# Global end-user spending on GenAl models to reach \$14 bn

More than half of the GenAl models used by enterprises will be domain-specific

#### **Ingraining GenAl**

- Vertical GenAl models
- Integration of AI capabilities
- Hardware. smartphones, PCs on

New Delhi

A Gartner report said on Thursday that worldwide end-user spending on generative AI (GenAI) models is projected to reach \$14.2 billion in 2025.

End-user spending on specialised GenAI models, which include domainspecific language models (DSLMs), is estimated to total \$1.1 billion this year.

Specialised GenAI mod-

els are trained or finetuned on industry or business process-specific data. Gartner predicts that by 2027, more than half of the GenAI models used by enterprises will be domainspecific (that is, specific to an industry or business function), up from 1 per

cent in 2024. "Foundation GenAI models (including LLMs) are trained on vast amounts of data and used for many different tasks. They are the first models supporting GenAI and will continue to represent the largest area of spending by organizations in the coming years," said Arunasree Cheparthi, Senior Principal Research Analyst at

However, organisations are also turning to more domain-specific or vertical GenAI models because they offer improved performance, cost, reliability and relevance in targeted enterprise use cases over

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- Arunasree Cheparthi, Senior Principal Research Analyst at Gartner

foundation models, she mentioned

## T-Hub to power space startups through AWS accelerator

AWS launches Space Accelerator program across India, Australia, and Japan

Bizz Buzz Bureau Hyderabad

AMAZON Web Services (AWS) has announced the launch of AWS Space Accelerator: APJ 2025, a programme designed to support startups across Asia Pacific and Japan (APJ) that are focused on space technology catalysing innovation and propelling the growing space economy in the Asia Pacific region.

The 10-week accelerator will provide up to 40 selected startups with dedicated business resources, expertise, and guidance around technology and business capabilities, to help them leverage AWS to build, grow, and scale their missions.

The accelerator is open to space-sector startups at all stages that are based in India, Australia, New Zealand, or Japan. Participants can leverage the program to build their technology platforms, scale their operations, and pursue investment opportu-

Applications for the AWS Space Accelerator: APJ will



be open from July 8 to September 5.

The AWS Space Accelerator: APJ 2025 will be delivered in collaboration with AWS partners T-Hub, Minfy, Fusic, and Ansys along with leading space organizations including IN-SPACe, the Australia Space Agency, iLAuNCH, and SKY Perfect JSAT Corporation.

This accelerator builds upon the successful AWS Space Accelerator: India in 2024, which supported 24 space tech startups. Through the 2024 program, these companies enhanced their solutions across multiple domains, including spacecraft propulsion, orbital and

vehicles, satellite imagery, geospatial applications, and space tourism. Graduates achieved significant milestones: several secured customer contracts for their innovative geospatial solutions, while others secured investment and made notable advancements in propulsion technology and

quantum key distribution. Supporting a growing

space economy The expansion comes at a time when the space sector is experiencing significant growth across the Asia Pacific region. India's space industry is projected to grow from \$8 billion in 2022 to \$44 billion by 2033.



#### iQoo deals for **Amazon Prime** Day Sale

Bizz Buzz Bureau HYDERABAD

iQoo, smartphone brand, has announced offers for the upcoming Amazon Prime Day Sale, exclusively for Prime members. The sale will be live from July 12 to July 14, featuring amazing deals on some of iQoo's top-rated smartphones: iQoo Z10 Lite, iQoo Z10x, iQoo Z10, iQoo Neo 10R, iQoo Neo 10, and iQoo 13. The newly launched iQoo 13 Ace Green will be available for purchase starting Prime Day.

These iQoo smartphones have consistently ranked among the top in their categories, garnering excellent customer feedback and establishing themselves as some of the highest-rated 5G devices on Amazon.

### Diabetes may raise infection, blood clot risk post knee surgery: Study

The condition can result in increased morbidity and mortality

DIABETES may not only lead to joint pain that can severely damage vour knee but also increase the risk of infections and blood clots after knee replacement surgery, according to a new study led by Indian researchers.

More than half of people with diabetes have coexisting arthropathy -- disease or condition affecting a joint -- and may need a hip or knee arthroplasty (joint replacement surgery) in the future.

The study led by researchers from the Vardhman Medical College and Safdarjung Hospital, New Delhi, showed that diabetes is a significant risk factor for joint infection following total knee arthroplasty (TKA) -- a popular and effective surgery for patients with advanced knee arthritis.

Deep vein thrombosis or blood clots is ancreased morbidity and mor-

"The presence of diabetes significantly impacts post-TKA outcomes, leading to higher complication rates and negatively affecting physical function and quality of life," said the researchers, including from Indraprastha Apollo Hospitals and Fortis C-Doc The findings based on systematic reviews Hospital. and meta-analyses

"Insulin-treated diabetics showed that people with face 60 per cent higher periodiabetes undergoing TKA perative adverse events. Poor face a 43 per cent higher sugar control around TKA risk of periprosthetic surgery worsens outcomes," joint infection and are they added, in the paper pub-45 per cent more likely lished in the Journal of Orto experience deep vein thopaedics.

The findings based on systhrombosis tematic reviews and metaanalyses showed that people other crucial postoperative complication after TKA, with diabetes undergoing which may also cause pulmo-TKA face a 43 per cent higher nary embolism -- a blood clot risk of periprosthetic joint causing a blockage in pulmoinfection (PJI) and are 45 per nary arteries in the lungs. The cent more likely to experience

#### Lead exposure may impair kids memory retention: Study

Found higher blood lead levels between the ages of 4, 6 were linked to faster rates of forgetting

An earlier Gartner re-

port had said that global

generative AI spending is

expected to reach \$644 bil-

lion in 2025, a surge of 76.4

per cent from 2024. Ge-

nAI spending in 2025 will

be driven largely by the

integration of AI capabilities into hardware, such as

servers, smartphones and

PCs, with 80 per cent of

GenAI spending going to-

growth across all core

markets and submarkets

in 2025. GenAI will have

a transformative impact

across all aspects of IT

spending markets, suggest-

ing a future where AI tech-

nologies become increas-

ingly integral to business

operations and consumer

products, the report had

Foundational model pro-

viders are investing billions

annually to enhance GenAI

models' size, performance,

and reliability. This para-

dox will persist through

spending

for significant

wards hardware.

GenAI

mentioned.

2025 and 2026.

poised

EXPOSURE to lead during pregnancy and early childhood may speed up the rate at which children forget information, potentially impairing learning and cognitive development, according to a new study.

The study employed a well-established cognitive test known as the delayed matching-to-sample task to assess memory performance in children aged 6 to 8, Xinhua news agency reported.

Researchers from the Icahn School of Medicine at Mount Sinai, US, applied a novel statistical model -- the nonlinear modified power function -- which had previously been used in animal and human studies but is now being adapted for environmental health research.

The study found that highblood lead levels between



the ages of 4 and 6 were significantly associated with faster rates of forgetting, even at relatively low levels of exposure, with a median blood lead level of approximately 1.7 micrograms per decilitre.

The findings, published in the journal Science Advances, suggest that even low-level lead exposure can compromise critical cognitive functions during early childhood.

"There may be no more important a trait than the ability to form memories. Memories define who we are and how we learn," said Robert Wright, from the Department of Environmental Medicine at the Icahn School

# Exposure to toxic air may raise risk of common brain tumour: Study

The study analysed several air pollutants, including those commonly linked to traffic

AIR pollution may not only affect your heart and lungs but can also raise the possibility of developing meningioma -- a typically noncancerous brain tumour -- according to a study.

This common type of brain tumour forms in the lining of the brain and spinal cord. The findings, published in the journal Neurology, do not prove that air pollution causes meningioma -- they only show a link between the

The study analysed several air pollutants, including those commonly linked to traffic -- such as nitrogen dioxide and ultrafine particles -- which are especially concentrated in urban environ-

The researchers found that people with higher exposure



gioma. "Various types of air pollution have been shown to have negative effects on health, and ultrafine particles are small enough to cross the blood-brain barrier and may directly affect brain tissue, said Ulla Hvidtfeldt, doctoral student at the Danish Cancer Institute in Copenhagen.

"Our study suggests that long-term exposure to air pollution from traffic and other sources may play a role in the development of meningioma and adds to the growing body of evidence that air pollution can affect the brain -- not just the heart

The study included nearly 4 million adults in Denmark with an average age of 35 who

were followed over 21 years.

During that time, 16,596 people developed a tumour of the central nervous system, including 4,645 who developed meningioma.

The findings point to a possible link between trafficrelated ultrafine particle exposure and the development of meningioma.

The study, however, did not find strong links between the pollutants and more aggressive brain tumours, such

# A CAUSE FOR CONCERN IN THE MIDDLE EAST

Apparently encouraged by the US support, Israel attacked Iran on June 13

D C PATHAK

ALTHOUGH a triangular contest between Iran, Israel and the Arab states of the Gulf- principally Saudi Arabia and UAEmarked the scene in the Middle East, it is the military confrontation between Iran and Israel that is currently the cause of a crisis in the region.

The two Arab states have been traditional allies of the US and have even been persuaded by the latter to consider signing peace pacts with Israel, termed the Abraham Accords.

The US and Israel continue to identify themselves with each other completely, and the US President Donald Trump was upholding Israel's total opposition to the Iranian nuclear programme and insisting on Iran signing the Joint Comprehensive Plan of Action (JCPOA) for any reconsideration of sanctions earlier imposed on it (Iran).

Iran had claimed that its nuclear programme was only for energy generation, but İsrael never accepted the plea.

The JCPOA called for further monitoring and verification provisions, and granting of increased access to IAEA inspectors to information and sites.

President Trump decided to mount "high pressure" on a reluctant Iran to make it fall in line with the US.

Apparently encouraged by the US support, Israel attacked Iran on June 13.

Iran retaliated by launching an attack on Israel with hypersonic missiles, many of which could get through the latter's Iron Dome air defence.

three nuclear sites at Fordow, Natanz and Isfahan, and claimed it had destroyed them. There was Israel-US intelligence coordination in the attack that was codenamed 'Midnight Hammer'. Seven B2 stealth bombers were used for Fordow and Natanz, and 14 bunker-buster bombs were dropped on the nuclear facilities there - the one at Fordow was buried deep below a mountain on the outskirts of Tehran. At the same time, two dozen cruise missiles were fired at Isphahan from a submarine.

Responding to the US claim of having destroyed the nuclear plants, Iran acknowledged damage but contended that the sites had already been discarded and their equipment moved else-

President Trump warned Iran that "future attacks would be far deadlier if it did not sign the nuclear deal".

UN nuclear watchdog said there were no signs of nuclear contamination at the three sites after the attacks.

The Head of Atomic Energy Organisation of Iran announced that Iran had another Uranium enrichment site at a safe location. While Iran did not seem to be

giving up on its right to develop

nuclear energy, Israel firmly be-

lieved that Tehran would use enriched Uranium to produce nuclear bombs. For the present, there is an undeclared ceasefire from both sides. What is per-On June 21, the US bombed haps a major cause of concern for the democratic world is that the Iran-Israel confrontation was not

> was now a "faith-based" conflict Ayatollah Ali Khameini, the supreme leader of Iran, said early on during the escalating tension that it was a "clash between Islam and Zionism" and talked of the "ultimate triumph of Islam over the Zionist regime". On June 6, he called upon the Muslim pilgrims going to Mecca

> merely political or military, but

to send a message to their governments and convince them of the need to "abandon and isolate Israel for its savagery in Gaza". It may be mentioned that Shia

fundamentalism despises the US as it is ideologically opposed to Capitalism- it glorifies "poverty" and "sacrifice". Sunni Islamic radical groups

carry the legacy of the 19th century Wahhabi Jehad that raged through Algeria, Arabia and India under the leadership of the Ulema-not the political rularsagainst the 'Western encroachment on Muslim lands'.

The US is therefore the first enemy for Islamic radicals, and this became very clear during the "war on terror". This 'war of US-led coalition' was against the Taliban-al Qaeda combine in Afghanistan and against a competi-



Responding to the US claim of having destroyed the nuclear plants, Iran acknowledged damage but contended that the sites had already been discarded and their equipment moved elsewhere

tive radical force called ISIS that emerged in the Iraq-Syria region. It is no surprise that Iran took a radicalised Hamas in its embrace, thus adding to the threat to Israel.

Lebanon-based Hezbollah- a Shia militant group - and the Houthis of Yemen also known as Ansar Allah representing a Shia Islamic Movement, are Iran's proxies, but it is the Iran-Hamas combine that was extremely significant for it transcended Shia-Sunni divide to make it a cause of Islam against the Jewish state, at a deep ideological level.

The motivation for this fight

is very strong being rooted in Jehad which was at par with the five fundamental duties of Islam and which called upon a faithful Muslim to even sacrifice his life in a situation of "Islam being in danger" or for the "protection of

the Muslim community". What is called Islamic Terror that President Trump has denounced in no uncertain terms. is, in the view of fundamentalists, a religious duty to be fulfilled, providing its protagonists with an instrument for effective indoctrination in the era of social media.

Iran and Israel today face an

unprecedented level of mutual animosity. The faith-based conflicts do not easily end, and the US-Israel side should be prepared to face a war of attrition. The total opposition to the US has caused a natural shift of Iran geopolitically towards the China-Russia camp, and the concern here is that if this divide becomes more deep-seated, it might hasten the return of the Cold War.

Meanwhile, the Organisation of Islamic Conference (OIC) in a joint statement following a meeting of Foreign Ministers of the 57-member block at Istanbul on June 22, condemned the aggression of Israel and laid emphasis on the role of UN Security Council in immediately addressing the grave threat to international peace and security caused by Israel. The release notably did not make a mention of the US attack on Iran's nuclear facilities, but the General Secretariat of OIC, in a separate statement, did express "deep concern" over the

overnight US strikes. The Istanbul conference decided to form a Ministerial Contact Group to engage with international and regional actors to stop aggression against Iran.

A leading light of OIC, Saudi Arabia, does not like the hegemony of either Iran or Israel in the Middle East and is particularly sensitive to radical Islamist groups who despise the Saudi regime for being a "lackey" of the US. OIC would favour a pact between the US and Iran.

India has maintained harmonious relations with the three lead players in the Middle East-Saudi Arabia, Iran and Israeland it should follow a three-fold policy approach based on zero tolerance towards faith-based terror, democratisation of the regimes there to grant minority rights and peace relations amongst all nations in the region. India would certainly not like the Iran-Israel confrontation to escalate into a global conflict.

While Israel's instinct of survival against a hostile Muslim world around it can be understood, its own military and technological power, besides the backing it enjoyed from the democratic world in general and the US in particular, should make it amenable to peace accords with its neighbours. It must stop indiscriminate killing of Palestinian civilians, including women and children, in Gaza while countering Hamas-it had every right to chase Hamas -and cooperate with the democratic world in finding a long-term solution to the Palestine issue.

In a war of attrition with Iran, Israel may not emerge as a sure winner for reasons mentioned earlier, and the best way out for global peace would be for major powers to compel de-escalation of military confrontations and push the Middle East towards peaceful coexistence.

> (The author is a former Director Intelligence Bureau)