## 4.0 METHODOLOGY AND APPROACH

The objective of this project is to examine private sector awareness and participation in the National Spatial Data Infrastructure in order to develop methodologies and approaches to gain greater understanding, interest, and participation by the private sector for this national effort.

We hope that this report can provide insight to the Bush Administration as it addresses policy issues relating to the Federal government's geospatial technologies policy. Our industry association would welcome the opportunity to provide on-going support to the development of the NSDI that is consistent with the needs of our industry member companies.

In the course of this First Phase Study we have:

- Reviewed literature, market studies, proceedings from conferences, and other secondary materials that address the spatial technology industry market and channels, structures, and end-user markets.
- Analyzed the spatial data industry including primary, secondary and tertiary members and identified those companies that benefit most from participation in the NSDI.
- Built an understanding of primary drivers of participation.
- Researched and built criteria to prioritize and select the key drivers.
- Recommended the development of a knowledgebase of companies well-suited for participation in the NSDI, using criteria developed in preceding research.

**This Section Addresses**

- Summarizes the approach the study team took on this project and the development of this report.

The first step in our approach was to validate the issue of lack of private sector awareness and participation in the NSDI. This has been done largely through literature reviews and interviews with private sector industry representatives. We have participated in conferences, meetings, forums, and interviewed industry leaders over the past 12 months. The following is a partial list of events which we have participated in that have contributed to this report:

- National GeoData Policy Forum – Making Livable Communities a Reality, June 7-9, 1999
- National GeoData Policy Forum – Thread 7, "Pillars of the Community: Framework Data and Product Development", June 9, 1999

- NSGIC/FGDC Framework Data Survey, 1997 –1999
- FGDC Demonstration Project Presentations
- Pecora 14/Land Satellite Information III Conference, December 6-10, 1999, Denver, Colorado
- Aurora Partnership, September 29-30, 1998 and September 28-29, 1999
- GeoData Organizational Initiative, October 13-15, 1999, Denver, Colorado
- STIA Forum, December 14, 1999: Legislative Priorities for the Spatial Technologies Industry in the 106th Congress – Representative Paul Kanjorski, Rayburn House Office Building, Washington, D.C.
- OMB Information Initiative – Collecting Information in the Information Age, October 5, 2000
- STIA Briefing on Geospatial Readiness: A Discussion of the Major Findings of the NRO, NIMA, and Space Commissions' Reports, February 8, 2001
- The Commercial Remote Sensing Industry in the 21st Century and the Knowlegde Gap: A Discussion of Remote Sensing Education and Training Needs, Representative Ralph Regula, Chairman, Chairman, Labor, Health and Human Service, Education, and Related Agencies Subcommittee, Committee On Appropriations, May 22, 2001

We reviewed all existing NSDI authorities to understand the vision, goals, and objectives for achieving an NSDI. Further, we wanted to examine all of the elements of implementation plans developed by the FDGC to achieve the reality of the NSDI in a timely manner. We believe this chronology of authority is important to ensure that our recommendations and findings in this report are consistent with existing authorities.

We then reviewed all current and relevant research to ensure that we were knowledgeable of those findings and recommendations. The NSGIC/FGDC Framework Data Survey conducted from November 1997 to October 1998 provides a wealth of information to validate the basic framework concepts and to provide insight to refine these concepts going forward.

Urban Logic, Inc.s' extensive work "Financing the NSDI: National Spatial Data Infrastructure – Aligning Federal and Non-Federal Investments in Spatial Data, Decision Support and Information Resources," makes the case for a thorough analysis of spatial data market dynamics. The Study states, "Research has not uncovered a thorough circa-Digital Economy study (post 1998) of the market size, players and customers for Spatial Data (as distinct from spatial technology, hardware, software and services) supply and demand, and of the direct and

indirect value of spatial data as part of gross domestic product or other measures of the digital economy."

And finally, "Improving Federal Agency Geospatial Data Coordination," prepared by the Design Study Team, Commissioned by the Federal Geographic Data Committee, May 11, 2000, provided confirmation of comments we heard at the National Geodata Policy Forum, Thread 7 Session on Framework Data. Accuracy of Federal data, completeness of framework data, and currency of data were consistent themes from the interview responses. One of the five recommended actions in the report is to "Focus Federal agency efforts toward building and distributing integrated national geospatial data assets." Further, the report stated, "Federal NSDI framework activities need a renewed commitment, reevaluation, and redirection of effort."

In Section 7 we address private sector demand for the NSDI, we review applications, markets, and private sector activities that support the NSDI. Section 7 also includes several private sector cases on significant NSDI involvement.

In Section 8, we identify private sector issues with the NSDI and general Federal approaches to geographic information.

We then focused on an articulation of the current 21st Century e-business market model that is driving e-commerce. The NSDI could become an integral element of this evolving market environment so it is essential to understand evolving product and market strategies.

In Sections 10 and 11, we outline an industry profiling, selection and prioritization schema as the basis for compiling a comprehensive database of spatial data users and describe a database approach for this industry.

In Section 12 we present specific steps to increase private sector participation in the NSDI.