

TechConnect Ventures
Sprint Challenge Brief:

Salt Application Innovations for Food

BACKGROUND

A Fortune 500 international food and beverage company is interested in innovative lab-scale technologies to apply topical salt on small batches of baked snacks such as savory crackers or biscuits. Currently, the client uses tumbler coating equipment, which is effective for some snacks but does have limitations: salt coats all sides of the snack, salt coating can be inconsistent, and the relatively large batches required. Additionally, products coated using such a device must be strong enough to withstand the rotational forces inside the tumbler.

Due to the limitations presented by conventional tumbler coating equipment, TechConnect's client is seeking alternatives for small batch application of topical salt. The client is interested in innovations originating from any sector including:

- Food industry manufacturers with novel equipment for small batch processing
- OEMs from outside the food industry with relevant application technologies
- Manufacturers able to design and build custom equipment

All proposed solutions, from inside or outside the food industry, should be capable of:

- Controlling application location: one side (preferred) or both sides
- Utilizing a range of salt particle sizes: microscopic to table salt grains
- Small batch sizes: 50g to 1000g
- Controlling batch temperatures, if possible

All approaches should deliver improved salt adherence and/or consistency versus conventional tumbling equipment. Proposed technologies should be suitable for a salt dosing range as low as 0.5% of the finished product (roughly 5 to 15mg of salt per piece). The client is open to all approaches or technologies capable of providing the desired performance. Solutions ready for use within a 12-month timeframe are strongly preferred.

Solvers with relevant production-scale equipment are encouraged to submit a response if their technology could be scaled down to the target batch size.

The goal of this sprint is to facilitate contact and interactions between the Sprint sponsor and commercial entities (including Start-ups), technology developers or research organization/university in this space.

REQUIREMENTS

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

- Overview of proposed technology
- Suitable type(s) of substrates
- Anticipated performance:
 - Application location: one side or both
 - Suitable salt grain size(s) and percentage(s)
 - Batch size(s)
 - Temperature control
 - Comparison to conventional tumbler performance
- Commercialization timeline
- Previous use for a food application
- Technical maturity

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.

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.

QUESTIONS? Contact challenge@techconnectventures.com