For almost 60 years now the Welding and Joining Institute (ISF) of the RWTH Aachen University has been doing research work about modern welding and joining technologies. The work of the ISF comprises almost all industrially relevant, non-detachable joining methods. Those methods include the arc joining methods with their modern process variations, the entire spectrum of the electron and laser beam welding methods, resistance and friction welding processes and adhesive bonding.

Besides fundamental process analyses which are carried out within the scope of the above-mentioned fields, main emphasis is put on the application-oriented implementation of the gained results into advancement and further development of joining technologies for innovative material and structural design. Within the scope of our scientific work, great importance is placed on the direct industrial cooperation, reaching from smaller projects up to long-term development cooperation.