

## **MASTECS: Multicore Analysis Service and Tools for Embedded Critical Systems**

### **Description**

MASTECS will bring innovative and exploitable technology for multicore processor timing analysis (MTA) to the market. It will be used by critical embedded software industries (focusing on automotive and avionics) to support advanced software functions (such as autonomous driving), which are competitive factors in every new product.

MASTECS will enable these industries to exploit increased computing performance from multicore platforms allowing new functionally-rich critical and performance-demanding software, leading to reduced fatalities in the road, safer and cheaper air travel and reducing CO<sub>2</sub> profile of planes and cars. MASTECS builds on TRL6 MTA technology developed by its partners and currently being used in several commercial pilot studies by aerospace and automotive tier-1 suppliers. MASTECS will bring it to TRL8, addressing automation, certification, and qualification requirements. The innovative inter-disciplinary MASTECS approach combines the hardware (multicore) expertise (BSC), software timing expertise (RPT), and end-user expertise in terms of requirements and certification (MM and UTRC). This award-winning technology will be commercialized to open a new market in which MASTECS will provide a highly competitive solution by focusing on process, automation and certification support to meet the needs of the safety critical industry. MASTECS implements a solid dissemination and communication approach that ensures the offered product reaches its targeted industrial audience. MASTECS will launch a combined product/service offering for the aerospace and automotive markets, significantly reducing the time-to-market of their systems. The project will boost MTA technology for market take-up within 2 years of project start. Benefiting from first-to-market positioning helps to achieve faster and deeper market penetration. Exploitation also includes the creation of a new SME, spinning-out from BSC, whose registration has already started.

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