European XFEL - First commissioning results

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The European X-ray Free-Electron Laser (XFEL) under construction in Hamburg, Northern Germany, aims at producing X-rays in the range from 260 eV up to 24 keV out of three undulators that can be operated simultaneously with up to 27,000 pulses per second. The FEL is driven by a 17.5 GeV superconducting linac. The linac is the worldwide largest installation based on superconducting radio-frequency acceleration. Almost 800 s.c. cavities are installed. The design is using the so-called TESLA technology which was developed for the superconducting version of an international electron positron linear collider. The Installation of this linac is now finished and commissioning was started. First lasing is expected for spring 2017. The contribution summarizes the status of the project. First results of the linac commissioning starting with cooldown of the complete linac are given.