

TechConnect Ventures  
Sprint Challenge Brief:

## Software Modeling for the Food Industry

### BACKGROUND

Modern chemistry, regardless of the industry, often relies as much on computer modeling and simulation, so called in silico experiments, as it does on physical compounds in test tubes on a lab bench. High fidelity simulations allow researchers to explore new compounds and reactions more efficiently and without the waste associated with practical experiments.

The Food and Beverage space is no different. By incorporating modeling and simulation platforms into their research and development efforts, Food & Beverage companies can optimize food products for a myriad of parameters or explore variations in ingredients.

TechConnect Ventures' client, a leader in the Food and Beverage space, is seeking modeling and simulation platforms that will enable them to conduct in silico experiments. In particular, the client is interested in those technologies which will allow them to explore, model and design innovative new bulking agents for use in their products.

Proposed technologies should allow for modeling and simulation of a diverse range of bulking agents that are preferably DP 3-5 units including, but not limited to those made from:

- Fructose
- Glucose
- Galactose
- Other monosaccharide units

While mature technologies are of greatest interest, earlier stage technologies will be considered, if there is a viable pathway to implementation.

**Representatives from the client team will review and evaluate all proposed technologies. Highly rated respondents will be contacted by TechConnect Ventures and invited to pitch their technology to the client.**

The goal of this sprint is to facilitate contact and interactions between the Sprint sponsor and active researchers or technology developers in this space. Submissions and novel concepts from individuals and organizations in academia and research are of significant interest, but all viable technology providers are invited to respond for potential commercial opportunities with the client.

## REQUIREMENTS

Solvers submitting an Entry are encouraged to highlight key innovation areas in their Submission that meet criteria including:

- Description of proposed simulation platform
- Ability to predict the following attributes :
  - Solubility
  - Glass Transition
  - Easy to Crystallize
  - Natural
  - Glycemic Index
  - Hygroscopicity
  - Sweetness
  - Toxicology
  - Reducing ends
  - Tolerance
  - Digestibility
- Oligosaccharides or bulking agents modeled
- Ability to expand modeling library:
  - to other bulking agents
  - to other ingredients
- Access method
  - Local / on premise
  - Cloud
  - SaaS
- Technical maturity

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## BUSINESS OPPORTUNITY FOR SOLVERS

All complete and eligible Entries will be included in an exclusive Innovation Opportunity Report that will be presented to our client. Solvers with well-matched capabilities may be contacted directly by either TechConnect Ventures or the client to discuss potential partnership opportunities, including – but not limited to – demonstrations, consulting, contract research, licensing, and more. Top-rated Entries may also be invited to register or participate in an upcoming TechConnect Ventures event or pitch program.

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## PARTICIPATION RULES & GUIDELINES

Solvers are encouraged to review the [Rules](#) and [Guidelines](#) provided on the Sprint page for details about participation, including submission criteria, eligibility information, and more.

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**QUESTIONS?** Contact Executive Director, Nick Kacsandi at [info@techconnectventures.com](mailto:info@techconnectventures.com)