

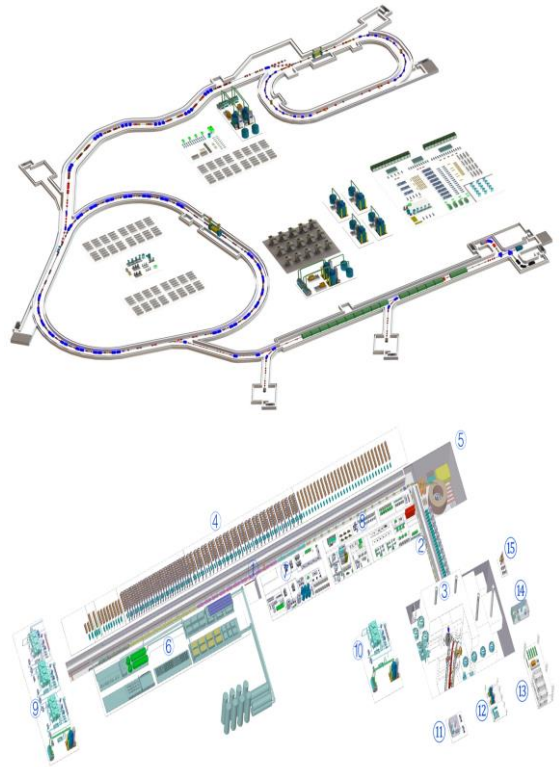
# Huizhou Nuclear Research Center in 2019

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Nuclear Research Center in Huizhou covers the nuclear structure, astrophysics, hadron physics, a few topics of fundamental physics, accelerator driven advanced nuclear energy system and associated applications based on intensive charged particles. Therefore, two large scale accelerator facilities, Highly Intensity heavy ion Accelerator Facility (HIAF, up in figure ) and China Initiative Accelerator Driven System ( CIADS, bottom in figure ), are under construction in the center. HIAF accelerates ions from proton to uranium with intensities from  $10^{10}/\text{ppp} \sim 10^{13}/\text{ppp}$  and produces 2<sup>nd</sup> unstable nuclei, mesons beams in energy up to 10GeV. CIADS is 10 MW accelerator driven subcritical system, which consists a 2.5MW beam power Superconducting Linac (SCL), the >2.5MW spallation target and the blanket. Their main performances will be enhanced further by taking opportunity of Great Bay establishing.



Now, the key components are under prototyping, such as, ECR ion source, SCL, new type vacuum chamber, power source. The prototype of SCL is commissioning up to 33 kW CW beam power with >89% beam availability in longer than 100 hours operation and will be up to 100 kW within 2019. The civil infrastructure is constructing smoothly.