Summary of "China's State Key Laboratory System: A View into China's Innovation System"

Since the early 1980s, the People's Republic of China (PRC) has built a system of **State Key Laboratories (SKLs) charged with driving innovation**. SKLs conduct **cutting-edge basic and applied research, attract and train domestic and foreign talent, and support academic exchanges globally.** U.S. policymakers should have a clear-eyed understanding of the role that SKLs play in China's innovation ecosystem when working to manage the risks related to technology transfers and research security. This understanding is also critically important when navigating global technology competition vis-à-vis China.

This report provides an overview of the structure, research focus, and goals of the SKL system, based on a CSET-curated dataset of 469 SKLs. It assesses a large sample of SKLs found in open-source materials, noting that China's Ministry of Science and Technology reported the existence of 515 SKLs as of 2019, and established a goal of achieving 700 SKLs by 2020. CSET did not find evidence that the 700 SKL goal was reached as of June 2022.

As part of a hierarchy of national laboratories modeled after lab systems in the United States and Europe, **SKLs are overseen by the PRC government** through funding, administrative support, and policy guidance. The government exercises sole authority to **promote and demote labs within this established hierarchy,** in accordance with changes to its science and technology policies and the pursuit of dominance in strategically significant industries**. SKLs are managed by departments of the Chinese government and are operated by and co-located with Chinese universities, academic institutions, and state- and non-state-owned enterprises.**

The **PRC's oversight of SKLs and the opaqueness of the national laboratory system pose challenges for the United States and its allies, policymakers, industry partners, and academic institutions.** These include technology transfer and other related risks associated with identifying end users of information, equipment, and software. Future CSET research will examine more issues at the intersection of SKLs and broader research security concerns associated with partnerships with the PRC.

For more information:
- Download the report: https://cset.georgetown.edu/publication/chinas-state-key-laboratory-system/
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