NDIA Tactical Wheeled Vehicle Panel

Tactical Wheeled Vehicles: Looking to the Future
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
Industry Trends

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.

- **Reduction in comms / sensor system size and weight** allows for increased capability.
- **New armament, systems and defence capabilities; active protection and passive jamming**.
- **Lighter, more efficient electrical power generation, vehicle architecture and 'spare' engine power and suspension** to provide platform growth overhead.
- **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).
- **Lighter, new armours – composites and advanced materials**.