

TIME	TOPIC
9 a.m.	Welcome and introduction round
9:30 a.m.	Overview Model-based software development with simulink® <ul style="list-style-type: none"> <li>• Foundations of model-based development</li> <li>• Overview of development and quality assurance activities</li> <li>• Characteristics of ISO 26262-compliant development</li> </ul>
10 a.m.	Safety-related software development according to ISO 26262 <ul style="list-style-type: none"> <li>• Impact on the development process</li> <li>• Hazard analysis and risk assessment, ASIL determination</li> <li>• Strategies for safety concepts</li> <li>• Real-life experiences of a safety manager, lessons learned</li> <li>• ASIL decomposition (example)</li> </ul>
11:30 a.m.	Lunch break and open dialogue
1 p.m.	ISO 26262 – compliant development process <ul style="list-style-type: none"> <li>• Reference workflow</li> <li>• Process phases and work products</li> <li>• Process manuals and developer guides</li> </ul>
2 p.m.	Model and software architecture design <ul style="list-style-type: none"> <li>• Introduction: model architecture v. software architecture</li> <li>• Design of ISO 26262-compliant software architectures</li> <li>• Simulink®/TargetLink® design patterns for safety-critical software</li> <li>• Model partitioning and encapsulation of safety-critical modules</li> <li>• Established software architectures for Simulink® and TargetLink®</li> </ul>
3:30 p.m.	Analysis and evaluation of model architecture <ul style="list-style-type: none"> <li>• Analysis of the model structure</li> <li>• Introduction to complexity metrics</li> <li>• Calculation of model complexity</li> <li>• Case studies</li> </ul>
4:30 p.m.	End of Day 1

TIME	TOPIC
9 a.m.	Safeguarding model quality with modelling guidelines <ul style="list-style-type: none"> <li>• Overview of modelling guidelines</li> <li>• Modelling guidelines for ISO 26262-compliant modelling</li> <li>• Automatic checking of modelling guidelines</li> </ul>
11 a.m.	Tool qualification <ul style="list-style-type: none"> <li>• Foundations of tool qualification</li> <li>• Determination of the tool confidence level</li> <li>• Qualification methods</li> </ul>
12 p.m.	Lunch break and open dialogue
1 p.m.	Safeguarding model quality with model testing <ul style="list-style-type: none"> <li>• ISO 26262 requirements in the testing process</li> <li>• Safeguarding safety requirements</li> <li>• Test goals on different testing levels</li> <li>• Safeguarding functional properties of model and code</li> <li>• Regression testing and back-to-back testing, MiL – SiL – PiL</li> <li>• Model and code coverage</li> <li>• Automatic test evaluation with test assessments</li> </ul>
3 p.m.	Priorities for process adaptation towards compliance with ISO 26262 <ul style="list-style-type: none"> <li>• Prioritizing ISO 26262 requirements for model-based development</li> <li>• Assessing costs and benefits of ISO 26262 requirements</li> <li>• Available methods and tools for process tailoring</li> </ul>
4 p.m.	Concluding words and feedback
5 p.m.	End of training workshop