1. Introduction

This document is a companion resource for Generative Al¹ to the <u>Al Risk Management Framework</u> (Al RMF), pursuant to President Biden's Executive Order (EO) 14110 on Safe, Secure, and Trustworthy Artificial Intelligence.² The Al RMF was released in January 2023, and is intended for voluntary use and to improve the ability of organizations to incorporate trustworthiness considerations into the design, development, use, and evaluation of Al products, services, and systems.

This companion resource also serves as both a *use-case* and *cross-sectoral* profile of the AI RMF 1.0. Such profiles assist organizations in deciding how they might best manage AI risk in a manner that is well-aligned with their goals, considers legal/regulatory requirements and best practices, and reflects risk management priorities.

Use-case profiles are implementations of the AI RMF functions, categories, and subcategories for a specific setting or application – in this case, Generative AI (GAI) – based on the requirements, risk tolerance, and resources of the Framework user. Consistent with other AI RMF Profiles, this profile offers insights into how risk can be managed across various stages of the AI lifecycle and for GAI as a technology.

As GAI covers risks of models or applications that can be used across use cases or sectors, this document is also an AI RMF cross-sectoral profile. Cross-sectoral profiles can be used to govern, map, measure, and manage risks associated with activities or business processes common across sectors such as the use of large language models, cloud-based services, or acquisition.

This work was informed by public feedback and consultations with diverse stakeholder groups as part of NIST's Generative AI Public Working Group (GAI PWG). The GAI PWG was a consensus-driven, open, transparent, and collaborative process facilitated via virtual workspace to obtain multistakeholder input and insight on GAI risk management, and inform NIST's approach. This document was also informed by public comments and consultations as a result of a Request for Information (RFI) and presents information in a style adapted from the NIST AI RMF Playbook.

¹ Generative AI can be defined by EO 14110 as "the class of AI models that emulate the structure and characteristics of input data in order to generate derived synthetic content. This can include images, videos, audio, text, and other digital content." While not all GAI is based in foundation models, for purposes of this document, GAI generally refers to generative dual-use foundation models, defined by EO 14110 as "an AI model that is trained on broad data; generally uses self-supervision; contains at least tens of billions of parameters; is applicable across a wide range of contexts."

² Section 4.1(a)(i)(A) of EO 14110 directs the Secretary of Commerce, acting through the Director of the National Institute of Standards and Technology (NIST), to develop a companion resource to the AI RMF, NIST AI 100–1, for generative AI.