



**Title of the Proposal** : **CSIR Integrated Skill Initiative**

**Duration of the project** : Financial Year 2018-19 to 2019-2020 (March 31st 2020)

## **I. Background**

One of the mandate of CSIR (vide Clause (g) of CSIR Byelaws) is “the collection and dissemination of information in regard not only to research and development but to industrial matters generally”. The tacit knowledge of CSIR labs along with the advanced R&D facilities has to be made available to the industry for creating a knowledge driven economy. The emphasis is to create a robust and sustainable training module of trans-disciplinary in nature for workforce among various technical areas that enhances multifaceted livelihood skilled workforce generation for industrial requirement that neither ITI’s can offer nor readily available from IITs. These skilled/training programmes are also linked to possible employment generation including small scale technopreneurship. This ensures a sustained supply of skilled opportunities in our country.

With technical and scientific capability possessed by many CSIR institutions, which is not readily available in many other Indian institutions, CSIR could establish excellence in national skill mission in various identified S&T domains which will be a breeding ground for all the Skill/ Training initiatives of laboratories to be taken up. It will host facilities for providing skill training to students/ industry personal/ farmers, etc. It will also envisage to be a hub to connect with industrial people for guiding the skill/ training programme.

Further, the CSIR integrated Skill/ training programme will also bring in all the CSIR capabilities under one umbrella that will provide a unique knowledge driven platform under National Skill Mission. The programme also has the potential to enhance the CSIR brand image towards its Scientific Social Responsibility contributions by amalgamating its on-going and new skill/ training programmes.

## **II. Current Status**

Several CSIR labs are engaged in conducting industry oriented training/ skilling programmes that have been well accepted by users. In tune with the Government Policy on Skill Mission, CSIR in its Platinum Jubilee Year mounted a major programme on “CSIR Integrated Skill Initiative”. Dr. Harsh Vardhan, Hon’ble Minister of (S&T and ES) and Vice President, CSIR had launched ‘CSIR Integrated Skill Initiative’ on September 23, 2016 across various CSIR labs. CSIR with its 8000 highly talented S&T personnel with excellent interdisciplinary expertise, state-of-the-art facilities, workshops and pan India presence shall be in a unique position to make its humble contribution towards Government initiatives in Skill India. The successful pilot implementation has enabled CSIR to implement the program in projectized mode.

## **III. Objective:**

The aim of the project is to equip young minds with the necessary technological skills through exposure to research laboratories at national facilities that will address the critical need for the technical skill gap created by the enormous usage of advanced technology. The purpose of CSIR Integrated skill initiative is to encapsulate all CSIR skill/training programme under one umbrella which will cater to diverse cross section of people at various levels beginning with school dropouts to Farmers to ITI diploma holders to graduates. The main objectives of this initiative are:

- To integrate laboratory’s existing and new skill/training program under CSIR Integrated Skill Initiative’
- To create a certified talent pool;

- To utilize CSIR Knowledgebase and infrastructure for contributing national skill mission;
- To implement special up-skilling/training programs for societal benefits;
- To implement identified skill/training programmes of national skill mission;
- To align identified CSIR skill/training programmes with National Skill Qualification Framework;
- To focus on global market dynamics and prepare to meet the changing S&T requirements through novel skill/training initiatives; and
- To promote entrepreneurship/technopreneurship in CSIR through skilling, Trainee of Trainers and Incubation facilities

#### **IV. Project submission**

CSIR Integrated Skill Initiative would be centrally operated by CSIR headquarters. CSIR labs would be submitting the project proposals under the CSIR Integrated Skill Initiative with the due approval of Director. The proposals submitted would be considered for funding by committee (to be constituted by CSIR headquarters). The recommendations of the committee would be approved by the competent authority.

#### **V. Monitoring of the project.**

The project will be monitored by the following committees:

The program will have a two tier monitoring mechanism. First tier of monitoring will be by the laboratory team responsible for implementation of individual programs. The first level monitoring will be on individual training/ skilling courses executed by the laboratory. The monitoring will be carried out on the entire skilling cycle starting from preparation of Skill/training calendar, publicity, leaflets preparation, course curricula development, alignment of the course with national skill mission, MSDE/NSDC/ NSDA programmes implementation, liaison with various stakeholders, sufficient number of candidates, faculty involved, industry feedback, International outreach programmes planned, placement strategy, certification process, feedback mechanism, regularity of the course running, , etc.

At the Second level review, CSIR HQ will holistically review laboratory performance like Number of skill/training programs conducted & course curricula prepared, alignment of the course with national skill mission, candidates trained, connect with National Skill Mission, no. of people placed in industry/ Entrepreneurship created, State Govt./Pvt. Industry connect, including sector wise implementation of all its programmes.

In addition, the programmes implemented under CSIR Integrated Skill Initiative will also be reported/reviewed by the laboratory's Research Councils/ Director for effective implementation and societal benefits. It is requested that DGTC/CSIR Hqrs to be updated regularly on progress and skill/training programmes implemented by the laboratory so that it can be used for appraising CSIR skill activities at highest levels.

## **VI. Major deliverables (outputs and outcomes) of the project**

### **Deliverables:**

- Impart skill/training to nearly 35,000 candidates (2 years);
- 30 up-skilling/training programs for societal benefits;
- Implementing MSDE/ NSDC skill/training programmes;
- Align more than 20 CSIR skill/training programmes with National Skill Qualification Framework.

### **Outputs and Outcomes**

- Promote entrepreneurship by skilling;
- Skilled manpower to industry in high-end/ niche domains
- Industry oriented skilling/ training programmes;
- Implement up-skilling/training programs for societal benefits;
- Skill/ Training certificate that gives a national recognition to the trainees;
- PMKVY centres in select CSIR laboratories;
- CSIR brand image in International skill competitions;
- Entrepreneurs who take up CSIR technologies will be trained

## **VII. “CSIR Integrated Skill Initiative”: Possible Actions Points**

- The CSIR Integrated skill initiatives will cater to diverse cross section of people at various levels beginning with school dropouts to Farmers to ITI diploma holders to graduates to post graduates etc.
- Preparation of Skill/Training calendar (year wise) under CSIR Integrated Skill Initiative and promote in Laboratories website.
- Preparation of course curricula, leaflets, etc. for each CSIR Integrated Skill Initiative programmes.
- Review of CSIR skill/ training programmes in possible inclusion in National Qualification Register (NQR) of National Skill Development Agency (NSDA).
- Explore possibilities of partnership in running Sector Skill Council's Qualification Packs (QPs) courses at CSIR labs.
- Possible role as a major skill center (such as Pradhan Mantri Kaushal Kendra, PMKVY, etc.) in specific laboratory areas of interest;
- Explore laboratory role such as Course Developer/Training Partner/ Assessor/Training of Trainers/ etc with National Skill Development Corporation.
- Establish linkages between CSIR R&D activities with Entrepreneurship through skill/training;
- Explore International opportunities under this initiative.
- Participate in National/International skill competitions.
- CSIR laboratories will partner with relevant ministries/institutions/state govt./ Pvt. Industries/MSME/MSDE/other agencies, etc. having common objectives to impart skill/ training;
- Skilled/training programmes are also linked to possible employment generation including small scale technopreneurship.
- Greater emphasis has to be put on becoming a part of Sector Skill Council (SSC) (Annexure 1) for conducting the training/assessing the trainees in multifarious disciplines on PAN-India basis.

### CSIR Laboratories and Sectoral Skill Council: Tentative Mapping Exercise

S.NO.	SECTOR	CSIR LABORATORY
1	Aerospace & Aviation	CSIR-NAL, Bengaluru CSIR-CSIO, Chandigarh
2	Agriculture	CSIR-NIO, Goa CSIR-NBRI, Lucknow CSIR-CIMAP, Lucknow CSIR-IHBT, Palampur CSIR-IIIM, Jammu CSIR-CSMCRI, Bhavnagar CSIR-AMPRI, Bhopal CSIR-CSIO, Chandigarh
3	Apparel, Made-Ups & Home Furnishing	CSIR-CSIO, Chandigarh CSIR-NEIST, Jhorhat CSIR-AMPRI, Bhopal
4	Automotive	CSIR-CSIO, Chandigarh CSIO-CMERI, Durgapur CSIR-CRRI, New Delhi CSIR-NML, Jamshedpur CSIR-IMMT, Bhubaneswar CSIR-CSIO, Chandigarh CSIR-CECRI, Karaikudi
5	Beauty & Wellness	NIL
6	Banking, Financial Services and Insurance	Nil
7	Capital Goods	CSIR-CSIO, Chandigarh CSIR-CMERI, Durgapur CSIR-NML, Jamshedpur CSIR-NEIST, Jhorhat CSIR-AMPRI, Bhopal CSIR-CFTRI, Mysore CSIR-CECRI, Karaikudi
8	Construction	CSIR-CBRI, Roorkee CSIR-CRRI, New Delhi CSIR-AMPRI, Bhopal CSIR-SERC, Chennai CSIR-CECRI, Karaikudi CSIR-CSIO, Chandigarh
9	Domestic Worker	NIL
10	Electronics & Hardware	CSIR-CSIO, Chandigarh CSIR-CEERI, Pillani CSIR-CMERI, Durgapur CSIR-NPL, New Delhi
11	Food Processing	CSIR-CFTRI, Mysore CSIR-IITR, Lucknow CSIR-IMECH, Chandigarh CSIR-CMERI, Durgapur
12	Furniture & Fittings	CSIR-NEIST, Jhorhat CSIR-CBRI, Roorkee CSIR-AMPRI, Bhopal
13	Gems & Jewellery	CSIR-IMMT, Bhubaneswar CSIR-CGCRI, Kolkata CSIR-CECRI, Karaikudi
14	Green Jobs	CSIR-NEERI, Nagpur CSIR-NPL, New Delhi CSIR-CMERI, Durgapur CSIR-CSMCRI, Bhavnagar
15	Handicrafts & Carpets	CSIR-NEIST, Jhorhat

		CSIR-CECRI, Karaikudi CSIR-CGCRI, Kolkata CSIR-AMPRI, Bhopal CSIR-CSIO, Chandigarh
16	Healthcare	CSIR-IIIM, Jammu CSIR-CDRI, Lucknow CSIR-CCMB, Hyderabad CSIR-IICB, Kolkata CSIR-IICT, Hyderabad CSIR-IMTECH, Chandigarh CSIR-CSIO, Chandigarh
17	Infrastructure Equipment	CSIR-CMERI, Durgapur CSIR-SERC, Chennai CSIR-CRRI, New Delhi CSIR-CBRI, Roorkee CSIR-CSIO, Chandigarh
18	Instrumentation, Automation, Surveillance and Communication	CSIR-CSIO, Chandigarh CSIR-NPL, New Delhi CSIR-CBRI, Roorkee CSIR-CMERI, Durgapur CSIR-CEERI, Pillai CSIR-CCMB, Hyderabad
19	Iron & Steel	CSIR-NML, Jamshedpur CSIR-IMMT, Bhubaneshwar CSIR-CSIO, Chandigarh
20	IT-ITES	CSIR-4PI, Bengaluru CSIR-NISCAIR, New Delhi
21	Leather	CSIR-CLRI, Chennai CSIR-NEIST, Jhorhat
22	Life Sciences	CSIR-IITR, Lucknow CSIR-IGIB, New Delhi CSIR-IICT, Hyderabad CSIR-IICB, Kolkata CSIR-CDRI, Lucknow CSIR-IMTECH, Chandigarh CSIR-IIIM, Jammu CSIR-NEIST, Jhorhat CSIR-NIIST, Thiruvananthapuram CSIR-NCL, Pune CSIR-CCMB, Hyderabad CSIR-CSIO, Chandigarh
23	Logistics	NIL
24	Management and Entrepreneurship & Professional	CSIR-CLRI, Chennai CSIR-Head Quarters
25	Media & Entertainment	CSIR-NISCAIR, New Delhi
26	Mining	CSIR-CIMFR, Dhanbad CSIR-IMMT, Bhubaneshwar CSIR-NML, Jamshedpur
27	Paints and Coatings	CSIR-CECRI, Karaikudi CSIR-IICT, Hyderabad CSIR-NCL, Pune
28	Plumbing	CSIR-NGRI, Hyderabad CSIR-SERC, Chennai CSIR-NEERI, Nagpur
29	Power	CSIR-CIMFR, Dhanbad CSIR-CECRI, Karaikudi CSIR-CSIO, Chandigarh

30	Retail	NIL
31	Rubber	CSIR-CLRI, Chennai CSIR-NEIST, Jorhat CSIR-CSIO, Chandigarh
32	Security	NIL
33	Sports	NIL
34	Strategic Manufacturing	CSIR-NAL, Bengaluru CSIR-CGCRI, Kolkata
35	Telecom	CSIR-CSIO, Chandigarh CSIR-CEERI, Pillani
36	Textile & Handlooms	CSIR-NEIST, Jorhat
37	Tourism & Hospitality	NIL
38	People with Disability*	CSIR-CSIO, Chandigarh
	CHEMICALS AND PETROCHEMICALS	CSIR-CECRI, Karaikudi CSIR-IIP, Dehradun CSIR-NCL, Pune CSIR-IICT, Hyderabad CSIR-CSMCRI, Bhavnagar