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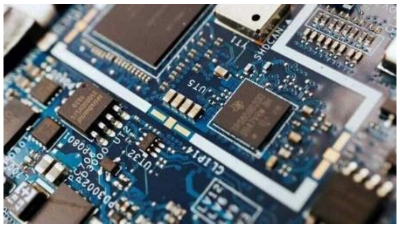
Tata, Powerchip To Build India's First Semiconductor Fab



India on Thursday approved its maiden semiconductor fabrication plant and two assembly units that will be developed jointly by local conglomerates and firms from Japan, Taiwan and Thailand, signaling that New Delhi's ambitious program to kick-start domestic chip manufacturing is gaining momentum after a sputtering start.

The Tata Group and Taiwanese foundry Powerchip Semiconductor Manufacturing Corp. will start construction of the fab, projected to cost 910 billion rupees ($11 billion), within three months, Ashwini Vaishnaw, India's electronics minister, said in a press conference.

The plant, to be built in state of Gujarat in western India, will churn out 50,000 wafers per month.

"Our partnership with PSMC provides access to a broad technology portfolio in leading-edge and mature nodes including 28 nanometer, 40 nm, 55 nm, 90 nm and 110 nm and also collaboration for high-volume manufacturing," Randhir Thakur, CEO of Tata Electronics, the group's chip arm, said in a separate statement.

"We will be able to serve our global customers' requirements for supply chain resilience and meet the growing domestic demand," he said. The group expects the Indian semiconductor industry to top $110 billion by 2030, accounting for about 10% of global demand.

India also greenlighted another Tata initiative, an assembly and testing unit in the northeastern state of Assam that is likely to cost 270 billion rupees and produce up to 48 million chips daily.

Japan's Renesas Electronics, Thailand's Stars Microelectronics and Indian power solutions provider CG Power are building a 76 billion rupee assembly and testing unit in Gujarat, with a daily capacity of 15 million chips.

The chips will be used in an array of sectors including automobiles, consumer electronics, power, telecom and defense.

"In order to make India a big manufacturing hub and self-sufficient in some sectors, Prime Minister Narendra Modi has taken some big decisions today on semiconductors, which is a foundational industry," Vaishnaw said. "After today's announcement, the semiconductor ecosystem in India will develop very fast."

India hopes to benefit from a concerted push by global conglomerates to develop alternative manufacturing hubs outside China as geopolitical tensions between Beijing and Washington intensify. Modi's government wants to take advantage of the shift and develop India into a global manufacturing hub, which it envisions as crucial in making India a $5 trillion economy.

New Delhi is intent on turning India into a hub for electronics manufacturing with a turnover of $400 billion by 2025. The government in 2021 approved $10 billion in incentives to spur local manufacturing of semiconductors. Eligible manufacturing projects will get support for up to half the cost of setting up shop.

India initially received three applications for semiconductor manufacturing, including a $19 billion investment proposal from a joint venture between domestic metals company Vedanta and Taiwanese contract manufacturer Foxconn. A consortium called ISMC, which includes Tower Semiconductor of Israel as a technology partner, expressed interest in investing $3 billion. Singapore-based IGSS Ventures also committed a similar amount. But none of the ventures took off.

Foxconn has since tied up with local technology firm HCL to build an assembly unit, but the venture has yet to get the government's nod.

India's first breakthrough came in June, when U.S. chipmaker Micron said it would invest $825 million to build a semiconductor assembly and testing plant.

Vaishnaw said on Thursday that government subsidies for the four projects, including the Micron plan, will total 590 billion rupees -- around $7.1 billion.

India's broader push encouraging global conglomerates to boost manufacturing in the South Asian nation also has started to pay off. Apple has increased manufacturing of iPhones in India through partners like Tata Group and Foxconn, while Vietnamese electric car company VinFast has committed $2 billion to set up a factory.

Cabinet Approves Royalty Rates For Mining Of 12 Critical Minerals

The Union Cabinet, chaired by Prime Minister Narendra Modi, has given its nod for the amendment of the Second Schedule to the Mines and Minerals (Development and Regulation) Act, 1957, to specify the royalty rates for 12 critical and strategic minerals.

This decision includes minerals such as beryllium, cadmium, cobalt, gallium, and several others that are pivotal for the nation's strategic sectors, including defence, electronics, and renewable energy.

According to an official release from the Cabinet, "The Union Cabinet chaired by Prime Minister Narendra Modi approved the amendment of the Second Schedule to the Mines and Minerals (Development and Regulation) Act, 1957 ('MMDR Act') for specifying the rate of royalty in respect of 12 critical and strategic minerals, viz., Beryllium, Cadmium, Cobalt, Gallium, Indium, Rhenium, Selenium, Tantalum, Tellurium, Titanium, Tungsten and Vanadium."

This completes the exercise of the rationalisation of royalty rates for all 24 critical and strategic minerals.

It may be noted that the government notified the royalty rate of 4 critical minerals, viz., glauconite, potash, molybdenum and platinum Group of Minerals, on March 15, 2022, and of 3 critical minerals, viz., lithium, Niobium and rare earth elements, on October 12, 2023, according to the release.

Recently, the Mines and Minerals (Development and Regulation) Amendment Act, 2023, which came into force on August 17, 2023, listed 24 critical and strategic minerals in Part D of the First Schedule of the MMDR Act. The amendment provided that the mining lease and composite licence for these 24 minerals would be auctioned by the Central Government.

The approval by the Union Cabinet for the specification of the rate of royalty will enable the Central Government to auction blocks for these 12 minerals for the first time in the country, it added.

The royalty rate on minerals is an important financial consideration for the bidders in the auction of blocks.

Further, the method for calculating the average sale price (ASP) of these minerals has also been prepared by the Ministry of Mines, which will enable the determination of bid parameters.

As per the release, the Second Schedule of the MMDR Act provides royalty rates for various minerals. Item No. 55 of the Second Schedule provides that the royalty rate for minerals whose royalty rate is not specifically provided therein shall be 12 per cent of the average sale price (ASP).

Thus, if the royalty rate for these is not specifically provided, then their default royalty rate would be 12 per cent of ASP, which is considerably high as compared to other critical and strategic minerals.

Also, this royalty rate of 12 per cent is not comparable with other mineral-producing countries.

Critical minerals have become essential for economic development and national security in the country. Critical minerals such as Cadmium, Cobalt, Gallium, Indium, selenium and Vanadium have been used in batteries, semiconductors, solar panels, etc.

These minerals have gained significance given India's commitment to the energy transition and achieving net-zero emissions by 2070. Minerals like beryllium, titanium, tungsten, tantalum, etc. have been used in new technologies, electronics and defence equipment.

The Geological Survey of India (GSI) and Mineral Exploration & Consultancy Ltd. (MECL) have recently handed over the exploration report of 13 blocks containing one or more critical minerals like cobalt, titanium, gallium, vanadium and tungsten. Further, these agencies are conducting exploration for these critical and strategic minerals in the country.

RBI Proposes Norms For Disclosure Of Climate-Related Financial Risks For Lenders

The Reserve Bank of India (RBI) on Wednesday proposed a four-year road map starting 2025-26 for regulated entities (REs) – banks, financial institutions, and non-banking finance companies (NBFCs) – to disclose climate-related financial risks under the standard framework.

The regulated entities would have to give information related to risks covering four areas – governance, strategy, risk management, metrics, and targets.

Under the draft plan, RBI commercial banks, All India financial institutions, and top and upper layer NBFCs will have to begin to provide information on governance, strategy, and risk management strategy from 2025-26 and begin disclosure metrics and targets from 2027-28.

The Urban Cooperative Banks in Tier-IV, those with deposits more than Rs 10,000 crore would begin to make disclosures on governance, strategy, risk management strategy from FY27, and metrics and targets from FY29. The payment banks, regional rural banks, and local area banks are excluded from disclosures.

RBI in the draft disclosure framework said REs are already required to disclose information on material risks as part of their Pillar 3 disclosures.

There was a need for REs to disclose more structured information about their climate-related financial risks and opportunities for the users of financial statements as it would foster an early assessment of risks and opportunities and also facilitate market discipline, it said.

There was a need for a better, consistent, and comparable disclosure framework for REs, as inadequate information about climate-related financial risks can lead to mispricing of assets and misallocation of capital by them, it added.

On the theme of governance-related disclosure, RBI said REs should detail the governance processes, controls, and procedures used to identify, assess, manage, mitigate, monitor, and oversee climate-related financial risks and opportunities.

It should dwell on the board's oversight of climate-related risks and opportunities and senior management's role in assessing and managing climate-related risks and opportunities, it said.
The disclosure under the second theme - strategy should spell out how REs would manage climate-related financial risks and opportunities, keeping in mind short, medium, and long-term horizons, it elaborated.

The third theme of risk management should also explain whether and how those processes (for climate-linked finance risks) inform the RE's risk management process.

The disclosures on metrics and targets should detail the RE's performance on progress towards any climate-related targets it has set, and any targets it is required to meet by statute or regulation, the draft added.

L&T Commissions First Indigenously Manufactured Electrolyser At Green Hydrogen Plant In Hazira

Larsen and Toubro has commissioned its first indigenously manufactured hydrogen electrolyser at the green hydrogen plant in Hazira, Gujarat.

The company said this significes L&T Electrolyser Ltd's foray into the domestic electrolyser manufacturing.

"Featuring a rated power capacity of 1 MW (expandable to 2 MW), this electrolyser can produce 200 Nm3/Hr of hydrogen. It is equipped with two stacks and an electrolyser processing unit ML-400, and offers exceptional flexibility and thermal stability," the company said in a stock exchange filing, adding that in the coming weeks, the electrolyser would be undergoing rigorous testing to optimise its performance.

Hydrogen is made by splitting H_2O (water) into two molecules -- hydrogen and oxygen — via electrolysis, which is an electrical process. The method requires electrolysers, and if the same is powered by renewable energy, then the product formed is green hydrogen — a fuel that is free of greenhouse emissions.

Larsen and Toubro's newly-incorporated entity L&T Electrolysers focuses on manufacturing pressurised alkaline electrolysers using technology from McPhy Energy in France. It said it is planning on leveraging its upcoming giga-scale Hazira facility to meet the growing green hydrogen demand, maximising product localisation via enhanced local supply chain and automation for cost-competitiveness.

"This advancement significantly bolsters our offerings across the value chain, showcasing L&T as a global force in the clean energy space," said Subramanian Sarma, the whole-time director and senior EVP (Energy) at L&T.

Meanwhile, Derek M Shah, the senior VP and head of the green energy business at L&T said the company's commitment to localisation in this project goes beyond just cost-efficiency. “It empowers the Indian supply chain and creates exciting opportunities for skilled professionals.”

Paytm Cuts Ties With Paytm Payments Bank, Ends Inter-Company Pacts After RBI's Crackdown

Paytm said in a company filing that it is ending all inter-company pacts with Paytm Payments Bank to reduce dependencies.

Paytm's parent company One 97 Communications said in a company filing on Friday that the firm's board has decided to discontinue the inter-company pacts with its banking service Paytm Payments Bank to reduce dependencies. This move by the company comes after the RBI crackdown against the payments bank.

Paytm Payments Bank Limited (PPBL) has remained under the lens of the Reserve Bank of India for a couple of months now. The apex bank has issued a deadline of March 15 to the firm to halt its credit transactions and deposits.

One 97 Communications said during a statutory filing on Friday that the company and its associate entity, Paytm Payments Bank Limited (PPBL), have introduced additional measures to strengthen their approach towards independent operations of PPBL.

“As part of this process to reduce dependencies, Paytm and PPBL have mutually agreed to discontinue various inter-company agreements with Paytm and its group entities,” the firm told BSE in the filing.

Paytm further said, “As informed earlier, One 97 Communications Limited (OCL) and its services that include the Paytm app, Paytm QR, Paytm soundbox, and Paytm Card machines will continue to work uninterrupted. Paytm is committed to uphold the highest standards of market-leading innovation and technology-enabled solutions for its customers.”

“Paytm had announced earlier that it would sign up new partnerships with other banks and take measures to provide seamless measures and services for its customers and merchants. In its intimation to stock exchanges on Feb 1, 2024, the company had indicated the possible financial impact,” One97 Communications said.

Elon Musk vs Sam Altman Fight Starts As Musk Sues OpenAI, Says Paid ChatGPT Is Betrayal Of Original Mission

Elon Musk has filed a lawsuit against Sam Altman and OpenAI because the company has deviated from its original ideology, which focused on developing AI for the benefit of humanity, instead of for profit.

Elon Musk has filed a lawsuit against Sam Altman and OpenAI for breach of contract, breach of fiduciary duty and unfair business practices by "maximizing profits for Microsoft, rather than for the benefit of humanity". Musk filed a lawsuit on Thursday in San Francisco court. In the lawsuit, Musk has reiterated something he has been saying for a few years now, that OpenAI's recent collaboration with Microsoft has eroded the company's original commitment to developing public, open-source artificial general intelligence.

In the lawsuit, Musk demands that OpenAI, alongside its president Gregory Brockman and CEO Sam Altman, who have been named co-defendants in the lawsuit, and Microsoft, be barred from profiting from the company's artificial general intelligence technology. Elon Musk and Sam Altman together set up OpenAI in 2015.

OpenAI's artificial general intelligence or AGI — a tool that is capable of performing human-like cognitive level tasks — was released in March 2023. It's called GPT-4. However, OpenAI only allows up to GPT 3.5 models to be used for free. Tools powered by GPT-4 are available under a subscription of $20 a month, which is about Rs 1,650 for users in India. And this is what Musk is voicing against. The Tesla and SpaceX boss says that charging for the AGI tools is against the foundational principle of OpenAI, which was aimed to provide its technology in the interest of humanity and not for commercial profits.

"The internal details of GPT-4 are known only to OpenAI and, on information and belief, to Microsoft. GPT-4 is hence the opposite of Open AI," Musk said in the lawsuit, according to the Courthouse News Service. "And it is closed for proprietary commercial reasons: Microsoft stands to make a fortune selling GPT-4 to the public, which would not be possible if OpenAI—as it is required to do—makes the technology freely available to the public," the lawsuit further reads.

In his lawsuit, Musk also stresses the 2023 dismissal and later reinstatement of Sam Altman as CEO. Musk alleges that Altman's removal prompted Microsoft to intervene and pressure the board members who initiated his ousting to resign. Musk contends that the present board lacks the scientific and technological understanding of the field previously possessed by scientists and researchers who were supportive of and comprehended the technology.

In recent years, Musk has frequently turned to social media to point out OpenAI's shift towards commercialising AI. A few months ago, Musk took to X to post that "OpenAI was created as an open source (which is why I named it "Open" AI), a non-profit company to serve as a counterweight to Google, but now it has become a closed source, maximum-profit company effectively controlled by Microsoft. Not what I intended at all," he said in the tweet.

Musk’s longstanding critical stance towards OpenAI is particularly intriguing given that only last year, Musk unveiled his own AI firm called xAI, operating as a for-profit entity. Additionally, Musk holds ownership in companies such as Neuralink and Optimus, both of which also focus on artificial intelligence development.

But this story likely goes further back. Based on insights from Walter Isaacson's biography of Elon Musk, the Tesla CEO reportedly proposed merging OpenAI into Tesla, an idea vehemently opposed by Altman and others on the board.

Musk's passion for artificial intelligence led him to create ventures like Neuralink, Optimus, and Dojo, and he was keen on integrating AI technology into Tesla vehicles. This dedication, however, led to strained relations with OpenAI and a subsequent split in 2018. Musk argued for merging OpenAI into Tesla to address concerns about its lagging behind Google. When the OpenAI team resisted, Musk left the organization, and Altman became CEO.

Simultaneously, Musk initiated the establishment of a competing AI team aimed at developing autonomous Tesla vehicles. The book also mentions that Musk recruited computer vision specialist Andrej Karpathy from OpenAI. Ultimately, OpenAI launched a commercial division, which introduced the widely-used chat bot ChatGPT last year.

India Economy Beats Expectations With 8.4% Growth

India has retained its title of the world's fastest growing major economy as it expanded 8.4% in the last three months of 2023, from a year earlier.

The data comes as the country is set to hold a general election this year.

Prime Minister Narendra Modi posted on the social media platform X, formerly Twitter, that it shows "the strength of Indian economy and its potential".

India is forecast to overtake Japan and Germany as the world's third biggest economy in the next few years.

The better-than-expected growth was led by a strong performance by the country's manufacturers, with the sector expanding by 11.6% in the period.

Private consumption, which makes up almost two-thirds of the country's gross domestic product (GDP), also rose by 3.5%.

People's spending power was affected last year due to high prices of staple foods such as onions. That led to the government introducing a number of measures to help curb food price inflation.

In recent years, Prime Minister Modi has raised government spending on infrastructure and offered incentives to boost the manufacturing of phones, electronics, drones and semiconductors to help India compete on the international market.

On Thursday, the government gave the greenlight to the construction of three semiconductor plants worth 1.26 trillion rupees ($15.2bn; £12bn) by firms including Indian conglomerate Tata.

But the agricultural sector, which accounts for about 15% of the $3.7tn (£2.93tn) economy, continued to struggle because of weak monsoon rains.

Some farmers have been protesting to demand minimum crop prices.
The International Monetary Fund (IMF) expects India's economy to expand by 6.5% in 2024, compared with 4.6% for China.

Beijing is under growing pressure to unveil stimulus measures to support the world's second biggest economy which is facing a number of challenges including a property market crisis, high youth unemployment and falling prices, known as deflation.

₹2000 Banknote Still Legal Tender, Circulation Drops To ₹8,470 Crore: RBI

The Reserve Bank of India (RBI) had announced the withdrawal of ₹2000 denomination banknotes from circulation on May 19, 2023.

The Reserve Bank of India (RBI) on Friday disclosed a substantial decrease in the circulation of ₹2000 denomination banknotes since the announcement of their withdrawal. As per the latest data, the total value of ₹2000 banknotes in circulation has plummeted from ₹3.56 lakh crore on May 19, 2023, to a mere ₹8470 crore by February 29, 2024.

"Thus, 97.62% of the ₹2000 banknotes in circulation as on May 19, 2023, has since been returned," the central bank said in a release.

The RBI also noted that ₹2000 banknotes continue to be legal tender.

"The facility for deposit and/or exchange of the ₹2000 banknotes was available at all bank branches in the country up to October 07, 2023. The facility for the exchange of the ₹2000 banknotes has been available at the 19 Issue Offices of the Reserve Bank (RBI Issue Offices) since May 19, 2023." the RBI release added.

The ₹2000 denomination banknote was introduced in November 2016, primarily to meet the currency requirement of the economy expeditiously after the withdrawal of the legal tender status of all ₹500 and ₹1000 banknotes in circulation at that time.

According to the RBI, the printing of ₹2000 banknotes was stopped in 2018-19 once the objective of introducing ₹2000 banknotes was met after banknotes in other denominations became available in adequate quantities.

The status of withdrawal of ₹2000 banknotes is periodically published by the RBI.