

## National Policy on Electronics 2019

### Why in news?

The Union Cabinet recently gave its approval to the National Policy on Electronics 2019 (NPE 2019).

### What is the policy for?

- The National Policy of Electronics 2019 (NPE 2019) replaces the National Policy of Electronics 2012 (NPE 2012).
- It was proposed by the Ministry of Electronics and Information Technology (MeitY).
- The NPE 2019 aims to position India as a global hub for Electronics System Design and Manufacturing (ESDM).
- The policy will lead to the formulation of several schemes, initiatives, and measures for the development of ESDM sector.
- **Targets** - The policy aims at achieving a turnover of US\$ 400 billion (approximately Rs 26,00,000 crore) by 2025 in the ESDM sector through domestic manufacturing and export.
- This will include a targeted production of 1 billion mobile handsets by 2025, valued at US\$ 190 billion.
- A part of this includes 600 million mobile handsets valued at US\$ 110 billion for export.

### What are the key features of the policy?

The National Policy on Electronics 2019 provides for the following:

- creating an eco-system for globally competitive ESDM sector for promoting domestic manufacturing and export in the entire value-chain
- providing incentives and support for manufacturing of core electronic components
- providing special package of incentives for mega projects which are extremely high-tech and entail huge investments; e.g. semiconductor facilities display fabrication, etc
- formulating suitable schemes and incentive mechanisms to encourage new units and expansion of existing units
- promoting Industry-led R&D (research and development) and innovation in

all sub-sectors of electronics

- [These include grass root level innovations and early stage Start-ups in emerging technology areas such as 5G, IoT/Sensors, Artificial Intelligence, Machine Learning, Virtual Reality, Drones, Robotics, Additive Manufacturing, Photonics, Nano-based devices, etc.]
- providing incentives and support for significantly enhancing the availability of skilled manpower, including re-skilling
- offering special focus on Chip Design Industry, Medical Electronic Devices Industry, Automotive Electronics Industry and Power Electronics for Mobility and Strategic Electronics Industry
- creating Sovereign Patent Fund (SPF) to promote the development and acquisition of IPs (Intellectual Property) in ESDM sector
- promoting trusted electronics value chain initiatives to improve national cyber security profile

### **How will it be beneficial?**

- The provisions are likely to enable the flow of investment and technology, leading to -
  - i. higher value addition in the domestically manufactured electronic products
  - ii. increased electronics hardware manufacturing in the country and their export
  - iii. generation of substantial employment opportunities, to over one crore people
- The global electronics ecosystem has been looking beyond China due to the rising labour costs there.
- So NPE 2019 could pave the way to make India the next major global hub for manufacturing of mobile phones, refrigerators, televisions, ACs, etc.
- **Shortfalls** - Robust R&D is a pre-requisite to move up the value chain.
- Given this, interest subvention and a credit guarantee fund may not be adequate.
- There are other factors that hamper R&D investment by industry, beyond the tax structure, which need redressal.

### **How is electronics manufacturing in India at present?**

- Since the 2012 policy, the Centre has been trying to make India a global hub for electronics equipment but has achieved limited success.
- Imports of electronics hardware account for more than half of India's domestic production.
- This has been increasing rapidly, from \$37 billion in 2014-15 to \$53 billion in 2017-18.

- India's electronics hardware output accounts for just 1.5% of world output.
- Actual investments into the electronics sector have not been impressive.
- E.g. an incentive package for setting up a fabrication unit for semiconductor, which is the heart of any electronic product, has had no takers
- Getting a global player to start semiconductor manufacturing in India will be the key to the Make in India vision.
- The Modified Special Incentive Package Scheme (M-SIPS) which offers subsidies for electronics industry was launched in 2012.
- However, the rate of approval for applications filed and the investments made thereafter remain low.
- There has been some success in the manufacturing of mobile phones in the country.
- But even in this area, local value addition is only around 7-8% as most of the critical components are imported.

### **What should be done?**

- The demand for electronics hardware is expected to rise rapidly to about \$400 billion by 2023-24.
- India cannot afford to bear a huge foreign exchange outgo on the import of electronics alone.
- The production deficit is best remedied by adopting an export-orientation as against an import-substitution bias.
- Certainly, the policy should go beyond credit sops to address the R&D deficit.
- India's scientific human resource pool needs to be engaged in this respect.
- R&D institutions could be promoted through the PPP route, so as to balance the market orientation and long-term priorities.

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