

# Innovator Exchange

## Session 4 – Exploring Sustainability

PROJECT



12th November 2020



15:20 GMT (15:15 Open)

### Topic 4

- Ethical and Social performance – what do we need to consider and how might alternative proteins and oils help deliver better performance?

Start the meeting

<https://us02web.zoom.us/j/87027589476?pwd=bUhOVEE0d2xuTU5wdzIzNkhCRzFxQT09>

ID of the Meeting: 870 2758 9476

Password: 254408

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# Innovator Exchange

## Topics – Exploring Sustainability



29 October 2020

### Topic 1



15:00 GMT (14.45 Start)

- What is the value add that alternative proteins and oils bring to sustainably fed food?



04 November 2020

### Topic 2



12:15 GMT (12:00 Start)

- Social Acceptability – What do Consumers want from their seafood and how well can alternative proteins and oils deliver?



11 November 2020

### Topic 3



16:05 GMT (16:00 Open)

- Environmental Impacts – How well do alternative proteins and oils improve environmental performance and how best to measure it?



12 November 2020

### Topic 4



15:20 GMT (15:15 Open)

- Ethical and Social Impacts – what do we need to consider and how might alternative proteins and help deliver better performance



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# What about ethical consumers?



## Topic 4

### 15:20 Meet the Innovator Introduction

- Unibio
- Innovafeed Video

### 15:30 Introduction to the Topic

- Project X Study: Animal Welfare and Social Wellbeing – exploring aspects that are important to consider
- Protix example: Beta Hatch - to share about community benefits

### 15:45 Discussion and Questions: Ethical and Social Performance

- What do we need to consider?
- How might alternative proteins and oils help deliver better animal welfare and social wellbeing performance?
- Are there potential ethical issues with insect proteins?
- Do the Fish/Chicken/Pets grow as well?
- Can these alternatives contribute to Vegan or Organic diets?
- QUESTIONS

### 16:15 Closing the Sessions



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The session will be recorded.



# Meet the Innovator Introduction

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15:20 GMT

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# UniBio

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Single Celled Proteins

# FEED X



# unibio







- ♦ Decoupling protein production from farming and fishing (Vision)
- ♦ Organic bacterial meal products
  - Purity & Safety (No traces of Pesticides, antibiotics or fertilizers),
- ♦ Industrial scale,
- ♦ Availability,

October 2020

*The world needs a sustainable solution to the large scale food security challenge of the 21<sup>st</sup> century*

Strictly Private & Confidential

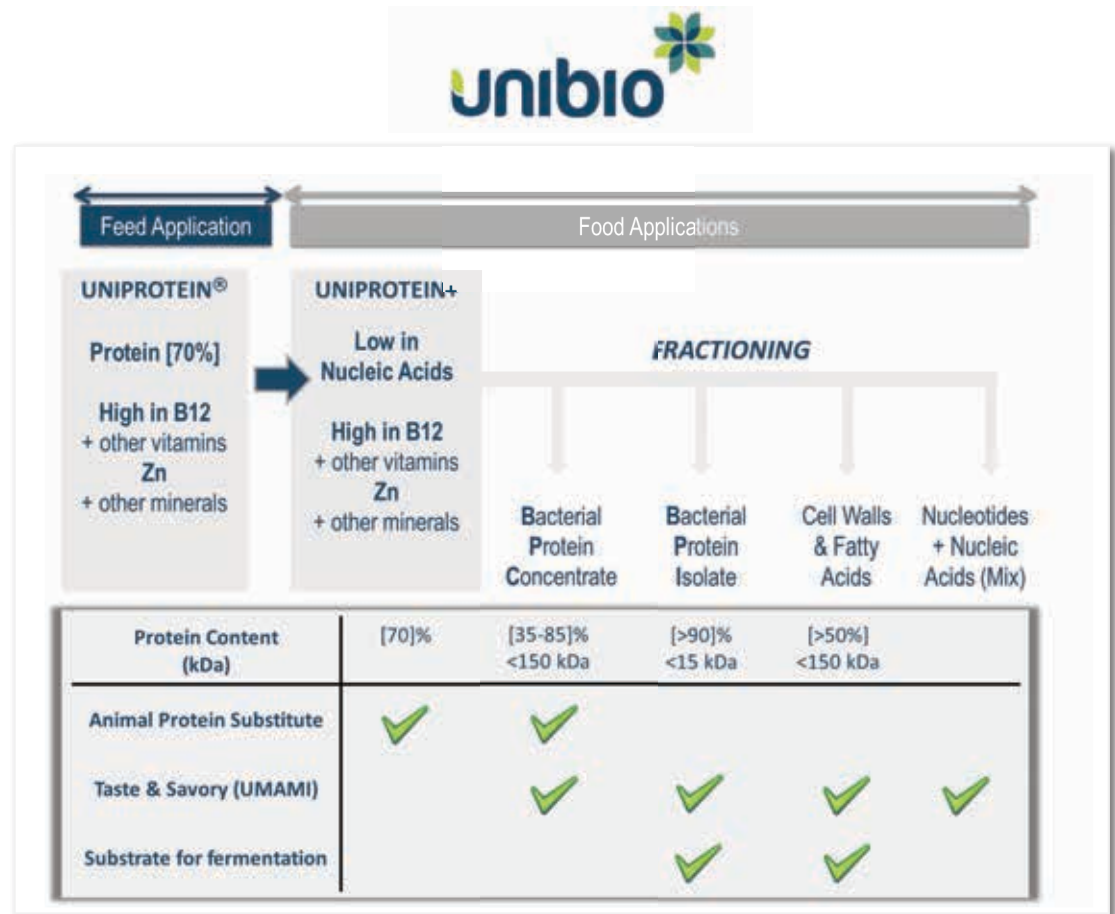
# Unibio partners up with food industry companies

- To date, Unibio has received indications from a long list of **potential partners interested in developing food products using ingredients from Unibio.**
- The following companies have expressed interest:



- The company intends to **build a portfolio of off-take partners**, making it an integrated part of its business model to match producers with buyers (organizations with knowledge of the food ingredient application market and market access to food producers to the B2C market)
- The buyer will benefit from having **access to reasonably priced premium and sustainable food ingredient products of consistent quality** and with non-volatile supply
- This model allows Unibio to **focus on food ingredient product & market development and brand value**, while remaining a lean organization without the need for hundreds of employees involved in marketing, sales and transportation of products

## Interest for DNA/RNA reduced products already exists





# Video



## Category by products





# Introduction to the Topic

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15:30 GMT

## Thank You

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**Topic 4**





# Ethical Lens: Animal Welfare & Social Wellbeing

FAI Farms







# Welfare Outcome Measure

A welfare outcome measure framework - measuring salmon and shrimp welfare in the context of novel feeds

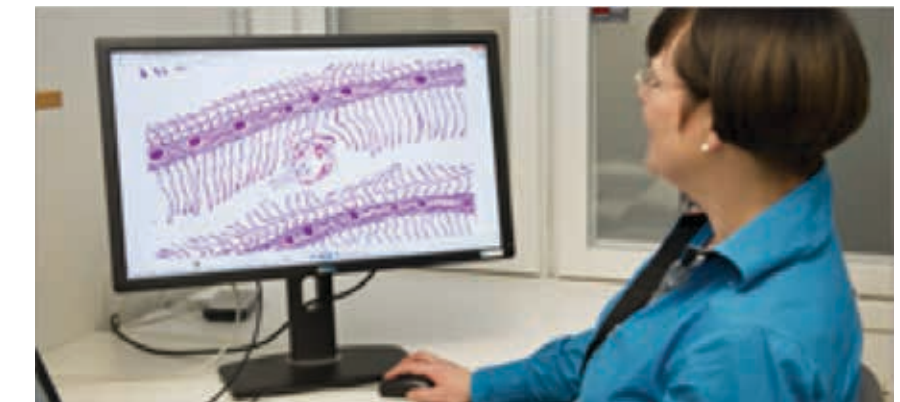
## INPUTS



Environment,  
housing, feed



Husbandry



Genetics

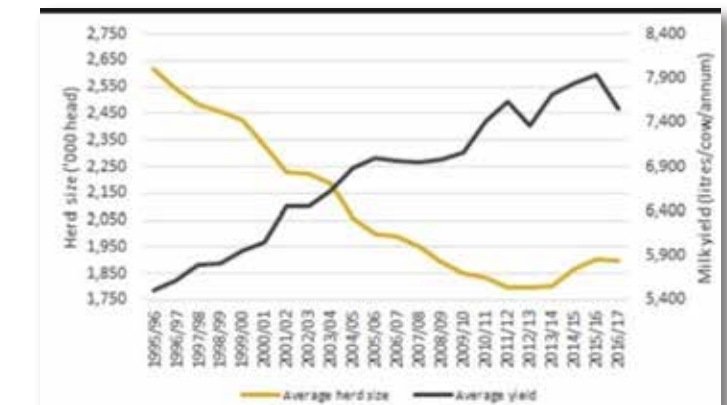
## OUTCOME



Health



Behaviour



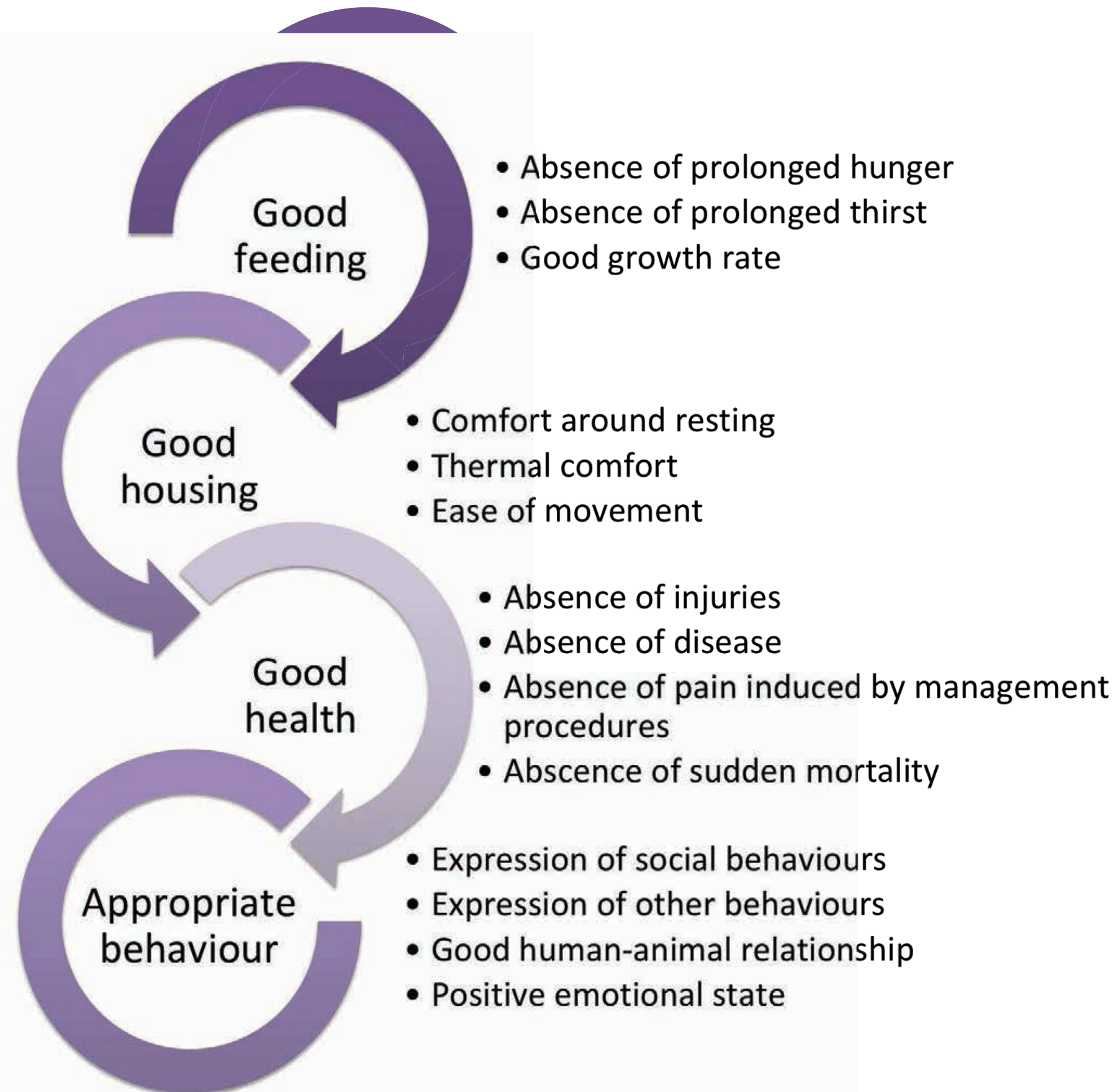
Physiology

**IMPACT**  
of Novel Ingredients





# General Animal Welfare Principles & Welfare Criteria



## Welfare Benefits of Novel Ingredients

### Reduced landuse change

- Less impact on non-target wildlife, plant, soil & fresh water species throughout the supply chain

### Reduced Forage Fish Capture

- Less impact on non-target fish and marine species throughout the supply chain





# Risks and Benefits Associated with Novel Proteins and Oil Feed Ingredients

## Novel Protein from

- food by-products
- insects,
- SCP fermentation,
- SCP from energy production

## Animal welfare risks

- Welfare risks associated with insect farming
- Ensuring alternative protein sources contain the correct nutritional profile and digestibility as fishmeal so as to not compromise salmon and shrimp growth and health

## Animal welfare benefits

- Reduction in fish production and/or trawling for fishmeal leading to decreased welfare risks associated with fish farming and trawling (including risks to non-target organisms)

## Novel Oil from

- Micro-algae,
- Seaweed,
- Other plants

## Animal welfare risks

- Ensuring alternative oil sources contain the correct nutritional profile and digestibility as fish oil so as to not compromise salmon and shrimp growth and health
- Risks to non-target animals associated with increased seaweed production

## Animal welfare benefits

- Reduction in fish production and/or trawling for fish oil leading to decreased welfare risks associated with fish farming and trawling (including risks to non-target organisms)
- Benefits to non-target animals associated with increased seaweed production





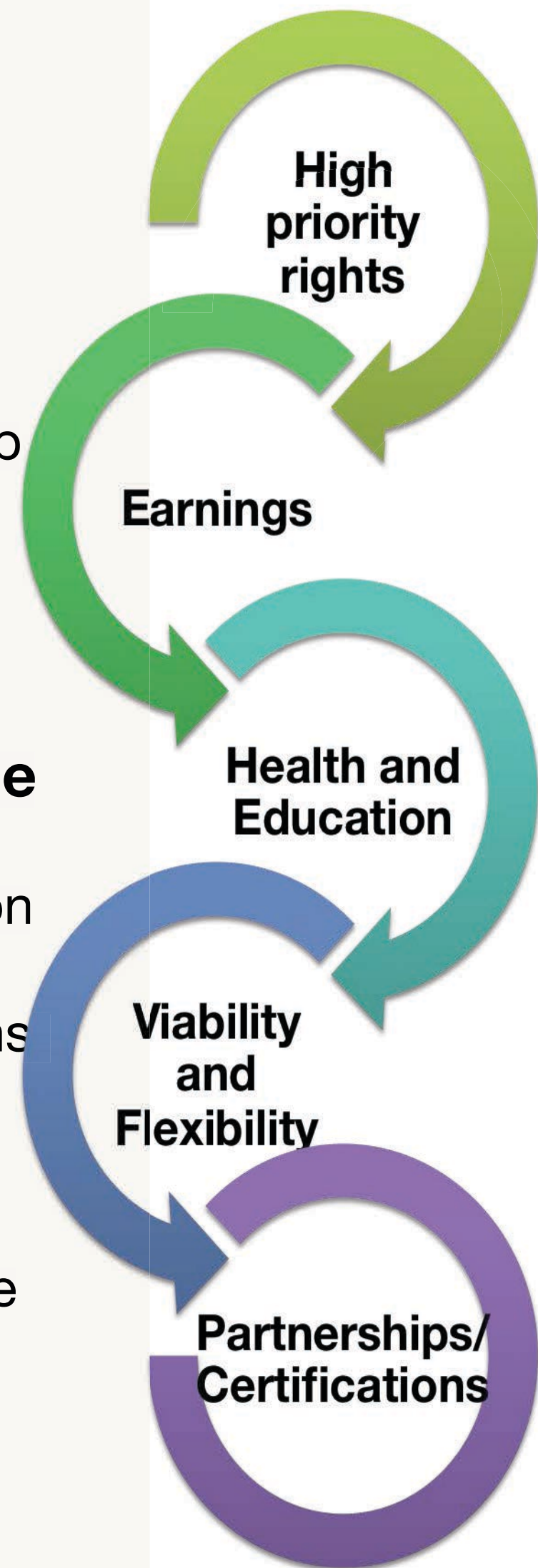
# Social Benefits of Novel Ingredients

## Green Job Creation

- SMEs created
- Dynamic Leadership
- Local growth and innovation
- Skilled green jobs

## Creating Brand Value

- Creating a sense of community/cohesion
- Self made people
- Inspiring generations stories
- Create a culture of possibility
- Local/National Pride
- Ethical Values
- Ethical investment
- Being Innovative



## HUMAN Risks vs Wellbeing

- Poor social wellbeing at the level of workers and their families
- Vulnerable migrant workers may be indebted and in forced labour
- Workers locked in poverty cycle of debt
- Minium wage compliance
- Have the right to strike
- Workers unable to take care of basic and catastrophic medical needs for themselves and families
- Workers and their families unable to access basic training and education needed to function as workers with rights in a global supply chain
- Communities where workers live and contribute earnings remain at risk due to lack of basic education and health services
- Lack of social support for workers
- Social and family networks are fragmented, creating vulnerability
- Social capital is weakened when women are excluded
- Workers have no hope or opportunity to improve their lives or their children’s.
- Next generation of workers unprepared to work in the sustainable supply chain the industry aspires to.
- Outside organisations engagement to support the workforce & vulnerable groups
- Third party scrutiny, Legal compliance & sustainability certification

## BUSINESS Risks vs Wellbeing

- ✧ Unethical and sometimes illegal
- ✧ Company reputation is diminished
- ✧ Reactive public relations and/or external crisis management help is needed
- ✧ Cheap labour decreases rather than increases operations efficiency
- ✧ Competative wage & incentives
- ✧ Right for workers to organise & negotiate
- ✧ Workers whose physical and mental health is not well are hindered from doing productive and innovative work
- ✧ Unhealthy workers are a liability for product quality, safety and efficiency
- ✧ Illiterate workers are limited from using higher tech production modes
- ✧ Illiterate and non-speakers of the country’s lingua franca are disempowered and become vulnerable to labour abuse that puts the brand at risk.
- ✧ Gender-biased workforce that does not meet the needs of modern business environment
- ✧ Low job satisfaction, absenteeism, high turnover
- ✧ If the market or buyer situation changes for the worse (or boom-bust cycles occur), the impact on workers, families and communities associated with the Supplier and Company can be devastating socio-economically and for overall wellbeing.
- ✧ Collaborations and partnerships within the supply chain
- ✧ Third party certifications of the supply chain,
- ✧ B. Corp registration



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# Protix

Video



Insects on food by products

[https://www.youtube.com/watch?v=BCn0oymd\\_hw](https://www.youtube.com/watch?v=BCn0oymd_hw)





# Questions

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More information  
[info@projectxglobal.com](mailto:info@projectxglobal.com)

For any funding interest the please refer  
to Project X team or the SIV Team



# What about ethical consumers?



## Topic 4

- **15:45 Questions:**
- **What are some of the social and/or ethical benefits that the innovators feel they are contributing to?**
- Beyond sustainability what other added benefits could the ingredient provide for the fish? e.g. higher omega 3 (R)
- How might alternative proteins and oils help deliver better animal welfare and social wellbeing performance?
- Are there potential ethical issues with insect proteins?
- Can these alternatives contribute to sustainable diets as they are or only as part of the feed ingredients?
- How are these companies contributing to green growth, local job creation and equal opportunities, B.Corp?
- Do the Fish/Chicken/Pets grow as well?
- How easy is it to trial these alternatives at commercial scale? What are the barriers & solutions? (R)
- How can Retail/Hotel sector help build confidence in these alternatives?
- QUESTIONS from participants



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# Questions

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# Closing Remarks



## Dimensions of Sustainability – life sustaining

- Is it possible – Nutritionally, Legally, economically
  - Saying the right thing
  - Measuring the right thing
  - Doing the right thing
    - ✧ Deforestation in the Amazon & South America – food fed to fish/animals, to feed people or pets
    - ✧ Over fishing wild caught fish - fish fed to fish/animals to feed people or pets
    - ✧ Chemical pollution of the sea, land, rivers – increased chemical/hormonal load leading to unhealthy people and animals



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# Thank you, Merci, Grazie, Danke, Gracias

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[info@projectxglobal.com](mailto:info@projectxglobal.com)



We would be happy to hear  
from you.

We would be delighted to make available to you relevant Feed-X documentation that you might find of interest. This includes Summary of the Market Opportunity Report. Please contact us on Contact: [info@projectxglobal.com](mailto:info@projectxglobal.com) for more details.