



## New Products in Make-II Project

**For Prelims:** Defence Acquisition Programme, Make India Project, Drone Kill Systems

**For Mains:** Indian Defence Equipments, Defence Acquisition Programme, Government's Related Initiatives

### Why in News?

Recently, the [Indian Army](#) has approved five **Project Sanction Orders (PSOs)** for the development of niche technology by the Indian industry under the **Make-II route** of [defence procurement](#).

### What is the Make-II Project?

#### ▪ About:

- Make II projects are essentially **industry funded projects** involving design, development and innovative solutions by Indian vendors for **development of prototypes**.
- **22 out of 43 projects** are now in prototype development stage, which is 66% of projects by cost, ₹18,000 crore out of ₹27,000 crore.

#### ▪ New Additions under the Project:

- **High Frequency Man Packed Software Defined Radios (HFSDR):**
  - These radio sets will replace the existing **High Frequency radio sets in the inventory**, which have **limited data handling capability and obsolete technology**.
  - Light weight HFSDR will provide long distance radio communication through enhanced data capability and band width coupled with enhanced security
- **Drone Kill Systems:**
  - [Drone kill system](#) is a hard kill anti-drone system against low Radio Cross Section drones.
  - It is being developed to function in all types of terrains, both during day and night.
- **Infantry Training Weapon Simulator (IWTS):**
  - It is the first triservice Make-II project with the Army as the lead service.
- **Medium Range Precision Kill Systems (MRPKS):**
  - The MRPKS, once launched can 'Loiter' in the air for upto two hours and can acquire, designate and engage real time high value targets upto 40 km.
- **155 mm Terminally Guided Munitions (TGM)**

### What is the 'Make' Category of Capital Acquisition?

- The **'Make'** category of capital acquisition is the cornerstone of the [Make in India](#) initiative that seeks to **build indigenous capabilities through the involvement of both public and private sector**.
- **'Make-I'** refers to **government-funded projects** while **'Make-II'** covers **industry-funded programmes**.
  - **Make-I** is involved in development of **big-ticket platforms** such as light tank and

communication equipment with Indian security protocols.

- **Make-II** category involves prototype development of **military hardware or its upgrade for import substitution** for which no government funding is provided.
- Another sub-category under 'Make' is '**Make-III**' that covers **military hardware** that may **not be designed and developed indigenously**, but can be manufactured in the country for **import substitution**, and Indian firms may manufacture these in collaboration with foreign partners.

## What are the other Initiatives to Boost Domestic Production of Defence Equipment?

- [Defence Industrial Corridors](#)
- [Corporatization of the Ordnance Factory Boards](#)
- [Defence India Startup Challenge](#)
- [Draft Defence Production and Export Promotion Policy 2020](#)
- [Innovations for Defence Excellence \(iDEX\)](#)
- [Mission Raksha Gyan Shakti](#)

## UPSC Civil Services Examination Previous Year Question (PYQ)

### Prelims

**Q. What is "Terminal High Altitude Area Defense (THAAD)", sometimes seen in the news? (2018)**

- (a) An Israeli radar system
- (b) India's indigenous anti-missile programme
- (c) An American anti-missile system
- (d) A defence collaboration between Japan and South Korea.

**Ans: (c)**

**Exp:**

- Terminal High Altitude Area Defence (THAAD) is an American anti-missile system designed to intercept and destroy short and medium-range ballistic missiles during their "terminal" phase of flight when they are falling towards the target.
- They have the ability to intercept missile inside and outside the atmosphere.
- It is interoperable with other ballistic missile defence systems and is highly mobile and deployable worldwide.
- **Therefore, option (c) is the correct answer.**

### Mains

**Q. Foreign Direct Investment (FDI) in the defence sector is now set to be liberalized: What influence this is expected to have on Indian defence and economy in the short and long run? (2014)**

**Q. How is S-400 air defence system technically superior to any other system presently available in the world? (2021).**

**Source: TH**

