

Inter-state Partnerships: Lessons Learned

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I am here to share with you some thoughts I have regarding inter-state partnerships and some lessons learned. The way that I am going to approach the presentation this afternoon is to talk primarily using the COATS project as an example of what worked and what didn't work and my thoughts behind that. I will also talk about techniques that we used in the COATS project, lessons learned and some of the remaining challenges in terms of institutional and inter-agency or inter-state cooperation.

First, I just want to quickly give you an update of what the COATS project is. It stands for the Rural California Oregon Advanced Transportation Systems project. It is really about ITS planning, demonstration and evaluation. Those are the main elements of COATS. Let me go back and tell you a little about the region. It covers the southern portion of Oregon and the northern portion of California. And just to give you a magnitude of the size; there are twenty-two counties (eleven on the Oregon side and eleven on the California side), and of those, only two of them (one in Oregon and one in California) are metropolitan – the others are rural. In California we cross two Caltrans districts or two jurisdictional districts and in Oregon there are several different regions and districts and we also have two FHWA regions. It is a lot of people and a lot of organizations to bring together.

Our purpose was pretty simple – look at ITS. What are the needs in the area? And then match ITS solutions while doing two parallel things, (1) do some ITS planning activities and (2) also do some ITS demonstration and evaluation activities. We knew we couldn't do it alone, so we wanted to get a partner. We knew we needed a partner with what we called non-traditional transportation stakeholders – a type that we at the DOT's weren't used to working with. [This could include] the tourism industry, the National Weather Service, and more of a broad

enforcement and emergency response providers than we were used to working with.

We had two elements as I mentioned earlier, a strategic deployment plan and early winner projects. Our plan of action from an institutional, inter-agency, inter-state approach was to look at project management (administration) and then some sort of a functional organizational structure to bring all of these parties together. With the end result being planning, infrastructure improvements (demos) and evaluation. So kind of keep that in mind as I walk you through the lessons learned.

Funding. From a project management standpoint, we thought we could get organized best by starting with flexible funding, and that's something that worked in our favor. When we started out we weren't fortunate enough to have any kind of Earmark money, ITS Planning money, etc. We were looking at it with nothing in our checkbook. What helped us was putting California and Oregon together so that we could go after federal pooled fund studies. That opened money for us and allowed us to go forward at least on the planning portion.

Pre-scoping. We also did a lot of pre-scoping and consultative meetings with all of the regions. Now this did take us a long time, but we found it to be very important in the long run in order to figure out how to put the organization together.

Select Academic Partner. We went about this a little differently. We approached our academic partner – the Western Transportation Institute, Montana State University – to be our partner in this particular effort. Both DOTs – Oregon and California – and all of the parties agreed to that. So we actually asked them first before we went to partner with them.

Interstate Agreement. There were some early funding issues between the two DOTs because all of the money for the planning study, and even the demonstrations did not come from the local agencies. It was at the state DOT level through applications to FHWA. Unfortunately, Oregon was not as wealthy as California in expecting or having state funding in research or pooled fund monies. Consequently, their FHWA division office allowed them to color their state money into the Federal Pooled Fund process. We in California were a little nervous about that, I'm not going to lie to you, so we wrote an inter-state agreement that really spelled out all of the terms and conditions between the two states in terms of funding. Now that went beyond the tradition. When you use State Planning & Research Pooled Funds you do something called a PR-2, and that documents the arrangement between the two states; but we wanted to go a little bit further than that and that really helped us in the long run.

Business Plan. We next wrote a business plan where we attempted to clarify all the roles, responsibilities and expectations. Now we've talked about how we are going to communicate. Again thinking about this from a project management standpoint, we knew that we had to have some sort of constant communication. So we designated co-project managers within each DOT (one DOT, however, serves as the lead state). Now that was really important because it would have been really hard to manage if we had really divided the activities between the two. We had regularly scheduled teleconference calls because of the travel budget – we couldn't always meeting in person. We implemented a website, newsletters, monthly and quarterly reports and a lot outreach workshops.

When it came to organizing the partnership portion we took an approach where we wanted to create a tiered management structure. We established a governing board, a steering committee, regional teams and a coordinating group. You might remember that I mentioned earlier how we talked and had a lot of consultative meetings with all of the Regions; they helped us decide who needed to be these different structures. When I talk about lessons

learned I will tell you what worked and didn't worked with this particular approach. And again, we both decided to have an academic led research. And that was really beneficial to us because rural ITS in California was not on the radar screen. That's one of the reasons we wanted to do a project like this, to bring some attention to the management within our own state of ITS; i.e., California does have rural issues and they are not about congestion. Having WTI, who had the ability to talk that type of talk and had that expertise, really helped us.

We also established what we considered multi-discipline peer groups within our department. Our department in California is so huge, and there are so many functional areas from Aeronautics to Mass Transportation to Rail, and we really felt that we wanted them to have an opportunity to review the product that we were producing. Internal peer groups were a way to ensure that not only were we communicating with the other state and our external agencies, but also within our own department.

I talked a little about the funding already. We provided travel reimbursement for all of the participants that came to the meeting. That was one of the strengths of this project, and I would encourage that if you ever undertake any kind of collaborative effort. Provide some sort of a travel reimbursement! It was a nightmare from our perspective as a lead state. We had to track all those resources to then obtain federal reimbursement from FHWA and it was a nightmare. If I had to do it again I would actually put the travel reimbursement through the contracts. For example, if you contract with a consultant or academic university have them do the travel reimbursement instead of the DOT. You might be able to negotiate so you don't have to pay an overhead on that travel and that is something that we did not do. It was a lot of work and we are still struggling with that.

We also provided, at least in California, resources to our District Offices. I am from Sacramento in a Division called New Technology and Research. I am not connected to Northern California or Southern Oregon. I do

not work in those areas, and I only know a little bit about them. I knew the only way this project was going to succeed is if we had the people who actually belong there involved and gave them come supporting resources. What we did not do and were not able to do was give resources to the local agencies. We were only able to give them to our own DOT staff and we used our own state dollars to do that and those were limited resources.

In terms of technical support, what we try to do is to develop everything in-house. We originally started out from the technical side by asking (in California) for an augmentation of our budget to be able to do the parallel early winner demonstration projects. We actually had the vision to go out and contract out for the work. We knew we didn't have the technical expertise or anything, but we ran into some union issues and some contracting issues and we were not allowed to do that. So we had to work internally within our own Districts. So it is a really good thing that we had some staff resources that we had given the Districts; otherwise, the Districts probably wouldn't have wanted to work with us on that.

And then finally, we did what we called a Retrospective Questionnaire to ask, at the conclusion of the planning portion of the study, "How did we do from a project management standpoint?" "How did we do from our partnership arrangement?" "Did we select the proper people?" "Did we have the right peers?" "What could we have improved on?" – and I'll share some of that later.

This is where I go through what worked, what didn't work and some of my ideas and thoughts. The checkmarks [on the slides] are the good things, the little flashes are the negative things, and the things by the boxes are my ideas. The multiple tier approach that we had really helped to alleviate some of the institutional and geographical barriers. We tried very hard to be very representative with the three tiers of all of the functions, all of the agencies, and everybody involved.

We always had pre-meetings. Every time we had a formal Steering Committee meeting scheduled we would meet with the Western Transportation Institute and the Oregon Department of Transportation and run through where we were and what we were doing. That was very effective and very beneficial. What didn't work is we weren't able to get the type of feedback and involvement from all the tiers. The Steering Committee was very active, and even to this day are very active. But the Regional Teams, which were really the people at the regional agencies that are connected to the region, they did not get as involved in the project as we would have liked. Somehow we completely missed providing them the message of "what was in it for them". We also had a lot of irregular attendance and participation – even at the Steering Committee level. So we would always have to spend a little bit of time at every meeting reminding everybody where we were. And in the long run that resulted in some delays of the project.

My suggestions to you if you ever want to undertake any kind of multi-state, multi-jurisdictional project, is to really provide those travel and staff resources in order to get the commitment and involvement from the people that you want. Really look at and spend time at some kind of a proactive approach to solicit your active involvement. As I mentioned, we didn't really take the time to think that through with the three-tier approach. Even our Governing Board, which was intended to be the high-level policy level people, I can honestly tell you that at times we didn't know what to do with them. We would contemplate – well should we have a Governing Board meeting? Well, what are we going to tell them? They are typically our bosses so they already know what is going on. So I'm not sure we categorized that level correctly or we selected the right people for that type of a board.

In terms of the retrospective questionnaire, some of the things that were highlighted were (1) that we have strong and dedicated project managers – both at Caltrans, at ODOT and at WTI – and (2) rotating meetings really helped. We moved around all of the study area. We didn't always

have the meetings in one particular location. However, we did lose resources.

We were only able to secure limited resources for the Pooled Fund Study, which was primarily the Planning Study, and we completed that. But we really had a vision to be able to do more demonstrations and more early winner projects, and we didn't have a "fall-out" plan for lack of resources. Our resources that we were giving the district staff, and even ourselves at headquarters, ended on June 30th of 2001, and we didn't have a back-up plan. We really thought that we would be successful in convincing our upper management and the California legislature that this was a great project. We wanted to do more things, but we really hadn't really thought that through. So have a back-up plan for your next steps.

The other thing that we heard was that our Quarterly Reports, which we spent a lot of time producing, were not effective. They were too detailed, provided too much information and they weren't read. So think about the format, what goes into those quarterly reports and your communication plan for your Stakeholders. One of the things that they suggested was to market the results better in terms of the end product. So that is something that we are trying to do in terms of developing a marketing plan or marketing approach or strategy.

From the planning side, some of the things that we learned was when it came to development of the architecture for the strategic deployment plan (which was one part of this project) we really had a lot of initial support for the planning and architecture development from all of the parties (Steering Committee, Regional Agencies, etc.). We also had some really good local champions. However, when it came time to actually have an architecture workshop to validate all of the initial information that we had collected we had low turnout. I don't know exactly what went wrong. We thought that we had tried really hard to identify the correct people, and maybe I think that is where we failed. We spent a lot of time educating and raising the awareness of those people that ended up coming to the workshops. So we lost a lot of

momentum and by the end of the day we hadn't done what we had intended to do which was to validate and develop that architecture. And we really should have limited and targeted whom we really needed at those workshops. I think that we just invited the general transportation stakeholders, and maybe we should have thought that through more. If we really wanted to develop an architecture, what are the first elements of the architecture that we needed to target? Is it the traffic operations portion? Is it public safety? Is it tourism? Maybe we could have had more and better dedicated workshops instead of just a massive workshop where we tried to answer all of those questions. What we ended up having is a very high level architecture and now we have to go back to those local agencies and revisit that and that is a challenge for us.

From an implementation standpoint – this is more of the project side versus the planning, so I have moved away from project management/planning more to the technology side – we really made some improvements. We developed two rural TMCs at a very, very low cost because they were all developed in-house. I really do believe that through the demonstration projects that are being constructed or finished right now we have improved safety and highway management. For example there were some fires in Northern California over the summer and a lot of the ITS field elements that were already in the ground were utilized to effectively share and disseminate information about those fires. And it also prompted, at least in California, acceptance of ATMS.

Just to give you a little bit of history, when we first started this particular project we had urban TMCs throughout the State of California. But the rural areas did not have TMCs, they had dispatch centers. On our statewide TMC master plan they were called satellite Transportation Operation Centers. They were not even categorized as Transportation Management Centers, and they were pretty much ignored when it came to decisions that were made on a statewide basis in terms of the types of software that were developed, etc. What we were trying to do through COATS was an interim fix for

these small rural districts so that they could manage their system, they could disseminate information, and they could have ITS field elements that they could command and control. The urban districts already had that. But because COATS was so prominent and raised a lot of national attention, what it did – at least in California – is made our management and administration take a look at and forced them to pay attention to the rural districts. Now they are actually looking at a statewide application of this software, which is beneficial for everybody.

I mentioned earlier that we developed the in-house expertise. What we did not do is get beyond that highway mentality. The projects, the demonstrations are all highway oriented. They are all ITS field elements traditionally put on the highway – changeable message signs, cameras, and so forth. When we selected the demonstration projects we were not very inclusive. In the process of the selection for those particular demonstration projects we should have worked a little bit harder to focus on (for example) the transit operators or address their needs. We had limited money, money that expired, etc; and those were excuses that we used to move forward on the highway portion.

We also had some delays. I alluded earlier that our vision was to contract everything out. We had a certain time frame in which we were going to start and in which we were going to finish. But because we had to do everything in-house, we didn't have the technical expertise or staff experience so we lost a lot of time in delays in the implementation of those projects.

One of my thoughts I'd like to share with you is to really increase the engagement of transit agencies and other non-highway stakeholders. We took the easy avenue. Like I said we had that money that expired, and we didn't do our job to engage them as much as we should have. We should have done that a little bit more and been a little bit more inclusive. We should have thought through how to spread the resources so they didn't expire. Though I'm not sure what we could have done. At that time it was a management approach – the way our department managed our resources. At the time when we

were working on this our money expired if we didn't spend it. We were greedy and we wanted to spend it. Since then they have moved to a different approach.

Remaining Challenges. We continue to provide updates on ITS developments. Now what that really means is that the demonstration projects continue to be demonstrated, and the Western Transportation Institute is evaluating them. We need to continuously feed that back into our three-tiered structure. We also need to provide technical assistance at the district level. The in-house expertise that is developing continues to need some of our headquarters engineering expertise from a system engineering approach and software development.

We also need to work on the architecture. Remember that I mentioned that our ITS architecture that we are developing for this region is very high level? Well, were we run from – which is New Technology and Research – we only started this project as a research element. Our idea was to bring our vision of rural ITS to these regions, give them a planning document (a tool), give them some demonstration projects and some evaluation or technology/transfer elements that they can then use. But the idea is that then we walk away and they take over. So we have to transfer those activities, and that is proving to be a little bit challenging. The districts are not having the resources that they wanted. They've taken and they've bought into the construction of the projects and to continuing the planning activities, but they're not quite sure how they are going to do that. They are not quite sure how they are going to update their architecture and things like that.

We are also working with our districts to prepare operational agreements with all of their different agencies across the state. Now this is something, again, that we on the research side are transferring over to those that are implementing.

And what we want to do is to continue to pursue research opportunities. We want to move beyond the implementation into new areas and a

new vision and new challenges. More than anything we are revisiting right now the organizational structure. We have pretty much agreed that we are going to do away with the Governing Board, as it exists now. The Governing Board that we will have will be internal to each particular state. There won't be a bi-state Governing Board. There will be a California Governing Board and an Oregon Governing Board to make policy level decisions. We will continue to have a bi-state working level Steering Committee and will broaden that to invite all of the regional agencies into that. We won't just limit it to the people who were originally on the Steering Committee. That is what the regional agencies have told us that they wanted.

In closing, I'd just say stay tuned. We have a lot of transition that we are doing – moving from research to implementation. We in the research area are being asked some really tough questions that we have to be prepared to answer in order to move toward implementation. And we are functioning right now within our department with a lack of dedicated resources, which will prove to be challenging. If you have further questions, you can also visit our website [www.ruralits.org].