

# ***Missiles & Guns*** ***An FCS Perspective***

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# ***Balancing Lethality Options For FCS Family of Systems***

- Compliant with user requirements
- Effective across broad spectrum of operational scenarios
- Flexible lethality against broad range of likely targets
  - Tailor means to target
- Tailored to the individual platforms
- Affordable and cost-effective

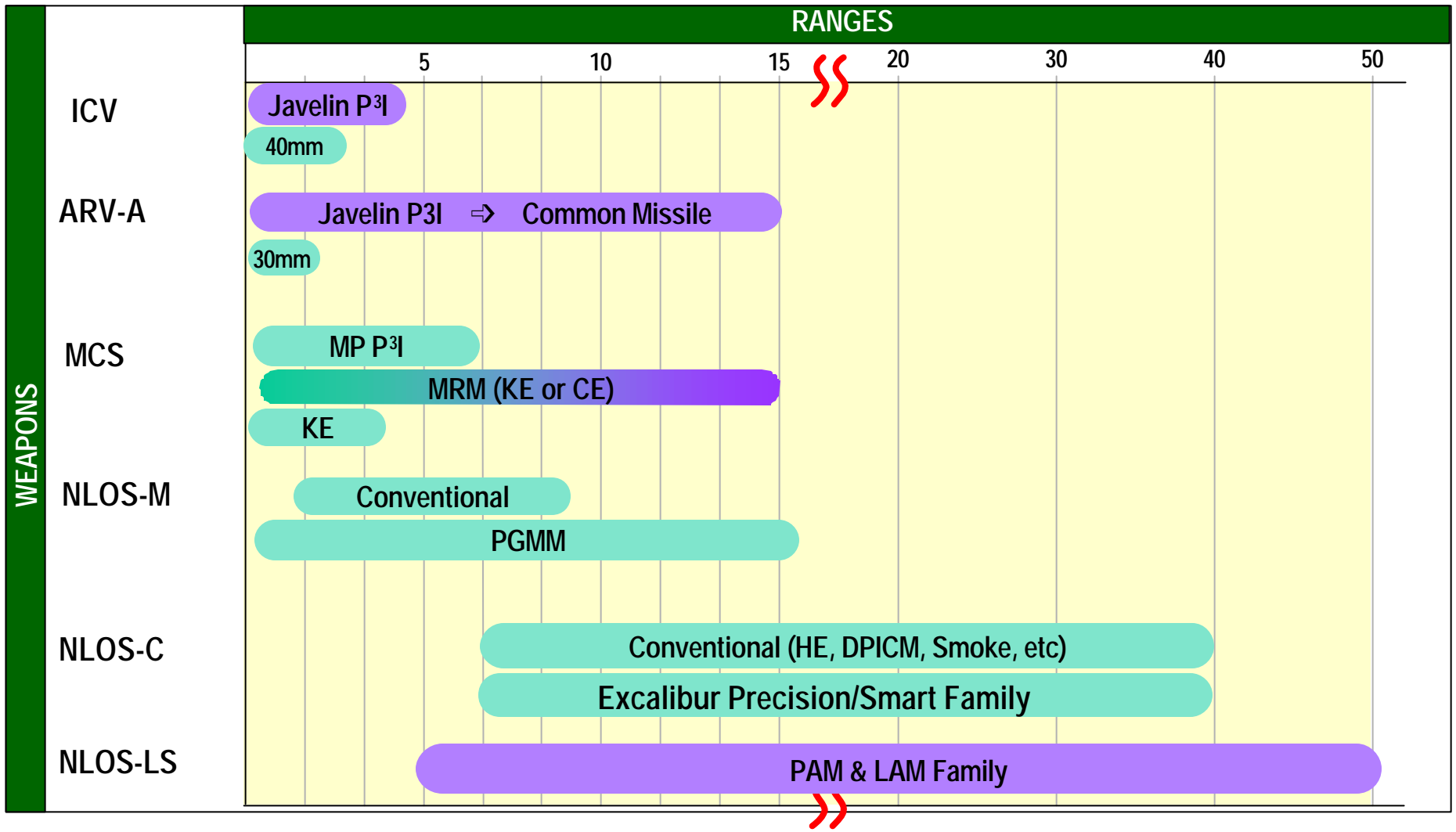
# *Requirements*

- User wants flexibility of both guns & missiles!
- User has clear understanding of the limits of both guns and missiles
  - Target value, type, etc
  - Quick reaction time
  - Scenario
- Light fighters, Strike Force, Heavy Force
  - Different mix of guns and missiles!

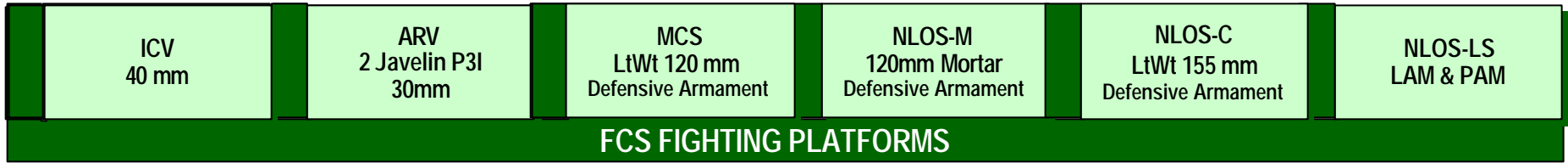
# ***A Simple-Minded View***

*Assume Equal Warhead Lethality*

<b>Characteristic</b>	<b>Missiles</b>	<b>Guns</b>
Light Wt Launcher	✓ ✓	
Time to Target		✓
Signature	?	?
Countermeasures		✓
Cost/shot		✓
Kills/\$	?	?
Stowed Kills		✓
Recoil & Vehicle Integration	✓	





Guns      Missiles





# ***LOS/BLOS Missiles for FCS***

## ***Candidates***

	<b>Precision Mmunition</b>	
	<b>MRM- KE or CE</b>	<b>CKEM</b>
<b>Characteristic</b>		
<b>Weight</b>	~ 60 Pounds	~ 100 Pounds
<b>Length</b>	~ 1 m	~ 1.5 m
<b>Diameter</b>	120 mm	~ 180 mm
<b>Launcher</b>	MCS and Abrams	TBD
<b>Stowed Load</b>	~ 40 Rounds	6-12 Rounds
<b>Unit Cost in Production</b>	~ \$ x	~ \$ 1.5 x

# ***FCS LOS/BLOS Missile***

## ***Candidates***

Characteristic	Precision Munition	
	MRM KE or CE	CKEM
		
Launch Mode	Gun	Pod
Lethality	Overmatch	Overmatch +
BLOS Capability	Yes	No
LOS Capability	Yes	Yes
Range	.5 - 12 Km	.5 - 5 Km
APS Immunity	Yes or ?	Yes
Self Designation	Yes	Yes
Remote Designation	Yes	No
Autonomous Guidance	Yes	No

*“ Make sure your lethality toolkit includes the right tools for all the jobs you’ll be called on to fix”*