

## Life Cycle Assessment

LCA combines methods of life cycle assessment, assessing environmental impact, life cycle costing, economic impact, lifecycle management and engineering focussing on product optimization with respect to different sustainability factors.

Insects and insect protein contribute to the natural daily diet for thousands of species of wild fish and monogastric livestock across the world.

Insects need a feed source themselves, and to avoid competing with other uses, **PROteINSECT** will focus on the use of waste materials for production of fly larvae.

## Quality & Safety

**PROteINSECT** will carry out a comprehensive assessment of the quality and safety of insect derived feed components (both crude and processed) and their suitability for incorporation into animal feed.

## Stakeholder Groups

Dialogue with and among producers of feed and feed ingredients, livestock and aquaculture industries and government will be encouraged by the project, essential in order to develop codes of best practice for the feed industry. **PROteINSECT** welcomes the participation of stakeholders.

To learn more contact us at:

[info@proteinsect.eu](mailto:info@proteinsect.eu)

**PROteINSECT** is a 3 year EC funded project (2013-2016) co-ordinated by FERA (Food & Environment Research Agency) in the United Kingdom. The consortium has partners from Europe, Africa and Asia, ranging from feed industry multinationals, research centres and universities, to farmers and experts in policy change and communications.

### Partners:

FERA, UK  CAB International, UK   
Nutrition Sciences NV, Belgium   
Katholieke Universiteit Leuven, Belgium   
Minerva HCC Ltd, UK   
eutema Tech. Management, Austria   
Grantbait Limited, UK   
Guangdong Entomological Institute, China   
Huazhong Agricultural University, China   
Fish for Africa - Ghana limited by guarantee, Ghana   
Institut d'Economie Rurale, Mali   
The University of Stirling, UK 

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### Insects as a sustainable source of protein

**PROteINSECT** is investigating how flies can contribute to the growing demand for protein in animal feed

With an increasing global population and a rise in per-capita meat consumption in developing countries, there is a need to investigate alternative sources of protein for use in animal feed.

For generations, a variety of insects have been a valuable source of protein for both human consumption and animal feed across continents other than Europe.

As consumption habits shift to pork, chicken and fish, insects have the potential to be utilised more effectively as a natural ingredient in high-protein feed.



## ORGANIC WASTE



### PROteINSECT - Enabling the Exploitation of Insects as a Sustainable Source of Protein for Animal Feed and Human Nutrition

Food security is a global challenge. Due to the increased demand for food, and particularly meat production, there is an urgent need to increase the supply of protein from sustainable sources.

Currently more than 80% of the protein required for livestock rearing in the European Union is imported from non-EU countries. The European Parliament has recently adopted an 'own initiative' resolution to address the EU's protein deficit, stating that urgent action is needed to replace imported protein crops with alternative European sources.

The EC funded PROteINSECT project is facilitating the exploitation of insects as an alternative source of protein through incorporation of insect protein into animal feed.

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Advances have been made in rearing of insects for incorporation in animal feed in non-EU countries such as China, Ghana and Mali.



The PROteINSECT consortium brings together expertise from these countries, together with European insect breeders and feed production companies, to optimise systems and set up pilot scale production facilities in the EU and improving quality issues in non-EU countries.

Working with the black soldier fly and domestic household fly, PROteINSECT is running production and feeding trials with insect derived proteins with pigs, chicken and fish.

The project is also running safety, quality and life-cycle analyses, as well as creating a Pro-Insect Platform across Europe to support legislative and regulatory change.

