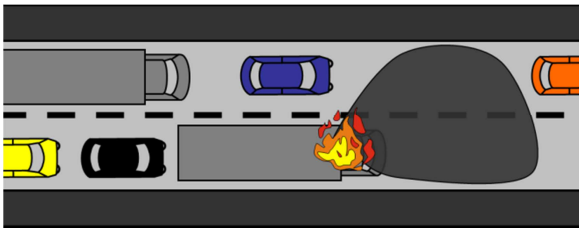
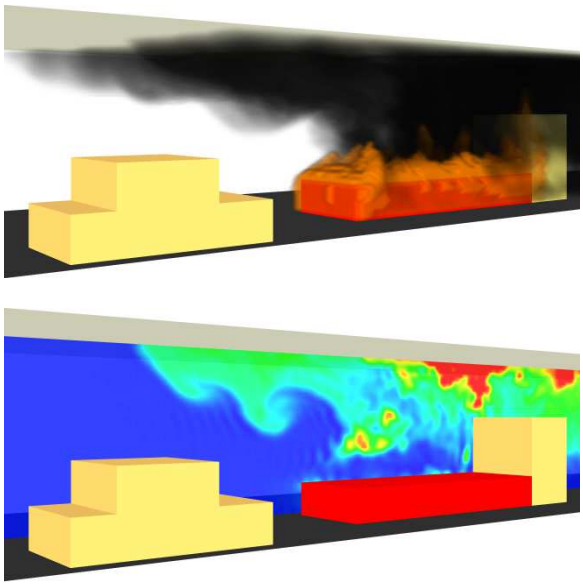
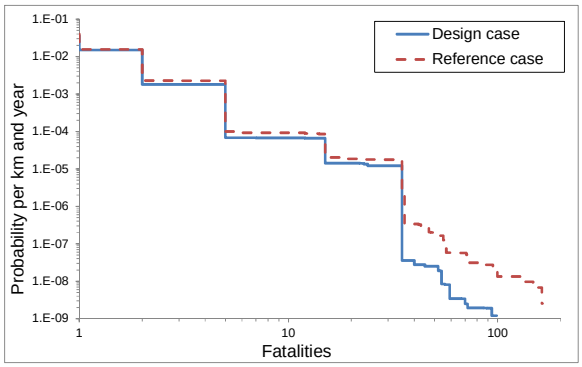
Service: Risk analysis



Fire scenario in a uni-directional road tunnel



CFD simulation of temperature distribution and smoke propagation



Summarized risk profile collision and fire scenarios

For the design and operation of major infrastructure projects, quantitative and qualitative risk analysis becomes increasingly important. Risk analysis is used to optimise the safety concept with respect to costs and benefits. Furthermore, quantitative risk analysis is formally employed in order to evaluate the risk category for the transport of dangerous goods in road and railway tunnels or on alternative routes. Several different methodologies are used today. The selection of the appropriate method is made according to project related or national requirements.

Our services

HBI provides services for quantitative and qualitative risk analysis based on the following methodologies:

- quantitative risk analysis with comparison of the design case to a defined reference case according to BASt B66 (RABT-2006)
- quantitative risk analysis for selection of ventilation concept according to RABT-2006
- quantitative risk analysis according to the ANAS guidelines for road tunnels in Italy
- quantitative risk analysis using the Turismo model for road tunnels in Austria
- quantitative risk analysis for transport of dangerous goods conforming to the ADR-2007 (BASt) and OECD-PIARC guidelines
- risk analysis for road tunnels of the Swiss national roads (ASTRA code 19 004, draft)
- risk analyses for railway tunnels and underground railway lines
- project specific methods for special project requirements or international projects

Your benefits

HBI provides:

- recommendation of the methodology most appropriate for the specific project
- multi-disciplinary and holistic assessment of project related risks
- recommendation of applicable and cost effective measures to meet the required safety level
- a comprehensive risk report for project approval