

NASA has recently completed a project examining the cost and benefits of geospatial standards and specifications in fostering interoperability. The project involved a comparison of 2 projects – one that used consensus-based interface standards for a 5 year lifecycle and one that did not. The measurement framework utilized the four steps of Value Measuring Methodology (VMM).

Process :

Step 1 (value and risk structure, cost structure, risk profile),

Step 2 (analyze the alternatives),

Step 3 (pull the info together),

Step 4 (final report and recommendations). The objective was to define a value framework based up the five value factors – direct user, social, financial, operational/foundational and strategic/political.

Results and findings:

The project that adopted geospatial interoperability standards resulted in \$1.00 invested netting a \$1.19 in savings in operations and maintenance compared to projects not based on open standards. This resulted in savings of 26.2 % compared to projects not implementing standards.

Standards lower the lifecycle costs. Initial costs for standards-based projects were higher but standards lower the lifecycle costs (maintenance and operations costs). It can be anticipated for future projects utilizing open standards that planning costs would be significantly reduced once open standards and specs have been adopted.

The 2 projects that were compared are both national in scope and have been in existence for over 5 years, both with similar budgets (~\$7 million).

They were in two entirely different agencies and in two different applications areas. NASA told Booz Allen to get as close as they could to apples to apples and then put certain assumptions in place to make them more equal.

Three Recommendations:

- 1) The role of government in the standards and specifications process is to educate the larger geospatial community. The government and standards development organizations should take active measures to increase the rate of participation in standards activities by a greater cross-section of geospatial agencies, particularly at a sub-federal level.
- 2) Use standards developed by local, state and regional governments as building blocks for national standards.
- 3) The government should work with standards development organizations to increase efforts to educate the community about the practice of creating standards profiles. Speed adoption and uptake of standards. Increase capability to respond to national needs.