

# Introduction to the Government in the Role in the Development of Engineering Institute

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## Abstract

**Modern innovative research institutions in our country stage of exploration and development, innovation of local government, key enterprises, universities and research institutes and so on four big main body in the government's leading research courtyard characteristic orientation, puts forward the government resources and policy support, university and research institutes intellectual support, backbone enterprises demand traction external management mode; Offered to industry depending on the module for the business integration council decision, consulting industry guidance committee, and science and technology department of multiple internal management mechanism; To explore the government-led mechanism, colleges and universities, institutes and backbone enterprises for the support and the market for the mode of the traction mechanism.**

## Keywords

**Government; Institute; Development; The Chinese Universities.**

## 1. Introduction

In 2009, the provincial government made strategic decisions, making integration of excellent resources of the Chinese universities, research institutes and enterprises, aiming at create "institutional mechanisms newest, most innovative, fastest achievements" of the industrial technology research institute. And set up the Wuhan Institute of Biotechnology.

Since 2011, institute has introduced 83 domestic and overseas research team, including 8 academicians, two foreign academicians, and thousands of plans, Hundred, Cheung Kong Scholars, 973 Chief, 3551 plan and other personnel; Major new drug, the national science and technology major special projects to cultivate new varieties of genetically modified organisms, and other major infectious diseases, and 863 projects, 973 projects have settled in Institute; As a National Technology Transfer Demonstration institutions, research institutes in more than 40 high-tech enterprises incubation, and with nearly 10 companies to build a bio-academician workstation and joint R & D center.

In order to solve the existing problems, the policies of our government for the introduction of the institute conducted a comprehensive research and comparative analysis.

## 2. The Main Type of ITRI

According to the main support unit and the institute's main building, it can be divided into three modes, namely university-led, research institutes based and local government-led research institute.

(1) university-led ITRI

Industrial Technology Research Institute of China's current most of this type. The main feature of this construction model is: university is a major support unit for the ITRI, it has full

disciplinary structure, scientific research base more, innovation ability, brought together high-level personnel. Support the development of Industrial Technology Research Institute by promoting common key technology research and development, to attract international high-end talent, transfer and dissemination of technology.

#### (2) research institutes-led ITRI

Its main features are: the economic advantages of science combine with the technology research institutes and local R & D strengths. It mainly uses the academic reputation and research and connections in science and technology fields to help attract talent, and promote technological research and development, fostering SMEs.

#### (3) Local Government-led ITRI

It fully or substantially funded by the local government to build, and make appointment of management personnel responsible for the operation and management. The biggest feature is: local government according to the regional development plan, based on the institute's platform to attract R & D-related resources, development and application of industrial generic technology, key technology, forward-looking technology and welfare technology for industrial areas structural adjustment and industrial upgrading services.

### 3. The Role of Government in the ITRI

Government, enterprises, universities, research institutes as four functional body of the institute-oriented play different roles in different type of ITRI.

In particular, the government has the very important characteristic localization in the ITRI. Take the Government-led ITRI for example. Local government according to the regional development plan, from a strategic point of view to make top-level decision. In which the government, play an important role as policy makers, capital investment and appointment of cadres and managers. Strive to overcome market failures and organizational failures in common key technology development and industrialization.

It will support the government in the institute selected mainly the following aspects:

- (1) projects of huge investment in the early time.
- (2) Project with relatively long development cycle.
- (3) Project relating to the national economy and people's livelihood.

### 4. The Need for Government Support to ITRI

#### (1) Location

After years of practice and exploration research cooperation process, some problems relating to the further development of Cooperative deep-rooted begin to emerge. How to locate the relationship between the government, companies and universities? What governments do, what school do, what companies do, and how to distribute work? How to stimulate technological innovation and better abilities in college, but also to ensure the body is willing to risk the interests of the investment companies invest, willing to invest?

These questions need to be answered in the institute mode. this is because the biggest feature of ITRI is closely linked to the government, enterprises, universities and research institutes. Emphasis on innovation cooperation between enterprises and universities, research institutions. It stressed the government's support, guidance and support. Strengthen research cooperation between parties.

#### (2) Function

Government can provide a good policy environment for the development of the institute as policy-makers; Government can create, promote, coordinate between enterprises and

universities and other research institutes of cooperation as the organizer; y in difficult times of venues, equipment investment for the early time of ITRI, the government should invest the necessary start-up capital.

### (3) Earnings

Government income is to develop the Institute, Science and technology to improve the competitiveness of local enterprises, promote scientific and technological achievements of local universities and research institutes transformation, and ultimately enhance the local economic and technological competitiveness.

## 5. Reflections of Government Functions in the Development of the Institute

On the one hand, ITRI core business as an independent legal property of local governments, the government should give full support in money and space. Ensure the normal operation of the hospital core R & D, to ensure that construction of software and hardware industry conditions, to gather and build scientific and technological resources by the daily construction investment operating costs and physical space.

Second, the government through the following three ways to support and guide the development: First is the policy support; Second is the support of project; Third, is the financial support.

In addition, universities and research institutes as the most important functions of the body ITRI, ITRI continuous supply for the project, team and innovative resources. Universities and research institutes there are at least play a supporting role in two aspects of the ITRI: First is the technical support; Second is the personnel support.

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