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# JT-60SA TF Coil Manufacture, Test and Preassembly by CEA

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In 2005, when the ITER site decision was made, the French Government decided to participate to the joint Europe-Japan implementation of the so-call "Broader Approach Activities"(BA) in support of the ITER project and DEMO activities [1,2]. The BA comprises the ITER Satellite Tokamak Programme (STP) which consists in upgrading the JT-60U machine into the largest fully superconducting and actively cooled D shaped tokamak JT-60SA before ITER, and in the participation to its scientific exploitation. As collaboration with Fusion for Energy (F4E), the French commitments, in charge of CEA as Voluntary Contributor (VC), are described in the Agreement of Collaboration (AoC) [3]. The CEA contribution related to the Toroidal Field Coil (TFC) procurement is 9 +1 spare of the 18 + 2 spares TFCs, the whole supporting structures, the TFC Cold Test Facility (CTF) and the TFC pre-assembly. The complementary contribution is in charge of Italy.

After the preparation and qualification phases, in these last two years, the industrial production for the procurement of the French contribution to the Toroidal Field Coil manufacture is now well engaged. The first coils were wound and integrated into their casings. The first mechanical structures were produced. These coils were sent to the Cold Test Facility and cold tested for final acceptance before to be assembled with their Outer Intercoil Structures in a dedicated workstation. These assemblies are the first components of the TF magnet which were sent to JAEA. In parallel the following TFC production, qualification and preassembly are ongoing.

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France

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