

## **IAEA ACTIVITIES IN SUPPORT OF COMPACT ACCELERATOR BASED NEUTRON SOURCES**

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The IAEA has several on-going activities in the area of compact accelerator based neutron sources (CANS) and their applications. In 2021, TECDOC-1981 was published on this topic giving an overview of types of CANS available, their potential applications, and issues such as licensing and decommissioning such facilities. Currently we are finalizing another technical document on boron neutron capture therapy (BNCT), a field which is being “revolutionized” by the availability of several CANS technologies that can be readily installed in a clinical environment. Japan led the world by giving approval to one system for routine clinical use in locally recurrent non-resectable head and neck cancer in 2020. We expect to have further development in this field in the coming years. Finally, at our Seibersdorf Laboratories, we are commissioning a new Neutron Science Facility (NSF) based on DD and DT generators to be used mainly for education and training purposes but also to demonstrate some of the neutron techniques such as neutron activation analysis, prompt gamma activation analysis, delayed neutron counting, neutron radiography/tomography, and some others.