

Contemporary Space Exploration in the U.S. and Europe: A Public Policy Comparison

Veronica Chkadua
 Center for System Studies

III. Key Differences

I. Objectives

- ◆ Compare space exploration policy processes between U.S. and Europe, including planning, funding, and execution.
- ◆ Provide insight into key differences in order to affect the likelihood of future international cooperation's success in space exploration.

- ◆ ESA and NASA are not equivalent in their roles: ESA encompasses ALL space activities and recommends industrial policy; in US at least 8 agencies are involved in execution, and there is no integrated industrial policy.
- ◆ Policy planning is led by political appointees (US) vs. career civil service (Europe), creating more opportunities for ideologically driven policy changes.

II. Key Policy Issues relevant to Space Exploration	U.S.	Europe
re: Exploration Infrastructure	Debate over government- vs. company-led design and - development of space transportation (driven by OMB desire to reduce govt. size and special interest groups)	Independent access to space & standardization of interfaces across space transportation systems & ISS utilization
re: Industrial Base	NASA has no role in industrial policy-making. No single US policy focal point for space sector competitiveness or industrial base's health	ESA has joint ownership of space sector's competitiveness with EC Enterprise & Industry Commissioner
Defining Relevance	No consensus: 'beauty in the eye of the beholder' & no final authority on the matter between exec & leg branches.	Top-down direction: ESA supplies capability to meet EU demand/ declared priorities for security, economic growth, and social outcomes. ESA's role in EU grows

- ◆ European policy planning for space exploration is long-term and integrated; the U.S.'s policy process encourages short-term decision-making. (Annual budget process + **turn-over on congressional committees and White House + degree of transparency and public/special-interest discourse = Churn**)

IV. Lessons Learned from International Cooperation in Human Space Exploration

- ◆ Different approaches to export control complicates cooperation.
- ◆ Turbulence in U.S. space exploration policy incentivizes partners to develop independent capability.
- ◆ There are many good reasons for cooperation, but costsavings is not one of the likely outcomes.\
- ◆ Regular churn in U.S. space exploration policy has resulted in lack of replacement system for Shuttle and failure to meet transportation obligations to ISS partners.

V. Affecting the Likelihood of Success

- ◆ Proposals for cooperation in space exploration are most effective when worked at the European Minister to U.S. President/Cabinet level, not ESA-NASA level, due to the different natures of agencies' policy roles.
- ◆ The regular re-consideration of U.S. space exploration policy will continue until a policy-making process more focused on long-term outcomes is instituted, such as the Decadal Survey process used in space and earth sciences. Until then, the U.S.'s reliability as a partner is significantly affected.

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