



The 11th Five-Year-Plan on Technological Progress for Chinese Survey and Design Industry

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Agenda

- 1 Background
- 2 Steering Ideas
- 3 Objectives
- 4 Major Tasks
- 5 Ensuring Measures
- 6 Conclusion



1 Background

- Chinese survey and design industry
 - More than 12,000 companies
 - More than 800,000 employees
 - CAD application: 100%
 - Some companies have begun to introduce network-based information management system



- The 11th Five-Year-Plan on technological progress for the industry

Ministry of Construction has the obligation to boost technological progress in the form of Five-Year-Plan



- The process of drafting out the plan
 1. Organize a committee
 - Members from more than 20 major survey and design companies, research institutes and universities
 2. Investigate about 10 typical companies
 3. Several rounds of revision



- Aim of my presentation

To introduce the major contents of the draft
in order to get the plan known among us

To welcome suggestions and comments





2 Steering Ideas

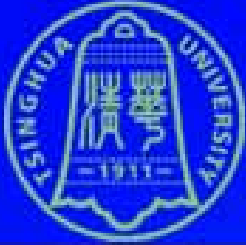
1. To conform to the idea of scientific development
2. To boost the ability of creative design and that of research and development, to develop process techniques, engineering techniques and specialty techniques based on information technology
3. To emphasize energy-saving, land-saving, water-saving, material-saving and environment-friendly



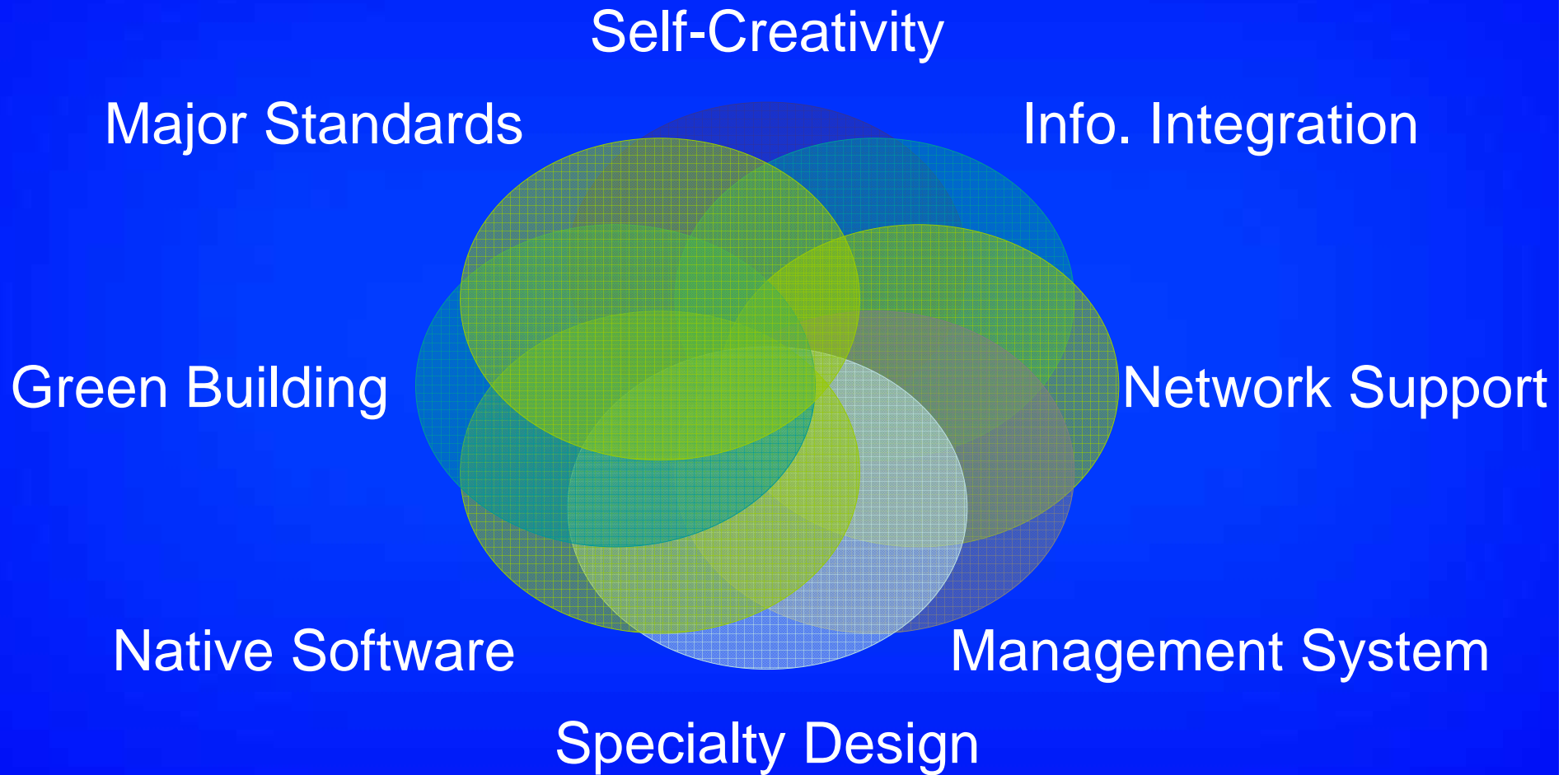


3 Objectives





4 Major Tasks





- **Self-Creativity**

Companies as the major body of technical creativity

Software R&D bases

Transfer the research outcome into commercial products

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- **Information Integration**

Companies build data center

Information resources: specifications, database for material, components, process, equipments etc.

Commercialization of information resources

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- Network Support

- Network-based applications

- Information security

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- Management System

- Management information systems

- Decision-making support systems

- Library systems

- Collaborative systems shared with relevant parties

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- **Specialty Design**

Advanced surveying system

Adoption of new process, material and equipments

3D design

Collaborative design

Simulation of the design results

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- **Native Software**

Graphics platform software

3D design software

Intelligent design software

Virtual reality software

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- **Green Building**

- Life cycle assessment

- Use energy-saving material

- Utilize recycled water

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- **Major Standards**

- Coding standards

- Standards for managing information resources

- Standards for workflow

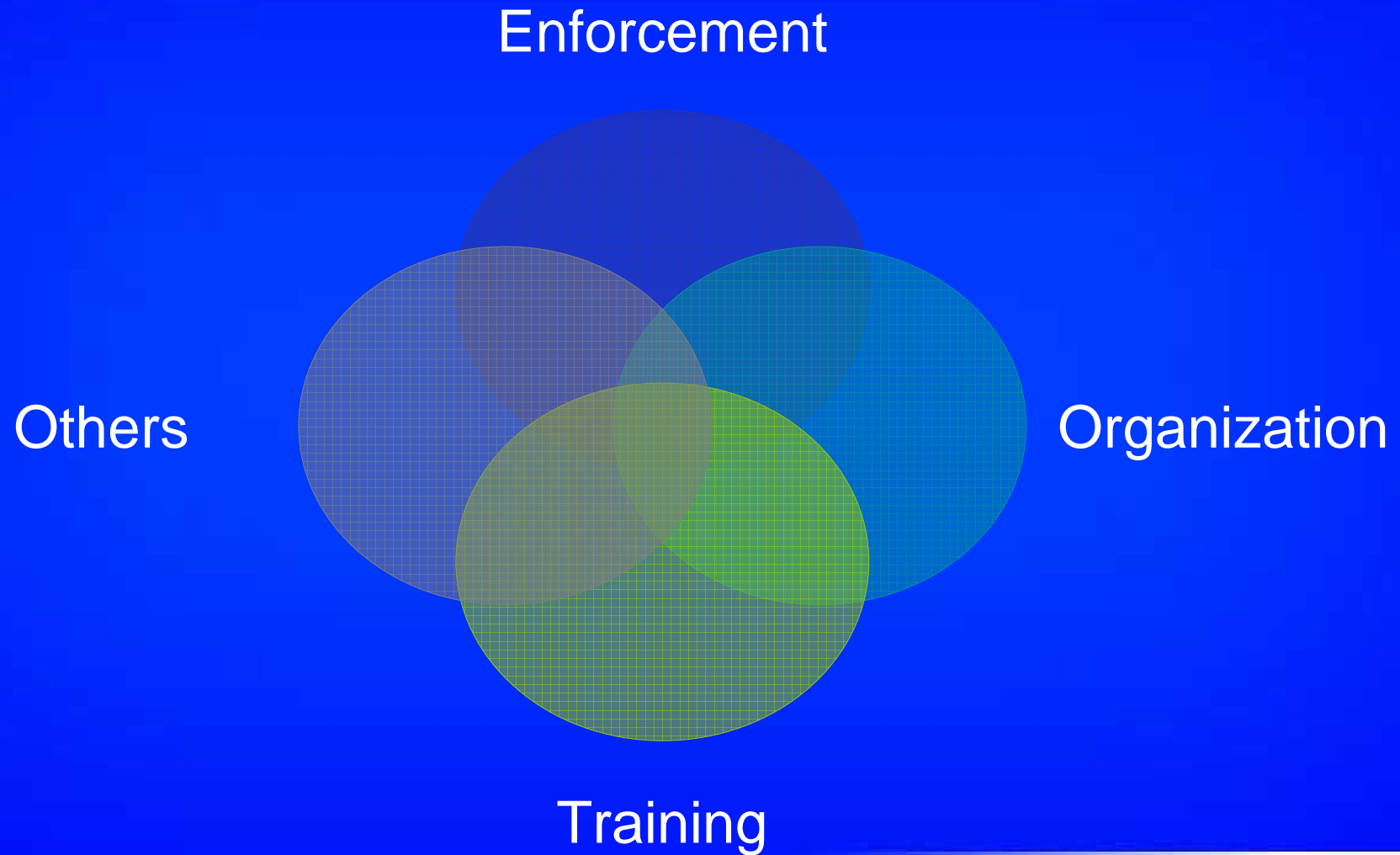
- Standard conformance test

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5 Ensuring Measures





- Enforcement

Make policies to establish the necessary mechanisms

Modify the current standards for companies' entry to the market

Multi-channel investment

Strengthen the protection of intellectual properties

Encourage companies to exchange with foreign companies

Reward excellent designs, standards and software

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- Organization

Boost informatization as the responsibility of companies'
No. 1

Encourage the R&D of companies

Encourage the industry associations to carry out
exchanges among the companies

Encourage the collaboration among the companies,
research institutes and universities

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- Training

- Advocate the awareness on the importance of informatization

- Encourage the companies to manage their human resources

- Reward the excellent experts in the industry

- Make the experts to play important roles in the decision-making process of the government

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- Others

- Establish service system for the companies

- Organize large research projects to solve the pressing and key technical problems

- Support the software companies in the industry

- Boost the commercialization of the information resources related to survey and design

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6 Conclusion

- The 11th Five-Year-Plan on the technological progress of Chinese survey and design industry was introduced.
- It may be of reference to other countries.
- Suggestions and comments regarding to the plan is highly appreciated.



Thank you
for your attention

