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The Advisory Committee met by teleconference at 1:00 p.m. Eastern Daylight Time, Joseph Sussman, Chair, presiding.

PRESENT
JOSEPH M. SUSSMAN, Committee Chair, JR East Professor in the Department of Civil and Environmental Engineering at the Massachusetts Institute of Technology
STEVE ALBERT, Director of the Western Transportation Institute at Montana State University
JOE CALABRESE, General Manager, Greater Cleveland Regional Transit Authority
BOB DENARO, Vice President of NAVTEQ
ANN FLEMER, Deputy Executive Director of the San Francisco Metropolitan Transportation Commission
GENEVIEVE GIULIANO, Senior Associate Dean at the School of Policy, Planning, and Development at the University of Southern California
RANDELL H. IWASAKI, Executive Director of the Contra Costa Transportation Authority
J. PETER KISSINGER, President and Chief Executive Officer of AAA Foundation for Traffic Safety
JACK LETTIERE, President of Jack Lettiere Consulting
DON OSTERBERG, Senior Vice President, Safety, Schneider National, Inc.
PETER SWEATMAN, Director, University of Michigan Transportation Research Institute
JAMES VONDALE, Director of the Automotive Safety Office, Sustainability, Environment, and Safety Engineering for Ford Motor Company

ALSO PRESENT
PETER APPEL, Administrator, Research and Innovative Technology Administration
SHELLEY ROW, Director, Intelligent Transportation System Joint Program Office
ROB BERTINI, Deputy Administrator, Research and Innovative Technology Administration
STEPHEN GLASSCOCK, Intelligent Transportation System Joint Program Office
CHARLIE VELEZ, Citizen
WELCOME AND OPENING REMARKS

DR. SUSSMAN: So perhaps we can call this group to order. We appreciate everybody taking time from their day jobs to participate in this teleconference slash webinar, and I hope we will have a productive time of it.

We will have -- the primary items on the agenda are the three subcommittee reports presented by the chairs of those subcommittees.

We will start with Ann Flemer on program evaluation and strategy. We will move then -- Peter, are you going to make that presentation, Peter, on technology strategy?

DR. SWEATMAN: Well, I would like to Joe, but I am only going to be on the line for about an hour or just less than an hour and then I've got to break out for an hour and then I'll be back.

DR. SUSSMAN: Okay, we will see how it goes.

MR. DENARO: Joe, I will probably make it, since I wrote it, in all fairness to Peter. Peter did a part of
it and then maybe I'll go through and then Peter can jump in as appropriate.

DR. SUSSMAN: Okay, that was -- it was my impression, Bob, that you were going to give, it, and I actually am pleasantly surprised that Peter is with us at all --

MR. DENARO: Yes, I agree.

DR. SUSSMAN: -- and be there from whatever time zone he is in and then the third presentation will be by Jim Vondale, on standards and harmonization.

This is, if you will, a first vetting at the full PAC level of what the various subcommittees have come up with, and give the subcommittees a chance to present their perspectives and of equal importance just to give the members of the PAC, who are -- who hadn't been privy to their thinking, a chance to react to what the subcommittees have said.

And we hope we provide them with some constructive criticism and good input, with the notion being that over the next several weeks, the subcommittees will take another pass at their templates with particular emphasis on their recommendations and those will be sent
out to the full committee in advance of our face-to-face meeting in mid-June.

I don't recall right off hand what the date of that one is -- the 17th of June for the face-to-face meeting -- and my sincere and overwhelming hope is we will come out of that meeting with everyone having read everybody else's stuff, with basically a report with recommendations to JPO on our view how they ought to be going forward.

So that's essentially what we are about today, so I hope we'll have some good give and take on all these various issues and end up in a position where we can in fact move forward to a penultimate draft before June, and then right after June the final recommendations.

We have been working toward getting consensus on recommendations for a long time. We adopted this subcommittee approach as a mechanism for doing it, and I am hopeful that we can make that work.

So before we launch into the subcommittee findings, I believe that Rob Bertini, who served as acting director of JPO while Shelley was on her leave, is -- would like to say a few words to us at this point. Do I have that right Rob?
DR. BERTINI: Yes, thank you very much Joe, and I'll be short. I will stay with you during the meeting here, for most of the meeting. I think Peter Appel will join us towards the end.

But I wanted to again make sure that everyone on the advisory committee knows how much we appreciate your time and energy and efforts and helping us move our program forward and the subcommittee structure, I personally believe is a very productive approach and so I am also -- we are also here doing all we can to support your efforts to move forward toward a recommendation under this, let's say, new structure.

And so just wanted to make sure that everybody knew how much we appreciated your efforts and how seriously we take the role that you play within our program.

There's a lot happening within the ITS program and at some stage I am sure we will have a chance to update you on things like that the safety pilot and the wireless innovation fund initiative that are moving forward, which we are very excited about, as well as other things in the area, the environmental and data and mobility related programs.
But I guess maybe the most important thing is that Shelley Row is back and she is right here and this is her first advisory committee meeting since her time away on her sabbatical.

So I think I will turn it over, Joe, with your permission, to Shelley to say -- to add a few words of welcome.

DR. SUSSMAN: Sure, that's great. Shelley, please.

MS. ROW: And yes, first of all it is very good to be back and I am so excited to have an opportunity to work with this group. I am already impressed with what I have seen of the work that you all have done so far.

And I would be very remiss if I didn't say how much I appreciate all the work that Rob has done and the leadership that I have seen while I was gone.

In fact it has been so good I might just have to go again. But for now, I am here and I'm looking forward to working with all of you and particularly just seeing you face to face at the June meeting on the 17th of June.

So thank you Joe. I look forward to hearing the conversation today.
DR. SUSSMAN: Well again welcome back. Rob did do an excellent job and all of you as well, and it's good to have you back in the saddle as well and I'm sure that we will draw upon your capabilities as well as Rob's and John's and Valerie's and everybody else who is so important to the JPO venture.

MR. GLASSCOCK: Joe this is Stephen. Can I make one reminder please, that as with all the last meetings, we have a court reporter that's recording everything.

And so it's very important for everyone to please identify themselves when they start to speak. It will help immensely. Thank you.

DR. SUSSMAN: Okay, so we are subject to the same FACA stuff that we have been on our face to face meetings?

MR. GLASSCOCK: Yes, sir.

DR. SUSSMAN: Okay, thanks for letting us know. I presume that no private citizens have called in and are participating?

MR. GLASSCOCK: No, they are not.

DR. SUSSMAN: I guess technically they are privileged to do so if they want to. But I would be -- I
haven't heard any strange voices.

MR. GLASSCOCK: No, there's no one from the public.

DR. SUSSMAN: No one representing that interest although in principle they can of course be there. So let me propose that we get started. Again, these subcommittees grew directly out of our past deliberations.

In the report that we prepared, going back to last August, in which we identified a number of what we saw as key questions, we did not opine at that point about the answers, but only worried about the questions.

And we identified various areas, multimodalism, the platform approach as we called it, communications, technology, transformation of institutional relationships, all of those were identified as important issues that we would then proceed to study in more depth as our terms continued.

And what we did in January is we met out in Oakland, at Ann Flemer's shop, and discussed several of those issues, and then we went to Detroit in early March, or more accurately Ann Arbor, or even more accurately, Ypsilanti, to discuss the remaining issues.
And that's the meeting in which what surfaced was the idea of the subcommittees that would focus more directly and more intensely with domain experts on this committee, who would try to put together some ideas that the committee in its totality could consider.

So that's kind of how we got to where we are today, and Ann, with no further ado I will turn it over to you, if you could just remind people who is on your subcommittee and get into your discussion. Everybody should have your completed template in hand.

**PROGRAM EVALUATION AND STRATEGY SUBCOMMITTEE FINDINGS**

MS. FLEMER: Okay, thanks Joe, this is Ann Flemer with MTC. Our subcommittee was the program and evaluation and strategy subcommittee.

Our members included Peter Kissinger and Joe Calabrese and Joe Sussman also participated in some discussions following the meeting in Ypsilanti to get us to the point where we are today, which is basically to about a one and a half page summary of our suggestions to the full committee on this subject, and maybe just to spend a couple of minutes on a little bit of background and where we've
got to our recommendations.

First of all, just as a reminder, we did have a charge to our subcommittee to be the group that will come up with some advice to the committee on overall ITS program direction and performance, with respect to a number of strategies and metrics.

And those were emphasizing multimodal coverage of ITS, the ways we can accelerate deployment of ITS technologies at the state and local level, and ways for us to assure that we can measure progress and achievement of the ITS program goals as they are stated in the charter for the JPO.

We did start with a review of that charter. As a write-up we have provided to the group, boiled it down to three main points, which was the focus for our group's discussions, and it's worth walking through them briefly.

The first is to perform, manage and advocate for research and development, and not that this program, as we have been told many a time, is not in the business of deployment, but it's the readiness of programs to be able to be deployable, and that is the second major objective of the charter. It's that the JPO itself, we should create an
environment in which ITS can advance as a critical deployable element.

And the emphasis that I thought was interesting is that it's the element of a contemporary transportation system, so that suggests that things are ever changing, especially in the technology world, and so there is a need to be in an environment that is very fluid.

And then finally, the third objective that we focused on was how do we position ITS and how would the JPO position ITS to respond to policy challenges facing the U.S. transportation system and again, those are very fluid issues, especially as new technologies become available for use as a tool to respond to policy challenges.

So we took that as a general set of objectives against which we would define and propose a way and an approach to evaluate the JPO's performance, and not just the JPO but the program itself, which I think is an important distinction.

Because we had two provisos I guess or caveats as we got into this, that are noted also in the report, that what our charge would be is to look at the program as a whole and not to focus in on project level performance.
And by that we mean there's a number of projects and initiatives that are under the management of the JPO. They are all in place in order to achieve program-level objectives.

And so our focus as the policy advisory -- program advisory council is basically to look at what are the program focuses and not the project level.

We understand that what is important though is to be sure that the JPO is in fact evaluating itself and its project level focus in order to show that it is all related to developing a program outcome.

And the second major proviso is that we have mentioned many a time, and I think it's well worth keeping this in mind, that the resources that are required to really implement the broader objectives that this committee may in fact want to place upon the JPO for its implementation, the resources required are well beyond what is available today to the program.

And not only in dollars and staff resources, but also the authority of the JPO to act with respect to the USDOT but also more generally, in the administration.

So the evaluation of the ITS program, as we
would propose it, would need to consider those limitations and be realistic about those limitations on achieving performance outcomes.

So, given that background, the subcommittee described basically several expectations of the JPO. Those are the rest of this report. We fell short a little bit intentionally, to not suggest specific outcomes or measurements for these expectations at this point, because we wanted to make sure that we were on the right track with the full committee, that these are the ones for us to focus on, or if we need to add some, that this would be the time to consider that before we get into specific outcomes and performance metrics.

So let me just spend a minute on summarizing the six items. The first is that the measurement of the program that is effective in supporting system development, emphasizing investment and deployment by others, including state and local entities, is an important outcome of expectation of the JPO in addition to what the JPO is doing at the national level.

And so the emphasis here is what can the JPO do to improve the performance outcomes in partnership with
state and local governments.

The second is this whole question, I think Joe's already mentioned it, what can the JPO do to facilitate institutional transformation, especially as it relates to public and private sector partnership.

And we really think that that's a critical element of our ability to deploy technologies and so the JPO should be expected to find a way to facilitate that and we need to measure performance against that facilitation.

The third item crosses over a little bit into another subcommittee and we recognize that but we still think it's important that performance should be measured with respect to the ability of the JPO to develop a technology strategy that recognizes technology developments in other sectors so that there's obviously a performance outcome that could be measured with respect to the partnering up with other sectors in developing technology.

The fourth is of course the effort to execute multimodal strategies and the emphasis here is getting a good assessment of how the JPO is able to coordinate the activities under way in the other modal administrations with respect to technology.
The fifth would be to emphasize, which is in the charter, that the ITS program contributes to a sustainable transportation system, so the importance of technology as it supports economic development, environmental protection and social equity is also -- it's a very broad expectation, I think this is one where we would probably want to get a little bit more detail as to what our outcomes are reasonably to be, but we wanted to incorporate the sustainability piece.

And finally that the JPO, while it has project level performance metrics, is there a way for us to assure that the JPO also kind of rolls them up into program level performance metrics, so that there is a way for us, and that's really the charge of the subcommittee, is to work with the JPO to form these, so that we have a way to show improvement over time related to specific outcomes.

So I -- that is the summary of the recommendations, again, this is just a list of the expectations of the JPO and following a discussion today and any modification here, we would go back as a subcommittee to define more clearly what the outcomes and definitions of success would be for each of these, and
specific metrics.

And with that I will close and open it for discussion.

DR. SUSSMAN: Yes, thank you Ann, that was an excellent summary. Perhaps you want to ask if any of the other subcommittee members -- Joe Calabrese and -- or Peter Kissinger have anything they would like to add, and then we can open it up for more general discussion. Joe or Peter?

MR. CALABRESE: Yes, this is Joe, I think Ann did a phenomenal job so I have nothing to add.

MR. KISSINGER: I feel the same way.

DR. SUSSMAN: My goodness, burning the table here. So let's now open it more broadly to other members of the committee. I'm not quite sure of the etiquette here, but also to the members of the staff of JPO as they might look at these recommendations and either say that sounds terrific or swallow hard and say perhaps it doesn't.

So let's try and have a nice free-wheeling discussion of this. Someone's got to start, though.

MR. DENARO: This is Bob. I have a question for Ann. On your recommendation number one, Ann, the JPO providing an effective program to support system
development and so forth by others, state and local entities. We have discussed this several times in our meetings and the problem being that of course the JPO is a research organization and that's the, quote, domain that they operate in, and yet in order to see deployment in ITS realized, we are expecting implementation at state and local level.

Did you have any further -- is there any further detail of what you mean by an effective program to support development at the local level?

MS. FLEMER: Well, I guess -- and I will certainly have the other subcommittee members chime in -- but I think what we struggled with here is that we didn't want to overemphasize what the JPO can deliver as a national program in an effort to show well here are some technologies that are available to local and state governments and the private sector to deploy, and that the research and development will get us to that point, but that there's a next level which is what are the best practices or professional development opportunities or outreach to the major modal associations, whether it be APTA or AASHTO or Metropolitan Planning Organization,
associations and the like, to really further provide some outreach to those groups and to track how well what is developed at the national level, through the JPO, is actually in fact getting deployed, and that we need a feedback loop and an opportunity to really kind of determine at the end of the day, are these types of technologies and these opportunities that are pursued at the national level truly getting out into the field.

And I would think we would want to emphasize that it is a feedback loop, because not every technology is being first introduced obviously at the national level or through the JPO, but there's a lot of deployment occurring at the local and state level that could be a good contribution to the national discussion through the JPO as to how best to get deployment of things that are truly working, more broadly disseminated.

DR. SUSSMAN: Ts is Joe Sussman. I think that's very well stated Ann. I think that there is an important, if you will, principle inherent in that first recommendation and it goes to this question of what the charter is for JPO and as Bob Denaro has pointed out, we have been reminded that they are a research organization
primarily.

And I guess to an extent this represents a bit of a pushback on that statement to say if one is looking at ITS and one is looking at a federal role, which occurs essentially through JPO, that one really has to take this point of view and one has to worry about the deployment of innovations that are developed.

And simply to state well we just do research and hope for the best, I guess what I read that recommendation as saying is well, that's not enough. You have to do more than just worry about the research. You have to worry about deployment.

And subsequently, on Jim Vondale's report on standards and harmonization, you have to worry about those issues too.

So we are making I think a pitch that the organization that we are reviewing needs to go beyond the narrow definition of research as they are --

MS. FLEMER: Well, maybe I would add to that, Joe, that really what our subcommittee was not right now saying that that is not being done by the JPO, but that we don't really get a good sense of it -- the performance in
meeting that objective.

So in terms of understanding better what metrics would we like to see that would suggest that the outreach and the effort to work with local and state governments and associations and others is to have deployment actually occur and be more broadly deployed throughout the country, that there is a way to actually measure the JPO's contribution today.

MR. CALABRESE: This is Joe Calabrese. I think we saw a wonderful example of this in Oakland, in Ann's shop, with the presentation of the great things they've done there with the 511 travel and information system, which is a wonderful system. It's certainly ITS-based but a system that can only be deployed on a statewide or a local basis. So what can we do to support that type of implementation, and then how can we measure our success with respect to it?

MS. ROW: Ann this is Shelley and I just want to say at the outset that I was very impressed with the work that your committee has already done, just excellent thinking here.

The question that I would have for you and the
committee is did you consider or discuss the companion roles of organizations such as the Federal Highway Administration, the Federal Transit Administration, and some of those organizations who are pretty close to some of the deployment efforts, for example 511 that was just pointed out. They work very closely on the deployment side of 511. Did you guys talk about how JPO and FHA and FT, some of the other organizations, how those roles interconnect or are shared?

MS. FLEMER: We really did not get into that detail but that's a good point. I think it gets to the issue of again what would the role or the objective be for JPO to be able to report out the progress of these other modal administrations, or is it really an administration by administration performance objective?

Because we were thinking I think in terms of the JPO being kind of the glue for reporting out what is happening within USDOT on technology.

MS. ROW: Okay. Thank you.

MR. DENARO: Yes, this is Bob Denaro. That's actually the question I was going to go with next, to Ann, and I guess I am addressing our committee here in saying
that in my opinion, I don't see it so much as saying the JPO has to take more responsibility outside of their research role, but I do see more and more, a necessary connection between these different agencies so that things do happen, and Joe properly mentioned that the whole standards and harmonization thing comes in -- obviously we need standards and harmonization between states so that, as one example, things that are done in vehicles can be consistent so automakers can do it one way and have it work in all states.

And then there's also the international harmonization which can yield benefits also in terms of the costs of eventual systems and so forth.

So for all that to happen, I think there are several agencies, and maybe as a committee, we want to point out that we are not getting a sense that there's a really well-organized integration of these efforts and these various agencies who are necessary to make ITS happen.

MR. ALBERT: Ann this is Steve Albert. Good job for you and the committee. Number two, regarding facilitate institutional transformation I thought was a really key
point, and in fact one of the things I wonder if it would be worth putting in there is the concept of what JPO is really doing is not only facilitating institutional transformation but accelerating it.

It seems many things happen at a state and local level that when federal money is applied to that, it tends to accelerate what's going to go on versus things just going on at a local or state level.

Second, one of the roles I could see that JPO has done well in the past and I think should continue at a programmatic level is the idea of how do we make things transferable to whether geographical areas or other areas, so that we don't get just kind of hotbeds of ITS deployment, that it actually does have full coverage and it's transferable to other places.

MS. FLEMER: So the emphasis there being more geographic than modal?

MR. ALBERT: Yes, or it could be both I guess as well, but --

MS. FLEMER: Well, we have a modal reference later, but I think you're right, we don't really capture the geographic so --
MR. ALBERT: That would be great.

MS. FLEMER: Okay.

MR. ALBERT: The idea of seamlessness I guess.

MS. FLEMER: Yes.

MR. VONDALE: This is Jim Vondale. I'd really like to follow up on both of the last two comments because I think from our perspective they really are important. As we have talked about, you know, what we are doing here in the U.S. is just a small part of what's going on globally in terms of ITS, and I know that RITA and NHTSA are following what's going on globally, but we are not really talking about it and it was just mentioned, I mean, the whole idea of interoperability, harmonization, recognizing that there are different objectives in different regions, recognizing that there are reasons why things are going to -- the focus may be somewhat different, but ultimately it's really important that all of us come together so that we do have a seamless, interoperable, harmonized approach to what we are doing.

And like I said, I know that RITA and NHTSA are doing a lot of work globally to try to keep track of what's going on and I know that it's a very difficult task.
I just had an interesting example given to us by a German government rep who was visiting us last week and she indicated that a truck driver in Europe -- and Europe is an area that is known for their ability to harmonize regulations -- in the ITS world must have five or six different passes or boxes to navigate toll roads in Europe, and if we are not careful, that kind of problem could multiply very quickly both in individual areas within the United States and then of course globally.

And I really think -- I'm talking more than just harmonization of standards. I am really talking about the whole concept, I think that others have kind of reflected here, of understanding our position in a global ITS environment in making sure that we keep this in mind and that we plan effectively to address a global ITS environment.

MS. FLEMER: Well, that is not anything listed yet, as I can tell. It would really emphasize maybe the, as you say, the globalization of ITS and what the USDOT's position and also the performances in assuring more interoperability or integration. Does that make sense? Or am I oversimplifying it?
MR. VONDALE: No, I think that's -- we are talking about global interoperability, understanding that we are living and working in a global world and we can work here in the United States in a vacuum, and I think ultimately that will prove to be a mistake because we won't be able to expand.

And we need flexibility and planning on a global scale, not just a state by state or regional basis.

MS. FLEMER: Okay.

DR. SWEATMAN: Peter Sweatman here. I just wanted to comment on recommendation three, because -- and there's a note there that it does cut across to some extent the technology strategy subcommittee.

But this seems to be a critical element in terms of having a technology strategy for a reasonably long-term application that does leverage other sectors.

We, in our discussions in the technology strategy subcommittee, we mainly focused on the platform aspect, the platform aspect of communications between vehicles and so on.

And that's sort of a big issue in itself and we've got a lot to do. You have mentioned there defense as
well and we have a whole lot of work going on on autonomous vehicles, for example, which somehow needs to be part of the roadmap going forward.

So I just wondered how your committee was viewing this. It's obviously an important aspect of program evaluation overall, how broad and how long-term should it be?

MS. FLEMER: You know, I think on that one we would look to your subcommittee to give us some sense of that, because we were not jumping ahead and saying well here is what the outcome ought to be and what it is we should be measuring in terms of performance towards that outcome, but to say that we know that it's an important issue that should be measured.

So a time frame and which other sectors have the highest priority and other aspects of your discussions we would probably just need to integrate into here in terms of what are the performance measures that would assure us that we can see that progress is being made.

I don't know if Peter or Joe, you have any thoughts on that one?

MR. CALABRESE: I think -- this is Joe -- I
think that you are largely correct. I think we should be
guided by the people who are focusing on the technology to
give us a sense of those time scales and then perhaps we
can iterate on process versus the rate of technology
development.

MS. FLEMER: Okay.

DR. SWEATMAN: I think that's a great point of
view for the technology strategy group, because I think we
started our discussions from a very specific point, which
was about connected vehicles and particularly about VSRP
and so on.

And so we really wanted to expand that out and a
lot of -- several of our members felt very strongly that
needed to be expanded out.

So I think this really reinforces that, so we
really need to look at these other sectors as well.

DR. GIULIANO: This is Gen.

DR. SUSSMAN: Hey Gen, how are you?

DR. GIULIANO: I'm good, thank you. I assume you
just wait for some air time, huh?

(Laughter)

I couldn't figure out what other button to push.
Anyway, I wanted to say that this is to me really wonderful and I applaud the subcommittee for doing such a great job.

I wanted to kind of endorse two points. One point is about program outcomes and evaluations. I couldn't agree more that any program like this really needs an evaluation component, a really serious, kind of independent evaluation component because it's the only way that we will actually learn from our experiences of deployment along the way.

And so, you know, research should be going on together with deployment, and experimentation.

The second point is about who actually implements these things, and I notice there's a theme on the technology strategy group too that is sort of looking at what should the federal role be relative to other roles.

And it seems that state and locals are growing in influence over time and more kinds of activities are becoming bottom up in transportation rather than top down.

And so it seems like it's really essential to think about what the federal role really is here, how it can basically incentivize or guide what goes on at the state and local levels but also how it connects.
And another group that I would think you would want to connect with is AASHTO and some of their different committees. That might be a way to sort of more directly link to what some of the states are thinking about.

And there are also of course local things like the Association of Planning Agencies and things like that, that we might think about as sort of directly trying to communicate with if we are not doing that already, or JPO is not doing that already as a way of connecting better with the many levels of government that are really going to be involved in this.

MR. LETTIERE: If I can jump in. This is Jack Lettiere. There's been some discussion here about performance measures and standards which I agree totally with, and I'm glad that point is being made.

But I think there has to be some clearly stated objectives or else I'm not certain what you are measuring, you know, this excessive deployment: well what is it?

For example a question that could arise is creating in which ITS can advance. Well ITS if you have been at recent AASHTO meetings, and perhaps most of you haven't, there is not a clear consensus of exactly what ITS
means and what it is.

So to measure success is, at what level, if you deploy a certain technology and it languishes, I would say in the implementing agencies because of their lack of understanding, there just seems to be something missing on the clarity of what this thing called ITS really is.

MS. FLEMER: Well in order to grapple with that and to judge the performance of the JPO or the federal program on its ability to bring clarity to what ITS is and what the national objectives ought to be, that could be measurable by feedback from entities like AASHTO and others.

I think lining that up with what Gen just said, that so much is being done at a homegrown level, you know, from the bottom up, that the clarity of what ITS is, I guess the question would be whether we do need to have one definition any longer or if it's more relevant to what is happening more at the local level and less at the national.

I just throw that out, because what our charge here in the subcommittee is you know, if we wanted to say we should have a clear definition of ITS and clarity on what it is that is a successful ITS program, how could we
measure the JPO's role in making that happen.

So we did struggle with these kind of different layers of --

MR. LETTIERE: I can understand that.

DR. SUSSMAN: This is Joe. The next step of actually coming up with ways to measure some of the things that we say should be measured, that's, I think a not-trivial undertaking.

MS. FLEMER: No, that is why we are taking it in steps. You know I don't know from the remaining -- we spent a good part of this discussion so far on the first three objectives that we -- or expectations I guess we're calling it, that we suggest be measured.

I don't know if there are any comments on four, five and six that would help us, because our next part in the process is to come up with the performance metrics themselves.

DR. SUSSMAN: Well, again, we -- number 4 it seems to me is important and consistent with what we have been saying form day one, that is that this has got to be a multimodal program and implicit in that has been the concern raised from time to time about various members of
it being overwhelmingly a highway program.

So we came to Oakland to try to understand some of the broader applications, but my sense is we have to keep our eye on that.

Number five, where we talk about sustainability and economic development, environmental protection, social equity, those last two, the environmental protection and social equity, specific recommendations that we have made in the past to JPO when we first started.

Actually the committee as configured the first time around, our very first recommendation was to move into the environmental area because at that point ITS, JPO was not pursuing that as a program goal, and then social equity was our second major recommendation.

So I am comfortable in that this all seems quite consistent with what we have been saying in the past, but Ann, as you have commented, the question of whether we can come up with program level performance metrics and then actually track against them, that's still something that we'll have to really focus on to get something meaningful done.

MS. FLEMER: I would agree and I think, you
know, we can lay these out and find, you know, working with Shelley and the staff as to how they would view their progress and how internally they are already measuring performance, and if we need to supplement that with something that is at a program level, we need to go do some of that research as well.

I mean, this doesn't suggest that nothing is going on today. This is trying to bring some focus into what we think is important to measure.

MS. ROW: Ann this is Shelley. One thing that I would just add to what you just said is that we would welcome any specific thoughts particularly on the program level, performance metrics, that is an area that we are extremely interested in, for a lot of reasons, and specifically, if anyone on the committee knows of any examples of program level research evaluations, how other research programs have evaluated things at a program level, we are all ears.

We would welcome any ideas that the committee has on that.

MS. FLEMER: Okay, don't know of any off hand but we can take a look at that. MR. ALBERT: Shelley
this is Steve Albert. You might want to look at, there's a report, I actually just gave it to Lockwood, on National Science Foundation, that evaluates centers of excellence, and it does it on evaluation standpoint at more of a programmatic level, not a project level.

MS. FLEMER: Is there a link to that Steve that you could send?

MR. ALBERT: Yes, I will see if I can find it because I gave my only copy to Lockwood, for the operations center report. I'll see if I can find it and send it to you.

MS. FLEMER: Great, okay.

DR. SUSSMAN: And that -- this is Joe again, Joe Sussman, and Shelley, that's again -- the idea of looking at things at a program level is I think an important statement by the program advisory committee, that is the sense that we have from the members is we really don't want to sit there going through project after project after project and being asked to opine on which of them make sense and so on and so forth, so we are in effect calling for a higher level of analysis in which we think PAC can contribute more effectively.
MS. ROW: Thank you Joe, and I am assuming that the committee is generally aware of some of the deployment tracking things, where we do actually measure levels of deployment and that sort of thing, so you know, it's the balance between those things and then where are the holes.

And the program level -- I think that's clearly an area that we would really like to move in that direction.

MR. KISSINGER: Hey, Joe and Shelley this is Peter Kissinger. I mean another example might be the original SHORT program at TRB. I know they put a special committee together well after that program was evaluated from the lessons learned perspective, before they launched into the current SHORT 2.

MS. ROW: Thank you Peter.

DR. SUSSMAN: Well, are there any further comments or questions for Ann on this subcommittee activity, program evaluation and strategy?

If not, we can move on to the next subcommittee, but I don't want to rush anybody if they've got some points. I can't look around the room readily and see if anybody is twitching.
I'm going to assume silence means it's time to move on. Ann, thank you very much, that was an excellent presentation and I think that's moving along in a very, very effective way.

**TECHNOLOGY STRATEGY SUBCOMMITTEE FINDINGS**

So Bob, Bob Denaro, do I understand that you are going to take it on technology strategy from here?

MR. DENARO: Yes, I will, but Peter, do we still have you? Are we going to lose you soon?

DR. SUSSMAN: Sounds like we lost him.

MR. DENARO: I'm giving him a chance to get off mute if that's the case. Okay.

DR. SUSSMAN: You are free to say whatever you like Bob. You are --

MR. DENARO: Okay. I think Peter had to step into his meeting at 11 o'clock or something like that, on the west coast. All right, so I'll give it a shot.

And let me just say up front that we did struggle in our subcommittee with first of all the breadth of the topic, the technology strategy obviously is very broad and there are I mean, just staying within vehicle communications, but then moving outside of vehicle
communications makes it much, more more broader.

And so it was difficult for us to focus. The first problem. The second problem being that we really were challenged by people's personal schedules and daytime schedules, day job schedules, so we did have quite a few challenges in getting our committee together and a lot of work was done by email.

So what you see here is really a summary of what Peter and I put together, really from looking at a lot of the work, and in fact the two primary additional committee members, in fact I guess I am the only committee member who is talking right now, or who is in our meeting right now, with Peter gone, but also Robin and Adam were key contributors to this and very essential contributors to this, and they can't join us on this call either.

So I do view this subcommittee work as being work in progress and we do need to do a lot more effort on this going forward.

That said, I'll walk through what we have got here. First of all, with respect to our charge, we spent a fair amount of time debating the nature of the charge, and what you see here was really a summary put together by
Peter that captures basically the two dimensions we were debating.

On one hand we wanted to stay close to the technology at hand, the V2V and V2I communications platform and address that.

But then we felt the necessity to be broader also. So the first part there says that the technology subcommittee is going to look at technologies across centers, computers, communications systems and so forth.

And the recommendations potentially focusing on the three bullets that you see there, systems approach, incentivizing the ITS framework and I think there's a strong emphasis there on harnessing the creativity of the broader stakeholder community.

This is the direction that the JPO has moved in the last couple of years, and we believe on the subcommittee that's a big challenge, but absolutely essential to success. We'll talk more about that a little bit later.

And then the third one, robust architecture, doing sufficient work in the design, in the implementation of an architecture to government level, so that the
barriers for those entrepreneurs and their creativity can come forward in the system and provide applications and solutions and so forth.

And then moving to the vehicle communications part, which is really the primary focus of work at the JPO right now, talking about their, again the three bullets that are shown there, making sure that there's really close coordination with the auto industry, developer community and all those who have a stake in that.

Obviously we don't want to just get to the point where we have a NHTSA decision on mandating something and we haven't had a lot of work prior to that, and I know those conversations are going on.

Adapting the technology for multimodal, that came up in the previous subcommittee as well. We see that as essential in the technology subcommittee.

And again, adopting technology by the developers, the vehicle manufacturers, other stakeholders, that is being created along the way.

So the next section there talks about subcommittee deliberations and findings, and this, as I said, is really a summary. I tried to pull together what we
heard from our subcommittee members and the comments that were made so this is kind of a summary of those deliberations.

As we said there, and I think Peter indicated this, we spent a fair amount of time, right after our last meeting when we first got started, really focusing on this potential White House meeting, because we said that's -- there's probably no more important objective for us than to get that right.

So we did spend a fair amount of time on the agenda and so forth, and we had a lot of emails going back and forth, basically working over a straw man agenda, and I'll get to that as a second consideration here.

But then the first consideration here is the other part that we talked about, is the ITS initiative itself.

So again, focusing on the fact it should be multimodal, and I guess this ties into the previous discussion also, making sure the technology does provide benefits that are measurable, and benefits obviously the safety, mobility and the environment.

We had a lot of discussion, as I indicated
earlier, about the broad developer community and endorsing the platform and so forth, and I think Adam and Robin, I think have good experience in this area and brought that to bear on our discussions, and said, you know, folks, this is going to die on the vine if we don't get developers to opt in and help with applications that consumers can use.

And one of the things we are facing, I think, and I will just editorialize a little bit outside of what I've written down here, but if you look at the ITS program itself, over several years now, and quite a few number of years ago before we see mass implementation, technology has been evolving extraordinarily fast during this time, as it always does, but continues to happen.

So that means communications platforms are evolving, and look what's happened in the last three years with respect to devices that we have.

I mean I can remember three years ago when we first heard about a -- or four years ago -- when we first heard about an Apple iPhone, that this was going to be a niche market for certain tech-savvy people at a very high end and so forth.

Now, it's like everyone feels that it's their
right that they have to have a smart phone of some sort, and there's just a lot of discussion about that.

And then of course that's finding its way into displays and things that are happening in the automobile. We are seeing automobile companies now who are saying, you know, the cost of doing things and providing technology to consumers by traditional means is maybe not working anymore and there's a different model out there that says consumers might bring their technology to the vehicle, and therefore the applications and services and everything else that we are going to provide in the vehicle, may be provided through applications on mobile devices, assuming that a broad enough segment of the population has these smart devices.

And so there really has been a rapid evolution and I think one thing that's critical for the platform comment for ITS is that it can be amenable to these new technology -- or as new technology emerges to be able to pull it in.

So anyway, we talked about as I said the platform being able to adapt these various technologies as they come along, and you know, that also led a -- you know
there's been a debate about DSRC and I think there's -- I think I sense on the subcommittee a general agreement that DSRC is probably a good choice for low latency communications and mission critical communications such as intersection collision avoidance.

And of course we did learn in the last couple of meetings that the JPO system that is being designed there is now considering many other communications systems where other kinds of services might be in there so it really is more open architecture with respect to other communications.

But even within this DRC, Adam has pointed out that maybe, again, talking about this rapid evolution of technology, that the new emerging cellular technology, which is called LTE, long-term evolution, advanced is the latest version of that, supposedly, and I'm not an expert on this myself, but he said there is a low-latency channel on there that he believes is even lower latency than DSRC.

So I think the point is, and we don't have -- we haven't got to the recommendation point yet, but I think when we make recommendations, it's going to be that the JPO has to be continuously vigilant about technologies to make
sure that something that was selected three or five years ago has now already become obsolete due to the evolution of technology and other things that are more available.

And the point that Adam was making with something like LTE, while it might have certain advantages and disadvantages with respect to DSRC, one fact that's pretty certain is that its adoption by the developer community is going to be enormous.

So as you look at then various types of transportation of services that might be developed by entrepreneurs, you are going to see a very strong use of devices and applications that use that communication platform.

So it just kind of opens up, cracks open the door a little bit on the whole DSRC versus other communications as well.

Let's see. Moving on, I did refer to Walt Fehr's presentation in Ypsilanti which I think was very revealing for all of us in terms of where the thinking is at JPO now on what we mean by architecture, and the fact that it -- what I think really like -- so talk about good news, is we really like the fact that there was some serious
consideration of what the government role needs to be versus private sector, and it's not an exclusion thing saying what should the government not do, it was more like where does the government need to add value.

And one of the points that he made was this whole authentication and security point, that a lot of public communication networks are not worrying so much about message security and authentication and that sort of thing.

But if we are going to bring information into the vehicle that might affect systems within the vehicle, that's going to be absolutely essential that there's control of that.

So there's a potential role for the federal government that is not necessarily being met by the private sector, because the uses of these platforms is a more general one.

Let's see, and then I guess I've already talked to this, but I've got a paragraph in here on which we had quite a bit of discussion, and Robin in particular was very in favor of after-market devices and the fact that maybe you don't want to wait just the automotive industry to
implement things, that there needs to be other types of implementation that consumers can get these services faster than the normal development cycle in automotive.

And so that's probably an area of recommendation that we are going to distill out of this as well. So then, we actually talked about this in the previous -- Ann's presentation also, the divide between the federal DOT research role and state and local implementation.

So we have had that discussion in our technology committee as well, and we got, maybe a little bit outside of the strict realm of technology strategy, but talked more about business models where we need to find a way that the private sector is motivated due to growth in profitable business opportunities, to create these applications.

And that will create the greatest, call it velocity of applications if you will, of you know, most applications, the most innovation occurring.

So in the end of the day, what we want to do is have a platform ITS solution that really creates a mass adoption by developers for creating the applications that are needed.
WHITE HOUSE SUMMIT INITIATIVE

So that's the, basically the summary of the deliberations we had in the technology area and then the next section I've got in here is about the White House ITS CTO Summit and I won't spend as much time on this. It's pretty clear what we have got here, but this is a draft.

We said that the kind of overarching purpose of this meeting was accelerating ITS deployment in the U.S. for near-term advances in highway safety, mobility and energy in our environmental performance.

And the goals of the meeting would be really find ways to accelerate implementation of ITS, so close the gap between research and innovation and the private sector.

Leveraging the best communication -- it's envisioned that the participants, and it's down further in the list here, but the participant categories would be executives from automotive, telecommunications and of course USDOT.

But those two sectors -- we considered potentially even broader than that, but we said, you know, in a half day meeting or whatever it's going to be, if we make it too broad, we won't get anything meaningful
accomplished.

So we thought that the intersection of automotive and telecommunications was really key and those should be the right invitees.

The meeting format would be executives from these organizations and hopefully that's the reason, I would think, for having a CTO, or federal CTO summit and that would be a draw, hopefully, for senior enough executives, maybe CTOs of automotive companies as well as telecommunication companies.

And we wishfully thought that maybe it's a day long meeting but you know, perhaps, with schedules, it has to be half the day or something like that.

But really, going through various -- an agenda of various areas and attempting to establish actually action items and follow ups and so forth, and keeping the meeting to a reasonable size that I can still be productive, and perhaps even considering a professional facilitator just to make sure everything stays on track.

And the desired outcomes you can read there, commitment to this -- commitment by automobile industry and telecommunication industry and some kind of intersection of
those communities in solving ITS problems, and what's needed.

Obviously the road map between what government initiatives and what's going on in the private sector there, and basically really trying to hear from these individuals what they view as the barriers to deployment and barriers to accelerating deployment, and what could be done about that.

So, and I -- I won't go over the rest of it, but basically it's -- we have an agenda coming together which we fielded there, we have got to figure out now, get back on track with the JPO, whether this is still something that is feasible. We know that there's another meeting going on, dealing with transportation and Aneesh Chopra, whether -- this is a little broader perhaps, but we have to see how that fits with the overall plan there of communications and involvement with the White House.

So that's basically to summarize it, as you can see in the recommendations section, we did not distill this yet into the recommendations because frankly we are still at the -- fair amount of debate going on in the subcommittee.
But I am glad you cracked the door open for saying that there's a -- the next two or three weeks of activity to wrap this up Joe, because that's what this committee is going to need to put this into recommendations that we will then bring back to the general committee for their consideration.

DR. SUSSMAN: Okay, Bob. Thank you. Thank you for a fine presentation. Let me suggest that we focus the discussion in two separable parts.

Let's start by discussing what the subcommittee has reported, their deliberations and findings, and when we are finished with that, perhaps then we could discuss the Aneesh Chopra session. Is that okay with you Bob?

MR. DENARO: Sounds good.

MS. ROW: Joe this is Shelley. I am going to have to step out at 2:30 for just a few minutes, and before I go I did want to ask Bob a question about the first half, but I also wanted to ask you if you would like for me to explain to the group a little bit more about the upcoming White House round table and how it relates to the one that has been proposed.

DR. SUSSMAN: That is fine with me. Bob, we can
reverse the leads I just gave you. We could start by discussing Chopra and then come back to the committee, only if that's okay with you Bob.

   MR. DENARO: Well, if Shelley has to step out in 15 minutes let's definitely hear her comments so that we can use those as we continue to talk so yes Joe.

   DR. SUSSMAN: So why don't you give us whatever you have got on Aneesh Chopra please Shelley, thank you.

   MS. ROW: Okay, and I will be brief but I wanted you all to have full transparency about this.

   As Bob mentioned, on Monday morning we do have a round table discussion that we have worked cooperatively with Aneesh's office to organize.

   We wanted -- it is on the wireless innovation initiative for transportation activity. We just released an RFI on that that is out on the street that you may have seen.

   So a couple of things that I think that you should be aware of. First of all, from our viewpoint, the round table on Monday does not subsume the one that you have recommended or talking about, thinking about recommending here. So that's the first important point.
So we haven't -- anyway, they are not
duplicative. That one is really more focused very broadly
on the WIN activity.

I do think that we will learn from what goes on
on Monday and we may be able to give you some feedback on
some of the practical considerations for the one that you
are proposing.

And we do have some overlap, Bob, in fact I
believe that you are participating on Monday?

MR. DENARO: Yes.

MS. ROW: Okay, so at any rate, I just wanted
you to be clear that the one on Monday does not at all
jeopardize or interrupt this one. In fact it may even lay a
good stage for launching into this one at a later time.

DR. SUSSMAN: That meeting is in Washington
Shelley, is it?

MS. ROW: It is, and it's Monday morning, and it
is industry only at Aneesh's office's request. The only
other thing, since I will probably be out of the room when
you finish your conversation, on the first half, Bob, of
your committee's recommendation, when you talk about the
developer community, if you all could give us some more
information about who you mean by that, a little more specifically, so that we are clear on who this community is that you are referring to.

MR. DENARO: Great, yes, we'll do that.

MS. ROW: That is all Joe. Thank you.

DR. SUSSMAN: Bob do you want to respond to that comment or do you want to continue on with Chopra? It's not clear to me what further we have to say about that at this point, but if there are questions on Chopra, let's do that and then let's go back to the front end.

MR. DENARO: Well why don't we -- I would suggest we go back to the original order you had it. Why don't we go through the deliberations and findings piece, and then we can come back to the Chopra meeting.

DR. SUSSMAN: Okay. I am easy. Whatever makes the most sense for you.

MR. DENARO: Okay. That's fine. So, questions and comments?

DR. SUSSMAN: Are there questions for Bob on the technology strategy stuff? I guess the question that I would simply jump to is do you anticipate in a few weeks you will be able to have recommendations, say on the style
and level of detail that we saw from Ann, or give us sort of a preview on what you would hope for on those recommendations, without prejudging what they will be.

MR. DENARO: I think we will Joe -- I am speaking hopefully here -- but because we desperately need participation from Robin and Adam on that and you know, they have this know so they are looking it over.

But I think as we probed this together, I think it was clear to me that there are several recommendations that do jump out and I mentioned some of those as I talked through this.

But in terms if multimodal, in terms of what Shelley just asked about engaging the development community, I think we can get into more detail -- I'm glad she asked that question because I think we can get into more detail about what that is and why it's important.

In other words, we have a model of how ITS is going to succeed, and that model is very dependent on the participation of the private sector in developing these various applications that are going to come along, and I think that's going to be a major area of recommendation.

And also on the communications platforms,
looking at these new communication platforms and evaluating against DSRC, I think that would be a recommendation. So I think we'll be able to pull that together.

MR. ALBERT: Bob, Bob this Steve Albert, building on Ann's committee, number three, where it talked about policy challenges, it seems to me, whether it be JPO or the national transportation system, you're really going to come under a lot more challenges in the next 10 years, and I am wondering if one of the things that should be put into your section is the idea of how technology strategies can be almost policy tradeoffs, or an alternative analysis that, using different types of technologies can accomplish different types of policy changes.

It seems like the more that we replicate the idea that technology can be an enabler to enhance policy changes, the better off JPO might be in serving in that type of capacity.

MR. DENARO: Steve what is an example of a technology, maybe like the mileage based fuel tanks and how that might be accomplished -- but you know, to me it just seems like policy is coming more and more important as a way of making or accelerating change, maybe more than it's
ever been in the past, because we all know something institutionally has to happen or technologically has to happen, and we can't keep going down the same path that we have been doing.

And I'm wondering if some of your sections should not have a bullet regarding kind of policy relationships, to technology.

MR. DENARO: Yes, I like that thought so let me make sure I understand. Are you saying it's in two directions, where the emergence of a technology might make a policy change feasible, therefore lead us in a new direction that we weren't going before.

And then on the other direction, we may have some policies that we would like to implement, but they are wanting certain technology developments that are not in place yet. Is that --

MR. ALBERT: That is correct. It's almost like one is reverse engineering and the other is something else.

MR. DENARO: Yes. Okay, I like that comment. That's good.

DR. SUSSMAN: That sounds very sensible to me, yes.
MR. VONDALE: This is Jim Vondale. I didn't participate in what you did but I want to commend you for covering the issues that I think are very important.

And we had -- just to focus on a couple of things you talked about. We had a little debate recently about this -- I'll call it this tension between stability versus flexibility and the technology we use, and particularly whether we use DSRC or something else.

Because you know there's the argument that you -- especially if you are going to put this in motor vehicles, you need some stability because you want to be able to not have to make major changes to systems once you have put them in, unless you have adequate lead time.

But at the same time you know, the philosophy, particularly of something like our synch system, is to really maintain flexibility.

So I think there is going to have to be some real thought that goes into this DSRC versus some other technology and how you maintain stability and at the same time maintain flexibility.

The other is this whole open platform concept which again we strongly support as very much an embodiment
of our synch system that people will be able to bring in their own devices and will be able to encourage development of apps.

And so again, that has a lot to do with the flexibility of the system that is ultimately developed. And then, no one has raised it yet, and it's a big issue, obviously that gets talked about occasionally, and that's this whole issue of driver distraction and the whole concept of open platforms and people using their own devices and so on is something that we are trying to deal with in terms of our synch system by keeping the platform open but helping use these devices more safely when they are driving.

So I don't know that it is going to be appropriate for this committee to address that issue and that's something I know that everybody, from the government to vehicle manufacturers, are wrestling with, particularly as we move further into this whole concept of connected vehicles and so on.

So anyway, just a couple of thoughts, but thought you did a real nice job.

MR. DENARO: Thanks for those comments Jim. And
just to comment back on those, I like your -- the way you characterize this stability versus flexibility. I think I'd like to get that in here as well.

And I completely agree that's a tradeoff. And that is a little bit of where I was going when I said what we want to recommend is that the JPO stay vigilant with respect to new technologies, because -- and that's the balance.

You are riding a particular horse and that is giving you stability, but at some point it could become obsoleted and that new system basically having a bigger following which means you have to switch.

So making that call, as to when you need to switch technology, I think is very critical.

So, and I think our point on the committee, on our broader committee, is not to decide for the government how to do that, but it is just to recommend that they need to have somebody assigned to watching that and that needs to be a part of their program, so I would agree with that. And then --

MR. VONDALE: The real trick is to design a system that you don't have to switch technologies, that it
can't be switched without a major change in the architecture and the system.

MR. DENARO: Yes. Yes, and you know, there are analogies, if you look at the PC, you know, the way they evolved and so forth. Typically computers, and software for that matter, will go a couple of iterations before it's essential to change.

I think we all choose when we are going to switch our Microsoft Office to the latest version, but typically we will wait two or three iterations before it becomes essential to do that, so there's probably an analogy there of some sort.

And then the driver distraction one, we didn't actually explicitly discuss that in our committee, and I was almost going to put it in here by myself, but I figured I better not, because I really should be summarizing what our committee talked about.

But I feel pretty strongly about that also, and I would -- I'm glad you mentioned it because I am going to bring that back to our subcommittee and talk about it and the reason it's so important is that I think what we need to be making sure is that we don't get into an all or
nothing type proposition, like you can't have technology in the car because whatever you do, it's going to be distracting.

Actually, there are some technologies that can improve the driver distraction problem, even from where it is today, you know, people eating hamburgers or doing non-technical things in their cars.

So I think driver distraction has to be an explicit part of all of the development of this and both to how technology can help the driver distraction problem, as well as monitoring the fact that we are not introducing in-vehicle technologies that become distractions.

MR. VONDALE: And I think if we do tackle it, I think we are going to have to work very closely with our partners in the government, because I know it's a very sensitive issue for them, and it's a sensitive issue for us.

And so if we do tackle it, and I think maybe we do have to, we need to make sure we are all comfortable with what we come up with.

MR. DENARO: Well, and again in the committee I think our job is to basically lay out the framework of how
it should be considered and treated and then the actual work needs to be done by the JPO and working with the community, manufacturing community and so forth.

DR. SUSSMAN: This is Joe, Joe Sussman. Driver distraction is of course the hottest of hot buttons for Secretary LaHood. You shake him awake at 3 o'clock in the morning the first thing he'd say is driver distraction.

So it's certainly on the political path. The other more substantive point I have is when you talk about concepts like stability and flexibility, another one of those kind of megaconcepts that you might nicely roll in is the question of resilience and the ability of systems to recover from untoward interruptions or major impacts of various sorts.

So a friendly amendment would be to add that idea of resilience into your considerations, beyond stability and flexibility.

MR. DENARO: Got it Joe. That's a good comment. Thanks. Yes.

DR. SUSSMAN: Further questions, comments for Bob Denaro speaking on behalf of the technology strategy group?
This question, Bob, of DSRC and other technologies and platforms, open architectures, you know, I would say, in our first several meetings, it's been those ideas that have consumed a lot of debate with a lot of different points of view being on the table.

I hope we are going to be able to move the ball forward in terms of some specific recommendations relative to those ideas, because you've got people who feel very strongly about various aspects of those issues.

MR. DENARO: Yes, that is my objective, and we are going to work hard to try to do that.

DR. BERTINI: Bob and Joe, this is Rob. I just thought I would mention, regarding the summit the idea, this has been being bounced around for nearly a year, but just as a reminder, one of the things that Aneesh was interested was seeing specifically how such a summit or an event might help accelerate the deployment of applications that actually used the 5.9 GHz spectrum. So that was one thing, just as a reminder, I know it's been a long time, but that was one specific angle that certainly differentiates this idea of this event from the one that is happening next week.
MR. DENARO: Okay, thanks Rob.

DR. SUSSMAN: Well, the floor continues to be open for any comments on either topic, the Chopra event or technology strategy. So if anyone has any further questions or comments, now is the time.

MR. CALABRESE: Yes Bob, this is Joe Calabrese. How are you doing? Just one comment about the proposed meeting, which I think is great.

However my one comment is related to the lack of multimodal approach in the meeting. If we don't want to act as if the committee as a group is looking only at highway initiatives, we probably shouldn't only invite auto executives. End of comment.

MR. DENARO: Good point, good point. Yes. Yes, that's a good point, probably an omission on our part, so let me go back to the committee with that.

MR. KISSINGER: This is Peter Kissinger. I get the sense in this -- I got the sense when this idea first came up that there was quite a bit of consensus on the committee behind this idea, and I don't know that I really heard over the last couple of minutes any comments about when this actually might happen if at all.
Maybe I missed it, but it seemed like we are kind of pushing for an accelerated meeting, and now I'm not sure where we are going, based on what I am hearing.

MR. DENARO: Yes, Peter this is Bob. I think we had concluded that with the reality of planning and schedules and over the summer and so forth, that we were shooting for a fall meeting.

So we'll try to get this agenda in place, try to get organized, and meeting calendared you know, in the next 30 or 45 days, but then calendared for a time in the early fall.

DR. SUSSMAN: And I am not sure Bob, that that is very different from what we were talking about in March. My recollection was that it was going to be, when we were in Ypsilanti in March, my recollection was it was going to be a fall meeting, September or October, that kind of --

MR. DENARO: Yes, that's what I mean, I think that is when we decided that, yes.

DR. SUSSMAN: Right, so that hasn't slipped, at least not yet.

MR. DENARO: Right. Right.

DR. SUSSMAN: Other questions for --
DR. GIULIANO: This is Gen. Just real quickly on that. Will this subcommittee be sort of the conference organizer or subcommittee or -- I mean in terms of getting this conference planned.

MR. DENARO: Well, we had accepted that responsibility so yes, in terms of the pulling the agenda together and desired outcomes and all of that, which is the work that you see here, there's actually a little more documentation behind this, but basically what you see there is a summary, that we would do that, but bringing that back to the overall committee, and make sure we are all in agreement that this is the direction we want to go.

DR. GIULIANO: Okay. Sounds very good. Thank you.

STANDARDS AND HARMONIZATION SUBCOMMITTEE FINDINGS

DR. SUSSMAN: Anything further? Okay, hearing nothing, let's go on to our third and last subcommittee presentation, and this is Jim Vondale from Ford, talking about harmonization. So Jim, the floor is yours.

MR. VONDALE: Thank you. I think I am the only one from our subcommittee that's on the phone so hopefully I can answer all your questions but there may be some
things, and I'll point them out if I am not completely comfortable talking about them.

In terms of the charge, just briefly, we were formed to gather information, evaluation options and provide recommendations to ensure that our ITS standards are harmonized globally.

And we think that global harmonization will actually help promote the efficient and rapid deployment of ITS technologies.

And we have kind of expanded our committee, so we asked people who are in some of the standards organizations and they have pointed out that non-harmonized standards can actually end up costing and adding more complexity of maintaining standards if they are not done properly.

One of the things that I'll just kind of throw on the table, there's a lot going on out there right now in terms of harmonization, and not all of it is good, and time is of the essence in terms of moving forward on this.

But there is some view out there that harmonization is going to slow things up and that there's going to be a chilling effect on moving forward and I think
our group's view is it's just the opposite, that we think we can move efficiently and quickly to harmonize, and that in the long run in particular, harmonization has tremendous benefits, and that non-harmonization has a real chilling effect in terms of deploying technologies going forward, especially globally.

We discussed the critical importance of globally harmonized standards and the role they play in a more efficient and faster deployment of ITS technologies.

And again, as I mentioned, we need to move quickly because standards harmonization is ongoing as we speak. There have been some notable accomplishments with the U.S. and EC governments reaching an agreement to promote harmonization as well as with the government of Japan.

This is not something that is going to be easy because we have a number of players we have to work with. It's obviously governments, industry, vehicle manufacturers but most importantly there are a number of standards organizations that are involved in this, and it's our sense that there's a lot of competition amongst these standards organizations, and not all of them appear to be in
agreement about the need to harmonize with each other and that sometimes taking the lead, and being the first to market with your standard, could be viewed as a competitive advantage, and that's one of the issues we have to deal with.

Absent strong direction and leadership, to encourage harmonization, our view is that these standards will not be harmonized and I just mentioned the competitive nature.

There's also this European directive called Mandate 453 that is being used as an excuse, at least in some of our view, as a reason not to harmonize, because they have to move quickly to develop these standards and therefore they don't have time to harmonize.

And a couple of other issues that we will get to in the recommendations that are out there that are impediments. One is we don't yet have complete agreement or identification of those critical standards that need to be harmonized, and that's sort of a starting point.

There's work being done in a group that is known as the VIC to, from a smarter vehicles standpoint, identify those critical standards.
We realize we can't harmonize everything. There's not a need to harmonize everything. But a first step is really to identify those standards that need to be harmonized.

And so there's actually been some leadership out there by a group called OICA, which is the association for all motor vehicle associations, and they have come out recently with a press release urging standards harmonization.

In terms of recommendations, we have five recommendations that we have come up with so far. The first one is that we would like to see the ITS JPO make a clear public statement that global harmonized ITS standards are critical to the efficient and rapid deployment of ITS technologies.

And it's been also made clear that the quality of standards and the degree to which they are harmonized is more important than any regionally-imposed dates for completing them.

And in terms of just sort of a discussion of why we made that recommendation, in order to make a clear public statement that the JPO should identify harmonization
of ITS standards as a critical priority in its written statements about its ITS technologies and officially add it to its work plan. We have noted it's not officially a part of the work plan that we have seen for the ITS JPO.

Second recommendation is that the JPO should play a visible leading role in encouraging the development of globally harmonized standards by adequately funding organizations and programs that are designed to result in harmonized ITS standards and applying strong political pressure on standards organizations and governments to harmonize such standards.

Funding is important. There's a group called ETSI that's working in Germany in particular to develop standards and they are not harmonized, they are regional standards, and it's a very well-funded organization. It has a lot of different private groups in it. Government's not a part of it and many of the individual companies, like vehicle manufacturers, some of those can't afford to join because of the high price of entry.

So it's a pay-to-play kind of a group and so that's one that we have particularly identified as a group that is going to be difficult to bring into the fold here.
But if there is a way for the U.S. government to fund efforts and we'll get into a specific discussion there, and there's a lot of work being done, a lot of good work and a lot of help that we are getting from people like Steve Still and so on in DOT, but we also think it would be important to elevate this message higher in government so that we get at a very high level a strong message that standards harmonization is important.

Third recommendation is, you know, we have seen the benefits of cost benefits analysis. Somebody really needs to make the case for why standards harmonization is important. I think we all believe it is, but some research and an analysis of what the actual benefits and the -- the benefits of harmonization and the costs of not harmonizing would, we think, be very useful, and the U.S. government, JPO could potentially fund that kind of an analysis.

This one came in from the outside and I am not sure I can give you too much detail on it, but there's some sort of a U.S.-EU Harmonization Task Force and a U.S.-Japan Harmonization Task Force, and what we were told is that the EU and Japan have a more diverse group in these meetings than the U.S. does and so there was a recommendation that
was put out for discussion that the U.S. government should be doing the same, and I'm afraid at this point I can't give you any more detail about it. Maybe someone who is more familiar with it, that's here in the meeting could.

And then the final recommendation is not only do we have to identify what the key standards are that we need to harmonize, and we need to decide how we -- what's the process for identifying them, we don't have a natural forum for harmonization like we do for let's say WP29 for standards, safety standards and environmental standards harmonization.

So we have some real inhibitors here but we think that if what we can do is, if we can -- and there's actually I think an opportunity to work through a group called the VIC and there's a work order that is being considered by JPO at this point, I understand, where I think the concept that we have been talking about is to identify those key standards that we do need to harmonize, and then we could, once we have identified them, we could create a matrix and then quickly identify where are these standards in these various organizations.

Is ETSI looking at any -- you know, do a kind of
a matrix of these standards so we can quickly start to
monitor and closely follow, and then really be able to
apply the pressure to make sure that if ISO is looking at
this one standard and is working on it, and ETSI is working
on it and they are going in different directions, you know,
we can closely identify and monitor and then be able to
apply the pressure that we need to, to try to get those
groups to actually work together, so that those standards
that are being worked on separately, will hopefully get
worked on together.

So I think the discussion is presently a variety
of international and regional standards organizations are
developing ITS standards that will impact the ability to
efficiently and effectively implement the Act absent strong
leadership and commitment, these standards will be
developed regionally -- that's the direction they are
headed right now -- and will result in inefficiencies and
costly duplication of efforts and delaying -- ultimately,
we think delaying deployment and making it more complex.

And so we think the U.S. government, through its
funding, should play a key role in supporting the
identification and prioritization of key standards, work on
harmonization of those standards and work with Europe and Japan to apply the appropriate pressure to groups like ETSI, and let's see.

So I think that's pretty much where we have come out so far and we are very interested in your comments and your input to help us move forward with it.

DR. SUSSMAN: Jim, thank you. Thank you for that good report. Let me start, and I'm sure others will chime in.

It seemed to me when we were together in Detroit, and were talking about this and as I recall, Steve Sill was at that meeting.

The basic impression I had was that it was kind of -- from at least the government's point of view -- that Steve Sill was kind of it.

And the other regions, the other megaregions, that is Japan and Europe, are throwing all sorts of people and money at this and it sounded like we weren't.

So I mean what I -- the way I read this is that you are trying to first say this is really important, and we have got to focus on it, and second you are saying we have got to resource it at a level that's consistent with
what other interest groups are doing. Do I have that basically right?

MR. VONDALE: Well, I guess my impression, and I think part of the problem with this is probably you talk to different people and they will have different impressions and you know, Steve I think is really a true expert in this area and he has been --

DR. SUSSMAN: Oh yes.

MR. VONDALE: very helpful. You know my sense is that it's more an issue of, in fact this person that was visiting from Germany, you know I think they have identified -- ETSI in particular, the standards organization that is sort of an independent body, has -- they don't have much control over ETSI either.

And so I'm not sure how much extra resources Japan and Europe are putting into this. I think they are -- part of this is political, part of it is funding.

But from my perspective, and I think some of the other folks I have talked to, a lot of this has to do with getting the attention of the various standards organizations, whether it's ETSI or SEN or ISO or whatever, and convincing them that they need to work together to
develop these standards together.

And when I was talking to this person from the German government, her comment was, you know, we don't really know how to influence ETSI very well. We can influence SEN. We have been working with some of the others. We are working with the U.S. government.

But we are really struggling with how we get a pay-to-play organization like ETSI that is funded by a lot of, as I understand it, companies that pay a lot of money, and it's very well funded, and they are moving forward.

And so to me the real question is how do we get the U.S. government, the European government, the Japanese government at a high level to maybe say this is really important, and how do we get some control and cooperation and coordination and communication amongst the standards organizations that appear to be moving forward independently and in someplace -- sometimes competitively to gain a competitive advantage, potentially, by being the first to come out with these standards.

So it's a very complex issue. That's my assessment but I'm not sure that you know, someone else could have a totally different view of it.
I think there is a -- you know, I think the U.S. government is playing a strong role but I think what we are kind of saying is we want to see even more from them, both in terms of elevating this higher, and potentially funding a cost benefit analysis, and funding, whether it's ISO or whatever organizations, to try to, you know, to get them to be very active and then you know, take the -- get out the bully pulpit and tell the standards organizations they need to do this, because it's the right thing to do.

DR. SUSSMAN: That will require some resources above and beyond what's currently being allocated, if I am hearing you right.

MR. VONDALE: Well, I guess it's a question -- I don't know the answer -- whether the resources that are currently available, each year as I understand it they are spending about -- the U.S. government is spending about $100 million, could some of that be allocated to funding these types of things going either currently -- part of the problem is time is of the essence and so it's not something we can start next year.

DR. BERTINI: This is Rob maybe I'll just briefly chime in, but it's a great discussion and I
personally appreciate the, I guess, your weighing in that this is critical and we do talk about this a lot.

In addition to Steve Still who leads the standards area within the JPO, we do support financially active participation in many of these standards bodies and we just released a standards strategic plan and I think it might be good for us to get Steve to work with the subcommittee maybe offline, just to -- in the next couple of weeks just to make sure that he is providing you with the most up to date information about what resources we are investing.

And there are challenges, as you mention, and I think the call for the DOT and for us in the U.S. government to make much stronger statements about the importance of harmonization, very well taken.

But I would be say I would be pleased to have Steve follow up with you Jim, and get in synch a little bit more, if you'd like.

MR. VONDALE: Yes, And Steve has been participating in our discussions and we are working as closely as we can, but we obviously don't know all the things that are going on and he really is a tremendous
resource and I think the committee needs to continue to work even more closely with him.

DR. BERTINI: That sounds great.

DR. SUSSMAN: And no one should interpret my comment as in any way discrediting Steve and his expertise. I am quite respectful of what he knows and his willingness to share it.

But when the other guy has 15 people and you've got one, it can be a little tough to get your juice on the table.

DR. BERTINI: That is true. One interesting issue is that in some of these organizations it's one vote per country, so when we are the United States and we get one vote, and each member state of the European community also gets one vote, it is a challenge as I understand it.

I am not an expert in this area, but we do -- we agreed that this is an extremely important area and you are helping point out the need to pay much greater attention is -- I certainly appreciate that.

MS. ROW: And Joe this is Shelley. I am back in the room now. Thank you.

MR. VONDALE: And just to provide a perspective,
I've been working on standards harmonization for safety for probably 15 years now and there's something called the 98 Agreement that has been out there for about what, 12 or 13 years now, and there we have, you know, an actual written agreement. We have the United States is participating, again, one vote out of 31 members, and even with that kind of commitment and forum and so on and so forth, we are struggling there, so this is even tougher because like I said, we don't yet have a really good agreement. We don't have a recognized forum and so on.

So this is not easy by any means, but it really is worth the effort and I think we have identified at least some initial steps that will, you know, will get us to a point where we can hopefully start making some better progress.

DR. GIULIANO: This is Gen. This is really interesting and it's completely out of my realm of knowledge.

What I am struck by is the challenges that you are describing in terms of all the barriers that seem to exist regarding harmonization.

And I am just wondering if there should be some
additional effort to understand more clearly what all of them are, and in particular these ideas of kind of being first mover.

You know, so that we could actually come up with sort of here's why it's really important to harmonize or perhaps all of you have done this already, but I am really struck by the number of challenges that I heard.

MR. VONDALE: That is why I think that this cost benefit analysis would be good, you know because no one really yet has truly quantified what are the benefits and what are the costs of not harmonizing.

MR. ALBERT: This is Steve Albert. I'm not a standards guy and sometimes my eyes glaze over when people talk about standards, but I agree with Gen that this is, you know, a huge area, and I wonder, one of the key things is going to be how to communicate this in a short document.

I am wondering if some type of reformatting that looks at the challenges, the impacts and then lastly the strategies of JPO would be in order.

It's a lot to comprehend for a non-standards person, yet it would seem to be the foundation for everything.
DR. SUSSMAN: Steve no one ever accused you of being a standard person, so --

MR. ALBERT: I am not sure how to take that but thank you.

(Laughter)

DR. SUSSMAN: I just couldn't resist.

MR. KISSINGER: This is Peter Kissinger. I was just sitting here wondering, given the criticality of this issue and the urgency of the issue, and the fact that it sounds like we are almost wanting to make recommendations that go well beyond JPO, I guess I just throw out for discussion now or maybe at the June meeting, whether this isn't something that should almost be separated from the core PAC recommendation letter and perhaps even addressed to someone else, or at least make it clear that, you know, it should be forwarded up the chain of command.

DR. SUSSMAN: That is an interesting question. I'd be interested to hear how Shelley or her colleagues in JPO feel about how this ought to be played.

MS. ROW: Rob and I are looking at each other across the table, debate in our eyes.

DR. BERTINI: Shelley wasn't here for the whole
conversation. I think it is a critical point, and it's something that certainly, whenever I am out talking about the ITS program, I always -- I do make the very public statement about the call for standards harmonization.

But I think that you are right that it does go beyond just the JPO and even just DOT, that it is an issue of very broad importance.

So I think as a -- either as part of the committee's recommendation that we could pull out, or as a separate, you know, because it's -- if you deem it to be so critical that you issue a separate memo, separate advice memo on this, I think that could help us with our stakeholders within the government and beyond, and say well okay, our advisory committee thought it was so serious that they issued a separate advisory. That would be my reaction.

MS. ROW: And the only other thing I would add to Rob's comments is that it is a very high priority not only with JPO and it is a heavily-funded part of our program by the way.

It is also a very top priority for NHTSA, so we are in agreement on that, and I don't think I am stepping out of line by saying that it is going to be one of the
tracked metrics within the OST, the secretarial department level, so we are just in fact writing those metrics today.

So it's a high priority already. That said, actually one thing the committee might think about is maybe you do your recommendation memo, the global one, and then depending on how the committee thinks about it, and where we currently are with some of the things going on in the building, then you could choose, if it didn't get enough visibility, to then send a separate letter specifically to this point.

There becomes an art to how to do that, and we could work with you on how to target it, to whom how to do that so that would help achieve the committee's aims most easily.

MR. VONDALE: Well, we certainly appreciate your assistance on that.

DR. SUSSMAN: Sure. So we can see how that plays out. It's an interesting area. I'm hearing, since I've heard no counter-arguments here, that the PAC is resonating with what Jim has presented. No one is saying oh this is baloney, we should really focus on other questions. People seem to be saying this is important, we've got our finger
on the pulse of an important issue, and this sounds right on. That would certainly be my own view, but I'd explicitly ask whether the PAC feels that Jim and his subcommittee are on the right track.

(No response)

I'm going to take that as a yes, that we're on the right track. Anybody?

MR. DENARO: I think it is the right track Joe. This is Bob.

MR. KISSINGER: Yes, this is Peter, absolutely. Want a motion, I'll make a motion.

DR. SUSSMAN: We don't need a motion quite yet but we seem to have zeroed in on these -- this question, this one where do you really do some good.

So that sounds quite positive to me.

MR. VONDALE: And to the question I raised just a couple of minutes ago, I don't really know enough that I am sitting here recommending that we do a separate letter, but I do think it's something worth considering, certainly at the June meeting.

DR. SUSSMAN: Yes, I have got that noted. I think it's worth discussing. It wouldn't change in
substance but it would certainly be an interesting tactic that could be put to good use.

MR. VONDALE: Well, we certainly appreciate the support of the committee and obviously working with Shelley and Rob, if there's a way that the committee's influence can help you be even more effective that would be really important, so we need to obviously work really closely with you because there's a lot of politics behind this as well as substance.

DR. SUSSMAN: Okay, let me ask if there are any further questions or comments about the harmonization standardization subcommittee report. It feels like people are saluting at this.

**SUMMARY AND ACTION ITEM REVIEW**

So we have now gone through all three subcommittees with various degrees of consensus arising. Let me turn to the subcommittee chairs and Peter, are you back in the room? So Peter Sweatman I meant, he's not here, but Denaro is here, Bob, so we have Bob, we have -- Ann are you still with us?

(No response)

Oops, we lost Ann somewhere along the line, and
we have Jim of course. So my sense, my question I should say, is, do you folks, at least who are in the room, feel you are now at a point where you can take another iteration at the template based on what you have heard today and prepare a document that would provide input to the face to face meeting in Washington in mid-June? Bob, do you feel that, you know, you have heard enough to expand upon what you have said and in particular in your case, come up with some concrete recommendations? Are you comfortable with that notion?

MR. DENARO: Yes, I think I have got most of it, but I am going to leave the door open for other comments as people think about this, because --

DR. SUSSMAN: Oh, of course yes, but I'm just --

MR. DENARO: Want to get the right picture.

DR. SUSSMAN: Have you heard some good stuff that you can build on to take this to the next step. In your case the recommendations were absent, so we -- there's some heavy lifting to be done in developing those. We haven't vetted those but you -- I'm sensing you feel you have at least some of them in your head and when you talk with Sweatman and Adam, you will be able to go even
further.

MR. DENARO: Yes, I actually have a page of notes here so I feel pretty good about it.

DR. SUSSMAN: And Jim you have gotten I think a pretty good vote of confidence here. But perhaps as a result of what you heard you could perhaps refine some of what you have got in the current template?

MR. VONDALE: Yes we will refine and update. It's pretty clear from Rob -- this is a very dynamic situation. As Rob points out there is a lot going on and we will get with Steve Sill and pull the committee back together and make sure that we refine it and make sure that it's up to date and contains the necessary information.

SUBMISSION OF NEXT ITERATION OF SUBCOMMITTEE REPORTS

DR. SUSSMAN: And I have been working on the subcommittee that Ann chairs so not certainly speaking for Ann, certainly I had the sense that people were resonating with what was in there and the next steps of developing performance measures and ways of tracking performance on the dimensions that she had indicated, and the idea of operating at the program rather than project level and the
various implications of that, seem to be something that we could move forward on as well for that subcommittee.

So what I'm thinking, and I'm sort of looking for some reaction from the subcommittees, the meeting in June, you told me once already when that meeting was --

DR. BERTINI: The 17th.

DR. SUSSMAN: The 17th, which is a -- in mid-June, Friday the 17th, Washington, for the PAC. So what I am going to suggest and I will hear howls of anguish if I'm pushing the envelope too hard, is to ask the subcommittees to report back two weeks in advance of that.

So that would be the 3rd, Friday June the 3rd, to get us the next iteration that then would go out to the committee at large, providing the primary input to the June 17th meeting.

Does that sound -- recognizing, as we all know, people have very demanding day jobs, is that within reason?

MR. VONDALE: This is Jim Vondale. That's longer than I usually get. That will be fine.

DR. SUSSMAN: Yes, but I don't pay you and other people who give you deadlines are probably signing a check at some point.
MR. VONDALE: I get plenty of outside stuff so no, that's fine, I can meet that deadline.

DR. SUSSMAN: And Bob, does that sound reasonable?

MR. DENARO: Yes I think we can work to that.

DR. SUSSMAN: Okay. And I am going to hope that Ann will find it reasonable too. We have Peter Kissinger on the line, right, as well as Joe Calabrese are you still with us?

MR. CALABRESE: I am. I think that's very doable Joe.

DR. SUSSMAN: Okay, so --

**JUNE 17, 2011 MEETING DRAFT AGENDA**

MR. KISSINGER: Yes Joe, so do I. I just have one question though. I don't know whether the agenda has started to be fleshed out for the 17th. I was just wondering whether or not, as like perhaps a first order of business on the 17th, is to provide a little time for the subcommittees to meet separately, recognizing that there is a lot of work to be done between now and that meeting. Just a thought.

DR. SUSSMAN: I am not quite tracking you. The
subcommittees will have reported based, I presume, on telecons and that template will represent their -- will represent input from the subcommittees.

So I was actually thinking that we would want to leave time nearer the end of the meetings for the subcommittees to say okay, we have now heard yet another round of commentary about our stuff and are we now ready to finalize this template, so it becomes part of a recommendations memo.

It wasn't clear to me why you would want them to meet at the very beginning. They've reported, unless you've got a different --

MR. KISSINGER: I was just suggesting it as sort of a fallback contingency, that if you know, if they needed a little face to face time to sort of really finalize the presentation, that's all.

DR. SUSSMAN: Well, we can certainly think about -- we can certainly see where people are on the third of June and then make a decision about whether that's going to be needed.

MR. KISSINGER: That's fine.

MS. ROW: And Joe, this is Shelley again. Once
you all decide what you'd like then we can see if you want to have the groups meet separately, either at the beginning or at the end, we would see if there were some extra space, some rooms available in the conference center. We might be lucky and then you could let us know that if your subcommittees meet, if you wish to have the JPO's staff that are helping with those, available for those meetings as well, and we'll work that on this end too, if that's helpful.

DR. SUSSMAN: That all sounds good. Shelley, where physically will the meeting be? Will it be in the DOT building or --

MS. ROW: Yes it is in the DOT conference center. We are in the Oklahoma Room. That doesn't mean anything it to you but it's the largest room that we have. It's the same room you met last time.

DR. SUSSMAN: Yes, that sounds familiar but it's onsite, where you are sort of going back and forth with meeting at the hotel or meeting onsite, so we are going to meet onsite is what you are saying?

MS. ROW: That is correct and that does mean that everyone should allow a few extra minutes for getting
through the security hoops and hurdles in the building.

DR. SUSSMAN: Okay. That all sounds good to me.

SGG Joe if I could also --

DR. SUSSMAN: So --

MR. GLASSCOCK: Joe, this is Stephen. It may be a good time for me to place a reminder for everyone that Monday is the hotel room cutoff and we only have three people who have so far committed to the hotel room, so if everyone could do so before Monday that would be appreciated.

DR. SUSSMAN: If you could send out the email again that would be great because if I -- I am sure I did receive it but it was at time equals infinity for me, so now we are a little closer and we can respond.

MR. GLASSCOCK: Will do. Thank you.

DR. SUSSMAN: Okay, so if everybody is okay with this, I am looking at the clock and you all owe me 50 minutes, which I am sure I will call that tab in at some other opportunity. We are finishing 50 minutes, five-oh minutes early and I think this has been quite productive.

MS. ROW: Excuse me Joe.

DR. SUSSMAN: Yes? You have some final comments,
I'm sorry.

**REMARKS BY PETER APPEL**

MS. ROW: No, I'm sorry, and I didn't mean to interrupt, I just wanted you to be aware, we are trying to -- Peter wanted to say a couple of words at the end. We are trying to see if he is available now and if not, then we won't have anything to say, but I'll let you know if he's -- we are available to get him.

DR. SUSSMAN: Well, how long is that going to take because I think we are really done at this point. Do you want us to -- will you know in a moment or two whether he's coming?

MS. ROW: In a moment. Rob has already dashed off. We are physically right around the corner. Yes, no, yes? It looks -- yes -- hold just one moment.

DR. SUSSMAN: Okay.

(Pause)

MS. ROW: All right, just a second. He was stepping out in the hall and then stepped back and so now we have got to go retrieve him again. I have to say --

DR. SUSSMAN: Do you want us just to hang out waiting for him?
(Laughter)

MS. ROW: Yes Rob knows that. He was just here, so I appreciate the -- oh, here he is. Perfect. Right on cue.

DR. SUSSMAN: Peter, this is Joe Sussman. We are happy to welcome you to the meeting. We have concluded all our business efficiently and about 50 minutes early but we would love to hear any final comments that you may have.

MR. APPEL: Well, I am sure you finished 50 minutes early because I didn't get in your way so here I am to --

DR. SUSSMAN: That is not an invitation to speak for 50 minutes.

(Laughter)

MR. APPEL: No, I just wanted to thank you. I know that you have forged forward on some key areas, just one of them for example is harmonization, it's just such a critical, critical area for us, realizing that we are all in this together as a planet and the more that we can collaborate with our colleagues around the world, the better.

But also, the other subcommittees that reported
out, I think when I first got here and got advice about how advisory committees can have the most impact, advice from the White House, advice from others, you know, a solid subcommittee structure, you know, that enables subcommittees to go off and really do their thing without being bogged down by the broader process, is a key success factor.

So I am really, really glad to see that that is being put into practice here. So basically I just want to say thank you all for the very, very hard work you are doing and keep up the great efforts moving forward.

DR. SUSSMAN: Peter, thank you. Thank you so much and thank you for involving us in this quite interesting and quite vital area for the DOT and indeed for our entire transportation system.

So thank you back to you and your colleagues there at USDOT.

Shelley, once again welcome back to the fold so to speak. We are happy to have you back. And Rob, we are happy -- I am sure you are relieved to have one acting removed from your title, and we appreciated all the diligence that you exhibited during the year that Shelley
was away.

So with that, let me thank everybody for their participation, and we will look forward to the next time that we are together. Thanks so much.

**ADJOURN**

(Whereupon the above-entitled matter adjourned at 3:15 p.m.)