

PLA4COFFEE

Compost your coffee capsules



Aroma System S.r.l. in Bologna, Italy, has produced a fully compostable coffee capsule.

OUR STORY

Aroma System spun out of a family business that combines cutting-edge technology with a passion for good coffee. In 1988, we introduced our first degassing valve to restore the pressure inside sealed bags of recently roasted grains and have since been innovating machinery to keep each cup of brew flavourful and environmentally sustainable.



Innovation



Waste reduction



Environment

Larger with Life

Between 2015-2018, the EU LIFE Programme invested €1.5 million in the €2.5 million PLA4COFFEE project to tackle the 70 000 tonnes of waste generated each year by discarded coffee capsules in Europe. Because of challenges recycling the plastic-aluminium compounds in conventional coffee capsules, Aroma System engineered a compostable alternative made of polylactic acid (PLA), a bioplastic extracted from renewable sources such as starch and sugar.

EU added value

- Reduce plastic pollution in ecosystems
- CO₂ emissions per capsule down 40%
- Swap chemical fertilisers for compost

Prospects

- Save 15 000 tonnes of oil a year
- Replace plastics in other products
- Drive bio-plastic production in Europe

Achievements

- Formulated a safe and sturdy **compostable plastic** that remains stable at over 110° C
- Opened an **industrial plant** that can produce 120 kilograms of bioplastic an hour
- Manufactured over 400 compostable coffee capsules per minute in a choice of 6 colours
- Reduced **costs** to under €0.025 for each compostable coffee capsule
- Filed some **200 patents** and launched collaborations with the University of Rome Tor Vergata

Policy support

- Favour **composting over landfilling** as set out in the EU Waste Framework Directive
- Substitute **plastics** with renewable materials in line with the European bioeconomy strategy
- Encourage **industrial innovation** following the European entrepreneurship action plan

Contact

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LIFE supporting companies



The **LIFE Programme** has financed green innovation and clean tech solutions since its start in 1992. One of today's key priorities for LIFE is to support close-to-market projects delivering innovative environmental solutions, ensuring that they are sustainable and capable of being widely taken up by society in general, and the economy in particular.

The **Close-to-market initiative's** aim is to help and assist the LIFE projects with market potential to develop towards successfully maintaining project results via commercialisation and upscaling of the proposed innovative solutions.

How can LIFE support beneficiaries with close-to-market activities?

- Expert review of the close-to-market stage of your project and assessment of the close-to-market potential.
- Help with determining milestones and action points based on project readiness and assisting you with their progress during your project's whole lifecycle.
- Flexibility to use the LIFE project budget to get the necessary expertise including market analysis, detailed business plan preparation, coaching etc.
- Linking you with a network of advisers including the Enterprise Europe Network, coaches and accelerators.
- Assistance with financing and contacts with the investor community through events, introducing you to the SME Instrument and the European Investment Bank Group.
- Networking opportunities through LIFE platforms in order to build business partnerships with other key players.
- Gaining additional publicity for your innovative green solutions through the Innovation Radar platform and via dedicated handouts promoting close-to-market activities of LIFE.

“LIFE can help you to sustain and thrive even after the end of the LIFE project.”

LEARN MORE

 ec.europa.eu/life  [LIFE programme](#)
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HOW TO APPLY FOR LIFE FUNDING

The European Commission organises annual calls for proposals.

Full details are available at https://cinea.ec.europa.eu/programmes/life/life-calls-proposals_en

https://cinea.ec.europa.eu/programmes/life/life-close-market-projects_en#how-to-apply-for-funding

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