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# NDIA Tactical Wheeled Vehicle Panel

**Tactical Wheeled Vehicles: Looking to the Future**

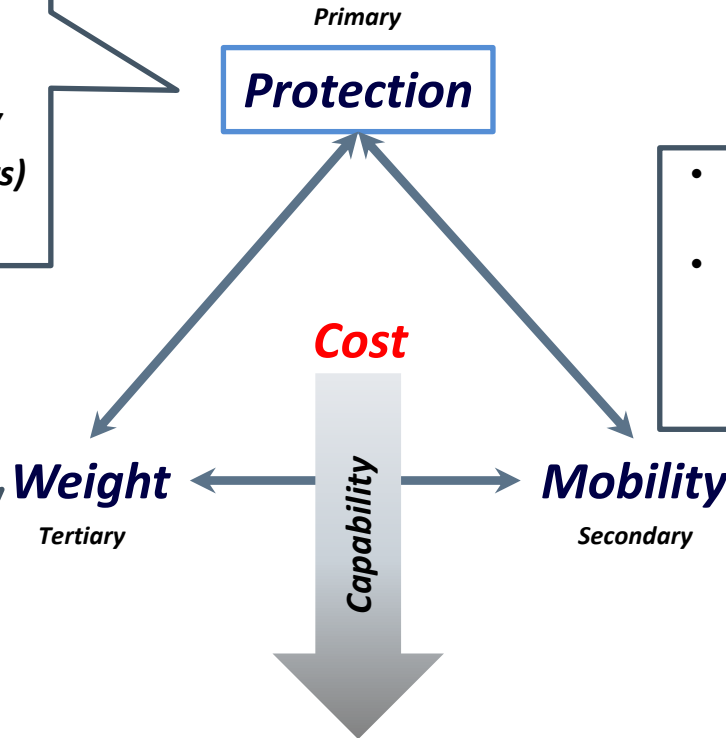


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Experience gained on recent operations has informed evolving customer requirements; the emphasis remains on protection balanced with cost

- High MTBF and STANAG 2 - 3 baseline armour
- IED / RPG threat will mandate baseline stand protection (nets / jammers / APS for high-end users) among the combat fleet

- Most operators seek tactical vehicles with GVW 6 – 12t to balance mobility / capability
- Reduction in fuel consumption and logistics footprint preferred by sophisticated customers



- Good fording / trench-crossing / off-terrain performance
- No longer required to be ultra deployable or air transportable in operational configuration

- Well protected, systems rich platform that may compromise on weight and mobility to ensure cost effectiveness
- On-board power generation, support BMS, mission systems and off-boarding power, a node in current and future networks
- Lethality and versatile effects to match diverse target set

## The 4x4, 6x6 and 8x8 markets are increasingly saturated with available platforms; export markets of 10 years ago are now competitors

### *Price Versus Sophistication*

- New generation of high-end armoured vehicle are becoming increasingly sophisticated and complicated platforms
- Many of such US / European vehicles are designed for high-tempo operations and are therefore considered as too complex and expensive for many export markets
- Numerous lower-cost competitors out in export markets



### *Increasingly Competitive Environment*

- Majority of first and second tier international markets have domestic platform in the 4x4, 6x6 and 8x8 segments
- Turkish, Korean, and other previous importers are now becoming significant export market participants
- Western industry has to engage with local OEMs, integrators or systems providers



### *Smaller Future Opportunities*

- Replacement of M113, BMP and similar vehicles unlikely to occur on 1:1 basis
- Longer service lives with modular upgrades has become new norm and is likely to spread from US / EU
- Fewer opportunities to compete, smaller programmes, tougher competition
- Corollary of expansion in fleet and system capability management contracts for OEM and subsidiaries



## Power generation & management, onboard systems, off-board networking and materials/systems to enhance protection are key developments

Lighter, more efficient electrical power generation, vehicle architecture and 'spare' engine power and suspension to provide platform growth overhead

Reduction in comms / sensor system size and weight allows for increased capability

New armament, systems and defence capabilities; active protection and passive jamming

Lighter, new armours – composites and advanced materials

Lighter, more efficient and more powerful drive trains, with improved reliability

Protection particularly blast, designed from outset whether through placement of major system / crew, shaping or better strength materials and careful consideration of weaknesses (using a chassis versus monocoque design)



