

SCIENCE AND TECHNOLOGY DEVELOPMENT STRATEGY PERIOD 2011 - 2020: THE KEY TASKS

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Abstract:

This paper presents the requirements set forth for the development and implementation of the science and technology (S&T) development strategy for 2011 - 2020 issued in conjunction with Decision 418/QĐ-TTg dated 11/04/2012 by Prime Minister.

One of the requirements for the formulation and promulgation of the strategy was that it must clearly identify tasks and requirements for this S&T development strategic document, avoid duplication of content and format with other types of document such as resolution, program, project... In the strategy elaboration process, the strategy drafting Committee chaired by Ministry of S&T had studied a number of relevant documents on S&T development of other countries such as Japan, China, South Korea, Thailand ... Strategies of some countries do not actually aim at setting specific objectives but mainly focus on the analysis of actual situations, the national development goals in order to from there set specific objectives that should be achieved by S&T. It could be said that such documents inclined only towards perceptions, leadership/directive philosophy rather than action plans. Therefore, one of the requirements set forth for this strategy was to express firstly principles, orientations for S&T development and secondly, set out specific targets, tasks and measures for the strategy implementation.

For the latter, it should include 3 key items, namely: 1) Radical and comprehensive reform in respect of S&T organization, management and operation mechanism, investment policies and financial mechanism for S&T; 2) Building national S&T capacity including the construction of a system of S&T, and 3) Promote applied research; link scientific research and technology tasks with socio-economic development tasks at national, regional and local level.

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The strategy for S&T development, period 2011 - 2020 approved by Prime Minister issued together with Decision 418/QĐ dated 11/04/2012 is a directive document of the Prime Minister to coordinate the implementation of tasks and measures for achieving the objectives of our country's S&T development up to 2020.

After the strategy for S&T development, period 2011 - 2020 (hereinafter referred to as the Strategy) was approved by Prime Minister, the Central

Executive Committee of the Party issued Resolution 20-NQ/TW dated 11 January 2012 on S&T development; and then the National Assembly passed the Law on S&T on 18/06/2013. Thus, we have a set of three important documents of the Party and Government for S&T development in service of the industrialization and modernization of the country in next 10 coming years.

1. What is strategy?

According to Wikipedia, Strategy is of Greek origin, ("στρατηγία"-strategia), it means the art of military commanders expressed through a large-scale plan, with a view to achieving one or several goals under uncertain conditions. As per other interpretation, strategy is not a plan but an attempt to achieve desired goals by existing methods, facilities.

Though there exist different interpretations, we generally see that when making and implementing a strategy the following is needed:

- There should be major targets set forth for the existence and development in future;
- It should identify feasible means and methods which can create new advantageous position, scenery;
- It should be proactive, creative and flexible in directing and implementing the strategy in order to timely respond to changes and the volatility of situation in the process of reaching the goals.

Previously, the concept of "strategy" was used in the military field. Currently, we use this term for many other areas. For example, socio-economic development strategy, business strategy, marketing strategy...

Thus, it can be generalized as follows: *Strategy* is a system of viewpoints, intentions and measures to create new position and power, substantive positive changes, new context, in order to achieve major goals which are decisive for the survival and development.

2. Requirements set forth for S&T development strategy 2011 - 2020

The strategy was developed on the basis of the lessons learned from the implementation of the Strategy for Vietnam S&T Development up to 2010 approved by Prime Minister in 2003. S&T level of the country has also been significantly improved in past years. However, shortcomings and great challenges are still there. This strategy besides tries to overcome constraints faced in the previous period, it should present a new vision, new solutions relevant to the national, regional and world context; it should identify key

steps, remove basic bottlenecks, setbacks to S&T development for industrialization and modernization.

We have quite a lot of legal documents of the Party and Government providing directives, policy for S&T development. For example, documents of National Congress of Party, resolutions and directives of the Party Central Executive Committee, the Politburo, the Party Secretariat as well as relevant legal documents passed by the National Assembly or issued by the Government.

In the strategy elaboration process, the strategy drafting Committee chaired by Ministry of Science and Technology had studied a number of relevant documents on S&T development of other countries such as Japan, China, South Korea, Thailand ... Strategies of some countries are not actually in favor of specific objectives but mainly focus on the analysis of actual situations, the national development goals in order to from there set specific objectives that should be achieved by S&T. It could be said that such document so inclined towards perceptions, leadership/directive philosophy rather than action plans. Therefore, one of the requirements set forth for this strategy was to express firstly principles, orientations for S&T development and secondly, set out specific targets, tasks and measures for the implementation.

On the basis of study on local and international experiences, the Strategy had ensured the following key principles:

- Thoroughly perceived the directives and policies of the Party and State with respect to S&T development;
- Ensure the consistency and feasibility of goals, tasks and measures set out in the Strategy;
- Relevant to domestic and international context and highly objective oriented in order to create breakthroughs in enhancing the national S & T capacity.

3. Some central tasks for S&T development proposing in strategies

Firstly, radical and comprehensive reform in respect of S&T organization, management and operation mechanism, investment policies and financial mechanism for S&T. According to the strategy, as well as the Resolution 20, investment for S&T “is a priority that all sectors at all levels should take one step ahead to make”; “priority should be given and all national resources should be mobilized to S&T development”. State budget should focus investment on tasks of national importance and for public purposes. The State will provide preferential measures to mobilize non-state

resources, implement strong socialization of entire S&T activities. Enterprises of all economic sectors shall be considered as the center of innovation.

Currently, the total expenditure for S&T is just only under 1% of GDP, it does not meet the requirements. Budget is limited but it has to split up for too many purposes, beneficiaries and tasks so it is hard to avoid spread investment, under-budgeting. Also because of insufficient financial resources, we could not have large-scale, long-term S&T programs. The objective indicated in the strategy is to mobilize investment of society as a whole for S&T so as to reach 1.5% and 2% of GDP by 2015 and 2020, respectively.

Secondly, improvement of the national S&T capacity including the construction of a system of S&T institutions (research centers, research and application equipment) and S&T human resource development, high appreciation to talented S&T personnel.

Scientist is a subject, center of development. It must apply special mechanisms and policies in an appropriate way to liberate scientists and promote their creativity. Enforcement of intellectual property rights is one of the measures to ensure the legitimate rights of invention owners. In addition to economic benefits, scientists need to be glorified and ensured of full freedom of creativity for the benefit of the country. Attention should be paid to training, formation of groups of outstanding young scientists. Besides preferential policies, the strategy also set out requirements to increase accountability, devotedly spirit of scientists working for the science of the country.

In a globalized world of rapid development with mixed opportunities and challenges, there is a fierce competition in head hunting. Having prominent manpower force is a decisive factor to hold competitive advantage in developing a knowledge economy, reaffirm the position in international arena. At present, our country has a large number of bachelors, engineers, masters, doctors trained at home and abroad in diversified careers of several generations. In some areas such as medicine, pharmaceuticals, biotechnology, information technology, basic sciences we have some quite strong S&T teams, groups at regional and international level. However, the S&T workforce is generally scattered, they have not been grouped to perform large national S&T programs. Many people after having been trained, they found opportunity to long-term stay on abroad, or moved to other jobs. This is a huge waste and loss.

Law on S&T 2013 and under-law guidance documents stipulated specifics requirements for development and well-treatment of S&T manpower with breakthrough mechanisms.

Thirdly, boosting research, application, close linkage of scientific research and technological development tasks with socio-economic development ones at national, regional and local level.

Shortcomings in S&T management mechanism can be observed from the stage of S&T task identification, selection, assignment to task evaluation, result acceptance and application. This situation has still been unchanged until recent time, i.e, S&T tasks have not attached to the requirements of social-economic development and essential needs of the nation, sectors and localities; not yet aimed at final products that can be commercialized, applied; no linkage between research, development, application in order to form product chain, creating comprehensive efficiency, spillover effect to contribute to socio-economic development.

In the strategy and in Law on S&T 2013 there indicated quite detailed, specific innovations in S&T management mechanism and operation in order to determine precisely tasks, select and assign the right organizations and individuals capable to perform S&T tasks. By doing this it can overcome the existing problems as scattering investment, under budgeting, wrong purpose leading to inefficiency. At the same time, it will focus investment on a number of S&T tasks of larger scale, breakthrough nature, creating motive for increase productivity, quality and competitiveness of commodities and the economy as a whole.

Ministry of S&T, with its state management function was the host agency in elaboration of S&T Bill and it was adopted at the 5th session of the National Assembly, legislative XIII, effective from 01.01.2014. The Ministry is busily plans to implement the strategy, prepare under-law guidance documents for timely implementation of the goals and tasks set out in the Strategy, Resolution No. 20 of the Central Executive Committee of the Party as well as Law on S&T 2013./.

REFERENCE

Vietnamese:

1. *Resolution of the Second Conference of the Party Central Committee (VIII) No 02-NQ/HNTW, dated 24/12/1996 concerning strategic direction of S & T development in the period of industrialization and modernization.*

2. *Resolution of the 6th Conference of the Party Central Committee (XI) No 20-NQ/TW dated 01/01/2012 regarding scientific and technological development in service of the industrialization and modernization in socialism-oriented market economy and international integration conditions.*
3. *Decision No 418/QĐ dated 04.11.2012 approval of the Strategy of S & T Development, period 2011-2020.*
4. *Law on S&T, No. 29/2013/QH13 dated 18.06.2013.*

English:

5. Patterns in Strategy Formation Author(s): Henry Mintzberg Source: Management Science, Vol. 24, No. 9 (May, 1978), pp. 934-948
6. Mintzberg, Henry. (1994) *The Rise and Fall of Strategic Planning: Reconceiving the Roles for Planning, Plans, Planners*, Free Press, p. 458
7. *Fourth Basic Plan for S&T 2011-2015*. Japan's Council on S&T Policy, August 2011.
8. *China's Medium and Long-Term Plan for the Development of S&T (2006-2020)*.
9. Rigby, R. (2012) *The Careerist: Strategic Thinking*. Financial Times, 20 May 2013.