

Atkinson Center for a Sustainable Future -- Topical Lunch Summary

Title: Innovation of the Surface Transportation Sector

Organizers: Rick Geddes, Al George

Date: August 2, 2013

Attendees:

Martha Armstrong, Lauren Chambliss, Ricardo Daziano, Fernando De Aragon, Frank DiSalvo, Kieran Donaghy, Oliver Gao, Ephraim Garcia, Rick Geddes, Al George, Brandon Hencey, Ying Hua, David Jung, David Kay, Hadas Kress-Gazit, Michael Manville, Chris Miller, Paul Mutolo, Chen Ng, Linda Nozick, Jonathan Ochshorn, Tom Paige, Omid Rouhani, Joah Sapphire, Helene Schember, Zellman Warhaft

Brief Summary:

The issue, and why bring it to Cornell

After going around the room for introductions, Tom Paige of The Aerospace Corporation provided a briefing on the vision of transforming transportation systems – which could transform other urban systems. A recent feasibility study of an automated transportation network system for the City of San José provided a springboard for understanding the challenges. Innovative automated transportation systems will require continued development and integration of complex technology solutions. Innovations in finance, land use, regulation, safety and security, and other systems factors are all relevant to this effort. This problem -- major public sector innovation -- requires a comprehensive, interdisciplinary systems approach. Cornell's broad and deep expertise is well suited to tackling this.

Managing the systems approach to transportation innovation

The management structure must be robust for this effort to demonstrate value and potential ROI to both the public and private sectors. The approach must have the quality of a neutral third party that ultimately evaluates the integration of technologies to assure best performance for the public. The management structure must also provide fiduciary oversight and show that there will be return on investment. Controlling risk and clearly defining value are both needed to attract public and private investment.

Participants' comments

- Participants across Cornell may volunteer their efforts in developing this idea for a year or two. The early planning then needs to attract funding.
- Creating a virtual center to support the community working on this may be a better approach than creating a facility.
- Need industrial partners to provide matching funds.
- Investment in new technologies will create jobs.
- An earlier Topical Lunch created a group to look at energy transitions. This idea could inspire a similar group looking at transportation transitions
- A number of people in engineering are working on robotics, sensors, signaling and other technology related to automated transportation.

- Be careful not to decide what the “it” is in advance, and then look for applications.
- One of the three research hubs at the NYC Tech campus is “Built Environment”. An initiative around transportation innovation could provide a set of issues to connect both campuses.
- People are not exogenous to this system. Acceptance and finding how to motivate people to use new technologies are part of this issue.
- Innovative transportation technologies could use dedicated right of ways, or existing roads -- not excluding either possibility at this time.
- Consider creative funding ideas, not just taxes, but investment of retirement funds. Would need to show how their investment would make profits for the funds. NYS Common Retirement Fund is the third largest in the US and has no exposure in infrastructure. DiNapoli is the sole trustee.

Attendees contact information

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