

Approach and Criteria for Setting the Moonshot Targets (Revised edition)

<Policy on Setting the Moonshot Targets>

Following opinions given at the 1st Visionary Council, and EC report, we should:

- 1) Specify categories and areas (including 2 or 3 big goals) where Japan should especially promote the ambitious research and development
- 2) Set one or more specific mission(s) to be achieved (namely, the Moonshot Targets) by the promotion of ambitious research and development in each category and area (consequently, approximately total 5 missions in all categories and areas)

<Criteria for Setting the Moonshot Targets (Missions)>

○ Inspiring

- ✓ The targets can bring an enormous impact on the future industry and society, if they are realized, despite the difficulty to achieve (Inspire citizens and the industrial world)

→ “The basic approach for the Moonshot Research and Development Program”

(Decided at Council for Science, Technology and Innovation (CSTI), on December 20, 2018)

- ✓ Many citizens and overseas countries can share the value of importance of the targets (Inspire citizens and the world)

→ The targets should be able to show the possible and ambitious dream to citizens, especially the young, which consequently can get them enthralled and excited. The enthralling targets which can get overseas researchers ambitious to participate in projects one after another are desirable. (the opinion given at the 1st Visionary Council)

Missions should be ambitious on the basis of the potential values, and meet people’s desires and social needs. (EC report)

- ✓ The targets can be achieved by bringing together the wisdom of scientists, for the purpose of the Japanese national interest and strong industrial competitiveness (Inspire researchers and the industrial world)

→ “The basic approach for the Moonshot Research and Development Program”

(Decided at Council for Science, Technology and Innovation (CSTI), on December 20, 2018)

○ Imaginative

- ✓ The purpose, importance, and urgency of the targets are clearly understood
 - The targets should be imaginable enough for most of citizens to visualize the image of the future where the targets are realized (the image of goal) in their mind. (the opinion given at the 1st Visionary Council)
 - Missions should embody both of the urgency and importance. (EC report)
- ✓ Many citizens can clearly imagine the future potential prosperity which is realized by the innovative technology brought by the Moonshot Research and Development Program
 - The targets should be imaginable enough for most of citizens to visualize the image of the future where the targets are realized (the image of goal) in their mind. (the opinion given at the 1st Visionary Council)

○ Credible

- ✓ **Targets aim at creating a future social system**
 - It is important to have targets that help design a new social system which may require change of laws. (the opinion given at the 2nd Visionary Council)
- ✓ The ambitious targets which are difficult but scientifically possible (plural technological ideas with feasibility are already found)
 - (The factor for success of the Moonshot Research is) the provision of the scientific theory which supports the feasibility of Moonshot Targets. (the opinion given at the 1st Visionary Council)
- ✓ The status of achievement is verifiable
 - It is important to clarify the specific targets. (the opinion given at the 1st Visionary Council)
- ✓ Consistency with the aim of existing related strategy and policy
 - Generation of synergistic effect with the strategy in the field of AI technology, biotechnology, quantum technology, etc. is also important. (the opinion given at the 1st Visionary Council)