INDIAN NAVY

MISSILE AND GUN SYSTEMS FOR A FUTURE READY NAVAL FORCE

Scope

- Introduction
- Missile and Gun Capability
- Technology
- Indigenisation
- Conclusion

Introduction

Multi-dimensional Networked Force

Introduction

- 138 Ships and Submarines
- 235 Aircraft

2016

2027

- 200 Ships and Submarines
- 500 Aircraft

Indigenous production of Missiles and Guns a 'Win-Win' situation for both Indian Navy and Industry

Introduction

- **Conceptualisation to delivery takes 8-10 years**
- Technology under development v/s Proven Technology
- **Early Identification Critical**
- Interaction between Military/ Industry/ Academia/ Scientific Community

IN Weapons

Missile Systems

Anti Surface

- Surface to Surface
- Sub Surface to Surface
- Air to Surface

Anti Air

- Surface to Air
- Air to Air

Land Attack

- Ship/ SM to Land

Missile Inventory

SSM/ TLM

SAM

ASM

AAM

Future requirements – Technology Perspective and Capability Roadmap

IN Weapons

Gun Systems

New Technology Weapons	Medium Range Guns	Close in Weapon Systems	Small Arms
Rail Guns	Anti Surface\ Anti Air	Anti Air/ Surface	Personal Weapons
Laser Weapons	Coastal Batteries		Platoon Weapons

Gun Systems

MR Guns

CIWS

Small Arms

Future Requirements – 127 mm, 30 mm Naval Surface Gun, LIMO Weapons

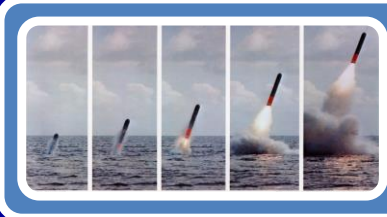
Procurement Rationale

Platform Capability – Weapon Fit

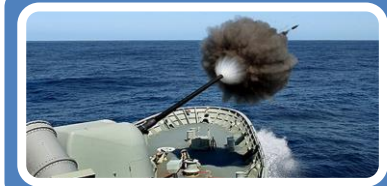
Self Sufficiency in Combat

Broad Considerations

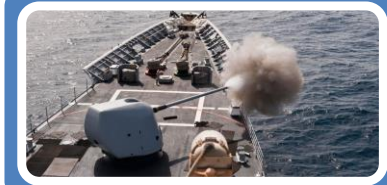
Standardisation



Modularity



Compatibility



Versatility

Maintainability and Supportability

Emerging Technologies – Missiles

Hypersonic Missiles

Loitering Missiles

Man-in-Loop Capability

Terminal Manoeuvres

Low Radar Cross Section

Emerging Technologies – Guns

EM Rail Guns

Laser Weapons

Extended Range Ammunition

AHEAD Ammunition

Precision Guided Munitions

Indigenisation Efforts

- **Indian Navy – Pioneer in Self Reliance**
- **Missiles – BrahMos and Long Range Surface to Air Missile**
- **Guns – 76 mm, 30 mm and 12.7 mm. Significant ToT envisaged for 127 mm/ 5 inch gun**

Indigenisation Efforts

Indigenisation in Weapons

Need of the Hour

Missiles

- **Seeker Technology**
- **Missile Control Systems**

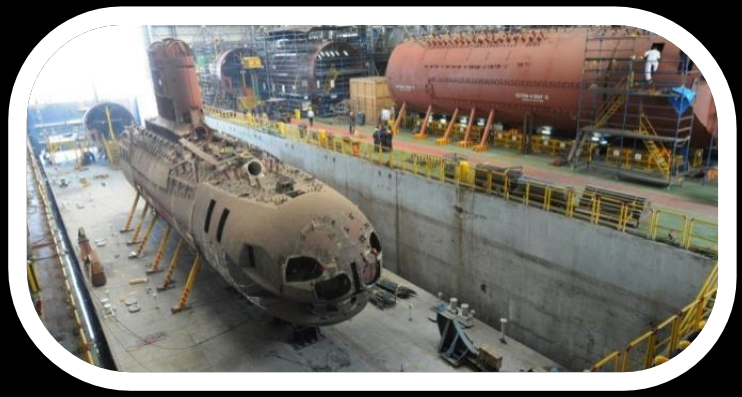
Guns

- **Stabilisation**
- **Barrel Technology**
- **Miniaturisation**

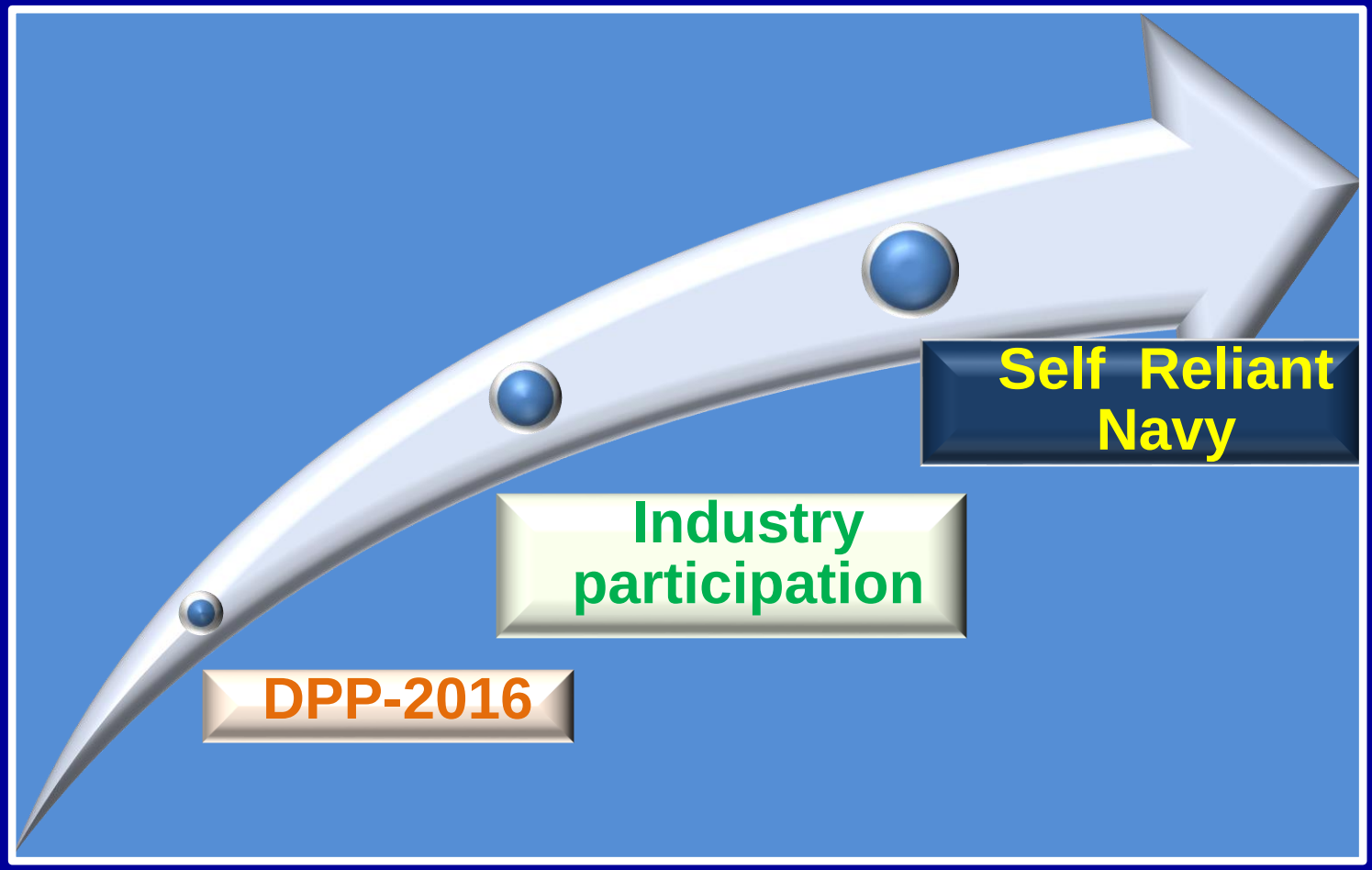
Conclusion

- On the path of sustained growth, the Navy would induct aircraft carrier, advanced underwater platforms, ships and aircraft

- **Indigenisation and Self Reliance**



Conclusion



THANK YOU