Call for a New Science and Technology Basic Plan to Create Innovation -Promoting Science, Technology and Innovation Policies -

(Overview)

I. Introduction

[Tentative Translation]

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> In addition to traditional science and technology policies, innovation policies that drive innovation creation should also be incorporated in the Fourth Science and Technology Basic Plan.

II. Innovation Creation Toward Resolving Global Issues

- 1. Pursue 'Green Innovation' & 'Life Innovation'
- > Focus on 'Green Innovation' and 'Life Innovation' as two key national
- 2. Promote innovation toward problem-solving from a broad perspective
- > Power forward with ICT use and augmenting new manufacturing technologies to address challenges such as strengthening industrial competitiveness
- III. Enhance 'Control Tower' Function to Advance Science, Technology, and Innovation as a National Strategy

Restructure the Council for Science and Technology Policy into a Strategic Headquarters for Science, Technology, and Innovation to strengthen its 'control tower' function

- 1. Bolster powers related to drafting & promoting basic strategy
- ➤ Strengthen the Headquarters' legal powers by reviewing an Establishment Act for the Strategic Headquarters, the S&T Basic Act and other legislation
- 2. Enhance innovation perspective & deploy related policies holistically
- Coordinate policy deployment, including ICT, IP and international standards strategies and tertiary education policies
- 3. Strengthen budget & resource allocation powers and functions
- ➤ Look at an independent budget to fund programs (like the Funding Program for World-Leading Innovative R&D on Science and Technology)
- 4. Revisit membership composition
- >Lift ratio of members from industry to over half
- 5. Bolster secretariat/survey & analysis functions
- ➤ Lift quality & quantity of survey & analysis functions
- > Consider establishing an industry-university-
- government think tank function

- 6. Build an effective platform for reflecting private-sector views
- >Create a mechanism to reflect the work of a new Council on Science, Technology, and Innovation Strategy in budget/resource allocation and specific policies
- 7. Review R&D independent administrative institution
- >Look at reorganizing/consolidating these so that they can handle R&D from basic research through to innovation creation

IV. Reform Universities & Graduate Schools to Develop Human Resources for Innovation Creation

- 1. Provide international-level education
- >Create international-level curricula, develop systematic coursework, and expand opportunities to study and work alongside talented foreign students, etc.
- 2. Create diverse career paths for PhD graduates
- ➤ Create conditions enabling PhD graduates to operate in a wide range of fields
- ➤ Consider the 'Leading graduate school' concept
- 3. Take an active approach to education
- ➤ Make educational experience a requirement for teachers and encourage universities to take on personnel from industry
- Focus government investment on those universities and graduate schools actively engaged in education
- 4. Create mechanisms encouraging university & graduate school reform
- > Encourage efforts to separate university and graduate school functions (research, education, advanced human resources development, community contribution, etc.)
- > Revisit the blanket reduction of management grants, develop mechanisms for weighted allocations
- 5. Develop next-generation human resources
- >Expand learning opportunities through collaboration with industry, etc.

V. Develop Mechanisms Promoting Innovation Creation

- 1. Strengthen basic research capacity
- > Focused investment in basic research
- ➤ Need for focused investment in basic research with clear objectives
- ➤ Develop mechanisms to assess basic research and reflect assessment results in funding
- 2. Develop innovation creation hubs based on industry-university-
- government partnership
- ➤ Develop the Tsukuba Innovation Arena (TIA) into a world-level hub
- ➤ Create innovation in new areas through collaboration between medicine and engineering, etc.
- 3. Establish the PDCA <u>cycle</u>
- ➤ Create process charts specifying implementing entities, goals & timelines ➤ Develop mechanisms linking performance assessment to the next year's budget compilation and improvement of specific measures, etc.
- 4. Expand science & technology funding
- ➤ Boost government R&D investment to more than 1% of **GDP**
- ➤ Active government investment in highrisk R&D
- 5. Institute extensive & permanent R&D tax breaks
- >Expand and make permanent R&D tax breaks toward boosting industrial competitiveness
- 6. Pursue regulatory reform, field trials & government procurement >Address regulatory reform, field trials, and government procurement toward innovation creation

VI. Conclusion

- ▶ It is absolutely critical that the public can feel that it is reaping full benefit from the fruits of innovation creation.
- ➤ Collaboration must be strengthened among industry, government, universities, graduate schools, and other players to advance innovation creation initiatives cohesively with public understanding and support.