

Strengthening Promotion and Support for Deep Tech Startups

November 22, 2023

Task Force for the Creation of Deep Tech Startups

1. Purpose and background

- With the goal to strengthen RIKEN's social implementation function through industrial collaboration, RIKEN has taken a series of steps, especially since April 2022, focusing on the reform of RIKEN Innovation and implementation of co-creation activities.
- In addition to the above, in order to create a new growth model based on knowledge in particular, it is essential to systematize and fundamentally strengthen the promotion and support functions for deep tech startups, keeping in mind the need to be in line with Japan's national strategy. In September 2023, RIKEN established a Task Force for the Creation of Deep Tech Startups ^{*1} (TF) to intensively study measures to strengthen these functions.
- It is also important for RIKEN to be able to make contributions at a time when there is a strong need to promote deep tech startups in Japan as a whole. Therefore, it was decided to include deep tech startups other than, including those originating from outside RIKEN, as a target of the above-mentioned enhancement measures, thereby strengthening RIKEN's research capabilities and industry collaboration functions, and contributing to the enhancement of support for deep tech startups in Japan as a whole. The TF also discussed this issue.
- The first results of the study have now been compiled and will be put into action.

2. Overall picture of strengthening measures

- One of the keywords for strengthening the overall promotion and support functions for industrial collaboration at RIKEN is "from a passive to proactive role." Also, the decision was made to strengthen the promotion and support functions of deep tech startups by systematizing the functions from the above perspective and making them more "visible" in an easy-to-understand manner to researchers and other stakeholders within and outside RIKEN.
- As mentioned above, RIKEN has also established support measures that can be applied to deep tech startups other than those originating from RIKEN.
- The framework of the support measures is as follows:

Category 1: Support for strengthening the capacity to identify research seeds and sales-oriented activities

Category 2: Support for the establishment of startups based on research results or at a stage close to research results

Category 3: Support for deep tech startups other than those originating from RIKEN

- Below are measures to strengthen each category and issues to be considered in the future.

*1 Task Force for the Creation of Deep Tech Startups

Members: Executive Director Matsuo, Deputy Executive Director Yamamoto, Special Advisor Kawakami, Director of the office of the President Imai, RIKEN Cluster for Science, Technology and Innovation Hub Director Kamitani, Manager Tsujigami, Manager Sato, Startup Incubation Director Yoshida, (RIKEN Innovation)

1st TF held Sep 11, 2023, 2nd TF held Sep 17, 3rd TF held Sep 28, 4th TF held October 29

Other deliberations by e-mail, etc. as needed

3. Specific strengthening measures

(1) Category 1

- RIKEN Innovation has redefined its main mission as "to systematically learn about seeds and industry, and to work with researchers to develop and promote roadmaps toward innovation for individual seeds," and this year began a full-scale effort to achieve this mission. The roadmaps can be formulated either by RIKEN Innovation approaching a researcher or by the researcher proposing the roadmap.
- The roadmaps include the establishment of startups as one of the main means toward innovation, but startups require particular expertise.

For this reason, starting in December 2023, when considering and promoting the establishment of a startup in the roadmap, an incubation company with a high level of expertise will participate in the work along with RIKEN Innovation. Having incubation companies participate in RIKEN Innovation's activities will help strengthen its support capabilities by providing support while considering what actions are necessary for the establishment and growth of startups, including proposals for utilizing domestic and international gap funds*2 and team-building programs for the establishment of startups.

(2) Category 2

- ① Substantial expansion of the scope of support (support for establishment)
- RIKEN has provided individual support for startups in close collaboration with RIKEN

Ventures, after certifying them as "RIKEN Ventures" through a screening process when an application is received from a researcher, etc.

- On the other hand, the startup industry as a whole has changed dramatically from its early days, increasing in quantity and diversifying in quality, and there is a need for support to appropriately respond to these changes.
- For this reason, the RIKEN Venture Certification and Support System, which was highly significant in its early days, will be abolished and transformed into a new form, while its support measures are strengthened to effectively encourage researchers to consider startups and stakeholders other than researchers to approach RIKEN's seeds, and to broadly open it to the public. This also eliminates the need for the resources and time required for certification and other procedures for startups.
- Specifically, in accordance with the Law Concerning the Revitalization of Science, Technology and Innovation, starting this December, all startups that utilize RIKEN's research results ("RIKEN Startups^{*3}") are eligible for the support even if they are not certified as a RIKEN Venture, whereas previously only RIKEN Venture-certified companies were.
- The current "RIKEN Ventures" will be handled appropriately on an individual basis upon request, taking into consideration that the overall support are strengthened without requiring certification, and that the submission of business reports and business plans, etc. associated with the certification system is no longer required.

*2 For example, RIKEN is currently participating in the Greater Tokyo Innovation Ecosystem (GTIE), a platform for "fostering university-launched startups that change the world" led by The University of Tokyo, Tokyo Institute of Technology, and Waseda University, as a cooperating institution. However, while cooperating institutions are not able to apply for the Gap Fund, participation as a joint institution for SU creation will enable us to propose the use of the GTIE Gap Fund, including support for matching management human resources and researchers (team formation).

② Strengthening support in terms of financing

- Considering the importance of funding for startups, it is important to expand the scope of financing by share acquisition rights as stipulated in the directive, as it is important to have flexible measures to accommodate a wide range of so-called advancement payments.
- Specifically, the scope of the share acquisition rights will include the paid use of RIKEN's facilities and equipment, as well as loans and transfers of goods for a fee, whereas previously the scope was limited to upfront payments in patent licensing

agreements. The method of setting compensation (e.g., right to use facilities for a certain period of time, etc.) and the necessity of compensating royalties, etc. will be discussed with the relevant divisions, and the necessary amendments to the directives, etc. will be made by the end of the current fiscal year.

③ Clarification and transparency of treatment of side work

- It is important to eliminate operational ambiguity in support and to clarify and make it transparent in order to make it visible to internal and external stakeholders, including researchers.

Therefore, from December of this year, with a view to further encouraging the growth of startups as regards side work of researchers and others in RIKEN Startups, the basic idea was adopted to allow them to assume positions as officers without representative authority, such as Chief Technology Officer (CTO), or to be founders of startups under certain conditions*4. The necessary screening procedures for side work, etc., are carried out based on this concept.

④ Clarification and transparency in terms of patent enforcement

- Until now, the form of license implementation has been, in principle, the granting of a non-exclusive or exclusive license, but the establishment of a special exclusive license under the Japanese patent law is added as an option.
- Specifically, the basic idea is that, starting this December, when a RIKEN Startups intends to grant a special exclusive license to a patent right that it is working or will work on its own, it will be granted based on the manner in which the patent is worked, etc.
- Support measures in licensing (granting exclusive licenses, granting licenses with sublicensing rights, deferment of upfront payments or exemption from cash payments) will continue to be implemented.

*3 RIKEN Startups

RIKEN Startups are unlisted companies (in principle, established less than 10 years ago) that meet any of the following criteria.

- (1) Companies that have commercialized or plan to commercialize research results conducted by the RIKEN.
- (2) Companies that have commercialized or plan to commercialize joint research results conducted with RIKEN.
- (3) Other companies that RIKEN deems appropriate for support.

*4 Certain conditions regarding concurrent directorships

When the following two conditions are met (only (1) in the case of the promoter), it shall be considered as an unavoidable case under Article 4, Paragraph 5 of the "Supplementary Regulations for Side Work Approval Criteria and Procedures".

(1) The employee(s) applying for the permission must have created the research results that are utilized in the startup company based on the research results of RIKEN to which the application pertains.

(2) The duties of the employee as an executive, etc., which they intend to assume, are mainly related to the business based on the research results of RIKEN, and they do not have the authority to represent RIKEN.

The "Supplementary Regulations for Side Work Approval Criteria and Procedures" still govern the activities of persons other than director or equivalent holding side work.

(3) Category 3

- ① Expansion of opportunities to use advanced facilities, equipment, and devices (facilities, etc.)
 - Facilities within RIKEN
- The use of RIKEN's cutting-edge facilities and equipment is important for the growth of deep tech startups, and RIKEN will drastically expand the provision of opportunities to use RIKEN's cutting-edge facilities and equipment to support RIKEN Startups and to contribute toward the deep tech startup ecosystem in Japan. This will create a synergistic effect between the improvement of RIKEN's research capabilities and the strengthening of RIKEN's industrial collaboration functions and the development of startups, as startups that have developed from the seeds of Japan as a whole will conduct their R&D activities near RIKEN's research sites, creating an exchange of ideas.
- Specifically, RIKEN is currently providing services (including operation of equipment/facility) for external users for facilities such as NMR, cryo-electron microscopy (EM), and heavy-ion accelerators, and services for internal users such as machine tools and analyzers, through the systems established at each research center and the shared system established by the RIKEN Core Facilities Management System (R-COMS). A so-called one-stop service system to provide a menu of support for deep-tech startups will be established with a horizontal split of these services, including those not originating from RIKEN seeds.
- For this purpose, a separate forum will be set up to discuss this together with relevant divisions within RIKEN (including research centers and the RIKEN Cluster for

Pioneering Research (CPR)), and the basic design of the system will be discussed by the end of this fiscal year.

In doing so, the scope of equipment to be provided and the method of provision will be reorganized based on an appropriate balance between improving research capabilities and supporting startups, the further development of R-COMS, securing and training expert personnel in the operational aspects of facilities and equipment, and the positioning of the one-stop service system as one of the main initiatives of RIKEN Innovation. The company will also consider the use of share acquisition rights as a means of advancement payments.

➤ Advanced Large-Scale Research Facilities under the Act on the Promotion of Public Utilization

- Next, in light of the need to strengthen RIKEN's functions to promote and support deep tech startups as described in 1. above, it is significant for RIKEN to pursue collaboration between this project and the national strategy for advanced large-scale research facilities such as Fugaku and SPring-8, and to make the necessary proposals to the government for this purpose.
- For this purpose, together with the divisions in charge, a study on the mechanism based on the Promotion of Public Law shall be conducted, while linking it in content with the study of the above-mentioned one-stop service system.

In doing so, the above-mentioned shift to advancement payments through share acquisition rights shall be considered as a promising means.

② Strengthening support in terms of provision of office/lab space

- Regarding the provision of space to support the establishment of RIKEN Startups, RIKEN will consider how this should be handled as its policies regarding buildings, facilities, and space utilization are formulated.
- In terms of support for deep tech startups as a whole, consideration will be given to the use of incubation facilities, consistent with the consideration of space loans to support RIKEN Startups.

4. Future actions

- While initiating the support measures mentioned above to be started from December of this year, RIKEN will continue to examine issues to be considered, while also making use of the TF. In addition, RIKEN will also consider legal or systematic reforms*⁵ necessary for the establishment/growth of startups.

- In doing so, we will set up some RIKEN seeds as model startup cases with researchers and obtain feedback through the concrete application of enhanced support measures to supplement measures that have already been formulated and will be used to examine issues to be considered.
- RIKEN continue to provide overall management, to be carried out at the RIKEN Industrial Cooperation Management Meeting (a TF for the integrated management of all RIKEN industrial cooperation activities, including RIKEN Innovation) and other meetings. To avoid rigidity in the operation of support measures, for the time being, individual cases are handled directly at this meeting.
The status of these measures will be reported to RIKEN's Executive Directors' Meeting etc. and other meetings as appropriate.

*5

- (1) From the perspective of enhancing the credibility of startups, consideration of the pros and cons of making the angel tax system, which is currently limited to individual investors, applicable to corporations in order to promote investment in startups by large corporations,
- (2) Including consideration of ways to promote investment by individual investors in startups through the use of crowdfunding.