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IPIFF Position Paper

Unlocking Nature-Positive Investment The Case for Including the Insect Sector in the EU Nature Credit Framework

Submitted in response to: The European Commission's Feedback Consultation on the Roadmap on Nature Credits

Submitted by: The International Platform of Insects for Food and Feed - IPIFF

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1. Who is IPIFF

The International Platform of Insects for Food and Feed (IPIFF) is the umbrella organisation of the European insect-producing sector towards European institutions. Bringing together 57 members - most of which are European insect-producing companies - IPIFF promotes the use insects and insect-derived products as a top-tier source of nutrients for human consumption, animal feed and plant nutrition.

The insect industry has emerged as one of the fastest-scaling sectors among industrial start-ups and innovations in Europe, offering a promising pathway to meet Europe's ambitious goals of reindustrialisation and transitioning to a climate-responsible economy. EU support measures should be stepped up to address the specific needs of the sector during its critical phase of scaling up.

2. The state of play of the EU insect sector

The EU insect sector has over 250 production facilities across Europe, predominantly SME's and Start-ups. The sector has passed a critical threshold and has set its mark to be commercially interesting. Production is scaling up to meet the needs of food-feed-plants markets, while building up know-how. The EU insect sector is responsible for 3,500 jobs created until today (incl. above 1,000 direct jobs) and expected to deliver up to 30,000 jobs by 2030.

At the same time, there is a great diversity in types of farms, operational sizes and production models (e.g. 'full liners' vs. decentralized models) and higher level of integration with several other production systems (e.g. 'colocation' with agro-industries, partnerships with farmers).

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Notably, the European insect sector has reached a critical threshold on the path to achieving industrial and commercial maturity, as evidenced by the substantial investments (i.e. above 1.5 billion EUR) allocated to the building of production capacities amounting to over 150 across Europe, and the employment of more than 3.500 people in the most diverse regions of Europe, mostly rural.

3. The Insect Sector as an Inherent Generator of Nature-Positive Outcomes

The European insect production sector welcomes the Commission's initiative to develop a high-integrity framework for nature credits. This instrument is a crucial step towards recognising and rewarding economic activities that deliver verifiable, additional benefits for biodiversity, the circular economy, and climate mitigation.

Insect farming is not merely a novel form of sustainable protein production; it is a **bioconversion engine that inherently generates quantifiable, positive environmental externalities**. This paper argues that the insect sector is a prime candidate for inclusion in the nature credit framework, as it directly operationalises the "nature-positive" principle by transforming low-value organic side-streams into high-value biomasses while restoring ecosystem functions.

A) Making the EU food system more resilient: Reduction of the reliance on imported protein

The diversification of protein sources through insects can enhance the resilience of the EU's food system. By reducing dependence on a limited range of protein sources, the EU becomes more adaptable to disruptions and challenges, fostering food system resilience, as emphasised in the 'Farm to Fork Strategy'. By producing protein locally through insect farming the EU can reduce its reliance on imported protein for animal feed and food production.

Insects offer a protein production alternative, which is complementing and non-competing with conventional sources, with proven beneficial effects even at low inclusion rates, providing an additional solution to reducing the dependency of the EU on animal feed, soil fertiliser, or even food production.

By incorporating this alternative protein source into the food supply chain, the EU can reduce its reliance on resource-intensive livestock production, contributing to the Farm to Fork Strategy's goal of promoting more sustainable and climate-friendly food systems.

The insect sector can contribute a great deal to the EU to achieve the 'Farm to Fork Strategy' objectives and support the EU's transition towards a more sustainable and resilient food system, by offering nutritious, environmentally friendly alternative protein sources.

B) Improve resilience of the Food System by being less reliant on imported animal feed

Insects (e.g. mealworms, black soldier flies, crickets) are protein-rich animal feed, rich in omega-3 fatty acids, B, and other vitamins, minerals, and other nutrients that are beneficial for the health and growth of animals.

Additionally, insects support beneficial gut bacteria, while reducing pathogenic bacteria and are highly digestible, which promotes efficient nutrient absorption by the animals. Insects are especially highly digestible for poultry, fish, and livestock. Furthermore, insects are becoming increasingly popular as a sustainable complement to be used in animal feed.

Insects offer a sustainable and nutritionally valuable option for animal feed production. This alternative feed ingredient by being produced in a controlled environment, can help address the challenges of traditional feed production such as resource scarcity, less exposure to geopolitical instability and environmental impact associated with climate change events, while providing essential nutrients for livestock, poultry, aquaculture, and other animals in the agricultural industry.

C) Ensure that the EU is more self sufficient on protein-rich food production and improving EU citizen's diet

Insects are nutritious protein sources. Rich in essential amino acids, healthy fats, vitamins, and minerals. Integrating insect protein into food products supports a more balanced diet by the EU citizens. Insects diversify the protein supply, reducing the EU's heavy reliance on conventional animal-based proteins. Insect-based products, such as cricket flour, insect protein bars, and snacks, present unique and attractive alternatives for consumers.

This sustainable protein can be used to create nutritious food products that align with health goals, reducing the prevalence of diet-related health issues. Insects highly versatile, allowing them to easily being incorporated into many food products, further diversifying the EU's protein landscape.

Insect-based protein Novel Food products are subject to EU food safety regulations, providing consumers with safe and nutritious options. Insects can be produced under controlled conditions, ensuring food safety and quality, reducing the risk of contamination and ensuring food safety.

D) Making soil fertiliser more available and more affordable to the EU farmer

Insect frass is used to describe insect larvae faeces or dejecta. Frass has concentrations in nitrogen, phosphorus, and potassium (NPK) like those found in animal manure. This makes it a great fertilising product. The land application of insect frass is consistent with circular economy principles, by reintroducing valuable nutrients into the food chain, while it offers sustainable solutions to European farmers (e.g. arable crops, viticulture) and/or gardeners.

The use of frass in organic agriculture is allows organic producers to benefit from a more diverse palette of locally available bio-based fertilising products.

The European insect sector is at a turning point in its development as production is ramping up, e.g. IPIFF forecasts that European insect producing companies should produce over 120.000 tons of insect feed products by the end of 2025. Increased insect ingredients production will go hand in hand with growing quantities of insect frass - insect excrements/dejecta - generated, i.e. we forecast that over 400.000 tons of insect frass should be produced by European insect producers in 2025.

Regulatory delays are hindering the opportunity offered by insect producers to contribute to providing more reliant, available and affordable soil fertilizer to EU farmers.

E) Allowing the Sustainable Production of Biogas

An investment in insects translates into the unleashing of the market potential of their many applications. Along with the use of frass as fertilizing product, European insect producers are exploring avenues to efficiently upcycle the produced frass through their use in biogas and/or composting plants.

IPIFF welcomed the Proposal of a list of Net-Zero technology final products and their main specific components to include in its Annex, under Sustainable biogas and biomethane technologies the possibilities offered by the authorised use of Sustainable biogas plants and methane-Anaerobic digesters /Fermentation tanks and Biomethane and upgrading units. Such a reference enables the production of biogas by EU insect producers.

Nonetheless, regulatory delays are not enabling the use of insect frass in biogas production by EU insect producers.

F) Accelerate the transition to a more sustainable economy

Insect proteins have a lower carbon footprint compared to conventional livestock production. Integrating this alternative protein source can help the EU achieve its targets for reducing greenhouse gas emissions and combatting climate change.

Farming insects for protein production can alleviate pressure on natural ecosystems and reduce habitat destruction associated with conventional agriculture. By minimising the demand for land and water, the insect sector can support the Farm to Fork Strategy's objectives of protecting biodiversity and ecosystems.

Insect farming requires minimal land, water, and feed compared to traditional livestock. Therefore, embracing insect farming enhances the EU's commitment to sustainable food production and resource efficiency.

A true circular agricultural economy can be achieved thanks to insects, with the use of organic waste streams and by-products to feed insects. This protein source, with its circular practices close nutrient loops and valorises food waste. We can easily affirm that insect farming is inherently aligned with the Farm to Fork Strategy's vision of creating a circular and more sustainable food system.

4. The Compelling Case: Insect Farming as a Multi-Beneficial Nature-Positive Activity

The EU insect sector aligns perfectly with the objectives outlined in the roadmap, delivering measurable outcomes across multiple ecosystems and policy areas.

Core Nature-Positive Activities and Measurable Benefits

Sector Activity	Nature Credit Benefit & Alignment with EU Policy	Quantifiable Outcomes for Certification & Crediting
Bioconversion of Organic Side-Streams Using agri-food by-products (e.g., unsold bread, fruit/vegetable pulp, brewers' spent grains) as substrate.	Waste Reduction & Circular Bioeconomy Diverts organic waste from landfills (avoiding methane emissions) and reduces the environmental footprint of primary production. Aligns with the Waste Framework Directive and the ambitions of the EU Bioeconomy Strategy.	• Tonnes of CO₂-eq avoided (methane mitigation from landfill diversion). • Cubic metres of landfill space saved. • Tonnes of side-streams valorised into high-value biomass.
Low Environmental Footprint Production Superior feed conversion efficiency, minimal land and water use, and low direct greenhouse gas emissions.	Climate Mitigation & Land/Biodiversity Preservation Drastically reduces pressure on land, water, and climate systems compared to traditional livestock, indirectly protecting natural habitats. Directly supports the Climate Law and Nature Restoration Law.	• Life Cycle Assessment (LCA) data showing lower GHG, land, and water use per kg of protein. • Hectares of land preserved from agricultural conversion.
Production of Sustainable Feed Ingredients Insect meal and oil serve as high-quality alternatives to fishmeal (alleviating fishing pressure) and soybean	Ecosystem Relief & Sustainable Sourcing Contributes to healthier oceans and reduces the EU's dependency on imported deforestation-linked proteins. Supports the Sustainable Fisheries and Aquaculture Policies and EU Deforestation Regulation.	• Tonnes of wild-caught fish saved (via replacement of fishmeal in aquafeeds). • Hectares of deforestation avoided (via replacement of soybean meal in animal feed).

Sector Activity	Nature Credit Benefit & Alignment with EU Policy	Quantifiable Outcomes for Certification & Crediting
meal (reducing deforestation).		
Output of Organic Fertiliser (Frass) Insect excrement is a nutrient-rich, soil-amending fertiliser that promotes soil health.	Soil Health & Regenerative Agriculture Enhances soil organic matter, structure, and microbial activity, contributing to carbon sequestration and reduced need for synthetic fertilisers. Aligns with the Soil Monitoring Law and CAP objectives.	• Improved soil health metrics (organic carbon content, water retention, microbial biomass). • Reduction in synthetic fertiliser use (kg/ha).

3. Strategic Alignment with the Proposed Nature Credit Framework

The insect sector is uniquely positioned to thrive within the proposed two-step model of certification and crediting, offering a scalable and verifiable case study for its success.

A) A Prime Candidate for High-Integrity Certification

Insect farming operations are typically controlled, industrial environments, which facilitates precise **monitoring, reporting, and verification (MRV)**. This inherent traceability—from input side-streams to output products—makes the sector ideal for the rigorous, science-based certification the Commission envisions, effectively mitigating risks of greenwashing.

B) Generating Quantifiable and Additional Nature Credits

The sector's benefits are not theoretical; they are measurable using established metrics like LCA, waste diversion statistics, and soil health analyses. **The additionality is clear: without the insect sector, these organic side-streams would represent a waste management burden and a source of emissions, not a resource for nature restoration.**

C) Delivering Essential Co-Benefits from the Outset

The Commission's Carbon Removals and Carbon Farming (CRCF) Regulation highlights the value of co-benefits. Insect farming does not merely offer co-benefits; **biodiversity and ecosystem restoration are foundational to its business model**. Investing in insect farming inherently means investing in a circular, nature-positive system.

4. Recommendations for Integrating the Insect Sector

To fully unlock the potential of the insect sector within the nature credit system, we propose the following actions:

1. **Explicit Eligibility:** Include "sustainable insect farming" as a qualifying activity within the EU nature credit framework, recognising its multi-faceted and synergistic environmental benefits.
2. **Develop Sector-Specific Methodologies:** Collaborate with the sector within the proposed **EU expert group on nature credits** to develop robust, standardised methodologies for quantifying its unique bundle of benefits (waste valorisation, land/sea use reduction, soil amendment).
3. **Pilot Projects for Insect Farming:** Designate and fund specific pilot projects under Horizon Europe and the LIFE programme to test and refine the certification and crediting process for insect farms, creating a blueprint for the entire bioeconomy.
4. **Ensure Accessibility for SMEs:** Apply the "think small first" principle to the governance framework, ensuring that the administrative burden and costs of certification are manageable for the small and medium-sized enterprises that form the backbone of the innovative insect sector.

5. Conclusion: A Strategic Investment for a Resilient, Nature-Positive Economy

The EU insect sector is a ready-made, scalable solution that actively repairs our natural systems while creating green jobs and enhancing strategic autonomy. By targeting policy and financial incentives towards our sector through the nature credit framework, the European Commission can:

- **Accelerate the Bio-Transition:** Drive private capital towards a circular, inherently nature-positive business model.
- **Achieve Multiple Policy Goals Efficiently:** Advance objectives for climate, waste, biodiversity, soil health, and food security with a single, high-impact investment.
- **Solidify EU Global Leadership:** Position Europe at the forefront of developing a verifiable and investable nature-positive economy.

‘We stand ready to collaborate with the European Commission, Member States, and fellow stakeholders to refine this framework and ensure the insect sector can fully deliver on its promise for a resilient and prosperous European economy, in harmony with nature’.

IPIFF, the International Platform of Insects for Food and Feed,

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