



# CURRENT AFFAIRS JULY 1-6<sup>TH</sup> 2021

- PREPARED BY
- N.SANTHOSH REDDY
- FACULTY OF ACE ENGINEERING  
ACADEMY

- FOR EXPLANATION WATCH
- ACE ENGINEERING ACADEMY TELUGU  
YOUTUBE CHANEEL

# The Global Cyber Security Index (GCI) 2020.

- United Nations' specialised agency for information and communication technologies — **International Telecommunication Union (ITU)** has released



- **Countries are measured along five pillars, namely,**
- legal measures,
- Technical measures,
- Organisational measures,
- Capacity development,
- Cooperation
- to generate an overall score.
- The countries were asked 82 questions where 20 indicators were measured.

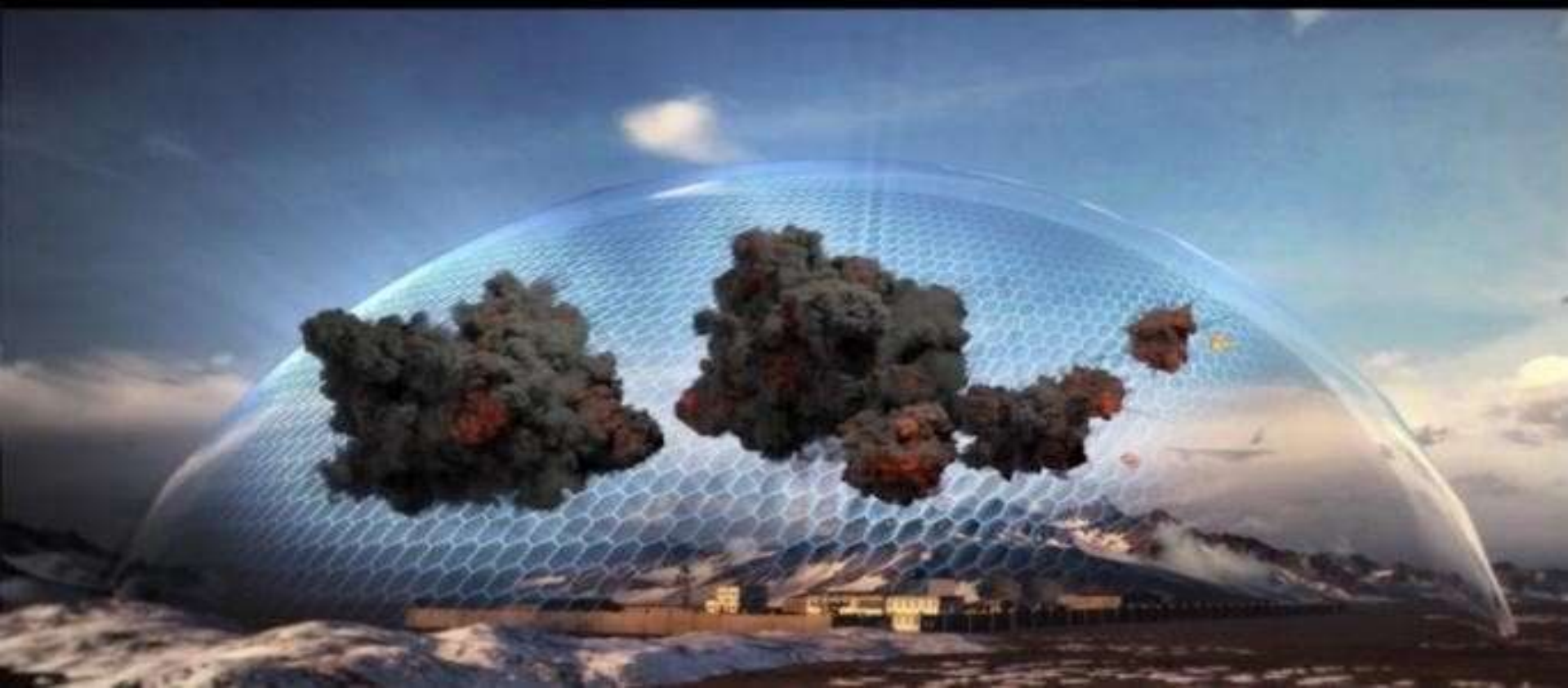
# Top 5 Countries

- 1) USA.
- 2) The UK and Saudi Arabia.
- 3) Estonia.
- 4) South Korea, Singapore and Spain.
- 5) Russia, United Arab Emirates and Malaysia.

# INDIA RANK

- India is placed on the 10th spot.
- In 2018, it was ranked on the 47th spot.
- In the Asia-Pacific region India secured the 4th spot.
- Neighbours China and Pakistan were ranked at 33 and 79, respectively.

# AUTONOMOUS DRONE DÉFENSE DOME SYSTEM: "INDRAJAAL"





# INDRAJAAL

- Hyderabad-based technology R&D firm Grene Robotics has designed and developed **India's first indigenous drone defence dome called "Indrajaal"**.
- **Features:** The drone defence dome has the capability to autonomously protect an area of 1000-2000 sq km against the aerial threats
- by assessing and acting on aerial threats such as Unmanned Aerial Vehicles (UAVs), loitering munitions, and Low- Radar Cross Section (RCS) targets.
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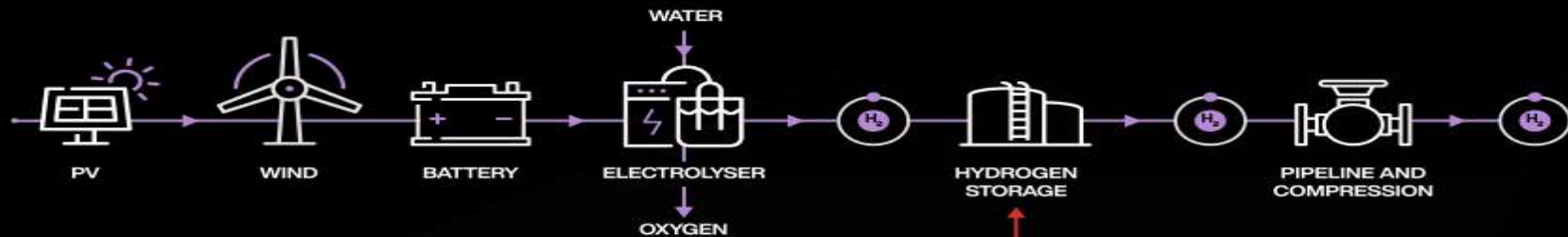




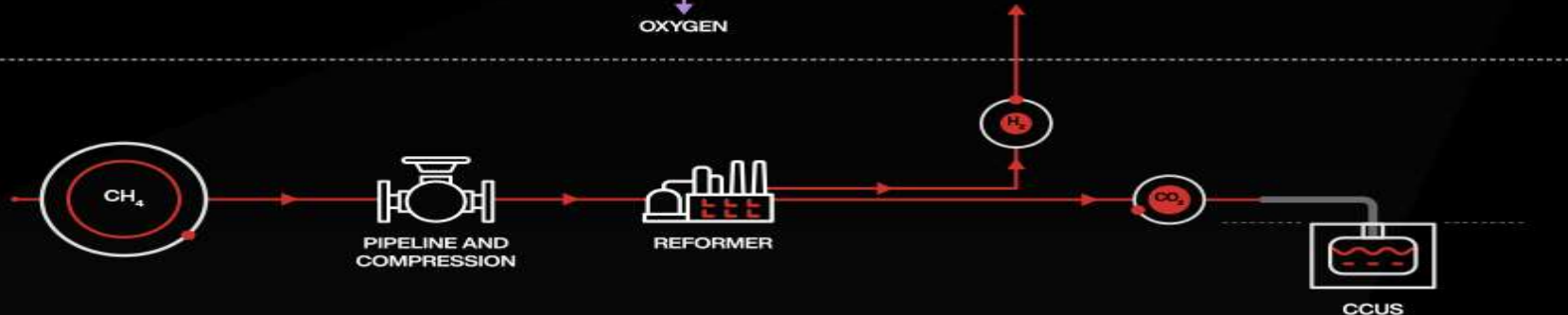
# GREEN HYDROGEN

- ❖ During the budget speech in February 2021, Finance Minister Nirmala Sitharaman announced the **launch of the Hydrogen Energy Mission to produce hydrogen from renewable sources.**
- ❖ In the same month, **state-owned Indian Oil Corporation signed an agreement with Greenstat Norway for setting up a Centre of Excellence on Hydrogen (CoE-H).**
- ❖ It will promote R&D projects for the production of green and blue hydrogen between Norwegian and Indian R&D institutions/universities
- ❖ Reliance Industries Ltd (RIL) is investing Rs 75,000 crore in its new business focused on **clean energy**, which includes **solar and green hydrogen**

GREEN HYDROGEN



BLUE HYDROGEN



OTHER TYPES OF  $H_2$



GREY HYDROGEN

Same production process as blue hydrogen with  $CO_2$  released into the air.



PINK HYDROGEN

Electrolysis with nuclear energy as the source.



YELLOW HYDROGEN

Electrolysis with solar power as the only source.

# GREEN HYDROGEN

- ❖ Hydrogen when produced by electrolysis using renewable energy is known as Green Hydrogen which has **no carbon footprint**.
- ❖ The hydrogen that is in use today is produced using fossil fuels, which is the primary source.
- ❖ Organic materials such as fossil fuels and biomass are used for releasing hydrogen through chemical processes.

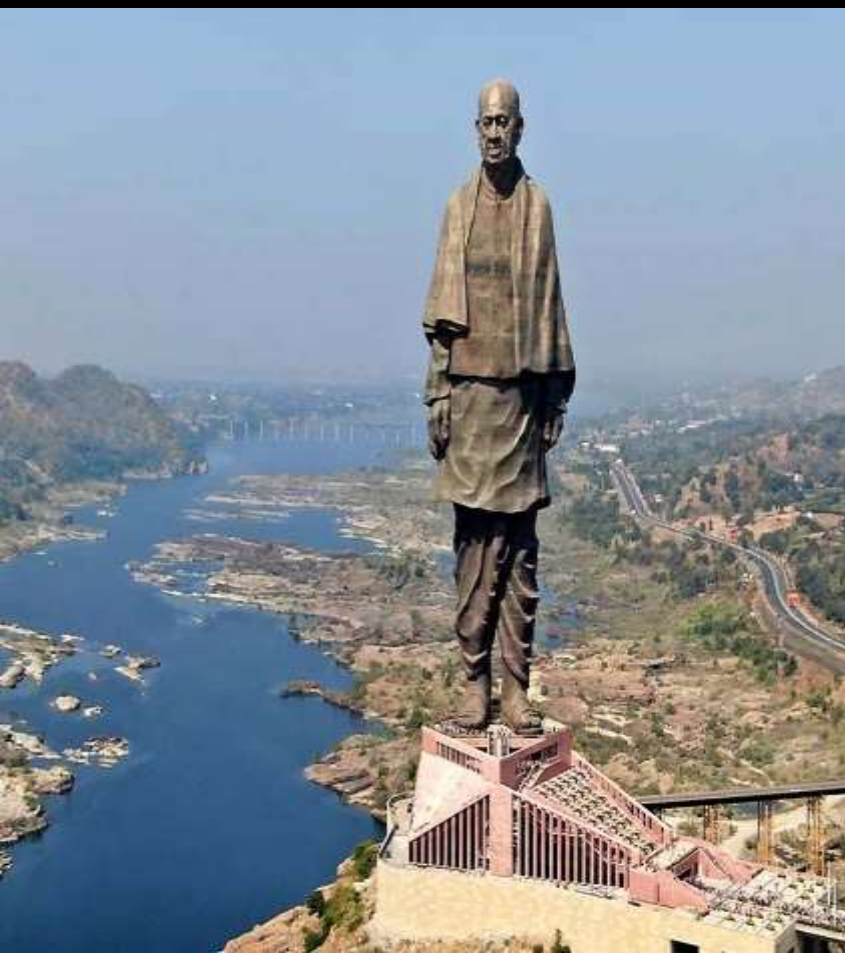
# NIPUN

- Union government is set to launch a new scheme called “NIPUN Bharat Initiative” on July 5, 2021.
- About ‘NIPUN Bharat Mission’ NIPUN stands for “National Initiative for Proficiency in reading with Understanding and Numeracy

It will be launched to improve numeracy, foundational reading, and understanding for early-stage students.







## CROCODILE RELOCATION

- 194 crocodiles have been relocated from Panchmuli lake near Statue of Unity in Narmada district, Gujarat.
- Crocodiles were relocated for the safety of tourists do boat rides in the Panchmuki lake.
- This lake is situated near 182-metre-tall statue of Sardar Vallabhbhai Patel in Kevadia.

- In between October & March, 2019-20, 143 crocodiles were relocated.
- In 2020-21, 51 crocodiles were shifted to two rescue centres in Gandhinagar and Godhra.
- In 2019-20, 73 rescued crocodiles were released into Sardar Sarovar reservoir.

# KUNDANKULAM NUCLEAR PLANT

- This development is a significant step in bilateral relation between both the countries.
- Rosatom (a Russian company) is providing technology to construct the Kudankulam plant.
- This plant has six units each having 1,000 MWe generation capacity.
- Russia started construction of fifth nuclear power unit at Kudankulam in Tamil Nadu on June 29, 2021.
- It is going to be India's first light water reactor

# ELECTRONIC VACCINE VOUCHERS

- These vouchers are like electronic prepaid instruments which can be used only for vaccination.
- Employers can purchase these vouchers in bulk.
- Vouchers will be sent to smartphone or feature phone of employee.
- Employee will then share voucher at hospital for cashless vaccination.
- With the help of vouchers, hospitals would get money instantly credited to its account.

- Vaccine vouchers will enable employees to get vaccinated at nearest centre.
- Vaccine e-vouchers will also enable private sector to plan when it comes to booking orders with vaccine manufacturers
- NPCI is in the process of short-listing banks in order to issue these vouchers.
- Banks will offer vouchers as a payments service in partnership with technology service providers.



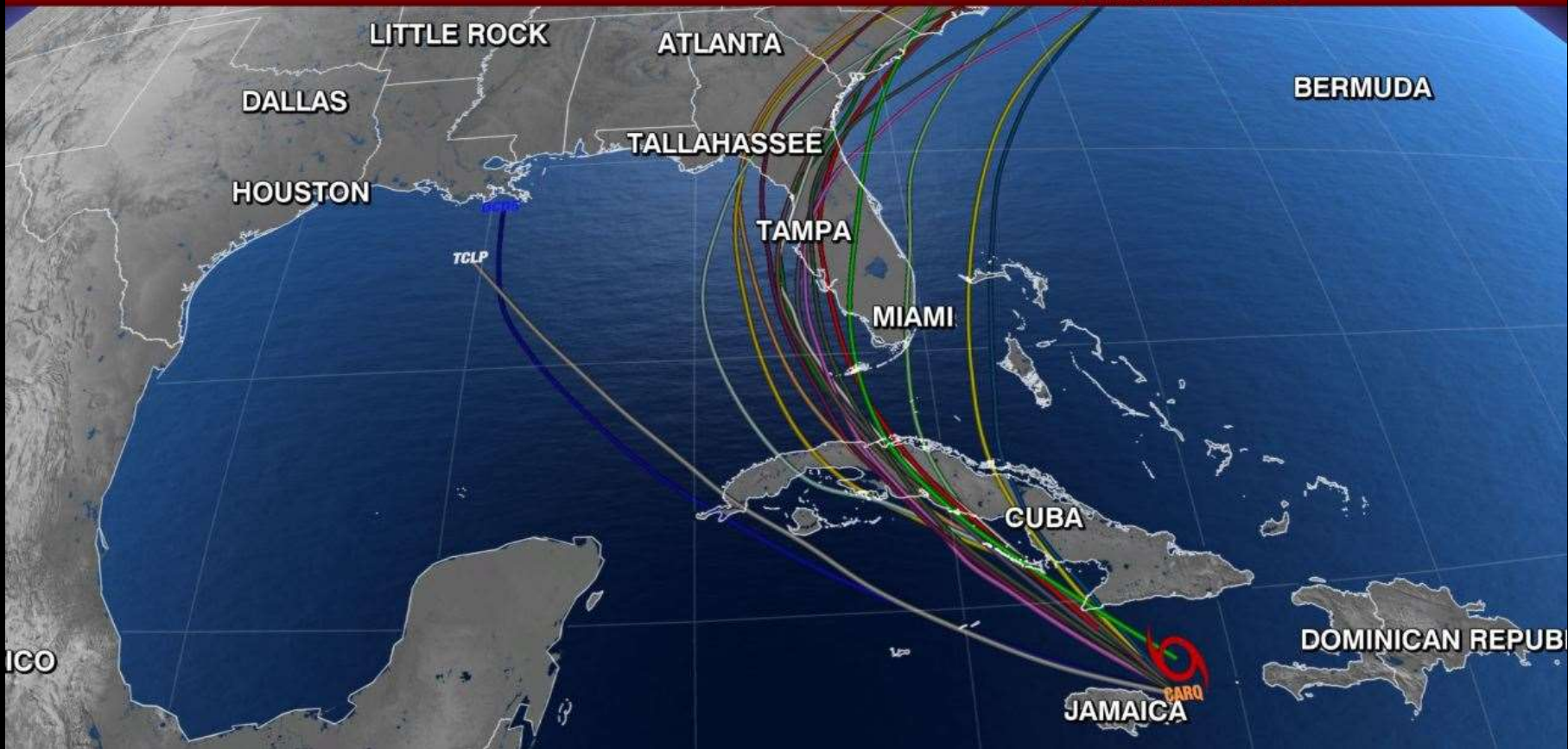
BILLINGS

CHICAGO

NEW YORK

# FORECAST MODELS: ELSA

FRIDAY JUL 09



# HURRICANE ELSA

- Elsa is an active tropical cyclone which is affecting and threatening portions of Caribbean and South-eastern United States.
- It is the fifth named storm and first hurricane of Atlantic hurricane season 2021.
- On June 29, Elsa was first monitored by National Hurricane Center (NHC) as a tropical wave.



# BAIHETAN DAM



WION

**CHINA INAUGURATES  
2ND LARGEST DAM**

- The **Baihetan Dam on the Jinsha River**, a tributary of the Yangtze, is part of Chinese efforts to curb surging fossil fuel demand by building more hydropower capacity at a time when dams have fallen out of favor in other countries due to environmental complaints
- Once fully operational, the Baihetan Hydropower Station should eliminate the need to burn 20 million tons of coal annually

- Plans call for the 289-meter-tall (954-foot-tall) Baihetan Dam to have 16 generating units with a capacity of 1 million kilowatts each.
- That will make it second in size after the Three Gorges Dam, opened in 2003 on the Yangtze, with 22.5 million kilowatts of generating capacity.

# MAANA PATEL

- Maana Patel has become the first female and only the third swimmer from India to qualify Tokyo Olympics 2021 ticket



- Maana Patel joins Srihari Nataraj and Sajan Prakash to have qualified for the Olympics.
- She is a 21-year-old backstroke swimmer from Ahmedabad who have won gold medals in 50 metre backstroke and 200 metre backstroke at National Games.
- She also won gold in 100 metre backstroke at 60th National School Games (2015) and broke the national record in backstroke.
- She was selected for Olympic Gold Quest in 2015 making it the first time a swimmer was roped in.

# ABHIMANYU MISHRA

- Abhimanyu Mishra has become the youngest ever Grandmaster on June 30, 2021.



- He achieved this title at just 12 years, four months and 25 days.
- He leaved behind the record of Russian Grand Master Sergey Karjakin. Sergey had completed his GM title in 2002 at the age of 12 years and seven months
- Grandmaster title was awarded to chess players by world chess organization,



**Pushkar Singh Dhami to  
be new Uttarakhand CM**

**mint**



# PUSHKAR SINGH

- Pushkar Singh Dhami, aged 45, is a lawmaker from Khatima assembly constituency.(11<sup>th</sup> chief minister)
- He has become the youngest chief minister of Uttarakhand, succeeding MP Tirath Singh Rawat.
- He never had held any ministerial position before being elevated as chief minister.
- Dhami was unanimous choice of all 56 members of BJP's legislature party.(70seats)



# SIRISHA BANDLA

- Sirisha Bandla's age is only 34 years. Sirisha Bandla was born in 1987 in Andhra Pradesh. After Kalpana Chawla, Indian-origin Sirisha Bandla will become the second Indian-born woman to fly into space later this month.
- Sirisha Bandla will be one of the six space travelers aboard 'VSS Unity' of Virgin Galactic, scheduled to blast off to space on July 11 from New Mexico.
- part of the six-member crew alongside the founder of Virgin Galactic Richard Branson, Bandla's role will be that of a researcher experience.



State	Governor
Karnataka	Thaawarchand Gehlot
Mizoram	Hari Babu Kambhampati
Madhya Pradesh	Mangubhai Chhaganbhai Patel
Himachal Pradesh	Rajendra Vishwanath Arlekar
Goa	PS Sreedharan Pillai
Tripura	Satyadev Narayan Arya
Haryana	Bandaru Dattatraya
Jharkhand	Ramesh Bais

# WORLD LARGEST RADIO TELESCOPE

- The SKAO, formally known as the SKA Observatory, is a global collaboration of Member States whose mission is to build and operate cutting-edge radio telescopes to transform our understanding of the Universe, and deliver benefits to society through global collaboration and innovation.
- Square kilometre array observatory(SKAO)

# SKAO





# SQUARE KILOMETRE ARRAY

- €2billion total cost, including €1.3billion construction .
- and €0.7billion for the first 10 years of operations.
- Two telescopes:
  - 197 dishes in South Africa, including 64 existing MeerKAT dishes
  - 131,072 antennas in Western Australia
- 710 PB of science data delivered to science users per year when fully operational



- 7 founding Members of the SKA Observatory, including Australia, China, Italy, the Netherlands, Portugal, South Africa and the United Kingdom
- 9 further countries currently observers in the SKAO Council, including those that took part in the design phase of the SKA telescopes (Canada, France, Germany, India, Spain, Sweden, and Switzerland), and other more recent joiners such as Japan and South Korea

- 500 engineers from 100 institutions across 20 countries involved in the design of the SKA telescopes
- More than 1,000 scientists from 40 countries involved in the development of the science case for the SKA telescopes
- Construction phase: 2021-2029
- Start of construction activities: 1 July 2021
- Start of Observatory and Science commissioning: 2024
- 50+ years of transformational science

# AGNI-PRIME

- **Agni-P or Agni-Prime** (Agnī"*Fire*") is a medium-range ballistic missile being developed
- By Defence Research and Development Organisation(DRDO) as a successor for Agni-I and Agni-II missile
- Range 1000-2000km.
- Canisterised missile

# Shot in the arm

- ▶ Agni-P's range of 1,000–2,000 km is too short to reach targets in China's mainland, but can cover all of Pakistan's territory
- ▶ Being a canisterised missile, it can be transported easily and fired at very short notice
- ▶ It will replace the Prithvi, Agni-1 and Agni-2 missiles in India's arsenal that were built two decades ago with tech now considered obsolete
- ▶ It will enter service as a two-stage, solid propellant missile. Both stages will have composite rocket motors and guidance systems with electro-mechanical actuators
- ▶ Agni-P and Agni-5 originate from the Integrated Guided Missile Development Programme launched by then DRDO chief Dr APJ Abdul Kalam in the early 1980s

# AGNI MISSILES

- **Agni I:** Range of 700-800 km.
- **Agni II:** Range more than 2000 km.
- **Agni III:** Range of more than 2,500 Km
- **Agni IV:** Range is more than 3,500 km and can fire from a road mobile launcher.
- **Agni-V:** The longest of the Agni series, **an Inter-Continental Ballistic Missile (ICBM)** with a range of over 5,000 km.

