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Vice President,
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March 27, 2024

The Honorable Alan Davidson
Assistant Secretary of Commerce for Communications and Information
National Telecommunications and Information Administration
U.S. Department of Commerce
1401 Constitution Avenue NW
Washington, DC 20230

Re: Docket No. NTIA-2023-0009: Dual Use Foundation Artificial Intelligence Models With Widely Available Model Weights

Dear Assistant Secretary Davidson,

The National Association of Manufacturers ("NAM") appreciates this opportunity to provide comment to the National Telecommunications and Information Administration ("NTIA") in response to its request for comments ("RFC") on appropriate policy and regulatory approaches to dual-use foundation models for which model weights are widely available ("open foundation models").[1]

The NAM is the voice of the manufacturing industry and the leading advocate for a policy agenda that helps manufacturers compete in the global economy. The NAM is the largest U.S. manufacturing association, representing small and large manufacturers in every industrial sector and in all 50 states. Manufacturing employs nearly 13 million people, contributes $2.85 trillion to the U.S. economy annually and accounts for 53% of private-sector research and development.

Manufacturers have been developing and deploying intelligent systems and artificial intelligence ("AI") technology for many years. These innovative approaches to modern manufacturing improve safety on the shop floor and for the customer and enhance the efficiency of manufacturing processes and operations. They also allow manufacturers to better manage supply chains, perform predictive maintenance, design new products and more. AI has become essential to modern, smart manufacturing—known as "Manufacturing 4.0." AI contributes to the growth of the manufacturing economy and bolsters U.S. global manufacturing leadership. That is why the NAM believes that policy approaches to AI should further its development and support its responsible use by manufacturers across a wide range of applications.

The NAM has called for policy approaches that promote manufacturers' continued access to the widest possible choice of AI technologies. With respect to NTIA's RFC on the potential risks, benefits and implications of open foundation models, access to these models and to the AI systems developed from such models enables manufacturers' use of a wide range of AI innovations, offering significant public policy benefits to the manufacturing sector and to industry at large. As such, the NAM respectfully encourages NTIA to enhance, rather than restrict, access to open foundation models.

[1] Federal Register Vol. 89, No. 38, Monday, February 26, 2024, pp. 14059-14063.

I. Open foundation models contribute to innovation, choice and transparency.

Access to open foundation models fosters increased development and use of AI technologies because the ability to change these models' weights enables companies to develop new AI capabilities. The cost of developing and training an AI model is considerable, if not prohibitive. This leads to "the concentration of access to foundation models into a small subset of organizations," which the RFC notes, rightly, "poses the risk of hindering [AI] innovation."[2] Making a model's weights widely available allows any interested party to develop new AI capabilities without having to incur these costs. This lowers barriers to entry in AI development by providing new opportunities for AI innovation. This means greater competition among, and choice between, developers of AI systems.

Critically, enhanced access to open foundation models will benefit not just tech entrepreneurs, but also companies throughout the manufacturing sector whose business is not AI development and commercialization but that want to use AI technology. Access to the weights of a foundation model affords these manufacturers the opportunity to adapt these technologies to their specific needs. Open foundation models are thus a flexible, market-based way to match technology supply and demand.

Enhanced transparency can provide additional public policy benefits. For example, the Foundation Model Transparency Index shows that "open developers are consistently more transparent than closed developers."[3] Manufacturers agree with NTIA that "open foundation models can allow for more transparency and enable broader access to allow greater oversight by technical experts, researchers, academics, and those from the security community."[4] The availability of model weights allows independent examination of a model to ensure it is fit for purpose and to identify and mitigate its vulnerabilities.

Given the importance of manufacturers' access to open foundation models, the NAM respectfully encourages NTIA to exercise caution in pursuing policy and regulatory approaches that could restrict it.

II. Restrictive policies should undergo strict scrutiny to avoid hampering innovation.

Research into AI and the development of AI technologies are proceeding rapidly. This has fueled speculation about both AI's promise for humanity and the risks it poses. AI policymaking should not be based on speculation, but rather on actual evidence. With respect to manufacturers' access to open foundation models, evidence-based regulatory decisions will ensure that any restrictions adopted do not unnecessarily impede innovation. Specifically, the NAM urges NTIA to demonstrate that the risks that any restrictions seek to mitigate are sufficiently likely to materialize, rather than theoretical or unproven.

Foundation models take their name from their ability to be trained to perform a wide variety of tasks and to support a wide variety of use cases. As a result, policies restricting access to open foundation models are likely to affect not just use cases that raise concerns, but also non-problematic uses that are beneficial to society and the economy. In particular, most of the concerns discussed in the RFC are raised by generative AI, but foundation models can be used to develop other types of AI systems—what is generally called analytical AI—that are in wide use in the manufacturing industry.

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[2] *Id.* at p. 14060.
[3] "The Foundation Model Transparency Index", published by Stanford University's Center for Research on Foundation Models, Stanford Institute for Human-Centered Artificial Intelligence, October 2023, available at https://arxiv.org/abs/2310.12941
[4] RFC, at p. 14060.

It is critical that manufacturers' use of analytical AI be as unaffected as possible by any restrictions that might be imposed because of concerns about generative AI.

Another important issue as NTIA considers potential restrictions on open foundation models is whether, and if so to what extent, any restrictions would have unintended consequences on legitimate businesses. Some developers of foundation models make widely available not only the weights of their models but also their source code ("open source foundation models"). Anyone can adapt and update such models, not just to remove the safeguards that prevent them from generating problematic content, but also to give them new features, to augment their capabilities or to run them on servers not controlled by the original developers. Anyone can make these modifications, including malicious actors who will largely not be affected by policy restrictions on model weights. Legitimate businesses, by contrast, will comply with the restrictions. The presence in the global marketplace of open *source* foundation models thus raises the question of whether restrictions on open *foundation* models will have the unintended consequence of hampering legitimate and beneficial uses of these models without curbing malicious uses.

Finally, manufacturers urge NTIA to bear in mind the global nature of the marketplace for innovative AI technologies and products. If the United States pursues restrictive AI policies, including restrictions on open foundation models, it risks inhibiting innovation by manufacturers in the U.S.—and curbing the job creation and economic development associated with groundbreaking technological advances. It is therefore important to ensure that such policies are aligned with those enacted by other major countries where AI technologies and products are developed, to avoid being undercut by their potentially more permissive regimes.

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Manufacturers appreciate the emphasis that NTIA has traditionally put on the promotion of innovation, and the industry encourages NTIA to continue to prioritize innovation as it considers potential restrictions on manufacturers' access to open foundation models. The NAM looks forward to continuing to support the development of AI policies that maintain the United States' position as a global leader in AI and smart manufacturing.

Sincerely,

Charles Crain
Vice President, Domestic Policy