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**Department of Biotechnology, Ministry of Science and Technology, Government of India
and
The European Union (EU)
Cooperation on Research & Innovation in HORIZON 2020 Work Programme 2018-2020**

I. Introduction

The Department of Biotechnology (DBT), Ministry of Science and Technology, Government of India in collaboration with the European Commission will co-fund certain collaborative projects under the EU's Research and Innovation Framework Programme called HORIZON 2020. The Work Programme of year 2018-2020 was launched on 27 October 2017.

DBT, India participates in Horizon 2020 as an emerging economy, and funds Indian investigators in collaborative projects. DBT and the European Commission (EC) have agreed upon a Co-Funding Mechanism (CFM) which was applied for the first time in the 'Horizon 2020' Work programmes 2016-2017.

The EU's funding instrument for research and innovation, called 'Horizon 2020', is the largest multinational programme dedicated to research & innovation and it is "open to the world". This means that researchers, universities, research organisations, companies and non-governmental organisations from across the globe can apply to participate in the activities of the Work Programme carried out mainly through calls for proposals. It has a total budget of €80 billion for the seven years of which the work programmes for the remaining period 2018-2020 represent €30 billion.

Following the EU-India Summit, which took place in New Delhi on 6 October 2017, it was agreed to upscale the CFM and extend it to a larger number of calls in the Work programmes 2018-2020.

In Section II hereunder, the CFM is explained.

In Section III, the list of calls in the Horizon 2020 Work programmes for 2017-2018, which DBT has identified for co-funding are listed. The areas selected are in line with DBT's portfolio/areas of responsibility (and corresponding to the EU's different Work programmes as indicated between brackets) are the following: on Health Research (extracts of H2020 Societal Challenge 1 on Health, demographic change and well-being) on Bioeconomy (extracts of H2020 Societal Challenge 2 on Food security, sustainable agriculture and forestry, marine, maritime and inland water research and the bioeconomy); on Biomass and other related forms of energy (extracts of Societal Challenge 3 on Secure, clean and efficient energy); Green transport and impact on health (extract of Societal Challenge 5 on Smart, Green and Integrated Transport) and on Biotechnology (extracts of Pillar 2 in H2020 on Nanotechnologies, Advanced Materials, Biotechnology and Advanced Manufacturing and Processing or 'NMBP').

The calls are listed in the priority of the call deadlines.

N.B: Indian partners can participate on their own funds, or by using other sources of funding in the calls other than those identified by DBT.

II. EU-INDIA CO-FUNDING MECHANISMS (CFM) FOR RESEARCH AND INNOVATION COLLABORATION PROJECTS: HOW DOES IT WORK?

Where to find the call text?

The EC publishes all its call for proposals on the Horizon 2020 "[Participant Portal](#)". Clickable links are included for each call DBT has agreed for co-funding in the list detailed in Section III).

How to prepare and submit a proposal:

A proposal needs to be prepared and submitted in line with the EC's rules for participation and submission procedure. It is very important that the Indian applicants/participants are fully aware of all related administrative, legal and other aspects¹.

The H2020 proposal (Part A and Part B) has to be submitted on-line by the *project coordinator* – usually this role is fulfilled by one of the European participants which fulfils all administrative formalities on behalf of all, European and non-European/Indian participants. Although an Indian applicant could theoretically be a call coordinator, it is recommended to leave that function to one of the European participants which will considerably reduce the administrative burden for the Indian participants.

The Indian applicants are required to submit the hard copy and soft copy of the proposal to DBT. The proposal submitted to DBT must include:

- (1) Part A and Part B of the H2020 proposal²
- (2) Budget' **in the prescribed DBT format**³, identifying the planned expenditures (in Rupees) for all Indian partners. This part is very important to allow DBT for a proper evaluation of the proposal.

The complete proposal has to be submitted both electronically (e-mail) and by hard copy, by one Indian participant ("*Indian project coordinator*") on behalf of all Indian participants (if there are more than one Indian participants).

A grant agreement is established and needs to be signed by all participants, including the Indian ones, enabling the project to start. In some cases, project participants can be required to sign an additional Consortium Agreement before the start of the project.

For proposals positively evaluated by both the EC and DBT, DBT provides a research grant to the Indian participant(s).

DBT funding:

DBT funding is granted for **a maximum of three-five years and the amount of funding available to Indian investigators is commensurate to the quantum of proposed work/activities (except for industry).**

Indian applicants must refer and adhere to national/regional regulations and scientific remits as detailed by DBT. They may contact DBT (see contact details below) to check their compliance with the national rules.

1 See the *H2020 Online Manual* (http://ec.europa.eu/research/participants/docs/h2020-funding-guide/grants/applying-for-funding_en.htm) and/or the comprehensive brochure developed by the *EU Delegation to India* (http://eeas.europa.eu/delegations/india/documents/h2020_brochure-india-aug_2014.pdf)

2 'Part B' is the research proposal as such, also called "technical annex", describing the scientific work to be conducted – as opposed to 'Part A' which relates to administrative data – see template: http://ec.europa.eu/research/participants/data/ref/h2020/call_ptef/pt/h2020-call-pt-ria-ia_en.pdf#page=14

3 http://www.dbtindia.nic.in/imageupload/Proforma_R&D.doc

Eligibility of Indian participants to receive DBT funding:

Eligible Indian participants are researchers from recognised **public/private funded academic or research institutions**, national R&D laboratories; R&D entities having recognition as a Scientific and Industrial Research Organisation (SIRO)⁴ by the Department of Scientific and Industrial Research (DSIR)⁵ under the Scheme on Recognition of Scientific and Industrial Research Organisations (SIROs) of 1988.

The Indian private R&D institutions, Indian NGOs/VOs should be registered in DARPAN Portal of NITI Aayog (<http://ngodarpan.gov.in/>) and registered to Government of India's Public Finance Management System(PFMS)- <https://pfms.nic.in/>.

The Indian private R&D performing institutions, Indian NGOs/VOs should have experience of at least 3 years in scientific research, teaching, training, extension activities.

Indian SME/Industry: Indian SME/Industry can be partner in the consortium and eligible for funding subject to fulfilment of DBT financial and technical norms. As per existing DBT financial norms, maximum grant support to industry will be Rs.1.5 Crores per project subject to matching contribution from industry. Company should be incorporated in India and should have 51% Indian corpus i.e. shareholding.

Eligible costs depend on national regulations. In general, the following items are eligible for funding:

- **Mobility:** exchange research visits between Europe and India. Travel costs, living expenses and visa costs are eligible for funding. Eligibility is subject to national regulations. Accommodation and living costs of Indian participants travelling to Europe need to be borne by their European counterpart⁶ and vice-versa. The costs need to be foreseen and planned in the project proposal. This needs to be taken into account in the budgets of both the H2020 proposal and the DBT proposal.
- **Workshops:** organisation costs, including rents for the event location, catering, communication materials and the invitation of external experts. Eligibility is subject to national regulations.
- **Research costs:** small equipment and consumables, project related miscellaneous expenses and project related larger equipment; the extent to which equipment costs are eligible for funding depends on national regulations.
- **Personnel costs:** extent of eligibility is according to respective national regulations.

It is not possible to apply for individual exchanges or single workshops.

Evaluation procedure

4 <http://www.dsir.gov.in/#files/tpdup/irdpp/SIRO-revised-guidelines.html>

5 The Department of Scientific and Industrial Research (DSIR), Government of India is the nodal government department for granting recognition to non-commercial Scientific & Industrial Research Organisations (SIROs). The functional SIROs having clearly stated objectives of undertaking scientific research, broad based Governing Council, Research Advisory Committee, research personnel, infrastructure facilities for research, well defined, time bound research programs and clearly stated objectives of undertaking scientific research are considered eligible for recognition by DSIR.

6 This will have to be agreed at consortium level and reimbursement of costs will have to be in line with Horizon 2020 rules

All proposals are evaluated both by the EC and by DBT.

In case of a **"two-stage" model action**, applicants only submit a short version of their proposal and a full proposal will be required only if the evaluation of the first-stage proposal is positive. For phase 1 of such a two-stage evaluation, Part B⁴ is restricted to 10 pages and not to the usual 70-or-so pages as for a full proposal.

To ensure symmetry and avoid confusion, the same requirements apply to the Indian participants: they will need to submit Part A and Part B of the short proposal to DBT at the same time as it is submitted to the EC (stage 1) and, subject to positive evaluation in stage 1, the Indian participants will be invited, through the call coordinator, to prepare Part A and B of a full proposal which will also have to be submitted to DBT at the same time as it is submitted to the EC.

III. CALLS FOR PROPOSALS IDENTIFIED FOR CO-FUNDING BY DBT FOR YEAR 2017-2018

DBT has agreed, subject to their positive evaluation and complying with the national rules and procedures, to fund the successful Indian participants in a number of calls for proposals of mutual interest, identified in the table below. The list of calls is in the order of the call deadlines.

Theme	CALL NAME / TOPIC (click topic name to follow link)	Type of Action & Model	Opening date	1st Stage Deadline	2nd Stage Deadline
Biotechnology (NMBP)	BIOTEC-03-2018: Synthetic biology to expand diversity of nature's chemical production (RIA)	two-stage-RIA	31/10/2017	23/01/2018 17:00 CET	28/06/2018 17:00 CET
Biotechnology (NMBP)	NMBP-22-2018: Osteoarticular tissues regeneration (RIA)	two-stage-RIA	31/10/2017	23/01/2018 17:00 CET	28/06/2018 17:00 CET
RURAL RENAISSANCE (SC2)	DT-RUR-12-2018: ICT Innovation for agriculture – Digital Innovation Hubs for Agriculture	single-stage-IA	31/10/2017	13/02/2018 17:00 CET	
RURAL RENAISSANCE (SC2)	RUR-14-2018: Digital solutions and e-tools to modernise the CAP	single-stage-IA	31/10/2017	13/02/2018 17:00 CET	
FOOD SECURITY (SC2)	CE-SFS-25-2018: Integrated system innovation in valorising urban biowaste	single-stage-IA	31/10/2017	13/02/2018 17:00 CET	
FOOD SECURITY (SC2)	SFS-01-2018-2019-2020: Biodiversity in action: across farmland and the value chain	two-stage-RIA	31/10/2017	13/02/2018 17:00 CET	11/09/2018 17:00 CET
FOOD SECURITY (SC2)	SFS-05-2018-2019-2020: New and emerging risks to plant health	two-stage-RIA	31/10/2017	13/02/2018 17:00 CET	11/09/2018 17:00 CET
FOOD SECURITY (SC2)	SFS-06-2018-2020: Stepping up integrated pest management	two-stage-RIA	31/10/2017	13/02/2018 17:00 CET	11/09/2018 17:00 CET
FOOD SECURITY (SC2)	SFS-08-2018-2019: Improving animal welfare	two-stage-RIA	31/10/2017	13/02/2018 17:00 CET	11/09/2018 17:00 CET
FOOD SECURITY (SC2)	SFS-11-2018-2019: Anti-microbials and animal production	two-stage-RIA	31/10/2017	13/02/2018 17:00 CET	11/09/2018 17:00 CET
FOOD SECURITY (SC2)	SFS-32-2018: Supporting microbiome coordination and the International Bioeconomy Forum	single-stage-RIA	31/10/2017	13/02/2018 17:00 CET	
FOOD SECURITY (SC2)	SFS-38-2018: Highly efficient management of soil quality and land resources	two-stage-RIA	31/10/2017	13/02/2018 17:00 CET	11/09/2018 17:00 CET

Biotechnology (NMBP)	CE-BIOTEC-04-2018: New biotechnologies for environmental remediation	single-stage-RIA	31/10/2017	25/04/2018 17:00 CET	
HEALTH (SC1)	SC1-BHC-16-2018: Global Alliance for Chronic Diseases (GACD) - Scaling-up of evidence-based health interventions at population level for the prevention and management of hypertension and/or diabetes	single-stage-RIA	07/11/2017	18/04/2018 17:00 CET	
HEALTH (SC1)	SC1-BHC-18-2018: Translational collaborative cancer research between Europe and the Community of Latin American and Caribbean States (CELAC)	single-stage-RIA	07/11/2017	18/04/2018 17:00 CET	
HEALTH (SC1)	SC1-BHC-21-2018: Research on HIV, tuberculosis (TB) and/or hepatitis C (HCV) in patients with mono-, co-infections and/or comorbidities in the context of fostering collaboration with the Russian Federation	single-stage-RIA	07/11/2017	18/04/2018 17:00 CET	
BIO-ENERGY (SC3)	LC-SC3-RES-22-2018: Demonstration of cost effective advanced biofuel pathways in retrofitted existing industrial installations	single-stage-IA	05/12/2017	05/04/2018 17:00 CET	

NOTES:

- **Single-stage submission scheme:** Standard submission and evaluation procedure (one-stage submission + one-step evaluation)
- **Two-stage submission scheme:** *The two-stage submission schemes require that you submit a ‘short outline proposal (7 or 15 pages) for the first stage and you will be invited to submit your ‘full proposal’ (up to 70 pages) for the second stage, only if you pass the first-stage evaluation. The full proposal must be consistent with the short outline proposal and may not differ substantially.*
- *Research and Innovation Action (RIA)⁷ :*

Description: Action primarily consisting of activities aiming to establish new knowledge and/or to explore the feasibility of a new or improved technology, product, process, service or solution. For this purpose they may include basic and applied research, technology development and integration, testing and validation on a small-scale prototype in a laboratory or simulated environment. Projects may contain closely connected but limited demonstration or pilot activities aiming to show technical feasibility in a near to operational environment.

⁷ http://ec.europa.eu/research/participants/data/ref/h2020/other/wp/2016_2017/annexes/h2020-wp1617-annex-d-ria_en.pdf

- *Innovation Actions (IA)*⁸ :

Description: Action primarily consisting of activities directly aiming at producing plans and arrangements or designs for new, altered or improved products, processes or services. For this purpose they may include prototyping, testing, demonstrating, piloting, large-scale product validation and market replication.

A 'demonstration or pilot' aims to validate the technical and economic viability of a new or improved technology, product, process, service or solution in an operational (or near to operational) environment, whether industrial or otherwise, involving where appropriate a larger scale prototype or demonstrator.

A 'market replication' aims to support the first application/deployment in the market of an innovation that has already been demonstrated but not yet applied/deployed in the market due to market failures/barriers to uptake. 'Market replication' does not cover multiple applications in the market of an innovation³ that has already been applied successfully once in the market. 'First' means new at least to Europe or new at least to the application sector in question. Often such projects involve a validation of technical and economic performance at system level in real life operating conditions provided by the market.

Projects may include limited research and development activities.

IV. FURTHER INFORMATION

INDIA

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EU/EC:

European Commission's "Research Enquiry Service":
<http://ec.europa.eu/research/index.cfm?pg=enquiries>

EU Delegation to India:
DELEGATION-INDIA-RI@eeas.europa.eu

⁸ http://ec.europa.eu/research/participants/data/ref/h2020/other/wp/2016_2017/annexes/h2020-wp1617-annex-d-ia_en.pdf