



# CSIR@85: Select 85 Technologies

## Commercialized in the Last 5 Years (2021–2026)




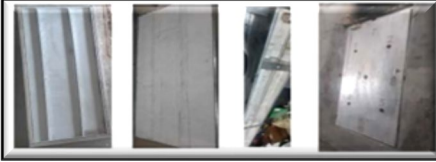


# CSIR Impactful Technologies (Commercialized 2021-2026)



CSIR Lab	Technologies	Reference Image	Commercial Value
CSIR-AMPRI, Bhopal	IndiRam (Make in India Raman Spectrometer) <b>Client:</b> M/s TechnoS Instruments		<ul style="list-style-type: none"> <li>• Est. IM: 20-30 crore</li> <li>• Est: FM: Rs. 4500 Cr</li> <li>• MPP: 25-30%</li> <li>• CAGR: 13%</li> </ul>
CSIR-AMPRI, Bhopal	Indigenous SODAR (Sound Detection And Ranging) System <b>Client:</b> M/s Meteoxperts Solutions Pvt. Ltd		<ul style="list-style-type: none"> <li>• Est. IM: ₹50 Crore</li> <li>• Est. FM: ₹25–50 Cr/year</li> <li>• MPP: More than 50 %</li> <li>• CAGR : 12 %</li> </ul>
CSIR-AMPRI, Bhopal	Red Mud Based X-ray Shielding Tiles <b>Client:</b> M/s Prism Johnson Ltd		<ul style="list-style-type: none"> <li>• Est. IM: USD 82.31 M</li> <li>• Est. FM: USD 1.9 B</li> <li>• MPP: N/A</li> <li>• CAGR 7.4%</li> </ul>
CSIR-AMPRI, Bhopal	Evergreen Hybrid Composites of Parali <b>Client:</b> M/s Permal Wallace Pvt. Ltd., Bhopal and many others		<ul style="list-style-type: none"> <li>• Est. IM: USD 803.2 M</li> <li>• Est. FM: USD 24.6 B</li> <li>• MPP: ₹ 7000 Crore</li> <li>• CAGR: 8.5%</li> </ul>


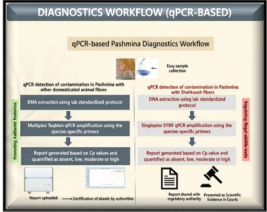


# CSIR Impactful Technologies (Commercialized 2021-2026)



CSIR Lab	Technologies	Reference Image	Commercial Value
CSIR-AMPRI, Bhopal	<p>Fly Ash Based Advanced (Cement Free ) Geopolymer Concrete for Road Applications</p> <p><b>Client:</b> M/s Prism Johnson Ltd</p>		<ul style="list-style-type: none"> <li>• Est. IM: USD 215–580 B</li> <li>• Est. FM: \$11.41 B</li> <li>• MPP: N/A</li> <li>• CAGR – 17%</li> </ul>
CSIR-CBRI, Roorkee	<p>Partially Insulated Single Leaf Single Swing Metal Composite Fire Door for 120 Minutes</p> <p><b>Client:</b> M/s S. K. Engineers India Pvt. Ltd.</p>		<ul style="list-style-type: none"> <li>• Est. IM - Rs 110 Cr (India)</li> <li>• Est. FM – USD 50–66 B</li> <li>• MPP: N/A</li> <li>• CAGR – 5.6%</li> </ul>
CSIR-CBRI, Roorkee	<p>Hybrid Solar-Assisted Heat Pump System: Solution for Room Space Conditioning</p> <p><b>Client:</b> M/s Akshaypatra Structural Solutions Pvt. Ltd</p>		<ul style="list-style-type: none"> <li>• Est. IM - Rs 150 Cr</li> <li>• Est. FM – Rs 250 cr</li> <li>• MPP: N/A</li> <li>• CAGR – \$ 5.6</li> </ul>
CSIR-CBRI, Roorkee	<p>3D Concrete Printed Buildings</p> <p><b>Client:</b> Government of Andhra Pradesh</p>		<ul style="list-style-type: none"> <li>• Est. IM – Rs 15000 to 20000 cr</li> <li>• Est. FM – USD10 B</li> <li>• MPP: N/A</li> <li>• CAGR – \$ 5.6</li> </ul>





# CSIR Impactful Technologies (Commercialized 2021-2026)



CSIR Lab	Technologies	Reference Image	Commercial Value
CSIR-CCMB, Hyderabad	Molecular Detection of Genetic Disorders Using Dried Blood Spot <b>Client: Vanguard Diagnostics Pvt. Ltd.</b>		<ul style="list-style-type: none"> <li>Est. IM: USD 16.3 M</li> <li>Est. FM: USD 522.8 M</li> <li>MPP: N/A</li> <li>CAGR- 12%</li> </ul>
CSIR-CCMB, Hyderabad	DNA-based Method to Differentiate Between Pashmina and other Animal Fibres <b>Client: Endemik Solutions Pvt Ltd</b>		<ul style="list-style-type: none"> <li>Est. IM: USD 300–540 M</li> <li>Est. FM: USD 145–415 M</li> <li>MPP: N/A</li> <li>CAGR- 7-9 %</li> </ul>
CSIR-CCMB, Hyderabad	Improved Samba Mahsuri Rice Variety <b>Client: Maqstik Pvt. Limited, New Delhi</b>		<ul style="list-style-type: none"> <li>Est. IM: USD 470.5 M</li> <li>Est. FM: USD 4.4–10.1 B</li> <li>MPP: N/A</li> <li>CAGR 7-10%</li> </ul>
CSIR-CDRI, Lucknow	A Standardized Fraction of <i>Picrorhiza kurroa</i> for the Treatment of Non Alcoholic Fatty Liver Disease (NAFLD) <b>Client: Themis Medicare Limited</b>		<ul style="list-style-type: none"> <li>Est. IM: N/A</li> <li>Est. FM: USD 20–25 B</li> <li>MPP: N/A</li> <li>CAGR: 5%</li> </ul>



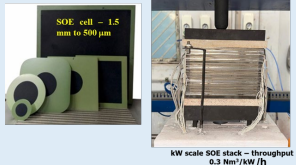

# CSIR Impactful Technologies (Commercialized 2021-2026)



CSIR Lab	Technologies	Reference Image	Commercial Value
CSIR-CDRI, Lucknow	Standardized Fraction Enriched with Chebulinic acid for the Management of Benign Prostatic Hyperplasia <b>Client:</b> Himalaya Wellness Company		<ul style="list-style-type: none"> <li>• Est. IM: USD 497.96 USD M</li> <li>• Est. FM: USD 8.26 B</li> <li>• MPP: N/A</li> <li>• CAGR- 8%</li> </ul>
CSIR-CECRI, Karaikudi	Fabrication of 18650-type Li-ion Batteries with Li-NMC (532) Cathode Material <b>Clients:</b> TATA Chemicals Ltd., GODI India Pvt. Ltd.		<ul style="list-style-type: none"> <li>• Est. IM: USD 68.0 -137 B</li> <li>• Est. FM: USD 3.6 -6.7 B</li> <li>• MPP: N/A</li> <li>• CAGR - 11.8 – 17.6 %</li> </ul>
CSIR-CEERI, Pilani	3.0 MW S-Band Pulsed Tunable Magnetron for Strategic Application		<ul style="list-style-type: none"> <li>• Est. IM: ₹200–400 crore</li> <li>• Est. FM: USD 400–600 M</li> <li>• MPP: N/A</li> <li>• CAGR: 5%</li> </ul>
CSIR-CFTRI, Mysuru	Multi-Millet Bun & Protein Plus Slice <b>Client:</b> McDonald's		<ul style="list-style-type: none"> <li>• Est. IM: Rs. 40 crores</li> <li>• Est. IM: Rs. 200 crores</li> <li>• MPP: 35%</li> <li>• CAGR- 10-12%</li> </ul>





# CSIR Impactful Technologies (Commercialized 2021-2026)



CSIR Lab	Technologies	Reference Image	Commercial Value
CSIR-CFTRI, Mysuru	Sugar Release Control Wheat Atta <b>Client: BigBasket</b>		<ul style="list-style-type: none"> <li>• Est. IM: Rs. 1000 crore</li> <li>• Est. FM: N/A</li> <li>• MPP: 40%</li> <li>• CAGR: 10-15%</li> </ul>
CSIR-CGCRI, Kolkata	Manufacturing ZTA Based Ceramic-on-Ceramic Articulating Components for Total Hip Replacement (THR) <b>Client: G. Surgiwar Ltd.</b>		<ul style="list-style-type: none"> <li>• Est. IM: N/A</li> <li>• Est. FM: N/A</li> <li>• MPP: N/A</li> <li>• CAGR: 8%</li> </ul>
CSIR-CGCRI, Kolkata	Development of Solid Oxide Electrolyser Cell Technology <b>Client: Carborundum Universal</b>		<ul style="list-style-type: none"> <li>• Est. IM: \$93.8M</li> <li>• Est. FM: \$671.03M</li> <li>• MPP: N/a]A</li> <li>• CAGR:77.48%</li> </ul>
CSIR-CGCRI, Kolkata	Light weight Glass Foam bricks for insulation and construction application <b>Client: Sunbright Foam Industries, Morbi</b>		<ul style="list-style-type: none"> <li>• Est. IM: N/A</li> <li>• Est. FM: N/A</li> <li>• MPP: N/A</li> <li>• CAGR: N/A</li> </ul>





# CSIR Impactful Technologies (Commercialized 2021-2026)



CSIR Lab	Technologies	Reference Image	Commercial Value
CSIR-CIMAP, Lucknow	NaariPlus+ : Herbal Medicated Biodegradable Sanitary Napkin Tech. <b>Client: M/s Digha Bio-Science Private Limited, and many more</b>		<ul style="list-style-type: none"> <li>• Est. IM: Rs. 3100 Cr.</li> <li>• Est. FM: USD 3.8 Billion</li> <li>• MPP: 2-3 %</li> <li>• CAGR: 14-16%</li> </ul>
CSIR-CIMAP, Lucknow	Psoria-CIM : Non-Steroidal Lavender Oil-Based Herbal Cream for Psoriasis Management <b>Client: M/s Dew Drops Wellness Pvt. Ltd</b>		<ul style="list-style-type: none"> <li>• Est. IM: Rs.6000 Cr.</li> <li>• Est. FM: \$ 29-30 B</li> <li>• MPP: 1-2%</li> <li>• CAGR: 8-9%</li> </ul>
CSIR-CIMFR, Dhanbad	1.5 TPD Pressurized Fluidized Bed Gasification (PFBG) Technology		<ul style="list-style-type: none"> <li>• Est. IM: ₹2.5 to ₹3 lakh cr</li> <li>• Est. FM: \$580.61 B</li> <li>• MPP: NA</li> <li>• CAGR: 4.64%</li> </ul>
CSIR-CIMFR, Dhanbad	Non-Recovery Type Coke Oven, Drag Type Coke Oven with Stamp Charging & Coke Quenching & Improved Soft Coke Making <b>Client: M/s KIOCL</b>		<ul style="list-style-type: none"> <li>• Est. IM: Rs. 75.00 Cr</li> <li>• Est. FM: Rs. 75.00 Cr</li> <li>• MPP: 30%</li> <li>• CAGR: 3.66%</li> </ul>

# CSIR Impactful Technologies (Commercialized 2021-2026)



CSIR Lab	Technologies	Reference Image	Commercial Value
CSIR-CLRI, Chennai	<p>Gloves For Extreme Cold Climate Condition</p> <p><b>Client:</b> Naser Bali Gloves Pvt Ltd</p>		<ul style="list-style-type: none"> <li>• IM: \$60 Mn by 2030</li> <li>• FM: \$1.5 Bn by 2030</li> <li>• MPP: &lt;10%</li> <li>• CAGR: 6-8%</li> </ul>
CSIR-CLRI, Chennai	<p>Process of Making Leather For Musical Instrument</p> <p><b>Client:</b> M/s. Life Wins Leather Work</p>		<ul style="list-style-type: none"> <li>• IM: \$400 Mn by 2031</li> <li>• FM: \$30 Bn by 2031</li> <li>• MPP: &lt;10%</li> <li>• CAGR: 9-11%</li> </ul>
CSIR-CMERI, Durgapur	<p>E-Tractor CSIR-PRIMA ET-11</p> <p><b>Client:</b> M/s K.N. Biosciences (India) Pvt Ltd</p>		<ul style="list-style-type: none"> <li>• Est. IM: \$1.2–2.0 Bn by 2035</li> <li>• Est. FM: \$2–12 Bn by 2035</li> <li>• MPP: 0.001%</li> <li>• CAGR: 28%</li> </ul>
CSIR-CMERI, Durgapur	<p>Electric Tiller</p> <p><b>Client:</b> M/s K.N. Biosciences (India) Pvt Ltd</p>		<ul style="list-style-type: none"> <li>• Est. IM: \$ 250–400 Bn by 2035</li> <li>• Est. FM: \$ 2.5–3.7 Bn by 2035</li> <li>• MPP: &lt; 1%</li> <li>• CAGR: 6-9.5%</li> </ul>

# CSIR Impactful Technologies (Commercialized 2021-2026)



CSIR Lab	Technologies	Reference Image	Commercial Value
CSIR-CMERI, Durgapur	<p>Integrated Solid Waste Mangement Disposal System (Imswds)</p> <p><b>Client:</b> M/s SIYA Instruments</p>		<ul style="list-style-type: none"> <li>• Est. IM: USD 21.9 Bn by 2034</li> <li>• Est. FM: USD 286 Bn by 2033</li> <li>• MPP: &lt;60%</li> <li>• CAGR: 12.5 %</li> </ul>
CSIR-CMERI, Durgapur	<p>Vehicle Mounted Mechanized Drain Cleaning System</p> <p><b>Client:</b> M/s Maniar &amp; Co</p>		<ul style="list-style-type: none"> <li>• Est. IM: USD 49 Mn by 2035</li> <li>• Est. FM: USD 2.7 Bn by 2032</li> <li>• MPP: 10-12%</li> <li>• CAGR: 6.8 %</li> </ul>
CSIR-CMERI, Durgapur	<p>Mob Control Vehicle</p> <p><b>Client:</b> M/s Vijay Fire Vehicles and Pumps Ltd</p>		<ul style="list-style-type: none"> <li>• Est. IM: \$ 380–480 Mn by 2035</li> <li>• Est. FM: \$ 4.5 Bn by 2031</li> <li>• MPP: 20-30%</li> <li>• CAGR: 5-7.1%</li> </ul>
CSIR-CRRI, Delhi	<p>ECOFIX Technology for Instant Pothole Repair</p> <p><b>Client:</b> M/s Ramuka Global Services LLP</p>		<ul style="list-style-type: none"> <li>• Est. IM: ₹1,000–3,000 crore/year</li> <li>• Est. FM: US\$10–11 billion/year</li> <li>• MPP: 10–20%</li> <li>• CAGR: 15-20%</li> </ul>





# CSIR Impactful Technologies (Commercialized 2021-2026)



CSIR Lab	Technologies	Reference Image	Commercial Value
CSIR-CRRI, Delhi	<p>REJUPAVE</p> <p><b>Client:</b> M/s Verma Industries, New Delhi</p>		<ul style="list-style-type: none"> <li>• Est. IM: ₹2000–5000 cr/year</li> <li>• Est. FM: \$ 8–10 billion/year</li> <li>• MPP: 10–20%</li> <li>• CAGR: 10-12 %</li> </ul>
CSIR-CRRI, Delhi	<p>MSS+: Modified Mix Seal Surfacing</p> <p><b>Client:</b> M/s JMVD Industries Private Limited, Uttar Pradesh</p>		<ul style="list-style-type: none"> <li>• Est. IM: ₹1,500–2,000 cr/year</li> <li>• Est. FM: US\$6–8 billion/year</li> <li>• MPP: 10–15%</li> <li>• CAGR: 12-18 %</li> </ul>
CSIR-CRRI, Delhi	<p>Bio binders from Agricultural Waste for Utilization in Bituminous Road Construction</p> <p><b>Client:</b> Catalyst Petrochem LLP</p>		<ul style="list-style-type: none"> <li>• Est. IM: ₹5,000–15,000 crore</li> <li>• Est. FM: US\$10–30 billion</li> <li>• MPP: 10–25%</li> <li>• CAGR: 18-25%</li> </ul>
CSIR-CRRI, Delhi	<p>Steel-Slag Roads</p> <p><b>Clients:</b> ArcelorMittal Nippon Steel India (AMNS), Tata Steel, JSW Steel, Jindal Steel and Power</p>		<ul style="list-style-type: none"> <li>• Est. IM: ₹8000–15000 cr/year</li> <li>• Est. FM: \$15–40 B/year</li> <li>• MPP: 10–20%</li> <li>• CAGR: 15-20%</li> </ul>

# CSIR Impactful Technologies (Commercialized 2021-2026)



CSIR Lab	Technologies	Reference Image	Commercial Value
CSIR-CSIO, Chandigarh	Dialysis Machine for CKD Patients <b>Client:</b> M/s Titan Corporation Private Limited, Tamil Nadu		<ul style="list-style-type: none"> <li>• Est. IM: 1200 Cr/Yr</li> <li>• Est. FM: 1.7 lakh Cr/Yr</li> <li>• MPP: 7% (~ 84 Cr/Yr)</li> <li>• CAGR: 9 %</li> </ul>
CSIR-CSIO, Chandigarh	Head Up Display (HUD) for LCA-Tejas and Hindustan Jet Trainer Aircrafts <b>Client:</b> Bharat Electronics Ltd		<ul style="list-style-type: none"> <li>• Est. IM: 500 Cr/Yr</li> <li>• Est. FM: 5300 Cr/Yr</li> <li>• MPP: 20 %</li> <li>• CAGR: 12-13 %</li> </ul>
CSIR-CSIO, Chandigarh	Aircraft Lights for LCA Mk1, LCA Mk2 and AMCA <b>Client:</b> Bharat Electronics Ltd		<ul style="list-style-type: none"> <li>• Est. IM: 250 Cr/Yr</li> <li>• Est. FM: 5000 Cr/Yr</li> <li>• MPP: 10 %</li> <li>• CAGR: 5-7.1%</li> </ul>
CSIR-CSMCRI, Bhavnagar	Process for preparation of Liquid Seaweed Plant Bio-simulant (LSPB) from <i>Kappaphycus alvarezii</i> & Sargassum <b>Client:</b> Jagrit Chemicals & Fertilizers		<ul style="list-style-type: none"> <li>• Est. IM: \$ 355.53 Mn</li> <li>• Est. FM: \$ 4.54 Bn</li> <li>• MPP: 25-30%</li> <li>• CAGR: 9.64%</li> </ul>



# CSIR Impactful Technologies (Commercialized 2021-2026)



CSIR Lab	Technologies	Reference Image	Commercial Value
CSIR-CSMCRI, Bhavnagar	<p>Recovery of Industrial-Grade Sodium Chloride and Sodium Sulphate from Waste Effluent of Tannery and Textile Dyeing Industries</p> <p><b>Client:</b> M/s. RANITEC</p>	 <p>MoU between AISHYMA, CSIR-CLRI &amp; CSIR-CSMCRI collaborating for finding an economically viable solution for disposal of tons of accumulated recovered salt.</p> <p>Indian patent No. 232395</p>	<ul style="list-style-type: none"> <li>• Est. IM: \$152.40 Bn</li> <li>• Est. FM: \$1.6 Trn</li> <li>• MPP: 30-40%</li> <li>• CAGR: 7 %</li> </ul>
CSIR-CSMCRI, Bhavnagar	<p>Process Know-how for End-of-life Reverse Osmosis Membrane Rejuvenation</p> <p><b>Client:</b> Membrane Engg. Pvt Ltd.</p>		<ul style="list-style-type: none"> <li>• Est. IM: \$263.4 Mn</li> <li>• Est. FM: \$8.91 Bn</li> <li>• MPP: 20-25%</li> <li>• CAGR: 12-13 %</li> </ul>
CSIR-CSMCRI, Bhavnagar	<p>100% Water Soluble Sulphate of Potash (WS SOP) from K-rich Distillery Incinerator Ash</p> <p><b>Client:</b> DCM Shriram Bio Enchem Ltd</p>		<ul style="list-style-type: none"> <li>• Est. IM: \$2.67 Bn</li> <li>• Est. FM: \$65.56 Bn</li> <li>• MPP: 15-20%</li> <li>• CAGR: 5%</li> </ul>
CSIR-IGIB, New Delhi	<p>CRISPR-Based Gene Therapy for Sickle Cell Disease</p> <p><b>Client:</b> Serum Institute of India Pvt. Ltd.</p>	 <p><b>Industry Partner:</b> Serum Institute of India Pvt. Ltd. (SIPL)</p> <p><b>Licensing:</b> Formal Technology Transfer &amp; Collaboration Agreement (CSIR-IGIB to SIPL)</p> <p><b>Revenue:</b> 5 Cr (expected 80 Cr (milestone based+5% Royalty )</p>	<ul style="list-style-type: none"> <li>• Est. IM: ₹5000 K Cr</li> <li>• Est. FM: ₹30000 K Cr</li> <li>• MPP: 30%</li> <li>• CAGR: 15%</li> </ul>



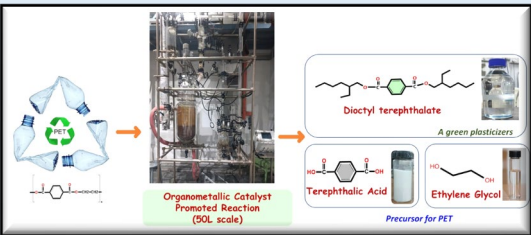

# CSIR Impactful Technologies (Commercialized 2021-2026)



CSIR Lab	Technologies	Reference Image	Commercial Value
CSIR-IHBT, Palampur	Agro- and Processing Technology of Stevia <b>Client:</b> M/s RJ Saints, Una (H.P)		<ul style="list-style-type: none"> <li>• Est. IM: USD 36 million</li> <li>• Est. FM: USD 1.03 billion</li> <li>• MPP: 0.097 %</li> <li>• CAGR: 7 %</li> </ul>
CSIR-IHBT, Palampur	Agrotechnology of Monk Fruit: A New Zero-calorie Natural Sweetener <b>Client:</b> M/s. Rami Hortitech Private Limited. UP		<ul style="list-style-type: none"> <li>• Est. IM: \$ 18-25 million</li> <li>• Est. FM:\$416 -479 million</li> <li>• CAGR: 7.81%</li> </ul>
CSIR-IICT, Hyderabad	Hydrazine Hydrate Production <b>Client:</b> Gujarat Alkalies and Chemicals Limited (GACL)		<ul style="list-style-type: none"> <li>• Est. IM:</li> <li>• Est. FM:</li> <li>• MPP:</li> <li>• CAGR: 4-6.5%</li> </ul>
CSIR-IICT, Hyderabad	Cost-effective and scalable process for the synthesis of TLR 7/8 agonist molecule (IMDG), used as an adjuvant in COVAXIN® (COVID-19 vaccine) <b>Client:</b> Bharat Biotech International Ltd		<ul style="list-style-type: none"> <li>• Est. IM:</li> <li>• Est. FM:</li> <li>• MPP:</li> <li>• CAGR: 9.6%</li> </ul>

# CSIR Impactful Technologies (Commercialized 2021-2026)



CSIR Lab	Technologies	Reference Image	Commercial Value
CSIR-IICT, Hyderabad	Process for ortho-chloro Benzonitrile <b>Client:</b> Shiva Pharmachem Ltd		<ul style="list-style-type: none"> <li>Est. IM: NA</li> <li>Est. FM: \$ 312.4 M(2025)</li> <li>MPP: NA</li> <li>CAGR: 5.9%</li> </ul>
CSIR-IICT, Hyderabad	Anaerobic Gas Lift Reactor(AGR) Technology <b>Client:</b> Ahuja Engineering Services Pvt. Ltd		<ul style="list-style-type: none"> <li>Est. IM: \$ 1.8 B (2025)</li> <li>Est. FM: \$ 19 B (2025)</li> <li>MPP: Current – 2 %</li> <li>CAGR: 10.2%</li> </ul>
CSIR-IICT, Hyderabad	Terephthalate Esters from PET Waste <b>Client:</b> CDG Petchem Limited		<ul style="list-style-type: none"> <li>Est. IM: \$ 1.6 B (2025)</li> <li>Est. FM: \$ 3.5 B (2025)</li> <li>MPP: 2025 – 3.4%</li> <li>CAGR: 8-16%</li> </ul>
CSIR-IICT, Hyderabad	Nanofibre Membranes That Remove 99% Toxic Dye Contamination From Textile Waste <b>Client:</b> No client yet		<ul style="list-style-type: none"> <li>IM: ₹10000-20000 Crore</li> <li>FM: USD 30 Billion</li> <li>MPP: 3%</li> <li>CAGR: 10%</li> </ul>




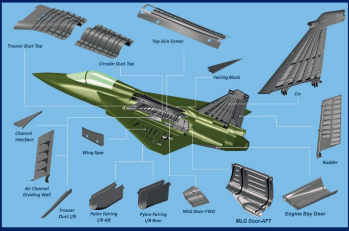
# CSIR Impactful Technologies (Commercialized 2021-2026)



CSIR Lab	Technologies	Reference Image	Commercial Value
CSIR-IIP, Dehradun	Sweetening Catalyst for LPG: Thoxcat ES <b>Clients:</b> BPCL, IOCL, HPCL, MRPL, Aramco		<ul style="list-style-type: none"> <li>• Est. IM: Rs 5 Cr</li> <li>• Est. FM: Rs 250 Cr</li> <li>• MPP: 100% of IM</li> <li>• CAGR: ~6%</li> </ul>
CSIR-IIP, Dehradun	Energy Efficient Domestic Burner for Piped Natural Gas (PNG) and it's Implementation for Clean Cooking Transition <b>Client:</b> Real-flame Pearl Print Pack Pvt. Ltd		<ul style="list-style-type: none"> <li>• Est. IM: ~Rs 125 Cr/Yr</li> <li>• Est. FM: ~Rs 17000 Cr/Yr</li> <li>• MPP: ~20% of IM</li> <li>• CAGR: ~8%</li> </ul>
CSIR-IIP, Dehradun	AVSAR: Advanced Vacuum Swing Adsorption Technology for Bio-gas Upgradation to Pipeline Quality Bio-Methane <b>Client:</b> Mailhem Environment Pvt. Ltd., Pune		<ul style="list-style-type: none"> <li>• Est. IM: ~Rs 3500 Cr/Yr</li> <li>• Est. FM: ~ Rs 1500000 Cr/Yr</li> <li>• MPP:10% of Indian Market</li> <li>• CAGR:~12%</li> </ul>
CSIR-IMMT, Bhubaneswar	Potash-Enriched Biochar From Selected Waste Biomass <b>Client:</b> M/S Indian Plants Feeds, Cuttack and others		<ul style="list-style-type: none"> <li>• Est. IM: ₹ 1550-1600 Cr</li> <li>• Est. FM: ₹ 5100 -5300 Cr</li> <li>• MPP: 5-6%</li> <li>• CAGR: 16.8% to 19.5%</li> </ul>





# CSIR Impactful Technologies (Commercialized 2021-2026)



CSIR Lab	Technologies	Reference Image	Commercial Value
CSIR-NAL, Bengaluru	Jaldost-MkII Airboat <b>Client: NA</b>		<ul style="list-style-type: none"> <li>• Est. IM: USD 215 Million</li> <li>• Est. FM: USD 550 Million</li> <li>• MPP: 60%</li> <li>• CAGR: 10.2% - 11.5%</li> </ul>
CSIR-NAL, Bengaluru	HANSA-NG3 <b>Client: Pioneer Clean Amps</b>		<ul style="list-style-type: none"> <li>• Est. IM: USD 16.53 Billion</li> <li>• Est. FM: USD 11.00 Billion</li> <li>• MPP: 55%-63%</li> <li>• CAGR: 11.86%</li> </ul>
CSIR-NAL, Bengaluru	NJ100 Turbo Engine <b>Client: Under discussion</b>		<ul style="list-style-type: none"> <li>• Est. IM: USD 1.5 Billion</li> <li>• Est. FM: USD 11.92 Billion</li> <li>• MPP: 85%</li> <li>• CAGR: 12.5%</li> </ul>
CSIR-NAL, Bengaluru	Fin & Rudder, Engine Bay Door and Composite Parts to LCA Tejas Mk-1A <b>Client: M/s. Hindustan Aeronautics Limited, Bengaluru</b>		<ul style="list-style-type: none"> <li>• Est. IM: USD 780 Million</li> <li>• Est. FM: USD 36.15 Billion</li> <li>• MPP: 95% - 100%</li> <li>• CAGR: 11.4% - 13.1%</li> </ul>




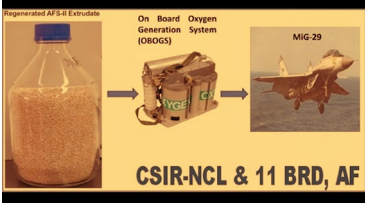
# CSIR Impactful Technologies (Commercialized 2021-2026)



CSIR Lab	Technologies	Reference Image	Commercial Value
CSIR-NAL, Bengaluru	DRISHTI Transmissometer <b>Client:</b> Tata Power Company Limited, Bengaluru		<ul style="list-style-type: none"> <li>• Est. IM: USD 23.8 M</li> <li>• Est. FM: USD 36.15 B</li> <li>• MPP: 85%</li> <li>• CAGR: 12.5% - 13.0%</li> </ul>
CSIR-NBRI, Lucknow	Genetically Modified Cotton Tolerant for Pink Bollworm <b>Client:</b> M/s Ankur Seeds Pvt. Ltd., Nagpur		<ul style="list-style-type: none"> <li>• Est. IM: \$ 850.0 M (2025)</li> <li>• Est. FM: \$ 1.5 B (2025)</li> <li>• MPP: 100%</li> <li>• CAGR: 5% - 6%</li> </ul>
CSIR-NBRI, Lucknow	Agro Technologies for Lotus (Namoh 108) <b>Client:</b> M/s Precision Agritech Pvt. Ltd. and others		<ul style="list-style-type: none"> <li>• Est. IM: \$30.0 M</li> <li>• Est. FM: \$ 90.0 M</li> <li>• MPP: 75% for Namoh</li> <li>• CAGR: 9% - 10%</li> </ul>
CSIR-NCL, Pune	Fuel Cell Catamaran <b>Client:</b> M/s. KPIT Technologies Ltd		<ul style="list-style-type: none"> <li>• Est. IM: Not available</li> <li>• Est. FM: USD 2.1 billion</li> <li>• MPP: 7-8%</li> <li>• CAGR: 11.5% (global)</li> </ul>





# CSIR Impactful Technologies (Commercialized 2021-2026)



CSIR Lab	Technologies	Reference Image	Commercial Value
CSIR-NCL, Pune	Continuous Manufacturing Technology – Paracetamol <b>Client:</b> M/s. Satyadeeptha pharmaceutical Pvt Ltd, Karnataka		<ul style="list-style-type: none"> <li>• Est. IM: INR 1250 Cr</li> <li>• Est. FM: USD 1.5 billion</li> <li>• MPP: 5%</li> <li>• CAGR: 5%</li> </ul>
CSIR-NCL, Pune	Continuous Manufacturing Technology - Azelaic Acid <b>Client:</b> Alivus Life Science Ltd.		<ul style="list-style-type: none"> <li>• Est. IM: INR 375 Cr</li> <li>• Est. FM: USD 250 million</li> <li>• MPP: 10%</li> <li>• CAGR: 7-8%</li> </ul>
CSIR-NCL, Pune	Continuous Flow Reactors – Pinched Tube Reactor <b>Client:</b> Amar Equipments Pvt. Ltd.		<ul style="list-style-type: none"> <li>• Est. IM: USD 220 million</li> <li>• Est. FM: USD 2.0 billion</li> <li>• MPP: 50%</li> <li>• CAGR: 13.6%</li> </ul>
CSIR-NCL, Pune	Zeolite Rejuvenation, On Board Oxygen Generation System <b>Client:</b>		<ul style="list-style-type: none"> <li>• Strategic application</li> </ul>




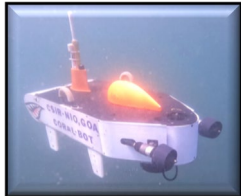
# CSIR Impactful Technologies (Commercialized 2021-2026)



CSIR Lab	Technologies	Reference Image	Commercial Value
CSIR-CRRI	<p>PatchFILL: The Pothole Repair Machine</p> <p><b>Client(s):</b> M/s Petrochem Specialities, Uttar Pradesh</p>		<ul style="list-style-type: none"> <li>• Est. IM: ₹1000–3000 cr</li> <li>• Est. FM: US\$2–5 B</li> <li>• MPP: 10–20%</li> <li>• CAGR: 12-18 %</li> </ul>
CSIR-NEERI, Nagpur	<p>Faecal Sludge Management in Chandarpur Municipality</p> <p><b>Client:</b></p>		<ul style="list-style-type: none"> <li>• Est. IM: 12.00 Crore</li> <li>• Est. FM: USD 6.20 Billion</li> <li>• MPP: 5-8%</li> <li>• CAGR: 8.4% to 9.4%</li> </ul>
CSIR-NEERI, Nagpur	<p>Eco-Rejuvenation Technology (ERT) to transform fly-ash</p> <p><b>Client:</b></p>		<ul style="list-style-type: none"> <li>• Est. IM: 100 to 150 Crore</li> <li>• Est. FM: \$ 15-20 Million</li> <li>• MPP: 20-30%</li> <li>• CAGR: 8-12%</li> </ul>
CSIR-NIIST, Trivandrum	<p>NOWA-NIIST Onsite Wastewater Treatment Technology</p> <p><b>Client:</b> Sathyam Enviro and many others</p>		<ul style="list-style-type: none"> <li>• Est. IM: \$10.4 B</li> <li>• Est. FM: \$372.39 Billion</li> <li>• MPP: Rs. 200 Crores</li> <li>• CAGR: 7.00 %</li> </ul>



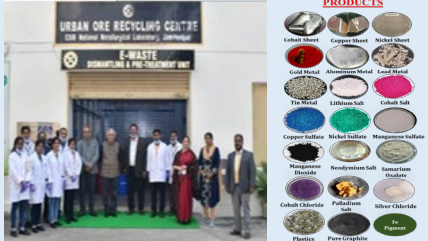

# CSIR Impactful Technologies (Commercialized 2021-2026)



CSIR Lab	Technologies	Reference Image	Commercial Value
CSIR-NIIST, Trivandrum	Plant-Based Leather Alternatives <b>Client:</b> 5F Cactus Energy LLP		<ul style="list-style-type: none"> <li>• Est. IM: NA</li> <li>• Est. FM: NA</li> <li>• MPP: NA</li> <li>• CAGR: 7.4-10.8%</li> </ul>
CSIR-NIIST, Trivandrum	Automated Biomedical Waste Conversion Rig <b>Client:</b> M/s Bio Vastum Solutions Pvt. Ltd.		<ul style="list-style-type: none"> <li>• Est. IM: USD 2.32 B (2024)</li> <li>• Est. FM: USD 39.8 B (2025)</li> <li>• MPP: 30-40%</li> <li>• CAGR: 7-8%</li> </ul>
CSIR-NIIST, Trivandrum	Production of high-protein, low glycaemic index (GI) rice kernels enriched with micronutrients <b>Client:</b> Tata Consumer Products Limited		<ul style="list-style-type: none"> <li>• Est. IM: USD 470 M</li> <li>• Est. FM: USD 5.4 B</li> <li>• MPP: 25-40%</li> <li>• CAGR: 5-6%</li> </ul>
CSIR-NIO, Goa	Coral Reef monitoring Robot (C-Bot) <b>Client:</b> Krishna Defence and Allied Industries Limited (KDAIL), Mumbai		<ul style="list-style-type: none"> <li>• Est. IM: ₹ 50 Crore (₹ 1Cr./unit)</li> <li>• Est. FM: ₹ 300 Crore</li> <li>• MPP: ~10–12%</li> <li>• CAGR: 7-8 %</li> </ul>





# CSIR Impactful Technologies (Commercialized 2021-2026)



CSIR Lab	Technologies	Reference Image	Commercial Value
CSIR-NML, Jamshedpur	Electrolytic Manganese Metal (EMM) Production <b>Client:</b> Sarthi Aerospace & Defense, Haryana		<ul style="list-style-type: none"> <li>• Est. IM: ₹1000 to ₹1500 Cr</li> <li>• Est. FM: \$5.1 - 6.2 Billion</li> <li>• MPP: 10-20%</li> <li>• CAGR: 5-7%</li> </ul>
CSIR-NML, Jamshedpur	Hot Rolled Low Alloy Steel with High Strength, Impact Toughness and Abrasion Resistance <b>Client:</b> Tata Steel Limited		<ul style="list-style-type: none"> <li>• Est. IM: ₹6200 to ₹9100 Cr</li> <li>• Est. FM: \$16 - 22 B</li> <li>• MPP: 10-20%</li> <li>• CAGR: 8-9%</li> </ul>
CSIR-NML, Jamshedpur	Recycling of different PCBs to recover Gold, Copper and Aluminium <b>Client:</b> Renault-Nissan Technology and Business Center India Pvt. Ltd., Tamil Nadu		<ul style="list-style-type: none"> <li>• Est. IM: ₹3,500 - ₹4,600 Cr</li> <li>• Est. FM: \$ 800 - 900 M</li> <li>• MPP: 20-30%</li> <li>• CAGR: 7-9%</li> </ul>
CSIR-SERC, Chennai	Textile Reinforced Concrete <b>Client:</b> L&T Construction, Mumbai		<ul style="list-style-type: none"> <li>• Est. IM: \$0.15 billion</li> <li>• Est. FM: \$1.5 billion</li> <li>• MPP: 50%</li> <li>• CAGR: 8%</li> </ul>

# CSIR Impactful Technologies (Commercialized 2021-2026)



CSIR Lab	Technologies	Reference Image	Commercial Value
CSIR-SERC, Chennai	High velocity multi-hit resistant movable protective booth/shack for security personnel <b>Client: M/s Sehgal Doors</b>		<ul style="list-style-type: none"> <li>• Est. IM: \$15 million</li> <li>• Est. FM: \$2.49 billion</li> <li>• MPP: 50%</li> <li>• CAGR: 10.2 to 10.7%</li> </ul>
CSIR-SERC, Chennai	Emergency Retrieval System for Power Lines (ERS) <b>Client: M/s Advait Infratech Ltd</b>		<ul style="list-style-type: none"> <li>• Est. IM: INR 800 crore</li> <li>• Est. FM: \$300 million</li> <li>• MPP: 75-80%</li> <li>• CAGR: 20%</li> </ul>
CSIR- SERC, Chennai	Laced Steel-Concrete Composite Panels <b>Client: M/s. Modular Prefab Ltd</b>		<ul style="list-style-type: none"> <li>• Est. IM: \$0.48 billion</li> <li>• Est. FM: \$4.2 billion</li> <li>• MPP: 50%</li> <li>• CAGR: 6.9% to 10.7%</li> </ul>
CSIR- NPL, Delhi	BHARATIYA NIRDESHAK DRAVYA <b>Client: Testing labs</b>		<ul style="list-style-type: none"> <li>• Est. IM: Rs 1000 Cr/year</li> <li>• Est. FM: \$ 500 Million/year</li> <li>• MPP:&gt;40%</li> <li>• CAGR:8.1%</li> </ul>

# CSIR Impactful Technologies (Commercialized 2021-2026)



CSIR Lab	Technologies	Reference Image	Commercial Value
CSIR-IIIM, Jammu	<p>IIIM-141: A Saffron-based Phytopharmaceutical Drug For Alzheimer's Disease</p> <p><b>Client:</b> Pharmanza Herbal Pvt. Ltd.</p>	 A photograph showing a pile of bright red saffron powder, which is the active ingredient in the technology described.	<ul style="list-style-type: none"><li>• Est. IM: USD 41.3-55 million</li><li>• Est. FM: USD 4.28-6.1 billion</li><li>• MPP: 20%</li><li>• CAGR: 5.1%</li></ul>