

Creating New Moonshot Goals <Provisional Translation>

August 3, 2020

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1. Background

In January of this year the Council for Science, Technology and Innovation (CSTI) set six ambitious Moonshot Goals (MS Goals) for the Moonshot Research and Development Program. The goals were created in discussion with the Visionary Council^{*1} and external experts from Japan and overseas, with the aim of tackling issues of urgent priority for economy and society. This was supplemented by an additional healthcare-oriented MS Goal set by the Headquarters for Healthcare Policy in July.

However, the COVID-19 pandemic and its dramatic socioeconomic impacts have forced us to reconsider how best to meet the needs of future society with ambitious R&D solutions. Our current situation is accounted for in Section 2 of the ‘Guidelines for the Operation and Evaluation of the Moonshot Research and Development Programs’: “According to changes in the social environment and advances in science and technology, if deemed necessary, CSTI adds and/or changes the MS Goals after evaluating their technical feasibility and listening to domestic and overseas opinions.” In addition, the importance of the ‘Millennium Challenge’^{*2} was stated in the recommendations of the Visionary Council. Therefore, the following steps will be undertaken to create new MS Goals necessary for addressing the drastic socioeconomic changes due to the COVID-19 pandemic.

^{*1} <https://www8.cao.go.jp/cstp/english/moonshot/ref2.pdf>

^{*2} Open call for ideas from research groups who have the enthusiasm and vision to open up the future with science and technology and create an ideal society 30 years from now.

2. Aims

(1) Approach

- Create new MS Goals based on changing socioeconomic circumstances caused by the COVID-19 outbreak.
- Avoid overlaps with existing MS Goals.

(2) Assumed number of MS Goals

- One or two new MS Goal(s), to ensure each goal is allocated enough budget resources.

(3) Method

- The goals will reflect the complex socioeconomic issues of post-COVID-19 society, and be handled by the Ministry of Education, Culture, Sports, Science and Technology (MEXT) and the Japan Science and Technology Agency (JST). JST funds core and cross-disciplinary R&D and will use an existing fund to support the new MS Goals.
- While the existing MS Goals were based on ideas discussed at last year’s Visionary Council meeting, the new MS Goals will more actively incorporate the ideas of young people and ideas from overseas. It is today’s youth that will soon lead society, and the process will benefit from their free and flexible thinking.

3. Process

(1) Calling for and selecting new MS Goals

- To draw out the best free and flexible ideas, open calls will be held for (preferably early-career) brainstorming teams to submit ideas based on their vision of an ideal future society.

- These brainstorming teams should be composed of not only researchers but also representatives of a wide variety of fields and organizations, who can together discuss solutions to our complex socioeconomic challenges.
- Each team should aim to create extensive opportunities for engaging in dialogue with stakeholders, such as international open forums, to better comprehend the needs of future society and engage with socioeconomic issues arising inside and outside Japan.
- JST will be responsible for narrowing down the potential goals suggested by the brainstorming teams and selecting the candidate new MS Goals.
- CSTI will then decide the new MS Goals from among these candidates and MEXT will formulate R&D concepts for their achievement.
- For ideas that have not been selected, considerations will be made on how to extend them and bridge them to society (on a needs basis).

(2) Conducting R&D

- A Program Director (PD) will be appointed for each goal, responsible for supervising multiple R&D projects and steering them towards achievement of the goal and realization of its concept.
- Project Managers (PMs) responsible for individual R&D projects under each MS Goal will be selected via open calls. Those who have been involved in the creation of new MS Goals are also eligible to apply.
- External evaluation will be conducted for each R&D project at predetermined intervals, and decisions on whether to continue, accelerate or cancel each project will be made via a stage-gate approach based on the Guidelines for the Operation and Evaluation of the Moonshot Research and Development Program.

4. Schedule

August 2020	Call for brainstorming teams
January 2021	Selection of brainstorming teams/Start of brainstorming process
June	Selection of candidate MS Goals (1-2 Goals)
July	Selection of new MS Goals (CSTI)/Formulation of R&D concepts (MEXT)
August	Call for PMs
December	Selection of PMs