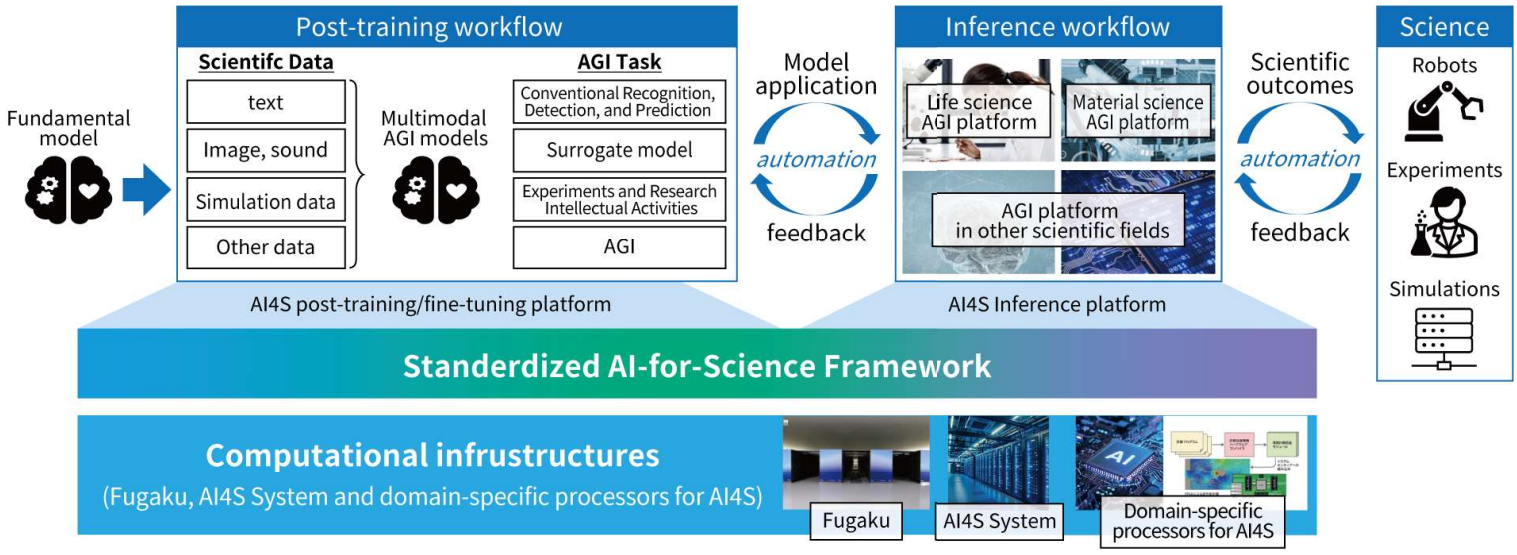
# Aiming to Realize “AI for Science”

RIKEN is spearheading the Transformative Research Innovation Platform (TRIP)*, an interdisciplinary initiative designed to foster groundbreaking scientific advancements. Within this initiative, the AI for Science Platform Division is tasked with a critical role: the establishment, management, and continuous enhancement of the computational infrastructure essential for the creation of generative AI models, also known as Foundation models, tailored for scientific discoveries. This division’s responsibilities extend to the integration of the ‘Fugaku’ supercomputer, with a novel AI-dedicated supercomputing system. This integration is aimed at developing foundational software that significantly advances the capabilities of training and inference processes in AI for science. In addition to the mainstream pursuit of upscaling a large supercomputing infrastructure for AI for Science, we will also investigate computational paradigms that surpass the traditional reliance on GPUs, enhanced speed, efficiency, and energy conservation in AI tasks. The overarching goal of these endeavors is to catalyze innovation across various scientific domains by the application of advanced AI for Science. By expediting the scientific research cycle and broadening the scope for exploration within scientific fields, RIKEN’s TRIP initiative stands to make substantial contributions to the advancement of scientific knowledge and its applications.

Starting in early fiscal year 2026, we will begin operating a new supercomputer designed explicitly for AI for Science. We will operate this system in conjunction with the supercomputer “Fugaku”, quantum computers, and their associated systems. Through this initiative, we will build world-class computational infrastructure that supports complex scientific research and contributes to groundbreaking advances in Japanese science.

* The concept of ”Transformative Research Innovation Platform of RIKEN platforms” (TRIP) aims to organically link outstanding researchers in a broad range of fields of fundamental science and a rich array of research platforms in RIKEN. This is a challenging project to create an innovative research platform that effectively generates new fields of knowledge across research fields.





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June,2025