Ten Key Sectors for Priority Promotion in "Made in China 2025"

1. Next-generation information technology (IT)

[Integrated circuits (IC) and specialized equipment]

- Focus on raising the level of IC design; enhancement of the intellectual property (IP) core and design equipment; realization of breakthroughs in core general-purpose chip technology; and raise of the level of domestic chip applications and compatibility as well as high-density chip packages and 3D micro-package technology

[Telecommunications equipment]

- Full acquisition of core technology for new types of calculation, high-speed connections, up-to-date storage, and systematized security as well as technology for 5G, etc.

[Operation systems and industrial software]

- Development of basic industrial software such as operating systems for security fields

2. High-end numerical control tools and robotics

[High-end NC tools]

- Development of sensor high-level mother machines, basic manufacturing equipment, and integrated manufacturing systems, etc.

[Robots]

- Development of new robot products, standardization of robot production, promotion of modularization, and expansion of robot uses, in response to demand for robots related to autos, machinery, electronics, hazardous materials manufacturing, military demand for national defense, chemical engineering, and light industry and for robots related to healthcare, home services, education, and leisure

3. Aerospace equipment

[Aviation equipment]

- Acceleration of R&D of large aircraft; timely launch of wide-body passenger aircraft R&D; development and encouragement of heavy-duty helicopters through international tie-ups; and promotion of industrialization of trunk/local carriers, helicopters and unmanned aircraft

[Space equipment]

- Development and promotion of next-generation transport rockets and heavyweight transporters as well as improvement of the navigation capacity in outer space

4. Ocean engineering equipment and high-tech ships

- Promotion of deep-sea exploration and development and usage of marine resources as well as development and manufacturing of security equipment, important systems and specialized equipment for marine work
- Promotion of development of and production processes for deep-sea space stations and large floating structures; formation of comprehensive capabilities for ocean development facilities; improvement of marine resource development capabilities; acquisition of construction technology for luxury cruise ships; and improvement of international competitiveness in high-tech ships such as LNG steamers

5. Advanced railway equipment

- Acceleration of application of new materials, new technologies and new methods; emphasis of acquisition of technologies related to system security, energy saving and environmental conservation as well as digitalized intelligent networks; and development of advanced, safe, appropriate products and series of products that are lighter weight and modularized
- Development of the next generation of green, intelligent, high-speed, high-load capacity rail transport equipment systems; provision of comprehensive solutions; and construction of globally advanced modern rail transport systems

6. Energy saving and new energy vehicles

- Continuous development and promotion of electric cars and fuel-cell vehicles; acquisition of core technology for low carbon, computerization and intelligence; and improvement of processes and industrialization of core technologies for power batteries, drive motors, high-performance internal combustion engines, advanced transmissions, lightweight materials, and intelligent control, etc.
- Construction of a complete industrial system and development system from parts to finished vehicles; and reaching an international level in energy-saving and new energy vehicles in independent brands

7. Power equipment

- Promotion of industrialization and applied pilot projects for large, advanced, clean coal-fired electric power units; and improvement of manufacturing capabilities for ultra-large capacity hydroelectric power generation units, nuclear power generation units, and heavy-duty internal combustion turbines
- Development and promotion of new energy and renewable energy equipment, advanced energy storage devices, substation transmission equipment for smart grids, and electric power equipment for user terminals
- Manufacturing, securing of applied technology for, and construction of industrial capability for core equipment and materials such as high output electronic components and high-temperature superconducting materials

8. Agricultural machinery
➢ Priority promotion of advanced agricultural machinery for major production processes such as selective breeding, tilling, cultivation, management, harvesting and storing of large-lot foods and strategic economic crops such as staple foods, cotton, oil and sugar ➢ Accelerated development of high-end agricultural equipment and critical components such as large tractors, multi-use agricultural equipment, and large, high-performance combines
9. New materials
➢ Priority promotion of special metal functional materials, high-performance structural materials, functional polymer materials, special inorganic non-metallic materials, and advanced composite materials; acceleration of development of core technologies and equipment for tip smelting, solid casting, chemical vapor deposition, 3D processing, and new high-performance synthetic materials equipment; strengthening of basic research and system development; and overcoming of bottlenecks in industrialization ➢ Promotion of development of, and assimilation and development of, special new materials for the military and civilians; and development and promotion of frontier materials such as superconducting materials, nano materials, graphene and bio-functional materials
10. Biomedicine and high-performance medical devices
➢ Development and promotion of chemicals, Chinese herbal medicines, and new biotech drugs to combat serious disease; priority development of new mechanisms, new target chemicals, antibiotics, antibody drug conjugates, new vaccinations, good new Chinese herbal medicines, and unique new therapeutic drugs ➢ Improvement of the development capabilities and industrialization level of medical equipment; and promotion and development of advanced medical examination equipment such as video equipment and medical robots

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