Fomalhault, The first asteroid belt ever found outside the solar system



A new Webb Space Telescope image of the bright, nearby star Fomalhaut reveals its planetary system with details never seen before, including nested concentric rings of dust. These belts most likely are carved by the gravitational forces produced by embedded, unseen planets. Similarly, inside our solar system Jupiter corrals the asteroid belt of leftover debris that lies between us and the giant planet.

Astronomers first discovered Fomalhaut's disk in 1983. But there has never been a view as spectacular – or as revealing – as Webb's.

Astronomers used NASA's James Webb Space Telescope to image the warm dust around a nearby young star, Fomalhaut, in order to study the first asteroid belt ever seen outside of our solar system in infrared light.

Overall, there are three nested belts extending out to 14 billion miles (23 billion kilometers) from the star; that's 150 times the distance of Earth from the Sun. The scale of the outermost belt is roughly twice the scale of our solar system's Kuiper Belt of small bodies and cold dust beyond Neptune. The inner belts – which had never been seen before – were revealed by Webb for the first time.

The dusty belts are the debris from collisions of larger bodies, analogous to asteroids and comets, and are frequently described as 'debris disks

The Hubble Space Telescope and the Herschel Space Observatory, as well as the Atacama Large Millimeter/submillimeter Array (ALMA), have previously taken sharp images of the

outermost belt. However, none of them found any structure interior to it. The inner belts have been resolved for the first time by Webb in infrared light.

Fomalhaut's dust ring was discovered in 1983 in observations made by NASA's Infrared Astronomical Satellite (IRAS). The existence of the ring has also been inferred from previous and longer-wavelength observations using submillimeter telescopes on Mauna Kea, Hawaii, NASA's Spitzer Space Telescope, and Caltech's Submillimeter Observatory.



Marriage and constitutional protection

Article 21 of the Constitution guarantees the right to marry the person of one's choice. The right to life is guaranteed by the Constitution. The power of each individual to make decisions on subjects vital to the pursuit of happiness is intrinsic to the liberty guaranteed by the Constitution as a fundamental right. Belief and faith, as well as whether or not to believe, are at the heart of constitutional liberty.

"An intrinsic part of Article 21 of the Constitution would be the freedom of choice in marriage," the Supreme Court stated emphatically. Such crimes are the outcome of a state's ineptitude or unwillingness to protect its citizens' fundamental rights." Article 21, which deals with the right to life and personal liberty, is a broad provision that encompasses the inalienable right to marry the person of one's choice.

In India, diverse personal laws on marriage make forced marriage illegal, with the right to marry recognised by both Hindu and Muslim laws.

Other regulations in India that govern a person's right to marriage include:

- The 2006 Child Marriage Prohibition Act
- The 1890 Guardians and Wards Act
- The 1875 Majority Act
- The 1984 Family Courts Act
- The Protection of Women from Domestic Violence Act of 2005 was enacted to protect women from domestic violence

India-Israel mobility pact



India and Israel will enhance partnership in areas like innovation and StartUps and usher in a new phase of deeper bilateral collaboration, as per the new engagement plan by the two countries.

India and Israel signed a Memorandum of Understanding on Industrial Research and Development Cooperation with focus on several key technology areas, like Aerospace, Electronics Instrumentation, Civil, Infrastructure & Engineering, Ecology, Environment, Earth & Ocean Sciences and Water, Mining, Minerals, Metals & Materials, Chemicals and Petrochemicals, Energy (Conventional & Non-Conventional) and Energy Devices, Agri, Nutrition & Biotech and Healthcare.

The government has clarified that India-Israel are not only bilateral partners, but play a larger role to address some of the greatest challenges confronting our world, through joint investments and new initiatives in Water, Energy, Transportation, space, health and food security sectors, through the grouping of India, Israel, the United Arab Emirates, and the United States of America – "I2U2" Group.

Space, Health, Food, Agriculture, Energy, Aerospace, Smart Cities, Environment, Infrastructure, Materials etc. and Sustainable Growth are key pillars and focused areas of our present government.

India and Israel have bilateral consultation mechanisms in all cooperation fields, including water, agriculture, counter-terrorism, and defence.

joint activities have already begun in Healthcare, and a way ahead has been made for other important areas likeAerospace, Quantum technologies, Lasers,Green Hydrogen, Instrumentation and water.

25 years of Pokhran II- Nuclear story



A pivotal moment in India's nuclear journey came after it suffered a crushing defeat in the 1962 Sino-Indian War and China's subsequent nuclear bomb test at Lop Nor in 1964.

Things were further accelerated, when in 1965, India went to war with Pakistan once again, with China openly supporting Pakistan this time. Effectively, India was surrounded by two unfriendly nations, and needed to take steps towards building self-sufficiency.

By the 1960s, discourse around nuclear dearmament and non-proliferation had shifted to the mainstream as the Cold War arms pushed the US and the USSR to great extremes. After China successfully tested its own bomb, there was increasing international consensus among the big powers regarding the need for a non-proliferation treaty.

In 1968, the Non-Proliferation Treaty (NPT) came into existence. The treaty defines nuclearweapon states as those that have built and tested a nuclear explosive device before January 1, 1967 – the US, Russia (formerly USSR), the UK, France and China – and effectively disallows any other state from acquiring nuclear weapons. While the treaty has been signed by almost every country in the world, India is one of the few non-signatories. On May 18, 1974, with support from Indira, India carried out its first nuclear test at the Pokhran test site. Pokhran-I, codenamed Operation Smiling Buddha, would be billed as a "peaceful nuclear explosion", with "few military implications".

The Emergency of 1975 and Prime Minister Morarji Desai's opposition to nuclear weapons brought the programme to a grinding halt. However, clamour for developing nuclear weapons picked up once again in the 1980s, as reports on Pakistan's rapidly progressing nuclear capabilities emerged

Early 1990s brought with them increased pressure to quickly develop nuclear weapons. With the fall of the USSR in 1991, India lost one of its biggest military allies, since the time Indira Gandhi had signed a 20-year security pact with it in 1971. Furthermore, the US continued to provide military aid to Pakistan despite its own misgivings with its nuclear weapons programme. Finally, discussions regarding a Comprehensive Test Ban Treaty (CTBT) were also underway in the UN (it would be finalised in 1996, India did not sign it).

In 1998, the National Democratic Alliance (NDA) led by the BJP came to power under the leadership of Atal Bihari Vajpayee. One of the key promises in its manifesto was to "induct nuclear weapons" into India's arsenal.

In March 1998, Pakistan launched the Ghauri missile – built with assistance from China. Two months later, India responded with Operation Shakti. While the 1974 tests were ostensibly done for peaceful purposes, the 1998 tests were the culmination of India's nuclear weaponisation process. Consequently, the Indian Government declared itself as a state possessing nuclear weapons following Pokhran-II.

India has long adhered to a nuclear no-first-use (NFU) policy and in 2020 India officially stated that there has been no change in its NFU policy. Moreover, the Agni-V test launch in October 2021 was accompanied by a reaffirmation of a "'credible minimum deterrence' that underpins the commitment to 'No First Use'.

Energy independence by 2047



A US department of energy report claims that India can attain energy independence by 2047, when it would celebrate 100 years of independence.

It concluded that achieving energy independence would have significant positive effects on India's economy, environment, and use of energy, such as savings to consumers of USD 2.5 trillion through 2047, a 90 per cent reduction in the country's yearly spending on fossil fuel imports, or USD 240 billion. This is an increase in India's industrial competitiveness on a global scale, and the capacity to fulfill its net-zero commitment sooner than anticipated.

According to the report, India would achieve energy independence by adding more than 500 GW of non-fossil electricity generation capacity by 2030, a target that the government has already set, followed by an 80 per cent clean grid by 2040 and a 90 per cent clean grid by 2047.

By 2035, it is predicted that sales of new vehicles might be nearly completely electric. According to the report, renewable hydrogen and electrification might replace heavy industrial output in most cases.

It claimed that the majority of the lithium required for the production of new electric vehicles and grid-scale battery storage systems (estimated at 2 million tonnes by 2040) could be supplied locally using recently discovered deposits.

India is 80-85 per cent dependent on imports to meet its oil and coal needs. The price and supply volatility in global energy markets, as witnessed in recent years, strain India's foreign exchange reserves, resulting in economy-wide inflation.

The study said a rapid expansion of clean energy infrastructure will be needed. "Because of transport, industrial electrification and green hydrogen production, electricity demand could increase nearly five-fold - from 1,300 TWh/year to over 6,600 TWh/year by 2050. This would require a massive scale-up of renewable energy deployment to 40 GW a year through 2030, ramping up to about 100 GW a year between 2030 and 2050."

Achieving energy independence could offer environmental and public health benefits without compromising economic growth. With an aggressive clean energy transition, over 4 million air pollution-related premature deaths could be avoided between 2023-2047. India's CO2 emissions will peak in the early 2030s, before dropping to 800 million tonnes per year by 2047 (85-90 per cent of the way to net-zero emissions).



The Science-Based Targets Initiative – a partnership of CDP, UN Global Compact, World Resources Institute and WWF – has worked to develop such methodologies and tools to support companies in setting and working toward these kinds of targets.

This applied support is both necessary and timely as so many companies around the world are raising their ambitions around target-setting for their climate actions to ensure their long-term sustainability and profitability, driving bolder business action.

Science-based targets show companies how much and how quickly businesses need to reduce their GHG emissions to prevent the worst impacts of climate change, leading them on a clear path towards decarbonization. By guiding companies in science-based target setting, SBTi enables them to tackle climate change while seizing the benefits and boosting their competitiveness in the transition to a net-zero economy. The Science Based Targets initiative (SBTi):

- Defines and promotes best practices in emissions reductions and net-zero targets in line with climate science.
- Provides target setting methods and guidance to companies to set science-based targets in line with the latest climate science.
- Includes a team of experts to provide companies with independent assessment and validation of targets.

Over 4,000 companies worldwide are leading the transition to a net-zero economy by setting emissions reduction targets grounded in climate science through the SBTi. As of March 2023, over 2,300 companies have had science-based targets approved with the SBTi. The SBTi's 2021 Progress Report revealed that one third of global market capitalization has committed to climate action through the SBTi, and 1.5 billion tonnes of CO2 are covered by the SBTi (scopes 1 and 2). 2021 also saw 53 million tonnes of CO2 emissions reductions across all targets.

SBTi launched its groundbreaking Net-Zero Standard in October 2021, providing companies with the guidance and tools needed to set science-based net-zero targets. As of March 2023, over 170 companies have validated net-zero targets. SBTi is also developing the world's first Standard for science-based net-zero target setting for the Financial sector, expected to launch in early 2024.

Labour codes – latest updates



The Government has formulated four Labour Codes, namely, the Code on Wages, 2019, the Industrial Relations Code, 2020, the Code on Social Security, 2020 and the Occupational

Safety, Health and Working Conditions Code, 2020 and published these Codes in the Official Gazette for general information.(A total of 29 labour laws which have remained unchanged since Independence will now be codified into the four new labour codes)

The four Labour Codes envisage strengthening the protection available to workers, including unorganized workers in terms of statutory minimum wage, social security and healthcare of workers. Some of the important provisions are as follows:-

- A statutory right for minimum wages and timely payment of wages has been made available to all workers to support sustainable growth and inclusive development.
- To avoid multiple interpretations and litigations, uniform definition of 'wages' across all the four Labour Codes has been provided that is simple, coherent and easy to enforce.
- Provision for annual health check-up and medical facilities has also been made which enhances labour productivity and increases life expectancy.
- Statutory provision has been made for the first time to issue appointment letter to every employee of the establishment which leads to formalized contract of employment that increases job security and enables a worker to claim statutory benefits such as minimum wages, social security etc.
- Provision of Re-skilling Fund for skill development of workers.
- The gig worker and the platform worker have been defined for the purpose of formulating schemes to provide social security benefits. Social security schemes can be formulated from the contribution of aggregators and the other sources can include funds from the Central and State Governments.
- The Central Government may extend benefits to unorganised workers, gig workers and platform workers and the members of their families through Employees' State Insurance Corporation or Employees' Provident Fund Organization.
- A worker engaged under Fixed Term Employment (FTE) is entitled for all the benefits which are available to permanent employees and has also been made eligible for gratuity if he renders service for a period of one year.
- Every worker is entitled to annual leave with wages after working for 180 days in comparison to 240 days at present. Provision for encashment of leave on demand by a worker while in service at the end of calendar year.

• Applicability of Employees' Provident Fund has been extended to all industries as against scheduled industries at present

Concerns raised by labor activists

While the new codes have been welcomed by many in the business community, some labour activists have raised concerns that the new codes may lead to the exploitation of workers, particularly those on fixed-term contracts. They have also expressed concerns that the new codes may lead to a dilution of labour rights and protections

The Centre has decided to delay nationwide roll-out of the labour law reforms till after the 2024 general elections.



EU- India tie ups- Trade & Technology Council

The EU and India have set up the TTC as a coordination platform to address key trade, trusted technology and security challenges.

The TTC is a key forum to deepen the strategic partnership on trade and technology between the two partners. Geostrategic challenges have reinforced the EU and India's common interest in ensuring security, prosperity and sustainable development based on shared values. The TTC will help increase EU-India bilateral trade, which is at historical highs, with \in 120 billion worth of goods traded in 2022. In 2022, \in 17 billion of digital products and services were traded.

The European Union and India will cooperate on quantum and High-Performance Computing research and development projects to help address challenges such as climate change and natural

disasters and improve healthcare via personalised medicine. Both partners also committed to seek cooperation on trustworthy Artificial Intelligence and coordinate their policies with regards to the strategic semiconductors sector through a dedicated Memorandum of Understanding. The EU and India will work towards bridging the digital skills gap and promoting exchange on digital talent. Both partners will engage on 5G, telecoms and Internet of Things standardisation. They will enhance the interoperability of their respective digital public infrastructures and promote secure, privacy-preserving solutions to the benefit of developing countries.

The European Union aims to be climate neutral by 2050 and India by 2070. To reach these objectives, both partners will drive innovation and increase research efforts in view of safe and sustainable development. The EU and India will focus on waste water management, including plastic litter and waste to hydrogen; recycling of batteries for e-vehicles and standards through pre-normative research. Cooperation on these topics should also strengthen the role of start-ups and building skills and capacity.

The EU and India have agreed to deepen their common work on resilient value chains, work to resolve bilateral market access issues and exchange information on each other's mechanisms on foreign direct investment screening. They will also address global and multilateral trade issues, with particular emphasis on the World Trade Organization. The two sides have also agreed to intensify their engagement on carbon border measures.

Work under the TTC will proceed in parallel to the ongoing negotiations for comprehensive and ambitious agreements on trade, investment protection and geographical indications, which seek to maximise our considerable – yet largely untapped – trade and investment potential.

The EU and India already enjoy a robust trading relationship. The EU is India's 2nd largest trading partner, accounting for \notin 120 billion worth of trade in goods in 2022 or 10.8% of total Indian trade. India is the EU's 10th largest trading partner, accounting for 2% of EU total trade in goods. Trade in services between the EU and India reached \notin 40 billion in 2021.

GMP and drugs



Good manufacturing practice (GMP) is a system for ensuring that products are consistently produced and controlled according to quality standards. It is designed to minimize the risks involved in any pharmaceutical production that cannot be eliminated through testing the final product. The main risks are: unexpected contamination of products, causing damage to health or even death; incorrect labels on containers, which could mean that patients receive the wrong medicine; insufficient or too much active ingredient, resulting in ineffective treatment or adverse effects. GMP covers all aspects of production; from the starting materials, premises and equipment to the training and personal hygiene of staff. Detailed, written procedures are essential for each process that could affect the quality of the finished product. There must be systems to provide documented proof that correct procedures are consistently followed at each step in the manufacturing process - every time a product is made. WHO has established detailed guidelines for GMP based on WHO GMP.

In October 2022, the World Health Organization (WHO) had issued an alert stating that the four cough syrups being supplied to Gambia by the India-based Maiden Pharmaceuticals Ltd were of substandard quality and claimed that they were linked to the death of many children in Gambia.

COVID 19 is no longer a public health emergency



COVID-19 will no longer be categorised a Public Health Emergency of International Concern (PHEIC). A PHEIC is the strongest global alert the World Health Organization (WHO) can formally make and helps to trigger a set of measures and legally binding obligations that facilitate a coordinated international response. This includes temporary recommendations of health measures that states may introduce to prevent or reduce the international spread of disease.

WHO declares a PHEIC when an emergency is "serious, sudden, unusual or unexpected", with implications for health beyond the affected state's national border The virus, instead, is now an established and ongoing health issue.

The COVID-19 PHEIC has prompted countries to enhance their functional capacities, particularly related to emergency coordination, collaborative surveillance, clinical care, and risk communications and communication engagement. The world has made significant and impressive global progress since the declaration of the PHEIC in January 2020. Reaching the point where COVID-19 can be considered as no longer constituting a PHEIC should be seen as accolade to international coordination and commitment to global health.

CAs, CS, cost accountants now under money laundering law



Chartered and cost accountants and company secretaries have been brought under the antimoney laundering law for five specified financial transactions, including buying and selling of any properties and management of bank accounts, undertaken on behalf of their clients.

5 broad categories of financial transactions

-The five broad categories of financial transactions listed in the notification are buying and selling of immovable property; managing of client money, securities or other assets; management of bank, savings or securities accounts; organisation of contributions for the creation, operation or management of companies; and creation, operation or management of companies, limited liability partnerships or trusts, and buying and selling of business entities.

The government has been tightening PMLA provisions in recent months to check black money.

In March, the Ministry had amended rules under the PMLA making it mandatory for banks and financial institutions to record financial transactions of politically exposed persons (PEP).

Also, financial institutions or reporting agencies were mandated to collect information about the financial transactions of the non-profit organisations or NGOs under the PMLA.

The government also made it mandatory for crypto exchanges and intermediaries dealing with virtual digital assets to do KYC of their clients and users of the platform.

It notified that entities dealing in virtual digital assets would be 'reporting entity' under the PMLA.

NVS- 01



NVS-01 is the first of the second-generation satellites envisaged for the Navigation with Indian Constellation (NavIC) services. NVS series of satellites will sustain and augment the NavIC with enhanced features. This series incorporates L1 band signals additionally to widen the services. For the first time, an indigenous atomic clock will be flown in NVS-01. It will add to India's regional navigation system and provide accurate and real-time navigation.

The satellite has a mission life of over 12 years, which in itself is longer than the 10-year life of the first-generation satellites in the constellation.

The constellation has been plagued by failing atomic clocks and satellites nearing the end of their mission life. This is first of the five second-generation satellites for the Navigation by Indian Constellation (NavIC), which will make the constellation fully operational.

Cross-border insolvency regime



The government has decided to halt its plan to introduce a cross-border insolvency regime that would have integrated India with several other markets with debt resolution regime for companies with assets spread across multiple markets.

Cross-border insolvency typically occurs when a debtor has operations or creditors in multiple countries, and there is a need for coordination and cooperation among different courts and stakeholders to achieve an efficient and fair resolution.

United Nations Commission on International Trade Law (UNCITRAL) Model Law on Cross-Border Insolvency, 1997, is a widely accepted legal framework to deal with cross-border insolvency issues.

India halted the adoption of cross-border insolvency, based on the fact that only around 50 countries have adopted the UN model of cross-border insolvency, and many of them have stringent restrictions in place.

Benefits of Cross-border insolvency regime:

- It would enable creditors in India to pursue overseas assets of Indian debtors as part of the debt resolution process.
- It will help foreign branches of Indian banks to recover their dues in India.
- It will also bring overseas assets of a domestic corporate debtor into consideration of insolvency resolution in India and will avoid delays in resolution of stressed assets.

In India, the Insolvency and Bankruptcy Code 2016 (IBC) was sought revolutionary and cultural transformation in the insolvency and bankruptcy landscape by (i) creating a comprehensive code for insolvency and bankruptcy for corporates and individuals; (ii) establishing a new architecture, comprising a committee of creditors (COC) and dedicated adjudicating authorities (AA) for insolvency resolution and liquidation; and (iii) bringing judicial discipline in the process.

Each of the three elements was intended to address the problems that affected the bankruptcy regime in India. Although the Companies Act 1956 and the Companies Act 2013 contained provisions for winding up companies, they were found to be inadequate. The Sick Industrial Companies (Special Provisions) Act 1985 (SICA), which provided an insolvency resolution framework for sick industrial undertakings, had failed to deliver. The insolvency and

bankruptcy regime for individuals was based on colonial legislation that needed to be revamped to be in sync with 21st-century requirements.

Digital competition law India

India is contemplating the enactment of a Digital Competition Act at a time when there is growing concern among policymakers about the power and dominance of tech giants in the digital economy, and the need to ensure a level playing field for all players in the market.

The parliamentary committee on finance had recommended a separate ex-ante law on the lines of the European Union to regulate the anti-competitive practices of the big tech companies. After receiving the recommendations of the committee, the central government had appointed a 16-member panel to examine the need for a separate law on competition in digital markets.

It is clarified that the committee is considering a criterion to identify gatekeepers in digital markets. Gatekeepers would mean big tech companies, including e-commerce, food delivery platforms, cab aggregators and search engines capable of distorting the competition in the market. The committee is likely to recommend a criterion based on the number of active users and global turnover to identify these gatekeepers.

The committee is likely to recommend ten obligations that the identified gatekeepers would have to meet. These include obligations on interoperability between platforms, anti-steering, portability and data usage. The committee is considering recommending a penalty amounting to 10% of the global turnover of a big tech company, in case it fails to meet obligations under the digital competition law.

Experts believe a digital competition law could have far-reaching consequences for big tech players operating in India's digital markets. Among the objectives, the committee is considering how such a law will benefit Indian startups and give them a level playing field.

The independent expert group (IEG) on strengthening multilateral development banks (MDBs)



Under the aegis of India's G20 Presidency, a G20 Expert Group on "Strengthening Multilateral Development Banks (MDBs) has been constituted.

The objectives of the Expert Group are:

- A roadmap for an updated MDB ecosystem for the 21st century, with milestones and timelines, touching upon all aspects of MDB evolution, including but not limited to vision, incentive structure, operational approaches and financial capacity so that MDBs are better equipped to finance a wide range of SDG and transboundary challenges such as climate change and health.
- An evaluation of various estimates regarding the scale of funding required by and from MDBs for addressing their and member countries' increased financing needs for SDG and transboundary challenges, taking into account the additional capacity that can be derived from the CAF recommendations alongside other important sources such as the private sector and public sector funds (AND)
- Mechanisms for coordination among MDBs for them to address and finance global development and other challenges more effectively

Role of NCLT



National Company Law Tribunal (NCLT) is a quasi-judicial body which was set up to resolve the disputes which are arising in Indian Companies. It is the successor to the Company Law Board. It is governed by the rules framed by the Central Government. NCLT is a special court where cases relating to civil court have been barred from the jurisdiction.

NCLT is the successor to the company law board. With the establishment of NCLT, there will be a speedy remedy in resolving the company law disputes and will be disposed of expeditiously. Appeals can be made by an aggrieved party from any decision or order passed by NCLT within the period of forty-five days of the receipt of an order or decision to NCLAT. Further, NCLAT gives its decision within six months from the date of receipt of the appeal. No civil court has jurisdiction to decide the cases where NCLT and NCLAT are empowered to do so.

The NCLT has jurisdiction over matters relating to companies, including those under the Companies Act, 2013, and other laws such as the Insolvency and Bankruptcy Code, 2016. The NCLT is empowered to hear and decide on cases related to mergers and acquisitions, oppression and mismanagement, winding up of companies, and other matters related to corporate law.

One of the significant advantages of the NCLT is that it provides a single forum for the resolution of disputes relating to corporate law. This helps in reducing delays and ensures consistency in the application of laws relating to corporate disputes. The NCLT also has the power to appoint insolvency professionals in cases relating to insolvency and bankruptcy, which helps in the efficient and effective resolution of such cases.

Generative AI



Any time an AI technology is generating something on its own, it can be referred to as "generative AI." This umbrella term includes learning algorithms that make predictions as well as those that can use prompts to autonomously write articles and paint pictures.

The most commonly used generative models for text and image creation are called Generative Adversarial Networks (GANs) and Variational Autoencoders (VAEs).

In a GAN, two machine learning models are trained at the same time. One is called the generator and the other is called the discriminator. The generator's job is to create new outputs that resemble training data. The discriminator's job is to evaluate the generated data and provide feedback to the generator to improve its output.

In a VAE, a single machine learning model is trained to encode data into a low-dimensional representation that captures the data's important features, structure and relationships in a smaller number of dimensions. The model then decodes the low-dimensional representation back into the original data. Essentially, the encoding and decoding processes allow the model to learn a compact representation of the data distribution, which it can then use to generate new outputs

When generative AI is used as a productivity tool to enhance human creativity, it can be categorized as a type of augmented artificial intelligence.

Generative AI models use neural networks to identify the patterns and structures within existing data to generate new and original content.

One of the breakthroughs with generative AI models is the ability to leverage different learning approaches, including unsupervised or semi-supervised learning for training. This has given organizations the ability to more easily and quickly leverage a large amount of unlabeled data to create foundation models. As the name suggests, foundation models can be used as a base for AI systems that can perform multiple tasks.

Delhi- Capital status after the recent verdict



The Union government has established the National Capital Service Authority through an ordinance to make recommendations to the Delhi Lieutenant Governor regarding matters concerning transfer posting, vigilance and other incidental matters.

A permanent authority headed by the Delhi chief minister is being introduced to make recommendations to the Lieutenant Governor regarding matters concerning transfer posting, vigilance and other incidental matters. The new authority will consist of Delhi chief minister, Delhi chief secretary and the principal home secretary of the Government of National Capital Territory of Delhi. All matters will be decided by the majority of votes of the members present and voting.

With the formation of the new authority, the Lt Governor now has the power to differ with the decision on service matters and can also send back files for reconsideration. The development deserves attention in the wake of recent Supreme Court ruling that the Delhi government must have control over services and that the Lieutenant Governor is bound by its decision.

Elaborating the opinion further, it said that the Delhi assembly is given powers to legislate to represent the will of the people, a Constitution Bench of the Supreme Court said in a

unanimous verdict. In a democratic form of governance, the real power of administration must rest on the elected arm of government, said the bench, adding that the central government's power in matters in which both the Centre and states can legislate "is limited to ensure that the governance is not taken over by the Central government". Disagreeing that the Delhi government had no power over services, the judges said only Public Order, Police and Land are excluded from its jurisdiction



India and Canada interim free trade deal

India and Canada aim to seal an initial agreement this year to increase their trade and expand investment while setting out a mechanism to deal with disputes. The EPTA would cover, among others, high-level commitments in goods, services, investment, rules of origin, sanitary and phytosanitary measures, technical barriers to trade, and dispute settlement.

The two countries last year relaunched negotiations on a comprehensive economic partnership agreement. The proposed comprehensive trade pact could boost bilateral trade by up to \$6.5 billion, according to Indian government estimates. More than 600 Canadian companies and organisations have a presence in India.

Bilateral commercial relations between the two countries are worth \$100 billion, which includes \$70 billion of Canadian portfolio investment in India, according to Indian figures. Bilateral goods trade between Canada and India rose to \$8.2 billion in 2022, up 25% from a year earlier.

The interim agreement would include high-level commitments in goods, services, rules of origin, sanitary and phytosanitary measures, technical barriers to trade, and dispute settlement, and may also cover any other areas mutually agreed upon.