

# 1. India's Unicorns

## Topic: Economy

**In News:** The Number of unicorns in India has reached 100.

### More on the Topic:

- The total valuation of these unicorns is more than 330 billion dollars, that is, more than 25 lakh crore rupees.
- They are operating in many fields like E-commerce, Fin-Tech, Ed-Tech, Bio-Tech,”
- A record 44 unicorns were established last year amidst the pandemic.
- The average annual growth rate of Indian unicorns is more than those of the USA, UK, and many other countries.
- Analysts also say that in the coming years there will be a sharp spike in these numbers.



### What is a unicorn startup?

- Unicorns are **privately held, venture-capital backed startups** that have reached a value of \$1 billion.
- The valuation of unicorns is not expressly linked to their current financial performance, but **largely based on their growth potential** as perceived by investors and venture capitalists who have taken part in various funding rounds.

### India's Start up Ecosystem:

- The country's startup ecosystem has seen a **nine-time increase in the number of investors**, and a seven-time increase in the total funding of startups.
- Indian start-ups are gradually transitioning from the age of unicorns to the age of decacorns.
- A decacorn is a company that has attained a valuation of more than USD10 billion.
- As of May 2022, 47 companies world over have achieved the decacorn status. India has four startups namely, Flipkart, BYJU's, Nykaa and Swiggy, added in the decacorn cohort.

**Source: Indian Express**

## 2. Cheetahs from South Africa and Namibia

**Topic: Environment and Ecology**

**In News:** India has finalised deals for cheetahs from South Africa and Namibia.

**More on the Topic:**

- This would initiate India's ambitious plan of transcontinental relocation of cheetahs.
- To begin with, there will be 12 cheetahs from South Africa and eight from Namibia. More would follow in subsequent years.
- India will release cheetahs from South Africa and Namibia into the wild at Kuno Palpur in Sheopur district of Madhya Pradesh.
- The project to translocate cheetahs from Africa to India is a **long-term, one-time project being implemented by the environment ministry** with the help of the **Wildlife Institute of India** to reintroduce the cheetah into wild, which became extinct in India in the 1950s.



**About Cheetah:**

- The cheetah is one of the oldest of the big cat species, with ancestors that can be traced back more than five million years to the Miocene era.
- The cheetah is also the world's fastest land mammal.
- It is listed as **vulnerable in IUCN red listed species**.
- **The Asiatic cheetah is classified as a "critically endangered" species by the IUCN Red List, and is believed to survive only in Iran.**

**Source: Indian Express**

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### 3. Jal Jeevan Mission

#### Topic: Government Schemes

**In News:** The Ministry of Jal Shakti has achieved the milestone of 50 per cent of rural households having access to tap water connections.

#### More on the Topic:

- Jal Jeevan Mission, is envisioned to provide safe and adequate drinking water through **individual household tap connections by 2024 to all households in rural India.**
- The programme will also implement **source sustainability measures** as mandatory elements, such as recharge and reuse through grey water management, water conservation, rain water harvesting.
- The Jal Jeevan Mission **will be based on a community approach to water** and will include extensive Information, Education and communication as a key component of the mission.
- **Jal Jeevan Mission App:** The Jal Jeevan Mission App helps improve awareness among stakeholders and for greater transparency and accountability of schemes under the Mission.
- **Rashtriya Jal Jeevan Kosh:** Through this platform any individual, institution, corporation, or philanthropist, be it in India or abroad, can help provide tap water connection in every rural household, school, Anganwadi centre, ashram shala, and other public institutions.



#### Social Impact of Jal Jeevan Mission:

- The burden of arranging water for daily household needs mostly fell on women and young girls.
- There is sufficient evidence to suggest that school attendance among girls was significantly lower in summers when due to increased requirements for water, multiple trips were needed.
- After the launch of Jal Jeevan Mission and improvement in access to tap water connection within their premises, considerable improvement in this regard has been noticed.

**Source: Indian Express**

## 4. SSR and SRIMAN Guidelines

### Topic: Government Schemes

**In News:** The Science and Technology Ministry has released the Scientific Social Responsibility and Scientific Research Infrastructure Sharing Maintenance and Networks- SRIMAN Guidelines.

#### More on the Topic:

- According to a recent study by NSTMIS, DST (2013), **94% of the research equipment used in India are imported while only 6% are being manufactured indigenously.**
- Further, the study showed that **large number of equipment's are not shared and are marred with issues related to maintenance and want of spares.**
- This adds to the burden of research infrastructure costs.
- A suitable ecosystem for sharing of scientific equipment is a solution to this problem. SRIMAN is conceived in this regard.
- A culture of collaboration/sharing between institutions helps in optimum utilization of equipment resulting in better maintenance of the equipment.
- **The SRIMAN Guidelines aims to promote efficient utilisation and wider access of Research Infrastructure** to scientists, researchers and industry professionals across the country by creating a network of relevant stakeholders.

#### Scientific Social Responsibility:

- SSR is an institutional mechanism and is **a significant step to reaching out to the widest spectrum of stakeholders of S&T with knowledge**, human resources and infrastructure to make effective use of existing assets for the benefit of society.
- In tune with the spirit of CSR to earmark some profit for public service, **SSR will enable sharing of knowledge and Infrastructure.**

Source: Business Standard



सत्यमेव जयते

विज्ञान एवं  
प्रौद्योगिकी मंत्रालय  
MINISTRY OF  
**SCIENCE AND  
TECHNOLOGY**

## 5. Pamban Bridge

### Topic: Infrastructure Development



**In News:** India's first vertical lift Railway Sea Bridge – Pamban Bridge will be ready soon.

#### More on the Topic:

- Pamban Bridge attracts tourists from all over the world. It connects Mandapam in TN to Rameswaram at Pamban island.
- Old Pamban Bridge was commissioned on February 24, 1914.
- It was India's first sea bridge, and was the longest sea bridge in India until the opening of the Bandra-Worli Sea Link in 2010.

**Source:** Business Standard

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## 6. National Council for Teacher Education

### Topic: Governance

**In News:** National Council for Teacher Education launches portal to streamline the process of recognition of teacher education programs of HEIs/TEIs.

#### More on the Topic:

- This portal will bring a paradigm shift in the functioning of NCTE. It aims to provide an automated robust framework thereby enhancing accountability, transparency and ease of doing business.



- The portal will take care of the application right from the time of inviting application for courses till the stage of issue of recognition orders including the inspection of institutions.
- The applications for the recently launched 4 Year ITEP applications will be processed on this portal.
- Online applications for Integrated teacher’s education (ITEP) will be processed by NCTE through ‘Admin Login’ of the website.

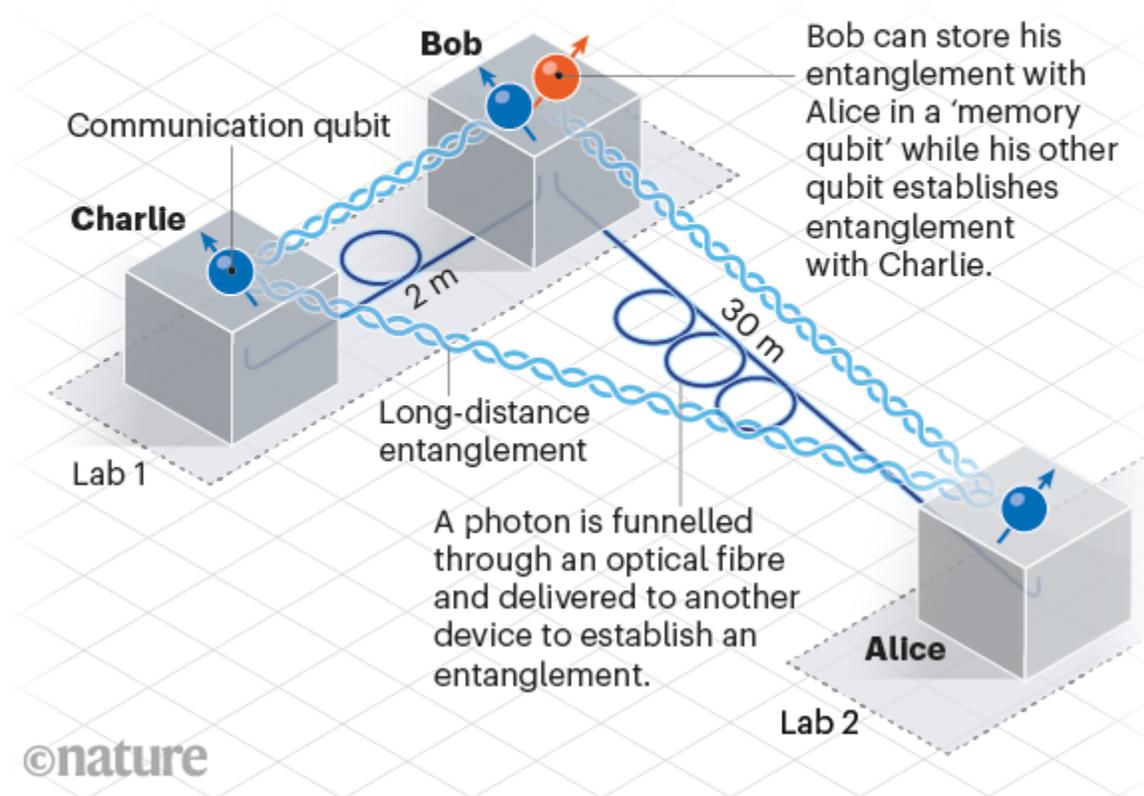
Source: Hindu

## 7. ‘Quantum internet’

Topic: Science and Technology

### QUANTUM NETWORK

Physicists have created a network that links three quantum devices using the phenomenon of entanglement. Each device holds one qubit of quantum information and can be entangled with the other two. Such a network could be the basis of a future quantum internet.



**In News:** Scientists have taken a major step towards the creation of a quantum internet.



### More on the Topic:

- In the quantum world, data can be encoded in the state of qubits, which can be created in quantum devices like a quantum computer or a quantum processor.
- And the quantum internet, in simple terms, will involve sending qubits across a network of multiple quantum devices that are physically separated.

### About Qubits:

- Central to quantum communication is the fact that qubits, which harness the fundamental laws of quantum mechanics, behave very differently to classical bits.
- As it encodes data, a classical bit can effectively only be one of two states. Just like a light switch has to be either on or off, and just like a cat has to be either dead or alive, so does a bit have to be either 0 or 1.
- Not so much with qubits. **Instead, qubits are superposed: they can be 0 and 1 simultaneously**, in a special quantum state that doesn't exist in the classical world.
- It's a little bit as if you could be both on the left-hand side and the right-hand side of your sofa, in the same moment.
- The whole phenomenon is called superposition, and lies at the core of quantum mechanics.

### Application:

- Unsurprisingly, qubits cannot be used to send the kind of data we are familiar with, like emails and WhatsApp messages.
- It can be used for cyber security.
- **The concept is at the core of an emerging field of cybersecurity called quantum key distribution (QKD).**
- QKD works by having one of the two parties encrypt a piece of classical data by encoding the cryptography key onto qubits.
- If a hacker looked at the qubits at any point while they were being sent, this would automatically change the state of the qubits.
- A spy would inevitably leave behind a sign of eavesdropping – which is why cryptographers maintain that QKD is "provably" secure.

Source: Hindu

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