

SPACE DEBRIS SYMPOSIUM (A6)  
Space Debris Removal Concepts (6)

Author: Mr. Aurelien Pisseloup  
EADS Astrium, France, aurelien.pisseloup@airbus.com

Mr. Thierry Salmon  
EADS Space, France, THIERRY.SALMON@space.eads.net]

Mr. Claude Cougnet  
EADS Astrium, France, claude.cougnet@airbus.com

Mrs. Muriel Richard  
Swiss Space Center, Switzerland, muriel.richard@epfl.ch

## ADR CONCEPTS FROM CNES FUNDED STUDY OTV

**Abstract**

The French Space Agency CNES is currently investigating concepts to address the need for removing heavy debris in LEO. As part of CNES' OTV project, two consortia were selected in 2012 to work under a CNES contract aimed at defining reference concepts for ADR missions and assessing their versatility. The Astrium led team builds on the background and concepts from the four partners of the team: Bertin Technologies, EPFL, SSTL and Astrium. The study approach was designed in order to consider the wide range of current concepts and to select the most promising through: - a trade-off exercise, including the analysis of all the possible missions and technology combinations, to perform a pre-selection of possible scenarios - for the pre-selected scenarios, the optimisation of the mission cost using a genetic tool (TCAT). The team will report on the first outcomes from the study. The approach used for the study, the reference concepts selected at this stage and their versatility will be presented. The work performed in this study has been funded by CNES with a co-funding by the partners.