

## Press Release

**World Fira, Toulouse 04–06 February 2025 | Booth 49**

# Escarda Technologies presents high-Tech, Herbicide-Free Weeding Solution

*Escarda Technologies will present its unique AI-powered weeding solution at this year's World Fira. The system seamlessly integrates laser technology with a high-performance camera and AI-driven software, offering an alternative to chemical herbicides.*

Toulouse, February 2025 – Weed control and the extensive use of herbicides remain significant challenges in modern agriculture. At the same time, reducing herbicide use is difficult due to the labor-intensive nature of manual weed control.

Addressing this issue, the Berlin-based startup Escarda Technology has developed a fully operational, high-tech solution designed for both organic and conventional farming. At booth 49, visitors of the World FIRA will be introduced to the innovative technology. They will get a firsthand look at two key components of the system, the laser box and the chiller and learn more about its space-saving and adaptable design.

### **Unique technology leading into the future**

Escarda's forward-thinking system, mounted as a tractor-towed implement, features an advanced camera that captures real-time images of the field. AI software analyzes these images to distinguish between crops and weeds. When a weed is detected, the system activates its precision laser to eliminate the unwanted plant at its root. The camera's sensitivity allows it to detect weeds as small as 3 mm, enabling removal at an early growth stage. The AI is currently trained to recognize carrot, lamb's lettuce, and tomato crops, with ongoing development for onions, potatoes, broccoli, parsnips, and strawberries. The system is already being tested by various pilot customers, including California's largest tomato processor, Morningstar.

A key advantage of Escarda Technologies' system is its compact, lightweight, and modular design. Weighing just 400 kg, it requires only a 60 HP tractor to operate a single-row setup, making it significantly more flexible than many competing systems. The modularity allows farmers to adapt the configuration to different field sizes, with the option to expand capacity by using up to 10 laser boxes in parallel. This makes the system suitable for both small farms and large-scale agricultural operations.



Escarda Technologies is currently the only laser weeding system with a dedicated safety concept certified with the CE mark by the German certification body Dekra. The technology is patent-pending.

**Media Contact**

Christiane Herzer  
B.I.G. Corporate Services GmbH  
+49-30-902174-566  
[Christiane.herzer@berlin.industrial.group](mailto:Christiane.herzer@berlin.industrial.group)

**Company Contact**

Muhammed Sidi  
Escarda Technologies GmbH  
+49-155-60553125  
[muhammed.sidi@escarda.net](mailto:muhammed.sidi@escarda.net)

**About Escarda Technologies**

Founded in 2019 by software engineer Dr. Julio Pastrana, Escarda Technologies is backed by minority shareholder Berlin.Industrial.Group. (B.I.G.), a consortium of highly specialized technology companies and startups. Escarda's development team benefits from the advanced technical infrastructure of the B.I.G. Campus in Berlin, including access to the laser application center and collaboration with leading specialists on-site.

<https://www.escarda.tech>

[www.berlin.industrial.group](http://www.berlin.industrial.group)

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Picture 1



Escarda Technologies' system for herbicide-free weed control is also suitable for farmers with small field sizes.

Picture 2



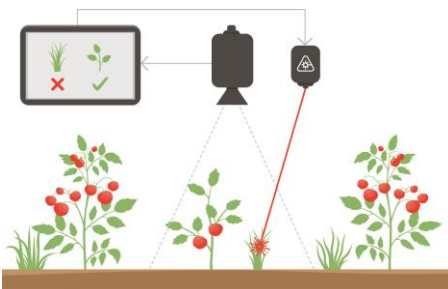
With its modular design, up to 10 laser units can be engineered for large-scale applications.

Picture 3



The camera's sensitivity allows it to detect weeds as small as 3 mm, enabling their removal at an early growth stage.

Picture 4



Escarda's system integrates laser technology with a high-performance camera and AI-driven software, providing an alternative to chemical herbicides.