



Morus

Silk Protein saves the world

A collage of various protein-rich foods including salmon, chicken, pork, eggs, almonds, and beans. The text "Protein Crisis is right around the corner" is overlaid in the center.

**Protein Crisis is
right around the corner**










**Production is inefficient.
No unique nutrients.
And...you don't wanna eat**



**The only-one industrialized
Silkworm-based alt-protein
provider in the world to solve
the global protein crisis**

Why Insect ?

Of animal alternative proteins containing essential amino acids,
We select insects with high mass production efficiency and low cost

	Animal based protein				Plant based protein		
	Silkworm	other insects	cultured meat	cultured shrimp	Algae	Fungi	Pea
logo							
Main composition of amino acid	Essential amino acid + other amino acid	Essential amino acid + other amino acid			Nonessential amino acid		
cost	-\$200	-\$200	several tens of thousands of dollars	several tens of thousands of dollars	◎	○	○

Silkworm



1. material(Silk powder)

B2B



food
enterprise

2. contracted research

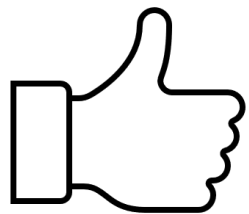


nutrient



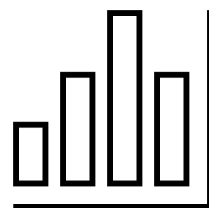
genome-
editing
(Only in
research)

Silkworms are easy-to-raise, high-yield, Long industry in Japan



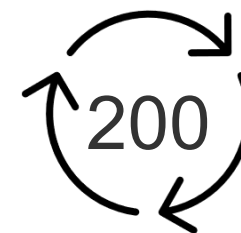
Easy Breeding

Silkworms do not escape.
and don't eat each other



High Yield

Production per area is high
and larger in size.



Industry basis in Japan

More than 200 years history
in Japan

What is Silkworm?

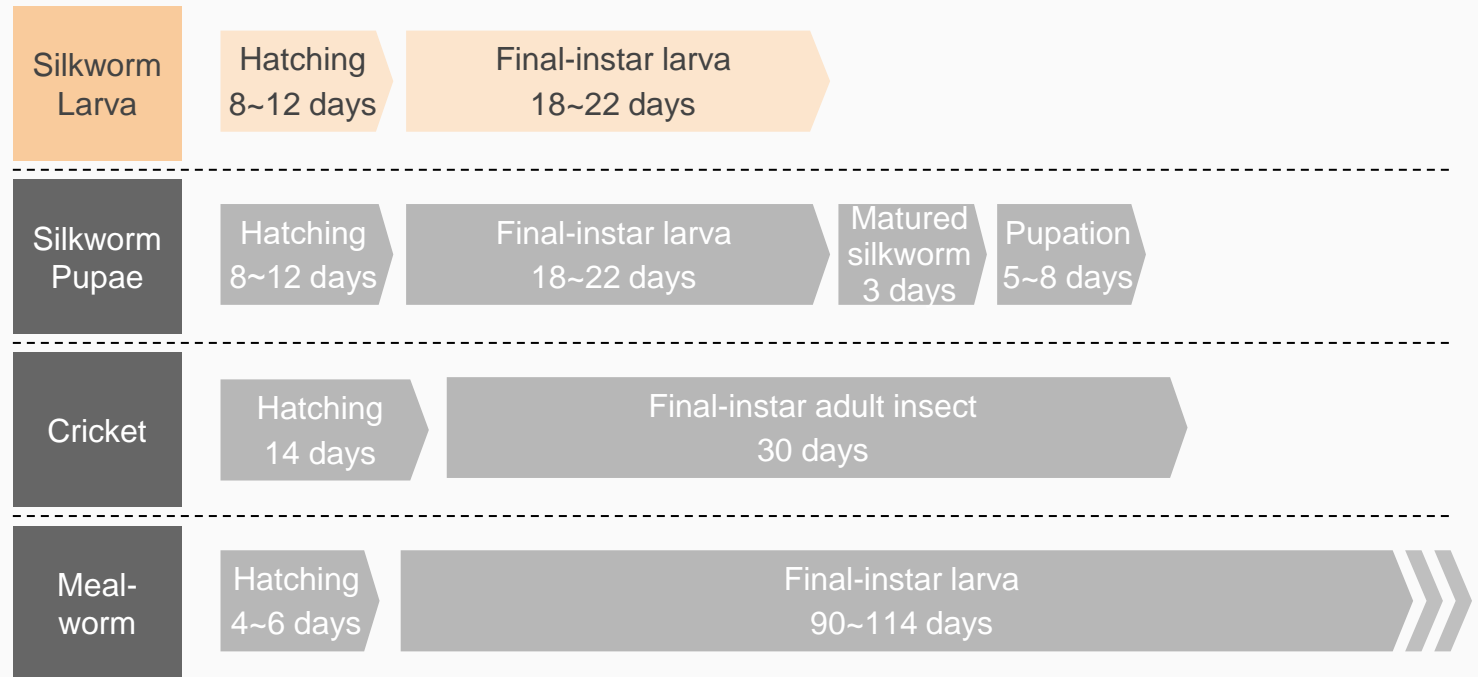
Feed is inexpensive, production time is short, and manpower required is relatively low.

Inexpensive feed



Mulberry leaf is a very common, easy-to-produce leaf found everywhere

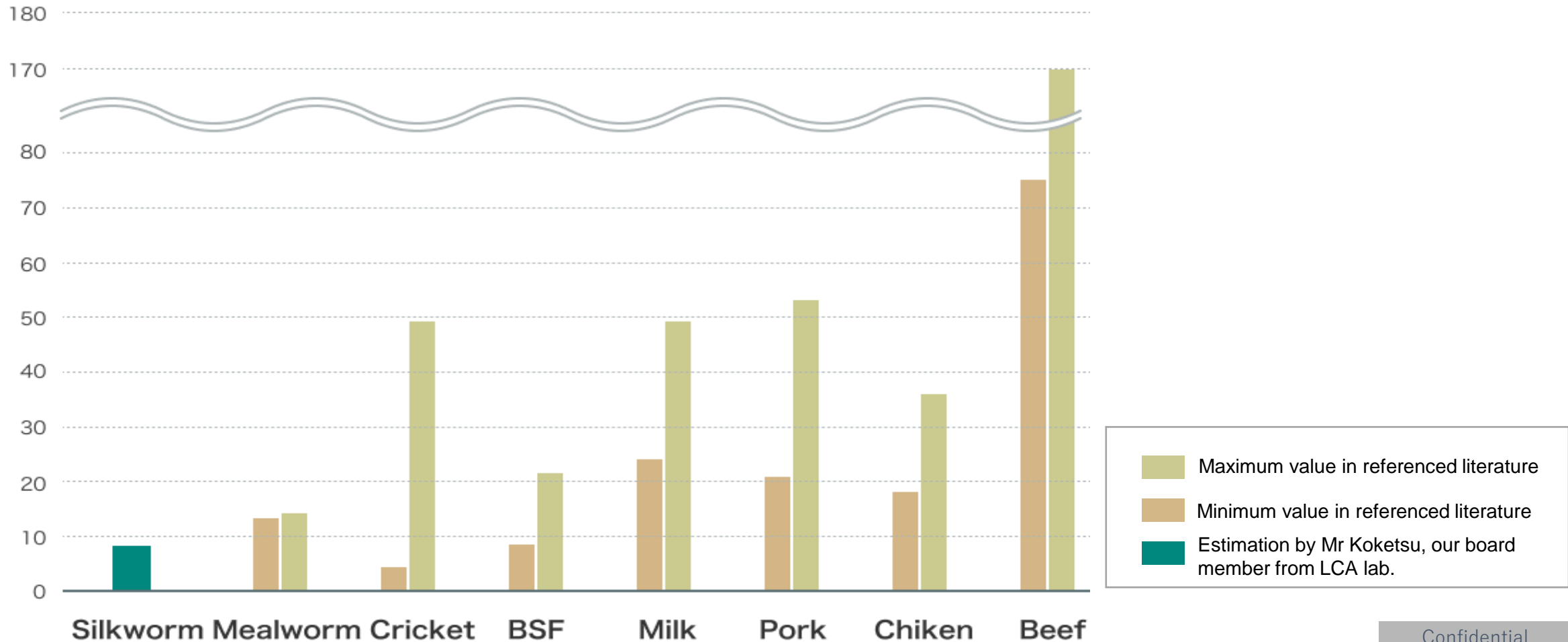
Shorter Production Time



Production time of Silkworm larvae is the shortest among the major insects used as alternative proteins

And ...it's even lower in CO2 emission

Global Warming Potential / 1kg of protein production*



It's BEYOND just a protein, Unique nutrients!



So, what do we do?

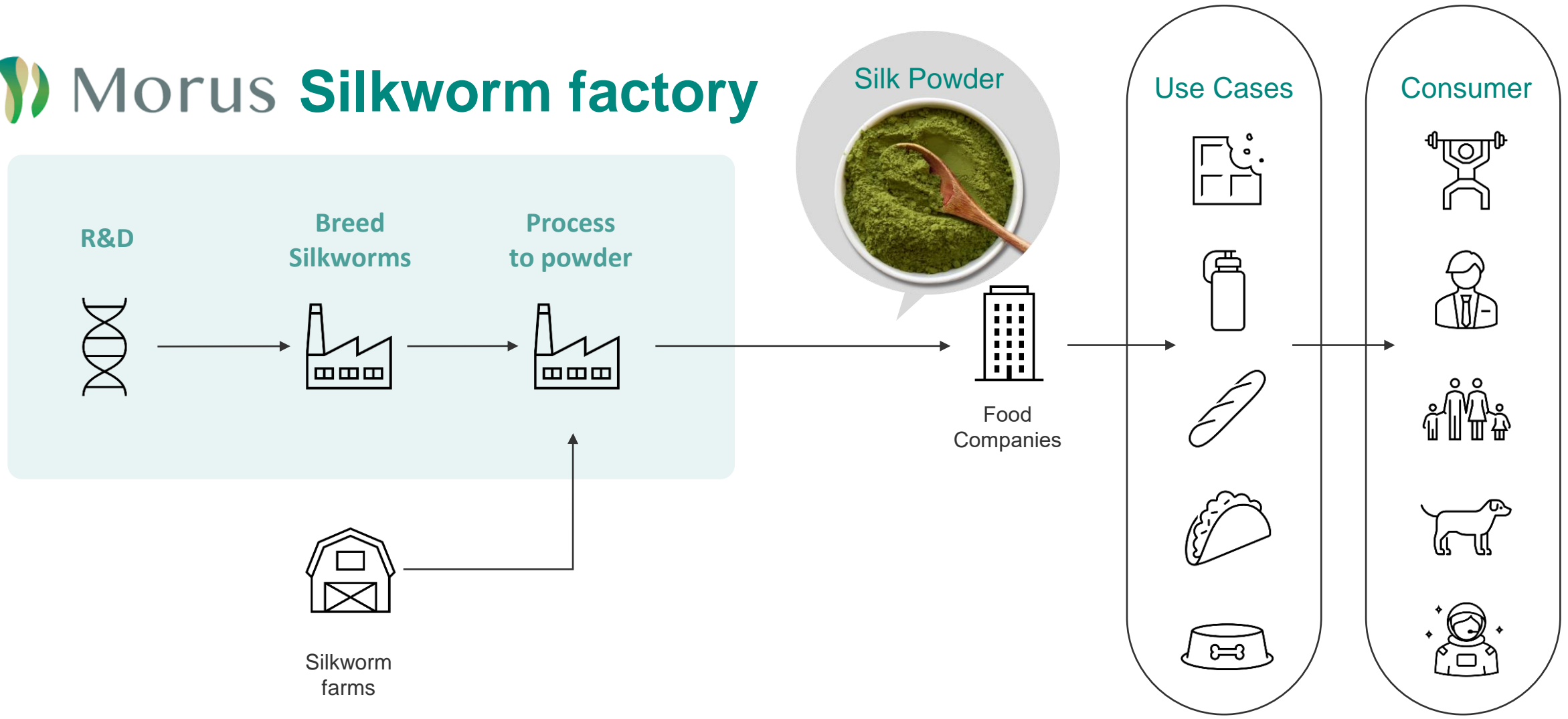


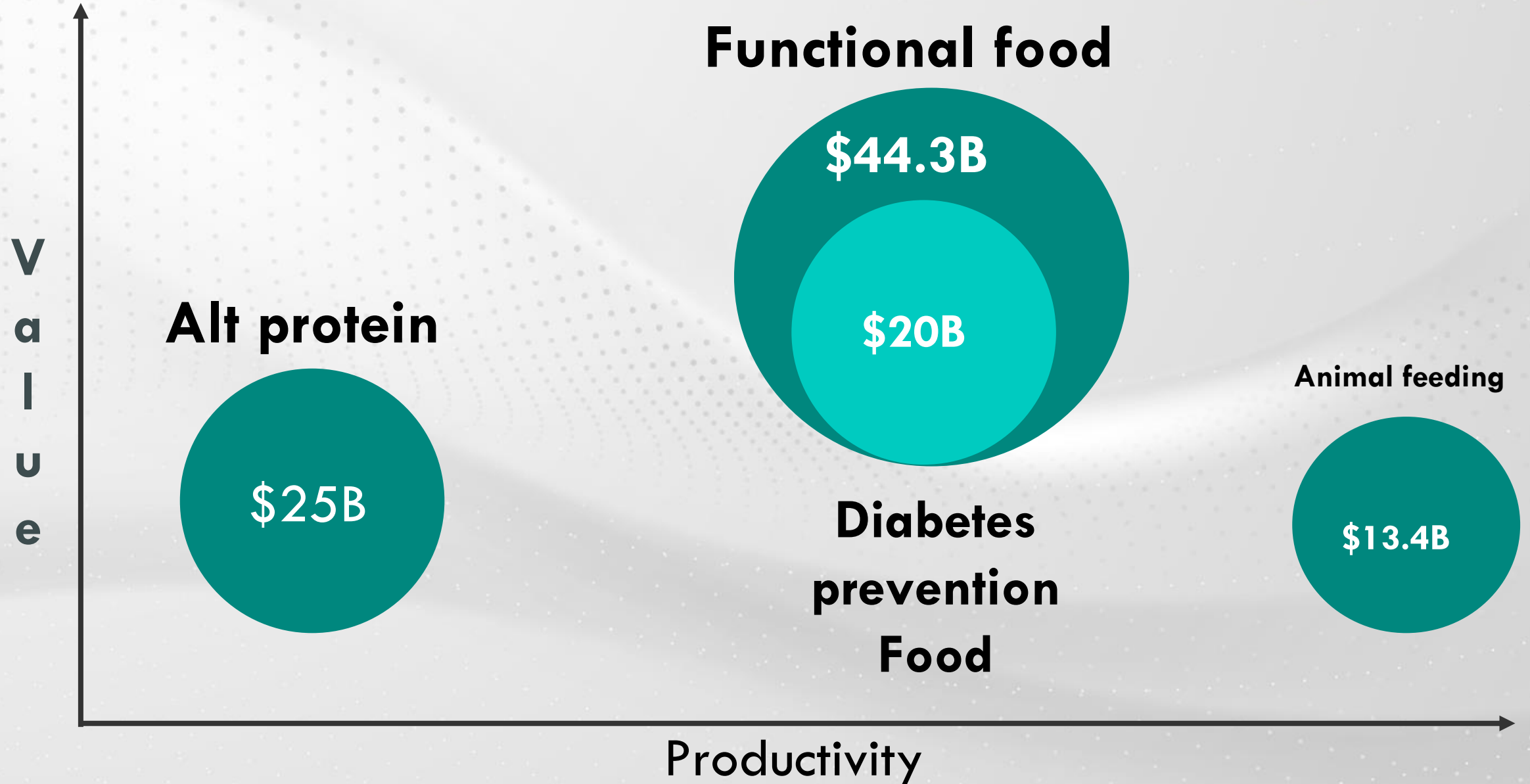
MORUS is the only company to INDUSTRIALISE Silkworm production



Biz Model: B2B Silk Worm Powder Provider

Morus **Silkworm factory**





Team – Board Members

Business Development Team



Ryo Sato | CEO



Shota Koketsu | Executive Officer



R&D Team

Molecular Biology



Kunihiro Shiomi/
Co-founder Ph.D



Hiroshi Uehara/
Head of R&D



Nutrition Science



Seiji Aoyagi/Advisor of
Nutrition Science Ph.D



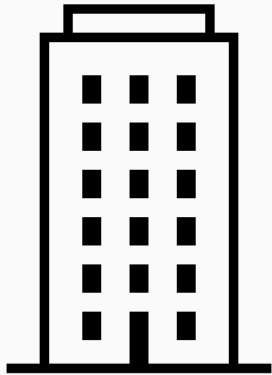
Ayu Fujii/Head of Food
Science



We have early traction with leading companies



Famous Food Enterprise



for

co-R&D

co-production

Food
Companies

High end restaurant in L.A.



for

Alternative
Matcha

Restaurant

Our vision is to be a global silkworm material provider

**Centralized
Production and
R&D in JP**



Food products(B2C)



Food ingredients(B2B)



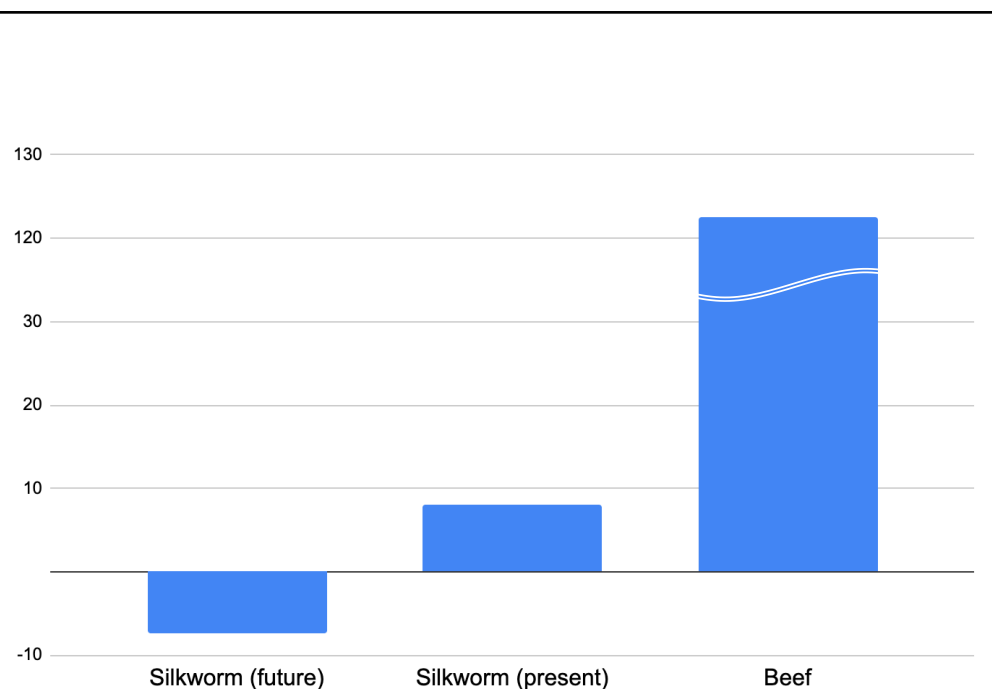
**Local production
in each market**



Potential in terms of CO₂ emission

Our MorSilk® Powder's GWP can achieve carbon negative by 2026

Estimation of CO₂ emission



Improvements we'll make

- Change electric power to renewable energy
- Make use of larvae's frass as fertilizer
- Capture CO₂ in mulberry trees and bury in the ground.

※ Land use: Silkworm (future) 12m² vs Beef 185m²

Water use per year: Silkworm (future) 23m³ vs Beef 112m³

We're looking for collaboration for starting our business in Thailand.

- 1. Partner to sell or distribute our products in Thailand
(So-called B to C business model)**
- 2. Producer or supplier of raw materials(silkworms etc.)**
- 3. (In the middle or long term)
Business partner to establish silkworms plant in Thailand**

We are backed by leading VCs and the Japanese Government

Venture Capital

Have raised a Pre-A round of JPY 200M in May 2023. VCs backing us include:



anri



Government

Have received multiple awards and have participated in public accelerator programs



Nutrition science

**selective breeding
for silkworm**

臨床試験のポジティブな結果

between

plant × animal