STAVE project
Space Transportation Assets Valorisation in Europe

Thematic International Conference on Bio-, Nano- and Space Technologies,

Space Research Collaboration Conference

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1. Why STAVE? - Objectives

2. Organisation of the project

3. Space Transportation Technical Needs
Why STAVE?

Political context

- **Lisbon’s treaty**:
  - Signed on 13th Dec 2007 at the European Council
  - in process of ratification by all Member States
  - Space becomes a **shared competence** between EU and Member states
    - ➔ legal basis in the Treaty
    - ➔ it opens the way for a reliable **European Space policy**
    - ➔ an **autonomous European Access to Space** being a priority
    - ➔ paves the way for a specific budget line dedicated to space activities

- **Lisbon’s strategy**:
  - Defined in March 2000
  - Objective: make Europe the « *economy the most competitive and dynamic in the world* » from here to 2010
Why STAVE?

European Space Policy

- 4th European Space Council on 22 May 2007
  - European’s space policy becomes a reality
  - EU + ESA Member states representatives at ministerial level
  - Adoption of a resolution on the European Space policy
    - EU, ESA and MS commit themselves to **increasing coordination** of their activities and programmes and to organising their respective roles relating to space
    - **Outlines the strategic guidelines** for Europe’s future activities in space
    - Emphasises the vital importance for Europe to maintain an **independent, reliable and cost-effective access to space** at affordable conditions
    - Recognizes the need for Europe to **take advantage in a coherent way of the launcher assets** under its control
STAVE project
goal - status

For the benefit of the European Space Community, STAVE will:

- identify the existing skills & competencies
  - in the domain of Space Transportation
  - within the 12 New Member States
- valorise them by recommended participation to Space Transportation projects in Europe

Project proposed in June 2007 in FP7 1st Space call (1st call including ST)
- project accepted, grant agreement with EC is being established
- duration is 2 years
- kick off meeting in Paris on March 19th
STAVE project
3 Space Agencies

- collaborative project between
  3 Space Agencies most concerned with Space Transportation
  CNES (coordinator), ASI and DLR

Relative Country contributions
to Space Transportation
2007-2009 programmes

> 80%
STAVE project

For the benefit of the European Space Community

STAVE will identify and valorise Research Centers, Universities, Research Institutes, SME, Industry whose skills can be useful for Space Transportation
Expected impacts in Space Transportation

- Short term
  - identify existing skills in 12 NMS
  - introduce existing skills within the Research Projects

- Medium term
  - introduce existing skills within Development Projects

- Longer term
  - increase European strengths in Space Transportation
  - introduce existing skills within future large Space Transportation Developments
STAVE project
the valorisation

Recommendations for valorisation will be performed on the basis of the evaluation for:

- participation to FP7 EU programs,
- participation to ESA programs,
- participation to known National Programs in Europe

information only focused to European needs
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STAVE project
how to reach, inform, valorise?

- **Contact the most possible entities in NMS**
- **Present the ST needs and arouse interests**
- **Evaluate skills and elaborate guidelines for optimising the use of existing skills**
- **Set up of an efficient network**
- **Hold presentation workshops in each NMS country**
- **Visit volunteer entities in NMS countries and give them hints to valorise their skills**
- **Disseminate guidelines among eastern and western Europe Space Transportation actors**
STAVE project

Expected main networks
STAVE project organisation

 Partners Strategic Board
 Coordinator, ASI, CNES, DLR

 Executive Board
 Coordinator & WP leaders

 Advisory Board
 Coordinator & potential 27 institutional representatives + ESA + UE

 Management
 International Relations
 Need Presentation
 Evaluation & Valorisation
Objective is to confirm the validity and strength of declared skills and innovative competences.

Evaluation methodology relies on:
- paper work first and
- in-situ confirmation for high technology.

STAVE will help
enhancing innovation capacities by
welcoming motivated new comers.
STAVE project

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Space Transportation Needs

Technical needs to be considered:

- All life-time phases of a project:
  - Research, technological development, demonstrator,
  - Design, development, qualification, production, exploitation
Technical needs to be considered:

- All technical domains of Space Transportation:
  - System integration,
  - Propulsion, (Liquid, Solid, Electrical),
  - Propellants (cryogenics, non-toxic, high energetics, ...),
  - Dynamics (HF, LF)
  - Structures & Materials (heat resistant, lightweight, composites, ...),
  - GNC including Avionics, Electrical Systems & Software, measuring equipment (telemetry, transducers, ...),
  - Ground facilities,
Space Transportation Needs

Technical needs to be considered:

- **All means:**
  - Simulation, bench and flight testing, production tools
STAVE project

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Thank you for your attention!
Questions?