

Fostering of Innovative Talents Based on Disciplinary Construction

HRD Strategy of Chinese Nuclear Power Industry

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Content (目录)

The Necessity of Nuclear Power Development

中国为什么要发展核电

Talents Fostering in Nuclear Power Industry of China

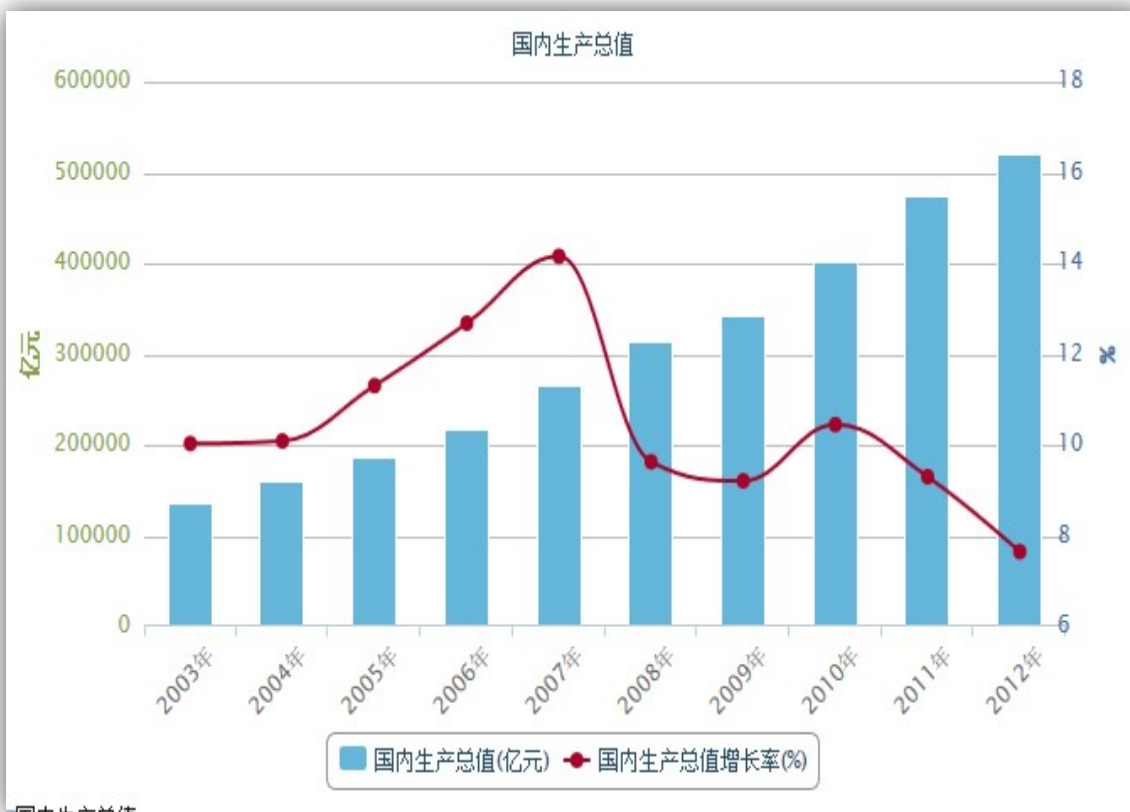
中国如何培养核电人才

The Necessity of Nuclear Power Development

中国为什么要发展核电



Rapid Growth of Chinese Economy

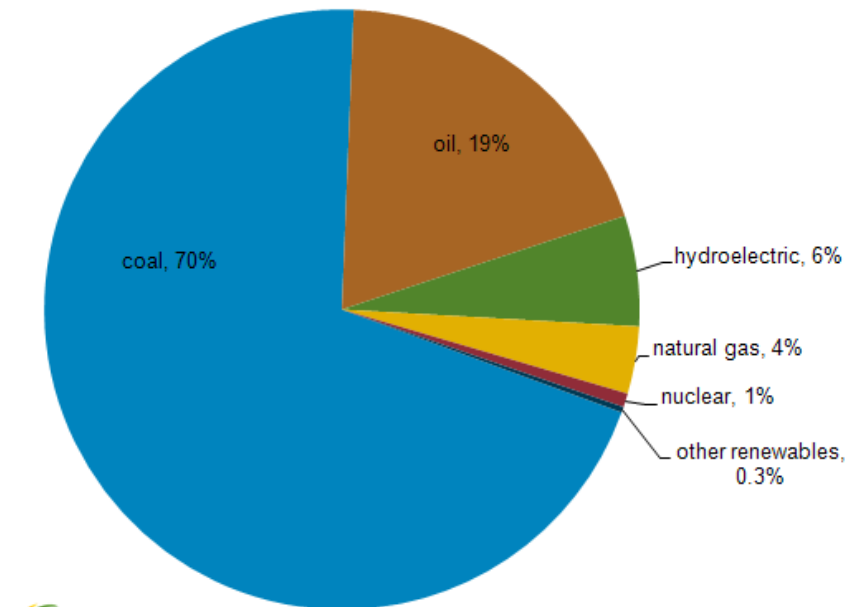


Rapid Growth of Chinese Economy
中国经济保持快速增长

Energy Supplying & consuming structure

- Development of renewable resources and utilization degree are very low
- Total energy consumption increases continuously and energy utilization efficiency is poor
- 可再生资源开发利用程度很低
- 能源消费总量不断增长，能源利用效率较低

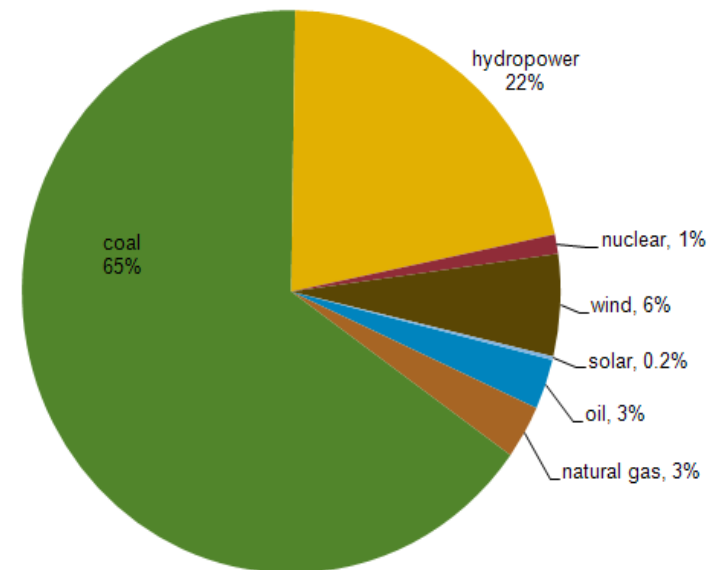
Total energy consumption in China by type, 2009



eia Source: U.S. Energy Information Administration, *International Statistics*

China's installed electricity capacity by fuel, 2011

installed capacity: 1,073 gigawatts



eia Source: FACTS Global Energy

High Pressure from GHG Emission

- The Twelfth Five-year Plan put forward the goal of energy conservation and emissions reduction clearly.
- Per unit of GDP of carbon dioxide emissions decrease 17%
- Per unit of GDP of energy consumption decrease 16%.
- The percentage of non-fossil energy increase 3.1 in proportion of primary energy consumption
- 国家“十二五规划”明确提出了节能减排的目标，即到2015年，单位GDP二氧化碳排放降低17%；单位GDP能耗下降16%；非化石能源占一次能源消费比重提高3.1个百分点



Strategy of Clean Energy Development



Chairman Xi Jinping attended
***Nuclear Security Summit in
Hague***

习近平出席世界核安全峰会

- Develop nuclear energy on the premise of security;
- Developing modern, low-risk , advanced and secure nuclear energy technologies;

Making strategic decision of "**promote nuclear power development actively**"

重申“积极推进核电建设”的战略决策



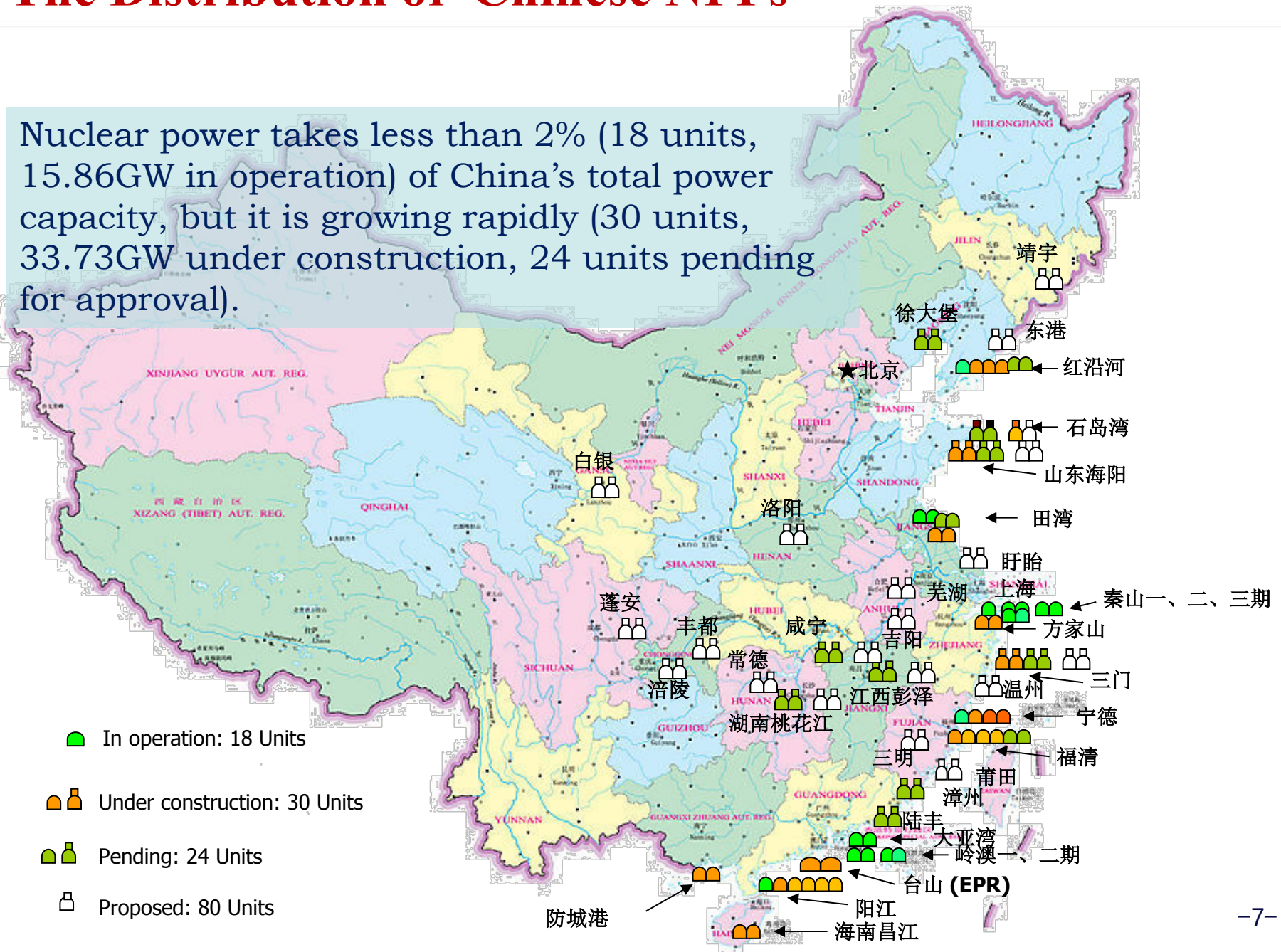
Chairman Hu Jintao attended
***UN Climate Change Summit in
Newyork***

胡锦涛出席联合国气候变化峰会

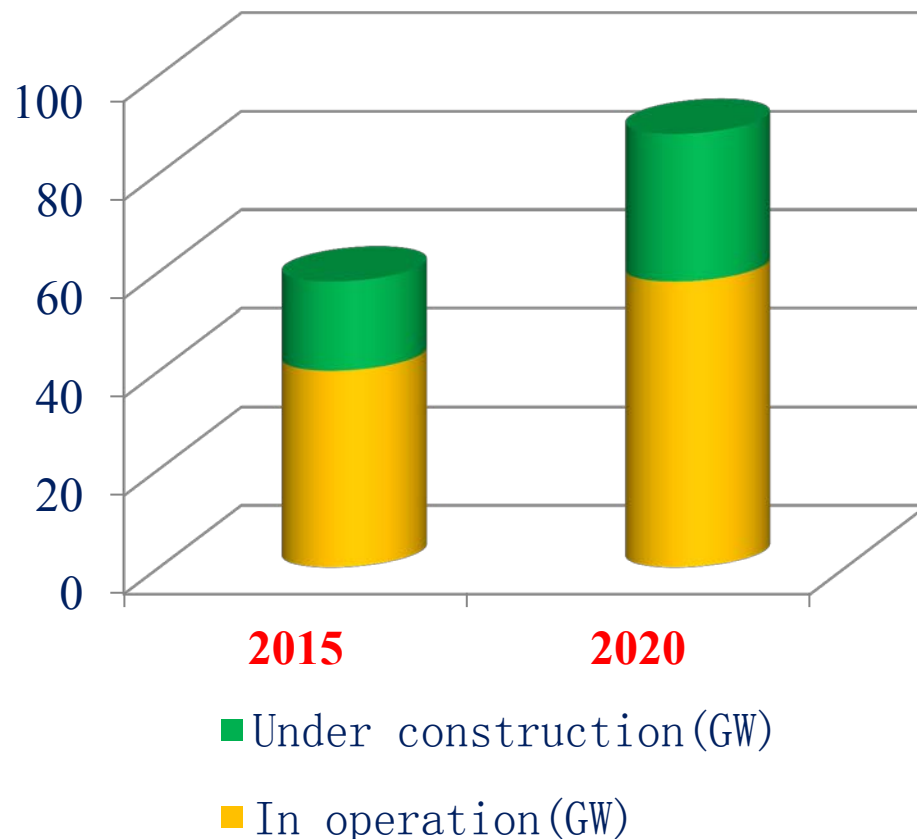
- By 2020 , China's carbon dioxide emissions per unit of GDP decreased by 40% ~ 45%;
- Fossil energy accounted for a proportion of energy consumption to reach about 15% .

The Distribution of Chinese NPPs

Nuclear power takes less than 2% (18 units, 15.86GW in operation) of China's total power capacity, but it is growing rapidly (30 units, 33.73GW under construction, 24 units pending for approval).



Nuclear Power Development Strategy of China



In 2012, Chinese government issued a “Mid to long term nuclear development plan(2011-2020)”, decided a national overall plan.

- Safely and effectively
- Strictest safety standards
- Advanced Technology

Workforce Challenge to Nuclear Power Industry

- We are facing the aging workforce and talent loss since the tough time of nuclear power industry.
- Professional workforce fostering in nuclear power industry always needs a long period of time.
- Professional workforce fostering in nuclear power industry is a systematic and interdisciplinary work.

Talents fostering in nuclear power industry of China

中国如何培养核电人才

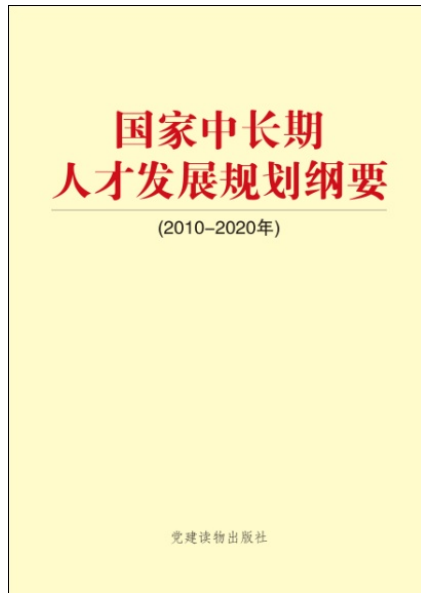


Talents fostering in nuclear power industry



Talents fostering in nuclear power industry

1. National Overall Planning



The outline of the
national long-term talent
development planning
(2010-2020)



Establishment of SNPTC

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1. National Overall Planning



AP1000 Technology
Transfer



On the Job Training in
Westinghouse(OJT)



Classroom Training in
SNERDI(CRT)

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2. Engineering Practice (AP1000 Self-Reliance project)



Haiyang March 2014



CVTH



Sanmen March 2014



SG Hoisting

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2. Engineering Practice (Demonstration Project of CAP1400)



Bird's eye view



IVR metal layer heat transfer test bench

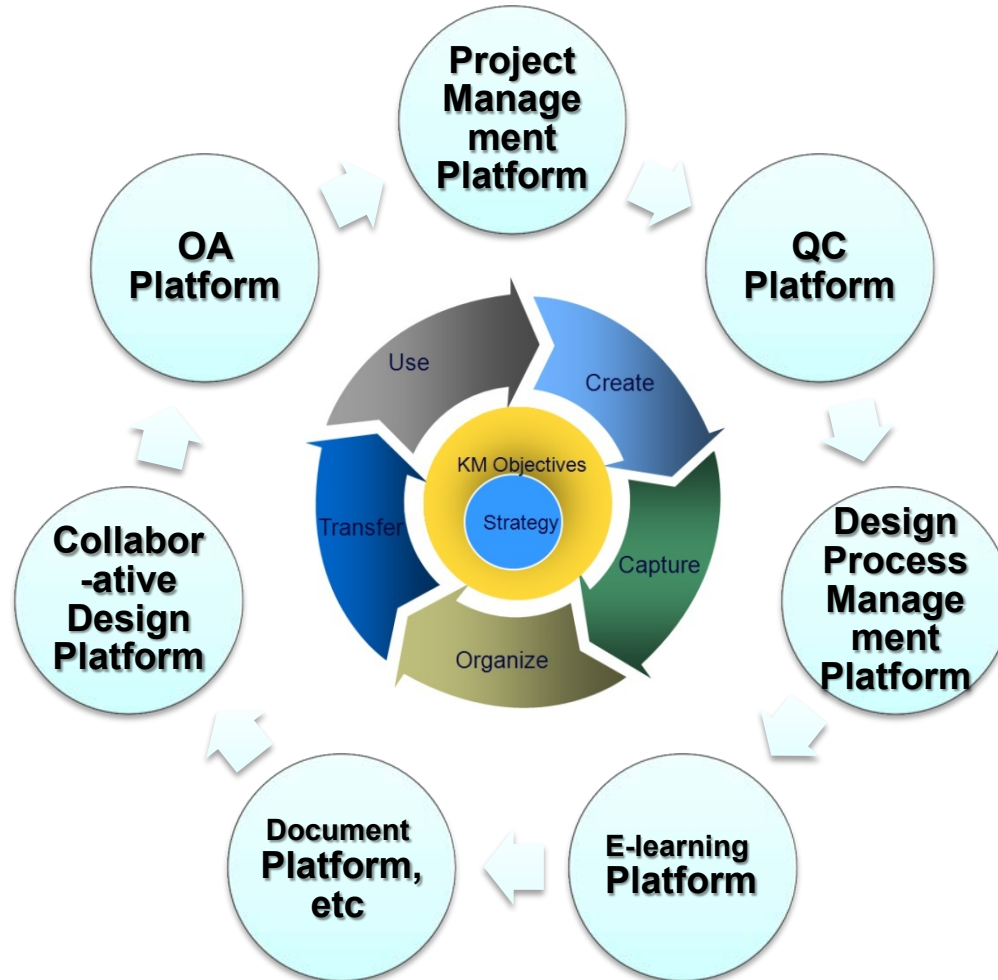


Bird's eye view



ACME integrated bench

3. Knowledge Management



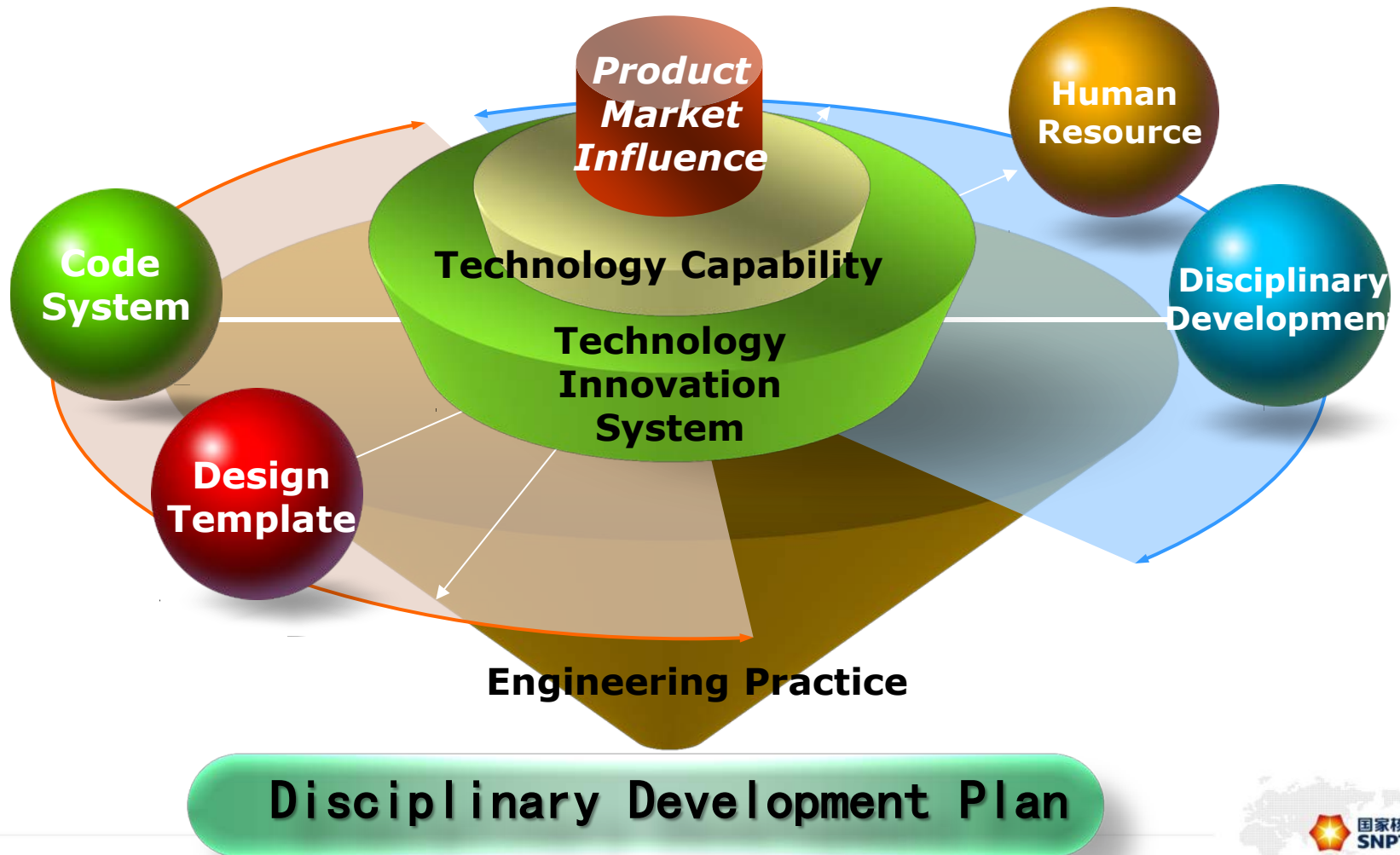
Knowledge Management (KM)

The Goal of KM

- Bring up learning organization, learning staffs
- Raising core-competitiveness
- Helping staffs getting required knowledge rapidly through KM, which can bring up specialists and expert in multi-skills, etc

Talents fostering in nuclear power industry

4. Disciplinary Construction



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5、Cooperation and Communication

- ✓ Strategy Cooperation: Basic Research & Development;
- ✓ Communication: The Direction of advanced Nuclear Technology and Nuclear power;
- ✓ World Market Development: Promote the capabilities in dealing with legal & business affairs.





Thanks for your attention!