

8th International Annual Conference

EUROFORUM

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ISO 26262

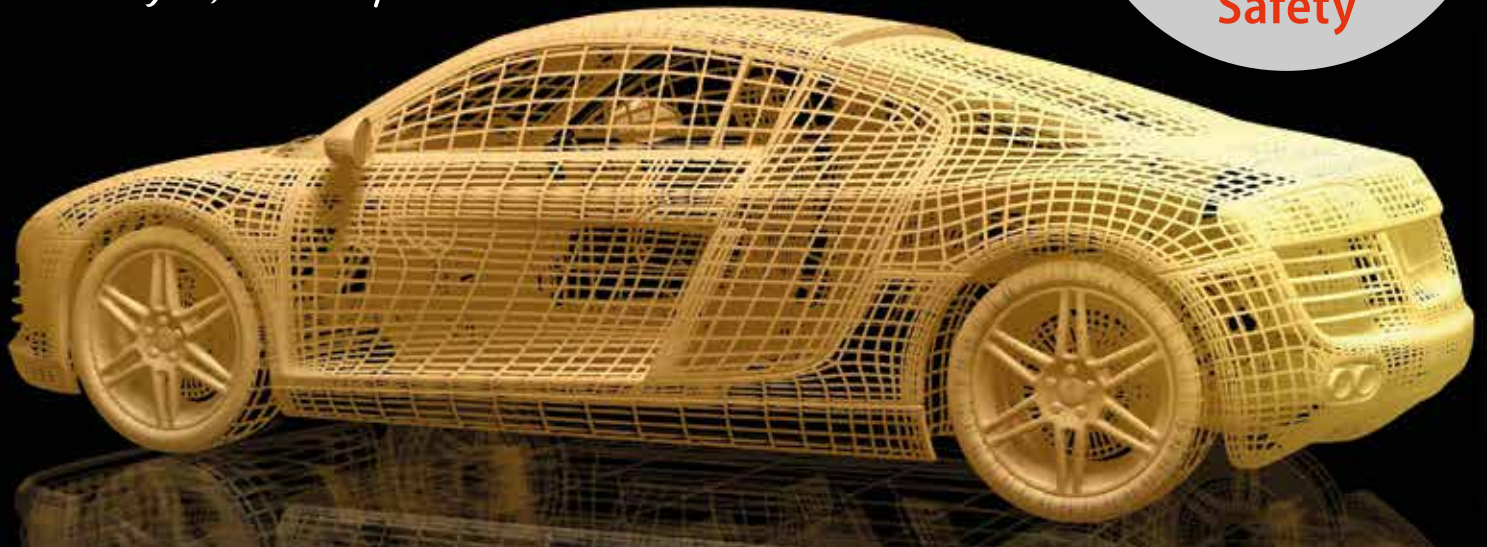
26 to 28 September 2016, Stuttgart/Ludwigsburg, Germany

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Register
by 29 July 2016
and save
€ 200

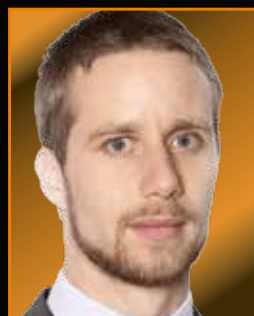
SPECIAL
TRACK:

**Security Impact
on Functional
Safety**



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Ordinarius Software & Systems Engineering,
Technical University Munich, Informatics Institute

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www.euroforum.de/iso-conference



Simultaneous Translation: English-German

AT A GLANCE: 7 REASONS FOR PARTICIPATING

1 Expand your own functional safety network, maintain and deepen existing business contacts with decision-makers from countries from all over the world.

2 Improve your competences, such as how ISO 26262 may be efficiently implemented into your development.

3 Propose and discuss change requests to the ISO 26262 second edition and have an impact on the next version of the standard.

4 Find out the strengths and weaknesses of your current ISO 26262 policies by getting exposed to best industry practices.

5 Mitigate your risks by making your own assessment of ISO 26262.

6 Prepare for the worst by planning ahead for legal aspects of ISO 26262.

7 Increase your Return on Investment by saving your organization's money and time – get your ISO 26262 implementation policies and practices right the first time.

AUDIENCE

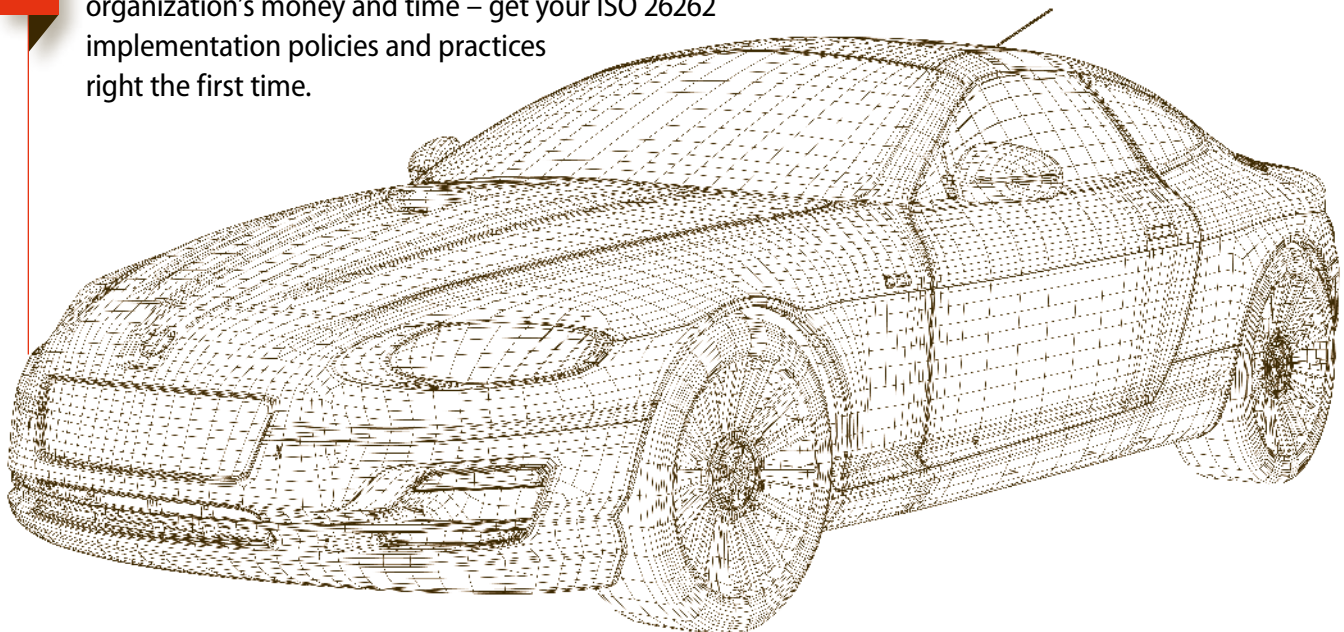
This annual conference is directed at a worldwide audience of board members, technical directors, senior managers, project heads and safety managers from the automobile and automotive parts industries as well as those in the electrical engineering and electronics sectors who are involved in automobile electronic manufacturing.

The audience will have expertise in:

- Electrics and electronics
- Mechatronics
- Research and (pre-) development
- Engineering and design
- Technology
- Purchasing and procurement
- Sales and marketing
- After-market services
- System integration and automotive technology
- Application and system development
- Functional safety
- Security
- Quality
- Legal and compliance

The conference will also be of interest to:

- Development service providers
- Hardware and software providers
- System suppliers
- Engineering service providers
- Industry-oriented research establishments
- Testing and certification bodies



9.00 – 9.30

Reception with coffee and tea

9.30 – 9.50

Welcome by the chair and introduction to the topic



Prof. Dr Dr h.c. Manfred Broy,
Ordinarius Software & Systems Engineering,
Technical University Munich, Informatics Institute

ISO 26262 from 2011 to 2016: Experiences and new topics

9.50 – 10.20

Key insights and the latest developments from the ISO 26262 working group members



Helen Monkhouse,
Commercial Manager - Functional Safety,
HORIBA MIRA Ltd., UK



10.20 – 10.30

Q&A and discussion

10.30 – 11.00

A qualitative analysis on adaptation of automotive functional safety practices in the motorcycle industry

- Introduction and Scope
- Challenges in adaptation of ISO 26262 into motorcycle industry
- Business opportunities of functional safety in motorcycle industry
- Overview of ISO/PAS 19695
- ASIL vs MSIL
- Conclusion



Sajeesh Kumar Kodakkattu,
BE, MBA, Functional Safety Engineer,
TATA ELXSI Ltd., India



11.00 – 11.10

Q&A and discussion

11.10 – 11.40 Coffee break

11.40 – 12.10

Software Safety Analyses

- Goals of the analyses and embedding into the software development (incl. interfaces to other technical domains)
- Relationship of Safety Analyses and Depended failure analyses
- Overview about possible methodical approaches
- State of debate for the 2nd Edition of ISO 26262 (e. g. national and international)
- Conclusion



Matthias Maihöfer,
Head Functional Safety,
Schaeffler Technologies AG & Co. KG, Germany



12.10 – 12.20

Q&A and discussion

12.20 – 12.50

Assessments by internal teams – an experience report

- Recall: Statements about Assessments according to ISO26262
- Reflection on “independence”
- Approaches at Preh and Brose
- Experiences and observations
- Summary and conclusion



Dr Pierre Metz,
Organisational Safety Manager,
Brose Fahrzeugteile GmbH & Co. KG, Germany



Andreas Töpferwein,
Functional Safety Manager,
Preh GmbH, Germany



12.50 – 13.00

Q&A and discussion

13.00 – 14.20 Lunch

14.20 – 14.50

Residual Risk Assessment (RRA): Numbers versus concept

- Introduction: HW metrics in a nutshell
- PMHF: The illusion of objectivity
- RRA: An alternative to PMHF



Carsten Gebauer,
Bosch Centre of Competence Functional Safety,
Robert Bosch GmbH, Germany



14.50 – 15.00

Q&A and discussion

15.00 – 15.30

The Missing Link:

CompCert, a Formally Verified Optimizing Compiler

- Compilers can introduce bugs into the software: miscompilation
- Miscompilation may invalidate all verification activities performed at model and source code level
- CompCert provides a formal proof that the generated machine code is semantically equivalent to the source code
- Benefits: Unprecedented level of confidence in the correctness of the compiler, reduction of test effort



Dr Daniel Kästner,
CTO,
AbsInt GmbH, Germany



15.30 – 15.40

Q&A and discussion

15.40 – 16.10 Coffee break

Legal Aspects

16.10 – 16.30

Functional Safety – advancing to 2. Edition in 2018

- Legal impact of the ISO 26262 for the development of new products
- All open questions to be answered by the 2. Edition?
- How should we proceed until publication of the 2. Edition?



Andreas Reuter,
former Syndikus Corporate Legal Services,
Robert Bosch GmbH, Germany

16.30 – 16.50

ISO 26262 – boon or bane from a product liability perspective?

- Legal qualification of ISO 26262
- German Product Liability regime and ISO 26262
- The functional manager between design freeze and state of the art
- Challenges on the road to autonomous driving – what to expect for example from the DOT/NHTSA approach to proactive safety principles, etc. – and what this may mean from a liability perspective



Hans-Michael Stracke,
Counsel,
Bird & Bird, Germany



16.50 – 17.30

Q&A and Discussion

ISO 26262: Legal aspects of the second edition



Andreas Reuter,
former Syndikus Corporate Legal Services,
Robert Bosch GmbH, Germany



Hans-Michael Stracke,
Counsel,
Bird & Bird, Germany

Drinks at the hotel

17.30

At the end of the first conference day we invite you to meet for refreshments in a relaxed atmosphere. Make contact with delegates and guest speakers and extend your ISO 26262 network by continuing the discussions of the day.



9.00 – 9.30

Reception with coffee and tea

9.30 – 10.00

Welcome and summary of the previous day by the chair

Prof. Dr Dr h.c. Manfred Broy

Software, Tools and Methods

10.00 – 10.30

Towards tool support of the ISO 26262 concept phase with the application of physical modelling

- Background and problem statement
- Physical model-based approach
- Use case: Electronic Differential Lock system in a simple vehicle model
- Summary and Conclusion



Luca Salemio,
Research Engineer Associate,
Siemens Industry Software Ltd., UK



Dr Dariusz Szymanski,
Senior Research Engineer,
Flanders Make vzw, Belgium



10.30 – 10.40

Q&A and discussion

10.40 – 11.10

Library Qualification for ASIL D

- ISO 26262 Requirements for Software Components / Libraries (ASIL A-C, D)
- Example C Math Library
- Test Strategy, Test Generator and Test Coverage
- Library Qualification Kit



Dr Oscar Slotosch,
CEO,
Validas AG, Germany



11.10 – 11.20

Q&A and discussion

11.20 – 11.50

Coffee break



Good range of topics and quality of presentations; good opportunity for networking.

Werner Schauer, Vienna Institute for Safety & Systems Engineering



Latest news for approaches to ISO 26262.

Alexander Dobry, Knorr-Bremse Systeme für Nutzfahrzeuge GmbH

11.50 – 12.20

Managing an ISO 26262 Safety Case: A Software System Perspective

- Requirements for Delivering a Safety Case for a Software System
- Core Concepts for Continuous Progress Monitoring and Completion Tracking
- Definition of the Quality Model
- Definition of a Quality Monitoring System for Safety Case Collection
- Practical Conclusions of the approach



Dr Heiko Dörr,
CEO,
Model Engineering Solutions GmbH, Germany



12.20 – 12.30
Q&A and discussion

12.30 – 14.00 Lunch

Security impact on Safety

14.00 – 14.30

Safety and Security: Integrated and Consistent Development

- Motivation, introduction to the topic and challenges
- Development of safety and security requirements
- Interactive case report
- Audit and general implementation
- Best practice ADAS
- Implementation in own processes



Prof. Dr Christof Ebert,
Managing Director,
Vector Consulting Services GmbH, Germany



Dr Michael Brasse,
Safety Manager,
HELLA Group, Germany



Dr Eduard Metzker,
Solution Manager Automotive Cyber Security,
Vector Informatik GmbH, Germany



14.30 – 14.40
Q&A and discussion

14.40 – 15.10

Secure Programming of Safety Critical Applications

- Motivation and attacks against vehicles
- Vulnerabilities in vehicle applications
- Danger spots internet access, radio networks and user interfaces
- Safe programming as precondition for secure programming



Jürgen Belz,
Senior Consultant Safety and Security,
PROMETO GmbH, Germany



15.10 – 15.20
Q&A and discussion

15.20 – 15.50 Coffee break

15.50 – 16.20

Re-using safety artifacts for security – A standard compliant hazard and threat analysis for the automotive domain

- The state of security of safety-critical automotive systems
- From hazard to threat analysis for security risk assessment
- A comprehensive and cost-effective approach to combine ISO 26262 with ISO 27001
- Application of the approach to an electronic steering column lock system



Dominik Holling,
Researcher at the chair of Software Engineering,
Technical University Munich, Germany



16.20 – 16.30
Q&A and discussion

Networking Night 2016

17.30

At the end of the second conference day we invite you to a dinner at the Restaurant "Alte Sonne" in Ludwigsburg. Enjoy the relaxed atmosphere and get spoilt with fine food and drinks at our Networking Night 2016!



9.00 – 9.30

Reception with coffee and tea

9.30 – 10.00

Welcome and summary of the previous day by the chair

Prof. Dr Dr h.c. Manfred Broy

Automated Driving

10.00 – 10.30

OUTSIDE THE BOX SPEECH

Why automated driving raises ethical issues and why these issues are difficult

- The ethics of how autonomous cars should respond to risks and collisions
- The „priorities“ of a private car in public traffic
- Safety and „mixed traffic“: should I stop using my old car?
- Ethical values on the road



Dr Sven Nyholm,

Assistant Professor of Philosophy and Ethics,
Eindhoven University of Technology, The Netherlands



10.30 – 10.40

Q&A and discussion

10.40 – 11.10

Communicating like a faster horse

- Learnings with Bertha and Sunny
- Behavior – Digital alien or social act
- Acting on behalf of the driver (the mood of my boss)
- Leading – The next level of the pyramid



Eberhard Frank,

Director, NewBiz and Consulting,
amplify design GmbH, Germany



11.10 – 11.20

Q&A and discussion

11.20 – 11.50

Automated Driving and its influence on safety and security

- Automated Driving has a positive influence on vehicle safety and security
- Established methods and safety mechanisms can be adapted to the new application scenarios
- Connect economic efficiency to the high need for safety and security



Dr Viktor Bunimov,

Project Manager,
Carmeq GmbH, Germany



11.50 – 12.00

Q&A and discussion

12.00 – 12.30 Coffee break

12.30 – 13.00

Validation of highly automated and autonomous automobile systems

- Validation interpreted in the deterministic view of the ISO 26262 and V-Model
- Non deterministic characteristics of real driving situations
- Extended view on the verification and validation (of highly automated and autonomous systems)
- Verification and validation methods (for highly automated and autonomous systems)
- Confidence in decisions of cognitive, autonomous systems in real driving situations



Dr André Frank,

Head of Evaluation Body for Functional Safety,
Bosch Engineering GmbH, Germany



13.00 – 13.10

Q&A and discussion

13.10 – 13.40

Semi-conductor and ISO26262 for new era of autonomous driving

- Achievement and approach to ISO26262 by latest SEooC micro-controller and SoC(System on Chip)
- Autonomous driving impact to ISO26262 from semi-conductor point of view
- Consideration and Proposal for the future solution

Takashi Yasumasu,

Senior Chief Professional,
Renesas Electronics Corp., Japan



13.40 – 14.00

Q&A and discussion

14.00

End of the conference



The safety event of the year: informative, a large range of topics, numerous top experts, entertaining and interactive.

Dr. Reinhold Hagel, Continental Engineering Services GmbH

The following exhibitors have already signed up:



AbsInt provides tools for validation, verification and certification of safety-critical software. Key products are the aiT Worst-case Execution Time Analyzer for obtaining timing guarantees, StackAnalyzer for proving the absence of stack overflows, and the Astrée analyzer for proving the absence of runtime errors and data races. All of them can be qualified according to contemporary safety standards. Since 2015, AbsInt offers two new product lines: TimingProfiler computes execution time estimates of programs without the need to repeatedly provide test inputs, execute, and measure. CompCert is a formally verified optimizing C compiler. The level of confidence in the correctness of the compilation process is unprecedented and helps meet the highest standards of software assurance.

AbsInt GmbH

Science Park 1, 66123 Saarbruecken (Germany) | www.absint.com



Validas AG is specialized on tool and library qualification. Our highly qualified specialists grant support to tool vendors and users in building and application of qualification kits by using a model-based framework which is compliant to ISO-26262, IEC-61508, EN-50128 and DO-330-TQL5. During the EUROFORUM we exhibit a 15 minutes live demonstration of library qualification including tests and reviews.

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- A substitute may attend in your place at no additional cost.
- The fee covers full conference documentation.

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In the conference hotel, there is a limited allocation of rooms available at a reduced price. Please arrange the room reservation directly with the hotel quoting the reference "EUROFORUM event".

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CONCEPT AND CONTENT



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