



MBDA'S VISION FOR A QUANTUM LEAP IN AIR POWER PROJECTION

At the International Paris Air Show 2015, MBDA, Europe's leading missile and missile systems company, is unveiling CVW102 FLEXIS, an innovative vision for delivering and sustaining military capability.

FLEXIS is a fully modular missile architecture concept for 2035 and beyond. It is capable of delivering a step change in weapon adaptability, increasing the breadth of effects deliverable as well as the endurance of a projected force, while significantly reducing the logistic burden on the commander.

"The challenge we had," explains Edward Dodwell, Head of MBDA's five-nation Concept Visions 2015 team, "can be exemplified by carrier strike where there is a need to respond quickly to emerging conflicts and deliver effects within the constraints of the equipment held on board. This presents the challenge of having the right weapons in the right quantities to combat a growing variety of future scenarios within a weapons hold that will not grow."

The answer to this challenge is modularity, not only applied on the production line but also right up to the moment when the weapon is loaded onto the aircraft. This modularity needs to be simple and robust to allow the operator to configure the missile at the point of use.

To meet this challenge, the Concept Visions team has developed FLEXIS, a future architecture for system modularity enabled by a number of innovative technologies being developed by MBDA:

- A common missile power and communication bus with universal contactless interfaces applicable to all subsystems to simplify system architecture and allow configuration flexibility.
- A common composite chassis allows for the embedding of the common bus architecture using wire-in composite processes, installation of mission specific aerodynamic surfaces and provides a common core to all the missile configurations, removing duplication.
- A portfolio of common subsystems in standardised diameters delivers breadth of capability and allows system evolution through technology insertion.
- Automated assembly equipment helps the operator to build and certify his missile prior to flight.
- A central Weapon Configuration and Control Unit identifies the installed modules and configures their performance to work as an optimised system.
- A Missile Collaboration & Coordination module provides automated inter-missile tactics and resource sharing to the missiles once in flight in order to maximize success in complex or high threat environments.

- Health and Usage Monitoring integrated at the module level allows enhanced missile life management, and module design to life.

These technologies allow FLEXIS to provide capability breadth and munition depth from a finite stockpile. They also enhance affordability through the removal of duplicated development and qualification, system evolution to meet future threats and mission requirements, and offer increased efficiency and effectiveness in complex high threat environments.

To know more: <http://youtu.be/lf4JGx4MAQc>

About Concept Visions:

FLEXIS embodies the Concept Visions ethos for the sixth year running and highlights MBDA's value as a company capable of promoting innovation and inspiration across the complex weapons community for 2035 and beyond.

With FLEXIS, employees from MBDA's five European locations were presented with the challenge of suggesting concepts, approaches and technologies that could efficiently bring effects on demand for the future battlespace. All submissions were synthesised to provide context and boundaries for this year's Concept Visions project. Following intensive assessment by an international MBDA panel, the most impressive concepts became core components of workshops. These leveraged not only the technical expertise inside the company but also reached out to MBDA's end-user community from across its five domestic European nations.

Notes to editors :

With a significant presence in five European countries and within the USA, in 2014 MBDA achieved a turnover of 2.4 billion euros with an order book of 12.6 billion euros. With more than 90 armed forces customers in the world, MBDA is a world leader in missiles and missile systems.

MBDA is the only group capable of designing and producing missiles and missile systems that correspond to the full range of current and future operational needs of the three armed forces (land, sea and air). In total, the group offers a range of 45 missile systems and countermeasures products already in operational service and more than 15 others currently in development.

MBDA is jointly held by AIRBUS Group (37.5%), BAE SYSTEMS (37.5%), and FINMECCANICA (25%).

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