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ACCELERATING DEPLOYMENT & COMMERCIALIZATION OF ITS TECHNOLOGIES: CALIFORNIA'S INNOVATIVE CORRIDORS INITIATIVE

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SUMMARY

Intelligent Transportation Systems (ITS) show great potential for improving transportation system efficiency for users and system operators. Over the past decade, ITS technologies have been deployed in every major U.S. metropolitan area, on rural highways, and in smaller cities. However, institutional questions (e.g., interoperability and access to public rights-of-way) related to public-private partnerships must be addressed to facilitate ITS deployment and mainstreaming. Public agencies need to see tangible system management benefits, and the private sector must be able to demonstrate compelling business models.

California's Innovative Corridors Initiative (ICI) is a multi-year effort with the goal of accelerating the development, testing, commercialization, and deployment of innovative Intelligent Transportation Systems (ITS) technologies, products, and services along major California corridors. The public sector is testing "a new way of doing business," by partnering with other governmental entities and the private sector, while streamlining processes to expedite

the development and deployment of ITS technologies. A strategic partnership among the California Department of Transportation (Caltrans), the Metropolitan Transportation Commission (MTC) in the San Francisco Bay Area, the Los Angeles County Metropolitan Transit Authority (MTA), the Intelligent Transportation Society of America (ITSA), and the California Center for Innovative Transportation (CCIT) merges the goals of the ICI with that of the ITS World Congress to promote awareness and deployment of ITS technologies and improve safety, reliability, convenience, and accessibility within the transportation network. The 2005 ITS World Congress in San Francisco, California will serve as a showcase platform for demonstrating pilot projects resulting from the Innovative Corridors Initiative.

INTRODUCTION

This paper examines the first year of the ICI project including coordination with the 2005 ITS World Congress and lessons learned since the project began in spring 2003. Over the course of the project, California Center for Innovative Transportation (CCIT) staff and researchers are documenting the knowledge gained from the ICI and have identified several early lessons learned. Interviews with participating staff from Caltrans, MTC, MTA, and ITSA reveal early successes and challenges as the ICI has evolved from initial coordination and planning among partner agencies, to solicitation of pilot demonstration projects (the Call for Submissions), and most recently, to project proposal evaluation. Lessons learned to date can be summed up in four broad categories: 1) rapid project submission, evaluation, negotiation, and deployment; 2) lack of specificity in the CFS; 3) need for dedicated staff resources; and 4) confidentiality.

At the time of this writing, detailed discussion about plans, specifications, facility requirements, permits, and approvals were in progress as partner agencies negotiate agreements with CFS respondents. Projects must be deployed by July 1, 2005, in advance of the ITS World Congress in November 2005. The authors will continue to document lessons learned by periodically interviewing CFS partners as well as industry respondents throughout the ICI evaluation process, which will continue through 2006. This includes the final proposal evaluation; the development of detailed project plans; negotiations for agreement to proceed; and finally project implementation, operation, and dismantling.

INNOVATIVE CORRIDORS INITIATIVE (ICI): PROJECT DESCRIPTION

The ICI brings together the private sector and governmental agencies in an effort to: 1) examine a new public-private partnership business/policy model for Caltrans, MTC, and MTA and 2) accelerate the deployment of ITS technologies throughout California. Through the Call for Submissions (CFS), Caltrans, MTC, and MTA offered possible access to State or local facilities and data. The public agency partners agreed to make an effort to streamline processes to expedite the development and deployment of selected projects. However, any use of State or local facilities would continue to be subject to successful application for an encroachment permit,

appropriate environmental approvals, and any other applicable statutes and regulations. In return, Caltrans, MTC, MTA, and other partners hope to gain access to better real-time information that will enhance safety and transportation management and allow the traveling public to make more informed decisions about choice of route, mode, and time of travel.

CALL FOR SUBMISSIONS

The Call for Submissions (CFS) is a unique solicitation mechanism to attract the private sector to deploy demonstration projects that illustrate traveler services that facilitate mobility, convenience, and traveler safety. The CFS is different from a typical request for proposals (RFP) in that no public funds will be awarded as a result of the solicitation. Thus, respondents were required to demonstrate financial self-sufficiency when submitting their proposal(s). Unlike an RFP where one bidder is generally awarded a contract, the CFS may result in several agreements with the private sector as long as projects fit the CFS requirements and can be overseen by public agency staff resources. The CFS was also designed to foster public-private partnerships by allowing the private sector to bring ideas and technologies to the table for discussion and agency feedback.

The CFS was jointly developed by Caltrans, MTC, MTA, ITSA, and CCIT and released to the public on October 15, 2003, with a final date for proposal submission of January 2, 2004. The CFS resulted in 28 proposed project ideas from the private sector to test and self-finance pilot projects in Northern and Southern California. Approximately one-half of the initial project proposals are being defined and may develop into agreements.

Public Outreach

Caltrans and its partners held two CFS Review Sessions to provide information about the CFS to the private sector and partners and to get input into the process. The first session was held on September 10, 2003, in Oakland California, with another session held in Los Angeles, California on October 7, 2003. Approximately 150 persons attended the two sessions including representatives from the auto industry, transportation sector, business community, trade consultants, engineering firms, information technology sector, communications sector, University of California, state and local government, and not-for-profit organizations. In addition to the review sessions, ITSA, Silicon Valley Manufacturing Group, Bay Area Council, TechNet, California Chamber of Commerce, and the San Francisco Chamber of Commerce assisted with outreach by notifying their members of the opportunity to participate in the CFS.

CFS Proposals

CFS respondents were required to submit a project plan indicating the type and extent of improvements and services offered to the traveling public or public agency. The proposals were to include the tasks and financial responsibilities of the private developer/operator and the proposed roles of Caltrans or agency partners in the oversight of the project, including any access

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requirements needed along State or local facilities. The respondent was also asked to submit a statement of qualifications and experience of each of the project's participating organizations and key management personnel, as well as the respondents' experience in developing, implementing, and operating systems/facilities similar to those being considered for their project.

CFS Submissions and Proposal Evaluations

The evaluation of proposals submitted through the CFS was made by representatives from Caltrans, MTC, MTA, and CCIT. Proposals were screened for the basic initial CFS requirements and then assessed using the CFS evaluation criteria. The evaluation criterion included:

- 1) Project benefits to Caltrans, other partner agencies, and the traveling public;
- 2) Degree to which the project assists with data collection, processing, and dissemination, including data quality and integrity;
- 3) Project's technical and environmental feasibility;
- 4) Company/agency qualifications; and
- 5) Project innovation.

Proposals that met the submission requirements and were approved based on the evaluation criteria have moved into a project negotiation phase that includes all requisite agencies and proposing parties to finalize the details of the project and to develop an agreement among the project partners.

COORDINATION WITH THE 2005 ITS WORLD CONGRESS



The 2005 ITS World Congress in San Francisco will be a high visibility event and reach an international audience of transportation professionals, business leaders, elected officials, media, and the general public. In addition to the customary business sessions, formal presentations, social functions, exhibit halls, and networking opportunities for government, industry, buyers, and sellers of ITS technologies, the 2005 ITS World Congress sets itself apart from past events by including California's Innovative Corridors Initiative.

For the ITS World Congress, ICI technologies will be demonstrated in the San Francisco Bay Area and throughout California. ICI projects that are located outside of the San Francisco Bay Area may be shown through co-venue tours that will be arranged by ITSA. Live video feeds from the ICI projects into the exhibit hall could expose a broader audience to off-site venues.

For the ICI partner agencies, the 2005 ITS World Congress presents an ideal milestone in a longer term effort to deploy ITS technologies that enhance safety and transportation system management and give individuals better information. The partner agencies also believe that the opportunity to showcase the ICI demonstration projects during the 2005 ITS World Congress encourages private sector participation.

ICI AND CFS PARTNER FEEDBACK

The ICI and the CFS represent a new way for public agencies and the private sector to interact in a manner that could provide benefits to both parties and the traveling public. For participating public agencies (Caltrans, MTC, and MTA), the CFS represents a new way of doing business. Consequently, there are many lessons to be learned from this innovative process. To understand the benefits, challenges, and lessons learned from this new business/policy model, researchers are conducting surveys and interviews with CFS governmental partners and private sector respondents at various intervals throughout the partnership, the CFS, and the demonstration. In this paper, the authors present the initial interview results with CFS partners, covering the development of the partnership and the CFS, outreach, the CFS release, and ongoing proposal evaluation. The interviews were conducted between June 3 and 24, 2004. The goal of the interviews was to capture successes and challenges, as well as lessons learned to inform future public agency efforts to engage the private sector in a similar business model/policy process.

At the 2004 ITS World Congress, the authors will present additional feedback from the CFS partners as the projects progress through selection and negotiation, agreement to proceed, and implementation and operation. The authors will also present feedback from industry respondents incorporating successes, challenges, and lessons learned from the private-sector perspective.

EARLY SUCCESSES

The first year of the ICI project focused on building the multi-agency partnership, outreach, and creating the CFS itself. It is not surprising that the early project successes reflect the value of creating a strong partnership and communication among participating agencies. This innovative process also gave public agencies an opportunity to conduct outreach to the private sector, which resulted in strong interest from industry to participate in the California ICI and ITS World Congress. Furthermore, the negotiation period built into the CFS process has facilitated a dialogue between the public and private sectors. Each partner now better understands each other's needs and how the other operates so that technology and infrastructure work together in ways that benefit everyone. This early evaluation of the ICI/CFS indicates that the process has enabled the public sector to support public-private partnerships, identify institutional barriers to partnership, work through those barriers, and institute more streamlined practices in the future.

The anticipation of the November 2005 ITS World Congress appears to have improved the process by encouraging participants to establish deadline-driven objectives for the agencies to work together to meet common goals and to contribute to an innovative collaborative process.

Thus, the ICI has created a forum for agencies to come together to test a new business/policy model, under an ambitious schedule and across a wide geographical distribution. Recurrent meetings have allowed agencies to realize common needs and goals, build trust, improve personal relations, share information, and witness cooperation on both sides of the table. High level management support of the ICI within all partner agencies has been critical to the project's success to date.

CHALLENGES AND LESSONS LEARNED

Several challenges and lessons learned have been identified over the course of this project (to date) and can be summed up in four broad categories: 1) rapid project submission, evaluation, negotiation, and deployment; 2) lack of specificity in the CFS; 3) need for dedicated staff resources; and 4) confidentiality. While some of the challenges necessarily come as a result of change, others are more controllable and may be overcome by applying lessons learned during this process to future similar endeavors.

Timeline

The ICI project began taking shape in spring 2003, which left little time for planning and outreach before proposals were to be submitted on January 2, 2004, a date which was extended by one month to provide interested parties additional time to draft proposals. Additional time also would have been helpful for Statewide outreach. Overall the process of developing the CFS, evaluating proposals, and negotiating with industry respondents was more time consuming than anticipated (in part because of the large number of proposal received). Agency partners indicated that more time should have been allocated to proposal evaluation and detailed project negotiations due to the need to engage technical staff on many different proposals. Furthermore, scheduling meetings among multiple agencies proved to be difficult.

The CFS timeline has been ambitious, but for the most part, the project partners have kept to the schedule. Scheduling is crucial given the upcoming ITS World Congress in November 2005. A recommendation for future CFS style solicitations to industry is to build in more time for private-sector outreach and development of project scope and agreements.

Specificity

When the agency partners crafted the CFS, the goal was to encourage innovation and to not constrain the imagination of prospective proposers. Unlike a traditional RFP, the CFS did not specify a location, technology, or desired outcome. Without a specific problem to solve, several respondents submitted vague proposals, which increased the length of time for evaluation.

Many of the agency participants interviewed felt that more CFS specificity would have resulted in stronger proposals. However, they also recognized that the need to create a process that encouraged innovation was very important. The challenge of requiring enough proposal details

for proper evaluation, while still encouraging innovation, is a necessary corollary of CFS style solicitations.

Staff Resources

Although no public funds were allocated to this project, all of the participating agencies have found that it has required greater staff time than anticipated. This type of project requires dedicated staff from the beginning to ensure that tasks are completed; ideas are communicated; all of the necessary departments are involved; staff is not pulled away from their compulsory assignments; and the agency achieves a successful business/policy model. There is a tremendous amount of coordination among partner agencies and within each agency that must occur to reach a consensus on each partnership agreement. While the CFS has facilitated cooperation among Caltrans districts and their respective regional MPO, a mechanism to involve cities, local agencies, and other concerned stakeholders must be put in place to ensure a broad consensus in the development of ideas so that products have Statewide application.

Confidentiality

To encourage industry to participate and discuss technologies or business plans that might be proprietary, the CFS partners felt it was important to offer confidentiality through the CFS process. However, the process of providing confidentiality (i.e., all evaluators were required to sign non-disclosure agreements (NDA) and non-conflict of interest statements) was time consuming and limited the number of people who could review proposals. In the future, it might be beneficial to ask for a non-confidential project description as part of the application process to avoid proprietary conflicts and allow participation from concerned staff in the evaluation process.

CONCLUSION AND NEXT STEPS

California's Innovative Corridors Initiative and the Call for Submissions is a new way of doing business for the California Department of Transportation and its regional partners. Both the ICI and CFS have opened up lines of communication among public agencies and the private sector. Interviews with participating public agency representatives reveal that there is much to be gained and learned from this innovative process. If successful, the ICI and CFS may serve as a business/policy model for public-private partnerships and regional cooperation.

Several interview participants indicated that this process should continue beyond the ITS World Congress event and the conclusion of the Innovative Corridors Initiative evaluation. The primary reasons for continuing the ICI effort is to maximize and share investments between the public and private sectors and to identify the best business/policy strategy for both parties, recognizing each other's strengths and constraints. Furthermore, cooperation among regional agencies across the State and throughout the nation will be necessary to comply with a federal mandate that

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major Intelligent Transportation Systems projects deployed with federal funding after April 2005 conform to the national ITS Architecture.

The ICI appears to be on track for the 2005 ITS World Congress in San Francisco, California. Additional lessons learned and interview findings from the private sector will be reported at the 2004 World Congress in Nagoya, Japan.

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