



Sustainable Transportation: Research, technical analysis, and policy support to navigate a changing world

Cadmus was founded three decades ago with a distinct vision: convene the best minds from a variety of disciplines to help address the most pressing environmental, energy, and public health challenges.

Today, Cadmus employs more than 400 professionals across the United States, including scientists, engineers, planners, architects, statisticians, economists, health experts, public policy analysts, communications professionals, and information technology specialists. Many of our senior personnel are nationally recognized experts in their fields.

Cadmus serves federal, state, and regional agencies, airports, universities, utilities, and private sector companies. Our federal agency clients include the U.S. Department of Transportation, Environmental Protection Agency, Department of Energy, Department of Health and Human Services, General Services Administration, U.S. Agency for International Development, and more. The best-in-class work we perform for our clients has repeatedly been recognized by national industry publications and trade associations.

Sustainable Transportation

Cadmus' sustainable transportation offerings expand on our expertise and leadership in the areas of energy, natural environment, climate change, health, and the built environment to deliver solutions across all transportation modes. Through this practice and on behalf of our clients, we promote sustainable economic growth and competitiveness, protect natural resources, and foster livable communities.

Cadmus supports its clients in streamlining and increasing the efficiency of transportation practices and programs through methods that reduce harmful emissions, save energy, and minimize waste. Our sustainable transportation solutions help reduce fuel dependence and greenhouse gas (GHG) emissions, protect critical assets, increase safety, and support healthy communities and habitats, while also managing costs across the life cycle.

Cadmus' Sustainable Transportation Practice provides:

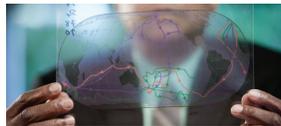
- Full-spectrum assessment of transportation policy, programs, and practice that addresses environmental, economic, and social impacts

- Technical analysis of low-carbon vehicles and fuels
- Sustainable management plan development and sustainability program implementation
- Energy efficiency, energy conservation, and renewable energy services
- High performance building services and Leadership in Energy and Environmental Design® (LEED) support
- Climate-related risk and vulnerability assessment, reliance building, and adaptation planning
- Carbon footprint assessment and life cycle analysis
- Watershed management, data analysis, modeling, and water quality monitoring
- Transportation emissions modeling and evaluation

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Representative Projects

Federal Highway Administration (FHWA): Feasibility and Implications of Electric Vehicle (EV) Deployment and Infrastructure Development

In order to better prepare for the future financial implications of EVs—as well as associated safety planning and infrastructure development needs—FHWA and its state and local partners need to understand the potential short- and long-term impacts EVs will have on the agency's mission. Cadmus is leading a research project to evaluate the prospects and expectations for EV deployment in the United States, and the resulting impacts on FHWA and on state and local transportation agencies.

Plattsburgh Airport in Plattsburgh, New York: Solar Wall Monitoring & Verification (M&V)

With funding from the New York State Energy Research and Development Authority (NYSERDA), Cadmus collected and analyzed system performance data for two solar walls installed on Plattsburgh Airport's hangar buildings to verify predicted energy savings. By implementing Cadmus' recommended changes to the solar wall control system, the site owners realized substantial additional energy and cost savings. Cadmus' analysis also identified key design changes that have increased the efficiency of solar walls installed nationwide. Cadmus has analyzed solar walls in multiple states and for a variety of applications, from logistics and storage facilities to aircraft-repair hangars.

FHWA: Context Sensitive Solutions (CSS) National Dialog 2

Cadmus is leading the team that supports FHWA's renewed CSS National Dialog 2 through a series of regional workshops around the United States, each with a set of case study presentations and discussion panels drawn

from the host regions. This project helps FHWA highlight how CSS—a collaborative, interdisciplinary approach involving all stakeholders in providing a transportation facility that fits its social and environmental setting—can be used to improve all phases of the transportation decision-making process, from planning to design, construction, maintenance, evaluation, and into the next planning cycle.

Transportation Research Board (TRB), Airport Cooperative Research Program (ACRP): Estimating Takeoff Thrust Settings for Airport Emissions Inventories

Cadmus is leading the development of a guidebook and tool to assist airports and their stakeholders in reflecting aircraft takeoff thrust settings in airport emissions inventories. The takeoff phase of flight contributes a large portion of certain emissions from aircraft, and the emission rate depends largely on the thrust applied. Operators frequently use reduced takeoff thrust settings in order to prolong engine life, yet the current practice for modeling airport emissions assumes full takeoff thrust. The accuracy of emissions inventories stands to benefit from incorporating takeoff thrust settings that better reflect actual operator practice.

Other Airport Projects

Cadmus personnel have supported energy and environmental initiatives at airports across the United States, including:

- Boston Logan International Airport (BOS)
- Los Angeles International Airport (LAX)
- San Diego International Airport (SAN)
- Hartsfield-Jackson Atlanta International Airport (ATL)
- Indianapolis International Airport (IND)

About Cadmus

Cadmus is an employee-owned consultancy committed to helping our clients address complex challenges by applying diverse skills and experiences in a highly collaborative environment. By assisting our clients in achieving their goals, we create social and economic value today and for future generations. Founded in 1983, we leverage exceptional expertise across a staff of more than 400 professionals in the physical and life sciences, engineering, social sciences, strategic communication, architecture and design, law, policy analysis, and the liberal arts who provide an array of research and analytical services in the United States and abroad. See more at www.cadmusgroup.com.