

<<中国至2050年先进制造科技发展>>

图书基本信息

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内容概要

As one of the eighteen field-specific reports comprising the comprehensive scope of the strategic general report of the Chinese Academy of Sciences, this sub-report addresses long-range planning for developing science and technology in the field of advanced manufacturing technology. They each craft a roadmap for their sphere of development to 2050. In their entirety, the general and sub-group reports analyze the evolution and laws governing the development of science and technology, describe the decisive impact of science and technology on the modernization process, predict that the world is on the eve of an impending S&T revolution, and call for China to be fully prepared for this new round of S&T advancement. Based on the detailed study of the demands on S&T innovation in Chinas modernization, the reports draw a framework for eight basic and strategic systems of socio-economic development with the support of science and technology, work out Chinas S&T roadmaps for the relevant eight basic and strategic systems in line with Chinas reality, further detail S&T initiatives of strategic importance to Chinas modernization, and provide S&T decision-makers with comprehensive consultations for the development of S&T innovation consistent with Chinas reality. Supported by illustrations and tables of data, the reports provide researchers, government officials and entrepreneurs with guidance concerning research directions, the planning process, and investment. Founded in 1949, the Chinese Academy of Sciences is the nation's highest academic institution in natural sciences. Its major responsibilities are to conduct research in basic and technological sciences, to undertake nationwide integrated surveys on natural resources and ecological environment, to provide the country with scientific data and consultations for government's decision-making, to undertake governmentassigned projects with regard to key S&T problems in the process of socio-economic development, to initiate personnel training, and to promote China's high-tech enterprises through its active engagement in these areas.

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章节摘录

Automation of information processing and application has a great effect on promoting the development of national economy, greatly accelerates the process of industrialization, remarkably improves material living standard of people, and changes the production and operation management mode of enterprises from the past extensive management gradually to the precise management. The networking of information applications, on one hand significantly improved people's production and living standards, on the other hand has profound impact on people's production and lifestyle. With the application of e-commerce, enterprise resource planning, supply chain management, product lifecycle management, etc., the management and operation mode of enterprises have been profoundly changed, the advanced manufacturing models such as agile manufacturing, concurrent engineering, mass customization, network collaborative design and manufacturing, as well as advanced management models such as business process reengineering, flat organizational structure, learning-oriented enterprises have emerged.

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