CSR LEAFLET: CSIR-CSIO

Corporate Social Responsibility in India

CSIR - Central Scientific Instruments Organisation

scaling new heights in instrumentation...

CSIR-CSIO

CSIR-Central Scientific Instruments Organisation
Sector 30C, Chandigarh-160030 (India)
CSR in India has traditionally been seen as a philanthropic activity. And in keeping with the Indian tradition, it was an activity that was performed but not deliberated. As a result, there is limited documentation on specific activities related to this concept. However, what was clearly evident that much of this had a national character encapsulated within it, whether it was endowing institutions to actively participating in India’s freedom movement, and embedded in the idea of trusteeship.

The Companies Act, 2013 has introduced the idea of CSR to the forefront and through its disclose-or-explain mandate, is promoting greater transparency and disclosure. Schedule VII of the Act, which lists out the CSR activities, suggests communities to be the focal point.

(https://www.pwc.in/assets/pdfs/publications/2013/handbook-on-corporate-social-responsibility-in-india.pdf)

Ministry of Corporate Affairs, Government of India has appended the following clause in Schedule VII of Companies Act 2013 vide Notification No. GSR776E dated 11/10/2019 as below:

“(ix) Contribution to incubators funded by Central Government or State Government or any agency or Public Sector Undertaking of Central Government or State Government, and contributions to public funded Universities, Indian Institute of Technology (IITs), National Laboratories and Autonomous Bodies (established under the auspices of Indian Council of Agricultural Research (ICAR), Indian Council of Medical Research (ICMR), Council of Scientific and Industrial Research (CSIR), Department of Atomic Energy (DAE), Defence Research and Development Organisation (DRDO), Department of Science and Technology (DST), Ministry of Electronics and Information Technology) engaged in conducting research in science, technology, engineering and medicine aimed at promoting Sustainable Development Goals (SDGs)”

Accordingly, the funding for research to National Laboratories is also under the ambit of CSR expenditure henceforth. We invite the participation of industry in our research endeavors.
The Council of Scientific & Industrial Research (CSIR), known for its cutting edge R&D knowledgebase in diverse S&T areas, is a contemporary R&D organization. Having a pan-India presence, CSIR has a dynamic network of 38 national laboratories, 39 outreach centres, 3 Innovation Complexes and 5 units. CSIR’s R&D expertise and experience is embodied in about 4600 active scientists supported by about 8000 scientific and technical personnel.

CSIR covers a wide spectrum of science and technology – from radio and space physics, oceanography, geophysics, chemicals, drugs, genomics, biotechnology and nanotechnology to mining, aeronautics, instrumentation, environmental engineering and information technology. It provides significant technological intervention in many areas with regard to societal efforts which include environment, health, drinking water, food, housing, energy, farm and non-farm sectors. Further, CSIR’s role in S&T human resource development is noteworthy.

Pioneer of India’s intellectual property movement, CSIR today is strengthening its patent portfolio to carve out global niches for the country in select technology domains. CSIR is granted 90% of US patents granted to any Indian publicly funded R&D organization. CSIR has operationalized desired mechanisms to boost entrepreneurship, which could lead to enhanced creation and commercialization of radical and disruptive innovations, underpinning the development of new economic sectors.

CSIR’s mission is “to build a new CSIR for a new India” and CSIR’s vision is to “Pursue science which strives for global impact, the technology that enables innovation-driven industry and nurtures trans-disciplinary leadership thereby catalyzing inclusive economic development for the people of India”. CSIR is ranked at 84th among 4851 institutions worldwide and is the only Indian organization among the top 100 global institutions, according to the Scimago Institutions Ranking World Report 2014. CSIR holds the 17th rank in Asia and leads the country at the first position.
Central Scientific Instruments Organisation (CSIO), a constituent unit of Council of Scientific & Industrial Research (CSIR), is a premier national laboratory dedicated to research, design and development of scientific and industrial instruments. It is a multi-disciplinary and multi-dimensional apex industrial research & development organisation in the country to stimulate growth of Instrument Industry in India covering wide range and applications. CSIO is a multi-disciplinary organization having well equipped laboratories manned by highly qualified and well trained staff with infrastructural facilities in the areas of Agrionics; Medical Instrumentation and Prosthetic Devices; Optics and Cockpit based Instrumentation; Fiber/Laser Optics based Sensors & Instrumentation; Analytical Instrumentation; Advanced Materials based Transducers etc. Large number of instruments ranging from simple to highly sophisticated ones, have been designed and developed by the Institute and their know-how have been passed on to the industry for commercial exploitation. Having contributed substantially towards the growth of the scientific instruments industry in the country, CSIO enjoys high degree of credibility among the users of the instruments as well as the instrument industry.

**MISSION**

- To carry out research in niche areas of measurement sciences and innovative instrumentation technology for strategic and societal applications
- To provide quality services and human resource development in advanced instrumentation
- To emerge as a global player in the field of instrumentation sciences

**MANDATE**

- Research, design & development of scientific & industrial instruments, components and systems
- Service, maintenance, testing & calibration of instruments/components
- HRD in the area of instrumentation
- Technical assistance to industry
## Technologies for deployment under areas for utilization of CSR Funds by Indian Industries

<table>
<thead>
<tr>
<th>S.N.</th>
<th>Areas in which CSR funds are utilized by Indian industries</th>
<th>Titles of the deployable Technologies / Programmes of CSIR in the area, (if any)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Rural Development</td>
<td>▪ Digital Grain Moisture Analyser (DGMA)&lt;br&gt;▪ In-Field Soil pH Sensor&lt;br&gt;▪ Iodine Value Meter&lt;br&gt;▪ Automatic Rice Classification System&lt;br&gt;▪ Air-Assisted Electrostatic Sprayer (AAESS)</td>
</tr>
<tr>
<td>2.</td>
<td>Environmental Sustainability</td>
<td>▪ Recycling Of Waste CFLs And Tube lights&lt;br&gt;▪ Recycling of Waste Zinc And Lithium Batteries To Recover Useful Products&lt;br&gt;▪ Induction Motor Efficiency Monitoring System&lt;br&gt;▪ Portable Energy Audit Tool (PEAT)&lt;br&gt;▪ Energy Management System&lt;br&gt;▪ Lonworks Based Industrial Energy Management System&lt;br&gt;▪ Power Quality Analyser (PQA)&lt;br&gt;▪ Pump Efficiency Monitoring System (PEMS)</td>
</tr>
<tr>
<td>3.</td>
<td>Health Care</td>
<td>▪ Cephalometric Analyser&lt;br&gt;▪ Finger Gesture Controlled Intelligent Patient Vehicle&lt;br&gt;▪ Exoskeleton Device&lt;br&gt;▪ Electronic Knee&lt;br&gt;▪ Myo-Electric Arm</td>
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<td>4.</td>
<td>Education</td>
<td>- Postural Stability Assessment System</td>
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<td></td>
<td></td>
<td>- ISTC Programmes on Die &amp;Mould Making, Mechatronics &amp; Industrial Automation, Electronics, Mechanical Engg (Tool &amp; Die)</td>
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<tr>
<td>5.</td>
<td>Vocational Skills</td>
<td>- ISTC Programmes on Die &amp;Mould Making, Mechatronics &amp; Industrial Automation, Electronics, Mechanical Engg (Tool &amp; Die)</td>
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<td>6.</td>
<td>Sanitation</td>
<td>- Foot Controlled Water Tap</td>
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<td>7.</td>
<td>Socio-economic inequalities</td>
<td>- DivyaNayan – A Personal Reading Machine For Visually Impaired</td>
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<td></td>
<td></td>
<td>- Virtual Intelligent Techniques For Rehabilitation Of Persons With Motor Disability (VIBHRA)</td>
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<tr>
<td>8.</td>
<td>Safe drinking water</td>
<td>- Integrated System For Fluoride, Nitrate And Arsenic Sensing In Potable Water</td>
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</tbody>
</table>
# Technologies for deployment under Corporate Social Responsibility (CSR) Funds available with Indian industries to achieve Sustainable Development Goals (SDGs)

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Sustainable Development Goals</th>
<th>Technology Type/ (Key Word)</th>
<th>Title of the technology</th>
</tr>
</thead>
</table>
| 1.    | Zero Hunger                    | Rural development/Agriculture | - Digital Grain Moisture Analyser (DGMA)  
- In-Field Soil pH Sensor  
- Iodine Value Meter  
- Automatic Rice Classification System  
- Air-Assisted Electrostatic Sprayer (AAESS) |
| 2.    | Good Health and Well-being     | Prosthetics/Patient Mobility/Cephalometry | - Cephalometric Analyser  
- Finger Gesture Controlled Intelligent Patient Vehicle  
- Exoskeleton Device  
- Electronic Knee  
- Myo-Electric Arm  
- Postural Stability Assessment System |
<table>
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<th></th>
<th><strong>Quality Education</strong></th>
<th>ISTC Programmes</th>
<th>ISTC Programmes on Die &amp; Mould Making, Mechatronics &amp; Industrial Automation, Electronics, Mechanical Engg (Tool &amp; Die)</th>
</tr>
</thead>
</table>
| 4. | **Clean Water and Sanitation** | Water/ (Water Purification/ potable water/ harvesting) | Foot Controlled Water Tap  
Integrated System For Fluoride, Nitrate And Arsenic Sensing In Potable Water |
| 5. | **Decent Work and Economic Growth** | ISTC Programmes | ISTC Programmes on Die & Mould Making, Mechatronics & Industrial Automation, Electronics, Mechanical Engg (Tool & Die) |
| 6. | **Industry, Innovation, and Infrastructure** | | Skill development and training programmes of ISTC, Delhi Centre & Chennai Centre |
| 7. | **Reducing Inequality** | Vision impairment/ Rehabilitation | DivyaNayan – A Personal Reading Machine For Visually Impaired  
Virtual Intelligent Techniques For Rehabilitation Of Persons With Motor Disability (VIBHRA) |
| 8. | **Sustainable Cities and Communities** | **Sustainable Buildings/ (Efficient Energy Management/ Waste management/ Water management)** | - Induction Motor Efficiency Monitoring System  
- Portable Energy Audit Tool (PEAT)  
- Energy Management System  
- Lonworks Based Industrial Energy Management System  
- Power Quality Analyser (PQA)  
- Pump Efficiency Monitoring System (PEMS) |
|---|---|---|---|
| 9. | **Responsible Consumption and Production** | Recycle/ Reuse/ Efficient use | - Recycling Of Waste CFLs And Tube lights  
- Recycling of Waste Zinc And Lithium Batteries To Recover Useful Products |
| 10. | **Partnerships for the Goals** | Cephalometry / Rehabilitation | - AIIMS, New Delhi  
- NIC, New Delhi  
- ISIC, New Delhi |

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