

Transparency and Stakeholder Participation in Addressing Emerging Technologies



U.S. Department of Transportation

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Transparency, Coordination, and Engagement Are Needed at All Stages of the Regulatory Process

Pre-Rulemaking



Proposed Rulemaking



Final Rule and Review

- They are needed to develop regulations that achieve the twin goals of:
 - effectively addressing the safety, health, or environmental protectiveness of complex emerging technologies; and
 - doing so in a technologically neutral manner that does not unnecessarily impede the upward evolutionary arc of those technologies.

Pre- Rulemaking

Research

- Develops/validates technology neutral requirements and test procedures that will serve as the basis for regulation.
- International collaboration helps to avoid or mitigate differences in regulatory approaches.

Interagency Coordination

- Necessary to ensure due consideration and accommodation of policies other than safety, health, and environmental protection.

Standards Bodies

- Open, consensus-based process, with meaningful and fair opportunities for all stakeholders to contribute.

Public Outreach

- Methods to obtain information and views include notices seeking written comment, public meetings, technical workshops, information exchange forums, and advisory committees.

Proposed Rulemaking

■ Notice of Proposed Rulemaking (NPRM)

- Should include 1) full regulatory text; 2) summary of regulatory impact assessment; 3) explanation of the rule; 4) objectives; and 5) supporting data and analysis.
- Single, free, publicly accessible website for:
 - Docketing published notices and supporting materials; and
 - Submitting and viewing comments.

■ Importance of Unrestricted Participation

- Any interested person, regardless of domicile, may comment.
- No regulator has perfect knowledge about potential impacts – need input from regulated parties and intended beneficiaries.

■ International Notification

- Regulatory authority should do this early enough to enable it, before taking final action, to take into account the comments received.

Final Rule and Review

Public Comments

- In the final rule, the regulator must consider and respond, in writing, to all significant substantive comments on the NPRM, giving relevant and rational reasons for its decisions about the substance of the final rule, including its reasons for not accepting comments opposing or seeking changes in the rule.

Administrative Review

- The Office of Management and Budget reviews for consistency with current executive branch priorities and policies.

Judicial Review

- An adversely affected party may seek review in the Federal courts to challenge:
 - the rationality of the issuing agency's decisionmaking reasoning as set forth in the final rule preamble; or
 - the consistency of the rule with the issuing agency's authority.

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Automated Driving Systems

■ **Research** – Research on automated driving systems.

■ **Voluntary Guidance** – Periodic revisions of industry guidance in response to comments.

■ **International Coordination** – UNECE framework policy document on automated/autonomous vehicles.

■ **Regulation** – Notices seeking comment on:

- the need to identify and amend existing regulations obstructing new technologies and vehicle designs (2018);
- a collaborative national research program (2018);
- a framework to objectively define, assess, and manage the safety of automated driving system performance (2020);
- the development of more outcome-oriented approaches to regulating vehicle safety and drafting regulations (2020); and
- the DOT Automated Vehicles Comprehensive Plan, which summarizes DOT's approach to research, policy, guidance, and regulatory initiatives for AVs (2021).

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Other Vehicle Technologies

Vehicle to Vehicle (V2V) Communication

- NPRM proposed mandating V2V based on dedicated short-range communication (DSRC) technology (2017).
- In response to comments urging that use of 5G be allowed, DOT/NHTSA issued a notice asking whether it should take a more technologically neutral approach and, if so, how to ensure interoperability (2018).

New Car Assessment Program

- Request for comments on a major upgrading of NCAP (2015).
- New request for comments in response to 2015 comments saying that the comment period was too short and the technical support for the upgrades was insufficient (2017).
- Manufacturers stated that the upgrades would result in a significant cost burden, and, along with safety advocates, argued that only those upgrades with sufficient safety benefits should be adopted.
- Commenters also suggested that most of the upgrades should only be adopted through a process with the rigor of a notice and comment rulemaking.

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Unmanned Aircraft Systems

Remote Identification of Unmanned Aircraft

- Recommendations from an aviation rulemaking committee comprised of representatives of law enforcement (local, state, and federal), industry, and operators. Representatives of foreign regulators were present as non-voting observers (2017).
- Publication of ANPRM (2017).
- Publication of NPRM (2019).
- Publication of final rule (2021).
 - In response to comments noting technical challenges that it had not foreseen or accounted for, DOT/FAA eliminated its proposed requirement for the transmission of the remote identification message through a network connection, allowing remote identification solely by broadcast of the message.
 - DOT/FAA authorized a remote identification broadcast module option that enables retrofitting of unmanned aircraft that do not meet the requirements for standard remote identification of unmanned aircraft.
 - DOT/FAA extended the ability to apply to operate in FAA identification areas without any remote identification.

References

New Car Assessment Program (RFC 2015 and 2018 RFC)

- <https://www.federalregister.gov/documents/2015/12/16/2015-31323/new-car-assessment-program>
- <https://www.federalregister.gov/documents/2018/08/03/2018-16653/new-car-assessment-program>

Federal Motor Vehicle Safety Standards; V2V Communications (NPRM 2017)

- <https://www.federalregister.gov/documents/2017/01/12/2016-31059/federal-motor-vehicle-safety-standards-v2v-communications>

UAS Identification and Tracking Aviation Rulemaking Committee (Final Report 2017)

- https://www.faa.gov/regulations_policies/rulemaking/committees/documents/media/UA%20ID%20ARC%20Final%20Report%20with%20Appendices.pdf

V2X Communications (RFC 2018)

- <https://www.federalregister.gov/documents/2018/12/26/2018-27785/notice-of-request-for-comments-v2x-communications>

Pilot Program for Collaborative Research on Motor Vehicles With High or Full Driving Automation (ANPRM 2018)

- <https://www.federalregister.gov/documents/2018/10/10/2018-21919/pilot-program-for-collaborative-research-on-motor-vehicles-with-high-or-full-driving-automation>

UNECE Revised Framework on Automated/Autonomous Vehicles (2019)

- <https://unece.org/fileadmin/DAM/trans/doc/2019/wp29/ECE-TRANS-WP29-2019-34-rev.1e.pdf>

References

Removing Regulatory Barriers for Vehicles With Automated Driving Systems (RFC 2018 and ANPRM 2019)

- <https://www.federalregister.gov/documents/2018/01/18/2018-00671/removing-regulatory-barriers-for-vehicles-with-automated-driving-systems>
- <https://www.federalregister.gov/documents/2019/05/28/2019-11032/removing-regulatory-barriers-for-vehicles-with-automated-driving-systems>

Framework for Automated Driving System Safety (ANPRM 2020)

- <https://www.federalregister.gov/documents/2020/12/03/2020-25930/framework-for-automated-driving-system-safety>

Federal Motor Vehicle Safety Standards: Test Procedures (ANPRM 2020)

- <https://www.federalregister.gov/documents/2020/12/10/2020-27001/federal-motor-vehicle-safety-standards-test-procedures>

Automated Vehicles Comprehensive Plan (RFC 2021)

- <https://www.federalregister.gov/documents/2021/01/21/2021-01115/automated-vehicles-comprehensive-plan-request-for-comments>

Remote Identification of Unmanned Aircraft Systems (NPRM 2019 and Final Rule 2021)

- <https://www.federalregister.gov/documents/2019/12/31/2019-28100/remote-identification-of-unmanned-aircraft-systems>
- <https://www.federalregister.gov/documents/2021/01/15/2020-28948/remote-identification-of-unmanned-aircraft>

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THANK YOU

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