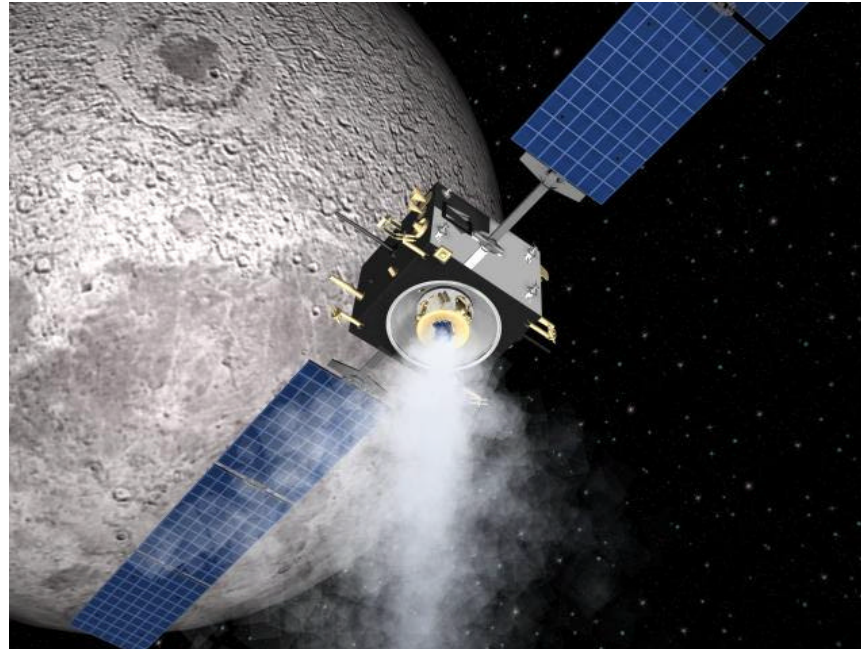


**SMART-1 Industrial Organisation**  
**Science & Technology Media Day**  
**ESA, Noordwijk**  
**April 03, 2003**



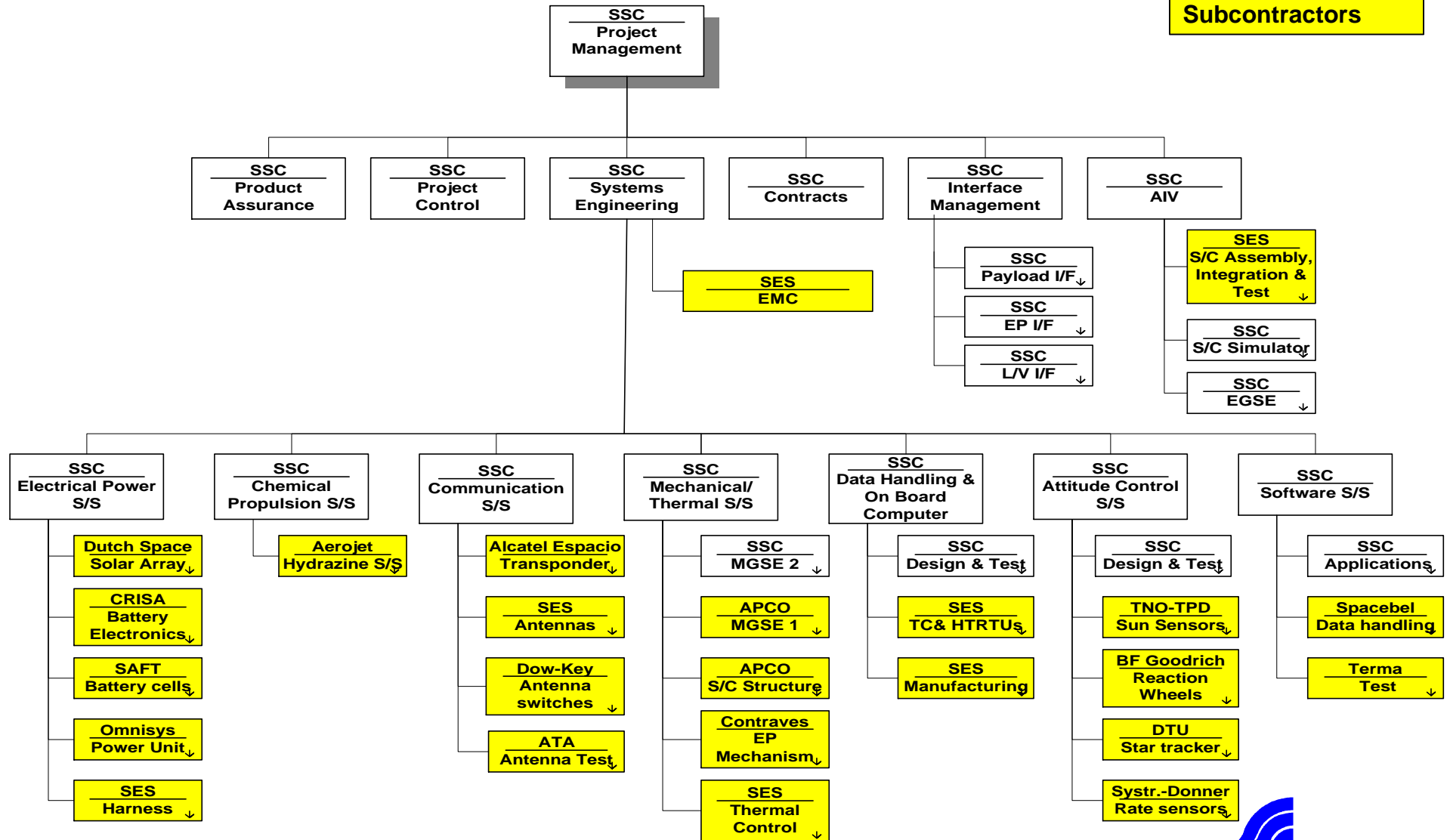
**Peter Rathsman, Project Manager**  
**Swedish Space Corporation**



# SMART-1 Industrial Organisation

SSC Prime tasks

Subcontractors



# Key elements of the SSC approach to developments of small satellites

- Prime absorbs the technical risk
  - Procure on equipment level and avoid subcontracting complete subsystems
  - Maximize the use of Commercial-off-the-shelf (COTS) hardware.
  - Tailor the data handling system to the COTS units
    - ◆ *Maintain the design responsibility for the on-board data handling system*
    - ◆ *Time and money spent more efficiently on resolving problems than on contractual battles*

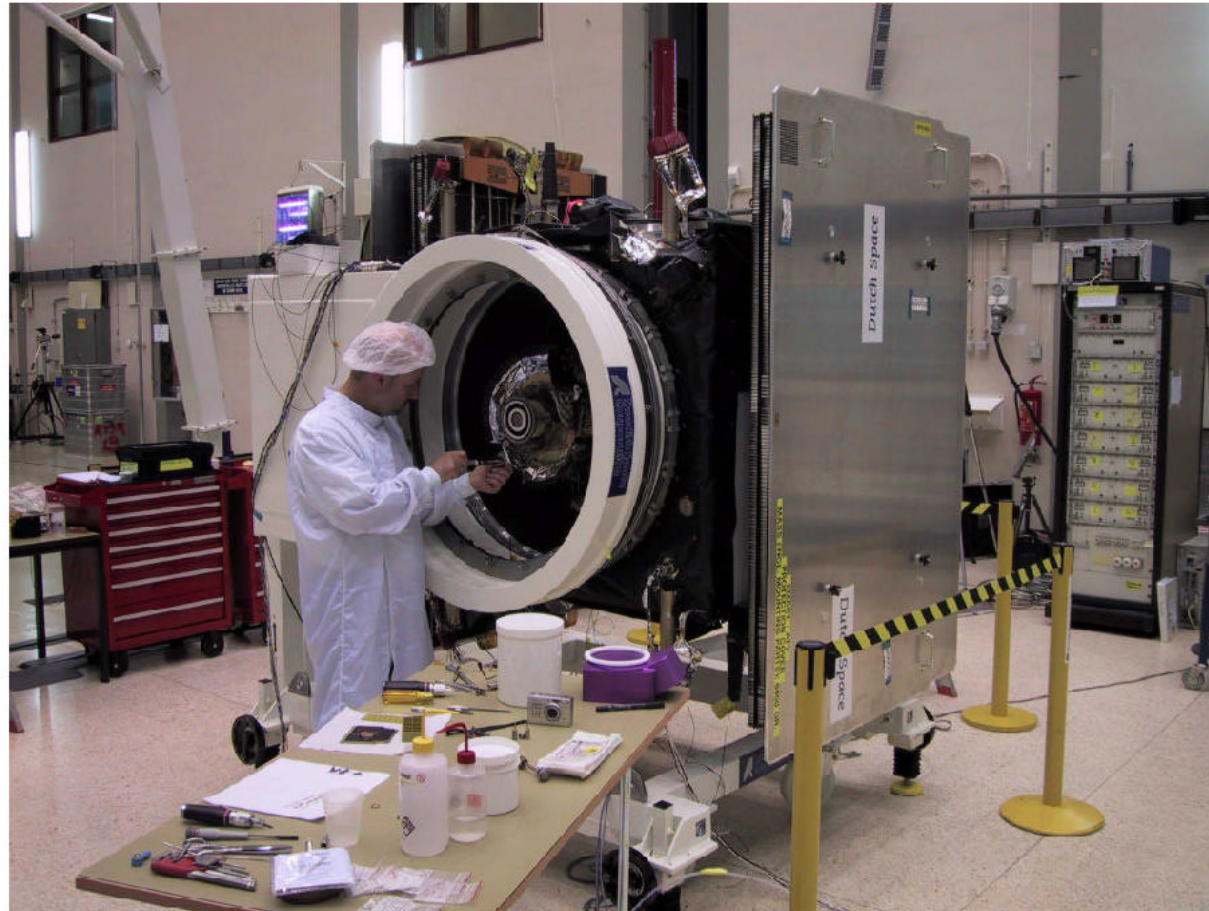


# Roles of SSC Prime Contractor in SMART-1

- Project Management
- Systems Engineering
- Subsystem Management
- Subsystem Development
  - Avionics
  - Attitude Control
  - On-board application software
  - Spacecraft Simulator
  - Electrical Ground Support Equipment



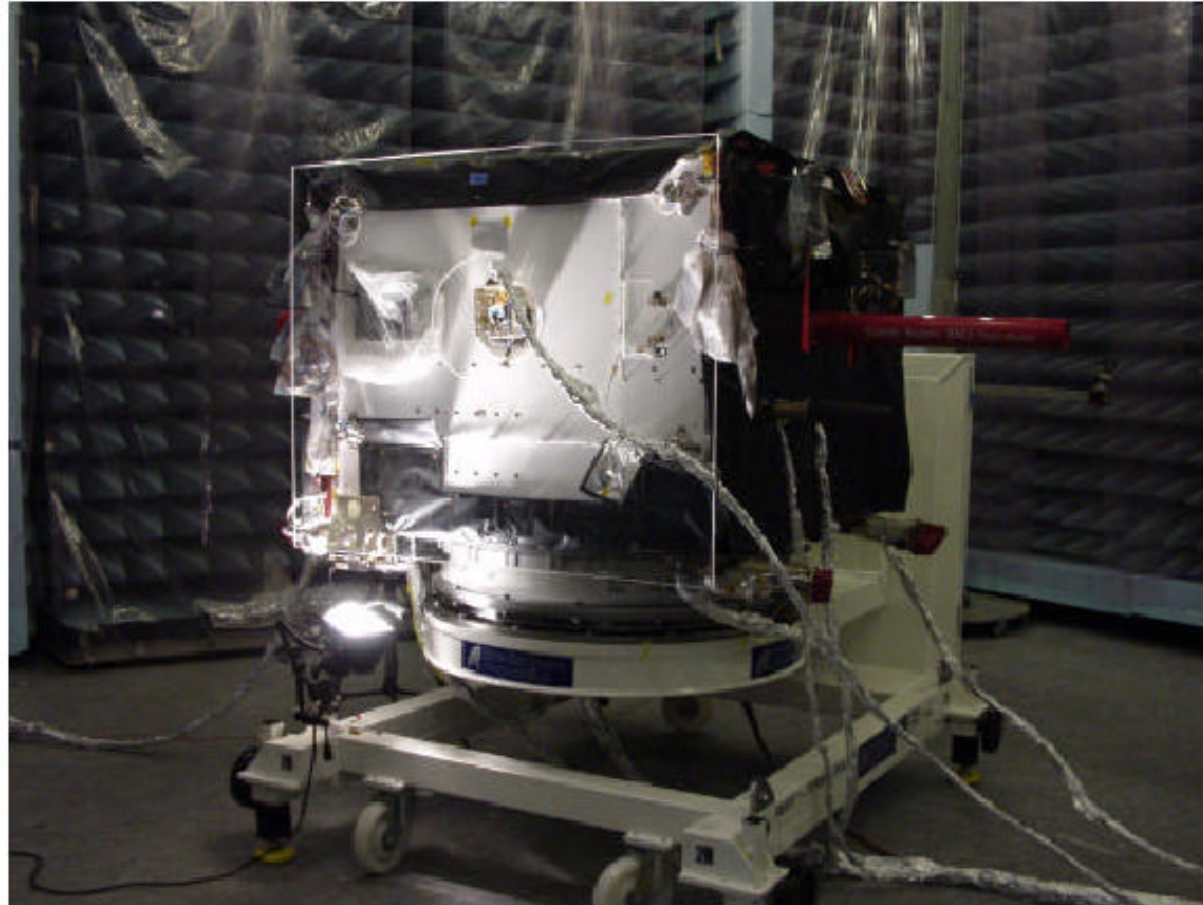
# SMART-1 Integration of Electrical Propulsion Thruster



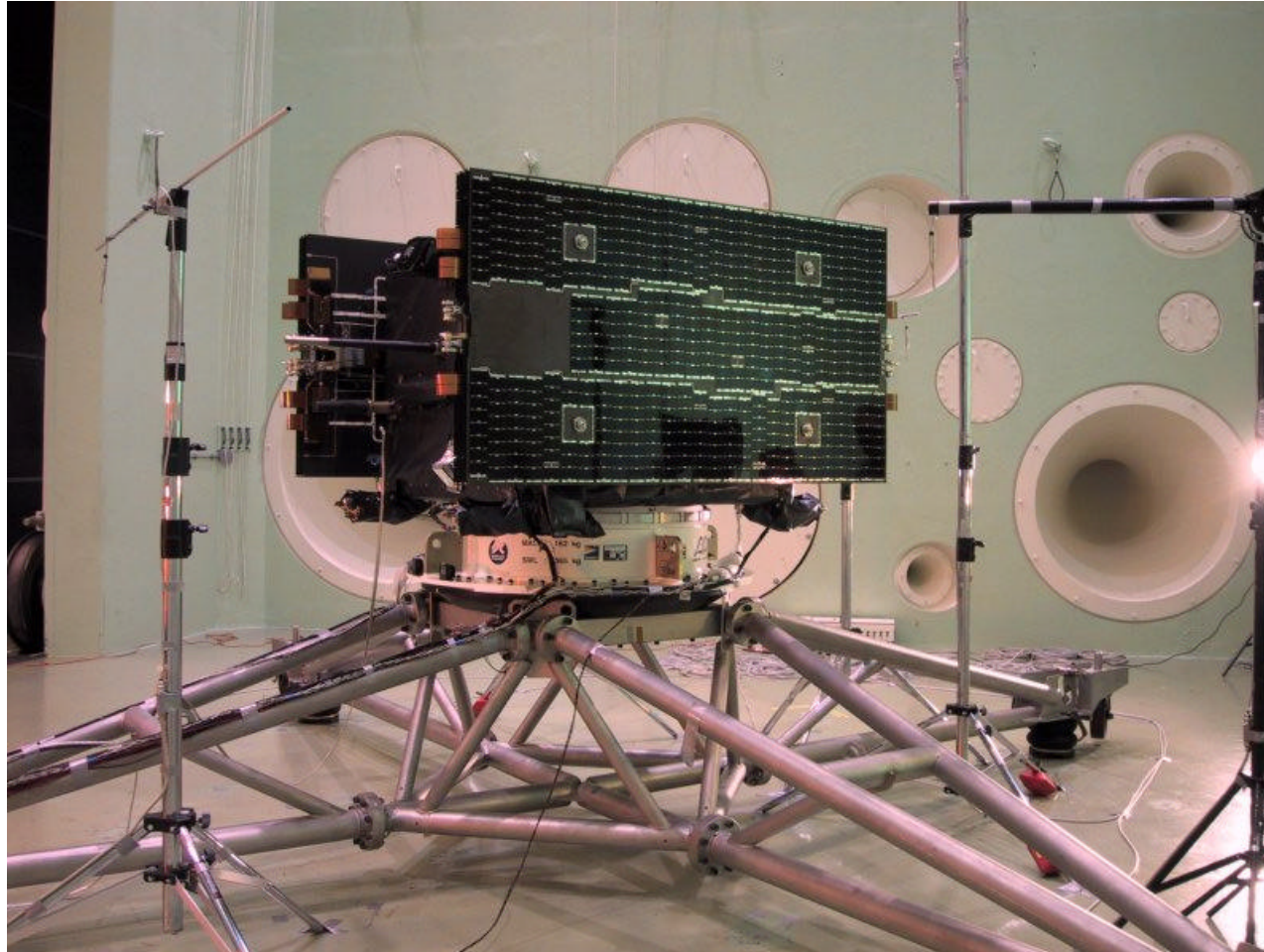
# SMART-1 Solar Array Integration



## SMART-1 Electro-Magnetic Compatibility Test

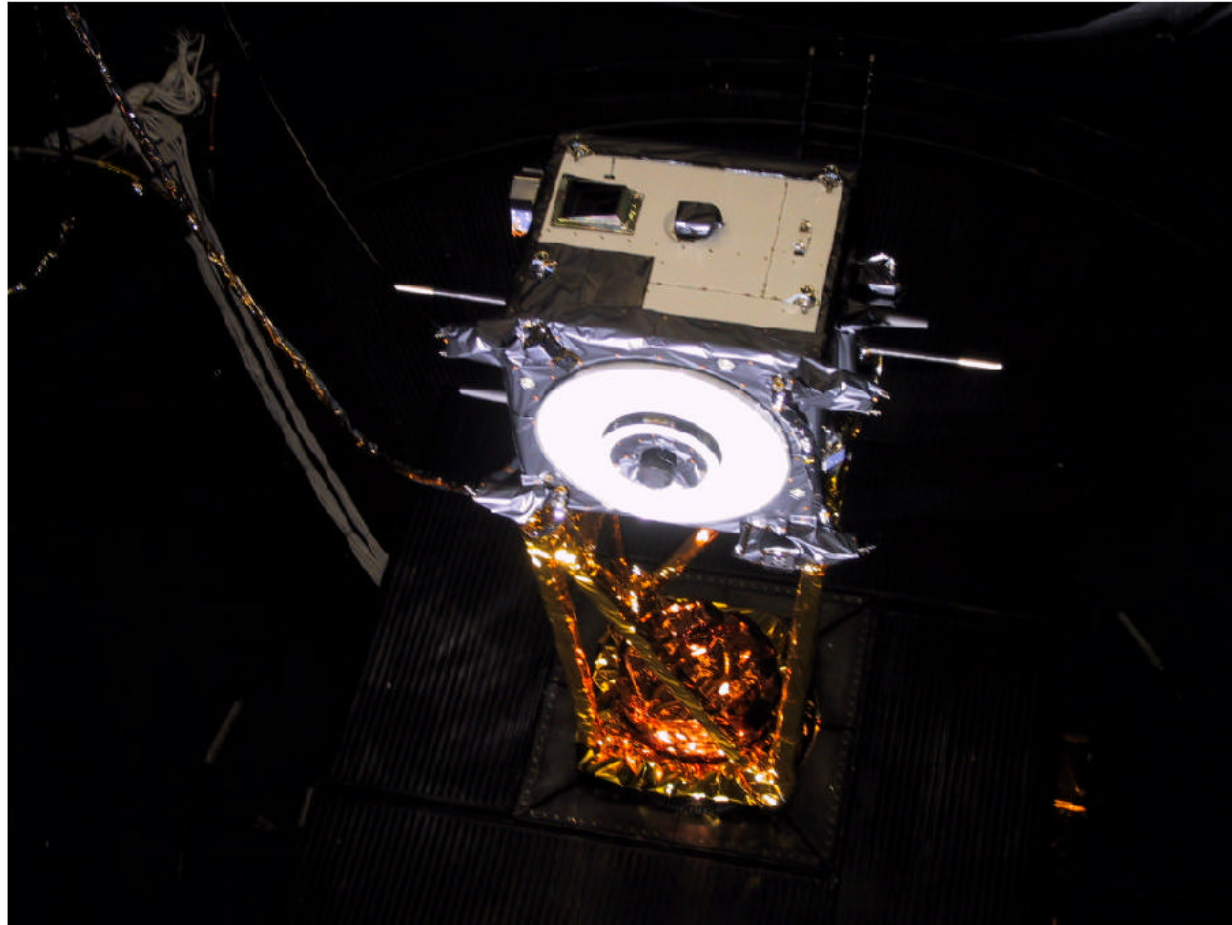


## SMART-1 Acoustic Tests





## SMART-1 Solar Simulation Test



# SMART-1 EP End-to-End Test "First Light"



# The importance of SMART-1 for SSC and Sweden

- SMART-1 has created great national interest.
- SMART-1 has represented the largest challenge so far to the Swedish Space Industry.
- The industrial team of SMART-1 has engaged 180 people and 6 nationalities.



# SMART-1 in relation to future activities

- The SSC SMART-1 assessment study was started in May 1997, with industrial activities (C/D Phase) starting in 1999.
  
- Future activities of SSC in SMART-1:
  - Support to the SMART-1 launch campaign and in-flight operations.
  - Maintenance of the On Board Software.
  
- Future perspectives for SSC:
  - The SMART-1 project has given SSC and Sweden the opportunity to demonstrate our capabilities as Prime and developer of subsystems also for highly demanding Customers and very complex missions.

