

EADS: European Leader in SMPs

EADS-led soldier modernisation programmes are well advanced in several European countries

Q: EADS' SMP systems have been mission proven over the last six years through several deployments. How have your current SMP systems evolved to incorporate operational lessons learned?

A: The base Infanterist der Zukunft (IdZ) system was fielded with comprehensive soldier oriented features that included:

- Digital navigation and communication tools integrated into the load carrying system
- Ballistic and stab protection to in excess of NATO level 4
- Integrated clothing including a nuclear, biological

and chemical (NBC) suit

- Night vision equipment
- Simultaneous speech and data communications at the section level
- A range of weapons enhanced by optronic peripherals integrated into the soldier system

Each soldier became a digital unit that could integrate into a group or section enhancing the individual group or section C4I and weapon performance. IdZ System deliveries occurred during the period 2002 to 2007. The base IdZ system continued

to evolve with improvements to the navigation tools and communication capabilities, newer soldier peripherals including PDA's, workstations, laser range finders and integration into the earlier battle management system (BMS) FAUST at the IFV vehicle level were added. BMS integration has continued with further integration of the new FulInfoSys H in 2008. This further enhanced information exchange between the C3 and the soldier C4I systems, without degrading the C3 system performance but enhancing overall soldier performance, especially in a mobile vehicle based environment even when the soldier dismounted. ▶



► **Q: How is EADS' IdZ expertise being used to inform and support the development of requirements in other countries?**

A: In early 2005, building on the success of the IdZ base system, EADS made a decision to further enhance its SMP capabilities by commencing design of a second generation SMP system that would extend the Open Architecture principles that had been used in the original IdZ design in 2000. This would allow the new system to take advantage of a landscape change in technology available to SMP systems but make it easier and faster to incorporate lessons learnt in the field and through ongoing trials. It also allows integration of an army's legacy systems and avoids the restrictions imposed by monolithic architectures used by other SMP system configurations. The objective was to provide a system that could then not only be configured to support a country's specific social political mission objectives, but be configurable at the soldier level with variable and enhanced weapon capability integrated into the soldier C4I capability to achieve mission specific objectives. This system flexibility would also allow it to

respond to the needs of a conscript, a citizen army, and regular and Special Forces requirements. The soldier could be fully integrated with the C3 tactical systems at the vehicle level, allowing information exchange between the soldiers and his weapons and sensors, and between the soldier groups and section members and with the BMS without detriment to individual soldier performance in the dismounted role.

Q: How does Warrior 21 provide a means for soldiers to add and subtract modules to make the system appropriate to a peacekeeping mission?

A: Since the series production of 220 IdZ systems for 2200 soldiers between 2004 and 2007, technology has made further strides. For example, the system now has the capability to connect to simulation systems to eliminate existing training deficits, and also enables seamless links to both the FAUST command and control system and the FulInfoSys H system. Going forward, enhancement of combat performance in the form of a rapid, risk-free weight reduction at low cost

while increasing the capabilities of the deployed infantrymen is conceivable through less spectacular means, such as the replacement of individual components and protective materials.

Q: What have been the successes of Warrior 21 thus far?

A: This second generation system, "Warrior 21" has been adopted by the Spanish and Swiss Armies and delivered to both entities in 2008. Key capabilities and characteristics of "Warrior 21" are:

- Enhanced modular multiprocessing computing capabilities to improve survivability
- Open source operating systems and applications to provide soldier responsive applications
- Integration of legacy systems to provide enhanced life cycle and information capability
- Reduced weight and improved ergonomics to improve soldier field performance
- Reduced power consumption and enhanced power management to reduce battery needs

Warrior21[®] – A New Era of Soldier Systems

EADS has supplied the first soldier system (IdZ) in operation worldwide. On the basis of our experience gained in further international projects, we have developed the evolutionary Warrior21 system. This fully integrated infantry system is mainly featured by:

- Flexible connection to C3I systems and to vehicles, sensors and effectors
- High modularity and scalability
- Full compatibility with NATO standards

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