

# *Research on the Super Deduction of R&D Expenses in Scientific Research Institutions*

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**Abstract:** The ability of scientific research institutions to innovate independently has always been the driving force behind their development. To this end, the promotion of technology development contracts via the tax incentive policy of super deduction for R&D expenses has become particularly important in reducing institutional costs, increasing revenue, and stimulating the enthusiasm of researchers. This paper explores the issues of technology contract registration and R&D cost deductions policies in scientific research institutions. By analyzing the problems associated with these policies, such as unclear project finances, over-emphasis on expense recognition, and poor interdepartmental communication, appropriate solutions are proposed. The value of this paper lies in clarifying the advantages and potential risks of the policy, exploring the tax risks that should be considered in the R&D expense deduction, and providing a theoretical basis for practical operations of scientific research institutions.

## 1. Introduction

To promote the dissemination and industrialization of scientific and technological achievements, strengthen the protection of intellectual property rights, and further advance scientific and technological progress, many scientific research institutions have implemented policies to translate scientific and technological achievements into economic growth by incentivizing their researchers and staff. In recent years, the government has actively encouraged various institutions to increase R&D investment and introduced a series of tax deductions to support scientific and technological innovation. As an important task, the registration of technology development contracts has been widely implemented across various regions. The introduction of the new *Civil Code* in 2020 has made certain modifications to some of the technical terms in the *Contract Law*, including the separation of technology licensing contracts from technology transfer contracts, which further refines the latter, while also adding clauses regarding the transfer and licensing of other intellectual property rights and the allocation of work expenses. This paper will explore the changes that have been made, the specific process of technology contract registration, and the policies related to the super deduction for R&D expenses.

## **2. Relevant Policies and Significance of Super Deduction of R&D Expenses**

### **2.1. Theoretical Basis and Significance of Technology Contract Registration**

Technology contract registration is the foundation for super deduction of R&D expenses. It is of great significance for the development of scientific and technological units. The government provides great support in terms of tax and local policies, all of which require the registration of technology contracts before enjoying corresponding policies.

The super deduction of R&D expenses requires the registering of technology contracts by the technology exporting party. The technology purchasing party can then calculate it as the R&D expenditure of the purchasing unit. Meanwhile, the applicant for the technology contract can extract performance-based payments from the pure income and reward them to the researchers.

During the contract recognition process, professional contract recognition personnel review the content of the contract from a professional perspective to standardize the contract, reduce the risk of contract breach, and reduce disputes arising from technology contracts. From the perspective of a contract, it helps enterprises control contract risks.

Technology contract registration can also prove the level of technology R&D of the unit from a third-party perspective. The more technology contract certifications registered, the more it proves that the unit has a higher technological income and stronger ability to transform R&D results, indicating that the overall R&D level of the unit is higher. Having sufficient technology contract reserves is also considered a bonus point in enterprise funding evaluations, according to Li Min [1]. Zhao Libing pointed out that after the pilot reform of business tax to value-added tax, in order to smoothly transition the original preferential policies for business tax enjoyed by the pilot taxpayers to VAT exemption and deduction policies, it is necessary to explore the practical handling and precautions of tax exemption projects, technology transfer, technology development, and related technology consulting and service projects [2].

### **2.2. The Policies Related to the Super Deduction and Reduction of the Income Tax For R&D Expenditures**

According to existing policies, a super deduction of up to 75% of total R&D expenditures will be provided, irrespective of whether intangible assets are generated. This underscores the importance placed by the government on R&D activities. Regarding the R&D super deduction policy, technology contracts mainly involve outsourcing R&D and cooperative development, including:

Outsourcing R&D activities conducted overseas are calculated to account for 80% of the R&D activities; a technology contract must be signed and registered at or above the provincial level.

For enterprise cooperative development projects, each party calculates the super deduction based on its actual share of R&D expenses. The cooperative development technology project must be registered with the science and technology administrative department. From the above requirements, it is clear that technology contracts outsourced by enterprises or cooperative development projects must be registered with the science and technology administrative department before the super deduction can be claimed.

According to Wu Ruizhen, many workers mistakenly believe that only high-tech companies can benefit from the R&D super deduction tax incentive policy, when in fact, the policy specifies that any resident enterprise with sound financial accounting practices and the ability to accurately allocate R&D expenses can be included in the scope of R&D super deduction [3]. Xu Feng also expressed that the implementation of the R&D super deduction can effectively regulate a company's R&D project management, accurately account for R&D costs, lay a foundation for recognition as a high-tech company, reduce enterprise tax burden, enhance corporate image, and

enjoy a range of other incentives[4]. At the same time, Xing Ailing remarked that while taking advantage of these incentive policies, companies must also ensure their compliance with the relevant regulations. Companies must use these policies within their specified scope and should not arbitrarily expand the applicable range for R&D super deduction, which could increase tax risks and undermine the legitimacy of the incentive program [5].

### **3. Problems in the Use of Super Deduction for R&D Expenses by Scientific Research Institutions**

#### **3.1. Unclear Scope of R&D Project Confirmation**

R&D projects require coordination between multiple departments, including technology, planning, finance, and personnel, from project initiation to completion. It is essential to accumulate and standardize various materials required for regular R&D management, such as project resolutions, project plans, budget estimates, commission contracts, project outcome reports, project acceptance documents, and project application certifications. Scientific research institutions usually appoint third-party agencies to organize relevant work [6]. Projects involved in regular product upgrades or updates should also be included in the R&D project list for super deduction. According to policy provisions, if there are disagreements between tax authorities and the R&D project, they may transfer the project to technology administrative authorities for appraisal, causing tax risks similar to those of the projects sent for appraisal [7].

#### **3.2. Over-Emphasis on Expense Recognition in Accounting Models**

There are two accounting models for recognizing R&D expenses, expense recognition, and capitalization, each with its advantages, disadvantages, and risks. The accounting model used for a project should be determined based on its actual situation and whether it forms an intangible asset. The two accounting methods are categorized as expense recognition and capitalization. Companies should not adopt the expense recognition accounting method continuously to reduce profit and tax burden. This abnormality may increase the risk of tax inspections for companies that have had no capitalization expenditures for three consecutive years [8].

#### **3.3. Poor Communication and Cooperation between Different Departments of the Unit**

Super deduction for R&D expenses is not only the responsibility of the finance department but also the result of the cooperation and coordination of various departments within the scientific research institution. From contract signing, project initiation to cost collection, and project completion, it requires the joint monitoring and coordination of project departments and scientific research departments. However, in reality, many scientific research institutions have limited cooperation between the departments responsible for research and the finance department. During the initial and process of R&D, they do not communicate and coordinate with the finance department, only communicating when expenses are to be reimbursed, which makes it difficult for the finance department to participate effectively in all aspects of the R&D process. Additionally, due to the limited knowledge of specific operational departments in the R&D process concerning expense collection and super deduction policy, it is easy to create quality problems in the scientific research institution's super deduction operation for R&D expenses.

## **4. Countermeasures for Standardizing Super Deduction of R&D Expenses in Scientific Research Institutions**

### **4.1. Enhancing the Attention of Leaders to Super Deduction Policy for R&D Expenses**

Super deduction for R&D expenses is a critical aspect of the development of scientific research institutions, enabling them to increase their research capabilities and overall revenue. As this work requires the cooperation of multiple departments within the organization, the importance of its leadership's attention cannot be overstated. Leaders' attention can improve the motivation of each person involved in the super deduction for R&D expenses, realizing tax savings while reducing the organization's administrative costs, increasing revenue, clarifying the organization's research direction, and obtaining adequate funding for independent R&D. Such an approach is not only beneficial to individual employees' research capabilities but also contributes to enhancing the overall image of the institution and enabling it to stand at the forefront of the innovation wave.

### **4.2. Standardization of R&D Expense Project Confirmation**

The projects eligible for super deduction for R&D expenses refer to a systematic activity with specific objectives, sustained by the enterprise to acquire new knowledge, creatively apply new scientific and technological knowledge, or substantially improve technologies, products (services), and processes. The organization must declare its R&D projects based on their true status and identify non-qualifying R&D projects. According to policy regulations, projects that do not qualify for super deduction are those with specific descriptions, including routine upgrades and improvements, technical support, and simple repetition changes to existing products, among others. The current policy also explicitly lists the six industries that do not qualify for the super deduction policy, determining the scope of the inapplicable industries through a reverse list approach. Thus, it broadens the scope of application of super deduction for R&D expenses and clarifies the targets entitled to the pre-tax deduction. The tax authority performs a yearly verification of enterprises, and the verification coverage should not be less than 20%. For organizations that enjoy the pre-tax deduction for R&D expenses every year, their probability of being scrutinized is also high. Hence, scientific research institutions must prepare relevant documentation in accordance with the regulations for verification purposes [9].

### **4.3. Strengthening the Focus on Financial Accounting and Departmental Communication**

When collecting and accounting for R&D expenses, scientific research institutions should create a sub-ledger for R&D expenditures at the beginning of the year and record any related expenses in the corresponding R&D accounting subject. When handling expenses that need to be apportioned between R&D and non-R&D expenses, relevant basic data should be collected. The public expenses incurred between production and operation costs and R&D costs, as well as among various R&D projects, should be recorded through daily working-hour logs. To apportion these expenses reasonably, the method of proportioning based on working-hours should be used to form records for verification [10]. Collaboration between the human resources department, scientific research and production department, and finance department is critical for effective results. The finance department needs to pay attention to collecting and organizing relevant materials for verification purposes, thereby significantly reducing tax risks.

## 5. Conclusions

In summary, the implementation of super deduction for R&D expenses holds significant significance for scientific research institutions. However, it also has certain tax risks associated with it. Therefore, scientific research institutions need to focus on the early-stage work of R&D project establishment, standardize the R&D project establishment process, expenditure procedures, and financial accounting procedures. By doing so, they can ensure the proper application of the super deduction policy for R&D expenses and lay a foundation for high-tech enterprise certification in the future, thereby comprehensively improving the scientific research capabilities of the institution.

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