GSC: IDEAS FOR A FRAMEWORK OF AREAS OF FOCUS

1. Addressing the main gaps for deep-tech. To achieve its mission successfully, the GSC will need to focus its core activities in addressing the two main gaps identified in the Japanese startup ecosystem: a) translation and commercialization capabilities for frontier technologies to address global markets, and; b) a global mindset and access to leading networks of global resources (i.e., global leading VCs, accelerators, venture studios, mentors and frontier-technology startups).

2. Three core areas of focus. To address these two gaps, GSC would need to focus on the areas on the deep-tech research to commercialization value chain currently missing in the Japanese ecosystem: 1) "New" Research (i.e., commercialization-driven research), 2) Translation, and; 3) Commercialization.



GSC Core Areas of Focus

2.1 New Research area

New Research area target is catalyzing a global commercialization research mindset. Overall generation of scientific and technological research is addressed in Japanese innovation ecosystem, producing one of the largest publication and patent outputs in the world. GSC's goal is not to replicate this existing infrastructure, but to catalyze a "new way" of designing research with a focus on commercialization outcomes and a global mindset, and to drive strategic deeptech research focus (eg, Bio, climate-tech, AI). GSC's New Research activity should aim at catalyzing these new research capabilities with a focused research program and training key research talent that can later "spread" this new way of research across the university system in Japan. The GSC can work with research produced in Japanese and other global research partners that develop this "new way" of research in a collaborative manner (e.g., co-development Japanese and global researchers) and does not need to scale research activity by

its own. Instead, it can focus its resources on expanding the other two key areas of commercialization (2. Translation and 3. Commercialization).

2.2 Translation area

Translation area target is creating global mindset translation capabilities for deep-tech research. Translation of research in Japan is a major gap in the innovation ecosystem. The GSC impact on this area will be most critical to address the commercialization outcomes limitations observed in the greater research infrastructure in Japan. For this reason, <u>it is highly critical that</u> <u>this area becomes a primary focus of the campus.</u> GSC will need to create a global translation team specialized on the deep technologies it covers. This will require an in-house team with the global capabilities and expertise to cover the technology, commercialization, and legal/IP requirements for effective translation teams. GSC will also need to create a network of global partners to train and expand its talent, and a training system to spread this global deep-tech translation capabilities across the research infrastructure (e.g., universities, research institutes) in Japan. In addition, this area should also provide an infrastructure to support the "translation gap" in commercialization, including grants to support POC creation, rapid commercialization and licensing production, entrepreneurship and commercialization training, business development mentors, etc.

2.3. Commercialization area

Commercialization area target is creating capabilities for deep-tech commercialization targeting the global market. Commercialization of research and startup growth to compete at global market scale is also a major gap in the innovation ecosystem. Together with translation of research, the impact in overall commercialization will be largest to make the innovation ecosystem competitive at global scale. This area should also be a primary focus in order to catalyze a major transformation in the Japanese ecosystem and convert its research potential into globally competitive ventures at scale. This will require creating a deep-tech focus infrastructure to commercialize at global scale that tailors and adapts successful global models to Japan's singularities. This would include in-house venture studies, accelerators, specialized and experienced mentoring, and shared lab facilities that address all levels of commercialization potential (eg licensing, company creation, scale, and growth, etc.) and commercialization's valley of death. These models can also serve to provide practical training to Japanese talent to develop similar global mind-set commercialization platforms in the broader ecosystem (e.g., GSC university and research network, Japan's global and regional ecosystem bases across the country, etc.). Additional commercialization training for researchers and potential founders can also be provided to strengthen this global-mindset commercialization capabilities across the country.

Commercialization with a global market mindset requires building a critical mass of successful Japanese global ventures. Creating scale-up companies with a global market mindset and deeptech growth path will also require a curated network of deep-tech experienced global VCs, accelerators, mentors, and successful researchers-founders, among others. GSC will need to

work closely with these partners to learn growth scale-up pathways for Japanese ventures, and further create partnerships with Japanese ecosystem stakeholders that aim at global markets. This will involve adapting to and embracing practices that attract global scale-up capital and supporting training of new talent for the VC industry with a global market mindset. In terms of output ventures, this may include establishing affiliates in US market to access larger capital and expertise, and/or exiting in global leading markets (e.g., Nasdaq). Attaining a critical mass of Japanese-led successful ventures will be critical to: a) attract global-scale funding to the Japanese ecosystem, and; b) achieve entrepreneurial "Mafia-effects" that multiplies creation and growth of globally-mindset ventures. Absent these, GSC will fail in securing a transformational impact at scale for the Japanese ecosystem to address its large commercialization gap potential.

Core Areas Address the Gaps of the Commercialization Value Chain



3. Training of new research, translation, and commercialization skills will be critical to scaleup GSC impact across the economy. To avoid GSC to have an insulated impact other centers have had in Japan, and instead achieve transformational impact in the wider research innovation ecosystem, GSC will need talent development and training programs to replicate and spread its effect nationwide. GSC catalyzing function will require provision of training programs and fellowships for Japanese talent to learn practically these global-mindset skills in each of the three focus areas (New Research, Translation and Commercialization). These training programs can be practical and flexible (e.g., executive programs for PhDs and researchers, acceleration and bootcamp methodologies, fellowships, etc.) and be conducted directly in the GSC or through its partner network (e.g., fellowship in global VCs). The training programs will also serve as a gateway for the wider innovation ecosystem network (including the universities, research institutes and the national and regional hubs) to access and connect to the global network of GSC in each of the core functions.