

India-AI Mission

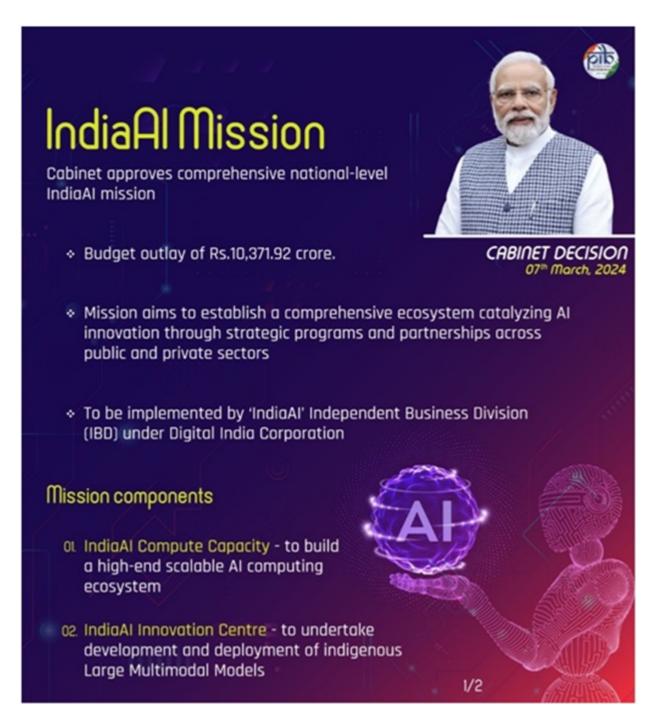
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Why is in news? Union Cabinet approves IndiaAI Mission with 10,372 crore outlay: How it could help private players

India has made the first move to address a key shortcoming it currently has in unlocking opportunities around generative artificial intelligence (AI) — that of computing hardware.

On March 7, the Union Cabinet approved the IndiaAI Mission with an outlay of Rs 10,372 crore for the next five years, under which the government will **allocate funds towards subsidising private companies** looking to set up AI computing capacity in the country, among other things.

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While still a blueprint, the approval could spur investments in this sector — with private companies setting up data centres in the country, and allowing startups access so they can test and build their generative AI models.

This is a **benefit that startups** such as Perplexity AI in the United States have enjoyed for some time now, since they can tap into the computing capacity offered by companies like Nvidia.

Computing capacity, or compute, is among the most important elements of building a large AI system, apart from algorithmic innovation and data sets. It is also one of the most difficult elements to procure for smaller businesses looking to train and build such AI systems, given the high costs.

India's AI Mission:

ThePM of India at the **Global Partnership on Artificial Intelligence (GPAI) Summit 2023** (New Delhi) announced that India will launch an artificial intelligence (AI) mission.

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Under the India AI Mission [to be implemented by the 'IndiaAI' Independent Business Division (IBD) under Digital India Corporation (DIC)], the Ministry of Electronics and IT (MeitY) will look -

To establish a computing capacity of more than 10,000 graphics processing units (GPUs) and

To help **develop foundational models trained on datasets** covering major Indian languages for priority sectors like healthcare, agriculture, and governance.

AI Curation Units (ACUs) will also be developed in 50-line ministries and AI marketplace will be designed to offer AI as a service and pre-trained models to those working on AI applications.

The implementation of this AI compute infrastructure will be done through a public-private partnership model with 50% viability gap funding.

Of the total outlay (of Rs 10,372 crore), Rs 4,564 crore has been earmarked for building computing infrastructure.

Features of the Mission:

IndiaAI Compute Capacity: This pillar will build a high-end scalable AI computing ecosystem to cater to the increasing demands from India's rapidly expanding AI start-ups and research ecosystem.

IndiaAI Innovation Centre: The Centre will undertake the development and deployment of indigenous Large Multimodal Models (LMMs) and domain-specific foundational models in critical sectors.

IndiaAI Datasets Platform: This will streamline access to quality non-personal datasets for AI Innovation.

IndiaAI Application Development Initiative: This will promote AI applications in critical sectors for the problem statements sourced from Central Ministries, State Departments, etc.

India AI Future Skills: It is conceptualised to mitigate barriers to entry into AI programmes and will increase AI courses in undergraduate, Masters level, and Ph.D. programmes.

IndiaAI Startup Financing: This pillar is conceptualised to support and accelerate deep-tech AI startups and provide them with streamlined access to funding to enable futuristic AI projects.

Safe & Trusted AI: This pillar will enable the implementation of responsible AI projects including the development of indigenous tools and frameworks.

Significance:

Propelling Innovation: The Mission will propel innovation and build domestic capacities to ensure the tech sovereignty of India.

Creation of Employment Opportunities: It will also create highly skilled employment opportunities to harness the demographic dividend of the country.

Enhance Global Competitiveness of India: India AI Mission will help India demonstrate to the world how AI technology can be used for social good and enhance its global competitiveness.

India's plan for setting up AI computing capacity:

Under the IndiaAI Mission, the government will look to establish a computing capacity of more than 10,000 **GPUs** and also **help develop foundational models** with a capacity of more than 100 billion parameters trained on datasets covering major Indian languages for priority sectors like healthcare, agriculture, and governance.

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While the infrastructure is being set up, priority will be placed on selecting the most advanced GPUs.

The implementation of this AI compute infrastructure will be done through a public-private partnership model with 50 per cent viability gap funding.

If the compute prices come down, the private entity will have to add more compute capacity within the same budgeted amount to meet increased demand.

Proposals beyond hardware:

The Cabinet has approved the **financing by the government of deeptech startups** at various levels of growth. Of the total outlay, roughly Rs 2,000 crore has been earmarked towards this.

As part of the programme, an **IndiaAI Datasets Platform** will be set up, which will look at leveraging the quality, access, and use of non-personal datasets for AI innovation. The platform will be tasked with hosting identified "high-quality" AI-ready datasets.

Together, these proposals cover two of the most crucial elements of building large language models: the hardware and access to high-quality datasets.

The government will also set up the IndiaAI Innovation Research Centre, which will undertake the development and deployment of large foundational models, with focus on indigenous Large Multimodal Models and domainspecific foundational models.

There is a plan to financially support 4,000 BTech, 400 Mtech, and 600 PhD candidates who will focus on AI in premier educational institutions.

How does this announcement fit in with the government's overall policy?

The IndiaAI Mission announcement came a week after the Cabinet cleared chip projects worth Rs 1.26 lakh crore, including what could be the country's first commercial fabrication plant.

India has identified electronics manufacturing as a key economic driver, and the government is willing to spend money in the initial phase to get production rolling.

This is a strategy that the European Union is following as well.

To allay concerns over overregulation of AI, which could stifle innovation, the European Commission earlier this year released a set of rules to enable startups and other businesses to access hardware — such as supercomputers and computing capacity — to build large-scale AI models.

Other Initiatives for AI:

National Strategy for Artificial Intelligence: Launched by NITI Aayog, the national strategy outlines a vision to position India as a leader in AI for economic growth, social development, and inclusive growth. It emphasizes leveraging AI for societal needs, such as healthcare, education, agriculture, and smart cities.

AI for All: The strategy focuses on ensuring the benefits of AI are accessible to the entire Indian population. It includes developing AI technologies that address language diversity, enhance skill development, and promote ethical AI use.

Digital India: While not exclusively focused on AI, this campaign aims to digitize government processes and services, creating a fertile ground for AI-based solutions.

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Challenges and Opportunities:

Talent Pool: India has a large pool of engineers and software developers, with a growing emphasis on upskilling and reskilling in AI technologies.

Data Utilization: With its vast population, India generates massive data sets, offering a unique advantage for AI and machine learning models. However, challenges around data privacy, security, and access need addressing.

Regulation and Ethics: The development of AI policies concerning ethics, data protection, and privacy is ongoing, aiming to create a balanced framework that fosters innovation while protecting individual rights.

Way Forward:

India's AI future appears promising, with the government, academia, and industry working together to harness AI's potential for economic growth and social improvement.

AI for Social Good: Applying AI to address challenges in health, education, and agriculture.

Leading in AI Ethics and Governance: India is poised to play a significant role in shaping global norms and standards for AI ethics and governance.

Bridging the Digital Divide: Ensuring AI advances lead to inclusive growth that benefits all sections of society.

India's approach to **building a comprehensive AI ecosystem is multifaceted**, aiming not only to become a global hub for AI innovation and talent but also to ensure that AI technologies are used ethically and beneficially. IndiaAI Mission is another step towards the goal.