

NIAC Day Breakout Session Outcomes

Session: Urban Science

Facilitators: Thom Dunning

Major Organizing Questions/Challenges

Major Question/Challenge	Who Should be Engaged?
Impact of climate change on cities (infrastructures, ecosystem, ..), rapid growth. De-carbonization.	City of Seattle, King County, City of Bellevue, PUDs, other cities
Impact of natural disasters (tsunami, earthquake, flood, hurricane). Sensors that work under these situations (cell phones, crowdsourcing). Use of vast amounts of data generated by models. Extreme events.	Major employers (e.g. Microsoft Connect)
Use of data collected by sensors, how should it be controlled? Optimized? Lots of databases that are already publicly available. Other uses for this data? (e.g. personal carbon footprint gizmo)	Multi-disciplinary problem, need to involve social scientists, policy people, marketing people (to change human behavior) in addition to NIAC
Interactions between infrastructures under normal and emergency situations. Last mile problem.	
Real time vs. simulation. Operation vs. planning. Normal vs. abnormal situations.	

Major Organizing Questions/Challenges

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|----------------------------|------------------------|
| Optimization of energy use | |
| Health, pandemics | |
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High-level Project Goals

- How could NIAC become a world-player in 3-5 years?

Area	Goal
	<p>Long term urban planning problem is so complex that one may have to use “adaptive management cycle”. Cities have not been good at this. More rapid feedback from citizens. City Governance.</p>
	<p>Low hanging fruit: fear of tsunami, earthquake. Make cities more resilient.</p>
	<p>Pure research vs. Puget Sound as a laboratory. Not an opposition.</p>
	<p>Other opportunity: transportation, reducing commuting time. Normal vs. abnormal situations.</p>
	<p>Impact of climate change.</p>

Implementation Strategy

- Outline your implementation strategy (what is needed, from whom, and how you will get it)

What	Who	How
Workshop on urban science	Bring more people from other disciplines and other stakeholders (government, businesses, CUSP,..)	

Prioritization

- Given finite bandwidth, prioritize or categorize your projects (high, medium, or low)

Project	Priority