

Exploring links between sustainable transportation and livable communities

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(Phys.org)—Two research teams funded by the University of Michigan's Graham Environmental Sustainability Institute will spend the next 15 months investigating how different transportation policies, technologies and consumer travel choices can impact the sustainability and livability of communities.

The first project, "Consumer uptake of seamless, multi-model mobility (the new mobility grid): [Policy decisions](#) and information & communication technology affecting behavior of users and decision makers" is led by Richard Gonzalez and David Chock of the U-M Institute for Social Research.

With initial research being conducted in Portland, Ore., Santa Monica, Calif., and Los Angeles, this team is exploring how travel behavior choices among transportation users can impact greenhouse gas emissions, particularly under different policy strategies.

"We really are leaving no stone unturned in terms of examining how different end-user behaviors, travel options, transportation policy changes and technology innovations can advance the sustainability and livability of communities," Gonzalez said.

The second project, "An integrated assessment of the potential for innovative, disruptive applications of technology in personal vehicles to advance livability and sustainability," is led by Steve Underwood of the Connected Vehicle Proving Center and University of Michigan-

Dearborn.

This research team is examining how a new generation of technology-rich electric vehicles, in combination with transportation policy changes, can significantly affect the "three Es" of sustainability: environment, economics and equity.

"There are several conspicuous problems associated with today's reliance on automobiles, including air pollution, oil dependence, motor-vehicle fatalities and injuries, roadway congestion and more," Underwood said. "We envision a personal urban mobility system that is free from these problems."

The Graham Institute provided each research team with \$150,000 last month. The projects are to be completed by the end of 2013.

Both teams are employing a multi-stakeholder, solutions-focused research methodology called integrated assessment that, according to John Callewaert, director of integrated assessment at the Graham Institute, is uniquely suited for exploring this subject.

"These research teams are working with a very robust cohort of government officials, industry experts, city planners, non-profit organizations and other stakeholders to investigate the issue from virtually all perspectives," Callewaert said.

Officials in Los Angeles involved in the integrated assessment say they look forward to using the recommendations researchers are developing.

"This integrated assessment focuses on the role that information technology and policy can play in providing more seamless and integrated multi-model transportation with the goal of achieving more livable communities," said Jay Kim, principal transportation engineer for

the city of Los Angeles. "This collaboration will provide us with the needed policy and implementation tools for addressing livability challenges in the city of Los Angeles."

These two integrated assessments were selected from five planning-grant projects that each received \$20,000 from the Graham Institute last year.

More information: To learn more about the Livable Communities through Sustainable Transportation initiative, or about the integrated assessment research process, visit the "Problem Solving" section of the Graham Institute website at www.graham.umich.edu or call John Callewaert at (734) 615-3752.

Provided by University of Michigan

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