

Sprint Challenge Brief: Pulse Ingredients: Research and Innovations

BACKGROUND

Many food products include wheat or oat flour and sugar in their recipes. These traditional ingredients provide known structural and sensorial impact to products. Consumers are interested in alternative experiences while still retaining their favorite comfort foods. As a consequence, food producers are exploring opportunities to incorporate new, less traditional ingredients. The customer wants these new ingredients included in existing products, without negatively impacting consumer perceptions and experiences, or in entirely new products, delivering new experiences through texture, format, or flavor.

To that end, TechConnect's client, a global food manufacturer, is interested in exploring alternative ingredients for use in food products. Specifically, the client would like to investigate pulses: legumes grown and harvested exclusively for their dry seeds. Pulses of all types and varieties are of interest, such as:

- Beans
- Chickpeas
- Lentils
- Peas

The client has identified two potential pathways of interest in this project:

EXPERTISE:

Engaging with subject matter experts (SMEs) with deep knowledge to provide guidance and insight into various aspects of pulses in food products, including, but not limited to:

- Pulse selection
 - Advantages
 - Disadvantages
- Format and processing options
- Nutritional value
 - Including anti-nutritious aspects
- Performance in food products

Experts will collaborate with the client through consultative engagement and literature reviews. The client may also invite selected SMEs to engage in research on their behalf.

PRODUCTS:

Engaging with commercial enterprises, startups and new/non-traditional suppliers with food-grade pulses. The proposed pulses, in any format, should either:

- Partially or completely replace existing ingredients OR
- Enable the creation of new flavor, format or structure in a new food product

All food products are considered, though ingredients suitable for cookies, crackers and extruded foods such as cereals and snacks, are of primary interest. The client is interested in learning about ingredients to use in their production efforts, not finished goods.

While ingredients at or near commercial readiness are highly desirable, the client will also consider less mature solutions with promising performance metrics.

The goal of this sprint is to facilitate contact and interactions between the Sprint sponsor and commercial entities (including Start-ups) or technology developers or research organization/university in this space. Submissions from all viable subject matter experts are of interest including those from academia and commercial entities.

SUBMISSION REQUIREMENTS

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

- Expertise:
 - Specialization, if any:
 - Processing
 - Nutrition
 - Impacts on:
 - Flavor
 - Structure
 - Relevant research
 - Ability to conduct research
 - Previous collaborations with industry, if any
- Product:
 - Proposed pulse(s)
 - Advantages
 - End-use product
 - Technical maturity

BUSINESS OPPORTUNITY FOR SOLVERS:

All complete and eligible Entries are included in an exclusive Innovation Opportunity Report presented to our client. TechConnect or the client will contact solvers with well-matched capabilities and discuss potential partnership opportunities, including – but not limited to – demonstrations, consulting, contract research, licensing, and more. Top-rated Entries are invited to register or participate in an upcoming TechConnect 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