

# AUTOMATED GROWING SYSTEM FOR IN-ROW PRODUCTION

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It integrates a complex orchard configuration with a novel technological solution that allows smart orchard management, providing savings in labor and production factors.

**Protection:** Italy (opportunity for seeking patent protection internationally)

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## INVENTION

This system represents an ideal mating of a technological infrastructure with smart orchard solutions, creating an ideal combination between biology and engineering, **increasing orchard productivity and sustainability**. It can autonomously perform **mowing, herbicide application, soil cultivation**, and simultaneously monitor several tree/orchard parameters. It supports labor in **pruning, thinning and harvest**. It's comprised of a smart orchard integrating state of the art solutions in tree training, spacings, fixed spraying system, hail and insect protection and specifically featuring a rail supported by posts, on which the mobile platform moves. The device uses only electric energy stored in on board battery pack, for supplying traction system and implements.

## ADVANTAGES

- Increased yields and fruit quality.
- Reduced labor costs and of production factors.
- Sustainability (:100% reduction of fossil fuel use, savings in irrigation water, reduction of the orchard C-footprint).

## APPLICATIONS

This invention is conceived specifically for innovative 2-D apple orchards, but it can be adopted in orchard of other species, provided they follow the same design criteria.

## CONTACTS

Knowledge Transfer Office

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