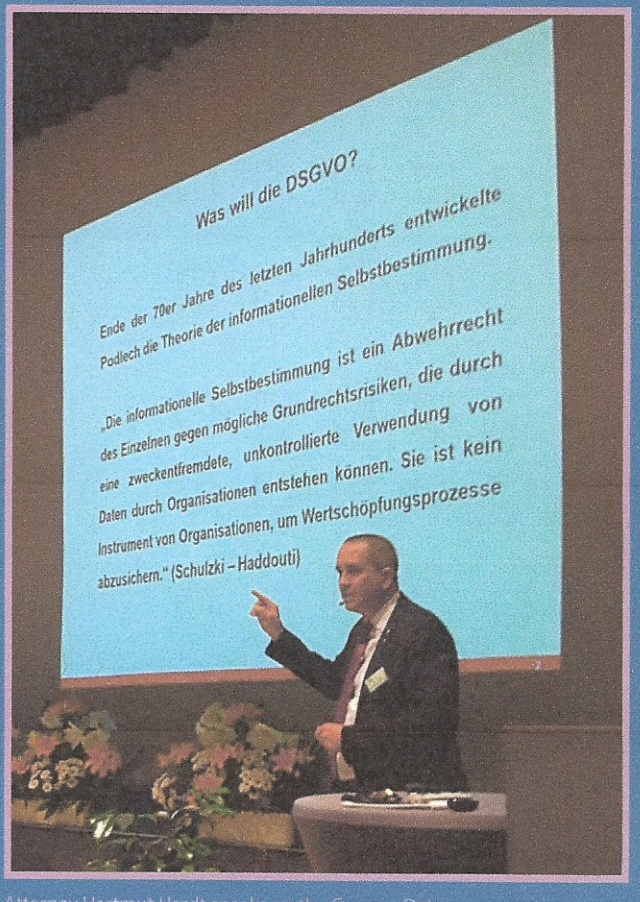
Smart People Play It Safe

Attorney Hartmut Hardt spoke on the "Legal Certainty of the Market Players — Dealing With the New German Data Protection Ordinance DSGVO." His example: according to the Industrial Safety Ordinance, the expertise of the employee must be proven when maintenance work is conducted at a client's premises. Is it, under the new regulation, legal to provide the customer with this information about the contractor's employees? Hardt said the information can be disclosed, as it is necessary for the purpose of fulfilling a legal obligation. But, the employer should have the authorization of the employee before releasing this information. Hardt also clarified the question of the ownership of data collected by, and used in, information technology (IT) systems. § 90 BGB (German Civil Code) defines only physical objects (except animals) as objects of legal rights. Therefore, data are not objects within the regulations of the common law. His conclusion: there is no ownership of data; thus, its status must be regulated bilaterally by a contract.

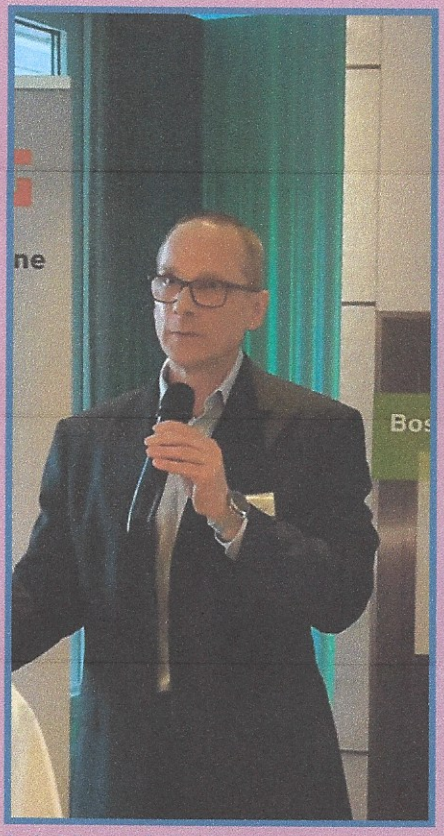
Gerhard Quanz of the County of Kassel Offices for Safety at Work and Security Technology, spoke on "Lifts in View of Safety at Work — Accident and Damage Events and Prevention." His message was that the vast majority of employee accidents might be prevented. He explained the preconditions for accident prevention based on examples of accidents at work: material (e.g., compliant assembly) and organizational (e.g., risk assessment). Hazards may result from:

- Environment (e.g., traffic routes or noise)
- Organization (e.g., instruction or first aid)
- Work equipment (e.g., railings or ladders)
- Situations (e.g., lifting loads or the presence of animals)

Stephan Störmer of TÜV Austria spoke about the safe use of work equipment. For this purpose, the Technical Rule on Industrial Safety (TRBS) 3121 was revised and the requirements from the Industrial Safety Ordinance were specified. The term "employer" and his duties have been defined. Annex 1 gives, among other things, recommendations on 22 hazardous situations, including technical and organizational protection measures. A risk assessment must be carried out for each hazardous situation.



Attorney Hartmut Hardt speaks on the German Data Protection Ordinance.



Bodo Adamus informs about Bosch products and solutions.

A Ziehl-Abegg belt drive on display at the exhibition

Intelligent Technology Leads to Innovative Solutions

Klaus Aengenvoort of eTASK Real Estate Software introduced building information modeling (BIM) and its benefits to planners, manufacturers and operators. BIM as a method uses software to create a single model that different people involved can access during the lifecycle of a building. It aims to heal the loss of knowledge in building operations and to increase knowledge in the early planning phases 1-3/4, according to the German Fee Regulation for Architects and Engineers (HOAI). A prerequisite, among others, for this process is the exchange of digital product data. According to Hardt, BIM is expected to become mandatory for public buildings in the German state of North-Rhine Westphalia from 2020 onward.

Four lectures focused on the latest technology:

- Innovative control concepts by Philipp Bruessler of Kollmorgen
- Intelligent machine systems by Roland Hoppenstedt of Ziehl-Abegg
- Contemporary hydraulic drives by Michael Ruthenbeck of Bucher Hydraulics
- Inclined Lifts by Stephan Huter of Doppelmayr Cable Cars

Helmut Buchwinkler of TÜV Rheinland posed the question of what users need to know about software safety devices. Published in 2005, EN 81-1/-2 A1 deals with the use of software to be implemented for safety functions. Random, systematic and conjunct causes of errors are explained in detail in his contribution to enable mitigation measures in product development and operation.

Stephan Kuss of TÜV Nord Systems presented the lecture "Digitalization — Networking Needs Security." He said a mere conformity check is no longer adequate, and digitalization requires a holistic safety and security check. Therefore, he said, TÜV Nord is already working on a digital lift test in which a trust center will carry out assessments to determine whether transferred data are correct, and to ensure data manipulation is excluded.

Conference host Dr. Georg Clauss, standing at right, chats with attendees as they network during the conference dinner.

Traditions of the Setting

The evening before, more than 70 conference participants met for the Bosch Service Solutions industry dialogue, "Beautiful New Digital Lift World!?" The host, Bodo Adamus, presented "Updates to Products & Services" and "Safety for Solitary Workplaces". Michael Puttrus of SafeLine Germany assumed that a sound business model for monitoring lifts involving additional IT stakeholders will be developed within 10 years. He said he considers the use of data as the upcoming challenge. Jan König of VFA-Interlift and Klaus-Peter Kapp of KP Solutions spoke on the topic "Safe Use Through Visual Inspection?" TRBS 3121 describes the procedures in detail. Technical solutions, such as remote monitoring, are in sight. From the perspective of small and medium-sized enterprises, Kapp stated to EWEU that 80% of these IT-based solutions are being put on the market by the "Big 4", with the rest by IT and facility management companies.

Not a new occasion, but a new location for the evening event on the first day: the refectory of the University of Heilbronn. Its modern ambience matched the style and content of the conference. Four female participants attended the Women in the Lift Industry of Europe (WoLIE) Communal Coffee (CoCo) during the break on the second morning. With women's participation in the conference making up 6% of the total, the event clearly reflects the small proportion of women active in the lift industry.

The next Heilbronn Lift Days event will convene on March 3-4, 2020.

Undine Stricker-Berghoff is the owner of ProEconomy, a Luebeck-Travemuende, Germany-based engineering office through which she works as a coach and consultant for management and marketing mainly in energy and building services. From 2008 until 2013, she was the managing director of VFA-Interlift e.V. in Hamburg, Germany. She studied Mechanical Engineering at Ruhr-University Bochum, Germany, and, immediately after graduation, worked as an energy consultant for ERPAG in Lugano, Switzerland, and Campione, Italy. Prior to joining VFA-Interlift, Stricker-Berghoff worked for VDI, the Association of German Engineers in Duesseldorf, Germany, as secretary for Building Services, and was in charge of the VDI-Standards department. She also served one term as director general for the Luebeck Chamber of Commerce and Industry. She has operated ProEconomy since 2005.