

Generic Vehicle Architecture (GVA) Building on the success of VSI

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VRC
Vetronics Research Centre



Raytheon



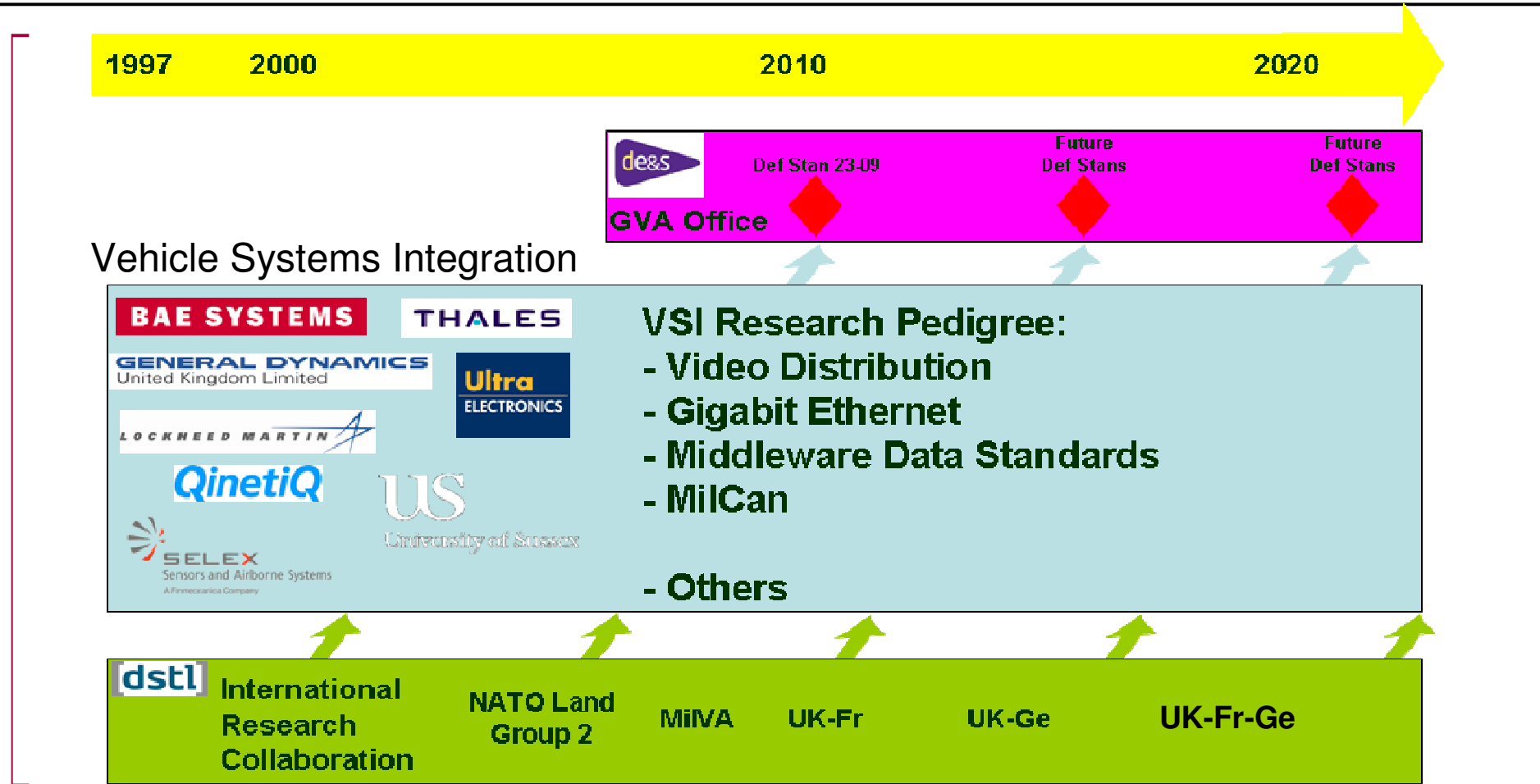
BAE SYSTEMS



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- Vehicle Systems Integration Research
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VSI Timeline



Vehicle Systems Integration

- Significant 'pedigree' of achievements through close working with industrial and international partners over the last 13 years
- Provides the underpinning Vetronics research for the GVA Office
- Research Programme Management:
 - Proposed to subsume the VSI Steering Group within the revised FPMS WG Structure subject to agreement
 - Coordinates MoD Stakeholder VSI requirements
 - Facilitates exploitation
- Future Research Programme topics:
 - Technical Support to Def Stans: 23-09, 00-82
 - Data Models: LPPV, SV, etc
 - Platform Data Management
 - International Research Collaboration
 - Technology Watch

DE&S issues - Urgent Operational Requirement UOR vehicles

- Rapid Changes in Threat Scenario
- Increasing Changes in Capability Required
- Increasing Platform Axle Weight
- Decreasing Platform Availability
- Decreasing Platform Capacity
- Increasing Power Requirement
- Increasing Crew Workload



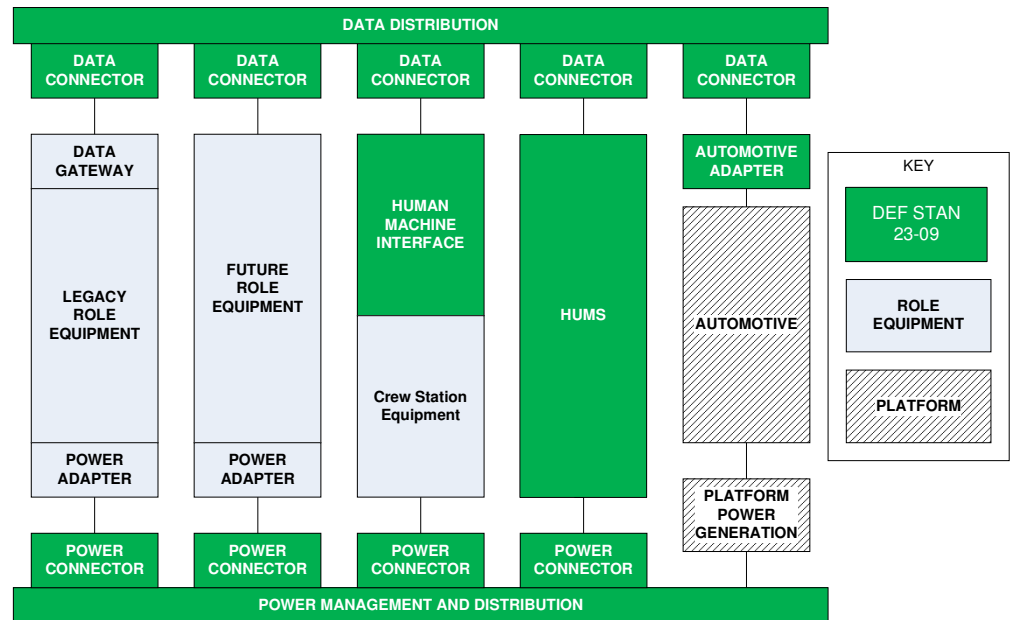
The Panther, armoured command vehicle

Def Stan 23-09 Generic Vehicle Architecture Design

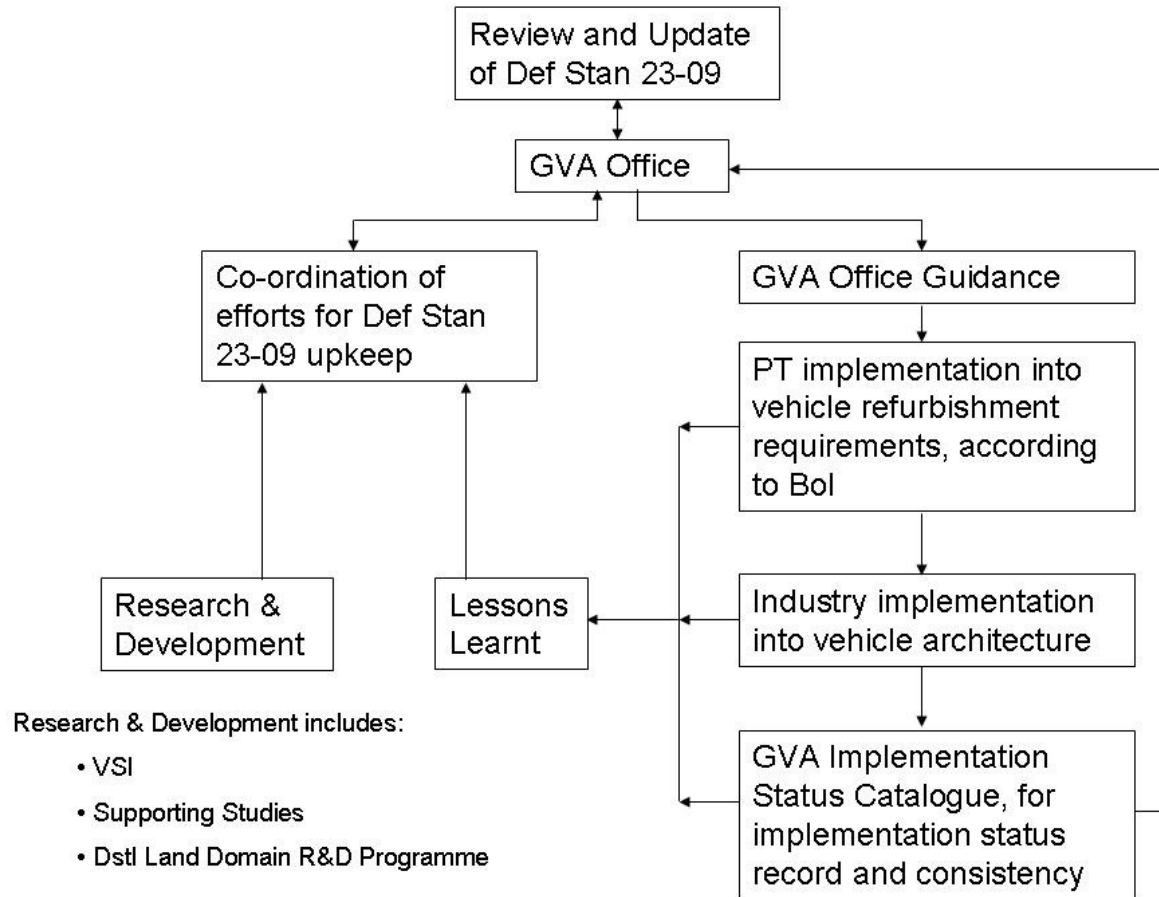
- The purpose of Def Stan 23-09 Generic Vehicle Architecture design is to enable the MOD to:
 - realise the benefits of a common approach to vehicle architectures by mandating standards for their design and implementation
 - improve operational effectiveness and reduce the cost of ownership across the fleet and all Defence Lines of Development (DLODs)
- The first version of the Generic Vehicle Architectures, GVA Def Stan 23-09 was published on 20th August 2010

What's in GVA Def Stan 23-09?

- The first release concentrates on:
 - Electronic Infrastructure Standards
 - Human Machine Interface
 - Health Usage and Monitoring System
 - Standards for platform video
 - Power Infrastructure Standards
 - Mechanical Standards
- GVA office will ensure that the Def Stan is maintained and updated as required
- Def Stan will be updated at approximately 18 month intervals
- The GVA office will also maintain the data model
- The land data model will be updated as required to include new functionality



GVA Update and Implementation Process

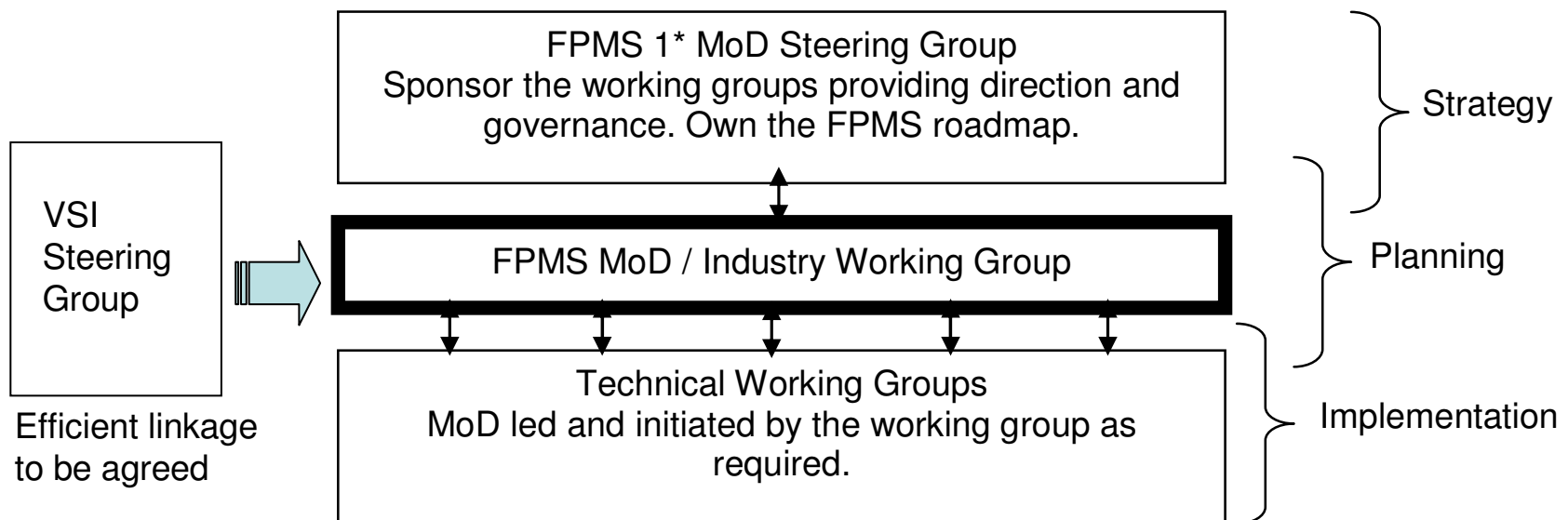


GVA Def Stan 23-09 Growth

- Possible topics for future releases:
 - Communications
 - Antenna Optimisation
 - Platform/Soldier interface to Generic Soldier Architecture
 - Modular Safety Cases
 - Modular Dependability Cases
 - Management of Security of Data
 - High voltage power systems
 - Electrical power generation
 - Electric Drive
- GVA Certification – Self Certification with use of approved independents to demonstrate compliance.

Engagement through Force Protection & Mission Systems WG

- Contracts Bulletin issued
- The working group will normally be held every 4 months in March, July and November.



Summary

- The VSI research is aligned with the needs of the DE&S project teams and the GVA office
- Def Stan 23-09 first issue 20th August 2010
- GVA office up and running with the aims of supporting project teams in implementation of the Def Stan and updated as required
- The Def Stan will be revised on an 18 month rolling basis
- FPMS WG being 'reset-up' for wider engagement

Generic Vehicle Architecture Office

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- **Def Stans:**

- Defence Standard 23-09
Generic Vehicle Architecture
- Defence Standard 00-82 Digital
Video Distribution

