## Research collaboration on Thailand new synchrotron light source facility (SPS-II)

The SPS-II approved by Thailand government is the new synchrotron light source facility to be constructed, which will be the first fourth generation facility in Southeast Asia. SPS-II as one of the most advanced synchrotron light source facilities is a comprehensive large scientific research platform, which can simultaneously carry out research in biology, medicine, environmental science, material science, condensed matter physics, earth science, chemistry and physics, etc. It can provide advanced solutions in areas such as ecological environment, disease, food security, energy security, and technology transfer all over the world, in particular in the developing countries.

Following the strategy of the Belt and Road, and the framework of ANSO, the collaboration between Shanghai Synchrotron Radiation Facility (SSRF)/Shanghai Advanced Research Institute, Chinese Academy of Sciences (SARI) and Synchrotron Light Research Institute (SLRI) in Thailand has been built up to help carrying out the project of SPS-II. The proposal will support the collaboration forcing on the R&D of key technologies, personnel training and international academic exchange, aiming to provide solutions of key technologies, build up the professional team and excellent academic atmosphere for SPS-II construction.

This proposal will continue the collaboration between SSRF/SARI and SLRI, and could provide strong support on the construction of SPS-II. In the future, this project will be built into a successful case of ANSO framework. Based on this, the scope of cooperation will be expanded, and more extensive scientific cooperation research will be carried out within the framework of the ANSO. In

particular, relevant technical support will be provided to Southeast Asian countries with great potential to strengthen science and technology. Linking innovation policies and development strategies, carrying out major scientific and technological cooperation, cultivating innovative and entrepreneurial talents, enhancing scientific and technological innovation capabilities, and contributing to enhancing the international influence of the ANSO alliance, promoting people-to-people communication and sustainable economic and social development.