

Nontraditional and Emerging Transportation Technology (NETT) Council

Guidelines for Technology Identification, Prioritization, and Management

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U.S. Department of Transportation

Purpose

This document outlines the process by which the United States Department of Transportation (USDOT or Department) Nontraditional and Emerging Transportation Technology (NETT) Council, and the Department's Operating Administrations and Secretarial Offices represented on it, identify, prioritize, and manage nontraditional and emerging transportation technologies. It informs stakeholders on how to engage with USDOT through the NETT Council and sets expectations for the follow-up and action that may result.

This document complements prior documents published by the NETT Council and fulfills the requirements outlined in 49 U.S.C. § 313(d).

Background

USDOT and Innovation

The Department's approach to innovative technologies is grounded in its mission. The USDOT Strategic Plan¹ establishes strategic goals and objectives for Fiscal Year (FY) 2022 through 2026. One of USDOT's strategic goals is transformation, and the objectives to achieve this goal are listed below:

- Identify new ideas, new innovations, and new possibilities. Evaluate the opportunities and risks so the Department can make informed decisions that support public benefits.
- Work with diverse stakeholders to identify and share noteworthy practices and accelerate the adoption of innovations and technologies.
- Design flexibility into transportation system investments to accommodate and respond to changing needs and capabilities to provide long-term benefits.
- Foster breakthrough discoveries and new knowledge through high-risk, high-reward research driven by policy objectives.

USDOT's Innovation Principles² are also closely aligned with the work of the NETT Council:

- **Serve our policy priorities** – Biden-Harris Administration's goals around creating high quality jobs, achieving racial equity and increasing opportunity for all Americans, and tackling the climate crisis should drive innovation in the Department. Innovations should reduce deaths and serious injuries on our Nation's transportation network, while committing to the highest standards of safety across technologies.
- **Help America win the 21st century** – The Department must play a meaningful role in future proofing infrastructure, enabling adaptability and resilience, and helping communities and public sector partners to bring legacy systems into the digital age.
- **Support workers** – The Department will empower workers and expand access to skills, training, and the choice of a union. They will have a seat at the table in shaping innovation.
- **Allow for experimentation and learn from failure** – The Department is committed to supporting public sector experimentation, sharing insights, embracing open data and transparency, while protecting privacy. That means elevating lessons learned from both successful deployments and those that fall short.

¹ <https://www.transportation.gov/dot-strategic-plan>

² <https://www.transportation.gov/priorities/transformation/us-dot-innovation-principles>

- **Provide opportunities to collaborate** – The Department will embrace public private partnerships that share risk, foster purpose-driven innovation and protect the interests of the public, workers, and communities. The Department must encourage an outcomes-based approach that is technology neutral.
- **Be flexible and adapt as technology changes** – The Department should identify opportunities for interoperability among innovations and foster cross-modal integration. In addition, USDOT's posture must remain nimble, with a commitment to support technologies that further our policy goals.

NETT Council Background

The NETT Council was established in December 2018 by DOT Order 1120.34 as an internal USDOT vetting body for new and emerging transportation technologies not yet established enough to fit into modal categories or that require new policy approaches. The NETT Council was later required to be established by the Department as described in Section 25008 of the Infrastructure Investment and Jobs Act (Pub. L. 117-58) and codified at 49 U.S.C. § 313.

NETT Council Roles and Responsibilities

The NETT Council is tasked with identifying and resolving jurisdictional, regulatory, and program gaps or inconsistencies associated with nontraditional and emerging transportation technologies, modes, or projects pending or brought before USDOT. The intent of the NETT Council is to reduce, to the maximum extent practicable, impediments to the prompt and safe deployment of new and innovative transportation technology, including with respect to safety oversight, environmental review, and funding and financing issues. The NETT Council is responsible for coordinating the response of the Department of Transportation to nontraditional and emerging transportation technology projects and engaging with stakeholders on these projects. The Council will also consider the intersectionality between Transformation and the other Departmental strategic goals (Safety, Equity, Climate and Sustainability, Economic Strength and Global Competitiveness, and Organizational Excellence).

Pursuant to 49 U.S.C. § 313, the Council consists of:

- the Secretary, who shall serve as an *ex officio* member of the Council;
- the Deputy Secretary of Transportation (chair);
- the Under Secretary of Transportation for Policy;
- the Assistant Secretary for Research and Technology of the Department of Transportation;
- the Assistant Secretary for Budget and Programs of the Department of Transportation;
- the General Counsel of the Department of Transportation;
- the Chief Information Officer of the Department of Transportation;
- the Administrator of the Federal Aviation Administration;
- the Administrator of the Federal Highway Administration;
- the Administrator of the Federal Motor Carrier Safety Administration;
- the Administrator of the Federal Railroad Administration;
- the Administrator of the Federal Transit Administration;
- the Administrator of the Maritime Administration;
- the Administrator of the National Highway Traffic Safety Administration;
- the Administrator of the Pipeline and Hazardous Materials Safety Administration; and

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- any other official of the Department of Transportation, as determined by the Secretary.

Per DOT Order 1120. 34A, the Secretary has also appointed to the NETT Council:

- the Assistant Secretary for Transportation Policy;
- the Director of Public Affairs
- the Policy Advisor for Labor

Relevant external stakeholders may approach the NETT Council with an idea, but varying levels of NETT Council engagement will be justified depending on the respective technology readiness level of the proposal. In cases where a technology is already addressed by existing modal authorities or funding mechanisms, Council staff will direct inquiries to the correct point of contact or resource. Technologies that are (1) at a sufficient level of maturity for government engagement, (2) align with Departmental priorities, and (3) do not fall under an existing regulatory framework will be considered as a topic for NETT Council engagement in accordance with the process described in the following section.

Process

This section outlines the process by which the NETT Council and USDOT Operating Administrations and Secretarial Offices represented on it identify, prioritize, and manage nontraditional and emerging transportation technologies.

Engage Stakeholders

Identifying nontraditional and emerging transportation technologies begins with engaging stakeholders. USDOT employs a range of engagement mechanisms to solicit input from the general public and other stakeholders on NETT Council topics and processes. These include formal and informal activities at conferences and events, briefings, and requests for comment, among others.

For example, in Spring 2022, USDOT published *Request for Comment: Non-Traditional and Emerging Transportation Technology (NETT) Council*³ that sought public input on a range of topics pertaining to the NETT Council, including priority technologies and innovations for the group to review. Outside of formal comment periods, USDOT also welcomes inquiries, information, and recommendations by email at NETTCouncil@dot.gov. This inbox is monitored by USDOT staff and enables stakeholders to engage and ask questions on an ongoing basis. Requests and recommendations submitted to the inbox are reviewed and referred for follow-up based on screening criteria outlined below.

Compile List of Proposed Topics

NETT Council topics are solicited and reviewed on a rolling basis. Topics are compiled from the stakeholder engagement activities described above, as well as via recommendations from Departmental staff.

³ <https://www.federalregister.gov/documents/2020/07/28/2020-16317/request-for-comment-non-traditional-and-emerging-transportation-technology-council-non-traditional>

Conduct Initial Screening

On a periodic basis, USDOT staff conducts an internal review of current and proposed NETT Council topics. Potential topics are evaluated using the following factors:

- Alignment with the USDOT Innovation Principles and USDOT Strategic Plan
- Current technology readiness level
- Anticipated date of readiness for commercial use in the United States
- Potential type(s) of action needed:
 - Evidence of regulatory and/or programmatic needs, gaps, or uncertainties
 - Need for cross-modal coordination
 - Gap in existing relevant USDOT Operating Administration activities
 - Information and/or clarification(s) needed

Consult NETT Council Technical Working Group

Before bringing potential topics, projects, technologies, or initiatives before the full NETT Council, a Technical Working Group (TWG) conducts a preliminary assessment of topics identified through the initial screening process. The TWG comprises senior-level USDOT Operating Administration and Secretarial Office representatives with relevant technical and programmatic knowledge, identified by Council members to provide preliminary input on proposed issues and activities. This group also contributes insight on modal needs and priorities, gaps or potential areas of overlap or duplication, and concerns raised by their stakeholders. The TWG meets prior to every NETT Council meeting, with additional meetings scheduled as needed.

Incorporate NETT Council Input

Pursuant to statutory requirements under 49 U.S.C. 313(f), the NETT Council will meet not less frequently than four times per year to discuss topics advanced by the TWG. The NETT Council will consider current and proposed issues and will make recommendations for each in accordance with its stated mission.

Recommend Actions

Potential actions may include:

- **Clarification of modal jurisdiction** – Evaluate topics and their relevance to existing technologies. If possible, assign responsibility to the most appropriate USDOT Operating Administration.
- **Commission of research or analysis on existing activities and authorities** – If the Council finds that there is not adequate research and development occurring on a topic, the Council may task working groups or other entities to perform additional analyses.
- **Referral of topics to other bodies** – The Council may determine that a particular topic could be better addressed by a different organization, such as the Transforming Transportation Advisory Committee (TTAC), other Federal Advisory Committees, or other Federal agencies, among others.

- **Hosting industry and stakeholder briefings** – When it is determined that there is inadequate public information or knowledge on a particular topic, the Council may host briefings for stakeholders.
- **Designation of a standing NETT Council agenda item for discussion** – If there are topics tangentially applicable to the Council, it may set aside time during meetings to discuss updates, innovations, or research needs in this topic area. The Council may also bring in subject matter experts to educate the group.
- **Formation of a topic-specific working group** – The Council may establish working groups to encourage cross-modal coordination, to perform foundational research activities, and to provide recommendations for policy or regulatory action.

Review/Evaluation/Feedback/Referral

After the NETT Council has decided to undertake a specific topic, the Council will conduct a review of the existing work in this topic area both inside and outside of the Department. The existing projects will be reviewed by the Council to identify any gaps or areas of necessary research. At this stage, the Council will determine whether there is an appropriate existing home for the work and collaborate with the identified group to communicate their needs, or to carve out a space for the new work.

Summary

The NETT Council addresses gaps in the research, jurisdictional, and regulatory landscape of USDOT created by new and emerging transportation technologies. The NETT Council seeks public input on topic priorities, after which the Council reviews and groups topics into overarching research areas. The Council meets to review and prioritize the proposed topic areas based on existing research, technology readiness, and public opinion. The selected topic area(s) are reviewed for existing research activities; research, development, or education needs; and alignment with the existing USDOT Operating Administrations, after which the NETT Council recommends actions.