F. No. Prn.SA/Adv./DCNTG/42/2019
Government of India
Cabinet Secretariat
Office of the Principal Scientific Adviser to the Govt. of India

New Delhi
28th February, 2020

ORDER

Subject: Constitution of an Empowered Technology Group - reg.

The Cabinet in its meeting held on 19.02.2020 approved constitution of an Empowered Technology Group, as an institutionalized structure to proactively lay down, coordinate and oversee national-level policies relating to procurement and induction, and Research and Development (R&D) in technologies that require large outlays in resources, both financial and human, and to render sound and timely advice for determining direction and trajectory of Government's R&D and Technology Development Programmes.

2.   The composition of the Empowered Technology Group shall be as under:

Principal Scientific Adviser to the Government of India- **Chairperson**

Members

(i)   Chairman, Atomic Energy Commission
(ii)   Chairman, Space Commission
(iii)   Chairman, Defence Research and Development Organization
(iv)   Secretary, Ministry of Electronics and Information Technology
(v)   Secretary, Department of Telecommunications
(vi)   Secretary, Department of Science and Technology

Invitees from Technology Advisory Group (to participate on specific request of the Chair, on need based requirements depending on subject/agenda of deliberations):

(i)   Three experts from the Private Sector who have investments in Research and Development
(ii)   Two experts from Academia (University or Technical Institute Sector)

3.   The objectives of the Empowered Technology Group are as follows:

(i)   Identify the most important challenges before the country across various sectors that can be addressed through suitable and appropriate technologies.
(ii)   Identify key technologies both legacy and emerging that are most relevant to the country's needs and challenges.
(iii)   Advise the Government on suitable policies and strategies for effective, secure and context-sensitive exploitation of latest and appropriate technologies.

(iv)   Advise the Government on priorities and strategies for research in such key technologies across sectors

(v)   Maintain an updated map of technology and technology products available and being developed across India

(vi)   Develop indigenization roadmap for selected key technologies.

(vii)   Advise the Government on its technology supply and procurement strategy

(viii)   Encourage all Ministries/ Departments, State/ Union Territory Governments to develop in-house expertise in policy and use emerging technologies such as Data Science and Artificial Intelligence and to this end develop an approach to training and capacity building

(ix)   Formulate policies for sustainability of public sector technology at Public Sector Undertakings/ Laboratories while encouraging cross-sector collaborations and research alliances with Universities and Private Companies

(x)   Formulate standards and common vocabulary to apply in vetting of proposals for R&D

4   **Mandate** of the Empowered Technology Group is as under:

4 1   **Policy support**

(i)   Guide policy formulation in the development and use of technologies that emanate from multiple disciplines of science and engineering

(ii)   Develop a long-term technology roadmap and lay down a plan for indigenization of key technologies. In this, the Empowered Technology Group will take the assistance of as well as coordinate and commission relevant bodies such as Technology Information, Forecasting and Assessment Council, as needed

(iii)   Ensure that each Department/ Ministry has a 'Technology Officer' who is mandated to monitor technology development of relevance to the Department/Ministry, develop perspective plans on the technology requirements as well as plan adoption and adaptation of globally available new and emerging technologies The remit of the Technology Officer will include relevant human resource development within the Department/ Ministry

(iv)   Review technology adaptation of at least one Department during each of its meetings.

(v)   Guide policy making and render advice to promote Private Sector and global investment in R&D as well as in education and skills related to emerging technologies, including through challenge route to develop technologies for particularly identified problems

(vi)   Ensure rendering of a policy to optimize use of all capabilities developed or procured by India through sharing with other Public or Private Sector players, including recoupment of federal investments through sharing charges

(vii)   The Empowered Technology Group shall in coordination with Ministry of External Affairs, develop strategy to influence international discourse in Bodies such as International Atomic Energy Agency, World Intellectual Property Organization, International Telecommunication Union, World Summit on the Information Society, United Nations Conference on Science and Technology for Development, etc on key technologies and for furthering India's interests in those domains

(viii) Review and recommend at least once a year technologies and technology products that are obsolete and do not need to be procured by the Central or State/ Union Territory Governments and various entities under them

4.2   Procurement support

(i)   All Departmental proposals (including their centrally funded Autonomous Bodies and Laboratories) in excess of Rs 500 crore for procurement of technology/ technology products, will be placed before the Empowered Technology Group prior to their submission to the Expenditure Finance Committee (EFC)/Cabinet In cases of proposals being put up to the Cabinet/Cabinet Committees, the draft Cabinet/Cabinet Committee notes, along with inter-ministerial comments will be shared with the Empowered Technology Group

(ii)   The Empowered Technology Group shall ensure that there is no duplication and overlap in procurement of these technology products, technologies, services or facilities across Departments; the products and technologies available in India are procured from Indian vendors i e preference is given to indigenous vendors in accordance with extant Rules/ Order/Instructions; there is synergy and economy of scale in procurement by clubbing procurements of similar products by various Departments; and augment technology awareness of the stakeholder Departments so as to ensure that the procurement is of the most relevant technology from among the ones available globally

(iii)   The Empowered Technology Group will get a digital catalogue prepared of all the technologies and technology products developed by all Public Sector Enterprises and Research and Development Organizations including Transfer of Technology from foreign countries The catalogue should be prepared in 120 days of the constitution of the Empowered Technology Group.

(iv)   The Empowered Technology Group will ensure within the first year of its formation development of an e-market place for all technology/ technology products developed by all Public Sector Undertakings and R&D Organizations which will provide ease of procurement by Departments from each other as well as by Private Sector. A special window in this e-market place for products developed by Start-ups/small firms could allow them to showcase their tools/ technologies and to test and evaluate their feasibility, scalability and commercial viability Procurement from such a platform could also be incentivized through flexible procurement rules

4 3   R&D support

(v)   All Departmental proposals in excess of Rs 500 crores for R&D projects will be placed before the Empowered Technology Group prior to their submission to the Expenditure and Finance Committee (EFC)/Cabinet. In cases of proposals being put up to the Cabinet/Cabinet Committees, the draft Cabinet/Cabinet Committee notes, along with inter-ministerial comments will be shared with the Empowered Technology Group.

(vi)   Ensure that the proposal follows the latest global best practices; there is synergy and no duplication in proposals among various Departments; there is justification for research to be publicly funded; the proposals contain an exit strategy subsequent to completion of research. The exit strategy should invariably mean commercialization through technology transfer to the Industry.

(vii)   Develop an innovation index in line with the GII or any such acceptable global standard to objectively measure in-house innovation in each Department/ Ministry through a fair and transparent process of evaluation.

(viii) Develop standards, norms and best practices that every R&D proposal shall adhere to. It shall hold workshops to train senior decision makers of the relevant Departments on the standards, norms and best practices developed by it. First such workshop will be designed and hosted by the Office of the Principal Scientific Adviser within 2 months of the constitution of the Empowered Technology Group.

5. The Empowered Technology Group may constitute a Technology Advisory Group consisting of 10 members each from Industry and Academia to support its functioning.

6. The working rules and ancillary instructions for conducting the proceedings of the Empowered Technology Group in furtherance of its remit are enumerated at **Annexure**.

7. The Empowered Technology Group will be serviced by the Office of the Principal Scientific Adviser to the Government of India.

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Principal Scientific Adviser to the Government of India
Chairman, Atomic Energy Commission
Chairman, Space Commission
Chairman, Defence Research and Development Organization
Secretary, Ministry of Electronics and Information Technology
Secretary, Department of Telecommunications
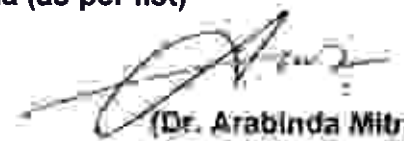Secretary, Department of Science and Technology

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Principal Secretary to the Prime Minister
Principal Adviser to the Prime Minister
Vice Chairman, NITI Aayog
Cabinet Secretary

(Dr. Arabinda Mitra)
Scientific Secretary

Copy also forwarded to: All Secretaries to the Government of India (as per list)

(Dr. Arabinda Mitra)
Scientific Secretary

Working rules and ancillary instructions for conducting the proceedings of the Empowered Technology Group

(i)   The Empowered Technology Group will be housed in the Office of the Principal Scientific Adviser (PSA), and the PSA will report its functioning and progress according to extant procedures.

(ii)   The Empowered Technology Group can invite other experts and authorities, including senior Government officials, relevant to their deliberations, as and when required.

(iii)   It shall meet preferably once in a month but more frequently, if required.

(iv)   The proposals placed before the Empowered Technology Group would be cleared in a time bound manner, not later than within a month of receipt.

(v)   It will select focus sectors for technology adaptation and encourage quicker technology dissemination in them.

(vi)   It shall look into submissions which are to be placed before the Expenditure Finance Committee/ Cabinet whose budgetary implications are above Rs.500 crore.

(vii)   All recommendations of the Empowered Technology Group on policy and allied matters shall be put up through the Chair according to extant procedures, including through Cabinet notes, if needed.

(viii) The Empowered Technology Group shall have the power to frame its own Rules of Procedure within the limits of jurisdiction conferred on it through the Cabinet approval and this Order.

(ix)   Office of the PSA will provide secretariat support through the allocated budget.

(x)   The selection of the members of the Technology Advisory Group would be through duly laid down process.

(xi)   The Empowered Technology Group shall function in a complementary manner to bodies such as the Prime Minister's Science, Technology and Innovation Advisory Council (PM-STIAC). It shall ensure that concerned Government of India Ministries and Departments implement relevant policy advice from the PM-STIAC and such other advisory groups.

(xii)   The Chair of the Empowered Technology Group will be kept informed of proposals, put up to the Expenditure Finance Committee (EFC) or to bodies such as the Atomic Energy Commission and Space Commission, which require Cabinet approval. This will allow preparedness of the Empowered Technology Group when it meets, to examine these speedily and recommend about submission to EFC/ Cabinet.

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