

ENTOMOPHAGY IS GLOBAL

80 OF NATIONS
EAT
PERCENT **INSECTS**

AND POPULAR!

 **TOTALIZING**
2 BILLION
PEOPLE
WORLDWIDE

INSECTS SAVE SPACE

 **COWS NEED**
10 TIMES
MORE
LAND
THAN
MEALWORMS
PER WEIGHT UNIT

AND THE PLANET!

 **MEALWORMS PRODUCE AT LEAST**
14 TIMES FEWER
GREENHOUSE GAS EMISSIONS
THAN COWS



Nutritional Value

Human Nutrition Daily Need

65 g
Fat

50 g
Protein

1600-2800
kcal
Metabolize
energy



Beetle
138 kcal/100g

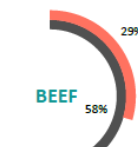
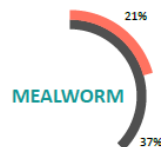


Mealworm
206 kcal/100g



Beef
297 kcal/100g

Ratio of nutrition content with daily recommended value



Source:
FAO The State of Food Insecurity in the World 2013
www.wolframalpha.com

 Fat
 Protein



EDIBLE INSECTS

A focus on mealworms

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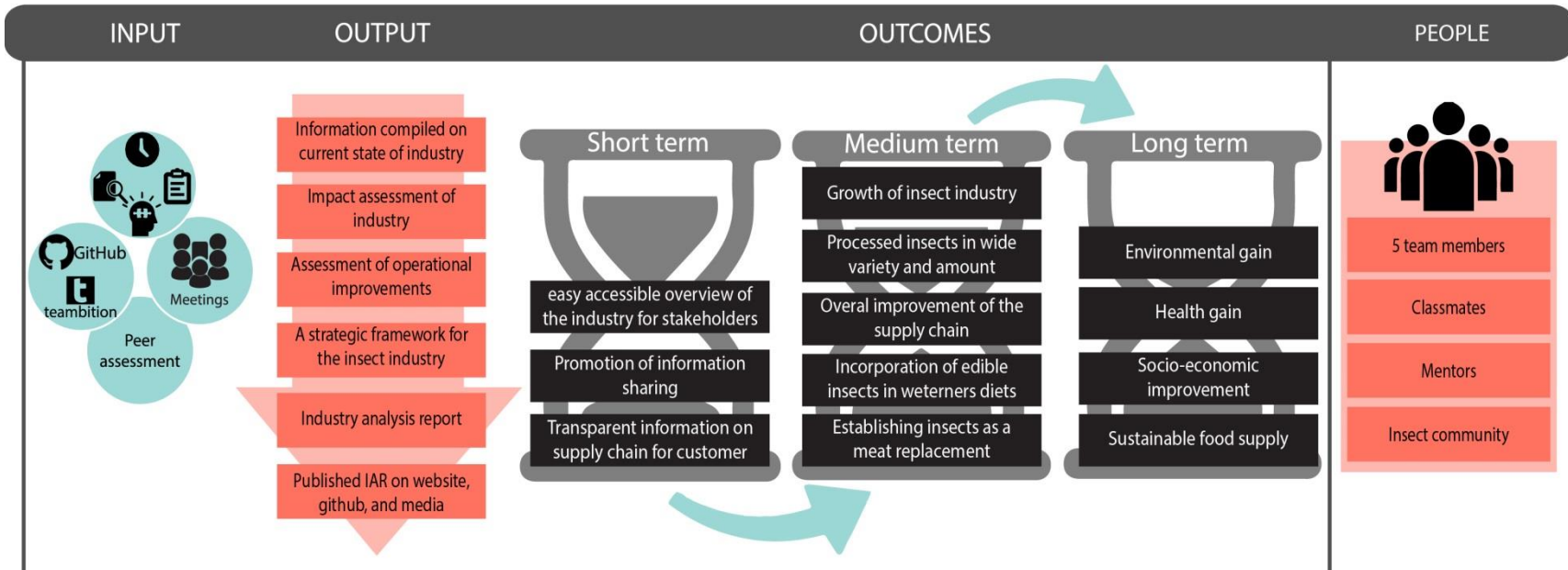
LOGIC MODEL



Goal: To provide western society with healthy, sustainable & delicious source of food



Problem Statement: Industrialization of insects as food



Given the trend of population increase, the Earth is expected to be inhabited by more than 10 billion people by 2100. All this population will need food to satisfy their daily nutrient requirements. Considering that 27kg of CO₂ are released into the air to produce 1 kg of beef (12kg for 1kg of pork and 6kg for 1kg of chicken), such traditional protein sources are not sustainable to feed the world. We must find alternative ways to meet the growing protein needs of mankind.

We believe edible insects are a part of the answer. More specifically, our proposal is to use mealworms as a substitute for meat. Mealworms have higher content on protein and less content on fat than meat. They require less space for breeding and processing. Their low ecological footprint makes them a sustainable source of food. Of course, there are challenges in legal and social aspects. Although 2 billion people on Earth eat insects, the acceptance among Westerners is not won yet. Also, the absence of a legislative framework makes any industrialization difficult. A lack of knowledge and scale results in high production costs today. Our report wants to reduce the difficulty for people who start producing mealworms by compressing and advancing the knowledge in this field. Mealworms can provide us with a delicious, healthy and environmental friendly new food source. We believe this opportunity has to be seized!

Source CO₂ data: www.ewg.org, 2011