

The Construction of the National Science and Technology Infrastructure Platform and the Scientific and Technological Resource Sharing Network of China

Cheng Dong¹, Yuying Zhang², Jie Peng¹, Weifeng Lv³

¹Institute of Science and Technical Information of China, Fu Xing Lu No.15, Hai Dian District, Bei Jing, China, e-mail: dongcheng70@263.net

²National Science & Technology Infrastructure Center, Fu Xing Lu No.15, Hai Dian District, Bei Jing, China, e-mail: zhangyy@most.cn

³Faculty of Computer Science and Engineering, Bei Jing University of Aeronautics & Astronautics, e-mail: lwf@nlsde.buaa.edu.cn

The Chinese scientific and technological circles have been distressed by the fact that science and technology resources are scattered and not fully shared. In order to solve this problem, the Chinese Ministry of Science and Technology invested nearly 400 million U.S. dollars to implement the construction of the National Science and Technology Infrastructure Platform. The China Science and Technology Resource Sharing Network is a portal to provide resource integration, services and evaluation monitoring for the National Science and Technology Infrastructure Platform. The network strives to integrate all types of outstanding science and technology resources and their metadata from China's major industry sectors, government departments, regions and overseas, to advance physical resources sharing by developing data sharing, and to promote high efficient allocation and comprehensive utilization of the whole society's science and technology resources. Currently, the sharing network has already owned 4,366,563 pieces of metadata, with data volume up to several thousand TB. This article introduces the background, objective, structure, functionality, organizational management, operational mechanism, service status, and effectiveness of the construction of the National Science and Technology Infrastructure Platform and the China Scientific and Technological Resource Sharing Network, as well as their achievements, difficulties and lessons, which will help the world to understand China's efforts in data sharing and to learn from them.