

**Evaluation of Options for Forming a Public-Private
Partnership for Effective Dissemination of
Disaster Information**

**Final Report
Tasks 1 and 3**

Submitted by:
Parsons Brinckerhoff Quade & Douglas, Inc.
465 Spring Park Place
Herndon, Virginia 20170

In association with:
TASC
Avagene Moore
Robert Olson and Associates

Submitted to:
U.S. Geological Survey
12201 Sunrise Valley Drive, MS 205B
Reston, Virginia 20192

Submitted Under:
PO #98HQSA1769

October 27, 1998

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Evaluation of Options for Forming a Public-Private Partnership for Effective Dissemination of Disaster Information

Final Report

1. INTRODUCTION

Purpose of the Study

The purpose of this study is to provide the United States Geological Survey (USGS) and its Interagency Team members information on available options for a Public-Private Partnership (PPP) to involve representatives of all stakeholders in disaster information. A key aspect of this partnership will be to foster the development of a national disaster information network (NDIN) and, eventually, a global disaster information network (GDIN). The vision is to start with a national capability and build to a global capability. The results of this effort will provide the Interagency Team with relevant background and information on the issues related to the formation of such a partnership and potential models for the creation of the partnership.

Purpose of This Task

The purpose of Task 1 is to identify and evaluate known PPPs, both current and past, to determine how their experiences might be relevant to a national-level DIN (disaster information network) PPP. The purpose of Task 3 is to develop a list of possible functions for a GDIN PPP that should be considered in writing its Articles of Incorporation and developing its business plan. The pros and cons of including these functions in a GDIN PPP are also to be addressed. Given the importance the GDIN PPP functions have on the relevance and utility of various PPP models, the consultant team has combined the results of the Tasks 1 and 3 efforts into a single report.

Relationship to Other Tasks

The findings from this report will be used to narrow the list of PPP models to investigate the appropriate lessons learned (Task 2). In addition, these findings will be used to develop an appropriate PPP model as a foundation for a candidate business plan (Task 4).

Methodology

Work on this task began by defining the GDIN mission, vision, objectives, and potential functions to clarify what the PPP might do and what broad stakeholder groups were likely to participate. This process provided scope and direction to identifying promising models for a GDIN PPP.

Brainstorming sessions to identify potential PPP models appropriate for the disaster information community followed this. Ideas were generated in meetings with USGS client representatives, in consultant team brainstorming sessions, through extensive research on the World Wide Web, and through an interactive online forum with members of the consultant team and its technical advisory group (which includes representatives from the disaster information community and successful public-private partnership organizations). The extensive list of potential PPP models was then narrowed to include those that proved most promising, and further research was conducted to gather information on the organizations' structures, funding sources, goals and objectives, and membership characteristics.

Finally, the proposed functions of the GDIN PPP were compared with the functions of the proposed models to determine which could best serve as a foundation for a GDIN PPP business model.

Organization of This Report

- Section 2 of this report provides background information on the evolution of the GDIN concept; public-private partnership activities to date; and the vision, mission, and functions of the proposed GDIN PPP.
- Section 3 provides a definition of public-private partnerships as used in this report and explains the various PPP categories that may be appropriate for a GDIN PPP.
- Section 4, the heart of the report, discusses a wide range of potential PPP models for GDIN.
- Appendix A provides profiles of the organizations identified through this study task.
- Appendix B maps these models to the various functions expected to be performed by the GDIN PPP to reveal the most promising models.

2. HISTORICAL PERSPECTIVE OF DITF, GDIN, AND PPP ACTIVITIES

USGS is the host of an Interagency Team formed to foster the development of a global disaster information network (GDIN). Efforts to create a GDIN began in the early 1990s. In February 1997, Vice President Albert Gore sent a letter to key Federal agencies requesting that senior officials discuss the feasibility of establishing such a network. In response, senior officials created the Disaster Information Network Task Force (DITF) to evaluate needs, determine feasibility, and develop a phased integrated approach to collecting and disseminating disaster information. The DITF established Working Groups and a Steering

Group to baseline current capabilities and assess needs, grouped by disaster function, disaster types, and disaster phases. At the very first DITF Steering Group meeting the concept of involving the public was addressed by OMB, as both the government and private sector could benefit with a national level DIN. The DITF hosted many Federal interagency meetings and those findings were presented in a July 1997 workshop that built consensus for the creation of a global network. The primary focus of the DITF was to integrate the existing information resources and deliver these resources to disaster managers at all levels. This integration was to be phased, with a near-term focus on linking domestic resources and eventually tying in international networks. Disaster information activities are being carried out by a wide variety of players—Federal, state and local agencies, private-sector interests, non-profits, etc.—underscoring the need for a cooperative, public-private approach to building the network. In November 1997, the DITF published "Harnessing Information and Technology for Disaster Management," which concluded that such a network was feasible but required significant efforts to integrate and coordinate the hundreds of groups providing or disseminating disaster information to thousands or even millions of users. The report made several recommendations to facilitate this coordination, including the creation of a Federal-level executive committee, an Integrated Program Office (IPO)—consisting of all affected Federal agencies—and a PPP to foster the development and deployment of the GDIN.

What Is GDIN?

GDIN is envisioned as a robust, integrated, virtual network for cooperative exchange of timely and relevant disaster information for use by emergency managers, community leaders, the business community, and the general public during all phases of disaster management to save lives, reduce human suffering, and reduce economic loss. It is a resource multiplier that builds on a foundation of detailed user requirements; the availability of and identification of current and future services and products of information providers; and the multi-tier possibilities for interconnectivity. It is anticipated that several products would be developed as part of the GDIN process:

- A search engine to assist users in locating information
- Ways to certify the quality and reliability of information
- Ways to integrate information to support decision-making
- Means of fostering communication
- Robust channels of information delivery
- Means of promoting the availability of information
- Means to standardize information
- Ways to make complex information more user friendly

To produce these products, the DITF recommended the integration of the following:

- New information products, including those derived from national security data

- Archival and real-time data sets
- New and emerging technologies
- Information infrastructure for disaster support

The DITF proposed a phased development. First, a National Disaster Information Network (NDIN) would be in business by FY99. This NDIN would be the stepping stone towards connecting to the other NDINs of the world via a GDIN by FY00. The international phase of GDIN would have a number of goals including:

- Enable an effective interoperable network of early warning, mitigation, and response systems of value to all nations—a suite of technical solutions, including an Internet-based collection of current, reliable, and essential disaster information. A range of technological solutions will actually be needed by GDIN, because in many countries access to sophisticated communication technology is limited. Such a suite of solutions should be robust enough to pass information quickly to the lowest levels.
- Enable a quick response system linking U.S. and foreign commercial and government satellites and other remote sensing tools.
- Foster increased information sharing among governments, NGOs, and international organizations and develop methods of handling sensitive information.
- Take advantage of, enhance, and support current disaster relief efforts and international public-private partnerships to reduce loss of life and property beyond what is currently being done.
- Foster global information standards to ensure that those who need to make decisions can quickly access information. In addition, the global model should be robust enough to handle some variation in standards while the transition to global standards takes place.
- Encourage governments, NGOs, international organizations, and educational institutions to require that disaster managers comply with international standards.

Vision/Mission of the GDIN PPP

The Harnessing Technology report stated that a vision for the GDIN PPP could be "a private, non-profit corporation that involves representatives of all stakeholders in disaster information in the discussion, evaluation, decision-making, and implementation of all aspects of a GDIN in order to build strong consensus, to integrate with and leverage related efforts, and to assure that the GDIN provides information in forms and in a time frame that will be most effective in helping public and private groups make decisions that reduce disaster losses and build more disaster-resilient communities."

The purpose of the GDIN PPP is to create a relationship between the public sector (government entities at all levels) and the private sector (companies, industry organizations/associations, non-governmental organizations, and individuals) that is self-sustaining and brings value to the greater GDIN.

Thus, it is envisioned that the GDIN PPP would have both near-term and long-term goals. Near-term goals would include facilitating the creation of both a national and global disaster information networks. Once the network was established, it is anticipated that the PPP would continue to operate as an information clearinghouse, education and training provider, and advisor to the government, among other roles. These longer-term roles will be particularly important in cultivating interest and support in the private sector for the near-term PPP objectives.

GDIN PPP Objectives and Functions

It is anticipated the public-private partnership will:

- **Create a strategic plan for NDIN and GDIN:** This is perhaps the most important and most appropriate function for the PPP. The development of a strategic plan for the implementation and operation of the NDIN and GDIN would provide the organization with a clear focus and a critical mission. Developing the plan would bring together key stakeholders to shape the NDIN and GDIN and would create vested interests in both the network and the partnership.
- **Stimulate and enhance private sector participation:** Private sector participation is essential. The PPP must stimulate and enhance private participation if it is to succeed. Given the tremendous losses businesses can suffer as a result of disasters, there is a clear business motivation for private sector involvement. In addition, a GDIN presents business opportunities for those involved in its development and implementation.
- **Improve state and local use of Federal capabilities:** More and more Federal disaster information resources are becoming available. The GDIN PPP could serve as a vehicle to facilitate improved use of these tools by supporting integration, providing training and information, and serving as a clearinghouse. The PPP's success in this effort will be contingent on the support and willingness of Federal agencies to work together and make information resources available and easily accessible.
- **Serve as a catalyst and stimulator of new ideas to improve disaster information systems:** The volume and diversity of stakeholders involved in disaster information is significant. Users of disaster information are involved in various stages of disasters, have different needs for specific types of information, and have varying capabilities for receiving and using the information that is available. Bringing together all affected stakeholders to develop effective, easy-to-use tools for disaster information will address a critical need.
- **Build consensus among private and public stakeholders:** Consensus-building will be a critical function for the GDIN partnership. Disaster-related information is currently collected by a variety of entities, both public and private. And both sectors rely on robust and timely information to prevent, respond to, and recover from disasters. Forming consensus on how information can be collected and disseminated, how the information can be integrated, developing standards to support widespread information distribution, etc., will go a long way toward advancing the partnership's objectives.

- **Facilitate interaction with all stakeholders through membership newsletters, meetings, journals, etc.:** Given the wide array of stakeholders in disaster information, the GDIN PPP will serve an essential function in providing a single organization in which to bring these parties together.
- **Establish a structure to provide advice to the Federal government:** The PPP might also function as a "Utilized Federal Advisory Committee" to advise all Federal agencies, especially those involved in the Federal Response Plan, on issues related to disaster information production, dissemination, and use. The PPP could include state or local affiliates and might link organizationally with appropriate international organizations with related goals.
- **Accept funds from public and private sources:** Funding will necessarily come from both public and private sources. It is envisioned that in addition to membership dues, the organization likely will accept grants, contracts, and cooperative agreements from government agencies.
- **Promote integration and standards:** While there is a tremendous amount of disaster-related information being collected, accessing and using the information is difficult. The development of standards, protocols, and integration tools will be essential for the GDIN to become a reality. The PPP will be an important forum for facilitating integration and promoting standards development.
- **Provide information to other government officials, decision-makers and the public:** The PPP may also consider developing public information materials for distribution to members of Congress, other Federal agencies, private sector decision-makers, the media, and the general public. Such functions are essential to maintaining public support for government involvement in and funding of the PPP's activities, as well as providing private sector companies with information to use within their organizations.

As part of this outreach (as well as to provide services to members), the PPP would operate a website, and this website might provide indices and direct links to information at other websites as well as information on the organization's functions and activities.

Disaster-related PPP Activities

To develop a model for a public-private partnership to serve a GDIN PPP, seeking and reviewing all types and levels of formal organizational or partner-related activities is desirable. Regardless of size or level of involvement, successful elements of structure and approach in organizations with some history may be adopted or adapted to wisely build and foster a GDIN PPP with vision and flexibility to attract stakeholders as users and supporters. By looking at all levels, sizes, and types of existing PPPs, recommendations can be broad-based and inclusive of public and private concerns related to information sharing while benefiting from lessons learned from those that have or have not succeeded as PPPs. A broad spectrum of PPP examples, submitted by Project Team members, are under consideration; this "bottoms up" approach and deliberation is conducive to the development of a GDIN PPP that meets the requirements of the initial Federal level goal of an information network while building a sense and acceptance of the purpose of a GDIN PPP at all levels.

Disaster-related PPPs are working because they meet the needs of the participants at their level of activity, local, national, and international. Some needs are the same, but as the partnerships grow, they refine the relationships. We have discovered that the disaster-related PPPs that are most successful are those that:

- Foster participation in the decision-making process
- Generate information that has a value
- Are based on “good citizenship in the community” or instill a corporate culture of community participation
- Are led by visionary leaders and paid staff who can bring critical stakeholders together
- Have clearly defined goals and flexibility that allows for short-term accomplishments and success as well as continual growth as the PPP matures.

Local disaster-related PPPs are leading the way because: government and corporations have identified a common business interest; the disaster threat is closer and now more recognized; there is a shorter decision-making process (at the local level); and legal and procedural constraints are more practical.

Pros and Cons of Providing Functions via GDIN PPP

The GDIN PPP must define its roles and functions carefully, and lead efforts for which it, and no other organization, is best equipped to undertake. The breadth of organizations involved in disaster information activities (at all levels) in both the public and private sector is significant. All of them have some stake in various aspects of disaster information activities. For the GDIN PPP to be successful and ensure the support of these critical organizations, it must not be seen as a competitor, nor as an additional layer of bureaucracy that will impede, rather than promote, progress.

An effective GDIN PPP must secure the information resources and active involvement of several sectors at all levels: local, state, national, and international (“vertical integration” if you will). Thus, the PPP must identify and address critical needs faced by stakeholders to encourage their participation in the development of the GDIN PPP.

In addition to vertical integration, the PPP will also need “horizontal integration,” ensuring that the broad range of interests involved in disaster information (from information collectors, to disseminators, to users) are properly engaged. From the private sector perspective, it will be essential that the PPP provide it with compelling “bottom line” motivations for participating in the PPP and contributing time, resources, and money to the effort. Among the sectors likely to be engaged in the PPP are:

- Transportation
- Medical/health
- Water/sanitation
- Communications
- Construction (infrastructure and housing)

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- Media
 - Insurance/finance
 - Information services
 - Technological threat sector (oil, chemical, etc.)
 - Agriculture
 - Non-profit/non-governmental disaster organizations
 - Academic
 - Churches
 - Law enforcement
 - Military/National Guard

Through our experience and research on PPPs, we have found that a successful public-private partnership is often one that has:

- A shared vision and common purpose for an on-going activity
- Value for members (that they cannot obtain from any other single source), particularly information such as: hazard information for specific locations; loss reduction information and techniques; research; immediate traffic/transportation information; disaster operation information (how bad the potential, road and bridge closures, electric and water service repairs, etc.); and information and relationships required for regulatory compliance
- Intangible benefits, including positive media and political attention; employee interest, support and contributions; opportunities for interaction with government and private-sector interests; business development opportunities; and improved employee retention rates
- Leadership (both public and private) to promote the PPP
- Human, technological, and financial participation of both sectors
- Clear and practical objectives to show achievements/accomplishments
- An inclusive, consensus-oriented approach to organizational objectives

Thus, a key consideration in choosing an appropriate PPP model is determining specifically what the PPP will offer its members in return for their support. Below is an analysis of the pros and cons of including each of the identified functions as part of the GDIN PPP.

Create a strategic plan for NDIN and GDIN: Currently, there is no flagship organization well suited to perform this task, although several existing organizations would have clear interest in participating in such an activity. Having the GDIN PPP develop the plan would also give the organization "legitimacy" within the disaster information community, by creating a cornerstone document for a mission critical activity.

Stimulate and enhance private sector participation: By definition, the PPP will not succeed without private sector participation. Its effectiveness and, indeed, its survival depend on meeting private sector needs. The PPP will provide a meaningful forum for documenting the stakes businesses have in effective disaster information systems.

Improve state and local use of Federal capabilities: The PPP's success in this effort will be contingent upon the support and willingness of Federal agencies to work together and make information resources available and easily accessible. An Integrated Program Office to coordinate Federal disaster information-related activities would be of great help in this regard,

although this may be a function the IPO would want to assume. This function would also be contingent upon the support and involvement of state and local organizations, which might serve as conduits for delivering the training, information and support for these activities.

Serve as a catalyst and stimulator of new ideas to improve disaster information systems: Many organizations have been created in the disaster community as forums to share information about mitigation, response and recovery. The GDIN PPP should clearly focus on collection and dissemination of disaster-related information. This narrowing of focus will avoid duplication of effort and encourage support from these existing entities that can benefit from enhanced information services.

Build consensus among private and public stakeholders: As the "Harnessing Technology" report points out, effective design and implementation of the GDIN needs to be grounded in a detailed understanding of what information is available and how different users need to access it. It involves much more than market research because the basic issue is one of building consensus on needs and approaches for the provider, disseminator and user communities. A broad-based PPP is an effective means to achieve this consensus.

Facilitate interaction with all stakeholders through membership newsletters, meetings, journals, etc.: Several disaster-related organizations already exist, and care must be taken to ensure that the new organization does not encroach on the functions of the preexisting institutions, especially if these groups are to become active participants in the GDIN PPP. The organization must serve as a means to bring together those not currently interacting with each other, not preempt or duplicate effective communications already underway.

Establish a structure to provide advice to the Federal government: Federal agencies play a critical role in disaster management, but they rely heavily on state and local governments, a host of non-profits and private industry for assistance. Likewise, these local and private sector organizations—the real front lines in disasters—depend on these Federal agencies for information, funding, and other assistance during all disaster phases. Effective disaster mitigation and response is possible only through strong cooperation. The GDIN PPP must be structured in a manner to ensure that it can provide useful advice to the Federal government effectively. This relationship with the Federal government must be cultivated and maintained to ensure that the PPP's recommendations are well received and to retain credibility with Federal partners.

Accept funds from public and private sources: Costs associated with the development and implementation of the GDIN cannot be borne by either the public or private sector alone. In addition, the PPP's sustainability beyond the creation of the network also will require that a broad base of funding be available to support future activities.

Promote integration and standards: The need to use standard protocols in a crisis situation is essential. And, once again, the great diversity of information producers, disseminators and users, requires cooperative efforts among all stakeholders to develop consensus standards for information formats.

Provide information to other government officials, decision-makers and the public: A broad range of policy issues will impact the creation of GDIN, including Federal funding, interagency coordination, voluntary vs. mandated standards, among others. The PPP must be

able to provide public officials (and the general public) with sound, honest information relative to GDIN to assist them in making informed decisions relative to disaster information.

In general, all of these functions are appropriate ones for the PPP to adopt. These functions will be reviewed throughout the course of this study, as lessons learned from other organizations are investigated further and the candidate business plan is developed. What is important to keep in mind, however, is that the functions adopted by the PPP must be:

- Specifically related to disaster information
- Complementary to the functions of existing organizations

Based on these functions, a number of potential PPP models have been discovered and are discussed below.

3. DEFINITIONS OF PARTNERSHIPS

"Public/private partnership" is a term that is used in many different contexts and one with several distinct meanings. PPPs can come in many forms and serve a variety of functions. To provide proper focus for this study, we define PPPs as arrangements of public sector agencies, private corporations, research and technical institutions, and other non-governmental organizations created to coordinate and combine resources to achieve their separate objectives through the joint pursuit of one or more common objectives. It is important to note, then, that members of a partnership can, and often do, have objectives separate from and, at times, at odds with, other partners. To maintain the partnership it is important that the organization focus on these *shared* objectives.

The various types of partnerships available are defined by and relate to the relationship between public and private purposes, separately and jointly served through the partnership. The basic PPP constructs are briefly described below:

PPPs serving functions with a Federal program focus but without a government "charter": Numerous examples of these partnerships exist. These are organizations created to advance legislation, affect policy, represent the interests of its members to the public and to policy makers, and to work together to develop programs and activities to support the interests of the members. While there are often strong Federal program implications associated with the organization's activities, the government does not have a role in its leadership, does not participate as a member of its committees, and has no voice in the makeup of its membership. The Federal government is often the "passive" recipient of information and products from these groups.

An example would be a standards development organization. It brings together a range of stakeholders within a particular industry. These groups often include non-governmental entities, university and research groups, public sector entities, as well as private business interests. Their mission is to develop voluntary standards for technologies and products. The Federal government often is the passive recipient of these standards, and often adopts them for their procurements.

These organizations can include public interest groups (U.S. Conference of Mayors, for example), private sector membership associations (American Medical Association), or a mix of both (the International Bridge, Tunnel and Turnpike Association which includes both public and private toll agencies, and industry suppliers).

Federal agencies must be circumspect in their communications with such entities, to avoid the appearance of providing advantages to particular industries or organizations. Thus, these organizations tend to have more of an arms-length relationship with Federal agencies.

Public/private partnership created by formal Federal partner—the Federal Advisory Committee: Often, a government agency determines that, in order for it to effectively carry out its mission, it needs the advice and counsel of a diverse group of stakeholders from public and private sectors deeply involved in a particular area of interest. To gain that access and input, the agency may designate a Federal Advisory Committee (FAC). An FAC can be established through a statute, reorganization plan, executive order or through a determination of the agency head, in consultation with the General Services Administrator. Entities designated as FACs have substantial administrative and legal obligations with respect to membership, meetings, minutes, involvement of Federal employees, etc. A range of documents and reports must be filed with the General Services Administration in order to comply with the requirements of the Federal Advisory Committee Act (FACA). Among the requirements:

- Committee meetings must be open to the public
- Notice of the meetings must be in the Federal Register
- All interested persons must be permitted to attend, appear before and/or file statements with the advisory committee
- Virtually all records must be made available for public inspection or copying
- Detailed minutes of all committee meetings must be kept
- A designated Federal officer must attend all advisory committee meetings
- The committee may not meet except at the call of, or with the approval of a designated officer or employee of the Federal government

The rationale behind the act is to ensure that agencies across the Federal government interact with these non-governmental entities in a consistent manner and to ensure that all activities and contacts are conducted in an open and public forum.

There are approximately 900 FACs currently chartered by the Federal Government. The General Services Administration (charged with administering FAC) has initiated a process for collaborating with executive departments and agencies to increase public participation. As a result, managers at all levels of government will be provided with improved guidance on public involvement to offer more flexibility in addressing a variety of public involvement needs. The desired result—better and broader public involvement without a proliferation of somewhat cumbersome FACs. While GSA does not intend to discourage FACs, it is working to ensure that the existing FACs are meeting their objectives and that new ones that are formed are truly necessary.

Public/private partnership with formal Federal partner—the "Utilized" Federal Advisory Committee: A utilized Federal Advisory Committee (a form of FACs) provides advice and counsel to a Federal agency and is comprised of a balanced and representative membership from both the public and private sectors. While not formally established by the Federal government, the utilized Federal Advisory Committee is subject to many of the same restrictions and requirements as FACs. In rare circumstances, a Federal agency will find an existing organization or committee within an organization, which, through its activities and membership makeup, can provide critical and valuable input to the agency to advance the agency's objectives. It may then charter that organization as a utilized committee and seek formal advice from it. Less than 10 such organizations currently exist, including the Intelligent Transportation Society of America (ITS America), the Radio Technical Commission for Aeronautics (RTCA), and the Treasury Borrowing Advisory Committee of the Bond Market Association.

While many organizations adhere to the models described above, some of the most promising PPP models for GDIN are those that borrow from each of these categories, creating unique organizations that are tailored to fit the specific needs and objectives for its stakeholders.

4. PPP MODELS AND KEY FEATURES

There are thousands of public-private partnership type organizations and 900 Federal advisory committees in existence. However, there are relatively few organizations that combine various functions such as developing standards, servicing members, providing advice to the Federal government, supporting industry, etc. When reviewing these models, it became apparent that there were several approaches stakeholders might take in creating the GDIN PPP.

Stakeholders could create a short-term, single purpose organization (like the National Automated Highway Systems Consortium) which is designed to accomplish specific goals within clearly defined time frames. GDIN stakeholders may find this an attractive option as a means to focus attention to the development of the disaster information network, mitigate concerns over long-term cost issues by both the public and private sectors, and avoid "turf battles" with other institutions which may be providing functions similar to those envisioned by the GDIN PPP.

Or, stakeholders could opt for a longer-term organization, with GDIN creation as its first critical mission. A more sustainable organization (like the Software Productivity Consortium or the RTCA) may provide greater incentives for private sector participation. Private involvement will be contingent on business' ability to gain professional, financial and marketing opportunities and advantages from the organization. While creating a disaster information network can provide some of these benefits, significant private sector investments of time, capital and energy will require more long term, tangible benefits.

Another consideration is whether it is necessary or desirable to create a new organization (distinct from existing disaster-related PPPs), to expand an existing organization to accomplish the tasks envisioned for the GDIN PPP, or to create a "federation" of existing successful state and local PPPs.

The founders of ITS America believed that, although their existing organizations and associations were actively involved in intelligent transportation from a variety of aspects, none of them was particularly well suited to lead the efforts necessary for the industry and for USDOT. Thus, a new organization, combining features of several of the founders' own organizations, was created.

GDIN stakeholders may find, however, that an existing organization (perhaps the Institute for Business and Home Safety) already engages in some of what the GDIN PPP is envisioned to do (beyond, of course, the creation of the GDIN). One option to consider is expanding an existing organization to take on these additional functions and members to lead this effort. Both the Institute of Transportation Engineers and, to a lesser extent, the Highway Users Federation were considered good foundations upon which to build ITS America. But it was determined that the complexity of the membership and needs of the ITS industry would not be adequately addressed through these existing institutions, even with significant changes to their current structures.

Yet another option would be to create a federation of existing institutions to guide the development of GDIN and foster broader consensus on disaster information issues. Given the number of successful local disaster-related public-private entities, this approach may enable stakeholders to secure their active participation and support, and incorporate their successful attributes into a national organization.

We have discovered several organizations that, to varying degrees, are useful models for GDIN PPP consideration. Appendix A is a compendium of several potential models that were investigated as part of this study. The matrix in Appendix B identifies which of the identified models perform functions similar to those expected to be performed by the GDIN PPP. The most promising are described below.

ITS America

Founded in 1991, the Intelligent Transportation Society of America (ITS America) is a public/private forum for discussing, planning, coordinating and developing intelligent transportation systems. The Society implements programs to assist, advise, and inform the U.S. Department of Transportation, other Federal, state, local, private sector and university interests of ITS. It supports (but does not directly develop) standards; fosters international cooperation by hosting World Congresses on ITS and sponsoring fact-finding missions to other nations; resolves institutional issues, both formally through its committees, Federal advice, state chapters activity, and Board of Directors and informally through the interaction of public and private sector members at meetings, conferences and other events; provides an information clearinghouse through an extensive website and publications service; holds an annual meeting in the United States; and conducts, coordinates and supports research and testing.

Its 1300 members (60 percent from the private sector) represent a diverse group of stakeholders in intelligent transportation.

Recent Activities

Its formation was motivated by a recognition that, while numerous existing organizations were actively involved in intelligent transportation issues, no single organization existed to focus exclusive attention on emerging technologies. Two transportation associations, the Highway Users Federation (a lobbying organization representing the automobile manufacturers, oil and gas companies, and tire and rubber producers) and the American Association of State Highway and Transportation Officials (the association of state transportation secretaries and chief administrative officers), worked closely with leaders within the Federal Highway Administration and others to create an organization to focus national attention, research, and funding on ITS. At the time, there was no Federal-level entity to coordinate ITS-related activities, and both the public and private sectors were looking to this entity to fill the gap. There was strong private sector interest and support for its formation (through the active involvement of the Highway Users Federation and several high technology firms), broad support from the public sector (through AASHTO and the Institute of Transportation Engineers, as well as USDOT), and active involvement from the research community (including the Massachusetts Institute of Technology, the Texas Transportation Institute, the University of California, and the University of Michigan).

The Federal government's role in transportation was undergoing a dramatic transformation in 1991. In addition, new technology was seen as an important, yet still emerging, tool to aid transportation. Without a massive "interstate-like" Federal program to guide investment in this new technology, it was critical that some formal partnership among the varied interests in the technology be created to guide research, development and deployment. A national, public-private partnership where governments could work together with industry was needed.

The private sector viewed the market for ITS technologies, products and services as a lucrative one. But much of the success of ITS was dependent on largely government funded infrastructure. While approximately 80 percent of the investment in ITS is to be made by the private sector, a fair portion of the public sector's 20 percent investment would have to be made first, to provide the infrastructure upon which ITS goods and services could be developed and sold. The PPP was seen as a means for the private sector to share research and development costs with the government, shape government policy related to the industry, and keep the government apprised of activities being carried out in the private sector (in part to avoid competition from the government to provide these same services).

Legislation in the 1990 Transportation Appropriations Bill and the Intermodal Surface Transportation Efficiency Act (ISTEA), provided start-up funding and authorized the organization to be a Federal Advisory Committee to USDOT.

Among its first major tasks was the development of a Strategic Plan for ITS deployment in the United States. The document was a collaborative effort among the membership and set a national framework for guiding the development of ITS systems. It also helped define the institutional and investment roles for the public and private sector in deployment. And perhaps most importantly for the organization, the Strategic Plan helped give the organization credibility with both sectors and placed it in a central role to foster ITS in the United States.

When the Society was formed, the President of the Highway Users Federation was named President of ITSA, while a separate executive director managed day to day operations. One objective of the linkage was to support ITSA's interests through lobbying. The Federation

provided an established advocacy infrastructure to generate political support for intelligent transportation systems. The relationship was relatively effective until the Society's first President retired and formal relations with the Federation were severed. To fill the void, ITS America increased its legislative information services and activities (within the confines of its tax-exempt status). A number of private sector companies then formed the ITS America Association, a 501(c)(6) organization, which currently carries out legislative programs.

Current Activities

Since then, the Society, in partnership with the U.S. Department of Transportation, has led the development of the National ITS Program Plan (an implementation strategy), the creation of a national ITS architecture to identify critical interfaces to achieve interoperability at the regional, state and national levels, the establishment of a national clearinghouse of ITS information, and the formation of policy included in the recently-passed surface Transportation Equity Act for the 21st Century (TEA-21).

Creation of the Joint Program Office

Rapid developments and substantial funding increases in ITS gave rise to the creation of a Federal level coordinating entity for ITS within the U.S. Department of Transportation: the ITS Joint Program Office (JPO). JPO's mission is to manage all Federal-level ITS activities and coordinate the many Federal agencies with a stake in ITS (including the Federal Highway Administration, the Federal Transit Administration, the Federal Rail Administration, the National Highway and Traffic Safety Administration, among others). It sponsors research and development activities, funds and manages field operational tests and model deployment initiatives, and coordinates standards, planning, outreach and policy efforts. The JPO also manages a cooperative agreement with ITS America, which funds much of the association's technical committee activities (the primary means by which ITS America provides DOT with advice). From time to time, the JPO also will issue task orders to ITS America to undertake specific projects on its behalf. Congress and the industry have praised both ITS America and the Joint Program Office with providing much-needed coordination and focus to ITS in the United States. However, rivalries between the two occasionally arise. In the beginning, ITS America was the only entity whose exclusive focus was ITS. The JPO presented both great opportunity to improve ITS America's ability to shape and influence the program (as it now had only one agency to engage), and great risk, as this new entity could lay claim to some of ITS America's formerly exclusive roles.

In addition to contracts and activities with ITS America, the JPO has gone outside the Society to form partnerships (and issue contracts) with other groups (such as ITE, AASHTO, and others) to perform ITS-related projects, leading to rivalry between ITS America and some of its members, as well as between the Society and its largest funding partner.

Creation of State Chapters

Shortly after ITS America was created, it became apparent that the vast majority of ITS deployment action would be at the state and local level. Entrepreneurial ITS America members began exploring (and soon implementing) state and regional organizations to coordinate grassroots ITS activities. These early chapters developed under widely different rules and structures. For example, some chapters allowed for individuals to become members (as opposed to only allowing organizations to be considered members). Dues structures were

quite different. The affiliation with the national association was unclear. And competition between the national and state organizations increased.

International Affiliates

ITS America has spawned the creation of sister organizations in Europe and Japan, as well as affiliates in Canada, Brazil, and elsewhere. These organizations, which have modeled themselves after ITS America, perform many of the same outreach, deployment support, and consensus building functions. VERTIS and ERTICO are offered as potential models in Appendix A.

How It Works

ITS America is incorporated as a 501(c)(3) scientific, educational and research organization under the Internal Revenue Code. It is governed by a 50-member Board of Directors, 36 of whom are elected by the membership and have voting rights; the remainder represent USDOT and other interests in a non-voting capacity. The Board operates through a number of board committees (nominations, finance and administration, membership, bylaws, etc.).

Much of the Society's programmatic and technical work is accomplished through councils and numerous technical committees, which analyze issues of importance to ITS and develop policy, advice, recommendations, etc., much of which is forwarded to USDOT as formal advice. The committees also produce documents, publications and other guidance for the industry. Technical committees are managed by a Coordinating Council, which consists of the chairs of all committees and task forces, as well as elected, at-large members. The objective of the Coordinating Council is to coordinate, monitor, and oversee the programmatic aspects of the national ITS program. It is headed by a chair and vice chair, appointed by the Chairman of the Board. The size of the council has grown considerably, and some have questioned its effectiveness at coordinating the varied technical activities of ITSA's committees and taskforces.

In 1995, ITS America created a new body, the State Chapters Council, to support the activities of its state affiliates. These state chapters are structured much like ITS America, and exist to support and foster ITS deployment at the local and regional level. The State Chapters Council provides these organizations with a forum to discuss and resolve common issues and with a means to provide recommendations to the Board on issues of particular interest to the state chapters.

ITS America serves as a utilized Federal Advisory Committee to USDOT. Its primary interaction (through a cooperative agreement) is with the ITS Joint Program Office, established to coordinate and manage the Federal government's ITS activities. Approximately 250 USDOT officials and staff participate on the Board, Coordinating Council, task forces and technical committees. Federal representatives serve as secretaries to all Coordinating Council committees. Reliance on Federal funding for some of ITS America's activities has raised issues concerning the extent to which the organization is viewed as an arm of the Federal government or an independent advisor.

The private sector's role in the organization has been significant, motivated largely by a wide range of profit opportunities, through government contracts as well as through the development of products and services in commercial and consumer marketplaces.

ITS America has an annual budget of around \$10 to \$12 million, with approximately one third coming from USDOT. The balance is derived from membership dues, volunteer in-kind contributions, annual meetings, publications, conferences and cooperative agreements. The JPO often contracts with ITSA for specific task orders, which are fully funded by JPO, in addition to annual "partnership" funding under the cooperative agreement.

Additional information about ITS America includes the following:

- ITS America is an organization of organizations.
- ITS America seeks a balance between public and private sectors in membership and in representation on its boards, councils, and committees.
- The Board of Directors includes representation of both association of stakeholders (e.g., AASHTO and SAE) and stakeholders themselves (e.g., Virginia and General Motors).
- ITS America has open membership – any organization interested in ITS, including foreign agencies and firms.
- ITS America has low dues for public agencies (e.g., \$500 to \$2,500) and graduated dues for private firms (e.g., \$500 to \$15,000).

OpenGIS Consortium

The OpenGIS Consortium (OGC), a 501(c)(6) organization, is an organization dedicated to the development of open system approaches to geoprocessing. It uses consensus building and technology development activities to impact the global geodata and geoprocessing standards community. It is creating the OpenGIS Specification, a necessary prerequisite for geoprocessing interoperability and is intended as a standard throughout the national and global information infrastructure. It is an international membership consortium consisting of 120 members including leading industry, government and standards organizations in the geospatial market. Federal agencies participated in the formation of the organization and remain actively involved. Its membership includes: geoprocessing software vendors; other software vendors; telecommunications companies; integrators; computer system vendors; universities and development laboratories; government agencies and industry associations; and data and information suppliers.

The organization began in 1993 when a few Federal agencies and commercial businesses decided to begin development of an OpenGIS specification. After determining that such a spec could be produced, they decided a formal structure was needed. The organization was started in August 1994. The term "OpenGIS" has been trademarked.

The consortium's Board of Directors sets vision and strategy and approves the group's business plan. Board members are leaders in the information technology community, and are elected by OGC members. Directors, however, need not represent member organizations. A paid executive and staff provide corporate administration.

A management committee develops the business plan and approves the OpenGIS release process. Management committee members are management level representatives from

principal members of the consortium, official liaisons to key standards groups, and representatives from the technical committee.

The OGC technical committee is the primary operational unit of the OpenGIS project, comprised of technical representatives of all OGC member organizations and charged with developing the OpenGIS specification. The committee accomplishes its work through task forces and working groups.

Although the government was instrumental in supporting the development of OGC, it is not a member. Federal agencies provide OGC with funding through cooperative programs and take an active role in its activities. Additional funding comes through membership dues and partnership development.

Currently, there is no other organization positioned to bring together the critical mass of technology decision-makers capable of developing a worldwide standard for interoperable geoprocessing. So, like ITS America, OGC is fulfilling a specific niche in its industry, carrying out activities not suitable to other related organizations.

RTCA (Radio Technical Commission for Aeronautics)

The RTCA (Radio Technical Commission for Aeronautics) is a private, not-for-profit organization that addresses requirements and technical concepts for aviation. The Commission brings together its private and public sector members to develop consensus recommendations on the application of electronics technology to aeronautics. RTCA serves as an advisory committee to the Federal Aviation Administration.

RTCA was first organized in 1935 to provide a forum where government and industry representatives meet to address aviation issues and develop consensus-based recommendations. In 1991, it became incorporated and its name shortened to RTCA.

RTCA's membership includes approximately 145 government and business entities. Government members include the Federal Aviation Administration, Department of Commerce, U.S. Coast Guard, and NASA. Businesses include Boeing, Honeywell, Lockheed Martin, Motorola, and Raytheon. Aviation-related associations are also members, including the Air Transport Association of America, the Aircraft Owners and Pilots Association, and the Air Line Pilots Association.

Because RTCA interests are international in scope, its membership includes many non-U.S. businesses and organizations. Examples include Transport Canada, AirServices Australia, Electronic Industries of Japan, and European organizations.

Funding for the organization comes from membership dues, academic associates and international associates.

As aviation communication, navigation and surveillance requirements and related technical concepts evolve, RTCA is asked to form a special committee that will consider the topic and recommend minimum operational standards or appropriate technical guidance documents. RTCA's Technical Management Committee reviews the topic and initiates committee action. This involves selecting a special committee chair and providing terms of reference for the

activity. Since RTCA also functions as a Federal Advisory Committee, formation of a new special committee as well as all committee meetings are announced in the Federal Register, and all special committee meetings are open to all interested parties.

During special committee meetings, volunteers from government and industry explore the operational and technical ramifications of the selected topic and develop consensus recommendations. These recommendations are then presented to the Technical Management Committee, which either approves the report or directs additional work. The recommendations often provide the basis for government policy decisions and business decisions.

RTCA also develops consensus regarding the implementation of new communications, navigation and surveillance concepts for aviation. Examples include global navigation satellite systems and digital communications systems.

2000 Code Partnership

The 2000 Code Partnership is an ad hoc organization formed by the California Building Standards Commission to approve, codify, and publish the 2001 California Building Standards Code. The Partnership was formed in response to a California court decision that overturned the requirement that California propose and adopt only those model codes listed in the California Building Standards Law.

The Partnership is not an adoption or approval body. It is a vehicle for state agencies and stakeholders to meet to reach consensus in recommending single subject model building codes to the Building Standards Commission.

The Building Standards Commission formed the 2000 Code Partnership, and public agencies chair the working committees of the organization. Private firms and individuals can serve on committees, but the organization is not a public private partnership per se.

There is no explicit budget for the Partnership's activities; the building code revision is part of the normal mission of the California Building Standards Commission. Resources are limited to the time of public sector participants and private firms and individuals that wish to volunteer their time to the code revision project.

The 2000 Code Partnership held its inaugural meeting in June 1998. There is a public sector coordinating council that governs the Partnership, headed by the Building Standards Commission Vice Chair. The Partnership established four code reviewing committees to focus on specific subject areas. A public agency representative chairs each committee, with public and private sector participants contributing their time to reach consensus recommendations.

The Partnership will present their recommendations on each subject area to the Building Standards Commission at a July 1999 meeting. This allows time for the rule-making process to proceed for publication of the final code in July 2001.

Software Productivity Consortium

The Software Productivity Consortium is a leader in software process improvement, software engineering, systems engineering, software reuse, knowledge engineering, and other related software and systems engineering disciplines. It was created in the 1980s to address competition from Japan and to allow private defense contractor and defense agencies to examine research needs and share lessons learned.

SPC's technical program offers an integrated approach to system and software process improvement, rapid application development, product line engineering, requirements analysis, system and software design, development and measurement.

Its Board of Directors is composed of representatives of full member companies. A Technical Advisory Board (also full member representatives) develops a technical statement of needs each year. The Consortium has a 40 person staff to work on projects and assist members.

The Consortium has an annual contract with Defense Advanced Research Projects Agency (DARPA) to address software issues and get feedback from industry members. The Consortium also works with the Software Engineering Institute (SEI) and is SEI-certified to conduct testing.

The Consortium includes more than 70 companies, government agencies, and universities. Full industry members include major telecommunications and aerospace companies. Basic membership includes smaller software development and related companies. Industry affiliates are mostly research labs and industry associations. Government membership consists of Federal-level agencies including HHS, SSA, Patent and Trademark Office, various defense agencies, NASA and FAA. Academic participation includes numerous university software and computer engineering programs and departments

The SPC gets 50 percent of its funding from member dues and the remaining 50 percent from government contracts.

Microelectronics and Computer Technology Corporation (MCC)

The Microelectronics and Computer Technology Corporation (MCC), formed in 1982, is an industrial research consortium serving its member companies. MCC was formed in response to competition from similar, foreign technology research consortia. The corporation provides cooperative research and development services, mapping pre-competitive technology in advanced electronics and information technology to the business requirements of its member companies. MCC's objective is to enhance the ability of member companies to capitalize on advanced electronics and information technology to attain a competitive advantage in the marketplace.

MCC and other research consortia were formed under the auspices of the National Cooperative Research Act, passed by Congress in 1984 in response to market threats from similar, foreign research ventures. The principle advantage of the Act is enabling cooperative research by private companies without the specter of antitrust violation. There are more than 300 cooperative research and development consortia in the United States.

Since it was formed in response to foreign research and development consortia, membership in MCC is generally limited to North American firms. A notable exception is Nokia, recently accepted as one of 18 shareholder companies. Other shareholder companies include Texas Instruments, Motorola, Hewlett Packard, 3M, Eastman Kodak, and Lockheed Martin.

MCC is governed by a Board of Directors made up of representatives of the 18 active shareholder companies. Shareholder companies are the equity owners of MCC. Each shareholder company makes a one time investment to purchase a share of MCC stock, giving it governance over the corporation, a seat on the Board, and a seat on the Requirements Advisory Board. MCC also has advisory groups—consisting of the top technologists in the United States—that volunteer their time to advise MCC staff on cutting edge technology issues and guide suggestions for new study topics.

The Corporation is funded by the equity investment made by the shareholder companies. Funding for specific research programs or projects is determined on a case-by-case basis. Often, MCC submits proposals to state and Federal-funding sources to augment the project budget funded by member companies. MCC typically receives 40 percent of its funding from competitively won contracts from the Department of Defense, Department of Commerce, the Environmental Protection Agency, and others.

MCC provides the following services for its member companies:

- Brings together private firms—sometimes competing firms—that have common requirements for new technology
- Member companies share the cost and risk of technology development, resulting in highly leveraged R&D investment
- MCC analyzes and benchmarks global technology trends
- The Corporation forms partnerships with government agencies and academic institutions to carry out specific research programs
- The Corporation promotes technology transfer and deployment of new technology to the market
- The Corporation builds a network of suppliers and customers to reduce the time from product development to market

Member companies gain several advantages through their participation in the MCC. There are substantial cost savings by avoiding duplication of research and development activities. Technology transfer allows companies to take advantage of existing research and development resources. Finally, the organization is structured in a way that allows small and medium sized companies to participate in research projects, and capitalize on new product and service opportunities.

Bond Market Association, Treasury Borrowing Committee

The Bond Market Association is a non-profit corporation representing securities firms and banks that underwrite, trade and sell debt securities. Membership is open to any bona fide dealer in bonds and other debt securities; at least 20 percent of member firms are substantially owned by foreign institutions. The Treasury Borrowing Committee is one of many committees serving the association. The Committee is a Federally sanctioned advisor to the Secretary of the Treasury.

The Treasury Borrowing Committee is comprised of member firms. The body meets quarterly to review major economic indices and establish consensus recommendations on Treasury borrowing actions. These consensus recommendations are forwarded to the Secretary of the Treasury, representing the Association's preferred borrowing policy.

The origin of the Bond Market Association dates back to 1912, with the current entity becoming a separate organization in 1976. Since then, the role of the organization has expanded through mergers with related financial associations. The Association currently has about 264 member and associate member firms, and 21 affiliates.

Institute for Business and Home Safety

Following the devastation caused by Hurricane Andrew, members of the insurance industry realized that more aggressive efforts were needed to improve protections against disasters. The Institute of Business and Home Safety is an initiative of the insurance industry to reduce deaths, injuries, property damage, economic loss and human suffering from natural disasters. A comprehensive Strategic Plan, covering five key result areas, guides the group. The key result areas are: Public Outreach, Community Land Use, New Building Construction, Retrofit Existing Structures, and Information Management.

Public Outreach: IBHS seeks to ensure that all stakeholders are aware of natural hazards, understand the associated risks, know how to reduce these risks, and desire to reduce the level of risk to which they are exposed. A key initial project under this initiative is the "Showcase Community" program, intended to prove and demonstrate the benefits of a community-wide natural disaster mitigation program.

Community Land Use: A primary IBHS objective is to encourage land use strategies that promote locating structures out of high risk areas that are subject to floods, wildland fires and, where possible, earthquakes and windstorms.

New Building Construction: IBHS actively encourages the adoption of practices to ensure that new buildings are designed, engineered and constructed using up-to-date techniques and materials to mitigate natural disaster risks. Among the initiatives IBHS is promoting are recognition and incentive programs for using new mitigation techniques and developing new protocols to stress increased resistance to natural hazards.

Retrofit of Existing Structures: This program promotes the development and use of cost-effective techniques for retrofitting existing structures and creates incentives for stakeholders to use these techniques to retrofit existing structures.

Information Management: A key initiative for the organization is the development of a comprehensive system for the collection, analysis and dissemination of natural disaster loss and mitigation information. This information system will be linked to other information sources through the World Wide Web, making it a critical resource for GDIN.

Full members in the organization are private companies including, insurance agencies, financial institutions, and others.

Associate members are largely non-governmental organizations (planning associations, research institutions), government and government-related organizations (Federal agencies, governmental associations, consortia).

Its Board of Directors is comprised of insurance company representatives. A Council determines technical activities, and is composed of committee chairs that also must be full members. IBHS has a staff of 25 including a CEO, technical resource staff and administration staff.

Although there is no formal relationship with Federal government, IBHS works closely with FEMA and HUD. FEMA looks to IBHS as the first point of contact after a natural disaster.

Funding for the organization comes primarily from dues from private sector insurance companies. Additional resources are generated through publication sales, and conference and meeting registrations.

PPP 2000

IBHS is an active sponsor of the Public Private Partnerships 2000 effort, a cooperative enterprise of 19 agencies of the Subcommittee on Natural Disaster Reduction (SNDR), IBHS, and other private sector organizations. Created in April 1997, the goal of PPP 2000 is to seek new and innovative opportunities for government and nonprofit, private sector organizations to work together to reduce vulnerability to and losses from natural hazards. The initiative hosts forums on public policy issues in natural disaster reduction, with a focus on methods to strengthen the nation's infrastructure. At the conclusion of each forum, a report is prepared for the U.S. government as a means of informing policies on disaster reduction. In fact, the Federal government is a central player in the PPP 2000 initiative. The Office of Science and Technology Policy (OSTP) is an executive branch office, which serves as the principal means for the president to coordinate science, space, and technology policies across the Federal government. The OSTP is composed of several committees, including the Committee on Environment and Natural Resources (CENR). SNDR, a primary sponsor of the PPP 2000, is a subcommittee of CENR. The PPP 2000 forums began in September 1997 and will continue through 1998. When the forums are completed, the group will develop proposals for future activities.

Membership in the PPP 2000 initiative is open and includes: engineering associations, disaster recovery groups (Red Cross, Disaster Recovery Business Alliance, etc.), power and gas associations, meteorological and seismic institutions, and others.

IBHS Response and Recovery (R&R) Committee

The R&R Committee has FEMA staff as member/observers. The committee's role has been to identify how insurance and government disaster information can be exchanged while protecting proprietary industry information as well as disaster victim privacy. This effort has not been an example of rapid and successful cooperation, although there has been some progress recently.

The Committee has initiated activities with state level government agencies as well. Industry members have visited States with high vulnerability and whose State Director of Emergency Services expressed interest in working with industry. The visits were to identify ways to share pre-disaster information and promote disaster relief cooperation. Some states were very successful (Florida is the model of cooperation). Other states suffer from apprehension.

Access to the state/local disaster sites and early assessment information were key motivations for committee members. Some states have made agreements with companies.

Membership in the R&R Committee consists of most of the Senior Catastrophe Response Directors/VPs from the insurance industry (all the big players, including many of the intellectual and action oriented leaders of the industry).

Given its disaster information focus, its broad membership base and contacts with the government, IBHS is a prime model for GDIN, and will be a central force in the development of the GDIN PPP.

Corporation for Public Broadcasting

An intriguing public private partnership that may have some useful attributes for the development of a global disaster information network is something of a network itself. The Corporation for Public Broadcasting (CPB) develops public telecommunications services (radio, television and new media such as online programming), investing in nearly 1,000 local radio and television stations that reach virtually every household in the country. It is the largest, single source for funding for public programming. It also is an example of an organization specifically created through a government charter for a clearly defined purpose.

The Office of the Inspector General of the United States conducts oversight of the Corporation for Public Broadcasting.

The CPB has a Board of Directors consisting of 10 members appointed by the President. No more than six members of the Board appointed by the President may be members of the same political party.

The 10 members of the Board appointed by the President:

- Are selected from among citizens of the United States (not regular full-time employees of the United States) who are eminent in such fields as education, cultural and civic affairs, or the arts, including radio and television; and

- Are selected so as to provide as nearly as practicable a broad representation of various regions of the nation, various professions and occupations, and various kinds of talent and experience appropriate to the functions and responsibilities of the Corporation.

Of the members of the Board appointed by the President, one member is selected from among individuals who represent the licensees and permittees of public television stations, and one member is selected from among individuals who represent the licensees and permittees of public radio stations.

This is an established nonprofit corporation, and not an agency of the United States Government. The private sector primarily contributes funding through foundations and corporation gifts, but has little to do with operations. The private sector receives value through advertising and public relations benefits from program sponsorship.

Revenue from non-Federal sources accounted for 83 percent of the total public broadcasting revenue of \$1.93 billion. The remaining 17 percent came from Federal sources and CPB. Private sources (non-tax-based sources) were the dominant revenue sources for the ninth year in a row, at 55.2 percent of total revenue. Of the total non-Federal revenue of \$1.6 billion in FY 1997, cash revenue accounted for 89 percent; indirect and in-kind revenue accounted for the remaining 11 percent.

Other Organizations with Unique Features to be Considered

In addition to the examples above, there are some other organizations that should be considered in the development of a business model for the GDIN PPP.

National Automated Highway System Consortium

The National Automated Highway System Consortium (NAHSC) began work in 1994 to specify, develop, and demonstrate a prototype automated highway system by 2002. Principal aims of the organization were to build national consensus on automated highway systems and to perform a demonstration of the technology in San Diego in August 1997. Participants included private sector technology companies, the Federal Government, research institutions, and the California Department of Transportation. Funding for the project was split 80 percent Federal, and 20 percent from core participants. The NAHSC successfully met its objective to demonstrate AHS technology in August of last year. However, consensus on AHS and its future was harder to come by. There was a general belief within FHWA that a Federally supported "market push" strategy, as represented by NAHSC, was not effective. FHWA determined that a "market pull" strategy, with private industry bringing products to market, would be more effective. The Administration chose not to include funding for the program in its proposed transportation budget, and the program is currently on hold (although another initiative, in some ways building on AHS, has been included in DOT's ITS program).

The NAHSC provides an interesting model in a single purpose organization. It was created largely to produce viable technology for national demonstration. The mandated deadline and sense of purpose helped to rally participant support for the project and produced tangible benefits on a tight schedule. However, it was not as successful in cultivating agency, Congressional, and public support prior to the very successful demonstration, and was unable

to translate the positive press received from the demonstration into an extension of the program.

GDIN may wish to consider such a model, if it is determined that stakeholders had no strong interest in developing a long-term partnership beyond the creation of the information network.

Disaster-Related State and Local PPPs

There are numerous examples of state and local business and government alliances that have been created to support disaster-related activities, including organizations such as the Joint Loss Reduction Partnership, the South Baltimore Mutual Aid Plan, and several Disaster Recovery Business Alliances (DRBAs). A number of these are profiled in Appendix A.

One of the most successful is the Business and Industry Council for Emergency Planning and Preparedness (BICEPP). These Los Angeles-area business leaders are actively engaged in improving private business emergency planning in the Southern California region. The group conducts forums in which business leaders exchange ideas and information with experts on emergency planning and preparation, fosters cooperation between the public and private sectors, and coordinates and disseminates information, among other tasks. Although loosely organized, it has proven to be quite successful in supporting business efforts to improve disaster mitigation and recovery. It has received nation and international attention and has been looked to as a model for similar local organizations.

These local groups are certainly important stakeholders in the GDIN effort. However, they also are useful models to be explored as we develop a construct for a GDIN PPP. They could, perhaps, be the foundation upon which a national organization is built. Rather than creating an institution "out of whole cloth", these successful groups could be an appropriate starting point to build "up" an organization bringing the public and private sectors together. ITS America learned valuable lessons when its members initiated their own local organizations without coordination with the national group. If these local disaster-related PPPs are successful, the GDIN PPP should take note of what is motivating private interests to participate, why the public sector finds these groups useful, and how these groups might be leveraged in developing a national organization.

CONCLUSIONS AND NEXT STEPS

Among the findings of this report are:

1. The GDIN PPP is envisioned to be a private, non-profit corporation that involves representatives of all stakeholders in disaster information in the discussion, evaluation, decision-making, and implementation of all aspects of a GDIN in order to build strong consensus, to integrate with and leverage related efforts, and to assure that the GDIN provides information in forms and in a time frame that will be most effective in helping public and private groups make decisions that reduce disaster losses and build more disaster-resilient communities. It will need to be determined whether the GDIN PPP will be a 501(c)(3) or 501(c)(6) organization.
2. The GDIN PPP is expected to:
 - Create a strategic plan for NDIN and GDIN
 - Stimulate and enhance private sector participation
 - Improve state and local use of Federal capabilities
 - Serve as a catalyst and stimulator of new ideas to improve disaster information systems
 - Build consensus among private and public stakeholders.
 - Facilitate interaction with all stakeholders through membership newsletters, meetings, journals, etc.
 - Establish a structure to provide advice to the Federal government
 - Accept funds from public and private sources
 - Promote integration and standards
 - Provide information to other government officials, decision-makers and the public
 - Develop and operate the DGI Network
3. Options for GDIN formation include:
 - Creating a single purpose, near-term organization with the specific objective of facilitating the development of GDIN
 - Creating a longer term, more sustainable organization whose first critical mission is a strategic plan for GDIN and its development

- Creating an entirely new organization distinct from existing disaster-related organizations, but building on lessons learned from them
 - Expanding an existing institution to encompass the additional functions, roles, and members required to achieve GDIN objectives
 - Evolving a national organization from a federation of state and local disaster-related PPPs.
4. There are several potential models for a GDIN PPP. Among the most promising are: the Intelligent Transportation Society of America, the Microelectronics and Computer Technology Corporation (MCC), RTCA (the Radio Technical Commission on Aeronautics), the 2000 Code Partnership, Bond Market Association's Treasury Borrowing Committee, Software Productivity Consortium, the Institute for Business and Home Safety, and perhaps even the Corporation for Public Broadcasting.
5. Other organizations may provide useful features to be considered in developing a candidate organizational model and business plan, such as single purpose organizations like the National Automated Highway Systems Consortium, as well as state and local disaster-related PPPs such as BICEPP.

In the next phase of the study, we will examine the organizations highlighted in this report to determine the lessons learned from their formation and operation. This will be used in the development of the candidate business plan for the GDIN PPP, the final phase of the study.

**Evaluation of Options for Forming a Public-Private
Partnership for Effective Dissemination of
Disaster Information**

**Final Report
Task 2: Lessons Learned**

Submitted by:
Parsons Brinckerhoff Quade & Douglas, Inc.
465 Spring Park Place
Herndon, Virginia 20170

In association with:
TASC
Avagene Moore
Robert Olson and Associates

Submitted to:
U.S. Geological Survey
12201 Sunrise Valley Drive, MS 205B
Reston, Virginia 20192

Submitted Under:
PO #98HQSA1769

December 21, 1998

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1. INTRODUCTION

Purpose of the Study

The purpose of this study is to provide the United States Geological Survey (USGS) and its Interagency Team members information on available options for a Public-Private Partnership (PPP) to involve representatives of all stakeholders in disaster information. A key aspect of this partnership will be to foster the development of a national disaster information network (NDIN) and, eventually, a global disaster information network (GDIN). The vision is to start with a national capability and build to a global capability. The results of this effort will provide the Interagency Team with relevant background and information on the issues related to the formation of such a partnership and potential models for the partnership's creation.

Purpose of This Task

The purpose of Task 2 is to provide advice and guidance on the formation and operation of a PPP for a disaster information network. As a part of this task, experience and lessons learned from applicable PPPs are conveyed. In conducting Task 2, the list of PPP models discussed in the Tasks 1 and 3 report was narrowed, and the appropriate lessons learned were investigated.

Relationship to Other Tasks

In Task 1, well-known PPPs were identified and evaluated to determine how their experience might be relevant to a DIN PPP. Concurrently, a list was developed of possible functions that should be considered in writing Articles of Incorporation and developing a business plan for a DIN PPP. The results of the Task 1 and 3 efforts were combined into a single report. The findings from Tasks 1, 2, and 3 will be used to develop an appropriate PPP model as a foundation for a candidate business plan (Task 4).

Methodology

Based on information obtained in Tasks 1 and 3, the following key issues related to PPPs were identified:

- Information on how the organization was founded
- The activities and functions of the organization
- The relationship with federal, state, and local governments
- Information on local affiliates, if any
- Membership issues
- The organization's influence on industry standards
- The organization's board and committee structure and their functions
- How information is shared among members and with outside constituencies

The list of PPP models identified in Tasks 1 and 3 was narrowed to include those most applicable to a DIN PPP model. Key staff from the applicable PPPs were identified and contacted for in-depth interviews, and information concerning the key issues was obtained. In cases where interviews were not conducted, relevant information was obtained from the Internet and through literature reviews. To review, the organizations utilized for this portion of the report are described below.

The Disaster Recovery Business Alliance (DRBA) was formed in 1995 by an alliance of the Electric Power Research Institute, the Association of Contingency Planners, and the Department of Energy. Its objective is to support local business organizations to examine their vulnerability to disasters and develop disaster recovery plans. Local DRBAs are operating in Evansville, Indiana; Memphis, Tennessee; Wilmington, North Carolina; and Seattle, Washington.

The National Automated Highway System Consortium (NAHSC) began work in 1994 to specify, develop, and demonstrate a prototype automated highway system by 2002. Principal aims of the organization were to build national consensus on automated highway systems and to perform a demonstration of the technology in San Diego in August 1997. Participants included private sector technology companies, the federal government, research institutions, and the California Department of Transportation.

Founded in 1991, the Intelligent Transportation Society of America (ITS America) is a public/private forum for discussing, planning, coordinating and developing intelligent transportation systems. The Society implements programs to assist, advise, and inform the U.S. Department of Transportation, other federal, state, local, private sector and university interests of ITS.

The Microelectronics and Computer Technology Corporation (MCC), formed in 1982, is an industrial research consortium serving its member companies. MCC was formed in response to competition from similar foreign technology research consortia. The corporation provides cooperative research and development services, mapping pre-competitive technology in advanced electronics and information technology to the business requirements of its member companies.

The Institute of Business and Home Safety (IBHS) is an initiative of the insurance industry to reduce deaths, injuries, property damage, economic loss, and human suffering from natural disasters.

The Business and Industry Council for Emergency Planning and Preparedness (BICEPP) is a Los Angeles-area business organization whose leaders are actively engaged in improving private business emergency planning in the Southern California region. The group conducts forums in which business leaders exchange ideas and information with experts on emergency planning and preparation, fosters cooperation between the public and private sectors, and coordinates and disseminates information, among other tasks.

The Radio Technical Commission for Aeronautics (RTCA) is a private, not-for-profit organization that addresses requirements and technical concepts for aviation electronics and navigation systems. The Commission brings together its private and public sector members to develop consensus recommendations, serving as an advisory committee to the Federal Aviation Administration.

The Bond Market Association is a non-profit corporation representing securities firms and banks that underwrite, trade, and sell debt securities. Membership is open to any bona fide dealer in bonds and other debt securities; at least 20 percent of member firms are substantially owned by foreign institutions.

The Corporation for Public Broadcasting (CPB) develops public telecommunications services (radio, television and new media such as online programming), investing in nearly 1,000 local radio and television stations that reach virtually every household in the country. It is the largest single source for funding for public programming.

The Open GIS Consortium (OGC), a 501(c)(6) organization, is dedicated to the development of open system approaches to geo-processing. It uses consensus building and technology development activities to impact the global geo-data and geo-processing standards community.

The Software Productivity Consortium is a leader in software process improvement, software engineering, systems engineering, software reuse, knowledge engineering, and other related software and systems engineering disciplines. It was created in the 1980s to address competition from Japan and to allow private defense contractors and defense agencies to examine research needs and share lessons learned.

Organization of This Report

Section 2 of this report illustrates the key issues involved in the formation and operation of a public-private partnership. As a part of these illustrations, the experience and lessons learned of relevant PPPs are presented as examples. These lessons are grouped according to the following areas:

- Building Support
- Getting Started
- Long-term Issues

Section 3 draws conclusions from the Task 2 analysis and identifies and recommends the next steps of the project.

2. KEY LESSONS IN PUBLIC PRIVATE PARTNERSHIPS

Building Support

Although it might seem obvious, building support for public-private partnerships is a necessary first step in the creation of an organization. Further, there are many nuances to creating support from both potential members and parties outside the formal organization. From our examination of public-private partnership models, there emerged at least 10 factors that were important to building such support. While each may not be critical to the success of a GDIN, overlooking one could result in the failure of the organization in its formative stages. These factors are outlined below, along with relevant examples from existing public-private partnerships to illustrate each point.

Compelling Need or Opportunity

PPPs are typically organized to address a significant threat (compelling need) and/or capitalize on an opportunity. A perceived, impending, or existing threat/opportunity must be present; however, it is important to recognize that this alone will not sustain the organization. In the case of a DIN, the threat is the loss of life and property due to disasters. As population and development increase, the threat increases. In addition, a need exists to utilize resources better in the tracking, response, recovery, and mitigation of disasters, and the opportunity to minimize damage resulting from disasters and the cost of providing disaster relief services.

Relevant to the GDIN, the incentives for the formation of the New York Loss Reduction Partnership included the following:

- The business community and the State of New York had the desire to preserve and protect businesses in the state.
- Businesses, especially those previously affected by disasters, wanted to protect themselves.
- Corporations wanted a regular liaison with the state emergency management decision-makers.
- The state wanted to retain businesses as well as attract new businesses.

Organizers of the Disaster Recovery Business Alliance (DRBA) emphasized that there needed to be demonstrable value of the alliance to members. Local businesses are inundated with requests for assistance from a variety of community organizations. Aside from charitable aspirations, businesses will only get involved in community efforts if there is demonstrable value to the effort presented. For disaster recovery, a program must have value-added features that make a significant difference in the ability to sustain and maintain operations in the event of an emergency.

In contrast, the primary motivation for participation in the National Automated Highway System Consortium (NAHSC) was the promise of future work or future rights to products developed in the project, publicity and public relations value of working on a high-profile project, and the opportunity to conduct research on cutting-edge technology.

ITS America's formation was motivated by recognition that, while numerous existing organizations were actively involved in intelligent transportation issues, no single organization existed to focus exclusive attention on emerging technologies. At the time, there was no federal-level entity to coordinate ITS-related activities, and both the public and private sectors were looking to this entity to fill the gap. The private sector was motivated largely by a wide range of profit opportunities, through government contracts as well as through the development of products and services in commercial and consumer marketplaces.

In the case of the Microelectronics and Computer Technology Consortium (MCC), the motivation for companies to join was the clear threat of Japanese rapid advancement in the microcomputer industry. Through collaborative research and active government support, the Japanese were eclipsing U.S. firms and threatening to put U.S. companies out of business. Both private companies (whose very existence was at stake) and the federal government (which was deeply concerned about trade and defense issues) were eager to defuse the threat, even going so far as to allow loose interpretations of antitrust laws to encourage MCC's formation in 1982. Two years later, Congress passed the National Cooperative Research Act,

which more clearly outlined the rules governing consortia research and development, to continue to encourage such activities. It was very important for MCC not just to produce technical results, but to level the playing field with the Japanese, without compromising the principles of competition and free markets.

These examples illustrate that both threats and opportunities motivate the formation of successful public-private partnerships. Such a threat or opportunity provides the foundation for supporting valuable organizations like a DIN.

Champion

Threats and opportunities are not enough to sustain a new public-private partnership; there needs to be a “champion” to build and maintain the critical early support necessary to sustain an organization’s creation. Such a champion is typically an individual who cares a great deal about a particular cause and the issues surrounding the cause. The champion needs to be up-front, passionate, and have the ability to articulate the need for the PPP. As a further benefit, the champion gives the cause or movement an identity.

Examples of successful champions abound. Under the direction of Harvey Ryland, former Deputy Director of the Federal Emergency Management Agency (FEMA), the Institute for Business and Home Safety (IBHS) expanded its membership and activities to become a leader in loss reduction for industry and government. Ryland’s high profile within the disaster community provided IBHS with a seasoned leader well-steeped in the workings of disaster management and intimately familiar with political and institutional challenges and opportunities at the federal, state, and local levels.

MCC had a visionary champion, Bill Norris (the founder and CEO of Computer Data Corporation), who spent many years advocating the concept of a collaborative R&D consortium for microelectronics as a means of improving U.S. competitiveness, particularly against the Japanese. His efforts led federal policymakers to relax antitrust laws to enable further development of cooperative research consortia in the United States.

Champions can be political leaders, as well, with no particular role in the eventual operation of the PPP. For example, Los Angeles Mayor Tom Bradley formed the Business Industry Council for Emergency Planning and Preparedness (BICEPP). Mayor Bradley was able to spark the interest and involvement of key industry leaders with his message that, in the event of a major disaster, businesses could not immediately depend on public agencies for recovery, as those agencies would be consumed with critical infrastructure repair. Long after Mayor Bradley’s tenure, the organization is an ongoing resource for southern California disaster planning.

Core Set of Stakeholders

In addition to the champion, there must be a core set of stakeholders to buy into the concept and to become missionaries of the organization. Such stakeholders can be individuals, companies, or public agencies; certainly, representatives should come from both the private and public sectors. These individuals and entities might come forward, or a champion might seek them out. Either way, the core set of stakeholders will reach consensus on the mission of the PPP, supporting the champion in the lead role.

ITS America illustrates the breadth of public and private stakeholder support. There was strong private sector interest in its formation (through the active involvement of the Highway Users Federation and several high technology firms), broad support from the public sector (through AASHTO, the Institute of Transportation Engineers, and the USDOT), and active involvement from the research community (including the Massachusetts Institute of Technology, the Texas Transportation Institute, the University of California, and the University of Michigan).

Creating MCC required that the right people be involved from the right companies. Thus it was important to target high-level executives and decision-makers that could commit their organizations' participation. Those organizing the consortium had to be people who could represent the "personality" of their companies and speak for it with tenacity and clarity. MCC's organizer created an advisory group (consisting of an engineer, businessman, some attorneys and an accountant) to help him organize MCC. MCC's organizer made a list of key projects and sought the steering committee's input. He distilled the list to get to those with widespread support, narrowed the list to four areas and formed subcommittees for each.

Clear Agenda Directly Relating to Members' Needs

The most successful public-private partnerships feature a clear agenda that addresses the needs of its membership. In addition to avoiding ambiguity, the agenda must be substantive and provide obvious reasons to join the organization. In the case of the DIN, it seems crucial that the agenda stimulates the involvement of the private sector. For example, the agenda for the DIN should demonstrate how members will save money, mitigate losses, or, in some cases, provide business opportunities for members.

An example of an organization with a clear agenda was the NAHSC. The NAHSC's mission was to develop a prototype automated highway system and demonstrate that development in a field test by 1997. Each core participant had specific roles and tasks toward completing the mission as stated in the consortium's proposal to the USDOT. The clarity of the agenda focused the efforts of participants, while membership in the NAHSC provided publicity and business opportunities for its participants.

The Radio Technical Commission for Aeronautics (RTCA) has a very clear agenda with respect to its relationship with the Federal Aviation Administration (FAA). The RTCA agenda revolves around the core competencies of its members, while avoiding issues that would create a conflict of interest with participating companies or taking on projects that are beyond the reach of the organization's resources. As a result, the RTCA is well respected by federal authorities and does not overstep its advisory role on technical matters.

Limited Agenda

Our research demonstrates that while the agenda must be substantive, it must not be overly ambitious. The startup of a public-private partnership is a crucial period; the organization is under scrutiny from new members, potential participants, and external interest groups. A limited early agenda will help ensure that the public-private partnership achieves significant accomplishments in its formative stages. In other words, it is important to accomplish a few things well rather than to perform many things adequately.

For example, the early agenda of MCC was limited and specific. Since research and development consortia were a very new concept (and one that pushed the envelope on antitrust and restraint of trade issues), it was important that the organization be focused and carefully crafted. Therefore, the initial set of research programs was specific enough to attract new members, yet general enough to not overly constrain the researchers.

Understand Politics

As used here, “politics” refers to the art and science of governing a collective. In essence, it is crucial for the leadership of the DIN to understand the motivations and strategic positioning of both member and non-member entities. Misreading the politics could thwart the public-private partnership in its earliest phases.

For example, at the very least there may be turf battles among the myriad federal (and state) agencies participating in the DIN public-private partnership. Some agencies may withhold support (e.g., financial, information) in order to gain better access or control of the organization’s agenda. Some private partners might try to use the organization to aggressively advance their own business interests detrimental to the organization, instead of contributing to the collective synergy offered by a shared network. Finally, the prospect of public funding carries the implication of conventional political influence. Properly understanding the politics of the DIN will enable its leadership to serve the interests of members while guarding against external threats to the organization’s mission.

It also is important to understand how the organization fits into the federal political landscape. If the PPP receives federal funding, it is important to clearly identify those Congressional committees and members of Congress who will decide whether and at what level of support the PPP will receive. Establishing strong bonds with friendly Congressional leaders will aid in shepherding appropriations through Congress. How the PPP’s mission and program are viewed by Congress is critical – it may be important to reshape the PPP’s message to resonate with the pressing interests and philosophies of the Congressional majority.

ITS America learned the importance of keeping legislators informed shortly after the 1994 midterm Congressional elections. The ITS program was supported by the Republican Bush Administration, but was crafted and passed by a Democratically-led Congress. Most of ITS’s biggest champions on the Hill were Democrats, which was quite helpful in getting positive legislation through both the Transportation and Appropriations Committees. However, ITS America’s low-key outreach efforts were insufficient in educating the new Republican majority in the early days of the 105th Congress. As a result, key Republican leaders branded ITS as “corporate welfare” and influential think tanks were suggesting that the program was the beginning of a massive, government-run program akin to the multi-billion interstate program. In reality, the ITS program could deliver better and safer transportation at lower costs, was a high-tech growth industry, and relied on heavy doses of private sector participation for success – all themes that resonated with Republican members. But because the Republican Congress did not create the program, and because there was a lack of education on the part of the new leadership, the program’s funding was eliminated. Working quickly with USDOT and largely through key corporate and state champions, ITS America increased its outreach to the new Congress and converted former enemies into champions.

Buy-in from High-level Executives and Decision-makers

A critical number of organizations within the disaster relief industry will need to support the proposed PPP in order for it to come to fruition. Therefore, it will be necessary to obtain buy-in from those in power within these organizations. Buy-in will be needed from high-level executives from private companies and key high-level decision-makers in the public sector.

In Los Angeles, the BICEPP again illustrates the importance of high-level support. Former Mayor Bradley stimulated BICEPP's formation and current Mayor Riorden continues to offer executive-level leadership from the public sector. Meanwhile, leaders from major Los Angeles area corporations – including ARCO, Bullocks Department Stores, the American Red Cross, and the Los Angeles Times – contribute to BICEPP both financially and with administrative support.

While public and private staff-level support is helpful, true sustenance is best derived from the executives who shape their organizations' agenda and can commit their organization's resources to support a public-private partnership.

Buy-in from Key Players

Taking the previous point one step further, it is important to have buy-in from key players in an industry or individual company. Note, however, that having buy-in from *all* key players is *not* necessary, as a public-private partnership can gain momentum and membership if it proves itself during its formative stages.

For example, the Bond Market Association formed without the participation of some key industry representatives. Still, the Association proved a valuable resource for its membership, and built momentum and membership over time.

As another example, MCC had the initial support of major technology firms such as Honeywell, Motorola, and NCR. Notably absent as founders were such technology giants as AT&T and IBM, two of the largest computer and electronics companies in the United States. Those giants decided to work independently of consortia programs. Still, in ten years MCC gained the participation of other industry leaders, such as General Electric, Boeing, and Westinghouse.

Advisory Role

As part of its agenda, it must be determined whether the public-private partnership will act as an advisory committee to the federal government. On the positive side, the role of the PPP as an advisory committee provides access to the federal government, allows the organization to shape policy and programs, and creates a source of funding.

The advisory role can also carry negative implications. As an advisory body, the DIN PPP could constrain the advocacy role (the PPP could become a puppet of government), or it may require a lot of bureaucratic responsibilities (e.g., posting of public meetings) that impedes the flexibility of the organization.

As an example, ITS America serves as a utilized Federal Advisory Committee to USDOT. Its primary interaction (through a cooperative agreement) is with the ITS Joint Program Office, established to coordinate and manage the federal government's ITS activities. Approximately 250 USDOT officials and staff participate on the Board, Coordinating Council, task forces, and

technical committees. Federal representatives serve as secretaries to all Coordinating Council committees. The Coordinating Council and Board of Directors serve as the primary “consultative” bodies to which the USDOT looks for policy and program advice on issues such as standards development, deployment guidance, research agendas, etc.

ITS America’s advisory committee role has been cited by its members as a key benefit. The access and interaction private companies and non-federal public officials gain through the close working relationship with federal representatives allows these members to help shape federal policy as well as to develop professional ties to key decision-makers. As USDOT’s role in intelligent transportation evolves and changes, ITS America has sought to develop more effective means to provide program advice to USDOT.

The RTCA appears quite comfortable in its advisory role to the FAA. In deciding on this role, the RTCA made a conscious decision not to lobby the FAA or Congress (in fact, a 501(c)(3) organization is prohibited from lobbying). As it turns out, the RCTA reports that the interests of its membership are much too diverse, and potentially in direct conflict, to make a lobbying or advocacy role possible.

Be Aware of Competing Organizations

There may be other organizations that currently perform most or some of the intended functions of the DIN PPP. Be aware of these organizations – they may compete for members, time, money, and commitment. It appears that IBHS is the greatest competitor of the DIN PPP. IBHS performs many of the intended functions of the proposed DIN PPP; however, IBHS is missing some of the key areas. Be aware that a core set of the potential DIN PPP stakeholders may be members of IBHS.

An example of the potential for competition between organizations is ITS America and the ITS Joint Program Office (JPO). In the beginning, ITS America was the only entity whose exclusive focus was ITS. The JPO presented both great opportunity to improve ITS America’s ability to shape and influence the program (as it now had only one agency to engage and a clearly identifiable federal partner to bring focus to ITS within USDOT); and great risk, as this new entity could lay claim to some of ITS America’s formerly exclusive roles. In addition to contracts and activities with ITS America, the JPO has gone outside ITS America to form partnerships (and issue contracts) with other groups (such as ITE, AASHTO, and others) to perform ITS-related projects. This has led to some competition between ITS America and some its members, as well as between ITS America and its largest funding partner, the USDOT, although the relationship with both members and the USDOT remains strong.

Getting Started

The first phase of building a public-private partnership, Building Support, might be represented as “grass roots” activity: identifying a champion for a cause; identifying core stakeholders; recognizing the political environment of the organization. The next step, Getting Started, has more to do with the structure of the organization while still addressing issues that are crucial to maintaining support for the partnership. There are at least eight issues that can be crucial to the successful operation of the new public-private partnership.

Start-up Funding, and Administrative, Legal, and Technical Support

To get the organization started, it is necessary to obtain start-up funding (seed money). In addition, it is necessary to obtain legal support, and to hire administrative and technical staff. The diversity of sources for this funding will greatly determine the constituency served by the new organization. For example, a single source gives the contributor undue influence over the PPP's agenda, while public funding carries political implications. Perhaps the ideal situation is equal sources of funding from a diverse group of public and private contributors.

The New York Reduction Partnership received initial funding from FEMA. The State of New York and private corporations also provided some initial funding; however, they primarily provided up-front in-kind contributions. As a result, the organization had sufficient seed money to begin activities from the "right" sources – a combination of high-level federal support from FEMA, and additional contributions from state and private sources. Not only did the funding assist in launching the partnership, it also gave it credibility.

In starting MCC, 12 of the 17 companies provided senior executive's time and \$10,000 in business plan development funds. One company contributed up to \$1 million in administrative and legal support. Task groups were formed around organization, governance, and facilities issues; organizational charter and organizational dimensions (R&D, licenses, fees); selection of the MCC president; and government relations (tax and antitrust issues). This diversity of support proved highly effective in starting the organization.

In starting BICEPP, major Los Angeles area corporations, such as ARCO, Bullocks Department Stores, the American Red Cross, and the Los Angeles Times provided administration services, staff, and nominal contributions for the group's activities. This level of executive involvement – backed by financial contributions – was viewed as critical to the organization's success.

Visionary, Credible, Trusted, and Persuasive First CEO

The selection of the first chief executive officer is critical to the success of the public-private partnership. The individual should have outstanding qualifications, and a clear vision of the organization – how it should operate, its goals and objectives. Further, the first CEO needs to be a respected leader in the industry, engendering credibility and trust. Finally, it is helpful if the individual is politically neutral.

For MCC, Bobby Ray Inman, former head of the CIA, provided leadership with national identity, insider knowledge, and insight regarding the Washington, D.C. political environment. Inman engendered trust, and possessed sharp intellect, integrity, persuasion, and shrewd negotiating skills. His leadership was key in getting a favorable antitrust ruling, obtaining the U.S. aerospace industry's support, gaining national and international visibility, and keeping MCC in the forefront of member CEOs minds and public and private leaders' attention.

Organizational Structure Meeting Organization's Goals and Members' Needs

It is important to develop an organizational structure that meets the organization's broad goals, as well as the needs of the individual member organizations. Member organizations will become dissatisfied and disinterested if their needs are not met, making it difficult to retain and recruit other members. The level of participation is important; individual members must feel they can contribute to the organization's mission, while the organization must not become dominated by a select hegemony of members.

The New York Loss Reduction Partnership has attempted to accommodate potential members' needs while meeting the organization's goals. Although the organization has no local affiliates, the State of New York welcomes local organizations with similar missions. One recommendation was to welcome industry representatives into county and local emergency management organizations and for industry representatives to play an active role in their emergency operations.

The Bond Market Association reaches out to its members through its organizational structure. The association is organized into divisions by market areas. Activities of each division are tailored so that the division can focus on the issues of its specific members. In addition, the association's board of directors is a cross section of senior management of member organizations, and each market area has an executive committee that consists of representatives from member firms in the particular market area it represents.

Support from Member Organizations

It is important for PPPs to develop support not only from a member organization's high-level executives (critical in starting the PPP), but also throughout the institution. While champions can serve as missionaries in giving the PPP credibility and visibility in its early phases, as the PPP matures, it will need to develop broader support throughout a member organization.

Set Reasonable Near-term Objectives to Produce Tangible Early Wins

It is necessary to establish near-term goals and objectives of the DIN PPP so that stakeholders see early, beneficial results. The goals and objectives must be limited, measurable, and reasonable so that they can be obtained. Such objectives will more likely produce tangible early wins that gain the confidence of member organizations and sustain momentum for the partnership.

In the early days of MCC, the organization benefited from a high-profile leader and heavy press coverage because of the "newness" of R&D consortia. Soon, however, both members and external audiences began to wonder where the results of its research were. Although its intent was to focus on long-term (10-year) research programs, that time horizon proved too long for its members and its critics. As a result, MCC reconfigured its research program to provide more tangible near-term benefits, while continuing some long-term initiatives as a means to sustain support.

NAHSC had the benefit of a clearly definable goal – the demonstration of automated highway technology by August of 1997. That clear objective provided members with a mission-oriented focus, and gave the press, Congress, and other external audiences a means to measure progress. But it, too, suffered from a lack of more tangible results. While the demonstration goal was met, the lack of more clearly identifiable near-term benefits caused problems for re-authorizing the program.

Flat Organizational Structure

The PPP organization must be flexible, so its structure should be relatively flat. Flexibility is important so that the organization can adapt to external factors or even successes brought about by the DIN itself. A less hierarchical structure aids in organizational flexibility.

For example, ITS America has issues that relate to the size of its Coordinating Council. Political influences led to the growth of the Council to accommodate more and varied interests. As the size of the Council has grown, some members question its effectiveness in coordinating the various technical activities of the organization's committees and task forces.

MCC's initial decisions to accommodate the economic, organizational, and political realities of the time later became liabilities to effective management and technology transfer. Flexibility has served MCC well, as it adapts and changes to meet member needs. This flexibility makes it challenging to manage but tends to serve members better. The structure, organization, and research activities have changed, but the mission has not.

Communicate Results to Build Political Support during "Honeymoon" Period

As alluded to earlier, the "honeymoon" period of the organization should be used to produce results. In turn, it is important to communicate those results to internal and external audiences in effort to build political support. Constructive visibility and support are important to fuel continued success of the organization.

MCC's significant publicity in the early days of its formation cut both ways. It was positive in gaining support, recruiting researchers and motivating a competitive site selection for MCC. However, it also created very high expectations for what MCC was supposed to accomplish. And those who questioned MCC's lack of specific, measurable goals openly criticized the organization. While MCC was successful at generating publicity, its culture of secrecy prevented the distribution of information that would have advanced its cause.

Role of Federal Funding

It is critically important to assess the role of federal funding in a public-private partnership's activities. Acceptance of federal funding carries the risk of perpetual dependency that drives away private sources of funding and, with it, the critical contribution of private sector talent. Not to be ignored, any amount of federal funding also brings the very real possibility of political influence over the organization's agenda. Thus, the acceptance of federal funding must be done while maintaining a difficult balance that minimizes the negative aspects.

Again using ITS America as an example, the organization's reliance on federal funding has caused some to voice concern about the extent to which the group serves as an agent of the USDOT, rather than an independent advisory and advocacy body.

The NAHSC's reliance on federal funding played a large role in its discontinuation. In spite of the interest and participation of many private companies, the consortium relied on the USDOT for 80 percent of its funding. When federal transportation research priorities shifted, funding for the effort was abruptly eliminated and substitute financing could not be found to sustain NAHSC activities.

Give Key Players a Key Role

A tenet of effective leadership is to cultivate and award talented individuals within an organization. Typically, key players are enthusiastic and eager about contributing to a particular cause or movement, and become frustrated if their efforts go without notice. It is

necessary to utilize the talent and enthusiasm of these individuals, lest they become disenfranchised with the organization or matriculate to competing interest groups.

An important aspect of participating in an organization is giving members a platform or showcase for its products and services. The GDIN PPP should not only further the development of the global disaster information network, but also should provide its members with professional development and marketing opportunities.

ITS America is a prime example of such a platform. Not only does the important work of its committees shape USDOT national policy on ITS, it provides members with numerous annual meetings and symposia, through which private sector members can showcase their products and services to ITSA's public sector members. The group's quarterly publication and meeting proceedings provide additional outlets for members.

But perhaps even more importantly, key members of the association must feel they are having an impact in achieving the organization's goals. To attract additional members from industries not well represented in ITSA, the association expanded its Board of Directors and Coordinating Council to increase opportunities for these industries. The State Chapters Council provides opportunities for leadership at both the local level within respective state chapters, as well as nationally through the council, which provides input on national issues.

Long-term Issues

As a public-private partnership grows from adolescence to maturity, new issues emerge that require skillful management in order to sustain the organization. Some of these issues echo the concerns at start-up, such as having an understanding and consideration of political forces that impact the PPP. The consulting team identified the following issues to consider when planning the long-term viability of the DIN PPP.

Listen to Members' Needs / Understand Your Customers

In order to sustain the organization, it is necessary to listen to and accommodate members' needs, including both private and public sector members. Their needs typically change over time; therefore, the organization should realize and identify these changing needs and be adaptable to meet them. In order to accomplish this, the organization must clearly understand its members and customers, and actively encourage and seek input from them.

IBHS presents one example. By engaging its membership in deciding priorities and direction, the organization guarantees its relevance to their changing needs. Thus the structure of the organization itself can respond to members' needs directly.

The MCC has the challenging task of balancing widely divergent member needs. The competitive pressures for MCC's members are different. Boeing, for example, is an international company with few competitors of equal strength. AMD, on the other hand, is a relatively small semiconductor company. What AMD wants from MCC is quite different from what Boeing wants. This diversity led to divergent objectives and measures of success for MCC and proved to be a significant management challenge.

Understand the Changing External Environment

In addition to understanding members' changing needs, the organization needs to understand the changing external environment of the industry. Economic, technological, and political factors and issues change over time. The organization must realize these changes and it must be flexible enough to change with the industry.

After the initial startup period, MCC went through a mid-course correction, focusing on recruitment of new shareholders, un-bundling of the research programs, and renewed emphasis on a program for smaller companies. As member needs changed, MCC found that it was important that its staff and structure change, too. MCC was heavily oriented toward technologists and researchers who were not well equipped nor interested in dealing with technology transfer and fundraising, which had become a dominant theme of the organization.

Understand the Politics

Consideration of political forces requires eternal vigilance. Certainly, elected officials can bring dramatic shifts in policy priorities, regardless of their political affiliation. Moreover, members of the body politic have ever-changing needs, priorities and motivations that can cause dramatic shifts in their support of a public-private partnership.

For example, political squabbles have shaped the Corporation for Public Broadcasting (CPB) since its inception. While there was some attempt in the formation of CPB to avoid politics by creating a stable funding source (via a television excise tax), this ultimately proved futile. Instead the CPB relies on congressional funding appropriations. As a result, the leadership of the CPB must constantly stave off politically motivated opponents who either want to cut off funding for their operation or tie funding to programming content.

Be Adaptable

The organization needs to be adaptable so that it can change with changes in politics and the industry. This means that the organization's structure, staffing, funding sources, and membership need to evolve over time. This relates to the need for a "flat" organizational structure, mentioned previously. Such a flat, less hierarchical structure promotes adaptability.

As an example, in 1995 ITS America created a new body, the State Chapters Council, to support the activities of its state affiliates. These state chapters are structured much like ITS America, and exist to support and foster ITS deployment at the local and regional level. The State Chapters Council provides these organizations with a forum to discuss and resolve common issues and with a means to provide recommendations to the board on issues of particular interest to the state chapters.

In the case of MCC, over time the CEOs were moving away from direct involvement while the division heads needed to get more value out of MCC. The division heads were looking for research results, so a 3-10 year horizon was a very low priority for them (but it was a very high priority for the Japanese and was the original focus of MCC's research activities). The organization broke the walls down between the research programs to encourage more sharing.

In addition, MCC created an organization called MCC Ventures as a means to support licensing and commercialization of new technology (whether developed by MCC or not). MCC Ventures supported MCC by allowing companies that funded the research for technology to have an equity stake in the venture (e.g., licensing fees, royalties), and giving preferential

treatment to MCC companies interested in the technology. MCC can become less financially dependent on the shareholders because of licensing and royalty income, which lowers the investment risk of private companies. MCC needed visible commercial “wins” to survive, and MCC Ventures provided the means for developing some of these.

Create a Long-term Strategic Plan

Presumably, if a public-private partnership was successful at addressing the support building and startup issues outlined above, it would have in place all of the necessary elements to create a long term strategic plan. The organization must have a clear direction and vision and work towards long-term goals and objectives. The strategic plan will identify a clear, longer-term vision for the future, identify mid- and long-term milestones, and reinforce the benefits of the organization to its members.

Among its first major tasks, ITS America developed a strategic plan for ITS deployment in the United States. The document was a collaborative effort among the membership and set a national framework for guiding the development of ITS systems. It also helped define the institutional and investment roles for the public and private sector in deployment. And perhaps most importantly for the organization, the strategic plan helped give the organization credibility with both sectors and placed it in a central role to foster ITS in the United States.

The Open GIS Consortium (OGC) provides a model with a long-term strategic focus. Beyond software standards development, OGC’s larger effort involves creating a shared vision among its members about where the technology should be going and how the consortium can help it evolve and be used in very different organizational contexts. Strategic direction is, in essence, one of the products of the consortium.

In contrast, the CPB suffers from the lack of a long-term strategic plan, which itself stems from the political environment of the organization with its competing interests and agendas. The greatest detriment of the absence of strategic planning is the lack of adequate, long-term capital formation to make the CPB a viable business enterprise. Instead of a long-term vision, the CPB has a long-term distraction of addressing funding issues in a stopgap manner that precludes organizational stability.

Avoid Staff-driven Activities

In any organization, there is the potential for the staff’s activities to drive the group’s operations. This could also be described as “organizational inertia,” whereby the organization exists to serve itself and maintain the institution, rather than focuses on the mission and needs of its membership. This is a problem associated with middle age of an organization, and can be exacerbated by the promotion of former staffers to the executive ranks of the organization.

MCC culture of long-term, innovative well-funded research led to research heads taking greater roles in shaping and directing individual research programs, without input from those funding the research. As a result, some members withdrew support for certain research initiatives and created funding concerns for MCC. While staff support and direction is critical to achieving the organization’s goals, members must set the direction while staff activities should be focused on implementing the membership’s agenda.

Leverage the Best of Member Assets, Talent, and Resources

A successful public-private partnership will mirror the talent and resources that exist in its member organizations. Importantly, the PPP leadership must attract and foster this talent and provide meaningful opportunities for participants. By the same token, the public-private partnership must not become a “dumping ground” for the employees that are dismissed from member companies.

MCC’s high-level research program demanded getting the best and the brightest research in the microcomputer industry to work for the consortium. Many of these “best and brightest” worked for member companies, who were very reluctant to give up their star researchers to a collaborative venture that could serve to help their competitors. Instead, some considered sending their “lesser” researchers, as a means of getting them out of the way. To avoid that from happening, MCC leadership went outside the member companies to draw key talent, offering candidates lucrative salaries, high-end benefits, and great autonomy.

Be Careful in Structuring Membership

Membership structure and its related benefits warrants close attention. It is damaging to have an environment where members receive benefits regardless of their level of contribution, as this fosters equity concerns. At the same time, if membership categories are tiered, it should be done carefully to avoid creating a structure that is open to abuse or discourages open membership.

An example of structuring that has created problems for the organization is the structuring of ITS America’s state chapters. The early chapters developed under widely different rules and structures. For example, some chapters allowed for individuals to become members (as opposed to only allowing organizations to be considered members). Dues structures were quite different. The affiliation with the national association was unclear. And competition between the national and state organizations increased.

MCC’s “cafeteria style” membership produced lasting consequences for the organization. The structure allowed companies to choose which programs to fund, which helped attract companies to MCC. However, those funding the research were adamant that the others should not get the benefits from that research.

If the GDIN PPP is involved in creating the network, intellectual property issues may arise. MCC currently takes royalties from MCC-produced technology and splits it as follows: one-third to the research financiers, one-third to support future research activities, and one-third to MCC for technical contribution awards and other purposes. Associate members get no royalties unless specified in an R&D agreement or contract.

3. CONCLUSIONS AND NEXT STEPS

There are key issues involved in initiating, developing, operating, and sustaining an organization like a public private partnership. In creating a PPP for the disaster information network, it is wise to examine these issues and to utilize the experience of other similar organizations. A lot can be learned from the progress, success, difficulties, and failures of other public private partnerships. USGS should use these similar organizations as models in establishing the disaster information network PPP.

The key issues discussed in this report deal with the following items, or fall into the following categories:

- Politics and the environment of the industry
- Purpose, mission, and agenda of the organization
- Needs, goals, objectives, and strategy
- Organizational structure
- Leadership and support
- Funding
- Activities and functions of the organization
- Membership
- Products
- Communication and publicity

This report presented illustrations of how various organizations addressed these issues during their formation and operation. Specific *initial* recommendations to the USGS for developing and operating a DIN PPP include the following:

1. Develop short list of key private sector companies to serve as missionaries

Active involvement of private sector partners will be an essential ingredient of the DIN PPP. Within the universe of private sector companies, there exist key personnel who can help stimulate interest and funding for the DIN initiative. Importantly, these individuals and the companies they represent carry a great deal of clout with the legislative branches of government, as legislators can be assured that the DIN is not a public empire-building effort.

2. Conduct one-on-one meetings with potential missionaries to test concept and gain support

Once key private sector players have been identified, the next task is to develop a dialogue and garner buy-in from potential emissaries. Their buy-in will establish the core group of support necessary to conduct a "grass roots," coalition building exercise.

3. Convene meeting of core group of private companies to refine concept and develop strategy for identifying potential members and building support

The strategy for coalition building should not be dictated, but should rather flow from the core group of emissaries that will market the DIN PPP. As private sector participants, they will best understand the motivations of other entities in their industry and develop support accordingly. Moreover, shaping the message will help establish early, high-level executive support for the effort.

4. Allow private-sector companies to lead efforts to gain political support for GDIN and GDIN PPP.

Finally, the private sector partners should use their established methods and contacts to interact with elected leadership in the executive and legislative branches. The legislative outreach should emphasize the private sector interest and participation in the DIN PPP. It

will be valuable to illustrate the political benefit of the PPP to individual members of Congress. For example, some districts are prone to or have recently experienced natural disasters; alternatively, some congressional districts might be home to large insurers whose solvency is affected by natural disaster response. Finally, there is a need to identify the membership that oversees key committees with responsibility for emergency relief.

In the next and final phase of the study (Task 4), the recommendations made in this report, along with the lessons provided by similar PPP organizations and proposed DIN PPP functions (Tasks 1 and 3), will be used to develop a candidate business plan for the DIN PPP. The candidate business plan will discuss business plan options that can be pursued by the USGS. Of these options, those that make the most sense for the DIN PPP will be recommended and discussed in further detail. In addition, candidate articles of incorporation and bylaws for the DIN PPP will be presented.

**Evaluation of Options for Forming a Public-Private
Partnership for Effective Dissemination of
Disaster Information**

**Final Report
Task 4: Business Plan**

Submitted by:
Parsons Brinckerhoff Quade & Douglas, Inc.
465 Spring Park Place
Herndon, Virginia 20170

In association with:
TASC
Avagene Moore
Robert Olson and Associates

Submitted to:
U.S. Geological Survey
12201 Sunrise Valley Drive, MS 205B
Reston, Virginia 20192

Submitted Under:
PO #98HQSA1769

February 1999

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1. INTRODUCTION

Purpose of the Study

The purpose of this study is to provide the United States Geological Survey (USGS) and its Interagency Team members information on issues and available options for a public-private partnership (PPP) to involve representatives of all stakeholders in disaster information. A key aspect of this partnership will be to foster the development of a disaster information network (DIN). The vision is to start with a national capability and build to a global capability. The results of this effort will provide the Interagency Team with relevant background and information on the issues related to the formation of such a partnership, and potential models for the partnership's creation.

Purpose of This Task

The purpose of Task 4, the final phase of the study, is to develop a candidate business plan for the proposed DIN partnership. Rather than applying a generic business plan, the consultant team identified the major issues germane to the DIN environment. These issues divide into three main categories: mission/strategic direction, organizational structure, and operation of a public-private partnership for disaster information. To some extent, the structure of the DIN – and its business plan – depend on how the partnership addresses these major issues.

Relationship to Other Tasks

In Task 1, a sample of public-private partnerships was identified and evaluated to determine how their experience might be relevant to a DIN partnership. Concurrently, a list was developed of possible functions that should be considered in writing articles of incorporation and developing a business plan for such a public-private partnership. The results of the Tasks 1 and 3 efforts were combined into a single report. The findings from Tasks 1, 2, and 3 were used to identify the major issues that must be addressed for the partnership's business plan.

Methodology

The consultant team has performed a broad scan of relevant information regarding the formation of public-private partnerships. After scanning a variety of public-private models, the consultant team narrowed its focus for a more in-depth analysis of, and lessons learned by, eleven public-private partnerships with features that a DIN partnership might emulate.

Task 4 narrows the scope of analysis to three candidate partnership models: ITS America, Open GIS Consortium, and RTCA, Inc. These three public-private partnerships represent a cross section of potential characteristics of a DIN partnership. ITS America is both a public-private partnership with an advocacy role, and a utilized Federal Advisory Committee to the

U.S. DOT; Open GIS Consortium is a non-stock, not-for-profit membership corporation, and RTCA is a public-private partnership and a Federal Advisory Committee. The consultant team performed interviews and made a side-by-side comparison of elements in the articles of incorporation and bylaws from these partnership models. This analysis, combined with previous work in Tasks 1, 2, and 3, provided the issues for creating a business plan for the DIN public-private partnership.

Organization of This Report

The Task 4 report is divided into four main subject areas. Section 2 of the report addresses issues of Mission and Strategic Direction for the partnership, including membership, services, and the partnership's potential role as a federal advisory commission.

From the discussion of mission and strategic direction flows Section 3: issues relating to the Structure of a DIN. This subject area addresses issues relating to the board of directors, governance issues, structure of local affiliates, and membership dues.

Section 4 addresses the issues of operating the DIN partnership. These issues leadership, finances, staffing, the need for the organization to be flexible, and the need for an operations plan to guide administration of the DIN partnership. The last section of the report addresses the next steps in planning the formation of a DIN partnership.

2. MISSION AND STRATEGIC DIRECTION

A review of public-private partnership models reveals that success is directly related to the clarity of the organization's strategic direction. For example, since its inception, the Corporation for Public Broadcasting has struggled to define its mission because its funding is substantially controlled by congressional appropriations. As the political makeup of Congress changes, so too does the funding and mission of the Corporation for Public Broadcasting. Admittedly, the Corporation for Public Broadcasting is an extreme example, but the lesson is found to a lesser extent with other public-private partnerships, as well. For example, some members and outside observers question the influence of federal funding on the mission of ITS America.

It is important, then, that the principals organizing the Disaster Information Network partnership first determine its strategic direction, as is commonly summarized in an organizational mission statement. The strategic direction will determine other organizational issues, such as funding, structure and operations. There emerges three primary questions to address in determining the strategic direction for the partnership: who is being served by the partnership; what are the services that the partnership offers; and what is the partnership's role as a federal advisory committee?

Who is Being Served by the DIN Partnership?

Defining the "market" for the partnership – who it will serve – will frame some key issues regarding finance and organizational structure. The principals of the DIN partnership are

readily aware of the range of stakeholders who may be served by the partnership, including representatives from the following public and private sectors:

Potential private response sectors

- Insurance
- Medical/health
- Water/sanitation
- Media
- Transportation
- Communications
- Electric utilities
- Construction (infrastructure and housing)
- Financial Institutions
- Information services
- Technological threat sector (oil, chemical, etc.)
- Agriculture

Private, not for profit organizations

- Red Cross

Community based organizations

- Churches
- Civic groups

Government

- Law enforcement
- Fire and emergency service agencies
- Military/National Guard
- Transportation agencies

Other

- Academic

It is important to note that, while different sectors might benefit from the DIN partnership, not all of the beneficiaries will necessarily become members; the different types of industry sectors have widely varying motivations for joining a DIN public-private partnership, and different perceptions of its benefits. The DIN public-private partnership should structure its membership solicitation and fees in such a way to attract the industry sectors that best serve the target market.

What are the Services Offered by the DIN Partnership?

The next component of the DIN strategic plan is the definition of services it will provide to its membership. The task 1 and 3 report outlined the following as likely services that a DIN partnership can provide (expanded on here in the context of business model development).

Disaster Information Network Strategic Plan: While there are existing disaster organizations, none are inherently suited to develop a strategic plan that brings together the disparate

interests involved in disaster planning and mitigation. The DIN public-private partnership strategic plan can motivate the various sectors that are already involved in disaster mitigation activities to join a disaster information network, which will develop a migratory path from a national disaster information network to a global disaster information network. It would not be unique for strategic planning to be a service of a public-private partnership. For example, in addition to software standards development, the Open GIS Consortium's larger role is creating a shared vision among its members about how GIS technology should develop and how the consortium can help it evolve and be used in very different organizational contexts.

Stimulate private sector participation: The private sector has much to gain from and offer to the DIN partnership. This "common business interest" must be identified by sector and quantified, then "sold" to corporations and private sector organizations such as industry and professional associations. For example, telecommunications firms offer synergistic opportunities for providing disaster information communications infrastructure, and receive (and stand to benefit from) disaster planning and information disseminated from other DIN partners.

Coordinate local, state, and federal information resources: Another service of the DIN partnership will be to develop the coordination and interoperability of various disaster information systems. Depending on the issues encountered, it may be appropriate to develop state and local chapters for this effort. The local chapters would serve to provide training, information and support of these activities. In addition, it might be appropriate to pursue federal action in regard to coordination or resource sharing for disaster information. Federal action could take the form of grants, incentives for information system coordination, or establishment of a federal coordination office for disaster information.

Forum for improving disaster information systems: Many organizations have been created in the disaster community as forums to share information about mitigation, response and recovery. The DIN partnership should clearly focus on collection and dissemination of disaster-related information. This narrowing of focus will avoid duplication of effort and encourage support from the existing entities that can benefit from enhanced information services.

Build consensus among private and public stakeholders: Timely and accurate information are the keys to effective disaster management. Examples of information that aid disaster recovery are timely situation reports, disaster chronology, damage assessments, situation reports, maps, and equipment and relief personnel tracking. Importantly, information must be not only timely but useful; disaster response institutions can be bogged down by an overflow of disjointed information as easily as by receiving no information at all. The GDIN will focus on user needs, collection and dissemination systems, data standards, and decision-making aids.

As the "Harnessing Technology" report emphasized, effective design and implementation of the GDIN needs to be grounded in a detailed understanding of what information is available and how different users need to access it. It involves much more than market research because the basic issue is one of building consensus on needs and approaches for the provider, disseminator and user communities. A public-private partnership structure can be an effective means to achieve this consensus.

Facilitate stakeholder interaction: The DIN partnership will communicate with its membership through a variety of mediums, such as newsletters, conferences, journals, and Websites. Since

several disaster-related organizations already exist, care must be taken to ensure that the new organization does not encroach on the functions of the existing institutions, especially if these groups are to become active participants in the DIN partnership. The partnership must be unique in bringing together stakeholders that currently have little or no interaction.

Establish protocol for interaction with federal agencies: Federal agencies play a critical role in disaster management, but of course rely heavily on state and local governments, a host of non-profits and private industry for assistance. Likewise, these local and private sector organizations—the real front lines in disasters—depend on these federal agencies for information, funding, and other assistance during all phases of disaster response. The partnership's relationship with the federal government must be carefully cultivated and maintained in order to retain credibility with federal partners. Federal advisory roles are addressed in greater detail later in this report.

Identify the Value of Disaster Information: It is readily apparent that the federal government cannot bear the cost of creating and maintaining a disaster information network – a shared financial scheme must emerge. More importantly, seed money for the partnership's creation will probably have to come from the private sector in order to demonstrate to political leaders the value of the DIN partnership.

Identifying the value of disaster-related information will help to garner private – and some public sector – support. A detailed analysis of information value is a project worthy of separate study, but preliminary evidence suggests the following sectors place value on certain disaster data, or express a need for more disaster data:

Insurance: The insurance sector has obvious, close ties to disaster response data sources. Insurance companies have had an ongoing dialogue with the Federal Emergency Management Agency to receive/share more timely information about early warnings, initiation assessment information, operational coordination, and situation reports. A working public-private partnership could provide a forum to solve some of these coordination issues, and thus provide value to participating insurance companies.

Industrial Disaster Threat: The chemical and oil industries, to name just two sectors, have a tremendous stake in disaster response because of the environmental threat posed by their very operations. Proactive participation in a public-private partnership can generate positive relations with media and regulatory agencies. Further, a partnership may provide a forum for streamlining the regulatory administration imposed by federal, state and local public agencies. Either role provides a tangible benefit for which private companies may be willing to pay.

Transportation, Electric Utility, and Communications: Transportation – specifically rail – electric utilities, and the communications sectors are operationally impaired by disasters and can face daunting recovery costs for rebuilding their infrastructure. To that end, timely disaster information affects their ability to quickly rebuild infrastructure and resume normal revenue-generating operations.

Trucking companies also stand to benefit from disaster information by having accurate routing information to avoid closed roadways. In a time of disaster recovery, it may also be necessary to relax some trucking regulations, like load limits, in order to facilitate the movement of disaster response equipment and supplies.

Promote integration and standards: The need to use standard protocols in a crisis situation is essential. And, once again, the great diversity of information producers, disseminators and users, requires cooperative efforts among all stakeholders to develop consensus standards for information formats.

Marketing the partnership and its services: Beyond federal agencies such as USGS, the DIN partnership will interact with an array of public and private sector decision-makers. The partnership must effectively communicate with these entities by providing credible information relative to DIN, which will in turn help foster support and understanding when developing standards for cooperation and interoperability.

While this is the broad range of services that may be offered – and there may be other services offered by the partnership – early strategic planning should focus on a few services that are most likely to provide an early “win” for the partnership. That is, the early agenda for the partnership should be focused on two to four clearly defined objectives, thereby increasing the likelihood of achievement. This is necessary to engender trust, generate funding, secure political support, and attract additional members.

Role as a Federal Advisory Committee

The outline of services to be offered by the DIN partnership alludes to the potential role as a federal advisory committee. Early in the development of the strategic plan, it is important to determine how the partnership will interact with the federal government. Making the choice of being a federal advisory committee affects the nature of the organization, its freedom to create policies and serve its membership, and its financing options. Options for interacting with the federal government include the following:

Federal Interaction in Lieu of Government Charter

There are numerous public-private organizations that exist to influence federal programs, policy or legislation, without embracing a formal role as a federal advisory committee. Such organizations include standards development bodies for particular industries, where the government – while sometimes participating in development – is the “passive” recipient of the information and products.

The absence of a formal charter provides an organization with flexibility at the expense of federal involvement and guidance. By law, federal agencies must be circumspect in their dealings with such organizations in order to avoid the appearance of favoring particular companies or industry sectors. In this environment it is important to avoid any antagonistic relationships that may develop between the public and private sectors.

Federal Advisory Committee Role

Federal Advisory Committees exist to provide agencies with the advice and counsel of a diverse group of stakeholders, from the public and private sectors, which have unique knowledge of a particular issue area. A Federal Advisory Committee can be established through a statute, reorganization plan, executive order or through a determination of the agency head, in consultation with the General Services Administrator. Public-private partnerships that fulfill an advisory committee role carry substantial administrative and legal

obligations with respect to membership, meetings, minutes, and involvement of federal employees. Documents and reports must be filed with the General Services Administration to demonstrate compliance with the requirements of the Federal Advisory Committee Act, which include:

- Committee meetings must be open to the public
- Notice of the meetings must be in the Federal Register
- All interested persons must be permitted to attend, appear before and/or file statements with the advisory committee
- Virtually all records must be made available for public inspection or copying
- Detailed minutes of all committee meetings must be maintained
- A designated Federal officer must attend all advisory committee meetings
- The committee may not meet except at the call of, or with the approval of a designated officer or employee of the Federal government

The Utilized Federal Advisory Committee

In some cases, a federal agency will find an existing organization or committee within an organization, which, through its activities and membership makeup, can provide critical and valuable input to the agency to advance the agency's objectives. It may then charter that organization as a utilized committee and seek formal advice from it. A "utilized" Federal Advisory Committee provides advice and counsel to a federal agency and is comprised of a balanced and representative membership from both the public and private sectors. While not formally established by the federal government, the utilized Federal Advisory Committee is subject to many of the same restrictions and requirements as the formal body.

3. STRUCTURE

Determining the DIN partnership's mission and strategic direction will infer an appropriate organizational structure that can fulfill the goals of the participants. At this stage of organizational planning, the DIN principals should develop a structure that can easily adapt to growth and changes in the group's makeup. From its review of the articles of incorporation and bylaws of three public-private partnership models (summarized in Appendix A), the consultant team identified three focus areas – board of directors, governance issues, and dues structures – to address in planning the partnership.

Board of Directors

The board of directors sets the agenda for the organization and selects the officers who will operate the partnership on a daily basis. For the DIN partnership, important considerations include the initial size of its board and the role of public sector members in setting policy.

Size of Board

Generally, it appears that the "normal" size for board of directors is about 12 to 15 members, usually elected to terms of one to three years. The RTCA has a much smaller board of five

members, but a separate policy board consisting of 16 members determines a substantial part of its agenda.

The consultant team recommends that bylaws written for a DIN partnership specify a small board of directors – along the lines of the RTCA – while keeping open a migratory path that leads to a larger board structure. This streamlined board structure will allow the partnership to focus on fewer issues early, thereby enhancing the chances for early success. As a cautionary note, it will be important that the initial board, although small, not appear insular or out-of-touch with the broader disaster information stakeholders. It will be the unique challenge of early board leaders to develop a focused, achievable agenda, which can then transcend to a larger role that includes more participants in the disaster information community.

Role of Public Sector Members

The public-private partnerships analyzed for this report place no limitations on the role of public sector members in governing the organization and setting the agenda for its activities. ITS America specifically requires that half of its board be composed of public sector members, while the Open GIS Consortium requires that candidates considered for election to the board represent a cross section of business, government and academic disciplines. With a structure that embraces public sector participation in agenda and governance, the only issue that arises is conflict of interest. Most organizations create safeguards for their board members and officers, and provisions for members to withdraw from actions that might involve some conflict of interest with their government policy-making role.

Governance Issues

Beyond the structure of the board of directors, the partnership can adopt different strategies for governance of the organization. Two of the more important issues involve the role of committees in setting the partnership's policies and the voting rights conferred to members of the partnership.

Committee Structure/Roles

As the organization assumes greater responsibility in the DIN arena, its direction will become an endeavor that is beyond the ability of the board itself. RTCA adopted a policy board (consisting of 16 members, in contrast to the five member board of directors) to establish the policies and programs of the partnership. This leaves the RTCA board of directors to set budgets, including compensation for the president, and provide overview of administrative matters. The Open GIS Consortium has a governing structure that the DIN partnership might emulate, dividing responsibilities between a management committee and a technical committee. The management committee approves the consortium's business plan, ratifies specifications from the technical committee, oversees the communications plan, and nominates candidates for the board of directors. The technical committee is responsible for development of Open GIS specifications.

Voting Rights of Members

Non-profit organizations can structure membership in a number of ways that stratify voting rights in relation to the type of membership conferred. Public-private partnerships reviewed for

this study, however, are more straightforward in that all members receive equal voting rights. In such a democratic environment, it is obvious that the makeup of the board of directors will eventually reflect the membership. Thus, it is important to structure the partnership to serve the broad disaster information community, so that one industry sector does not end up dominating the organization's agenda or structuring services that do not fulfill the initial vision of the DIN partnership.

Dues Structure

There is an option to create a dues schedule that provides differing levels of service, or access to the services of the organization. At startup of the DIN partnership, there probably is little justification to create such a dues structure.

Another issue involves the creation of local affiliates, and the dues they are required to pay for membership. Controversy has arisen for some organizations when businesses join state or local affiliates to avoid paying national-level dues. The inclusion of all interested parties in the DIN should be welcomed, so the formation of state and local affiliates, and the dues they pay, should be structured in a way that does not create a disincentive to joining the national organization. Put another way, local affiliates should not become rivals to the national organization.

4. OPERATIONS ISSUES

Along with the early burdens of developing the partnership's strategic direction and formulating the structure for the organization, the partnership's leaders will have to focus on operations issues that are critical to success during the startup phase. These issues include executive leadership, funding, staffing, and operations planning.

Leadership

Executive leadership proves to be a critical component in successful public-private partnerships. The consultant team identified some key leadership traits and tasks that will contribute to the partnership's early success.

Chief Executive Officer

As reviewed in the task 2 report, the partnership's selection of its first chief executive is one of its most important decisions. It is probable that the principals creating the DIN partnership know the pool of candidates for the CEO position very well – the first CEO should be intimately familiar with the partnership's goals, objectives, and the key players in the public and private sectors. Other key leadership traits include political neutrality, and respect from public and private participants in the DIN community of professionals.

Building Support for the Partnership

The task 2 report outlined approximately 10 items that contribute to rallying support for public-private partnerships, with examples from various organizations. A few are reiterated here in relation to the startup of the DIN partnership.

The DIN partnership leader will first be charged with organizing support for the effort – support from both internal and external stakeholders. Successful partnerships have often featured a “champion” who has a personal stake in its development, and indeed has a passion for the subject area. DIN leadership will also need to have strategic acuity, both to recognize the threats and opportunities for its products, and to align itself in relation to competing and complementary organizations.

Political Support and Government Relations

As extensively reviewed in the Task 2 report, building political support for the DIN public-private partnership is a key to fulfillment of its mission. At the very least, there is a need to exchange information with government agencies, and the partnership could eventually serve as an advisory committee to an appropriate federal agency. There are important considerations regarding the mere provision of information and direct lobbying of public officials on behalf of the DIN partnership. To some degree, U.S. law restricts the amount of lobbying that can be done by tax-exempt organizations. Further, there may be other restrictions depending on the membership of government employees in the organization.

Finances

Financing the partnership is another of the hurdles of startup. Federal funding will certainly be an important part of the DIN’s operating budget, but such funding carries implications for the organization as a whole, which is discussed below. More importantly, it does not appear that federal funding will be available for the partnership’s startup; private funding sources – though difficult to secure – will go much farther in building credibility and political support for the effort.

Federal Funding Role

While an important source of funding, federal grants or appropriations for a DIN partnership carries the risk of dependency and political manipulation of the organization’s agenda. The partnership will be much better served to identify private partners to develop the funding base and operate the partnership without federal funds to the greatest extent possible.

Number of Financial Participants

The fewer the number of financial contributors, the more likely that those benefactors will exercise inordinate influence over the agenda and operation of the DIN partnership. It would be optimal to develop a broad base of private financial support, to remove the potential for inordinate influence – or the appearance thereof.

Potential to Share Resources During Startup Phase

With private sector participation, it may be possible to identify an existing business or organization willing to contribute office space, equipment, and other resources to get the partnership off the ground. Such was the case in Los Angeles, with major corporations devoting time and resources to start the Business and Industry Council for Emergency Preparation and Preparedness. Similarly, ITS America received startup assistance from an existing transportation interest group, the Highway Users Federation. Such assistance limits early fundraising burdens and provides some initial credibility and comfort with stakeholders.

Staffing

Startup Phase

During the DIN partnership's development, it will be difficult to make long term financial commitments for staff and support resources. The initial staff should be small, to conserve resources, yet have a high profile with the organization's stakeholders. Size constraints suggest that staff should consist of a president, a technical advisor, and minimum support staff (especially if support work can be outsourced to a complimentary organization).

Relation with the Board of Directors

The scan of public-private partnership models revealed that a key issue in association management is the relationship between staff and the organization's board of directors. This is an especially critical issue in the public-private partnership's formative stages, when the organization is striving to gain credibility and establish a clear policy direction.

The partnership's staff should initially be kept small and lean, in order to conserve resources and demonstrate flexibility to the policy direction of the board of directors. If possible, it would be ideal for the DIN partnership to borrow staff from an existing organization. For example, in its formative stages, ITS America was loaned staff from the Highway Users Federation – the original organization consisted of just a president, senior technical advisor and an assistant. As ITS America's membership and resources grew, more staff was added and the organization grew independent of the Federation. The DIN partnership should seek a similar organization during start-up, with the recognition that the new organization must grow and become distinct from its initial sponsors.

Operations Planning

One step removed from strategic planning, the DIN partnership's directors must also pay attention to some operations issues that are critical to successful startup. The consultant team has grouped these issues under the phrase "operations planning," and consideration of these issues provides a general business plan for the first executive of the organization.

Need for Flexibility, Adaptability

It is assumed that the genesis of the DIN partnership will be a core set of "activists" from the disaster information stakeholders. If the DIN partnership development follows other successful

organizations, there will probably be a “champion” among the initial leadership, who provides vision and passion for the partnership’s mission. While a broad base of financial support is also desirable, initial funding for the DIN partnership will probably be seeded from a core group of activist stakeholders.

While the initial stakeholder group may indeed be modest, the leaders of the partnership must have a vision for the organization that accepts and promotes growth and change in the composition of its membership. This suggests having a “flat” organizational structure that is not burdened by procedural issues. It also suggests adopting bylaws that can be modified to incorporate growth in the size and composition of the membership. For example, the board may grow from five to fifteen directors, and committee structures may be added not only to help govern the partnership, but also to ensure representation of various stakeholder interests.

Flexibility is also important to transition from a national disaster information network (NDIN) to the ultimate vision of a global disaster information network (GDIN). This migration will require thoughtful planning and strategy; again, the structure of the partnership might have to change significantly in order to accommodate the expended functions of a GDIN.

Marketing

Effective marketing is essential to securing members, advancing the group’s mission and developing non-dues revenue streams. A marketing plan is a direct outgrowth of the strategic plan of the public-private partnership and should therefore be reflective of the mission statement of the organization. Initial marketing efforts will focus on membership solicitation, with materials that effectively convey the partnership’s mission and benefits of membership. Succeeding efforts will expand the reach of communications to external stakeholders in effort to raise awareness and goodwill among public and private entities that have an interest in the DIN partnership.

Information Systems

A key “product” of the partnership will be the information it provides to its members. Early strategic planning of the DIN public-private partnership should address its information/communications system. Consideration should be given to an information/communications system that serves the needs of the organization, and is adaptable to membership growth and changes in the organization’s mission.

Administrative Issues

A minimal amount of legal support will be necessary to guide the formation of the organization in accord with the U.S. tax code for non-profit organizations. Other relevant matters will include insurance and staff liability issues. While such legal work can be outsourced, it is also possible to secure the services from within the ranks of the DIN partnership’s membership. In fact, the DIN partnership can seek in-kind services in lieu of membership dues for legal support as well as other professional services, further reducing the operating expenses in the development phase

5. SUMMARY AND NEXT STEPS

The principals organizing the DIN partnership need to act on a short-term (one-year) agenda that stimulates creation of the public-private organization. It is significant to note that federal funding might not be immediately forthcoming, in spite of support from key federal agencies. For this reason, private sector participants should take the lead and have high visibility in developing the partnership. Short-term efforts can focus on the following agenda.

Form Steering Committee

As a first step, DIN principals should organize an ad hoc steering committee with substantial involvement from non-federal partners. Potential leaders of the ad hoc committee include:

- Insurance Industry Representatives
- Existing loss prevention organizations, such as the Institute of Business and Home Safety
- Strategic resource industries, such as the oil or chemical sectors
- Representatives from state or local disaster response organizations

Choosing the leadership of the steering committee provides the opportunity to present the organization as non-partisan. While the leader should have political acumen, organizers should consider a leader that is non-partisan, or co-chairs—one each from the two major parties.

The role of the steering committee would be to create credibility for the DIN partnership concept and develop the plan for its creation. Initial ad hoc committee members could eventually become board members of the formal partnership. The ad hoc committee should engender trust and credibility with political leaders, while maintaining political neutrality. That is not to say that there will be no input from federal agencies; rather, the expertise of federal agencies is critical, but federal funding must not be viewed as the catalyst for developing the partnership.

Perform Strategic Planning Exercise

An initial “product” of the ad hoc committee – and guideline for the DIN creation – would be the strategic plan. A strategic plan would lend legitimacy to the DIN effort, and provide documentation of the partnership’s mission. A strategic plan can serve as a marketing, education and outreach tool for distribution to public and private stakeholders. Leaders of the DIN partnership effort could reproduce the document at very little cost, and distribute it to the broad disaster information constituency. If the ad hoc committee’s makeup has substantial private sector involvement, the production of the strategic plan will go a long way toward earning goodwill among political leaders. Just as importantly, the strategic plan will provide the guidelines for creating setting up the partnership.

Solicit Funding or Sources of Shared Support

Finally, the critical task of the DIN partnership leaders will be to solicit private resources for the creation of the DIN public-private partnership. Having a strategic plan in hand will aid in this effort, as it will provide a blueprint for the partnership's creation, and presumably spell out goals for the first few years of the partnership's existence.

The DIN partnership's principals should consider "piggybacking" on the financial or physical resources of an existing organization, be it a disaster-related organization, a trade organization, or an individual company. Importantly, the source of shared resources should have some of the same traits as the DIN partnership itself, specifically political neutrality and credibility within disaster planning and recovery stakeholder groups.

The issue of funding should be viewed as critical, as a viable DIN public-private organization will probably not emerge without a commitment of private investment and time. With private seed money, however, the interest and trust of political leaders will increase, allowing the organization to flower to its full potential as a public-private partnership.

Appendix A

Potential Models for GDIN PPPs

This appendix contains profiles of several organizations that may be useful models for the GDIN PPP. Each profile includes brief descriptions of several aspects of the organization, where appropriate. The organizations profiled are:

- ITS America
- 2000 Code Partnership
- Bond Market Association, Treasury Borrowing Advisory Committee
- Business and Industry Council for Emergency Planning and Preparedness
- Citizen's Network for Foreign Affairs (CNFA)
- Corporation for Public Broadcasting (CPB)
- Earthquake Engineering Research Institute (EERI)
- Emergency Information Infrastructure Partnership (EIIP)
- ERTICO - ITS Europe
- Great Lakes Composites Corporation (GLCC)
- Institute for Business and Home Safety (IBHS)
- Joint Loss Reduction Partnership
- Leadership Coalition for Global Business Protection
- MCC (Microelectronics and Computer Technology Corporation)
- National Automated Highway System Consortium
- National Emergency Management Association (NEMA) : Private Sector Committee
- Open GIS Consortium
- Peninsula Roundtable for Earthquake Preparedness
- Public Private Partnerships 2000
- Radio Technical Commission for Aeronautics
- Software Productivity Consortium
- South Baltimore Industrial Mutual Aid Plan
- VERTIS - ITS Japan

The following table illustrates the format and describes the characteristics of the analysis.

Functions	This section explains what the organization does. It describes the purpose of the organization, significant activities it conducts to achieve its goals, how it conducts its business (through meetings, conferences, etc.), and whether it is involved in issues such as standards development.
Structure	This section briefly describes how the entity is organized.
Relationship to Government	This section discusses what sort of relationship the organization has with government (Federal, state, local). Where applicable, it discusses the role of government agencies in the organization (are they members, does the organization serve as an advisory committee, etc.?)
Membership	This section identifies key membership groups within the organization and explains, in general, how they participate in the organization.
Formation Issues	Where applicable, this section reviews some of the more significant startup issues related to the organization. What concerns, problems or unique challenges had to be addressed to get the institution off the ground?
Private Sector Role	While related to the membership section, this section, where applicable, describes the significance of the roles the private sector plays within the organization.
Funding	This section describes where the organization gets its funding (grants, cooperative agreements, annual meeting revenues, publications, seminars, membership dues).
GDIN PPP Relevance	This section briefly highlights how the organization's functions, structure, membership, and relationship to government relate to the objectives and functions anticipated for the GDIN PPP.
Contact	This section identifies a means for reaching the organization, either through an individual

contact, web site, or other means.

ITS America

Functions	Forum for discussing, planning, coordinating and developing intelligent transportation systems; implement programs to assist advise and inform USDOT, other Federal, state, local, private sector and university interests of ITS; support standards development; foster international cooperation; resolve institutional issues; provide information clearinghouse; conduct, coordinate and support research and testing.
Structure	ITS America is a 501(c)(3) nonprofit organization; Board of Directors sets policy and direction; Coordinating Council manages broad variety of technical issues; primary vehicle for DOT advice; State Chapters Council sets policy and direction for state affiliate organizations; professional staff manages day-to-day operations.
Relationship to Government	Serves as utilized Federal Advisory Committee; primary interaction (through cooperative agreement) with ITS Joint Program Office; other agencies within DOT have ITS responsibility (Fed Hwy Admin., Fed. Transit, Safety Admin, Rail Admin, etc.); 250 USDOT officials and staff participate on Board, CC, tasks forces and tech committees; Fed reps serve as secretaries to all CC committees; funding and advisory role has sometimes conflicted with its "advocacy" role.
Membership	1200 members; 60/40 mix of private and public organizations (public includes government, consumer and public interest groups, academia)
Formation Issues	Membership mix, individual vs. organizational members, membership of related associations ("association of associations"); role of state affiliates (not clearly defined in early stages); Advisory Committee role; need for advocacy role (originally intended for a sponsoring organization to assume the political advocacy role; formal relationship severed several years ago, leaving advocacy void); startup staffing and management (used staff and facilities of existing sponsoring organization, for which ITSA paid, but control issues arose; \$1,000,000 provided by Congress for start up, \$1,000,000 provided for strategic plan; additional funding received from Congress.
Private Sector Role	Significant role, on paper and in reality; although at times, some private members have felt the organization controlled by too few members, mostly government contractors, and that the organization relied too heavily on USDOT funding, causing it to focus more on implementing DOT objectives rather than the total membership's objectives.
Funding	Between \$10-\$12 million/year. One third from Feds; one third from membership dues; balance from annual meetings, publications, conferences, and volunteer in-kind contributions.
GDIN PPP Relevance	Structure and organizational issues directly relevant to goals, functions, and issues of GDIN; most promising model to encompass full scale of GDIN PPP
Contact	Craig Roberts 202-484-4847 www.itsa.org

2000 Code Partnership

Functions	The 2000 Code Partnership is an advisory body to the California Building Standards Commission (BSC). The Partnership advises the BSC on the selection of the most appropriate model building codes for adoption by California.
Structure	The Partnership mirrors the ANSI Accredited Standards Committee Method of organization. The Partnership is subdivided into four subject areas with a public sector chair for each: Residential Code Committee; Plumbing/Mechanical/Fuel Gas Committee; Fire Committee; Miscellaneous Committee. Each state agency on a Committee, though represented by many individuals, has only one vote. Each organization has one vote, and individuals have one vote.
Relationship to Government	The Partnership is not an adoption or approval body. It is the vehicle for agencies and stakeholders to join together to reach consensus in recommending single subject model codes to the BSC.
Membership	Formation was driven by the public sector. Private sector participants volunteer to serve on specific committees.
Formation Issues	The Partnership was formed in response to a California court ruling that the BSC propose and adopt only those model codes listed in the California Building Standards Law and the discontinuation of several model codes.
Private Sector Role	Private sector participants can serve on Committees, and have a role in voting on Committee actions.
Funding	There is no explicit budget for the Partnership. Private sector advisors contribute their time to the effort.
GDIN PPP Relevance	The Partnership is led by the public sector, but has significant input from private sector participants.
Contact	Stuart Posselt, Managing Partner 916-323-6363

Bond Market Association, Treasury Borrowing Advisory Committee

Functions	The Bond Market Association represents securities firms and banks that underwrite, trade and sell debt securities. The Association's Treasury Borrowing Advisory Committee makes quarterly recommendations on Federal borrowing policy to the Secretary of the Treasury.
Structure	The Bond Market Association is a non-profit corporation headquartered in New York City. It has approximately 264 member and associate member firms, and 21 affiliates. The distinctive characteristic of the Association is the formulation of policy that is approved by the Board of Directors after consensus is developed through the active involvement of the individual officers and employees of the members.
Relationship to Government	Advisory role on Federal borrowing policy to the Secretary of Treasury.
Membership	The Bond Market Association is a private sector organization. Membership is open to any bona fide dealer in bonds and other debt securities as long as the firm agrees to support the Association's objectives.
Formation Issues	The origins of the Association date to 1912.
Private Sector Role	The Treasury Borrowing Advisory Committee is an officially sanctioned Federal advisory committee.
Funding	Membership dues.
GDIN PPP Relevance	The Treasury Borrowing Advisory Committee, like the Bond Market Association, has private sector membership that acts in a consensus manner to advance their common interest. The Advisory Committee is an active, officially sanctioned advisory committee of the Treasury Department.
Contact	Heather Ruth, President, Bond Market Association 40 Broad Street New York, New York 10004-2373 Micah S. Green, Executive Vice President 1445 New York Avenue, NW Washington, DC 20005

Business and Industry Council for Emergency Planning and Preparedness

Functions	Group of business people actively engaged in improving emergency planning on the part of businesses in the LA region. The purpose is to enhance business and industry awareness and understanding of the need for emergency planning and to assist in the development, preparation and operation of recovery plans. Provides a series of forums where business leaders exchange ideas and information with experts on emergency planning and preparation, fosters cooperation between public and private sectors, conducts disaster programs for industry, coordinates the collection of reference material related to disaster preparedness and recovery.
Structure	<i>Research is on-going</i>
Relationship to Government	BICEPP members regularly attend the Governor's Task Force on Earthquake Preparedness, LA City and County Emergency Preparedness Commission, and Southern California Emergency Services Association. Many agencies are represented on the BICEPP Steering Committee.
Membership	Wide range of private sector companies in the California region, from Atlantic Richfield, to LA Times, Universal City Studios, Southern California Edison and Southern California Gas.
Formation Issues	This apparently loosely organized group has been quite successful. It has received a fair amount of national and international attention and has been looked to as a model for other similar local organizations. Organizers have expressed concern about expanding beyond its local base, worried that they would lose a key aspect of their success--local focus.
Private Sector Role	Significant. Organization relies heavily on members to keep operations going. ARCO keep mailing lists, and provided catering and facilities, General Telephone has provided printing for mailers and brochures, Sunkist, University of California, American Red Cross provide meeting rooms ARC has provided space for the BICEPP library, corporations provide employee time to support efforts.
Funding	Unclear, but there is one paid employee (10 hours a month) whose role is to answer mail. Its Small Business Outreach Project (to develop easy and inexpensive means to avoid earthquake loss) was to have been sponsored by local chambers. Trainer training for the seminars was to be provided by BICEPP on a cost-reimbursable basis.
GDIN PPP Relevance	Model for national organization, as well as key stakeholder group in GDIN PPP.
Contact	BICEPP office 213-386-4524

Citizen's Network for Foreign Affairs (CNFA)

Functions	Has developed a public/private partnership model to leverage government resources with American private sector investment, technology and business acumen to create market-oriented, economically-viable enterprises where none or few existed before (mostly developing nations -- New Independent States of former Soviet Union and nations of Africa). CNFA has focused on agribusiness to date. Host and Annual Meeting, 1998 meeting is in Prague.
Structure	Led by Honorary Co-Chairmen and a Chairman and managed by Board of Directors of "heavy-hitter" international relations, agriculture and business leaders. Day-to-day activities conducted through Washington-based staff and field offices in target nations
Relationship to Government	Primary relationship is with USAID which provides leverage funds (combined with CNFA contributions) to support agribusiness partnerships and other joint development activities; serves as intermediary on international commissions related to business development in targeted nations to ensure U.S. business interests are represented
Membership	<i>Citizen Member Agribusiness Alliance</i> : open and free membership. Currently 250 members mostly private companies, State Farm Bureaus, and universities. <i>Corporate sponsors</i> : mostly private companies that contribute.
Formation Issues	Formed during Reagan Administration by George Schultz and Frank Carlucci to educate private citizens on the importance of foreign aid programs. Main issue at the time was to find ways to assist the former Soviet Republics. Has evolved over the years to focus on agribusiness.
Private Sector Role	Private sector strongly involved in all activities.
Funding	Private contributions, most of funding is from bidding on competitive grants from agencies like US AID.
GDIN PPP Relevance	Example of partnership arrangement in which funds are pooled to achieve goals beneficial to both private business and the U.S. government.
Contact	K.C. Alvano 202-296-3920 www.cnfa.org

Corporation for Public Broadcasting (CPB)

Functions	CPB develops public telecommunications services (radio, television and new media such as online programming), investing in nearly 1,000 local radio and television stations that reach virtually every household in the country. It's the largest, single source for funding for public programming.
Structure	<p>Oversight of the Corporation for Public Broadcasting is conducted by the Office of the Inspector General.</p> <p>(1) The Corporation for Public Broadcasting has a Board of Directors (hereinafter in this section referred to as the "Board"), consisting of 10 members appointed by the President, by and with the advice and consent of the Senate. No more than 6 members of the Board appointed by the President may be members of the same political party.</p> <p>(2) The 10 members of the Board appointed by the President (A) are selected from among citizens of the United States (not regular full-time employees of the United States) who are eminent in such fields as education, cultural and civic affairs, or the arts, including radio and television; and (B) are selected so as to provide as nearly as practicable a broad representation of various regions of the Nation, various professions and occupations, and various kinds of talent and experience appropriate to the functions and responsibilities of the Corporation.</p> <p>(3) Of the members of the Board appointed by the President under paragraph (1), one member is selected from among individuals who represent the licensees and permittees of public television stations, and one member is selected from among individuals who represent the licensees and permittees of public radio stations.</p> <p>(4) The members of the initial Board of Directors serve as incorporators and shall take whatever actions are necessary to establish the Corporation under the District of Columbia Nonprofit Corporation Act (D.C. Code, Sec. 29-501 et seq.).</p>
Relationship to Government	This is an established a nonprofit corporation, known as the "Corporation for Public Broadcasting", which is not be an agency or establishment of the United States Government. The Corporation is subject to the provisions of this section, and, to the extent consistent with this section, to the District of Columbia Nonprofit Corporation Act (D.C. Code, Sec. 29-501 et seq.).
Membership	Beyond appointed oversight staff representing public and private individuals
Formation Issues	<i>Research is on-going</i>
Private Sector Role	Private sector primarily contributes funding through foundations and corporation gifts. Has little to do with operations. Some advertisement value and PR.
Funding	<p>Revenue from nonFederal sources accounted for 83 percent of the total public broadcasting revenue of \$1.93 billion. The remaining 17 percent came from Federal sources and CPB. Private sources (non-tax-based sources) were the dominant revenue sources for the ninth year in a row, at 55.2 percent of total revenue. Of the total nonFederal revenue of \$1.6 billion in FY 1997, cash revenue accounted for 89 percent; indirect and in-kind revenue accounted for the remaining 11 percent.</p> <p>The appropriation for the Corporation for Public Broadcasting decreased by \$15 million from FY 1996 to FY 1997. The CPB appropriation, \$260 million, accounted for 13.5 percent of total revenue. Federal grants and contracts amounted to \$62 million.</p>
GDIN PPP Relevance	A working model of a public – private national telecommunicator of education, entertainment and community information.
Contact	Miriam Crawford, Director, Office of External Affairs 202-879-9690; fax: 202-783-1039; e-mail: mcrawford@cpb.org

Earthquake Engineering Research Institute (EERI)

Functions	Founded 1949; functions as professional association and provider of information. PPP-type projects are undertaken in addition to its primary mission. EERI mission is the advancement of the science and practice of earthquake engineering. The Institute is best known for field investigations and reconnaissance reports detailing the effects of earthquakes. It provides members with audio/visual support materials, opportunities for information exchange through conferences and seminars, hosts annual meetings, and sponsors educational seminars for professional development.
Structure	EERI has elected officers and a Board of Directors. Board committees are comprised of BOD members and is charged with carrying out board functions. Other committee members are drawn at-large from the membership. A small paid staff handles administration. There is a large committee structure, currently 17 committees, 12 forums, 4 liaison groups, 3 regional chapters and 11 student chapters.
Relationship to Government	EERI was founded as an outgrowth of the Advisory Committee on Engineering Seismology of the United States Coast Guard and Geodetic Survey.
Membership	Open membership to individuals with several membership categories. Active members are individuals who are entitled to vote in Board elections, may hold office, may serve on committees and actively participate in the institute. Affiliate members are those from developing and less developed countries. Subscribing members are companies and other institutions that demonstrate support for earthquake engineering and hazard mitigation. These entities receive informational materials and PR opportunities with the Institute. The Institute also has student memberships (as well as regional and student chapters). Institutional membership is open to libraries, universities and private firms to receive informational materials and reduced fees to seminars, meetings, etc.
Formation Issues	EERI was formed in 1949 as an outgrowth of the USGS Advisory Committee on Engineering Seismology.
Private Sector Role	Private sector has small role.
Funding	Funding from dues and publications sales.
GDIN PPP Relevance	Example of need to avoid policy or membership conflicts.
Contact	www.eeri.org

Emergency Information Infrastructure Partnership (EIIP)

Functions	<p>EIIP is a voluntary association of organizations and individuals seeking to enhance effectiveness in coping with disasters and emergency situations, by exploring the opportunity for sharing information and ideas made possible by electronic technology.</p> <p>Through partnering and the EIIP Virtual Forum, the EIIP achieves its vision and mission.</p> <p>The EIIP Virtual Forum fosters partnerships and interactive dialogue through 'live chats', newsgroups, and mail lists.</p>
Structure	<p>Managed by EIIP Coordinator and Technical Projects Coordinator with guidance provided by Planning Team. Uses the Internet as global tool to unify and benefit the emergency professional community in a united and coordinated manner.</p>
Relationship to Government	<p>Primary relationship is FEMA due to funding source, with state and local government issues and programs at the core of effort and virtual activities.</p>
Membership	<p>Broad-based membership of official Partners and participants; Academia, business or industry, government and voluntary organizations/NGOs. Official Partners number 90 with hundreds and thousands subscribed to various EIIP mail lists, etc.</p>
Formation Issues	<p>Structure of organization; started out with 6 committees that served little purpose; soon moved to one committee and 2 paid, dedicated staff and student interns for accomplishment of work; also found that a strategic plan with well-defined goals and tasks are a must. Key to EIIP Virtual Forum success and niche is interactivity and innovative spirit.</p>
Private Sector Role	<p>Private sector is involved and is encouraged to participate.</p>
Funding	<p>Funded by Cooperative Agreement between FEMA and International Association of Emergency Managers (IAEM); currently seeking additional funding and business model.</p>
GDIN PPP Relevance	<p>EIIP addresses disaster management information and is structured for all aspects or disciplines involved in the business. Demonstrates model that encompasses broad based disciplines and organizations, public and private.</p>
Contact	<p>Avagene Moore, CEM, EIIP Coordinator, (931) 762-4768 (http://www.emforum.org); IAEM HQ, Elizabeth Armstrong, Executive Director, (703) 538-1795 (ebarm@aol.com)</p>

ERTICO - ITS Europe

Functions	ERTICO exists to promote a single successful pan European market in ITS and to ensure that European interests are represented throughout the world. ERTICO is the advocacy and advisory organization for ITS in Europe. Its objectives are to coordinate ITS activities in Europe, and to provide support and guidelines for ITS implementation. Among the various activities undertaken by ERTICO are a definition of a vision for ITS in Europe, advice to Member States, input to EU policy making, coordination of implementation, provision of guidelines, determination of market needs, development of common specifications, support for consensus building and standardization, and planning and coordination of projects.
Structure	ERTICO is a non-profit organization of shareholder partners. Partners are classified into five sectors: industry, users, public/private infrastructure operators, public authorities, and others. The General Assembly of all partners elects a Supervisory Board representing the sectors. The Supervisory Board is presided over by a Chairman and is assisted by a Vice-Chairman. The Supervisory Board appoints the Chief Executive Officer, who is responsible for daily operations. The CEO is supported by a small staff of experts, mostly recruited from partner organizations, who work in flexible project teams. A Director of Operations is responsible for program areas and technical projects. Currently there are three program development areas: the European Commission, the partner's and the public authorities'
Relationship to Government	ERTICO provides advice and a point of contact for the Member States.
Membership	Membership is open to any European public or private organization or any international organization operating substantially in Europe having an interest in ITS implementation. 1998 dues for any organization is 30,000 ECU (about \$25,000). There are 65 partners.
Formation Issues	Formed in 1991 to promote ITS standardization and coordination.
Private Sector Role	Private sector companies play a major role in ERTICO.
Funding	ERTICO activities are financed by annual subscriptions from the partners and from project funding by the European Commission and EU infrastructure funds.
GDIN PPP Relevance	Excellent model for international cooperation and coordination.
Contact	www.ertico.com

Great Lakes Composites Corporation (GLCC)

Functions	<p>Organization dedicated to strengthening US competitiveness in the development, production and use of advanced composites (lightweight, strong materials highly resistant to corrosion and fatigue). Purpose is to stimulate increases in manufacturing productivity in private industry.</p> <p>Members work together to develop, evaluate and demonstrate new manufacturing processes for composites material.</p> <p>Majority of programs are designed to meet Navy's weapon systems needs, group also supports programs to encourage private industry to develop commercial applications for these composite technologies.</p> <p>Shares R&D data among members, sponsors workshops and seminars to examine key issues in composites industry, and provides hands on training in composites manufacturing at GLCC's Composites Technology Centers.</p> <p>GLCC holds a competitive contract with the US Navy to operate the US Navy Center of Excellence for Composites Manufacturing Technology. Current contract is second contract and runs through 2000.</p> <p>Founded in 1989 because of the unique advantages that composites materials offer defense industry.</p>
Structure	Board of Directors with 11 members composed of senior level company representatives with a few at large members. A Technical Advisory Board reviews technical activities, consists of government and industry experts.
Relationship to Government	Manages US Navy Center for Excellence for Composites Manufacturing Technology.
Membership	37 member companies, including major airframe, component and composites material and equipment manufacturers, as well as system integrators. These companies and the consortium's 26 academic partners work to fulfill organization's mission.
Formation Issues	Originated in Wisconsin in 1989. Les Aspin was chair of House Armed Services Committee and suggested that a consortium be formed to bid on the Navy's Center of Excellence contract. State of Wisconsin funded a group to bid on the first contract. Moved to Columbia, SC in 1995.
Private Sector Role	Private sector has major role.
Funding	Member owned not-for-profit company. 501 (c)(6) organization.
GDIN PPP Relevance	Model of corporate and research institutions working cooperatively to develop products useful to Federal government and private industry.
Contact	Jim Mahood 803-822-3700 www.oai.org/CofC/glcc

Institute for Business and Home Safety (IBHS)

Functions	Initiative of the insurance industry to reduce deaths, injuries, property damage, economic loss and human suffering from natural disasters; has five key result areas: Public Outreach, Community Land Use, New Building Construction, Retrofit Existing Structures, and Information Management. The Institute's Response and Recovery (R&R) Committee coordinates disaster preparedness and operations between insurance responders and the State and Local emergency management officials. Identify information and disaster coordination needs which can be resolved through cooperative efforts
Structure	Board of Directors comprised of insurance company representatives; Council, composed of committee chairs who also must be full members, determines technical activities; staff of 25 including a CEO, technical resource staff and administrative staff. The R&R Committee is chaired by an insurance executive, staff support from IBHS with members primarily from the private sector. Informal structure with reports to IBHS and committee members.
Relationship to Government	<p>No formal relationship with Federal government; works closely with FEMA, which looks to IBHS as the first point of contact after a natural disaster, and HUD.</p> <p>The IBHS Response & Recovery (R&R) Committee</p> <p>Federal Level: The R&R Committee has FEMA staff as members/observers; their role has been to identify how insurance and government disaster information can be exchanged while protecting proprietary industry information as well as disaster victim privacy. Not an example of rapid and successful cooperation, although some progress recently. (detailed reports available)</p> <p>State Level: Industry members have visited states with high vulnerability and whose State Director of Emergency Services expressed interest in working with industry (a list is available). The visits were to identify ways to share pre-disaster information and promote disaster relief cooperation. Some states were very successful (Florida is the model of cooperation); other states suffer from apprehension. Access to the state/local disaster sites and early assessment information were key motivation for committee members; some states have made agreements with companies. has FEMA staff as members/observers; their role has been to identify how insurance and government disaster information can be exchanged while protecting proprietary industry information as well as disaster victim privacy. Not an example of rapid and successful cooperation, although some progress recently. (detailed reports available)</p>
Membership	<p><i>Full members:</i> Private companies (insurance, financial institutions, etc.)</p> <p><i>Associate members:</i> Non-governmental organizations (planning associations, research institutions), government and government-related organizations (Federal agencies, governmental associations, consortia). The R& R Committee includes members from most of the Senior Catastrophe Response Directors/VPs from the insurance industry (all the big players, many of the intellectual and action oriented leaders of the industry); a few of non-insurance members (American Red Cross, FEMA, Ollie Davidson)</p>
Formation Issues	Created as a result of Hurricane Andrew when insurance companies lost billions of dollars. The R&R Committee was formed around two major issues, access to disaster sites and the need for similar information as federal, state and local emergency managers.

Private Sector Role	Private sector controls policies and activities. With respect to the R& R Committee, the private sector is the primary player with selected public sector and NGO participants
Funding	Dues (Majority) from private sector insurance companies; publication sales; conference and meeting registrations. The R&R Committee funding is by each participant paying to participate, IBHS supports reports, mailing and staff.
GDIN PPP Relevance	Members are primary stakeholders in GDIN; supports the PPP 2000 effort, cooperative enterprise of 19 agencies of the Subcommittee on Natural Disaster; sponsors the Showcase Communities Program to demonstrate the benefits of taking specific steps within an entire community to reduce loss caused by natural disasters; consists of public and private members; focuses on sharing information and developing information products. Information needs were one of the main reasons the R&R committee was formed and continues. Membership and participation of the major insurance companies would be a benefit to GDIN, which could promote pursuit of common data and information.
Contact	Maggie Sheehan, Director of Communications 617-292-2003 www.ibhs.org ; Jim Russell, IBHS, is the staff person who supports the R&R committee

Joint Loss Reduction Partnership

Functions	Identify emergency management needs and formalize processes across the state to enhance loss reduction, response and recovery activities for business community. Improves public and private sector resource sharing, communications, access, training, education, planning, etc.
Structure	State Joint Loss Reduction Committee has been established to develop a blueprint for community level corporate emergency preparedness. Subcommittees formed: commercial practices, emergency access, financial support, legislation, partnership clearinghouse technology, business facility mitigation.
Relationship to Government	Led by the State Emergency Management Office
Membership	Consists of a cross-section of the state's business leadership and government agencies. Members include: Albany Times Union, American Red Cross, Bell Atlantic, several banks, Con Edison, FEMA, Empire State Development Corporation, Federal Reserve, State and local emergency services agencies, stock brokerages, transportation agencies, NYS Emergency Management Office, State Police, Ogden Allied, OnSite Energy, United Hospital Medical Center, WW Grainger, Inc.
Formation Issues	<i>Primary forces:</i> New York State Emergency Management Office (NYSEMO), the Troy Savings Bank, and the Contingency Planning Exchange
Private Sector Role	Private business plays a significant partnering role with government agencies.
Funding	FEMA grant of \$250k
GDIN PPP Relevance	Organization could be stakeholder in GDIN PPP and serves as useful model for larger national organization.
Contact	NYS EMO, Building 22, Suite 101, 1220 Washington Ave, Albany, NY 12226, 581-485-1797, schneiders@nysemo.state.ny.us

Leadership Coalition for Global Business Protection

Functions	<p>The coalition's aim is to encourage business and industry to work with government emergency management agencies in disaster preparedness, response, recovery, training, and mitigation. The coalition Web site offers background information about the group, descriptions of coalition initiatives and proposed activities, press releases, and a library.</p> <p>Goals stated: promote awareness of the need to focus on disaster mitigation and preparation; create information on disaster preparedness; provide information on disaster responsibilities; encourage public/private cooperation; foster understanding of role of business in disaster recovery; expand mitigation and preparation efforts to include business disruptions</p>
Structure	Includes representatives from major corporations, national and local governments, and the UN.
Relationship to Government	<i>Research is on-going</i>
Membership	The group includes such diverse participants as the IBM Corporation, the New York City Mayor's Office of Emergency Management, and the United Nations International Decade for Natural Disaster Reduction Secretariat.
Formation Issues	Founded in September 1996 with strong involvement of private sector (IBM in particular)
Private Sector Role	<i>Research is on-going</i>
Funding	<i>Research is on-going</i>
GDIN PPP Relevance	Example of high-level public/private involvement.
Contact	Randy Johnson 414-878-9352 www.lcgbp.org

MCC (Microelectronics and Computer Technology Corporation)

Functions	MCC is a research and development consortium that provides next-generation technology solutions and services for its member's applications in advanced electronics and information technology. The corporation brings together companies with common requirements for new technology to share the cost and risk of development; analyze and benchmark global technology trends; form partnerships with government and universities; adapt technology transfer to the commercial needs of industry; help build a network of suppliers and customers. By participating in MCC's programs, industry saves money by avoiding R&D duplication; saves time by sharing of existing R&D tools; accelerates the development of new products; combines experience, expertise, and investment in a way that gives small and medium-sized companies a forum for investigating new product and service opportunities.
Structure	Chartered in 1982, MCC was one of the first U.S. industrial research consortia. U.S. R&D consortia such as MCC operate under the auspices of the National Cooperative Research Act (NCRA, passed by Congress in 1984). The NCRA extends anti-trust protection to companies that form R&D consortia, including relief from treble damages, and instruction to judicial and administrative officials to apply a "rule of reason" when hearing anti-trust cases against R&D consortia.
Relationship to Government	"Technology leaders" from the Federal government serve on the CEO Advisory Council, which includes industry, academia, and professional societies, which provide input on major technology opportunities and business trends. MCC forms "innovative partnerships" with government and universities to further its mission.
Membership	The NCRA was passed to address competition from similar foreign consortia, therefore, membership is generally limited to North American companies. Exceptions are made on a case by case basis. MCC is governed by a Board of Directors made up of representatives of 18 shareholder companies. The shareholders are the equity owners of the corporation. There is also a member-based, board appointed Requirements Advisory Board and an Information Technology Advisory Panel and Packaging & Interconnect Advisory Panel. These groups volunteer their time to advise MCC staff members on technology issues and to offer and guide suggestions for new study and project topics.
Formation Issues	MCC's original mission focused its R&D efforts entirely on long-range, high-risk technology development. Changing conditions faced by members now require MCC's technical capabilities to also encompass technology supplier sourcing and integration. MCC's research plans now encompass three key strategies: technology development, technology sourcing, and technology integration.
Private Sector Role	The corporation is entirely privately-owned, with its member companies receiving anti-trust protection based on their unique role in strategic technological R&D.
Funding	18 shareholder companies constitute the equity owners of MCC, with each shareholder making a one-time investment to purchase a share of MCC stock. MCC typically receives 40% of its funding from competitively won contracts from DARPA and other Department of Defense entities, NIST, Department of Commerce, and the Environment Protection Agency.
GDIN PPP Relevance	Primary relevance is the private sector thrust of the organization's membership. Diverse private interests partner to advance common objectives. However, there is no explicit advisory role to government agencies, nor is there significant public sector participation in the Corporation's operation.
Contact	(512) 338-3421

National Automated Highway System Consortium

Functions	NAHSC's mission is to specify, develop, and demonstrate a prototype automated highway system by the year 2002. NAHSC sought national consensus on AHS design and deployment, incorporating stakeholder feedback so the plan with the greatest benefits to the greatest number of people with a minimum cost resulted. A demonstration of AHS technology was conducted in San Diego, CA in August 1997. Program was not funded in 1998 TEA-21 legislation, so the program is currently on hold.
Structure	The AHS program has a Policy Steering Board and a Program Management Oversight Committee (PMOC). These groups in partnership with USDOT manage the program. The Policy Steering Board and the PMOC consist of representatives of the core participants in the AHS program. Associate participants are invited to attend Policy Steering Board and the PMOC meeting and to participate in NAHSC activities.
Relationship to Government	USDOT called for applications to conduct systems design feasibility, definition and prototyping of an AHS. USDOT is providing staff to participate in program activities.
Membership	A group of core participants formed the Consortium and was selected to receive the AHS contract. The Consortium core participants are: Bechtel Corp., Caltrans, Carnegie-Mellon University Robotics Institute, Delco Electronics, General Motors, Hughes Aircraft, Lockheed-Martin, Parsons Brinckerhoff, and the University of California PATH program. There are about 100 associate participants representing the vehicle industry, electronics industry, universities, state and local government, transit agencies, engineering consulting firms and research institutes.
Formation Issues	ISTEA in 1991 called for research in advanced vehicle/highway technology. In 1993, USDOT sent out a Request for Applications conduct systems design, definition, feasibility and prototyping. Several consortia responded and NAHSC was selected. The project work began in November 1994.
Private Sector Role	Private sector companies are a major part of the Consortium core participants.
Funding	Funding for the program is 80% USDOT funds and 20% from the core participants. The core participants funding consists of donated staff time or technology.
GDIN PPP Relevance	An example of a public/private partnership formed with a specific mission. Stakeholder participation through the associate participants program was successful. Closed participation from key members with leverage from contributions.
Contact	USDOT ITS Joint Program Office 202-366-0087.

National Emergency Management Association (NEMA): Private Sector Committee

Functions	NEMA is the association of State Directors of emergency services a potentially influential group depending on the President who rotates among Directors annually. One state director and I tried to start a PPP in 1991, but it was too early. The Private Sector Committee, formed two years ago, is a PPP with a lot of potential.
Structure	The Private Sector Committee (PSC), has been chaired by Earl Arp, Ashland Oil (the only major manufacturing company represented) has approximately 30 members. Formal recommendations are made the NEMA which approves/disapproves. Committee meeting minutes are available.
Relationship to Government	The Committee supports the State Government Directors of Emergency Services and state government actively participates in meetings. Committee recommendations are submitted to NEMA (state directors) for their review and approval.
Membership	Most members are consultants in contingency planning and/or products related to disaster planning and response (software, business continuity, etc.) Participation is open to all interested, public and private sector, including those who are not members of NEMA.
Formation Issues	NEMA recognized that business and industry was missing from their group of formal resources. Many states have formal partnerships with industry.
Private Sector Role	Private sector is interested in the relationship with state emergency managers. This committee is one avenue. At this time, companies with a desire to work for government are the majority of members.
Funding	Participants fund their participation. NEMA supports mailing and reports.
GDIN PPP Relevance	State government emergency managers are a critical player in mitigation, preparedness and response. This committee recommend actions for those key players. Information exchange is one key element in the committees' scope.
Contact	National Emergency Management Association, www.nema

Open GIS Consortium

Functions	Develop a consensus, industry standard for software architecture that implements OpenGIS as a standard throughout the national and global information infrastructure.
Structure	501(c)(6) organization. <i>OGC Board of Directors</i> : sets vision and strategy and approves business plan. Comprised of leaders in the information technology community, elected by OGC members; directors need not represent member organizations. <i>OGC Executive and Staff</i> : provides corporate administration. <i>OGC Management Committee</i> : develops the business plan and approves the OpenGIS release process; comprised of management level representatives from principal members of the consortium, official liaisons to key standards groups, and representatives from the technical committee. <i>OGC Technical Committee</i> : primary operational unit of the Open GIS project, comprised of technical representatives of all OGC member organizations and charged with developing the OpenGIS specification; works through task forces and working groups; comprised of technical representatives of all OGC members' organizations.
Relationship to Government	Federal agencies participated in forming the organization and remain actively involved.
Membership	<i>International membership consortium</i> : 120 members including leading industry, government, and standards organizations in the geospatial market. <i>Membership Groups</i> : geoprocess. software vendors; other software vendors; telecom. companies; integrators; computer system vendors; universities and development laboratories; government agencies and industry associations; data and information suppliers.
Formation Issues	Began in 1993 when a few Federal agencies and commercial businesses decided begin development of an OpenGIS specification. After determining that such a spec could be produced, they decided a formal structure was needed. The organization was started in August 1994. The term "OpenGIS" has been trademarked.
Private Sector Role	Lead role, forms the bulk of the membership
Funding	Consortium membership fees; development of partnerships; publicly funded cooperative programs
GDIN PPP Relevance	Provides a potential consensus model for DIN PPP; active involvement from both public and private sectors; uses consensus approach to developing the OpenGIS specification; currently no other organization positioned to bring together the critical mass of technology decision-makers capable of developing a worldwide standard for interoperable geoprocessing.
Contact	David Schell, President 508-655-5858 www.opengis.org

Peninsula Roundtable for Earthquake Preparedness

Functions	Collectively develop the non-business related elements of an earthquake preparedness program which are complementary with the local government's programs and common to all industry in the South Bay Area for the mutual use of all participants. Speakers from industry, public institutions, or private consultants are invited to meetings. Meetings provide a forum to exchange information and develop one-on-one contacts.
Structure	Informal collection of businesses which are interested in earthquake preparedness. Meetings are convened every other month for about two hours.
Relationship to Government	Work closely with local and county governments in areas such as how to integrate company tests with government programs. Focus is to help business stay in business. Not designed as a community support group.
Membership	Include Alza, Apple Computer, Ford Aerospace, Hewlett-Packard, Intel, IBM, Kaiser Permanente, Lockheed-Martin, Raychem, Stanford University, Syntex, Varian
Formation Issues	<i>Research is on-going</i>
Private Sector Role	Virtually exclusive
Funding	Member dues supported
GDIN PPP Relevance	Potential stakeholder group. Helpful in understanding needs and motives of private sector participants.
Contact	Bill Sherman, INTEL, PO Box 48105, San Jose, CA 95160 408-765-3379

Public Private Partnerships 2000

Functions	Seeks new and innovative opportunities for government and nonprofit, private sector organizations to work together to reduce vulnerability to and losses from natural hazards; hosts forums on public policy issues in natural disaster reduction; focuses on methods to strengthen the nation's infrastructure. Forums began in September 1997 and will continue through 1998; upon completion a series of proposals for future activities will be developed.
Structure	Created by SNDR, IBHS and others on April 30, 1997; a Working Group composed of SNDR and IBHS representatives develop the forum topics.
Relationship to Government	The Office of Science and Technology Policy is an executive branch office, which serves as the principal means for the President to coordinate science, space, and technology policies across the Federal government. Composed of several committees, including the Committee on Environment and Natural Resources. SNDR, a primary sponsor of the PPP 2000, is a subcommittee of CENR. At the conclusion of PPP 2000 forums, a report is prepared to inform U.S. policies for disaster loss reduction
Membership	Open membership. Private sector consortium consists of engineering associations; disaster recovery groups (Red Cross, Disaster Recovery Business Alliance, etc.); power and gas associations; meteorological and seismic institutions; others
Formation Issues	The forums were set up to explore ways the public and private sectors can work together to reduce the effects of natural disasters.
Private Sector Role	Participation is through non-profit association membership in PPP 2000.
Funding	Primary funding through Federal agencies in SNDR, additional funds from IBHS.
GDIN PPP Relevance	Potential PPP model. Activities directly relevant to anticipated objectives of the GDIN PPP. Membership representative of many key GDIN stakeholders.
Contact	Judy Ferrier, USGS 703-648-7148 www.usgs.gov/ppp2000/index.html

Radio Technical Commission for Aeronautics

Functions	The Radio Technical Commission for Aeronautics (RTCA) addresses requirements and technical concepts for aviation. RTCA recommends standards and guidance documents that focus on the application of electronics technology to implement new or modified concepts and to satisfy related requirements. The RTCA serves as a forum where government and industry representatives can address aviation issues and develop consensus based recommendations.
Structure	RTCA is a private, not-for-profit organization.
Relationship to Government	Public agencies are members of the RTCA. The RTCA also acts as an official advisory committee to the Federal Aviation Administration. As aviation communication, navigation and surveillance requirements and related technical concepts evolve, RTCA is frequently asked to form special committees to consider the topic and recommend minimum performance standards or other technical specifications.
Membership	Membership includes approximately 145 business and government entities. Examples of private sector members are ARINC, Boeing, Honeywell, Lockheed Martin, Motorola, and Raytheon. Non-profit trade associations are also members of the organization. Public sector members include the Federal Aviation Administration, Department of Commerce, US Coast Guard, and NASA. Since RTCA interests are international in scope, about 35 non-US government and business organizations are also members.
Formation Issues	RTCA was formed in 1935, and reorganized in its present structure and name in 1991.
Private Sector Role	There is a strong private sector role in the organization's membership and operation, but it is a true public private partnership. Also, the RTCA is an advisory committee to the Federal Aviation Administration.
Funding	Dues from members, academic associates and international associates primarily fund RTCA.
GDIN PPP Relevance	The RTCA structure is very relevant to a potential global disaster information network public private partnership. Membership and member participation is comprised of public and private sector players. The RTCA is an officially sanctioned advisory committee to the Federal government. Further, the organization has substantial involvement of international groups with common interests.
Contact	1140 Connecticut Ave., NW, Suite 1020 Washington, DC 20036 202-833-9339

Software Productivity Consortium

Functions	Leader in software process improvement, software engineering, systems engineering, software reuse, knowledge engineering, and other related software and systems engineering disciplines. Technical program offers an integrated approach to system and software process improvement, rapid application development, product line engineering, requirements analysis, system and software design, development and measurement
Structure	Board of Directors composed of representatives of full member companies. A Technical Advisory Board (also full member representatives) develops a technical statement of needs each year. The Consortium has a 40 person staff to work on projects and assist members.
Relationship to Government	The Consortium has an annual contract with DARPA address software issues and get feedback from industry members. The Consortium also works with the Software Engineering Institute (SEI) and is SEI certified to conduct testing.
Membership	Includes more than 70 companies, government agencies, and universities. <i>Full industry members:</i> major telecommunications and aerospace companies. <i>Basic membership:</i> smaller software development and related companies. <i>Industry affiliates:</i> mostly research labs and industry associations. <i>Government membership:</i> Federal-level agencies including HHS, SSA, Patent and Trademark Office, various defense agencies, NASA, FAA, etc. <i>Academic participation:</i> numerous university software and computer engineering programs and departments
Formation Issues	Formed in the 1980s to address competition from Japan; set up to allow private defense contractor and defense agencies address research needs and share lessons learned.
Private Sector Role	Board is all private sector members.
Funding	Funding is 50% from members dues and 50% government contracts.
GDIN PPP Relevance	Potential PPP model. Focus on software and information processing issues relates to some key issues of GDIN development. Mix of public and private members of interest to membership mix anticipated by GDIN PPP.
Contact	Gary Friedman (703) 742-7158 www.software.org

South Baltimore Industrial Mutual Aid Plan

Functions	Development of a system of cooperative action whereby assistance to the public sector and other member companies may be available in an emergency which is beyond their control. Members endorse and encourage the supplying of mutual aid to the public sector and to each other in case of a disaster, emergency or request for assistance by the public sector. Aid refers to loan of supplies, equipment, communications facilities, and providing advice and expertise.
Structure	<i>Research is on-going</i>
Relationship to Government	Strong. Public sector support is largely moral, yet the public institution members (fire, police, department of the environment, etc.) are active participants. A SBIMAP committee wrote the Hazardous Materials Action Plan for City of Baltimore and members of the committee were appointed to become the Mayor's Hazmat Advisory Council.
Membership	Currently 50 industry members and 39 local, state and Federal members. Group meets quarterly
Formation Issues	<i>Research is on-going</i>
Private Sector Role	Strong
Funding	<i>Research is on-going</i>
GDIN PPP Relevance	Good model of effective partnership. Potential stakeholder in GDIN PPP
Contact	Eugene Reynolds, FMC Corporation, 1701 E. Patapsco Avenue, Baltimore, MD 21226, 301-356-6704

VERTIS - ITS Japan

Functions	The Vehicle, Road, and Traffic Intelligence Society (VERTIS) is a cooperative effort of government agencies, organizations, corporations and academia to promote research and development and international cooperation in ITS deployment. VERTIS works as the contact for international ITS activities, sponsors domestic conferences with government agencies, organizations and academia.
Structure	VERTIS has a Board of Directors with officers. Board members are high level executives (the VERTIS President is the CEO of Toyota). There is a staff managed by an Executive Managing Director.
Relationship to Government	The National Police Agency, Ministry of International Trade and Industry, Ministry of Transport, Ministry of Posts & Telecommunications, and the Ministry of Construction support VERTIS.
Membership	Agencies, organizations and corporations are members. Academics can be individual members. There are over 390 member corporations and organizations
Formation Issues	Formed 1994 as the point of contact with ERTICO and ITS America for Japan.
Private Sector Role	Corporations play a major role.
Funding	Member dues and grants from public agencies.
GDIN PPP Relevance	Model for cooperative efforts between government agencies and private sector.
Contact	www.ijjnet.or.jp/vertis

Comparison of Public-Private Partnership Bylaws

Subject	ITS America	RTCA	Open GIS Consortium
Membership Eligibility	Companies, corporations, associations, agencies of federal, state and local governments, universities, and other public and private organizations or groups from any country.	Any United States public or private sector (corporation, company, partnership or proprietorship) entity which is identified with some phase of the activities of the organization.	Any association, partnership, organization, company or corporation.
Classes of Membership	Membership tiers: public and private; to customize services to members	Members and Associates; members have voting status, while associates do not— associates receive RTCA publications and can participate in RTCA activities.	<p>Strategic membership: extraordinary contributions provide benefits of helping to structure special programs;</p> <p>Principal membership: “base” level of benefits, voting for board of directors, etc.</p> <p>Technical Committee membership: have rights to vote on technical committee matters</p> <p>Associate membership: may review products of the consortium in advance of its general release.</p>
Dues	Dues may be waived for certain categories of members, as determined by the board of directors. (usually involves waiver of dues for membership in related organizations)	Separate dues structure for members and associates.	Membership fee structure is based on class of membership listed above.
Board of Directors	Board of directors will consist of not less than 12 members; must be half private, half public sector representatives. <i>Currently, there are 47 directors.</i>	Board consists of five members.	Board consists of no less than 13 and no more than 15 members.
Term of	3-year term	1-year term	2-year term

Subject	ITS America	RTCA	Open GIS Consortium
Board of Directors			
Officers	<p>Officers elected from the board include:</p> <p>Chair Vice-chair (1 or more) Secretary Treasurer</p>	<p>Officers include:</p> <p>Chairman Vice chairman President Secretary Treasurer</p>	<p>Officers shall be:</p> <p>President Treasurer Secretary</p> <p>At the discretion of the board of directors, may also include:</p> <p>Vice President (1 or more) Assistant Treasurer (1 or more) Assistant Secretary (1 or more) Plus others as deemed necessary</p>
Governance	<p>Executive Committee: All board members plus officers, standing committee chairs, and other members as deemed appropriate.</p> <p>Nominating committee: three to seven members appointed by the board to prepare slate for election of board members.</p> <p>Administrative policy and finance committee: Treasurer plus four board members—reviews budgets and fundraising, and advises board of directors.</p> <p>Coordinating council: manages the technical activities of the organization.</p>	<p>Policy board consists of 15 members, including all members of the board. The policy board establishes RTCA policies and programs. Policy board also has a nominating committee, and ad hoc committees as necessary,</p> <p>Program management committee: made up of volunteers appointed by the policy board. The committee provides executive management of all technical activities and related ad hoc groups.</p> <p>Membership committee: responsible for membership initiatives and recruitment programs.</p> <p>Finance committee: reports to the board of directors; proposes operating and capital budgets, monitors financial actions, and</p>	<p>Executive committee: consists of two or more directors, including the president and chief operations officer. Committee shall prepare annual slate of director candidates; shall set executive compensation plans.</p> <p>Management committee: approves the consortium’s planning document, which includes allocation of all funding and resources related to technical committee operations; ratifies Open GIS specifications; and submits slate of candidates for board.</p> <p>Technical committee: develops Open GIS specification through the consensus process of members; presents drafts of Open GIS specification</p>

Subject	ITS America	RTCA	Open GIS Consortium
		<p>recommends fiscal policy proposals.</p> <p>Special committees: task specific, reporting to the program management committee; carries out the work of the RTCA, often in compliance with the Federal Advisory Committee Act.</p>	<p>to the management committee for approval.</p>
Voting	<p>Each member is entitled to one vote at meetings of the corporation.</p> <p>Quorum consists of 25 percent of membership; present in person or by proxy.</p>	<p>Each member is entitled to one vote at meetings of the corporation.</p> <p>Quorum consists of 20 percent of membership; present in person or by proxy</p>	<p>Each technical committee member and principal member is entitled to one vote at meetings of the corporation.</p> <p>Quorum consists of 33 percent of strategic members and principal members</p>
Federal Advisory Committee	Chartered as a <i>utilized</i> federal advisory committee	Functions as a federal advisory committee, pursuant to the federal advisory committee act	Not a federal advisory committee

Appendix B

Matrix of Potential Models for GDIN PPPs

This appendix presents a matrix of the anticipated characteristics and functions to be performed by the GDIN PPP and whether the identified models perform similar functions or have similar characteristics, to reveal which of the models are most promising.

The categories are described below:

- **Strategic Planning:** Does the organization develop strategic plans for an industry (beyond a strategic plan for the organization itself)?
- **Private Sector Participation:** Is the private sector actively involved in the membership?
- **State/Local Involvement:** Are state and local agencies participants in the organization?
- **Policy/Program Idea Generation:** Does the organization develop programs and policies for a particular industry (beyond its own organization)? In other words, does the organization develop programs that affect federal, state or local policies, shape industry, etc.? For example, lobbying organizations and industry groups influence legislation affecting their interests, ITS America provides coordination and direction for the ITS industry, OpenGIS is coordinating GIS activities, etc.
- **Consensus Forum/Standards Development:** Does the institution serve as a means for developing broad industry consensus and/or does it develop standards for technologies, products or services?
- **Information Sharing/Clearinghouse:** Does the institution provide information sharing services (peer to peer activities, websites, meetings, conferences, journals, etc)?
- **Federal Advice:** Does the organization have a means (formal or informal) of providing advice to the Federal government, either through an advisory committee, lobbying, or other means?
- **Public and Private Funding:** Can the organization accept both public and private funding?

Functions	Organizations				
	ITS America	Open GIS	Radio Technical Commission for Aeronautics	Software Prod. Consortium	MCC
Strategic Planning	•				
Private Sector Participation	•	•	•	•	
State/Local Involvement	•	•	•		
Policy/Program Idea Generation	•				•
Consensus Forum	•	•	•	•	•
Standards Development	•	•			•
Information Sharing/ Clearinghouse	•	•	•	•	•
Federal Advice	•				•
Public and Private Funding	•	•	•		•

Functions	Organizations				
	Corporation for Public Broadcasting	IBHS	GLCC	2000 Code Partnership	ERTICO
Strategic Planning				•	•
Private Sector Participation	•	•	•	•	•
State/Local Involvement		•		•	•
Policy/Program Idea Generation			•	•	•
Consensus Forum		•	•	•	•
Standards Development					•
Information Sharing/ Clearinghouse		•	•	•	•
Federal Advice					•
Public and Private Funding	•	•	•	•	•

	Organizations			
Functions	VERTIS	National Automated Highway Systems Consortium	Treasury Borrowing Advisory Committee (Bond Market Association)	Citizen's Network for Foreign Affairs
Strategic Planning	•	•		
Private Sector Participation	•	•	•	•
State/Local Involvement	•	•		
Policy/Program Idea Generation	•	•	•	•
Consensus Forum	•	•	•	
Standards Development	•			
Information Sharing/ Clearinghouse	•	•		•
Federal Advice	•	•	•	•
Public and Private Funding	•	•	•	•

	Organizations				
Functions	Emergency Information Infrastructure Partnership	Leadership Coalition for Global Bus. Protection	Earthquake Engineering Research Institute	National Emergency Management Association	Joint Loss Reduction Partnership
Strategic Planning				•	•
Private Sector Participation	•	•		•	•
State/Local Involvement	•	•		•	•
Policy/Program Idea Generation		•	•		
Consensus Forum	•	•		•	•
Standards Development					
Information Sharing/ Clearinghouse	•	•	•	•	•
Federal Advice					
Public and Private Funding		•			

Organizations				
Functions	BICEPP	South Baltimore Mutual Aid Plan	Peninsula Roundtable for Earthquake Prep.	Disaster Recovery Business Alliances
Strategic Planning				
Private Sector Participation	•	•	•	•
State/Local Involvement	•	•		•
Policy/Program Idea Generation			•	
Consensus Forum	•	•		
Standards Development				
Information Sharing/ Clearinghouse	•	•	•	•
Federal Advice				
Public and Private Funding		•		•