

## Breakout Group 1 **"The Whigs"**



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# Summary Report

"The Whigs" focused on issues related to the big picture of OOS, e.g. strategies & vision, policy, legal & regulatory environment, finance, debris, timeline etc.; the breakout group tried to play the role of space agencies, industry and regulatory bodies and to anticipate developments.

### **Day 1: Session 1: "Validation"**

Session goal was to find reasons why OOS was not yet reality. A first general discussion identified cost and customer-market issues, associated risks and funding to be the most obvious obstacles for OOS. Furthermore, a lack of vision and leadership as the overall culture and mindset in the space sector seem to prevent from fostering entirely innovative approaches.

OOS is probably not a big issue in the space arena yet, because its benefits are not evident at this stage. Particular in times of scarce budgets and space system developments as the ISS and new launchers etc other priorities determine the allocation of funds. Critical seems to be a "missing link", the fact, that not all OOS-related elements in place yet. Most obviously the cultural approach and the overall attitude on both agency and industry level were identified as problematic.

Various information deficits were discovered and queries were sent to the other breakout groups.



### **Day 1: Session 2: “Justification”**

A vision for OOS was developed based on interactions with the other breakout groups (Q&A exchange and discussion). The breakout group found, that a vision was target-oriented and rather essential given today’s state of the space sector. Such vision should focus on an economically driven development and operation of space infrastructure taking into account OOS activities already in the planning process. Related milestones could be to provide - following the service definition (ref. J. Kreisel) – observation services by 2005, motion services by 2010 and manipulation services by 2015. To assemble space infrastructure elements entirely in orbit might be envisaged for 2020. It was proposed to verify the potential role of the International Space Station ISS in the context of OOS, e.g. to support demonstrations etc.

#### Vision:

“Realization of a fully-fledged Economic Orbit Infrastructure Based on OOS”

### **Day 2: “Trade Off’s” and “The Way Forward”**

In order to determine how to support this vision another general discussion was held. It was a common understanding that OOS in principle exists already. However, often it is not called OOS or is just too normal to be recognized, e.g. shuttle flights and ISS operations. It seems necessary that the various activities (technology projects, demonstration missions, etc) related to OOS or considering OOS be centralized as “OOS”.

The before-mentioned vision was confirmed and actions were proposed for space agencies and governments, space industries and with regards to regulatory bodies. Most crucial seems to establish OOS as a dedicated area in space (policy and associated budgets).

Summary of recommendations and proposed Activities see “Progress Meeting 2” presentation (OOS website: Workshop 2002: Program).