

# Realization of common platform technologies, facilities and equipment that create innovative knowledge and products

**System for materials innovation creation exploring vast materials space**

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## Summary :

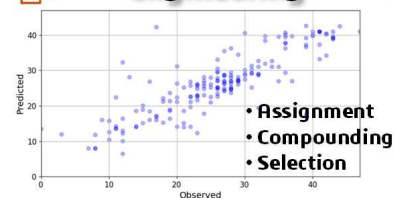
Linking high-throughput experimentation and data science technologies, we develop a system for materials innovation creation. The system realizes efficient discovery of material seeds without requiring any prior knowledge, thereby innovating the productivity and creativity of R&D sites.

While speed is required for advanced material design, R&D sites lack systematic methodologies and fundamental technologies necessary to discover material seeds. In this project, we will develop a system for innovative materials creation aimed to efficiently discover material seeds from a vast materials space without requiring prior knowledge. We will also establish a consortium as a platform for social implementation and for human resource development. Such developments will revolutionize the productivity and creativity of the R&D sites. Researchers will be freed from menial labor, and able to devote their resources to creative works.

## **System for materials innovation creation:** Efficient discovery of material seeds without prior knowledge



1. **Data curation :** Random
2. **Data enhancement :**  
Farthest point sampling
3. **Material seeds :** Recommender



**Bias-free materials data**

