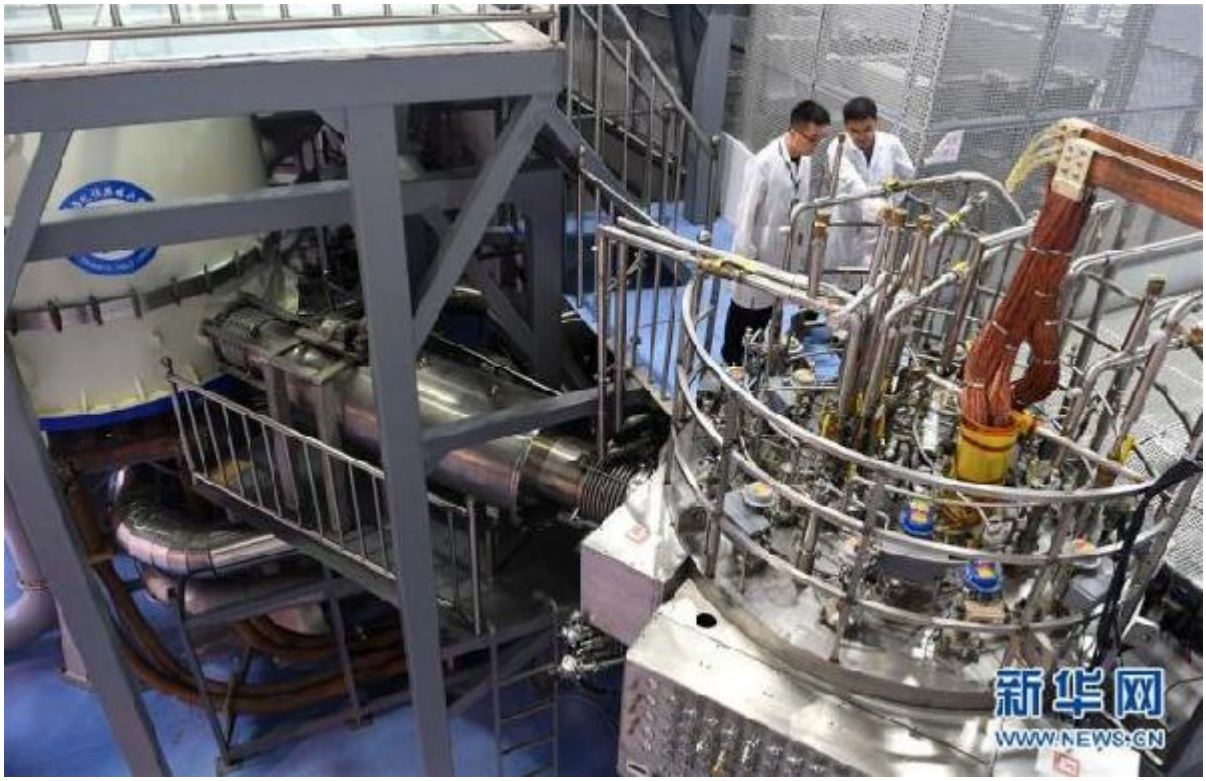
China’s high magnetic field facility passes testing



Chinese scientists check the Steady High Magnetic Field Facility in a factory of Heifei, Anhui Province on September 27, 2017. [Photo: Xinhua]

China’s Steady High Magnetic Field Facility (SHMFF) Wednesday passed testing by an expert panel organized by the National Development Reform Commission (NDRC).

The facility ranks second worldwide in terms of quantity and intensity.

The project, approved by NDRC in 2008, was jointly built by Hefei Institute of Physical Sciences of the Chinese Academy of Sciences (CASHIPS) and the University of Science and Technology of China.

As one of the only two 40-Tesla hybrid magnet groups worldwide, the SHMFF has the potential to reach an even higher level of 45 Tesla, according to Hans Schneider Muntau, a world-renowned high field magnet expert.

By creating a magnetic field as high as 40 Tesla, the SHMFF would become an experimental environment for fields such as high temperature superconductivity, quantum materials and life science.

Since 1913, 19 accomplishments closely linked to high magnetic fields have won Nobel Prizes.

Wang Yingjian, Party chief of CASHIPS, said the SHMFF has been used as an experimental environment for more than 100 universities and research institutions, including Tsinghua and Peking universities, since its trial

operation began in 2010.

More than 800 of their accomplishments have been published in journals including Nature and Science.

China is the fifth country to have a high magnetic field facility, following the United States, where the other 40-Tesla hybrid magnet is located, France, the Netherlands and Japan.