



<http://www.trbsustainability.org/>

**Annual Meeting Minutes**

**Monday, January 11, 2016 8:00 AM-12:00 PM**

**Independence B (M4), Marriott Marquis**

**1. Welcome and introductions (Joe Zietsman)**

Joe opened the meeting with introductions from all.

**2. TRB updates (Monica Starnes)**

Monica said there has been significant change within TRB, with Neil Pedersen taking over from Robert Skinner; there has also been a change in the division that handles many committees, with Ann Brach taking over as Director of Technical Activities. There are some high level initiatives from the Executive Committee with a special focus on hot topics; from a top down perspective, these are 1) transformational technologies (e.g., AV, Uber, etc.), 2) transportation resilience in a very broad sense, and 3) public health and transportation (e.g., access to health care, active transportation). The focus is also on how to better communicate what TRB is doing and how to fill gaps, then give guidance to TRB and NCHRP. This effort is complementary to what the standing committees are doing. One initiative relates to the TRR—trying to speed up the publication process. This is the first year that the papers that were approved without revision and returned the final manuscript by 1 November will be published immediately, no later than January. The theme for next year is “Transportation Innovation: Leading the Way in an Era of Rapid Change”.

TRB is about to exceed the 13,000 mark for attendees; over that number are registered and TRB is tracking how many are showing up. A total of 5,600 papers received this year. Of these 160 will get early publication. One person noted that the TRR was not necessarily at university libraries, e.g., Stanford—a barrier that needs to be addressed. Monica said that TRB is trying to increase the involvement of private industry, which has not been so good because of the amount of the work required by members. There is consideration of creating an industry council to help pull in key private industries. Of all the activities, the first focus is to make the paper review easier. She also pointed out there is a demonstration of how to use MyTRB in the exhibit hall.

**3. Chair rotation (Monica Starnes)**

The other news is the chair rotation: Joe has served two terms and will officially rotate off in April. The incoming chair is Steve Cliff, who will start on April 15. He leads sustainability at Caltrans, has a research background, and is currently a research professor at UC Davis. He helped develop the cap and trade program for greenhouse gases in California, so he also has a background in program development and implementation. He is looking to build on what has been done, with one of the first tasks being to update the strategic plan.

Joe said that he has thoroughly enjoyed his time as chair of this committee. He said that is a difficult goodbye, but the committee is in good shape and it is a good time to step away. He said that this committee is full of people who are both really good and nice people—a rare combination in his experience. He also complimented Damon Fordham, saying that appointment of him as vice chair was one of the best things that he did. He also complimented

Leigh Lane, who nominated the committee three times for a blue ribbon award and helped present the committee in the best light. Joe said that the six subcommittees have accomplished a lot of good work. The sponsored international conference last year was exceptional with a full Keck Center of 100 persons plus 320 sites logged on webcast. He thanked April Marchese for efforts on putting that conference together. He said the focus of the committee is being the go to committee for sustainability.

Damon spoke briefly, welcoming Steve and thanking Joe. Monica presented a certificate of appreciation to Joe for his stellar leadership of the committee (see picture below).

#### 4. Section update and recognitions (Leigh Lane)

Leigh said that she felt bad in not delivering the blue ribbon award that she, Mark Norman, and others thought that the committee deserved. She said that the committee went from struggling prior to Joe to thriving under Joe's leadership and Damon's help. The committee has done things in four years that other committees have not done in 20 years.

She presented certificates to over a dozen committee members for their exceptional work for the committee (see picture below).



#### 5. Invited speakers (20 min each)

- **Sophie Roizard, WBCSD, “The Sustainable Mobility Project 2.0: Business and cities working together”** (presentation is hosted on ADD40 website)

This a nonprofit CEO-led organization working on practical initiatives, rooted in independent research, designed to work out how critical industries can contribute to addressing sustainability challenges.

- 200 companies, including VW, Honda, Daimler, Toyota, Shell, Nissan, DB, BMW Group, Bridgestone, etc.
- Committee of international experts to ensure scientific excellence and integrity
- Challenges: complex network, silos, isolated solutions. To address this, fact-based analysis, collaborative framework, and integrated solutions where the solutions complement each other.
- Vision: fact-based, multimodal, integrated, holistic mobility plan. It includes the usual dimensions of city planning plus involving stakeholders.
  - Inventory of implemented best practices worldwide
  - Inventory of technological solutions, etc.
  - She described the SMP2.0 Process, which at each city involved:
    - Analyze mobility performance and understand city projects
    - Understand and identify priorities
    - Select mobility solutions
    - Cross check solutions through stakeholder engagement and trials, e.g., try out

school shuttle sharing and park and ride, then identify enablers, and develop mobility plan.

- The cities were very grateful for the assistance.
- What is next:
  - Communicate outcomes from six demonstration cities
  - Prepare for the scaling up of the process to a wide range of cities
  - Contact WBCSD: [roizard@wbcasd.org](mailto:roizard@wbcasd.org), [hunziker@sbcasd.org](mailto:hunziker@sbcasd.org)
  
- **Lori Sundstrom (TRB staff): overview of the NCHRP process – how do we get good NCHRP statements submitted and through the process**

The Cooperative Research Program (CRP) has the six programs below, with the last three currently unfunded

  - NCHRP – highway
  - TCRP – transit
  - ACRP – airports
  - MCFRP – freight
  - HMCRP - hazmat
  - NCRRP – railroad
- NCHRP – funded by the state DOTs, so applied research must be relevant to the DOTs, to help them do what they do every day. Funding is about \$30 million per year.
  - 40-50 regular project per year
  - Quick respond studies
  - Schedule: Jul/Oct 15 for problem statement submittal
  - Sep/Dec – evaluation
  - Dec-Mar Program formulation – SCOR meets in March, picks 45 projects from about 130 submittals
  - Apr/Jul Program approval by state CES
  - Apr/Jul panels formed
  - Jul/Oct RFP released
  - Oct/Feb Contractors selected
- Writing an effective Problem Statement – see guidance on TRB website, [Appendix A – How to Write an Effective Research Statement](#)
  - Needs to be interesting to two thirds of the states
  - Easily implementable by a state DOT, i.e., doesn't need another consultant to do that
  - Be solvable by research
  - Cost less than about \$1 million
  - Take ≤ 3 years to complete
- Elements:
  - Title – make sure every word is necessary
  - Background – address “why should stakeholders care about this problem?”
  - Objective – don't use jargon, will an educated generalist understand what you want to accomplish?
  - 2-5 page length for a problem statement
  - Potential benefits – be positive but honest. Use real numbers if you can measure or estimate them.
  - Relationships to the existing body of knowledge – be specific in describing the research statement's relationship to existing body of knowledge
  - Discuss how your project will advance the state of knowledge and yield new or additional practical benefits.

- Estimate funding requirement – consultant and academic committee members may be able to give advice on the level of resources needed to undertake the work.
- Concluding comments and tips – don't be discouraged or embarrassed by constructive reviews; they are the best guidance you will ever get for writing better research statements.
- Don't submit if:
  - Duplicates existing information
  - Tells any federal agency what to do (NCHRP can't advise the federal government)
  - Does work that another agency should do, e.g., revise another agency's models
  - Addresses a problem not solvable by NCHRP research—e.g., congressional funding problems
- NCRP is not a grant. It is an applied research contract program to provide timely solutions to problems facing DOTs.
  - Audience is a panel of experience professionals knowledgeable in the specifics of the particular project
  - Total funding is known—tailor work to funding
  - Include Liability Statement: proposal will be rejected without it
- Deadlines are absolute for the proposals—all copies have to be there
- Essential proposal content: use CRP format
  - Cover
  - Summary Page
  - TOC
  - Research Plan
  - Qualifications of Research Team
  - Accomplishment of the team
- Six proposal evaluation factors listed in the RFP ([link](#))
  - Demonstrated understanding of the problem
  - Merit of proposed approach and methodology
  - Experience, qualifications, and objectivity of team in same or closely related problem area
  - Plan for ensuring application of results
  - DBE plan
  - Adequacy of facilities and equipment (but don't buy it just for project else the program owns it).
- Historical distribution of prime contractors: 55% industry/consultant, 38% university, 7% research institute
- Contact: Lori Sundstrom, Senior Program Officer, [lsundstrom@nas.edu](mailto:lsundstrom@nas.edu), 202 334-3034
- **Tara Ramani to present on Moshe Givoni and Eric Bruun's paper in Nature "Six research routes to steer transport policy"**
  - [Nature 523, 29–31\(02 July 2015\)](#)
  - Strategies must better balance the costs and benefits of travel and be realistic about the limits of new technology.
  - Even with new technologies, many cities are gridlocked; there is a new focus on mobility, but most planners are still trying to solve congestion.
  - More than 90% of 1.2 million traffic deaths each year are in developing countries and half are of vulnerable users.
  - Six questions to guide research:
    - What are long-term impact of new technologies?

- How should impacts of transport systems be evaluated? (Add multiple criteria, revisit value of time, need new evaluation methods.)
- How does the structure of cities affect sustainability, living standards, and functional costs?
- How can mobility beyond cities be improved?
- How could transport be improved in developing countries?
- What kinds of governance work for the transport system?
- Fresh thinking is needed
- [Eric.brun@gmx.com](mailto:Eric.brun@gmx.com); [givonim@post.tau.ac.il](mailto:givonim@post.tau.ac.il)

#### **6. Outcomes from the Sunday workshops (workshop leads or anyone else present)**

- Henrik reported that a lot of research collaboration across the Atlantic; mostly parallel research so far, but there is thought of pooling funds for joint research.
- Tara talked about sustainability as it relates to roadside design and management, e.g., vegetation and maintenance.
- John MacArthur said that one research topic that came out of Sunday's workshop is incorporating sustainability in reconstruction following a disaster; there is not much on how to do this.

#### **7. Research topic outcomes from the International Conference (Ralph Hall and April Marchese)**

- See handout on research ideas ([link](#))
- April said that one purpose objective of the conference was to come out with something objective (committee [link](#), conference [link](#)). Themes included climate change, infrastructure resilience/adaptation, post-2015 agenda, smart mobility / changing mobility patterns, financing sustainable infrastructure, systemic planning, measuring sustainability, and capacity development.
- Ralph said that the committee now has ideas from the conference; the indicators meeting this afternoon and the research meeting tomorrow morning should help refine this list. The current need is for persons to sponsor research ideas. The research ideas document is a living document on the committee website. He said that we need to select several themes to pursue in these meetings, since it is too much to address in the main committee meeting. There are as potentially as many as 30 topics in the material, but in order to be successful, have to narrow it down to a few ideas on the table, perhaps with "voting" by the committee. This process should also consider combining forces with other committees. Please send Ralph ([ralphhall@gmail.com](mailto:ralphhall@gmail.com)) a note of any committee not already listed on the [committee web page](#) with which we are collaborating.

#### **8. Discussion of next year's call for papers (Tien-Tien Chan and John MacArthur)**

Tien-Tien is stepping back as leader of session planning—need someone else to coordinate this activity. Email Steve ([steven.cliff@dot.ca.gov](mailto:steven.cliff@dot.ca.gov)), Joe ([zietsman@tamu.edu](mailto:zietsman@tamu.edu)), or Damon ([Damon.Fordham@cadmusgroup.com](mailto:Damon.Fordham@cadmusgroup.com)) if interested. John said that we need to develop a call for papers—input is needed here as well.

#### **9. Triennial Strategic Plan (Joe Zietsman and Steve Cliff)**

Steve Cliff will be leading the Triennial Strategic Plan and will need support from the rest of the committee.

**10. Subcommittee and liaison updates not previously covered (Subcommittee Chairs/Liaisons)**

Please send Ralph ([ralphphall@gmail.com](mailto:ralphphall@gmail.com)) a note of any committee not already listed on the [committee web page](#) with which we are collaborating.

**11. Announcement of upcoming sessions and workshops sponsored by ADD40 (Tien-Tien Chan)**

Tien-Tien gave a summary of the events sponsored by the committee, with many more that the committee is co-sponsoring.

**12. Open brainstorming and discussion of research needs, collaboration opportunities, and other topics**

- John McArthur: how to build sustainability into rebuilding and recovery?
- Owen Waygood: need reasonable targets for measures to make sure something actually gets done following discussion after sustainability. Henrik said that how to jointly achieve several objectives a once is a key, as opposed to considering one measure a time.
- There is a need for best sustainable practices to help evolve design standards and the like.
- How to make decisions based not just on condition but also sustainability goals—how to put legs on the sustainability in decision making.
- Tying in the supply chain with sustainability—very challenging because the stakeholder groups are so different.
- Job creation—also how to cut down on travelling so far.
- Economic/social issue—overdependence on the auto creates economic stresses for low income.
- Cross dependencies between transportation and energy.
- Understanding the cost-effectiveness of resiliency strategies and the like.
- Need to understand attraction of business in TOD; what happens to manufacturing in focusing on TOD? Negative effect on GHG?
- April: not just targets for GHG but more immediate packages of measures to get substantial reduction.
- Damon: panel being formed to integrate resiliency into design standards.
- Life cycle assessment of material used in construction
- Before / after studies on sustainable measures already implemented?
- ASCE aftermath—mesh the concepts with old tools, manuals; now that the manuals are changing, what is the impact on the practice with the changes and how to measure that?
- Henrik: comment on NCHRP 750, scales: see how Ralph got this on his list.
- How to present these strategies and what is possible in progressive versus conservative environments, e.g., fuel conservation as a label.
- The planning and design process is missing sustainability drivers.
- Tara: how does this relate to indicators from resiliency, broad-based health approach—do these help or hurt sustainability.
- Is there a specification for sustainable design and construction—this committee could interact more with the committees dealing with this topic, e.g., pavement design. Ralph pointed to last year’s topic of recycled and by-product materials in soil structures.
- Last thoughts: education—smart mobility; see themes from conference.
- There are approaches to other sectors that are applicable to transportation; if address pipelines, for instance, will have to address what is already being done there.
- Need help on comprehensive audits for DOTs and other agencies to show them where they are.
- Gui: need overlap between resiliency and sustainability because of likely shortfall of

sustainability efforts. This is not to discount the sustainability efforts—the concrete steps are of utmost importance.

- Ram Pendyala introduced himself as the group chair and complemented the committee on its work, particularly the international conference.

### **13. Closure**