



Year End Review 2019: Ministry of Science & Technology

Important Schemes and Policies

Atal Jai Anusandhan Biotech Mission - Undertaking Nationally Relevant Technology Innovation (UNaTI)

- It is expected to transform the Health, Agriculture and Energy sectors during the next 5 years. This mission includes the following missions-
 - **GARBH-ini** - A Mission to promote Maternal and Child Health and develop prediction tools for preterm birth.
 - **IndCEPI** - A Mission to develop affordable vaccines for endemic diseases,
 - **Development of Biofortified and Protein-Rich wheat** - contributing to [POSHAN Abhiyan](#),
 - **Mission on Antimicrobial Resistance** for Affordable Diagnostics and Therapeutics
 - **Clean Energy Mission** - Innovative Technology interventions for Swachh Bharat.

UMMID Initiative

- Government has launched UMMID (Unique Methods of Management and treatment of Inherited Disorders) initiative
- NIDAN (National Inherited Diseases Administration) Kendras have also been launched.

[Global Innovation and Technology Alliance \(GITA\)](#)

- IT is PPP between Department of Science & Technology (DST) and Confederation of Indian Industry (CII).
- It aims towards enhancing the country's innovation ecosystem.

[Redefined Units of Kilogram, Kelvin, Mole and Ampere](#)

- The recent open session of the General Conference on Weights and Measures (CGPM) at BIPM, has unanimously adopted the resolution to redefine four of the seven base units, the kilogram (SI unit of weight), Kelvin (SI unit of temperature), mole (SI unit of amount of substance), and ampere (SI unit of current).
- The new SI is being implemented worldwide from 20th May 2019 i.e. the World Metrology Day by CSIR-NPL in India.

[IndiGen Genome Project](#)

- The CSIR has conducted Whole Genome Sequencing of 1,008 Indians from different populations across the country.
- The whole genome data will be important for building the knowhow, baseline data and indigenous capacity in the emerging area of Precision Medicine.

Important Legislations

[DNA Technology \(Use and Application\) Regulation Bill - 2019](#)

- **The Bill has been passed in Lok Sabha.**
- The Bill has been formulated recognizing the need for regulation of the use and application of Deoxyribonucleic Acid (DNA) technology, for establishing identity of missing persons, victims, offenders, under trials and unknown deceased persons.

[Guidelines for Evaluation of Nanopharmaceuticals in India](#)

These guidelines are intended to provide transparent, consistent and predictable regulatory pathways for nanopharmaceuticals in India.

- **Nanopharmaceuticals** are defined as a pharmaceutical preparation containing nanomaterials intended for internal use or external application on a human for the purpose of therapeutics, diagnostics and health benefits.
- **Nanomaterial** is defined as material having a particle size in the range of 1 to 100 nm in at least one dimension.
- **Nano-formulations** are not entirely new drugs but medicines that have better quality because of the technology-led delivery mechanisms that are used to make its administration in the body more effective.

Important Conventions

One Health India Conference, 2019

- The conference aimed to launch India's new One Health Initiative - an inter-sectoral approach to tackling the most urgent health threats in India as well as in low and middle income countries across South and South East Asia and Sub-Saharan Africa.

Global Antimicrobial Resistance Research and Development Hub

- India joined the [Global Antimicrobial Resistance \(AMR\) Research and Development \(R&D\) Hub.](#)
- This expands the global partnership working to address challenges and improve coordination and collaboration in global AMR R&D to 16 countries, the European Commission, two philanthropic foundations and four international organisations (as observers).

Global Bio-India Summit, 2019

- Global Bio-India is one of the largest biotechnology stakeholders conglomerates being held in India for the first time.

Important Facts

Prime Minister's Science, Technology and Innovation Advisory Council (PM-STIAC)

- PM-STIAC is an overarching body that assesses specific science and technology domains in India, and formulates interventions and roadmaps.
- It advises the Prime Minister on all matters of science, technology and innovation.

[Department of Biotechnology](#)

- The Department of Biotechnology in the Ministry of Science and Technology celebrated its 33rd Foundation Day in New Delhi on 26th February with the theme as "Celebrating Biotechnology: Building Indian as an Innovation Nation".
- Biotechnology Research Innovation and Technology Excellence (BRITE) awards were given on the occasion.

[Shanti Swarup Bhatnagar \(SSB\) prizes for the years 2016, 2017 and 2018](#)

The SSB Prize is awarded each year on the basis of conspicuously important and outstanding contributions to human knowledge and progress, made through work done primarily in India during the five years, preceding the year of the prize.

First Indigenous Fuel Cell System developed by CSIR

- Developed under India's flagship program named "New Millennium Indian Technology Leadership Initiative (NMITLI)"

Bharatiya Nideshak Dravya

- HPCL and **CSIR-NPL** released 26 Petroleum BNDs (Bharatiya Nideshak Dravya or Indian Reference Material) coinciding with the occasion of **World Metrology Day**.
- These will be of immense use for BS VI fuels and will save foreign exchange through import substitution for Certified Reference Materials (CRMs).
- This will provide traceability for all vital parameters of Petroleum products testing and certification comprising 13 physical properties, 2 Physicochemical properties and 11 Chemical properties, including BND for sulfur content measurement at lower concentrations which will be of immense use for BS VI fuels.

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