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The structural integrity of components is the key issue of my education and professional activities.

After studying mechanical engineering at the University Essen, I worked as a research associate at the Institute of Materials Research of the German Aerospace Center (DLR) in Cologne in the department Durability and Fracture Mechanics and afterwards at the Materials Engineering department of the Gerhard Mercator University Duisburg. Here I received my PhD on the topic „Experimental and numerical stress-strain analyses of notched CFRP laminates under tensile loading“.

The structural integrity of metallic railway vehicle and track components and the derivation of adequate maintenance measures has been in the focus of my work at the Research and Technology Center of the Deutsche Bahn AG in Brandenburg-Kirchmöser.

Since 2002 I am a staff member of the Fraunhofer Institute for Mechanics of Materials in Freiburg and responsible for industrial and basic research projects related to the deformation and fracture behavior of materials and structural components under mechanical loading (creep, fatigue, crash). My field of interests is materials characterization, the development of damage and fracture mechanics evaluation methods and their validation by means of component testing. Presently I am heading the department Component Safety and Lightweight Construction.