

**DBT/TCB/RRSFP/Gen/01**  
**DEPARTMENT OF BIOTECHNOLOGY**  
**MINISTRY OF SCIENCE & TECHNOLOGY**

**SUB: Revised Guidelines for ‘Research Resources, Service Facilities and Platforms’ Programme under Biotech Facility Scheme (2017)**

**Background**

The capacity and quality S&T in general and biological sciences and biotechnology in particular of any country depends on level of shared research infrastructure and facilities with sophisticated and high-end equipment, skilled scientific human resource for operations and related professional services. They are essential for generating new knowledge and new technologies in all areas of science and ultimately constitute the basis for excellent basic and translation R&D and product development and validation besides quality publications and generating valuable IPR. Since 1986, the Department of Biotechnology (DBT) has been supporting the development of research infrastructure at Institution/University level. Initially, the Biotech facilities are supported under the ‘Task Force on Infrastructure’ to meet individual researchers and labs and departments. Since beginning of 12<sup>th</sup> plan the strategy of the scheme was shifted to funding of shared facilities with sustainability catering to the needs of several stakeholders such as academia, agriculture and medical service sector, bio-industry and product developers. The ‘Task Force on Research Resources, Service Facilities and Platforms’ consisting of multidisciplinary team representing stakeholders was initiated.

**Definitions**

- A. **Research Resources** - Research resources are major equipments/instruments or facilities that will potentially benefit a community of researchers and/or educators or for public services with a possibility of transformative knowledge generation and the potential to shift existing paradigms in scientific understanding, engineering processes and/or product development technology. It includes major scientific equipment (or sets of series of instruments); knowledge-based resources such as collections, archives or scientific data; e-infrastructures, such as data and computing systems and communication networks; and any other infrastructure of a unique nature essential to achieve excellence in research and innovation of high impact and quality. It also incorporates the establishment of premises/institutions/civil works required for upgradation or establishment of new facilities.
  
- B. **Service Facilities** - The primary goal of service facilities is to provide access to resources that could not be provided by any single researcher's laboratory or scientific department but require for data acquisition, analysis and providing the proof of concept to cater the needs of a larger community. The service facilities are the research resources including the scientific and technical support, which are established to provide comprehensive services to users for creating efficient research and innovation environment. The main emphasis is to foster the long-term

sustainability of research infrastructures through providing services to the scientific/industrial community on cost recovery and fee for service basis. The service facilities of GLP/non-GLP standards and up to the highest biosafety level may be supported.

- C. **Platforms** - A platform is a group of technologies that are used as a base upon which other applications, processes or technologies are developed. These platforms range from vast chemical libraries, ultra-high throughput screening and huge genetic databases in discovery, to predictive toxicology platforms, cutting-edge 'omics' and even deep-seated knowledge of particular therapeutic areas in development. Technological platforms are very expensive. Technology platforms follow a three-stage process. First, stakeholders forge a common vision. Secondly, they define a Strategic Research Agenda (SRA) setting out the necessary medium- to long-term objectives. Finally, they implement the SRA by facilitating the mobilization of the necessary human, financial and technological resources. In a Platform, all relevant stakeholders come together to address and resolve the challenges that lie ahead through a concerted and dedicated approach.

### **Purpose**

The overall aim of this programme is to establish the new or up-gradation of existing research resources/service facilities and platforms in Indian Institutions/Universities engaged in cutting edge research in frontier areas of Life sciences/Biotechnology and also to establish the infrastructure for various services in agriculture, medicine, environment and industry in public interest. The major objectives of this programme are -

- Quantitative and qualitative expansion of existing or establishing of new research infrastructure
- Providing access to world class and state of the art facilities
- Technology driven capacity building
- Human resource development through training
- Improvement of institutional/university biotech infrastructure for educational and quality research leading to societal impact
- Encouraging the long term operational sustainability
- Fostering academic and industry cooperation
- Information management towards evidence-based decision making
- Fostering partnerships to maximise opportunities
- Clustering and linking of different R&D players
- Strengthening global competitiveness
- Promote transnational research leading products testing, validation and development
- Provide services for food and environmental biosafety assessment, diagnostic and detection services related trade, medicine and agriculture and environment

### **Eligibility**

**Research Resource Grant and Platform** – Public and deemed institution/University or private UGC recognized institution/University certified for doing R&D activities by Department of Scientific and Industrial Research (DSIR).

**Service Facilities** – Public and deemed institution/university or private UGC recognized institution/University (including deemed universities) or any Private Indian industry with NO foreign stake and certified for doing R&D activities by Department of Scientific and Industrial Research (DSIR).

## **Terms and Conditions of Support**

### **I. General**

1. For all proposals involving major civil/construction work, only one fourth of recurring expenditure will be released in the first year of grant.
2. The research infrastructure including the equipments/instruments must be acquired according to the sanction order and the research programme must be implemented by appropriate research activities.
3. In addition, new specialized and customized support services and use models must be developed for intensified joint utilization of the research infrastructure, in particular by private business entities.
4. Revenue generated through services need to be reflected on audited utilization certificate (UC) and Statement of expenditure (SE)
5. Audited Utilization Certificate (UC) and Statement of expenditure (SE) of the previous financial year ending on 31st March need to be submitted by June of the subsequent financial year.
6. Maintenance of the facilities (in public institutions/universities only) may be considered on the basis of revenue generated, utilization, working load and trainign provided, number of users benefitted each year etc.

### **II. Specific**

#### **A. Research Resource**

1. Proposals proposed to establish shared resources preferably with a revenue model will be only considered
2. A public and deemed university (other than supported under DBT-BUILDER Programme) may be supported to establish basic infrastructure for R&D, Teaching and short term training (1-2months) to students of the affiliated colleges upto maximum support of **Rs.10.0Crore**. In a year ONLY three universities will be supported. The support may also include the faculties and trainees under manpower. The private universities are NOT eligible for this support.
3. A established R&D institutions and university [includes public, deemed and private university) may put up a proposal with following conditions:
  - A. for establishing/upgrading a shared facility in which the an equipemnt/Facility costing **Rs.3.0crore or above** will ONLY be supported. Any

instrument/equipment below this limit may be acquired through competitive reserach grant system of any national funding agency.

- B. These propsoals must have a component for short term training (1-2months) of faculties or junior level scientist of remote institutions/universities (both public and private).
- C. For such facilities it is mandatory to operate them on service providing basis with a clear service charges aprooved appropriately. The private universities must be recognized by UGC & DSIR for research and contributed significantly in the growth of biological science during past 25years.
- D. Proposals need of civil works needs to certify the space availability and/or submit the registration document of land along with a proper floor plan duly approved by an Instituional or Certified Architect. The floor plan along with budget for civil works must be based on CPWD/state PWD specifications. A private university will NOT be supported for civil/building construction works.

#### **B. Service Facilities**

- 1. Proposal need to propose a suitable reveune business model leading to sustainability within limited time frame.
- 2. Proposal need to certify the space availability or submit the registration document of land along with a proper floor plan duly approved by a Instituional or private certified Architect. The floor plan along with budget for civil works must be based on CPWD/state PWD specifications.
- 3. Private industries will NOT be supported for civil/building construction work.
- 4. Proposal must involve a strong training opportunity for development of skilled and quality manpower

#### **C. Platform**

- 1. Proposal need to certify the space availability or submit the registration document of land along with a proper floor plan duly approved by a Instituional or private certified Architect. The floor plan along with budget for civil works must be based on CPWD/state PWD specifications. A Private organization will NOT be supported for civil/building construction work.
- 2. Proposal must incorporate a suitable revenue model for sustaining the facility

The manpower may be either fully supported by DBT or on shared basis especially in universities which will be decided on the basis of a revenue model or the proposed budget. The DBT support to manpower will be as per the GoI rules.

#### **Duration**

The projects under each category will be supported for four years ONLY or as per GoI policy. As the programme is for establishment of Infrastructure, NO extension will be considered except under conditions beyond Control. The extension for such cases may be considered on the basis of performance, challenges incurred and deliverables of the project.

**Reservation Policy:** Applicable as per GoI Guidelines

**Proposal Submission:** All proposals must be submitted through eProMIS, online project management software of Department of Biotechnology. Each year, the proposals can be submitted between January to October only.

### **Justification of the instrumentation**

The equipment/instruments proposed under this programme required to be justified as follows -

1. Necessity of the instrument/equipment in term of scientific and technical merits of a proposal and expected advancement of a knowledge
2. Justification of the necessity of the procurement of the instrumentation, its performance class and equipment with accessories (usage load of the existing instrumentation, provision of additional measurement methods, testing of new measurement methods; other reasons).
3. Selection criteria for a proposed equipment/instrument – Specifications, price, compatibility, maintenance and operational cost
4. Tabular list of previous funding of third-party-funded projects in the last five years (funding body, reference number, title, funding amount)
5. Information on the direct and indirect users of the equipment/facility along with the usage time
6. Use of the instrumentation in joint research projects with other institutions or industrial enterprises.
7. Existing major instrumentation - tabular list of the instrumentation: type and function, year of commissioning, working load & usage duration in hrs/month, technical staff responsible, funding source
8. For a replacement instrument/equipment – justification/reason for replacement, utility of existing instrument at present and in future
9. Additional information such room conditions, availability of electricity etc.
10. Instruments involves x-ray/strong magnetic field – Access norms, safety training and trained staff availability

### **Revenue Model**

A suitable revenue model has to submit by the applicant especially for Service Facilities or research resources/platforms where providing a service is proposed. The revenue model may be decided on case to case basis; however, the model must envisage the sustainability of the proposed facility at least after three years of operation.

For establishing a service facility, a private industry must follow the following revenue model to meet the total cost of the project –

Year	Percentage of Fund contribution	
	DBT	Private Industry
I	60	40
II	50	50
III	40	60
IV	30	70
V	20	80

Private industry has to bear the cost of the land as well as any civil works involved and required for establishing a service facility.

**Communication of Decision after Screening or review** Decision of the Expert Committee/Task Force will be electronically/hard copy communicated or as per GoI communication policy. The reviewer comments/report and feedback from the Expert Committee/reviewer(s), and instructions for submitting the final proposal will be forwarded to the applicant. Project appraisal process will consist of: screening, submission of final proposal and reviewing, evaluation and approval by Expert Committee/Task Force. Decision of the Expert Committee/Task Force/ Committee constituted for on-site assessment will be final and cannot be disputed. However, Department of Biotechnology reserve the right to support a proposal after accommodating further revision(s) or completion of any documentary requirements or on the basis of sectoral/national priority for a particular financial year.

### **Process and Criteria for Evaluation**

The proposals could be generated by DBT as per national priorities and emerging requirements or received from institutions/universities. All applications shall be evaluated based on the following criteria by concerned Division of DBT:

1. Fund availability
2. National priorities
3. Building Scale and Focus,
4. Emerging Areas,
5. External leveraging and co-investment,
6. Users (number, shared and scale),
7. Lack of access and maximizing open access,
8. Research quality and probable impact,
9. Operational cost,
10. Need and cost of maintenance,
11. Technical services
12. Non-Duplication and integration of facilities

Based on internal assessment, an onsite assessment will be carried out for appraising on scientific, technical, financial needs and expertise available at host institute/ university. Such site visit may be undertaken either before or after the project has been evaluated by the "Task Force on Research Resources, Service Facilities and Platforms". In case the site

visit is performed after the proposals considered by the respective Task Force, the recommendations of the site visit committee will be considered final for funding the proposal. However, the special cases may be considered on case by case basis.

### **International cooperation**

International research facilities is essential for strategic development of Indian science through exploitation and management of access to highly acclaimed and huge world class facilities, which require tremendous investment to build/replicate. Access to such high tech facilities may be provided to Indian scientists to meet the demands of trans-disciplinary areas of Life science and Biotechnology. Proposals for such facilities should be submitted in consortium mode with nodal institutions/ university coordinating. The access to such facilities should be provided to all deserving stakeholders through inclusive and transparent process.

**Electronic Transfer of Funds** (Interest bearing Account Only) As per the Government of India Policy, the funds need to be transfer electronically in an Interest bearing account only. Therefore, each project must accompany the following financial details –

- i. Accounts Holder's Name
- ii. Name of the Bank
- iii. Account Number (Saving only)
- iv. IFSC code
- v. MICR code
- vi. Email of the Beneficiary

### **Termination of Project**

A project supported under this programme may be terminated under conditions of excessive and unjustified delays, administrative lapses, non-availability of coordinator, unjustified cost overrun, misappropriation of funds, non-achievement of project objectives, loss of opportunities, legal issues and direction of court, recommendations of the expert committee and the request of a coordinator.

### **Data submission**

The coordinators are required to submit the desired data relevant to the project from time to time or whenever desired.

### **Monitoring and Compliance**

The progress of the project may be monitored by Department of Biotechnology regularly or whenever desired and project is required to comply with all the regulations/procedures as notified by this Department and other Departments/Ministries of India.

### **Access to Resources/ Facilities/Platforms**

All Indian Researchers, Academicians and Industrialist must have open access to the resources/facilities/platforms as per the norms of the institution/Gol.

### **Assets Rights**

The resources/ facilities/platforms established through this programme will be treated as Government of India assets/property. The rights may be transferred to a private institution/industry in proportion to the initial investment and after recovery of the cost contribution.

### **Conflict of interest and confidentiality**

For discussion or evaluation of proposals, members of committee must declare a conflict of interest if they or close professional associates will or might benefit, directly or indirectly, from any support. The potential Conflict of Interest will be discussed and rated as high, medium or low and the member(s) will be either asked to leave the meeting for the duration of Committee's deliberations regarding the relevant proposal, or to refrain from any discussion and participation in decisions related to the proposal(s).

Members of Committee should observe the confidentiality of proposals and other applications for support, especially for proposals received from the private industries. However, Department of Biotechnology reserves the right to send the application to third parties for comment, advice or other action.

### **Check list**

1. Copy of Land allotment/passion certificate
2. Approvals and clearnces of Stsutory bodies (like Institutional Biosafety Committee, Animal Ethics Committee etc.) or Authorities [like clearnce from D/o Environment, National Green Tribunal, Development authorities, Committee for the purpose of control and supervisison of experiments on Animals (CPCSEA)]
3. DSIR certificate for recognition of in-House R&D units
4. Complinance to the follwing:
  - a. National Biodiversity Authority guidelines
  - b. Safety code for Industrial Radiography under Radiation Protection Rules, 1971
  - c. OECD principles of Good Laboratory Practices (GLP) and National Good Laboratory Practice Compliance Monitoring Authority (NGCMA), DST

### **GENERAL CRITERIA**

#### **A. Principal Investigator & Co-Investigator (s) and the Implementing Institution**

- i. The Principal Investigator (PI) has the primary responsibility of the implementation of the project. The project team consists of the PI, Co-Investigator(s) and the project personnel appointed as per the sanction order. It is necessary to ensure that the project is carried out by the project team in a cohesive manner. Periodic meetings of the team are essential for this purpose.



- ii. In case of PIs who would be superannuating during the duration of the project, association of an "in-service" Co-Investigator should be ensured. In such cases, the Institute authorities should inform to this Department, well in advance, about their "no objection" for providing the infrastructural facilities to the PI for implementation of the project after his superannuation.
- iii. Having accepted the responsibility for the implementation of the project, the PI should be committed to implement the project over its duration and should have no plans to go on long leave.
- iv. In case, the PI is shifting to another institution on new appointment/ transfer/ long term deputation, the project could be transferred to that institution with the mutual consent of both the institutions and of this Department. Such requests for transfer of the project should be sent well in advance and should be accompanied with 'No Objection' certificates from both the institutions and the Endorsement Certificate from the new Institution.
- v. In case the PI leaves the project due to unforeseen circumstances, the Co-Investigator could be considered as the PI subject to the approval of the PI, Head of the Institute and this Department. Such a request should be sent at least 4-6 months in advance along with a detailed bio-data of the Co-Investigator.
- vi. The PI as well as the implementing institution has the responsibility of informing this Department about any change in the status of the PI/ Co-Investigator including relieving them on short term deputation for a continuous period of 3 months or more.
- vii. The project stands terminated in the absence of the PI/ Co-Investigator for a continuous period of 6 months without intimation to this Department.
- viii. The implementing institution has an important role to play and in consultation with this Department should take steps to ensure successful completion of the project, before relieving the PI.
- ix. The implementing Institute should provide full infrastructural facilities such as accommodation, water, electricity, library, and communication facilities etc. for smooth implementation of the project.

## **B. Project Staff**

- i. All the personnel including Faculties/Research personnel appointed under the project, for the full/ part duration of the project, are to be treated as temporary employees and will be governed by the Administrative rules/ service conditions of the implementing Institute. No reference on these issues should be made to this Department. The Department will have no liability, whatsoever, for the project staff after completion of the project duration.
- ii. The sanction order specifies the number of personnel, in different categories along with their consolidated/Stipendiary/Fellowship emoluments, sanctioned under the project.
- iii. Scale and emoluments for the posts not covered under this order are governed by norms prevalent in the implementing Institution or as may be decided by this Department.
- iv. In case of recruitment of JRF/ SRF candidates, NET/ GATE qualified candidates may be preferred.
- v. Projects staff can avail the leaves as per the leave rules of the project implementing organization. The recruitment, duration of employment and termination of the project staff will be as per rules of the project implementing organization.

### **C. Release of grants in yearly installment and financial management**

- i. The grants for the project are released on the basis of yearly requirements taking note of the technical progress and expenditure incurred. The first sanction order indicates the budgetary allocation for the duration of the project under various heads like Equipment, Manpower, Travel, Consumable, Contingency etc.
- ii. The first installment of grant is released along with the Sanction order. The first year release consists of the entire or part of the Non-recurring grant and part of the recurring grant including 'Overheads'.
- iii. Diversion of funds from non-recurring head to recurring head like Manpower, Consumable etc. is NOT allowed. However, any re-allocation/ re-appropriation of grants under different heads require prior approval of this Department.
- iv. The equipment sanctioned in the project should be procured at the earliest to avoid any cost escalation. The PI and the implementing Institute should complete all formalities in advance for placing the order. Institutions are NOT allowed to purchase equipments other than sanctioned in a project without DBT's prior permission.
- v. The subsequent installment of grant would be released annually on the basis of expenditure incurred in the previous financial year and expected expenditure in that year. However, any request for release of the next installment should be accompanied by the following documents:
  - a. Utilization Certificate and Statement of Expenditure for the financial year (in original or copy if sent earlier) ending on 31<sup>st</sup> March, which is followed by submission audited statements for the same financial year up to May for the next financial year;
  - b. Latest authenticated Utilization Certificate and Statement of Expenditure (may include Committed Expenditure), for expenditure since 1st April of that financial year till the previous month; and
  - c. Technical Annual Progress Report, if not sent earlier.
  - d. Consolidated Assets Certificate (including the name of the equipment, Date of purchase and Installation, Cost of the equipment in Indian and Foreign Currency),
  - e. Manpower Certificate (including their qualification whether NET/BET/GATE/BINC etc. or similarly qualified, Date of Joining and Leaving, Salary paid per month and annum)
  - f. Un-spent non-recurring grant balance should be refunded via a Demand Draft drawn in favor of Drawing & Disbursing Officer (DDO), DBT, payable at New Delhi.
- vii. The Statement of Accounts and the Utilization Certificates must be financial year wise and to be submitted within a period of one month from the 31st of March of that year. (ie. if date of start of the project is 12.06.2016, then the first statement of account and utilization certificate will be for the period 12.06.2016 to 31.03.2017, the next statement will be for the period 01.04.2017 to 31.03.2018 and so on).
- viii. The implementing institute will maintain separate audited accounts for the project. Any interest earned should be reported to this Department and should be reflected in the Statement of Expenditure.
- ix. The institute will not entrust the implementation of the work for which the grant is being sanctioned to another institution nor will it divert the grant to other institute as assistance. In case the Institute is not able to implement the project, it should refund to this Department the entire grant or the balance grant at the earliest.

- x. For permanent, semi-permanent or infrastructural assets acquired solely from the project grants, an audited record in the form of a register in the prescribed format shall be maintained by the Institute. The term "Assets" include (a) the immovable property acquired out of the grant; and (b) movable property of capital nature where the value exceeds Rs 1,000/-. The Institute is required to send to this Department a list of assets acquired from the grant.
- xi. The grant shall not be utilized for construction of any building unless specific provision is made for this purpose in the sanction order.
- xii. All the assets acquired from the grant will be the property of Government of India and should not be disposed off or encumbered or utilized for purpose other than those for which the grant had been sanctioned, without the prior sanction of this Department.
- xiii. After completion/ termination of the project, the Government of India will be free to sell or otherwise dispose of the assets which are the property of the Government. The Institute shall render to the Government necessary facilities for arranging the sale of these assets. The Government of India also has the discretion to gift the assets to the Institute or transfer them to any other Institute if it is considered appropriate and justified.
- xiv. This Department reserves the right to terminate the project at any stage if it is convinced that the grant has not been properly utilized or appropriate progress is not being made.
- xv. The Comptroller & Auditor General of India, at his discretion, shall have the right of access to the books and accounts of the Institute maintained in respect of the grant received from the Government of India.

#### **D. Progress Evaluation and Monitoring**

- i. The PI through the implementing Institute will furnish to this Department an electronic copy and the desired number of hard copies of Annual Scientific & Technical Progress report for the work carried on the project on an annual basis. (ie. if the date of start of a project is 12.01.2000 the first Annual Technical Progress report shall be for the period 12.01.2000 to 31.01.2001, the next will be from 01.02.2001 to 31.01.2002 and so on).
- ii. In addition, this Department may designate Scientist/ Specialist or an Expert Panel to visit the Institute periodically to review the progress of the work being carried out and to suggest suitable measures to ensure realization of the objectives of the project. The implementing Institute will provide all facilities to the visiting scientist/ specialist or the Expert Panel by way of accommodation etc. at the time of their visit.
- iii. This Department also organizes Monitoring Workshops/ Experts committee meetings wherein the PIs/ Co-PIs and research staff are invited to present the technical progress of their project. The Investigators should attend such workshops since it provides an opportunity to review their progress based on which any midterm requests by the PIs for additional grants/ extension in duration etc. are considered by this Department. Subsequent releases of grant would be based on the reviewing and monitoring committee's recommendations.
- iv. On completion of the project, the PI through the Institute should send the following documents to this Department to enable us to settle the account:
  - a. Consolidated Project Completion Report (Both soft copies and desired number of hard copies) with a summary sheet as first page indicating that Number of People Trained (separately as JRF, SRF, RA, Assistant Prof. etc.), Number of Patents (Filed and Granted separately), Number of Research Publications (total as well as with IF >3

- separately), Achievement of the project in bullet format, Number and name of the lead molecules;
- b. Consolidated audited Statement of Expenditure and Utilization certificates (Financial Year wise);
  - c. Consolidated Assets Certificate (including the name of the equipment, Date of purchase and Installation, Cost of the equipment in Indian and Foreign Currency),
  - d. Manpower Certificate (including their qualification whether NET/BET/GATE or similarly qualified, Date of Joining and Leaving, Salary paid per month and annum)
  - e. Un-spent balance should be sent through a Demand Draft drawn in favor of Drawing & Disbursing Officer (DDO), DBT, payable at New Delhi.

#### **E. Guidelines for publication of results**

- i. It is mandatory to acknowledge financial support provided by DBT via inclusion of Reference/Grant number, Name of the Department (i.e. DBT) and the duration of the financial support including the dates in acknowledgement section of publications/patents/technology transfer documents vide notification no. DBT/PCAH/Gen/01 dated 7<sup>th</sup> June 2012.
- ii. The Investigator(s) should not enter into collaboration with a foreign party (individual/industry) without prior approval of this Department.
- iii. Investigators are also requested to publish some of the research papers emerging out of the project work in leading Indian Journals.
- iv. If the results of research are to be legally protected, the results should not be published without action being taken to secure legal protection for the research results.

#### **F. Guidelines/ Instructions for Technology Transfer and Intellectual Property Rights**

DST's General guidelines for Technology Transfer and Intellectual Property Rights are applicable.

**Note:** DBT-BUILDER Programme is now merged with 'Research Resources, Service Facilities and Platforms' as per the recommendations of the expert committee for continuation of DBT's schemes/Programmes beyond 12<sup>th</sup> Plan.

**These guidelines are effective from 6<sup>th</sup> September'2017. This issue with approval of a competent authority.**