



# **POLICY PULSE**

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# ECONOMY

## GLOBAL ECONOMY

While the impacts of the COVID-19 pandemic continue to reverberate worldwide, the war in Ukraine is still raging, posing a threat to global security. The economic impact has contributed to inflationary pressures, disrupting food and energy markets, exacerbating food insecurity and malnutrition in many developing countries and impeding the post-pandemic recovery. Simultaneously, the climate crisis is taking a heavy toll on many countries, with heat waves, wildfires, floods, and hurricanes inflicting massive humanitarian and economic damage.

### Global Economies Growth Prospects

- In the **United States**, GDP is projected to expand by only 0.4 per cent in 2023 after estimated growth of 1.8 per cent in 2022. Consumers are expected to cut back spending amid higher interest rates, lower real incomes, and significant declines in household net worth.
- The **European Union** is forecast to grow by an estimated 0.1 per cent in 2023, down from 3.2 per cent in 2022. Many European countries are projected to experience a mild recession, with elevated energy costs, high inflation, and tighter financial conditions depressing household consumption and investment.
- Despite growing moderately, **Japan's** economy is expected to be among the better-performing developed economies in 2023. Gross domestic product is forecast to increase by 1.5 per cent in 2023, slightly lower than the estimated growth of 1.6 per cent in 2022. Prolonged chip shortages, rising import costs (driven by a weakening Japanese yen) and slowing external demand are, however, weighing on industrial output.
- The aggregate GDP of the **Commonwealth of Independent States and Georgia** (excluding Ukraine) is expected to contract by 1 per cent in 2023, following an estimated decline of 1.6 per cent in 2022. Several of the region's economies benefited from the relocation of businesses and residents and capital inflows, experiencing faster-than-expected growth in 2022. Growth in the region's energy exporters was supported by improved terms of trade.
- The recurring COVID-19-related lockdowns and prolonged stress in the real estate market, **China's** economy expanded by only 3 per cent in 2022. With the Government abandoning its Zero-COVID policy in late 2022 and easing monetary and fiscal policies, economic growth is forecast to accelerate to 4.8 per cent in 2023.
- In 2023, GDP growth in **East Asia** is forecast to reach 4.4 per cent, compared to 3.2 per cent in 2022, mainly reflecting a modest growth recovery in China. However, many regional economies (other than China) are losing steam amid fading pent-up demand, rising living costs and weakening export demand from the United States and Europe.

# ECONOMY

## GLOBAL ECONOMY

- **South Asia**'s economic outlook has significantly deteriorated due to high food and energy prices, monetary tightening, and fiscal vulnerabilities. The region's GDP growth is projected to moderate from 5.6 per cent in 2022 to 4.8 per cent in 2023.
- Growth in **India** is expected to remain strong at 5.8 per cent, albeit slightly lower than the estimated 6.4 per cent in 2022, as higher interest rates and a global slowdown weigh on investment and exports.
- In **Western Asia**, oil-producing nations have recovered from their economic downturn due to rising oil prices, increased production, and a revival of the tourism industry. But the average growth is projected to be slow from an estimated 6.6 per cent in 2022 to 3.5 per cent in 2023 due to external conditions.
- In **Africa**, economic growth is projected to slow from an estimated 4.1 per cent in 2022 to 3.8 per cent in 2023 as it remains subdued by a volatile and uncertain global environment compounding domestic challenges. The region has been hit by multiple shocks, including weaker demand from key trading partners (Europe and China), a sharp increase in energy and food prices, rapidly rising borrowing costs and adverse weather events. More governments are seeking bilateral and multilateral assistance as the costs of debt servicing rise.
- The outlook in **Latin America and the Caribbean** remains challenging amid unfavourable external conditions, limited macroeconomic policy space, and stubbornly high inflation. Regional growth is projected to slow to only 1.4 per cent in 2023, following an estimated expansion of 3.8 per cent in 2022.

# ECONOMY

## INDIAN ECONOMY

### Performance of Key Indicators

The combined Index of Eight Core Industries (ICI) increased by 7.8 per cent (provisional) in January 2023 compared to the Index of January 2022. The production of Fertilizers, Coal, Electricity, Steel, Natural Gas, Cement and Refinery Products increased in January 2023 over the corresponding month of last year.

**Coal production** (weight: 10.33 per cent) increased by 13.4 per cent in January 2023 over January 2022. Its cumulative index increased by 16.1 per cent during April to January 2022-23 over the corresponding period of the previous year.

**Crude Oil production** (weight: 8.98 per cent) declined by 1.1 per cent in January 2023 over January 2022. Its cumulative index declined by 1.3 per cent during April to January 2022-23 over the corresponding period of previous year.

**Natural Gas production** (weight: 6.88 per cent) increased by 5.3 per cent in January 2023 over January 2022. Its cumulative index increased by 1.4 per cent during April to January 2022-23 over the corresponding period of previous year.

**Petroleum Refinery production** (weight: 28.04 per cent) increased by 4.5 per cent in January 2023 over January 2022. Its cumulative index increased by 5.4 per cent during April to January 2022-23 over the corresponding period of previous year.

**Fertilizer production** (weight: 2.63 per cent) increased by 17.9 per cent in January 2023 over January 2022. Its cumulative index increased by 10.5 per cent during April to January 2022-23 over the corresponding period of previous year.

**Steel production** (weight: 17.92 per cent) increased by 6.2 per cent in January 2023 over January 2022. Its cumulative index increased by 7.1 per cent during April to January 2022-23 over the corresponding period of previous year.

**Cement production** (weight: 5.37 per cent) increased by 4.6 per cent in January 2023 over January 2022. Its cumulative index increased by 10.0 per cent during April to January 2022-23 over the corresponding period of previous year.

**Electricity generation** (weight: 19.85 per cent) increased by 12.0 per cent in January 2023 over January 2022. Its cumulative index increased by 10.1 per cent during April to January 2022-23 over the corresponding period of previous year.

As per the Ministry of Finance, the gross GST revenue collected in the month of February 2023 is ₹1,49,577 crore, of which CGST is ₹27,662 crore, SGST is ₹34,915 crore, IGST is ₹75,069 crore (including ₹35,689 crore collected on import of goods) and Cess is ₹11,931 crore (including ₹792 crore collected on import of goods).

# WTO UPDATES

## **Dialogue on Plastics Pollution and Environmentally Sustainable Plastics Trade**



A Meeting on 'Dialogue on Plastics Pollution and Environmentally Sustainable Plastics Trade' took place on 16 February 2023. The purpose of the dialogue is to facilitate discussions on three work streams including cross-cutting issues such as international cooperation, capacity building and transparency, issues related to reduction of plastic pollution and a full life-cycle approach to eliminating such pollution and issues regarding promotion of environmentally sustainable trade in plastic alternatives and substitutes.

The latest developments in global efforts to reduce plastic pollution were mainly discussed at this meeting. Broader issues such as the production and trade of single-use plastics, the role of the private sector, best practices sharing, and the special needs of developing countries were covered.

The primary goal in 2023, as outlined by the co-coordinators, is to take steps towards turning a wealth of technical information into "concrete, pragmatic and effective" outcomes at the 13th

Ministerial Conference (MC13) due to take place in Abu Dhabi in February 2024.

A number of organizations also presented their recent studies and projects on a wide range of topics, such as plastic packaging in global trade, plastic waste management, assistance to developing countries, and customs guidance on plastic trade.

# FREE TRADE AGREEMENT/ BILATERAL DISCUSSIONS

## INDIA

### India concludes 7th round of FTA Negotiations with UK



India and U.K have concluded the seventh round of negotiations for finalizing a free trade agreement. The discussions were held from 6th February 2023 to 12th February 2023 in London. The main focus of this round was discussion on tariff on goods, services, IPR, government procurement, dispute settlement and state-owned enterprises. This round has led to conclusion of discussion on chapters like Dispute Settlement and State-Owned Enterprises. On IPR, both parties had a detailed discussion and showed flexibility. Market access for Alcohol beverages has been a major area of discussion in most of the negotiation talks.

Both sides can reach a point of consensus on tariff reduction and threshold price, by mutually navigating and addressing their differences. A faster resolution of other such issues including the 'commitment on services' is needed to make progress in the negotiations. Differences related to discussions on government procurement also remains a key area of concern. Detailed discussions on services were put on hold at this round but might be taken up in upcoming rounds.

In addition to other issues, U.K is seeking more flexibility on 'rules of origin' as they believe India's proposal is restrictive in this chapter.

Nevertheless, a positive development at this round has been broad agreement on India's request on tariff preferences on goods for many key sectors like textiles, leather and chemicals. However, getting market access for some agriculture products remains a challenge. On the other hand, India is likely to give required market access to the UK for auto and medical devices products. The next round of discussion will be held from 20th March to 25th March 2023 in Delhi. It is also important to note that both parties have mutually agreed not to take a time bound approach for discussing this FTA; however, both are keen for an early conclusion of this deal before the announcement of elections in both countries.

### Preparatory talks on India-Australia CEPA negotiations concluded



India and Australia have decided to launch the full-fledged FTA i.e., Comprehensive Economic Cooperation Agreement (CECA).

# FREE TRADE AGREEMENT/ BILATERAL DISCUSSIONS

## INDIA

Preparatory talks have already been concluded on 24th Feb after the talks were launched on 20th Feb 2023. During the talks, explanatory dialogues have happened on various issues including market access, government procurement, digital trade, labour, environment, investment, innovation and rules of origin.

Australian PM and Trade Minister are scheduled to visit New Delhi from 9th March 2023 to 11th March 2023. To facilitate the discussion, the Department for Indian Industry and Internal Trade (DPIIT) will organise a CEO Meet in Mumbai, where key CEOs will be invited to interact with the Australian PM and the delegation. This interaction will take place on 9th March 2023. During the said visit, two sides are expected to officially announce the launch of the discussion for a full-fledged Comprehensive Economic Cooperation Agreement (CECA).

### India-Canada concludes 6th round of negotiations



To strength the economic ties and build a robust trade relationship, India and Canada launched FTA negotiations back in 2010. The talks were however stalled in 2017 due to the certain differences in negotiations.

Committed to give renewed push to a strong bilateral economic partnership, the countries decided to relaunch the negotiations on March 11, 2022 during the fifth Ministerial Dialogue on Trade & Investment (MDTI) in New Delhi.

Year(s)	Exports	Imports
2021-2022	US\$ 3,763.98 Million	US\$ 3,132.78 Million
2022-2023 (Apr-Dec)	US\$ 3,178.87 Million	US\$ 2,961.28 Million

Source: Ministry of Commerce and Industry

The trade complementarities between India and Canada have been explored in certain areas such as mineral reserves. As per Indian negotiators, these are the areas where India is seeking to diversify its sources of imports and believe that domestic markets will not be affected. Both sides are looking to strengthen trade and commercial ties across sectors including agro-products, chemicals, footwear, textiles, automobiles, energy, electronics, minerals and metals, urban development, information technology and tourism.

India and Canada are looking to increase their cooperation in areas such as tourism, including sharing information and best practices on tourism (e.g., exchange programs), destination management, and interaction between tour operators and travel agents. Both sides also expressed interest in cooperation in urban development and infrastructure including smart cities and physical infrastructure, especially water supply, sewerage, power and roads; skill development, transfer of technology and R&D in the construction sector.

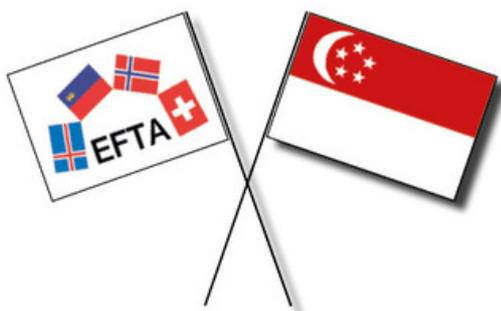
# FREE TRADE AGREEMENT/ BILATERAL DISCUSSIONS

## INDIA/ OTHERS

Both countries have held at least six rounds of negotiations. The next round of negotiation will begin after a month from now. In the initial two rounds, all the areas/ chapters of the trade agreement were discussed. Thereafter, more focused discussions have happened in some of the specific areas. An Early Progress Trade Agreement (EPTA) is likely to be finalised soon, however no specific timeline has been decided as yet. The EPTA will mainly cover areas of convergence including in goods, services, SPS, TBT, Customs and Trade Facilitation, dispute settlements and other institutional mechanisms.

### OTHERS

#### Singapore and EFTA begin talks on digital economy pact



Digital economy has become an important area of trade negotiations. Governments across the globe are looking to strengthen their digital economy through cooperation with other nations. Singapore which earlier signed a digital trade agreement with UK and EU is now looking to finalise a deal with European Free Trade Association (EFTA).

EFTA comprises of four countries – Iceland, Liechtenstein, Norway and Switzerland. In 2003, Singapore and EFTA have signed an agreement which led to elimination of tariffs on 99.8 per cent of Singapore exports to the EFTA. The proposed digital agreement will allow Singapore and the EFTA to cooperate more fully in the digital domain, enable trusted data flows and facilitate a secure digital environment, said a joint statement from Singapore’s Ministry of Trade and Industry, Ministry of Communications and Information and the Infocomm Media Development Authority.

#### New Zealand and EU finalise free trade agreement



Following four years of negotiations, the EU and New Zealand finalised a free trade agreement (FTA) that is expected to save more than EUR 140 million per annum to businesses in the form of export duties. The FTA also reduces compliance requirements, which should result in a faster exchange of goods. The FTA is also expected to facilitate exchange of services and provide new opportunities for businesses in every sector.

# FREE TRADE AGREEMENT/ BILATERAL DISCUSSIONS

## OTHERS

An additional advantage for opening up these markets is to provide non-discriminatory treatment for both EU and New Zealand investors. The FTA will facilitate digital trade, thereby providing predictability and facilitating data protection and privacy. IP rights will be secured through the inclusion of comprehensive rules that encourage innovation and growth. Different from many multinational agreements, the FTA also includes Trade and Sustainable Development (TSD) guarantees that lay down penalties for breach of trade rules. The TSD implements International Labour Organisation principles and Multilateral Environmental Agreements and pays special attention to climate change by ensuring adherence to the Paris Agreement. The FTA will enter into force upon approval by the Council and the Parliament of the EU.

### Punjab cabinet approves industrial policy



Source: The Tribune

Punjab Cabinet headed by Chief Minister Bhagwant Mann approved the New Industrial and Business Development Policy, 2022, aimed at spurring industrial development and creating employment opportunities in the state. While chairing the review meeting Mann, said that Punjab is on the threshold of becoming a front-runner industrial state in the country; and the new Industrial Policy, being prepared by the State Government, will act as a pivot for it. "

The Punjab Industrial and Business Development Policy 2022 aims to facilitate the manufacturing & services sector by creating an investor-friendly environment in Punjab. It focuses on developing sustainable business models that can withstand competition from other businesses within India and the world.

The policy has raised concerns about Upgrading power infrastructure in industrial areas. Punjab State Power Corporation Ltd. (PSPCL) will review its policies to make them more business-friendly. PSPCL is one of the stakeholders in the energy sector in Punjab. A special cell is set up in PSPCL to facilitate

and advise the industry to install solar Power to augment the solar power generation in the state. State will Rationalize the electric load for SP- is up to 20KW and MS-is up to 100 KW.

It has also proposed subject to a ceiling of ₹50 lakh per unit, interest subsidy at 5% subject to a maximum of ₹5 lakh per year for five years and 25% of the cost of public issue expenses (access to finance), 100% 50% of fixed capital investment exemption from electricity duty for 7 years (access to infrastructure), 75% of the cost of ERP software subject to a maximum of ₹5 lakh for first 5,000 units, etc.

The State will promote the setting up of Incubation Centres in Universities and other Academic Institutions. It would support and Facilitate Punjab-based start-ups in raising venture funds from the Punjab Innovation Mission set up with an outlay of 150 Crore. Women entrepreneurs will be encouraged.

The state already has set up state Multi Skill Development Centres (MSDC) in five main districts for quality and skill training. Further, MSDC will be set up in the remaining district under Public-Private Partnership Mode.

The state is taking the initiative towards ease of doing business by setting up 'Invest Punjab', a unified regulator vested with the powers to grant regulatory clearances across 23 departments. This portal will be used for approval/ NOCs required by investors to obtain various clearances.

# POLICY/ REGULATORY UPDATES

## INDIA

The policy also includes additional fiscal incentives for industrial parks (minimum of 25 acres), mega (investment between ₹1,500 and ₹2500 crore) and ultra-mega (above ₹2,500 crores) projects. The policy will introduce a two-part electricity tariff, i.e. fixed and variable tariff and shall provide power at a variable tariff of Rs. 5.50 /- per KV for five years with an annual increase of 3%. There shall be no increase in the existing fixed electricity tariff.

### State Electric Vehicle Policy

The Government of India is playing its part by framing environmental-friendly policies & regulations and encouraging the use of electric vehicles in the country. Along with the national-level FAME II scheme, States have released electric vehicle policies that aim to increase EV adoption and encourage the manufacturing of EVs and its components. These state policies offer a range of incentives to create EV demand, increase manufacturing and build charging infrastructure.



### Punjab

The cabinet-approved Punjab Electric Vehicle Policy (PEVP) 2022 aims to keep a check on pollution in the state caused by vehicle emissions. Also, to encourage the development of public and private EV charging infrastructure in the state, make Punjab a preferred location for the production of EVs, their components, and batteries, make Punjab a centre for EV research and development under the direction of a Center of Excellence, and ensure sustainability and reduce environmental harm.

Under this policy, five target cities, including Ludhiana, Amritsar, Jalandhar, Patiala, and Bathinda, will be encouraged the use electric vehicles. It will support the creation of an e-mobility Center of Excellence in collaboration with an academic partner or an industrial group. Further, incentives are provided for manufacturing units a 100% waiver on the first transaction & 50% waiver on the second traction of stamp duty/ transfer duty. The electricity duty is 100% exemption for 15 years.



Source: The Tribune

### Tamil Nadu

Tamil Nadu will encourage electric vehicles (EV) by offering incentives to manufacturers, customers and charging-infrastructure providers, announcing a new policy after seeing investment interest of around Rs 24,000 crore in the last five years.

Incentives for manufacturers under the Tamil Nadu Electric Vehicles Policy 2023 include 100 per cent reimbursement on state goods and services tax (SGST), investment- or turnover-based subsidy, and advanced chemistry cell subsidy. The state for five years will fully exempt tax on electricity purchased from its discom, exempt stamp duty and subsidise the land cost. In the last five years, the state has seen EV projects with an employment potential of 48,000 jobs.

Tamil Nadu will revise the power tariff for public charging stations. It will declare six cities—Chennai, Coimbatore, Tiruchirappalli, Madurai, Salem, and Tirunelveli—as EV cities.

### WORLD

#### Australia New South Wales Coal Reservation policy

In mid-January, the NSW government announced plans to require coal producers to reserve up to 10% of their output for domestic use but has changed its position for those with long-term contract obligations. Under this reservation policy, domestic sale prices will be capped at A\$125/t (\$87/t), significantly below export prices, particularly for high-grade thermal coal.

Treasurer and Minister for Energy Matt Kean said revised directions mean domestic and export-focused coal companies will be required to provide cheaper coal to NSW power stations.

Japanese firms Idemitsu, Nippon Steel and Chugko Electric Power are the biggest winners. They have been granted an exemption of 7 million tonnes per annum for their Boggabri joint venture, which supplies thermal and semi-soft coking coal to the seaborne market via the port of Newcastle.



Companies who have not recently supplied domestic power plants, such as Australian firms BHP and Whitehaven, have been urged to reserve 6% of their production for domestic users rather than the 7%–10% previously planned.

#### European Council and Parliament agreed on European green bonds

On 6th July 2021, the European Commission first presented its proposal for a regulation to establish European green bonds (EuGB). Trilogue negotiations started on 12 July 2022 and ended with the provisional agreement on 28th February 2023.

# POLICY/ REGULATORY UPDATES

## INDIA

The regulation establishes uniform requirements for bond issuers wishing to use the “European Green Bond” or “EuGB” designation for environmentally sustainable Bonds available to investors in the European Union. Further, it will establish a registration system and monitoring framework for a set of external auditors for European Green Bonds.

Environmentally sustainable bonds are one of the primary tools for funding investments in green technology, energy & resource efficiency, and sustainable transportation and research infrastructure.

The usage and necessity of this flexibility pocket will be re-evaluated as Europe transitions to climate neutrality. The growing number of attractive and green investment opportunities will likely become available in the future.



According to the provisional agreement, all revenues from EuGBs must be invested in economic activity aligned with the EU taxonomy, assuming that the sectors concerned are already covered by it. There will be a 15% flexibility pocket for sectors not yet covered by the EU taxonomy, assuming that the sectors concerned are already covered by it. There will be a 15% flexibility pocket for sectors not yet covered by the EU taxonomy and for certain specific activities. This is to ensure that the EuGBs standard is usable from the outset.

## Smart Manufacturing

Akriti Kumari

### Digital Twin

A digital twin is a virtual representation of a real-world entity or process. A digital twin ingests data and replicates processes so you can predict possible performance outcomes and issues that the real-world product might undergo. It is composed of the following three elements:

- a physical entity in real space;
- the digital twin in software form; and
- data that links the first two elements together

A digital twin functions as a proxy for the current state of the thing it represents. Moreover, the digital twins of two seemingly identical products will not usually be identical. While many digital twins have a 2D or 3D computer-aided design (CAD) image associated with them, visual representation is not a prerequisite.

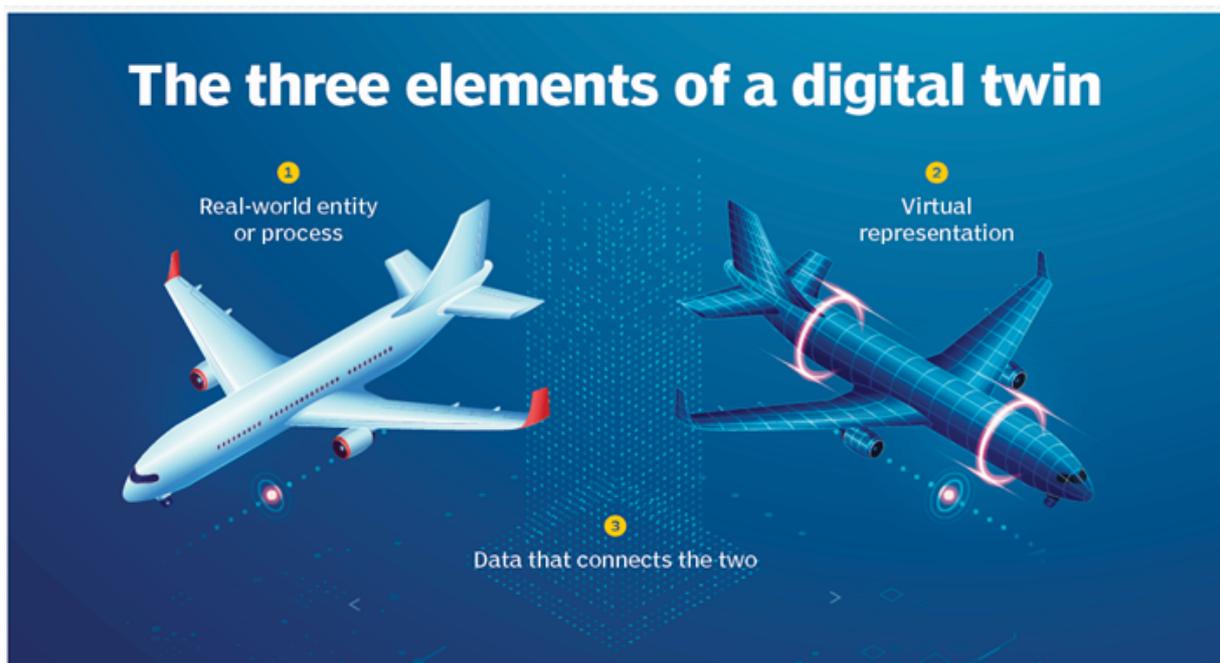
The digital representation, or digital model, could consist of a database, a set of equations or a spreadsheet.

The data link, often but not necessarily two-way, is what differentiates digital twins from similar concepts. This link makes it possible for users to investigate the state of the object or process by querying the data, and for actions communicated through the digital twin to take effect in its physical counterpart.

### Types of Digital Twins

Digital twins come in many forms and varying complexities, but can be distilled across four physical areas:

- **Product** - Captures product lifecycle from origin through operating in customer's end environment and decommissioning.
- **Process** - Representations of manufacturing operations and production activities to create products and services.



# OPINION COLUMN

- **People** - Deliver task information to workers and/or capture data to improve process efficiency.
- **Places** - Virtualize a place—like a factory or workstation—to gain insight into the complex workings within the environment and engage with it.

The applications with digital twin are still emerging. With the technology comes the capability for real-time feedback – and even predictive monitoring and insights. There are three distinct areas where digital twin can and will make a difference: Engineering, Manufacturing, and Maintenance and Services.

Industrial companies are starting to scratch the surface of digital twin benefits. Below is a round-up of potential benefits across:

- Enhance supply chain agility and resilience
- Reduce product time to market
- Enable new business models (i.e., product as a service)
- Increase customer satisfaction
- Improve product quality
- Drive operational efficiency
- Improve productivity
- Inform sustainability efforts

## Digital Twin Challenge

Every enterprise going through a digital transformation risk drowning in raw data before finding a way to process and leverage it. Today, capturing raw data is less of a challenge than processing it, filtering the useless parts, combining it, and transforming it into information that makes sense to the user in the context of their application.

The main challenge is unlocking the power of information. Enterprise and IoT data have been buried in databases, spreadsheets, and models (CAD, BIM, GIS). Real-time 3D digital twins can bring that data to life.

## Future of Digital Twin

- **Network Digital Twin (NDT) for 5G in the telecom sector** - As the 5G revolution has started taking shape, we will see the growing use of geospatial technology leveraged for digital twins. Geospatial technology is the fusion of geography and technology, enabling us to capture and understand patterns and relationships in our physical world. 5G will necessitate a denser telecom network with more judiciously and unequivocally deployed towers. NDTs would benefit the telecom sector in planning, R&D, deployment, and operations.
- **Metaverse tech** - Digital Twin Technology can assist in creating virtual towns, communities, buildings, and other physical infrastructure. The blend of Digital Twin Technology with the Metaverse would be remarkable in the realm of technology.
- **Sustainability** - Digital twins can be used to analyze and optimize the environmental impact of cities, including energy use, water consumption, and waste management. This can help reduce the city's carbon footprint and support sustainability goals. Digital twins have allowed the wind energy sector to transform.

# OPINION COLUMN

- **Advanced Driver Assistance Systems (ADAS)** - A digital twin can be used to test and optimize the performance of the ADAS features, such as collision avoidance, lane keeping, and adaptive cruise control.
- **Utility Industry** - The use of digital twins in the utility industry is revolutionizing, allowing us to optimize the performance and efficiency of our systems through virtual modelling and simulation. Telecom infrastructure is being improved by implementing advanced analytics systems to provide better coverage and user experience.
- **Last mile delivery for eCommerce** - Digital Twin can help improve eCommerce's efficiency, reliability, and sustainability of last-mile delivery by enabling planners and fleet managers to optimize routes and schedules, monitor and manage the delivery fleet, and analyze and improve the customer experience.
- **Real Estate** - It can improve the efficiency, effectiveness, and transparency of the real estate selling process by enabling virtual tours, interactive visualizations, collaboration, decision-making, and maintenance and management. Making Buying, Selling, Renting, and maintenance needing fewer physical interactions.

(The writer is an Senior Research Analyst at VeKommunicate)

# OPINION COLUMN

## *Geopolitics Behind the Clutter Anjali Mahto*

### **Data for Development: The Role of G20**



We live in a different world than what it used to be a few decades ago! We live in a digitalised world which is rapidly transforming how we live. For instance, the changing role of borders – with the introduction of digitalisation. People can now work remotely for a company in a different geographical area without actually crossing borders. This has provided an opportunity for governments across the globe to boost their services exports. Digital transformation also creates huge assets known as ‘data’, produced from every digital interaction. ‘Data’ is considered the new oil. Applying innovative technologies to datasets can help achieve far-reaching impacts on-ground development interventions at all levels, including the remotest villages, cities, and towns, according to the union minister of state for information and technology Rajeev Chandrasekhar. As per India’s G20 Sherpa Amitabh Kant, data is crucial to help any country meet its developmental goals.

Data is an essential tool for providing governance solutions. The government aims to catalyse innovation through its data governance policy and create more effective policies and pragmatic solutions. The government expects that improving access to large databases is taken as an opportunity for companies to train their AI models. Additionally, to promote “Make AI in India and Make AI work for India,” the government has announced to set up of three centres of excellence for Artificial Intelligence in top educational institutions of India in the 2023 budget. These centres of excellence for Artificial Intelligence will help leading industry players in conducting interdisciplinary research, developing cutting-edge applications and scalable problem solutions in the areas of agriculture, health, and sustainable cities, through partnership opportunities.

**Without data and good governance, less developed and developing countries will never be able to grow.”  
— Amitabh Kant**

Data has also been identified as one of the accelerators of Sustainable Development Goals or SDGs. To facilitate the acceleration of the Sustainable Development Goals (SDGs), data can be utilised as an essential tool for:

- Identification and measurement of issues & gaps in realising the goals.
- Forming strategic Partnerships and finding innovative solutions to the issues and gaps identified.

## OPINION COLUMN

However, as every side has two coins, digitalisation has also created challenges, such as the threat to cybersecurity and privacy due to data theft. This has led governments across the globe to introduce measures to protect the data. However, in absence of internationally harmonised data security regulations, accessing cross-border data has become challenging, especially for developing countries like India. For instance, General Data Protection Regulation (GDPR) in European Union (EU) does not allow the flow of personal data to a non-EU country if it finds that country to have an inadequate mechanism for protecting EU data. Non-EU countries are mandated to enter into a safeguard mechanism like the Standard Contractual Clause (SCC) for cross-border data transfer. This additional requirement creates a digital trade barrier for countries with inadequate status.

Considering how important data is for developing countries, there is a need to create a framework which generates trust among G-20 countries with respect to data sharing. India's role as a G20 chair will be crucial in this aspect. Appropriate data-sharing mechanisms at the G20 level need to be introduced to facilitate access to data for developing countries.

(The writer is an Account Executive at VeKommunicate)

## Environment Equity

Saloni Goyal

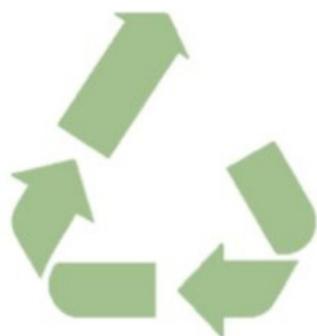
### Plastic, downcycling and upcycling

In recent years, plastic pollution has evolved to be a severe problem. Every year, the globe produces approximately 438 million tonnes of new plastic. With no sign of a slowdown in production, this figure is expected to rise to 34 billion tonnes by 2050. Scientists estimate that less than 10% of all plastic waste generated globally is recycled. Around 79% of plastic trash ends up in landfills or nature, with the remaining 12% being burnt.

As per a recent CIEL report, at current levels, greenhouse gas emissions from the plastic lifecycle threaten the ability of the global community to keep global temperature rise below 1.5°C degrees. If plastic production and use grow as planned, by 2030, these emissions could reach 1.34 gigatons per year, equivalent to the emissions released by more than 295 new 500-megawatt coal-fired power plants. By 2050, the cumulation of these greenhouse gas emissions from plastic could reach over 56 gigatons or 10 – 13% per cent of the remaining carbon budget.

Recently, many brands have begun recycling PET bottles into garments, which can be seen as one step towards reducing waste generation and making the world more sustainable & environment friendly. Indian Oil Corporation Limited (IOCL) announced it would recycle 100 million PET bottles annually to make fabric. The jackets will be available at retail outlets of oil marketing companies (OMC) such as IOCL, BPCL and BP HPCL.

Recycling is a promising practice as it reduces waste and minimizes pollution. But we have to realize that plastic used in making garments is downcycled. Downcycling is the recycling of waste where the recycled material is of lower quality and functionality than the original material. This means that when plastic bottles and materials are recycled, it will weaken the structural composition of the plastic. And sooner or later, it will end up in a landfill or ocean, breaking into microplastic and emitting methane.



Upcycling



Recycling



Downcycling

## OPINION COLUMN

This microplastic can easily spread through the air, accumulate in the environment, and may be challenging to detect. Microplastic in the oceans may also interfere with the ocean's capacity to absorb and sequester carbon dioxide. A human exposed to microplastic has lung diseases and enters the skin through sweat glands, hair follicles, or open wounds.



Upcycling, on the other hand, is the process of converting material into something of greater value. Companies specialize in this type of positive recycling. They transform scraps of cloth from fabric overproduction, sometimes known as deadstock fabric, into high-quality clothing or bags.

According to MaterialTrader, some companies have begun upcycling plastic pouches from laundry detergent or dish soap by transforming them into tote bags. These bags are then utilized as reusable shopping bags or beach bags.

Downcycling is still a problem, and until there is effective implementation towards the reduction of plastic use significantly.

. The silver lining is that companies and countries around the world have found ways to upcycle plastic, such as through a transition to green raw materials – coconut shells, bamboo, etc.

(The writer is an Account Executive at VeKommunicate)

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