



## **IPIFF Position Paper: Towards the Recognition of Insect Bioconversion as a Strategic Net-Zero Technology in the EU's Public Procurement Framework**

**Reference:** As regards minimum environmental sustainability requirements for public procurement procedures involving certain net-zero technologies (Ref. Ares (2025)7728646 - 16/09/2025)

Brussels, the 13th of October 2025

### **I. Who are we?**

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 54 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.

### **II. 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.

### **III. Insect: Providing sustainable biogas production in the EU**

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.

### **IV. About this initiative and how it relates to our sector**

IPIFF welcomes the European Commission's proposal to leverage public procurement for strengthening Europe's net-zero technology manufacturing ecosystem. This initiative, as outlined in the draft Implementing Regulation, is a crucial step towards achieving the Green Deal objectives by creating guaranteed markets for environmentally sustainable technologies.

We strongly support the rationale behind the proposal, particularly its aim to stimulate demand for "environmentally sustainable and resilient net-zero technologies" (Recital 1). However, we wish to highlight a significant gap in its current scope: the omission of insect bioconversion - a technology that embodies the principles of circularity and sustainability central to Regulation (EU) 2024/1735.



This paper argues for the future recognition of insect bioconversion within this framework, positioning it as a key enabler of Europe's net-zero and circular economy ambitions.

## V. Insect Bioconversion: A Inherently Circular Net-Zero Technology

Insect bioconversion is the process by which insects, such as the Black Soldier Fly or Yellow Mealworm, convert low-value organic side streams into high-value resources. This process directly aligns with and advances the core objectives of the Net-Zero Industry Act and the Circular Economy Action Plan.

- **Waste Reduction and Valorisation:** Insects efficiently transform agri-food by-products (e.g., fruit/vegetable peels, spent grains, brewer's yeast) into valuable products, diverting organic waste from landfills where it would decompose and release methane, a potent greenhouse gas.
- **Sustainable Protein Production:** The primary output, insect protein, is a low-carbon, resource-efficient alternative to imported, deforestation-linked proteins like soy meal and fishmeal in animal feed. This directly decarbonizes the livestock, aquaculture, and pet food sectors.
- **Organic Fertiliser Production:** Insect frass (excrement) is a nutrient-rich, bio-active organic fertiliser that can reduce dependence on energy-intensive synthetic fertilisers, closing nutrient loops in agriculture.
- **Sustainable biogas production:** Commission Regulation (EU) 2025/1377 of 15 July 2025 amending and correcting Regulation (EU) No 142/2011 lays down standard transformation parameters for composting or biogas transformation of frass, thereby providing legal basis allowing insect producers to valorise insect frass through such outlets.

## VI. Alignment with the Proposal's Legal and Strategic Rationale

Our position is that insect bioconversion fits perfectly within the logic and structure of the proposed Regulation.

### A. Addressing the "Significant Gap" in Methodologies (Recital 5):

The proposal correctly notes that methodologies for many net-zero technologies are still under development. The insect industry is proactively addressing this. We are actively collaborating with standardisation bodies to develop robust **Product Environmental**



**Footprint (PEF) Category Rules and Life Cycle Assessment (LCA) methodologies.** By initiating this dialogue now, we aim to have the necessary, Union-recognised measurement methods in place for future inclusion, mirroring the use of wind blade recyclability in the current text<sup>1</sup>.

**B. Creating a Market for Resilience and Sustainability (Recital 1):**

Just as the proposal seeks to enhance the Union's manufacturing capacity for solar and wind, public procurement can be a powerful tool to scale up the European insect sector. Public canteens, for example, could source eggs, poultry, or fish from farms that use insect-based feed, creating a reliable demand signal that de-risks investment and builds a resilient, European-based protein supply chain.

**C. Setting Ambitious yet Realistic Minimum Criteria (Article 3):**

Following the model of Article 3, which sets a [70%] recyclability rate for wind blades, future criteria for insect bioconversion could be established. These could include:

- **Minimum Circularity Rate:** A requirement that a defined percentage (e.g., 80-100%) of the substrate used in insect production must be composed of legally defined former foodstuffs or agri-food side streams.
- **Carbon Footprint Threshold:** A maximum Global Warming Potential (GWP) per kg of insect protein, verified via a standardised LCA.
- **Substitution Factor:** A requirement to demonstrate the substitution of a specific quantity of high-impact imported protein (e.g., soy from high-risk deforestation areas).

**VII. Call to Action and Recommendations**

We commend the Commission for its visionary approach to public procurement. To fully harness the potential of this framework for the bioeconomy, we respectfully propose the following:

1. **Formal Recognition:** We urge the European Commission to formally acknowledge **insect bioconversion** as a strategic net-zero technology in future reviews and amendments of **Regulation (EU) 2024/1735**.

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<sup>1</sup> [CEN EN 45555:2019\(Main\) -General methods for assessing the recyclability and recoverability of energy-related products](#)



2. **Inclusion in Future Delegated Acts:** We request that the Commission consider including insect-derived products (e.g., protein for animal feed, organic fertilisers) in the scope of future implementing acts, similar to the current one for solar and wind technologies.
3. **Collaboration on Standards:** We offer our expertise and collaboration to the Commission and relevant standardisation bodies (CEN, CENELEC) to develop the necessary **harmonised standards and verification methods** for the environmental performance of insect bioconversion systems.
4. **Pilot Procurement Projects:** We propose launching pilot Green Public Procurement (GPP) projects at the EU or national level to test and validate sustainability criteria for insect-based products in public supply chains.

## **VIII. Conclusion**

The draft Implementing Regulation for solar and wind technologies sets a powerful and welcome precedent. By applying this same logic to **insect bioconversion**, the European Union can unlock a powerful triple win: **reducing waste, decarbonizing the food chain, and strengthening European strategic autonomy in sustainable protein production**. We stand ready to work with the European Commission to integrate this transformative technology into the EU's net-zero industrial strategy, ensuring that public procurement becomes a catalyst for a truly circular and sustainable European economy.