

# SCOPE

**I-Seed** aims at developing a new generation of **self-deployable and biodegradable soft robots**, inspired by the morphology and dispersion abilities of **plant seeds**, to perform low-cost, environmentally responsible, in-situ detection of **key environmental parameters** in air and topsoil.



# I-Seed

Towards New Frontiers for Distributed Environmental Monitoring Based on an Ecosystem of Plant Seed-like Soft Robots



## PARTNERS



**Seed-like robots** using **biodegradable materials** and natural morphological features, with the ability to **fly and disperse in air**, or to respond to humidity variations to **move on terrain surface** and **self-penetrate in topsoil** for in situ measurements.

The target parameters and pollutants will be **CO<sub>2</sub>, temperature, humidity, and mercury**. I-Seed will build a radical new scenario for **analyzing and monitoring air and top soil environments** and their interface, extending environmental sensor networks and filling existing gaps of data analysis systems.



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