

5. Electronics Manufacturing Component Scheme

The Government of India has approved the first batch of seven projects under the Electronics Components Manufacturing Scheme (ECMS).

Overview & Context

Flagship Programme of MeitY – ECMS forms part of India's broader electronics manufacturing strategy, complementing the Semiconductor Mission and PLI schemes. Designed to reduce import dependency, particularly from countries like China, Taiwan, and South Korea.

Strategic Vision – Develop a globally competitive domestic component ecosystem. Strengthen supply chain resilience amid global disruptions such as US-China tech decoupling and semiconductor value chain reshaping.

Objectives

Import Substitution & Value Addition – Increase domestic value-addition in electronics manufacturing from ~20% to significantly higher levels by focusing on components rather than only final devices.

Export Competitiveness – Make India a major hub for electronics component exports through financial incentives, technology enablement, and market access support.

Strategic Tech Sovereignty – Build self-reliance in sensitive electronic components and materials critical for telecom, automotive electronic systems, defence electronics, and consumer devices.

Key Target Segments

Sub-Assemblies – Display modules, Camera modules, Touch panels and input components, Battery packs and power modules

Bare Components – Non-SMD passive components (capacitors, resistors, inductors), Electromechanical components (connectors, switches, relays), Multi-Layer PCBs (MLPCBs), Li-ion cells for digital electronics applications

Selected Advanced Components – HDI and flexible PCBs. SMD passive components. High-frequency components for 5G/IoT

Capital Equipment & Ecosystem – Machinery used in electronics and semiconductor assembly. Component ecosystem support units like testing and packaging facilities

Incentive Structure

Turnover-Linked Incentive – Based on incremental sales of eligible components. Encourages output efficiency and scale-driven manufacturing.

Capital Expenditure (Capex) Linked Incentive – Linked to the purchase of plant, machinery, and technology. Promotes establishment of advanced fabrication and assembly facilities.

Hybrid Model – Applied to strategic or complex component categories requiring both scale and technology investment. Supports high-risk deep-tech investment cycles.

Scheme Duration

Implementation Window – FY 2025-26 to FY 2031-32

Gestation + Incentive Period – Initial gestation period for setting up manufacturing and supply chain followed by performance-linked incentive years

Institutional Linkages

Complementing Existing Schemes –

PLI for Large-Scale Electronics Manufacturing – boosts device production.

India Semiconductor Mission (ISM) – promotes chips & wafer fabs.

SPECS Scheme – incentivises component and semiconductor equipment manufacturing.

Policy Synergy with Digital India & Make in India – Aligns with Atmanirbhar Bharat vision, digital transformation, and export-led industrial strategy.

Expected Impact

Industrial Deepening – Shift from assembly-led value capture to component-led value addition. Greater control over IP and production technology.

Supply Chain Strengthening – Local production reduces reliance on cross-border supply chains.

Encourages cluster-based development (e.g., Noida, Sriperumbudur, Mysuru, Gujarat).

Employment & Skill Generation – High-skilled jobs in electronics design, precision manufacturing, semiconductor packaging. Upskilling through industry-academic partnerships in electronics engineering and automation.

Global Competitiveness – Paves the way for India to become an electronics and semiconductor manufacturing powerhouse, akin to Taiwan, Korea, and Vietnam models.

Challenges & Considerations

Technology Access & Licensing – Need partnerships with global firms for advanced fabrication technologies.

Logistics & Component Ecosystem Maturity – Must build logistics efficiencies and supplier clustering.

Capex Intensity – High initial capital costs require ease of credit and long-term policy stability.

Source – <https://www.thehindu.com/news/national/government-clears-seven-projects-under-electronics-component-scheme/article70208309.ece>

