# Executive Summary

## 1. GENERAL INFORMATION

Legal Name of Organization: Nambu Group (Pty) Ltd.

Legal Entity and Date of Establishment: 03/04/2018.

Registration Number: 2018/218795/07.

Website: NA - currently supplying immediate local market based on word of mouth and direct marketing.

Mailing Address (Headquarters): 4 Cory Circle. Hill 60. Makhanda. 6139. South Africa

Physical Address: Fairholme Farm, Rautenbach Road, Makhanda, 6139, South Africa.

Telephone Number: + 27 72 298 4884

Email Address: nambugroup@gmail.com

Other Locations: Basic Pilots being established in Port Alfred and East London. Port Elizabeth to follow.

Primary Contact (Name, Title): Lowell Scarr (Mr)

Email Address: scarrlms@gmail.com

Telephone Number: +27 72 298 4884

Secondary Contact (Name, Title): Myburgh Bester (Mr)

Email Address: goedbeterbester@gmail.com

## 2. EXECUTIVE SUMMARY

Overview: Nambu is an early stage Insect Protein Company that turns food 'waste' into high value insect protein. We do this by feeding a variety of food and organic waste sources to the Black Soldier Fly (*Hermetia Illucens*) larvae – otherwise known as BSFL. The larvae are reared from hatchlings to harvest in a period of 15-17 days, at which point they are separated from their feed substrate and prepared for processing and sale. We are currently focussed on producing insect protein for use in the feed industry, but are able to shift one of our production lines or facilities to food grade protein as needed.

Aim: Our aim to become the largest producer of insect protein on the African continent – supporting a more resilient and sustainable food system that drives regenerative agricultural practices, nutrient recycling, employment creation and equitable wealth generation.

Value Proposition: Affordable, Sustainable, High Quality Insect Protein.

Market: As a producer of feed grade protein, we primarily complete with Fish and Soya meal. Globally, these inputs are becoming increasingly scare, causing a rapid increase in price, and are regarded as among the most environmentally damaging agricultural sectors. This is expected to worsen into the future, as global fish stocks plummet and the land available for soya production reaches its maximum extent of development and production. This pressure is further exacerbated by a growing global middle class whose demand for animal based products increase as their incomes rise. Some high level figures are presented below that outline the market opportunity of Insect Protein for animal feed:

- Local Fish Meal Market: 120 000 t – $ 156 m. (International Fish Meal Market: 4.2 m t – $ 6.4 b)
- Local Soya Oilcake Market: 860 000 t – $ 344 m
- Global Feed Protein Market: $ 22 b
- Global Pet Food Market: $ 86.6 b
- Global demand for animal based products estimated to increase by 70% by 2050 (FAO, 2016)
    - These animals all need to be fed - Protein being one of the largest inputs by cost
- Pet feed is estimated to account for ¼ impact of the global meat industry.

Where We Are: We are currently in the process of commercialising our first facility in Makhanda, Eastern Cape (RSA). Once completed, this facility will have the capacity to recycle up to 120 tons of food waste

are in the planning phase for East London, Port Alfred and Port Elizabeth, with further plants envisaged for Tzaneen (Mopani District), Umthatha George and Kokstad over the 2021-2023 period. Each of these facilities will be between 2-5 times larger than our Makhanda Facility, based on the availability and quality of waste.

Opportunity: The opportunity exists to support Nambu in this growth phase of its development, particularly with investment into the establishment of one or more commercial facilities within the Eastern Cape or beyond, as well as investment into R&D in further value adding (ie Pet or Aquaculture Feed).

Benefits of this investment include:

- Reduced waste to landfill - Increased food waste reclamation/recycling rates.
- Supporting local food systems - Particularly emerging poultry, pork and aquaculture producers.
- Enabling more resilient and sustainable food systems - Improving national food sovereignty, resource use efficiency and reducing our dependence on scarce and over-utilized resources.
- Direct and indirect job creation.
- Opportunity for supplier development - Particularly level 1 EMEs in logistics and larvae outgrowth.

Company and Management:

Nambu and its team is ideally suited to address this problem as we have accumulated in-depth learnings over a 5 year period of developing from concept to our initial commercial plant. We are currently the only BSFL producer in the Eastern Cape, and are one of a handful in Southern Africa. This gives us a unique first mover advantage in market creation and product development.

We are further suited due to our decentralised and low tech model of business development, a unique feature even among other BSF producers who tend to be highly centralised and mechanised. We have developed our production systems with the African context in mind, where capital and skill can be scarce, but labour is not. Our model can therefore work in any small to medium (and large) centre within the Sub-Saharan Region, where infrastructure constraints necessitate more basic operations that have a low level of technical difficulty to establish and operate. In this way we can spread the economic, social and environmental benefits of this emerging industry to areas that would otherwise be unserved – igniting a new paradigm of sustainable economic activity through the leapfrogging of outdated techniques in waste management and feed production.