



AI for Food and Beverage Product Development

Machine Learning strategies for nutritious, sustainable, innovative products



Learn how

Whether charged with maintaining the popularity of a classic brand, or exploring new ingredients to develop premium products, AI can assist food technologists as they assess trade-offs and make decisions. Regulations on sugar, consumer demand for sustainable ingredients, and keeping costs low while inflation skyrockets present a challenge. But the Citrine Platform can derisk the decision to move from the lab bench to market research and identify and understand synergies between ingredients.

Questions you can ask the Citrine Platform



What the Citrine Platform does for your business

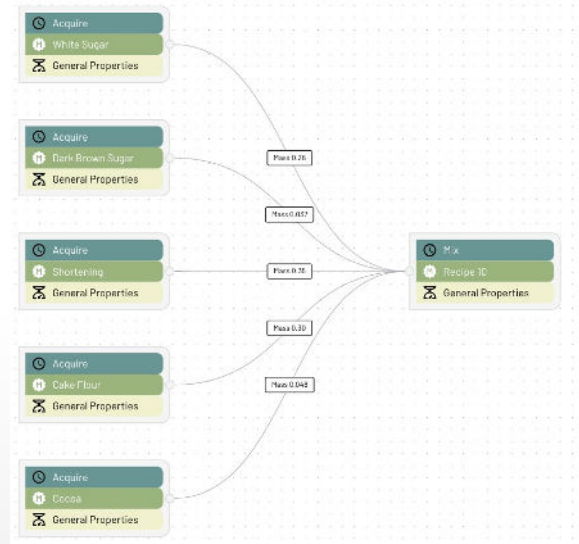
- **Quickly understand how reductions in salt and sugar will affect a product**
 - Maintaining a well-known taste while responding to legislation can be done more efficiently by using AI to explore options.
- **Confidently develop premium products with new ingredients**
 - New ingredients can be characterised. These ingredient characters can then be compared to ingredients in previous experiments and predictions made as to how they will affect the end product. This can de-risk the step of moving from small scale lab bench experiments to market research and scale-up.
- **Predict product stability and shelf life to speed up development and get to market**
 - Stability and shelf life experiments take time, you can expedite this costly stage of development by predicting shelf life and only going to physical experiments when you are confident of success.





What the Citrine Platform does for your business

- Identify relationships between ingredients that can be leveraged to maximise appeal or reduce costs**
 - The Citrine Platform is not a black box. It highlights the ingredients that are contributing the most to the desired properties. It also enables you to see if ratios of ingredients are important. For example fat to flour ratio.
- Understand how the seasonal variation of natural ingredients can be compensated for in your recipe to maintain that signature taste**
 - If a natural ingredient changes over time you can quickly reformulate to ensure you have a consistent taste.
- Capture the expertise of your most experienced food technologists before they retire**
 - As well as capturing experimental data in a way that it can be reused in the future, the platform encourages your experts to make tribal knowledge explicit by incorporating business requirements and rules of thumb into AI models and related search spaces.
- Help new team members perform like veterans**
 - New team members can review the visualisations of recipes and the processing steps that make products. They can see what the experienced team member thought important enough to encapsulate in the AI model and learn from it.

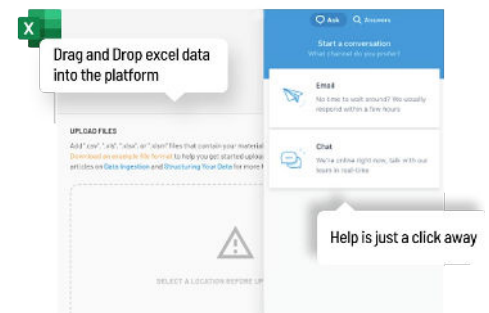


Everyone will use the platform

Not everyone in your team is keen on AI or a budding data scientist, but everyone will want to use the Citrine Platform because it is easy to use and a valuable assistant to their everyday work.

Our platform:

- Has clear workflows with help and tips along the way.
- It highlights which ingredients and processing steps are having the most beneficial effect on liking scores.
- Let's you import data by dragging and dropping excel sheets.
- Visualises your data so you can check it is good enough for your project without any specialist knowledge.
- Requires no coding to create AI models, simply tick boxes to tell the model what properties to predict and which ingredients and processing steps you think are important for each property.



Working with the Materials and Chemicals AI Experts

Since 2013 Citrine Informatics has been working in this space, slowly amassing experience in rolling out AI across multinational materials and chemicals enterprises. Our team combines experts in project and change management to smooth your onboarding process, and subject matter experts to help your product developers to translate their domain knowledge into AI models.



Contact us to find out more and see a demonstration of our platform.

