

# Materials Informatics Solutions

Hitachi Digital Services propels your material development process forward with our cutting-edge Materials Informatics (MI) solutions, enhanced by artificial intelligence and data analytics. Continuously evolving, Hitachi's MI solutions drive forward-looking, data-driven R&D, and foster the creation of robust research strategies.

## Our MI Solutions

Our MI solutions expedite and economize material development by offering pre-analyzed insights before the need for experiments arises. Equipped with our platform, and supported by our data scientists, you can efficiently search for compounds and refine manufacturing processes.

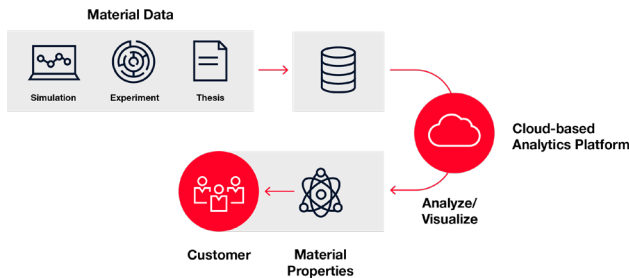
## Use Cases

- Semiconductor substrates material
- High-Polymer materials
- Toothpaste
- Medicine
- Aluminum alloy

## Solutions

### Analytics Platform

Hitachi provides cloud-based material data analytics platform. You can intuitively operate Hitachi's original AI powered tools on a web browser.



## Data Analysis Support

Hitachi's data scientists meticulously analyze your material data and identify promising experimental candidates for you. Our analysis models are crafted from the vast knowledge and experience of seasoned researchers, ensuring your experiments are efficient—even if you're new to data analysis.

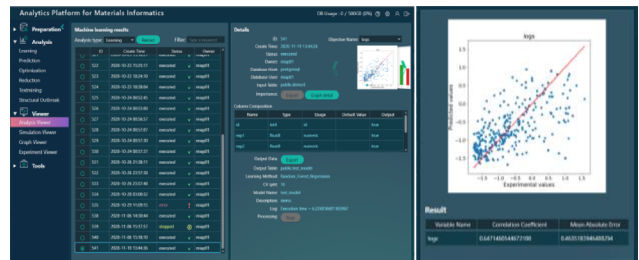
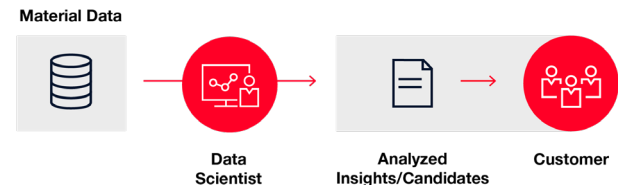
By leveraging accumulated experimental data within statistical probability models, our team develops predictive models that streamline the research process. Furthermore, the analysis models crafted by our data scientists seamlessly integrate with our analytics platform, enhancing your research capabilities.

## Functions

**Learning:** Construct predictive models using a proven machine learning algorithm from our selection of eight options, or deploy your own custom-developed algorithm.

**Predictions:** Forecast experimental outcomes by inputting conditions aligned with the prediction model.

**Optimization:** Generate the optimal experimental conditions, as estimated by the prediction model, to achieve your targeted results.



Screen images of Analytics Platform. (Screen images for illustrative purposes only)