In 2012, the University of West Bohemia launched the **Centre of Advanced Nuclear Technologies** (CANUT). The CANUT Centre is a consortium of research organizations and major industrial companies seeking long-term cooperation in research, development and innovation. The reason for launching CANUT is establishing a strategic partnership between consortium members in the field of nuclear technologies, where the participating organizations to internationally recognized research institutes and industrial corporations with long tradition. These technologies belong to key and prestigious research topics in the world. The CANUT Centre is financed through the **Technology Agency of the Czech Republic**.

Together with established industrial companies and research organizations ŠKODA JS a.s. has also got engaged in the consortium activities. Within CANUT, ŠKODA JS a.s. also cooperates with universities ČVUT Praha, VUT Brno and ZČU Plzeň. CANUT is concerned with total seven research topics. Within the CANUT consortium, ŠKODA JS a.s. is the leader of two projects and cooperates in other three.

The first project led by ŠKODA JS a.s. is ”Storage and transport of radioactive waste, especially spent nuclear fuel”. The goal of this research project is development of casks and auxiliary equipment for storage and transport VVER 440 and VVER 1000 spent fuel with a higher enrichment of up to 5% U235, which will be used in nuclear power plants in the Czech Republic and nearby countries in the future. Casks for VVER 440 and newly also for VVER 1000 types of fuel are under development. Maximum attention is paid to the materials used for cask body and internal basket.

The other project headed by ŠKODA JS a.s. is ”Device for inspecting primary circuit components of pressurized water reactors“. The aim of this research project is to develop a device that will increase the quality and shorten the period of non-destructive testing of components of the primary circuit in nuclear power plants with pressurized water reactors while maintaining the scope of inspections. The equipment makes use of new approaches to non-destructive testing of reactor pressure vessel material. Innovative methods of controlling the position of the inspection device and its end modules have been developed. The inspection device will ensure better accuracy upon determining dimensions of dis-integrities detected in the material of inspected parts and, at the same time, by shortening inspection duration, it will decrease the radiation load of the inspection device operating personnel.