

GAO Highlights

Highlights of [GAO-24-106122](#), a report to congressional requesters

Why GAO Did This Study

Emerging technologies have the potential to unlock immense societal benefits. Developing effective regulations to tackle complex emerging problems takes time. As a result, these technologies present a pacing problem for regulators. Ensuring regulations keep pace with the rapid development of emerging technologies is critical to protecting public interests and facilitating innovation.

GAO was asked to review how federal agencies regulate emerging technologies. This report examines, for selected agencies, (1) challenges and opportunities they report facing in regulating emerging technologies; (2) their collaboration and cooperation activities; and (3) lessons they can learn from other governments' experiences.

GAO reviewed documentation and interviewed officials from DOT, FCC, FDA, and other knowledgeable agencies and compared agencies' coordination efforts to selected leading practices. GAO also interviewed government officials in the European Union, the United Kingdom, and Japan, as well as 10 stakeholders spanning industry groups, academia, and other experts about practices in regulating emerging technologies.

What GAO Recommends

GAO is making three recommendations, that FDA document potential legislative changes, DOT provide the public with information on collaborative efforts, and FAA publicize an industry-facing initiative. The agencies concurred with the recommendations.

View [GAO-24-106122](#). For more information, contact Yvonne D. Jones at (202) 512-6806 or JonesY@gao.gov.

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FEDERAL REGULATION

Selected Emerging Technologies Highlight the Need for Legislative Analysis and Enhanced Coordination

What GAO Found

Selected federal agencies—the Department of Transportation (DOT), the Federal Communications Commission (FCC), and the Food and Drug Administration (FDA)—reported using a variety of practices and approaches to prepare for and address regulatory challenges and opportunities posed by emerging technologies. However, FDA officials said updated authorities would help it regulate medical devices enabled with artificial intelligence (AI), in particular. Members of Congress are currently considering enhancing oversight of AI, including in medical devices, and congressional members have discussed barriers with FDA. However, FDA has not clearly identified, documented, and communicated to Congress the specific legislative changes that would help it address these challenges. Without this information, Congress may not be able to appropriately update FDA's authorities, and FDA may miss opportunities to fully realize the public health benefits of this technology.

Examples of Emerging Technologies: 3D Printing of Biological Materials, Next Generation Wireless, and Drones



Source: GAO, Atiwat/Ieremy/stock.adobe.com; GAO (illustration). | GAO-24-106122

Selected federal agencies have reported coordinating with other domestic and foreign agencies to support their efforts to regulate some emerging technologies. Agencies' interagency collaboration activities include efforts to share information and pursue goals for these technologies. However, DOT has not communicated progress made on a department-wide council to resolve jurisdictional and regulatory gaps associated with emerging transportation technologies. By assessing and publicly communicating the council's plans and progress, DOT could provide important information to stakeholders and help ensure the council is accountable for achieving its goals.

Knowledge-building and outreach efforts used by some selected foreign regulators were more extensive than those used by selected domestic regulators, particularly with industry and academia. For example, foreign regulators have clear channels for communicating with industry, the public, and regulated entities. The Federal Aviation Administration (FAA) recently established a group to engage with industry on drone regulation. But FAA could improve its outreach and communication with industry by publicizing this initiative, called the Emerging Technologies Coordination section. FAA currently does not include information online about how to contact this group. Industry can only participate in it by FAA's invitation, which may prevent some entities from getting the full benefit from its assistance.