

## Sprint Challenge Brief: Experts In Cocoa Beans Sought

### BACKGROUND

First domesticated in the Andes of South America more than 5,000 years ago, cocoa beans have been an important crop ever since, serving as a source of food and drink, as a currency, and as a component in ceremonies. In modern societies, cocoa is processed into chocolate and consumed in a myriad of products: from candy bars to hot chocolate, cookies to cakes.

The client for this project, a global leader in chocolate for snacks and sweets, is seeking to better understand this valuable plant. In particular, the client is seeking subject matter experts with significant knowledge and experience in variations and complexities of the chemistry of cocoa beans occurring due to cocoa genetics, environment, and agronomic factors.

More precisely, the client is seeking to deepen their understanding of chemical changes within the cocoa bean as it develops and the impacts those changes have on fermentation. The client is interested in two stages of the cocoa bean:

- Pre-harvest
- Post-harvest up to, but not including fermentation

Potential factors of interest include:

- Genetics
  - Of any genetic groups, hybrids or varieties
- Environmental factors such as:
  - Climate
  - Soil
  - Light:
    - Intensity
    - Duration
- Agronomy factors such as:
  - Irrigation
  - Fertilization
  - Seasonality
- Maturation stage of cocoa beans pre-harvest
- Storage of the cocoa beans prior to fermentation

Experts with knowledge of the chemistry of cocoa beans post-harvest are potentially of interest, provided that the expert can also provide insight into pre-harvest chemistry as well.

SMEs of interest include Chemists & Biochemists, Agronomists, and Plant Physiologists. While the primary focus is on individuals with knowledge of and experience with the cocoa plant, expertise in other similar crops, such as coffee beans, may also be considered if chemical, genetic, or physiological similarities exist. Ideally, an expert will be able to provide deep insight into the interplay and impact between environment, agronomy, variety, and chemistry within the cocoa plant.

The client is interested in consultation with selected SMEs. The client may also consider other forms of collaboration, including literature reviews, which may lead to contract research and ongoing consultative relationships. Interested experts should indicate their preferred types of collaboration in their response.

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 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 knowledge or experience in their Submission that meet criteria including:

- Knowledge of cocoa plants
  - Specific varieties (if applicable)
  - Environmental conditions to grow cocoa
  - Agronomy practices
  - Chemistry of cocoa
- Examples past or on-going work
  - Links to published research or conference papers
- Specialization in any cocoa compounds such as (if applicable):
  - Acids
  - Alkaloids
  - Carbohydrates
  - Polyphenols
  - Proteins
- Collaboration types of interest
- Freedom to provide consultation:
  - Conflicts of interest
  - Availability

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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 [challenge@techconnectventures.com](mailto:challenge@techconnectventures.com)