# INDIGENISATION NEEDS & CHALLENGES BY DIRECTORATE OF INDIGENISATION

Contract 1

<u>(ARMY)</u>



# Το Give insight into a comprehensive plan to synchronize latest development of Engineering with actual requirements of industries to assist in **Capability Building**

# <u>PREVIEW</u>

### **TECHNOLOGY PROLIFERATION**

**DOI: ROLE, ORGANISATION** 

**INDIGENISATION PROCESS** 

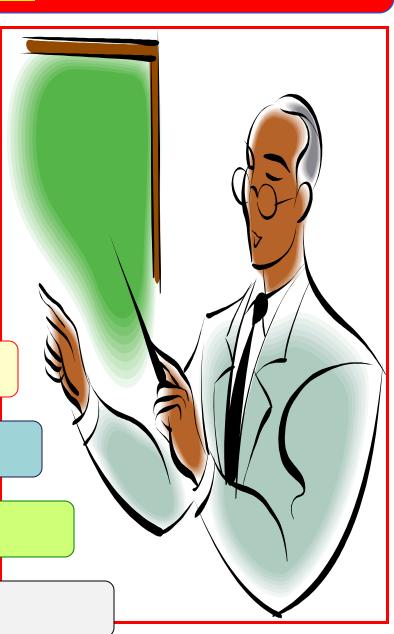
SUCCESS STORIES VS CRITICAL TECH

**CHALLENGES & WAY FORWARD** 

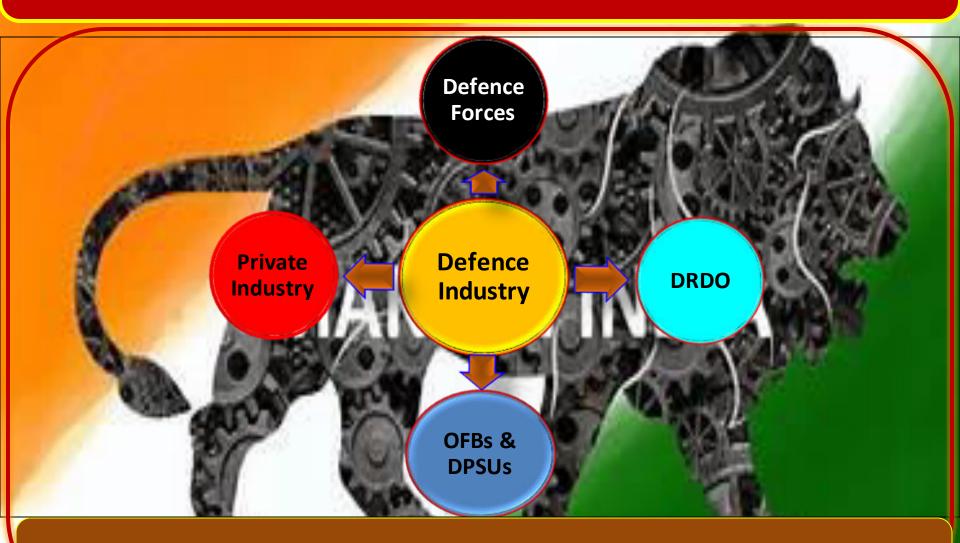
**UPCOMING PROJECTS** 

**INDUSTRY PARTICIPATION** 

CONCLUSION



# **STAKE HOLDERS**



### **Capability Enhancement : Design & Build**

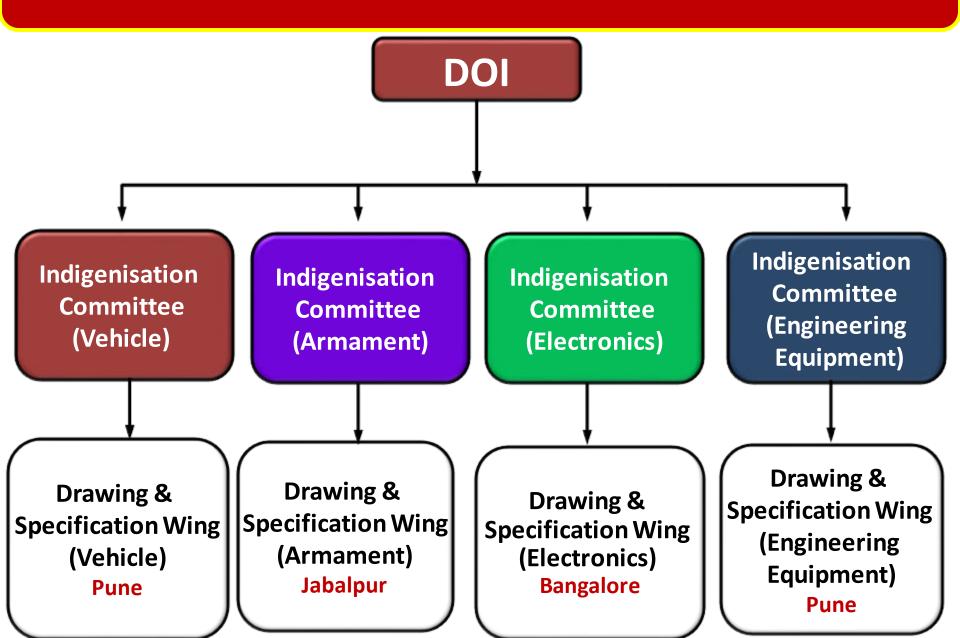
# **DIRECTORATE OF INDIGENISATION (ARMY)**

- To build a strong and reliable indigenous defence production base for manufacture of spare parts / assemblies / sub-assemblies/ systems/ sub systems of imported equipment which are not being indigenised by Ordnance Factory Board /Defence Public Sector Undertakings
- Nodal point in the Integrated Headquarters of MoD (Army) for indigenisation of spare parts/ assemblies / sub-assemblies



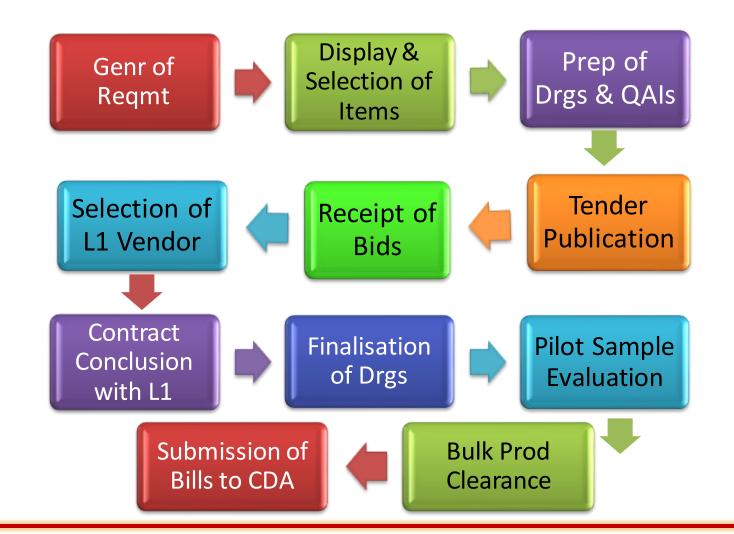
- To carry out indigenisation of imported stores pertaining to the following disciplines:-
  - ✓ Vehicle Stores
  - ✓ Electrical & Electronic Stores
  - ✓ Armament Stores
  - ✓ Engineer Equipment Stores

## **ORGANISATIONAL STRUCTURE**



# **INDIGENISATION PROCESS**

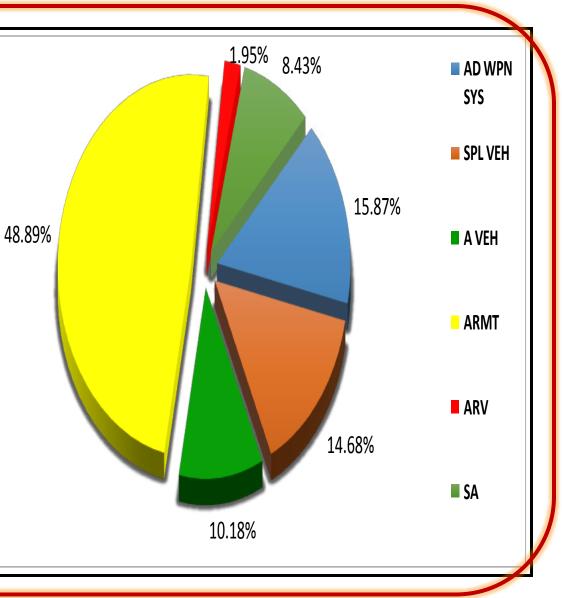
### Governed by Chapter 15 of DPM 2009



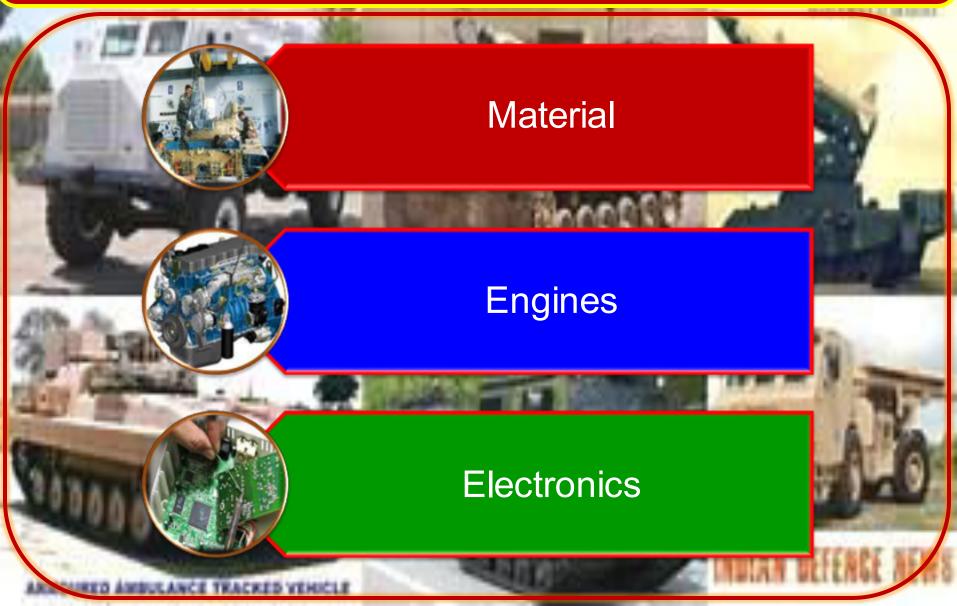


# **PLATFORM WISE INDIGENISATION**

Platform	% of Items under	
	Indigenisation	
ARMAMENT	48.89%	
AIR DEFENCE		
WEAPON	15.87%	
SYSTEM		
SPECIAL	14 699/	
VEHICLE	14.00 %	
<b>'A' VEHICLE</b>	10.18%	
SMALL ARMS	8.43%	
ARMOURED		
RECOVERY	1.95%	
VEHICLE		
	ARMAMENT AIR DEFENCE WEAPON SYSTEM SPECIAL VEHICLE 'A' VEHICLE SMALL ARMS ARMOURED RECOVERY	PlatformunderIndigenisationARMAMENT48.89%AIR DEFENCEWEAPON15.87%SYSTEMSPECIALVEHICLE'A' VEHICLESMALL ARMS8.43%ARMOUREDRECOVERY1.95%



# SUCCESS STORIES VS CRITICAL TECHNOLOGIES

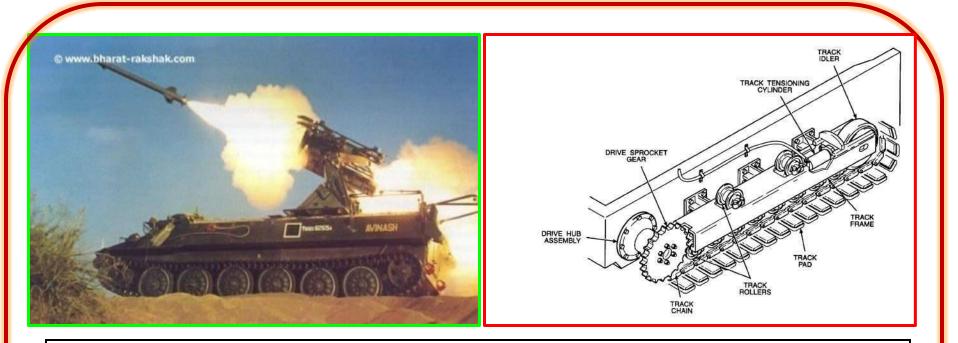




# **MATERIAL TECHNOLOGY**



# **TRACK ASSEMBLY: STRELLA10M**

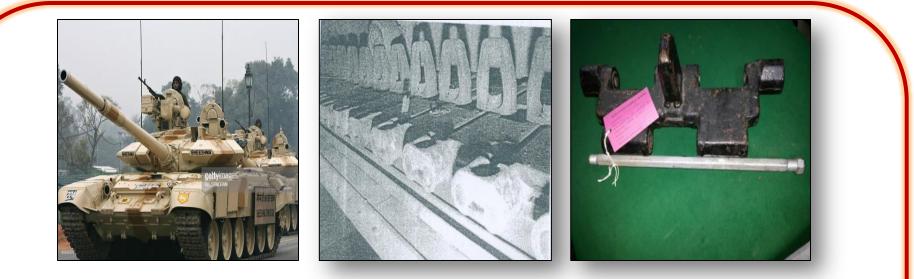


**Brief description:** Track assembly mounted on road wheel. Drive from sprocket for easy rolling

- Low Population & Imported
- Production line closed
- Developed through Indian Vendor

### Metallurgical & Technical expertise achieved Indigenously

# **TRACK ASSEMBLY: TANK T-90**



**Brief description:** Track assembly mounted on road wheel. Drive from sprocket for easy rolling

- Extensively exploited leading to frequent breakdown
- Import dependence not cost effective

### Self – Reliance & Forging capability enhanced

# **TRACK ASSEMBLY : TUNGUSKA**





**Brief description:** Track assembly mounted on road wheel. Drive from sprocket for easy rolling

- Import origin, track not available due to production line closure
- Low Population equipment and sustenance difficult

#### Sustenance of Low Population Equipment being addressed



# **ENGINES**



# <u>POWER PACK : INFANTRY COMBAT</u> <u>VEHICLE BMP - II</u>



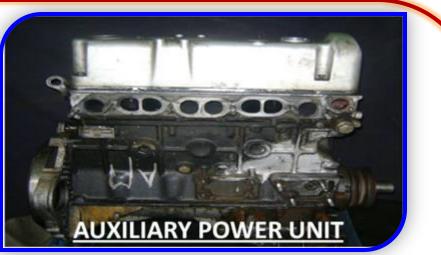


- Need felt to upgrade BMP engine from 280 HP to 360 HP
- Change transmission from manual to auto
- Modular design
- Six vendors participating in trials

Technology Upgrade with simultaneous Technology insertion

## **AUXILIARY POWER UNIT : BOFORS**





**Brief description:** Auxiliary Power Unit for self propulsion

Major import substitution @ 5 lakhs against 47 lakhs of imported engine

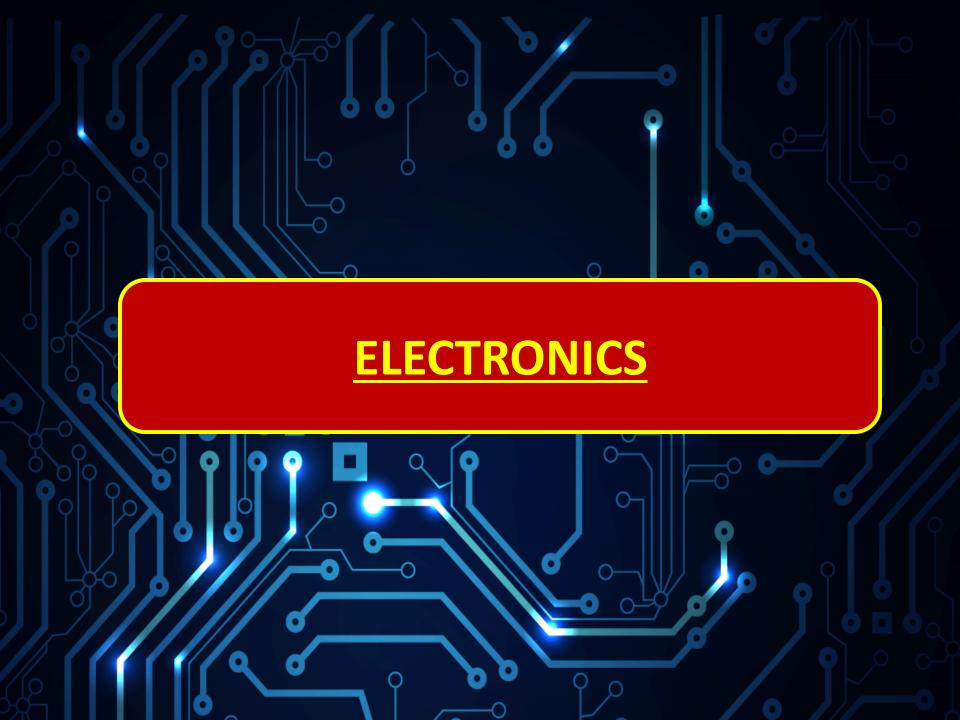
#### Major Import Substitution & Cost Saving

# **ARMOURED RECOVERY VEHICLE : VT-72B**



- Vintage 18 to 24 yrs and overdue for base overhaul
- OEM facility shut down leading to non availability of spares
- Case initiated for indigenisation of utility portion

Platform based Indigenisation with 15 Years product support



# ARTILLERY METEOROLOGICAL SYSTEM RADIO SONDE



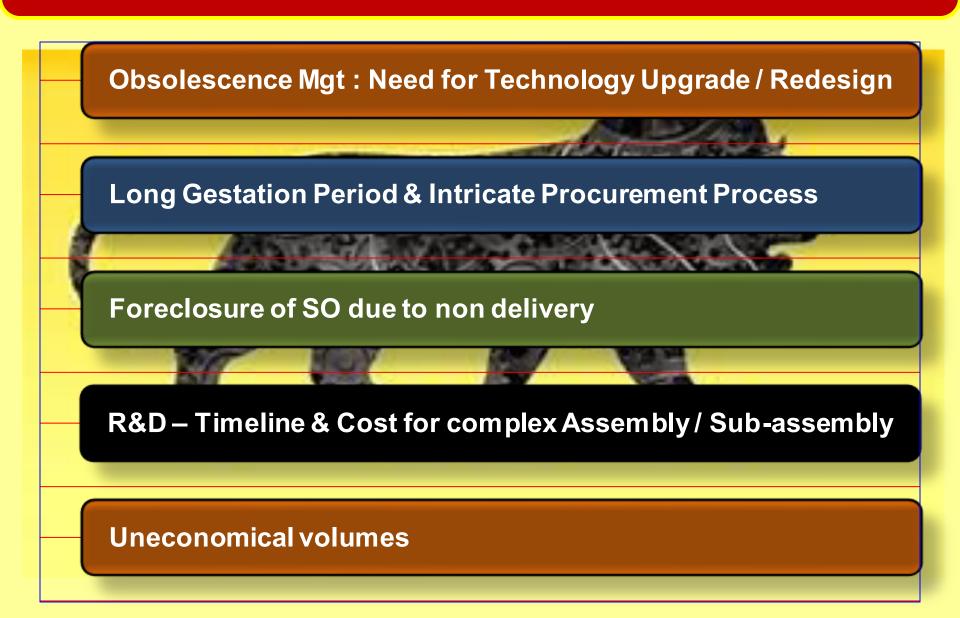


- Need felt to indigenise Arty Met Sys due to high cost of spares from OEM
- Eol for NCNC devp of Arty Met Sys uploaded in May 2018

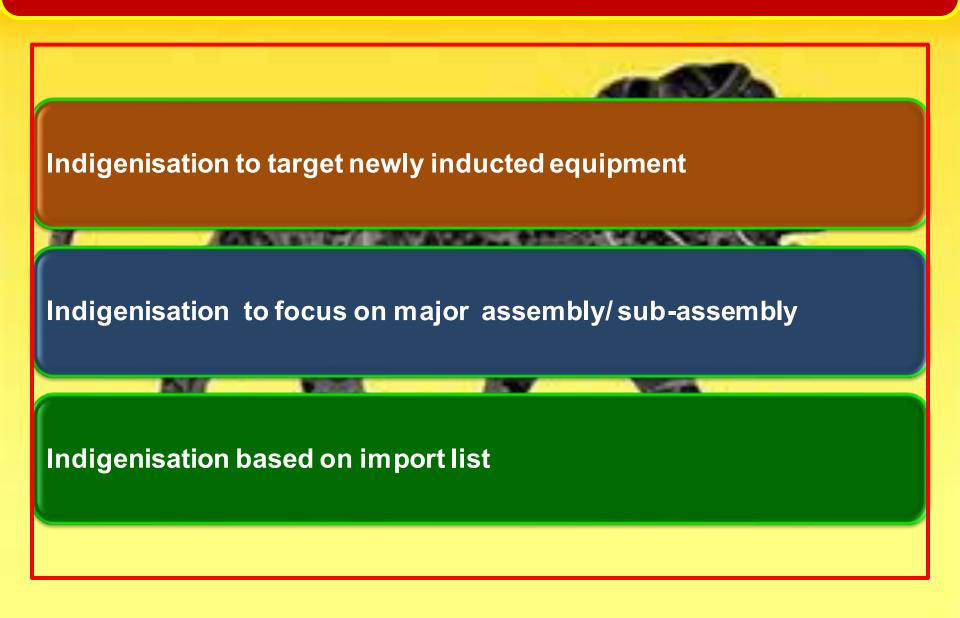
#### Industries' keenness to participate even on NCNC basis











## **UPCOMING PROJECTS**

### Nomenclature – Recoil Mechanism Main Eqpt – 105/37MM IFG





#### Nomenclature – Compressor EU Main Eqpt – BOFORS GUN

#### Nomenclature – Barrel/ Tube

#### Main Eqpt – 122MM Grad BM-21



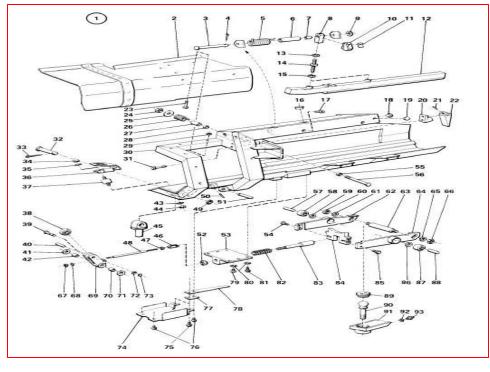


#### Nomenclature – Castor Wheel Arm

Main Eqpt – BOFORS GUN

#### Nomenclature – Radiator

Main Eqpt – BOFORS GUN





### Nomenclature – Loading Tray Main Eqpt – BOFORS GUN

#### Nomenclature – Rammer Unit

Main Eqpt – BOFORS GUN



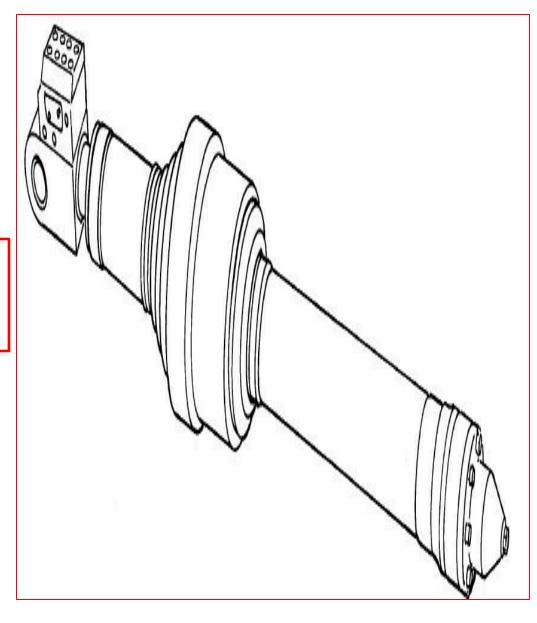


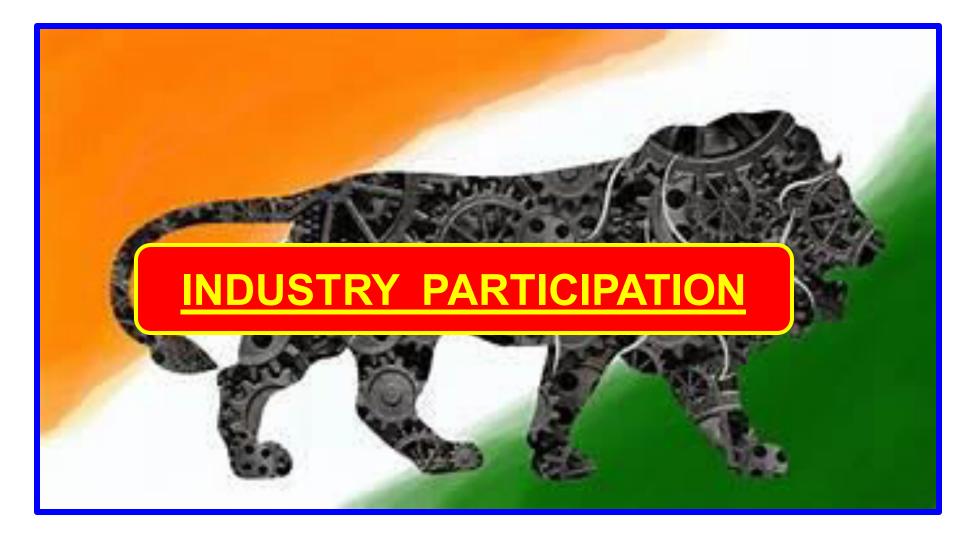
Nomenclature – Loading Table

Main Eqpt – BOFORS GUN

Nomenclature – Elevating Cylinder

Main Eqpt – BOFORS GUN





### SCHEDULE OF INDIGENIZATION SUB COMMITTEE MEETING : 2018

Ser No	Venue	Equipment	Date : ISC meet
1	CAFVD, KIRKEE	T-72, T-90, ICV BMP , SPECIAL VEHICLES	DEC 2018
2	CASD DELHI CANTT	UAV SEARCHER MK-IA & MK- II & HERON	BEING PLANNED

# **HOW TO PARTICIPATE**

### Central Public Procuement Portal (https://eprocure.gov.in)

- Visit CPP Portal and search for DOI to locate all the active RFPs of DOI
- ✓ All cases are dealt as e-procurement only

### Link to Dol webpage

- ✓ <u>https://indianarmy.nic.in Directorate/ Branches DOI</u>
- ✓ Shortcut (http://goo.gl/tt2jyt)

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### ADVANTAGES OF INDIGENISATION THROUGH DOI FOR VENDORS

- Registration with DOI not mandatory. EMD not required if registered with any govt agency
- One time development cost paid in full to successful bidder
- Transparent bidding through on line e-proc portal. RFPs uploaded with photos, QAIs and Drgs
- All available drawing, sample, specification and know how shared free of cost
- Upgradation of technology and black box approach permissible
- Parallel development by two sources to ensure free flow
- EOQ is considered for indigenisation and commitment for subsequent orders from developed source







