

SPACE TRANSPORTATION SOLUTIONS AND INNOVATIONS SYMPOSIUM (D2)  
Launch Vehicles in Service or in Development (1)

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ARIANE 6 PROJECT, STATUS AND PERSPECTIVES

**Abstract**

The phase A/B1 of the ARIANE 6 project has been decided in November 2012 for the period 2013-2014. The on-going activities are now focused in the preparation of the next Ministerial Council planned early December 2014, where the Ariane 6 development decision is expected in parallel of aA5ME decision for completion.

The project is managed by ESA at Launch System level, by AIRBUS-DS at Launcher system level and by CNES at Launch Base level.

The main objectives of the Ariane 6 can be summarised as follows: - To provide guaranteed access to space to Europe without requiring public sector funding for the support of its exploitation. - To serve the European institutional needs and perform commercial missions in order to support a cost efficient exploitation.

In 2013, significant milestones have been passed with the Ariane 6 concept selection, the Successful System Requirement Review at Launch System level, the selection of the Upper Stage architecture and the operational process for Launch Campaign. The Ariane 6 concept is made of 4 identical SRM of 145 tons class and a cryogenic upper stage whose architecture is based on two separated tanks. In parallel of the technical and programmatic tasks a specific consultation has been performed at European level in order to initiate the definition of the industrial organisation for Ariane 6 development and exploitation.

The activities will continue in 2014 in the following ways in order to establish the programme file for the next ministerial council: - Consolidation of the selected concept definition and trade-off completion at system level - Start of the trade-off and definition and subsystem level - Establishment of the preliminary requirement specifications for the Launch System - System Requirement Review (LS-SRR) planned in October 2014. - Ground segment SRR with in particular the definition of the Launch Complex layout at Guiana Space Centre - Consolidation of the programmatic file with recurring, non-recurring costs and development logic with associated planning for a qualification flight in 2021.

In parallel of these tasks, the related activities to industrial organisation set-up and governance of the launcher sector will be pursued to feed the programme file submitted to the ministerial council.

This paper will present: - The ARIANE 6 technical definition status at the end of phase B1 - The status of the ground segment definition - The remaining challenges and the stakes of the project in front of the upcoming ministerial council - The progress and results at technology demonstration level