

# **Accelerating the Development of New Quality Productive Forces with a Focus on High-Quality Development**

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**G**aining a sound understanding of new quality productive forces and accelerating their development holds important theoretical and practical significance for high-quality development.

## **I. A theoretical innovation arising from the endeavors to facilitate high-quality development**

In leading the Chinese people's drive for development, the Communist Party of China (CPC) has placed paramount importance on releasing and developing productive forces. Through this process, it has steadily deepened its understanding of these forces and leveraged these insights to guide the practical endeavor of setting them free and nurturing their development.

On the new journey in the new era, high-quality development has emerged as the primary task in

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building a modern socialist country. With an accurate grasp of both domestic and international dynamics as well as the imperatives for China's high-quality development, President Xi Jinping has upheld and further developed Marxist theory on productive forces to put forward the idea of "new quality productive forces," a concept that captures the very essence of our era. This concept serves as a powerful theoretical guide for promoting high-quality development.

The notion of new quality productive forces underscores the decisive role of historic leaps in productive forces. Following the Industrial Revolution, modern capitalist production based on mechanized industry supplanted traditional production reliant on manual labor, sparking a tremendous leap in productive forces. Subsequently, further scientific and technological revolutions spurred two further industrial transformations, each giving rise to new productive forces. The first, commencing in the 1870s, centered on electricity and internal combustion engines. The second, which began in the 1970s, revolved around computers and communications technology.

At present, a new wave of scientific and technological revolution and industrial transformation is surging forth. For China, this latest round of revolution and transformation is unfolding as it navigates the transformation of its growth model. This confluence presents China with unparalleled opportunities while also posing formidable challenges in the form of widening disparities. It is within this historical context that the new quality productive forces have emerged and evolved. It is becoming increasingly clear that they are playing a decisive role in propelling another historic leap in the productive forces.

## **II. Promoting the innovative development of new industries, new models, and new growth drivers**

Innovation is the primary driver of development. As President Xi Jinping has pointed out, “Because it drives the creation of new industries, new models of business, and new growth drivers, sci-tech innovation is a core element in developing new quality productive forces.” This conclusion has set the direction of development for new quality productive forces. The generation of new quality productive forces entails a progression from new scientific discoveries and technological inventions to new industries, models, and growth drivers.

### **Fostering new industries**

New industries emerging from revolutionary technological breakthroughs are enabling a shift away from traditional growth models and development pathways for productive forces. These industries will serve as the fundamental vehicles for new quality productive forces. At present, we are experiencing rapid innovations in technologies such as the Internet, big data, cloud computing, artificial intelligence (AI), and blockchain. Strategic emerging industries, including a new generation of information technology, biotechnology, new energy, new materials, high-end equipment, alternative energy vehicles, eco-friendly industries, and aerospace and marine equipment are expanding rapidly. Simultaneously, future industries like brain-inspired AI, quantum information, gene technology, future networks, deep-sea and deep-space development, and hydrogen energy and storage are also beginning to emerge and grow.

Having ascended to the ranks of the world's innovators, China has either gained parity or surpassed other countries in some frontier fields. In terms of scientific and technological capability, it is transitioning from quantitative accumulation to qualitative leaps, and from securing breakthroughs in specific areas to enhancing its capabilities in a systematic way. China is thus fully equipped to seize the historic opportunities presented by the emergence of new industries. Of course, the focus on developing new quality productive forces does not mean that traditional industries will be ignored or abandoned. In order to develop, emerging industries will need the market space, raw materials, components, and other elements provided by the transformation and upgrading of traditional industries. At the same time, traditional industries can leverage advances in frontier technologies to spur their own transformation and upgrading. Such advances will also enable us to keep improving the quality and efficiency of development and create new space for growth.

### **Spurring the development of new models**

Arising from revolutionary technological breakthroughs, innovative reallocation of production factors, and in-depth industrial transformation and upgrading, new models of business constitute an important component of new quality productive forces. At present, the digital economy, which is defined by a high level of innovation, strong penetration, and broad coverage, is driving rapid integration between the online and offline realms, as well as in-depth integration between services and manufacturing. As a result, a variety of new forms and models of business are burgeoning. These range from online shopping, mobile payments, cashierless retail, contact-less delivery, live commerce, online

healthcare, remote work, and cross-border e-commerce, to personalized customization, shared manufacturing, and life-cycle management. They also include general integration and contracting services.

These new models will allow for more convenient, economical, and personalized products and services and facilitate the iterative and innovative development of new technologies, the matching of supply and demand, intensive use of energy resources, and increased total factor productivity. They will drive the transformation of corporate production methods and operating models and provide individuals with diversified channels and opportunities for employment and entrepreneurship. In many respects, the wide-ranging impacts of model innovation on economic and social development will be as profound as those of technological breakthroughs and product innovations.

### **Creating new growth drivers**

Innovation across domains like science and technology, industry, business, markets, products, models, and management, coupled with the broad diffusion and application of these advances, jointly constitute the new drivers underpinning high-quality development. They serve as the collective embodiment of new quality productive forces.

According to data from the National Bureau of Statistics, in 2022, the added value of economic sectors centered on new industries, forms of business, and business models, reached 21 trillion yuan, accounting for 17.36% of GDP. For 2023, the added value of equipment manufacturing as a percentage of the total

added value of large industrial enterprises rose by 6.8% from the previous year, accounting for 33.6% of the total. The high-tech manufacturing industry saw an increase of 2.7% in added value, representing 15.7% of the total for large industrial enterprises.

The production of alternative energy vehicles reached 9.44 million units, a year-on-year increase of 30.3%. The output of solar batteries (photovoltaic batteries) increased to 540 million kilowatts, up 54.0%. Service robot production rose to 7.83 million sets, an increase of 23.3%, while 3D printing equipment output climbed to nearly 2.79 million units, up 36.2%.

Among large service enterprises, those in strategic emerging sectors saw their operating revenue increase by 7.7% compared to the previous year. In short, China's new growth drivers are expanding at a sustained pace and becoming an important source of momentum for high-quality development.

### **III. Transforming and upgrading traditional industries, fostering and expanding emerging industries, and actively planning for future industries**

Modern industrial systems form the material and technological foundation of modern nations; they are the fundamental pathway for accelerating the development of new quality productive forces.

#### **Transforming and upgrading traditional industries**

First, we will spur a shift toward the middle and high ends of the value chain. In manufacturing, we will press ahead with major

technological transformation and upgrading initiatives and large-scale equipment upgrading projects to speed up the application of advanced and practical technologies. Targeting major sectors in traditional manufacturing, we will encourage research into key generic technologies and initiate demonstrations of their industrial applications. The mechanisms for publishing and sharing information on scientific and technological advances will be further refined. We will strive to reinforce established strengths in traditional sectors where we excel, extending, enhancing, and supplementing industrial chains, while stepping up the innovation and updating of technologies and products. Putting in place a more robust fundamental support system for traditional manufacturing, we will help enterprises accelerate their efforts to achieve breakthroughs and realize industrial applications, with a focus on areas of weakness such as basic components, basic electronic components, basic materials, basic software, foundational techniques, and industrial technology foundations. We will also take actions to foster exceptional quality in traditional industries.

Second, we will accelerate the transition toward digital, smart, and network-based systems. To advance industrial digitalization, we will ensure that technologies such as AI and big data are fully integrated into the entire process and all elements of manufacturing. We will use digital technologies to drive a comprehensive transformation across entire traditional industry chains. Support will be provided to build “industrial brains” in key sectors, aggregate industry data resources, and develop generic application scenarios. These efforts will facilitate progress in transformation, upgrading, and governance capacity at a sector-wide level.

Third, we will enhance green and low-carbon development. We will intensify our efforts in green technological innovation and promote the application of advanced green technologies. Steps will be taken to bolster green manufacturing, develop green services, expand the green energy industry, and establish green and low-carbon industrial and supply chains. These efforts will help us build a green, low-carbon, and circular economy. We will both revise and establish standards for major issues such as low-carbon practices, energy and water conservation, comprehensive resource utilization, and green manufacturing, with a view to conserving resources and making rational use of materials. We will also continue to refine our economic policy tools to better support green and low-carbon development and leverage the guiding role of green finance to foster efficient and environmentally friendly industry clusters.

### **Developing and expanding emerging industries**

First, we will give better play to the guiding role of the market. To quickly develop a unified national market, we will take steps to eliminate all forms of local protectionism and market segmentation. By fully leveraging the strengths of our vast domestic market, we will continue to broaden the markets and application for emerging industries, accelerating both their growth and technological upgrading to see more of these sectors becoming industrial pillars. Seizing the opportunities presented by the swift development of products such as alternative energy vehicles and lithium batteries, we will champion global industrial chains underpinned by leading brands and innovative development.

Second, we will accelerate the development of advanced manufacturing. We will encourage the application and diffusion



of digital technologies in this sector, with a view to fostering a virtuous cycle where digitalization and advanced manufacturing mutually support and reinforce each other. Dedicated initiatives will be taken to develop advanced manufacturing clusters. We will improve the mechanisms for organizational management and specialization for manufacturing clusters and put in place integrated systems for innovation and public services. In key sectors of advanced manufacturing, we will nurture a range of distinctive, well-defined clusters that are mutually complementary.

Third, we will strengthen policy support. It is necessary to understand the laws underlying the entire life cycles of emerging industries, with a focus on ensuring greater support in the front-end innovation stages. We will enhance our capacity to guarantee production factors and accelerate innovation concerning critical technologies in key fields. We will see that the development of emerging industries is effectively aligned with the push to expand domestic demand. We will fully leverage the role of creative new approaches on the demand side and finetune the intensity and pace of fiscal and tax support policies. We will regulate the conduct of local governments by strengthening standards-based guidance and encourage technological innovation in tandem with corporate mergers and restructuring, so as to prevent low-quality, redundant development.

### **Carrying out forward planning for future industries**

First, we will make our planning more forward-looking. Grasping the trends of global sci-tech innovation and industrial development, we will focus on six areas of future industry: manufacturing, information technology, materials, energy, spaces,

and health. We will establish observatories for tomorrow's industries, using AI and advanced computing to accurately identify and foster the potential industries of the future. We will leverage the advantages of the new system for pooling resources nationwide to guide localities in developing future industries based on well-conceived plans, targeted initiatives, and differentiated approaches that align with their respective industrial foundations and resource endowments. We will also use cutting-edge technologies as a catalyst for the transformation and upgrading of traditional industries with a focus on promoting high-end, smart, and green development. This will provide new drivers for the development of a modern industrial system.

Second, we will boost our capacity for innovation. To expedite core technology breakthroughs in key fields, we will pursue major national science and technology projects and key research projects with a focus on developing future industries. Regarding national laboratories and key state laboratories as venues for innovation, we will enhance the supply of foundational generic technologies. Enterprises will be encouraged to establish innovation consortia to pool the resources of industries, universities, and research institutes, so as to advance major research in key sectors in a systematic manner. We will encourage cross-disciplinary and integrated innovation through technological convergence, in a bid to deliver breakthroughs in disruptive technologies at a faster pace and create new sources of original innovation.

Third, we will develop industrial ecosystems. We will foster closer collaboration between industries, universities, and research institutes, establish consortia for innovation, and develop industrial ecosystems defined by integrated development between

enterprises of all sizes and collaborative innovation spanning entire industrial chains from upstream to downstream. On the basis of China's unified national market, we will drive forward the mutual recognition of standards and free flow of production factors. This will reinforce the resilience of industrial and supply chains, giving rise to industrial ecosystems featuring full product integration and the blending of software and hardware capabilities.

#### **IV. Implementing the strategy for invigorating China through science and education, the strategy for developing a quality workforce, and the strategy for promoting innovation-driven development**

Education, science and technology, and human resources are foundational and strategic pillars for building a modern socialist country. It is, therefore, vital to achieve thorough implementation of the strategies for invigorating China through science and education, for developing a quality workforce, and for promoting innovation-driven development. These efforts will pave the way for new engines and sources of growth to generate new quality productive forces.

##### **The strategy for invigorating China through science and education**

Science and technology are core elements in the development of new quality productive forces, while education lays the foundations and sets the stage for progress. Acting on the requirement to regard science and technology as the primary productive force, we will strengthen the top-level design for science and technology and enhance strategic planning, policy

measures, resource platforms, the layout of innovative forces, and major projects. We will keep working to improve the basic facilities for science and technology and carry out preferential tax policies to spur R&D investment throughout society. To secure faster progress in converting scientific and technological advancements into tangible productive forces, we will emphasize the principal role of enterprises in sci-tech innovation, give full play to science and technology as a support and guide for industrial development, and establish innovation systems that are enterprise-centered, market-driven, and feature in-depth collaboration between industries, universities, and research institutes. We will continue to deepen systemic reforms and policy coordination in the field of science and technology, working to improve systems for awards, funding management, the application of advances, and category-based evaluations. The legal safeguards for intellectual property rights will be enhanced, broader international sci-tech cooperation will be pursued, and new organizational forms and management approaches will be established to adapt to the development of new quality productive forces.

In line with our commitment to prioritize education, we will ensure that educational investment remains a top priority in public finance. We will push harder to shore up any shortcomings in the educational sector and keep striving to improve the quality of universal education in China. To see education playing a stronger role in supporting and contributing to the development of new quality productive forces, we will improve basic education, placing more emphasis on well-rounded development and science and technology and working to nurture a strong sense of social responsibility, creativity, and practical ability in students. We will promote integration between vocational education and

general education, between industry and education, and between science and education and refine the lifelong education system, with a view to cultivating a large pool of high-caliber technical talent. We will encourage higher education institutions to pursue development based on their respective classifications and specific features and adjust disciplines and majors in universities based on human resource needs. We will enhance our ability to nurture top-tier innovative talent at home and expand the country's pool of strategic talent.

### **The strategy for developing a quality workforce**

Workers represent the most active element of productive forces and are the most decisive factor in the formation of new quality productive forces. By implementing the strategy for developing a quality workforce, we can turn China's huge population into a human resource advantage. This will surely lead to huge improvements in total factor productivity and solidify the foundation for high-quality economic development. We must remain firmly committed to the notion that talent is our primary resource. Prioritizing talent investment, we will increase government funding for talent development and encourage and guide all sectors of society to invest in human resource development.

To comprehensively bolster our capacity for cultivating high-caliber talent at home, we will explore various training approaches, such as collaboration between industries, universities, and research institutes, with a strong emphasis on discovering, training, and creating talent in practical settings. This will allow for an environment in which everyone has the opportunity to

excel themselves and talent of all types can come to the fore. We will work to refine the systems for personnel evaluation and selection, opening up new avenues for talent assessment and acting swiftly to establish a talent evaluation system that is rooted in job responsibilities but also guided by innovation-related merit, capability, and contribution. By doing more to dismantle the institutional barriers that hinder talent mobility, we will give full rein to the fundamental role of the market in allocating human resources.

The management systems for both talent and scientific research will be reformed. Ensuring respect for the laws underlying talent development and scientific inquiry, we will delegate greater management autonomy to employers, so as to ignite the enthusiasm, initiative, and creativity of all personnel to the greatest extent possible. We will refine personnel incentive and support mechanisms as well as the mechanisms for taking production factors, such as labor, knowledge, and technology, into account in income distribution. This will ensure the market value of talented individuals is accurately reflected. To promote smooth flows along talent pathways, we will establish fast tracks for talent development and focus on resolving the bottlenecks and glass ceilings hindering personnel cultivation, ultimately expanding the space for talent to thrive. We will cultivate an environment that nurtures talent and an atmosphere that encourages innovation and tolerates failure. We will see that throughout society an ethos of respecting knowledge and talent is embraced.

### **The strategy for promoting innovation-driven development**

Innovation is a hallmark of new quality productive forces

and plays a leading role in their development. By implementing an innovation-driven development strategy, we can realize the upgrading of production factors and the ways in which they are combined, giving rise to the release of tremendous productive forces.

Taking our lead from major sci-tech innovations, we will ramp up major research on core technologies in key fields as well as basic research, so as to provide guidance for the development of new quality productive forces. We will intensify innovation of management and institutional frameworks to foster a systemic capacity for continuous innovation and move faster toward attaining a high level of strength and self-reliance in science and technology. We will push for in-depth integration of scientific, technological, and industrial innovation, so as to create the reserves of science and technology needed to create new industries and steer future development. We will establish consortia for innovation featuring close cooperation between upstream and downstream entities, promote in-depth collaboration between industries, universities, and research institutes, and drive integration between chains of innovation, industry, capital, and talent. With a commitment to open innovation, we will work to ensure the best use of innovation resources from around the globe and actively engage in the governance of global sci-tech innovation while also enhancing China's ability to allocate global innovation resources.

Production relations that prove incompatible with the needs of innovation-driven development will be redefined. Properly managing the relationship between the government and the market, we will take steps to foster a policy and institutional environment conducive to innovation and open up new avenues for turning

innovative achievements into tangible productive forces. We will strengthen the rule of law, improve the intellectual property system, and establish innovation-oriented evaluation systems. Steps will be taken to establish price formation mechanisms for innovation factors, such as science, technology, and talent. By actively fostering legal, market, and cultural environments that safeguard and encourage innovation, we can cultivate a society-wide culture of celebrating creativity and pursuing excellence. 🌐

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