

India Emerging as Deep-Tech Powerhouse: NITI Aayog Member

NITI Aayog Member Abhay Karandikar stated India's evolution into a deep-tech powerhouse at the 14th Convocation of IISER Thiruvananthapuram.

Deep-tech refers to advanced technologies based on fundamental scientific discoveries and engineering innovations, often requiring significant R&D.

KEY EXAM POINTS

- **Abhay Karandikar**, Member of **NITI Aayog**, highlighted India's transformation into an emerging **deep-tech powerhouse**.
- He previously served as the **Secretary** for the **Department of Science and Technology**, Government of India.
- India's evolution from a centre for **frugal innovation** to a deep-tech powerhouse is attributed to sustained **policy support and investments**.
- Transformative national initiatives include the **National Quantum Mission** and **IndiaAI Mission**.
- Other key initiatives mentioned are the **India Semiconductor Mission** and the **National Supercomputing Mission**.
- The **BioE3 Policy**, **Green Hydrogen Mission**, and **Anusandhan National Research Foundation** also contribute to this growth.
- These initiatives have created unprecedented opportunities for **young researchers** and **innovators** in India.

STATICS & SYLLABUS FOCUS

NITI Aayog (National Institution for Transforming India) was established on **January 1, 2015**, replacing the **Planning Commission**.

The **National Quantum Mission** was approved in **April 2023** with a budget of **₹6003.65 crore** for 2023-24 to 2030-31.

The **IndiaAI Mission** was approved by the Union Cabinet in **March 2024** with an outlay of **₹10,371.92 crore**.

The **India Semiconductor Mission** (ISM) was launched in **December 2021** to build a robust semiconductor and display ecosystem.

The **National Supercomputing Mission** (NSM) was launched in **2015** to empower national academic and R&D institutions with **supercomputing infrastructure**.

The **National Green Hydrogen Mission** was launched in **January 2023** with an initial outlay of **₹19,744 crore**.

The **Anusandhan National Research Foundation (ANRF) Act** was passed in **August 2023**, allocating **₹50,000 crore** over five years for research.

The **Department of Science and Technology (DST)** was established in **May 1971** under the **Ministry of Science and Technology**.

Indian Institutes of Science Education and Research (IISERs) are autonomous institutions established by the **Ministry of Education**.

REVISION FLASHCARD

India is emerging as a deep-tech powerhouse due to national initiatives like the National Quantum Mission and IndiaAI Mission.

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