



# BETTER INSECT SOLUTIONS

***Going from pilot to scale-up farming of BSF –  
current technical solutions and business perspectives***

*IPIFF Annual Conference, 15 Nov 2023*

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# AGENDA

- A bit about BIS
- Our insect farming solutions
- References
- Live feeding of BSF to pig & poultry

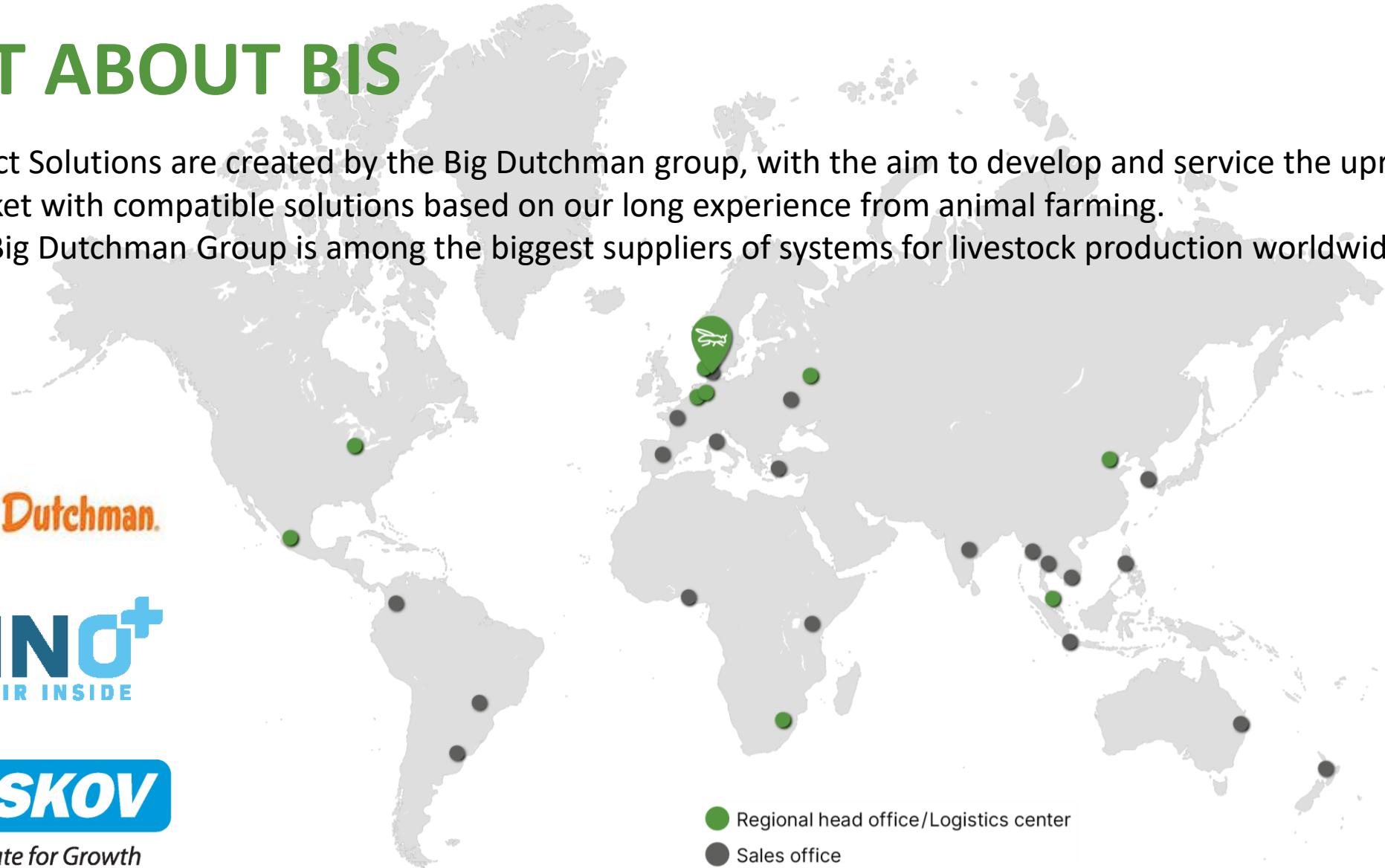


# A BIT ABOUT BIS

Better Insect Solutions are created by the Big Dutchman group, with the aim to develop and service the upraising insect market with compatible solutions based on our long experience from animal farming. Today the Big Dutchman Group is among the biggest suppliers of systems for livestock production worldwide.

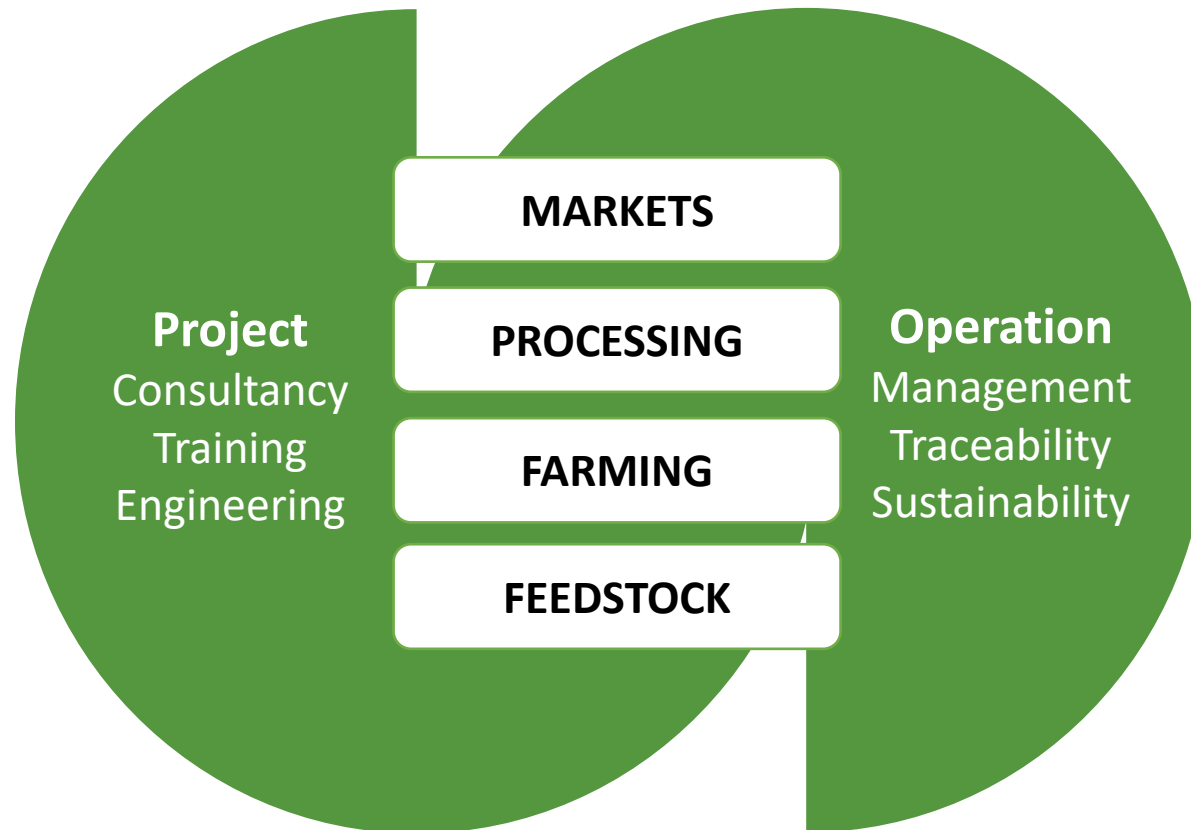


*Climate for Growth*





# OUR VALUE PROPOSITION: YOUR ONE-STOP HUB



# FROM IDEA TO OPERATION

PRE-FEASIBILITY

FEASIBILITY

EXECUTION

TECHNICAL COMMISSIONING

BIOLOGICAL COMMISSIONING

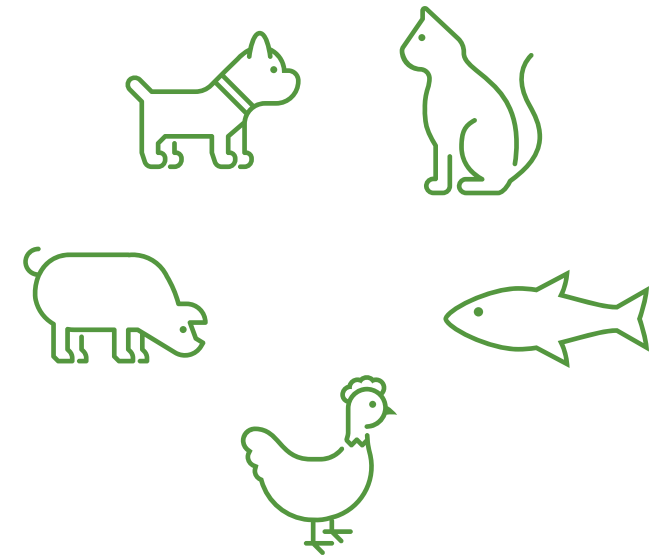


# END-TO-END SOLUTIONS

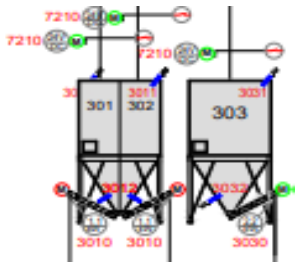


# MARKETS

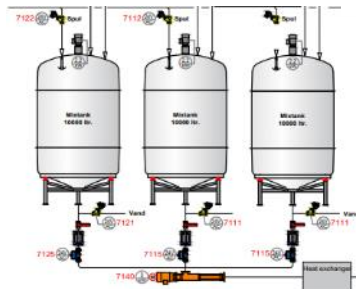
- The main products make up live larvae or if processed on-site **protein meal and oil**. Additionally, a considerable amount of **frass** (insect manure) is produced
- The larvae are an animal product with **nutritional and health benefits** for animals (and humans)
- The primary markets comprise **pet food, aquaculture and feed for poultry and pigs**



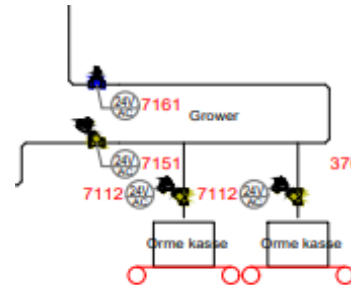
# TRACEABILITY



Feed intake – control per batch

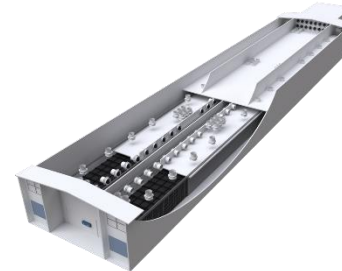


Recipe mix with unique ID

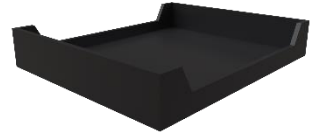


Logistics – dosing tagged recipe mix into crates with unique ID

Transfer of crates to Grow-out section with tagging of climate data



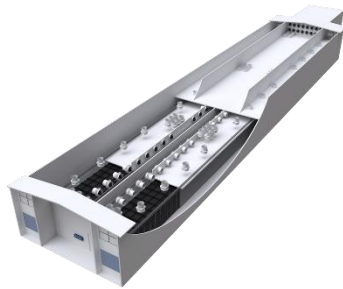
Harvest of crates tagging of ID with batch going to processing





# SUSTAINABILITY

## PRODUCTION

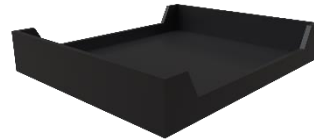


### Monitoring

CO<sub>2</sub>  
NH<sub>3</sub>  
kWh  
H<sub>2</sub>O



## HARVEST



### Monitoring

FCR  
Yield larvae/batch  
Yield frass/batch



## PROCESSING



### Monitoring

kWh  
Protein yield/batch  
Fat yield/batch



## ESG REPORTING



# CASE: ENORM BIOFACTORY



**Danish production site of 20,000 sqm producing 36,000 t BSFL/year**

Construction to be completed end of 2023

**BIS delivers with the sister companies**

- Feeding system
- Air cleaning & heat recovery
- Climate system for larvae and flies
- Crates for larvae



# CASE: FARMINSECT

# FARMINSECT

**German Start-up for supporting small scale applications of 300 – 1000 BSFL/year on a 400 – 1000 sqm producing area**

**Already installed three plants – another two will follow in end of 2023**

**BIS delivers with the sister companies**

- Feeding system
- Climate system for larvae and flies
- Crates for larvae





# LIVE FEEDING TO PIG & POULTRY



## ON-FARM OPPORTUNITIES WITH INSECTS

Utilize on-farm residues and other waste streams to create local supply of high-quality nutritious animal feed

Live larvae as feed may improve animal welfare (reduced feather pecking or tail biting) and potentially reduce use of veterinary drugs





BETTER  
INSECT  
SOLUTIONS

## CONTACT

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