

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

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A5ME: IMPORTANT PROGRAMMATIC MILESTONE PASSED IN 2011!

**Abstract**

The A5ME Programme, A5ME standing for Ariane-5 Mid-life Evolution, passed an important programmatic milestones end of 2011. Indeed, the successful Preliminary Design Review authorises the project to enter into its development phase.

This upgrade of the Ariane-5 launcher features a new cryogenic Upper Stage equipped with the Vinci expandable-cycle engine, and an extended fairing to accommodate wider and heavier payloads. A5ME will therefore be able to launch 12-ton in geo-stationary orbit, i.e. 20

A5 ME takes full benefit of Ariane-5's heritage and the Ariane-5 production experience has been kept to the maximum possible extent: Technologies and industrial organisations will be re-used for a seamless introduction of Ariane-5 ME into the A5ECA production flow. One key for cost efficiency is stability: Ariane-5 ME offers design evolutions without ruptures.

This paper will present the technical and programmatic achievements of the preparatory phase of the project, so called Phase1, decided by ESA Council at the end of 2008. The two last years have been quite busy with milestones mainly related to launcher and to Vinci engine, and with the setting up of the Industrial Organisation. This year will essentially focus on sub-system milestones now that all sub-contractors are boarded, with specific emphasis devoted to design-to-cost and industrialisation, essential in the early phase of development.

The Phase1 took place in the perspective of a development decision to be taken at the next Ministerial Council planned initially at the end of 2011, and now postponed at the end of 2012. This paper will also elaborate on the consequences of the postponement of the Ministerial Council, in particular on the development logic.