

SPACE TRANSPORTATION SOLUTIONS AND INNOVATIONS SYMPOSIUM (D2)  
Future Space Transportation Systems Verification and In-Flight Experimentation (6)

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THE IXV PROGRAMME START OF MANUFACTURING AND QUALIFICATION

**Abstract**

The European ambition to return autonomously from Low Earth Orbit (LEO) was always considered a cornerstone opening to a wide range of space applications ranging from space planes, cargo transportation, robotic servicing of space infrastructure and so on.

The idea to feed this ambition through the development of the Intermediate eXperimental Vehicle (IXV) in Europe dates back to 2002, where an ESA interdirectorate assessment study harmonized several ESA and national activities related to experimental vehicles.

Since the beginning, the IXV was conceived as a technology platform to perform the step forward from the Atmospheric Re-entry demonstrator (ARD) mission. Now, in a worldwide scenario increasingly striving for the commercial exploitation of space, the IXV mission will provide a unique European opportunity in the very short-term to verify in flight competitive industrial assets necessary for the preparation of future robotic space transportation developments at limited risk and cost.

The IXV programme activities are being completing the development and the critical design phases, now focussing on the subsystems manufacturing and qualification to be able to proceed with the system integration and testing for the flight in 2013.

The 62nd IAC presentation and article will give the up-to-date insight on the IXV design, manufacturing and qualification phases focusing on the technical and programmatic achievements and challenges.