



# PLANTOID

[www.plantoidproject.eu](http://www.plantoidproject.eu)

## Innovative Robotic Artefacts Inspired by Plant Roots for Soil Monitoring

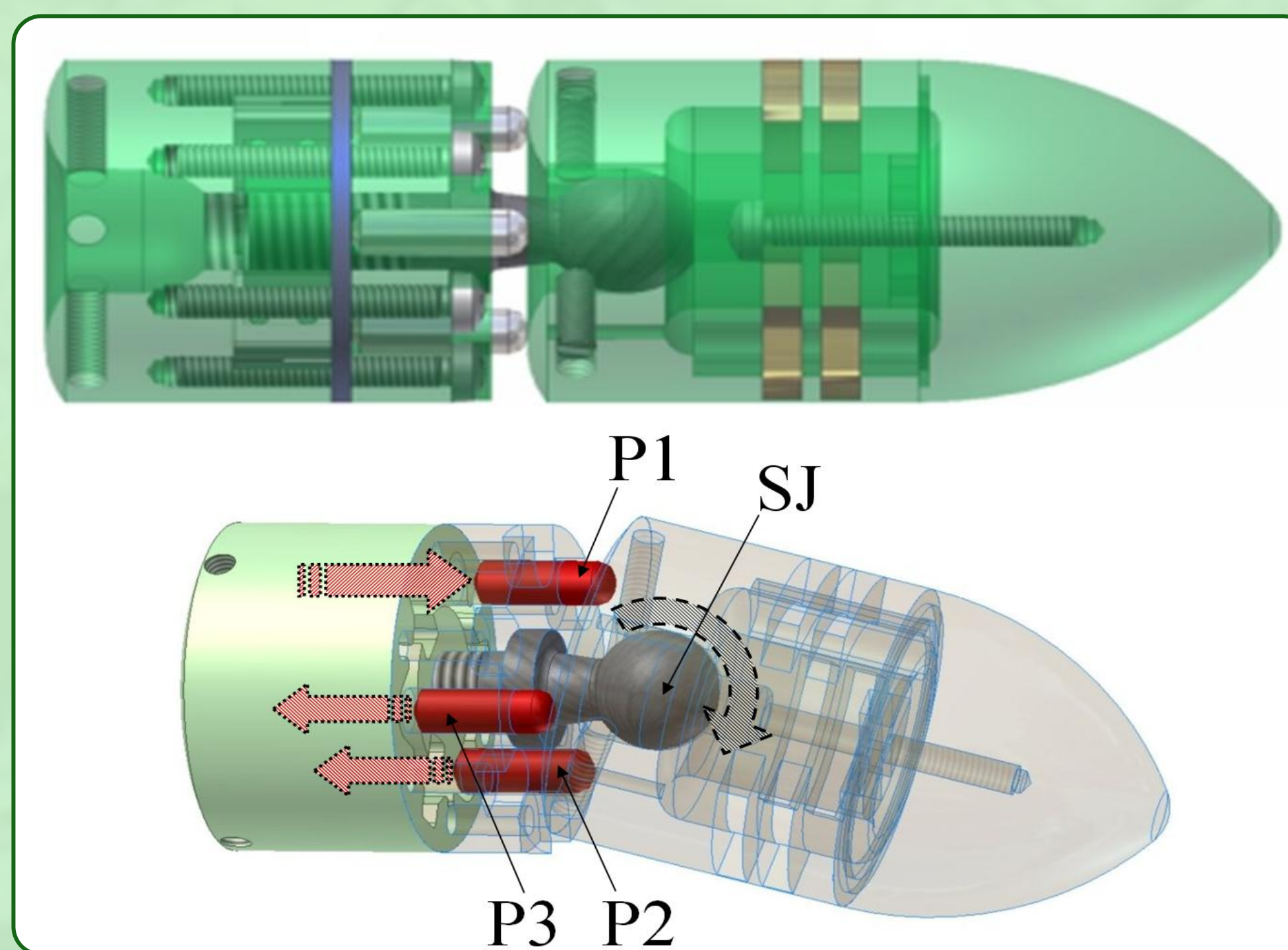
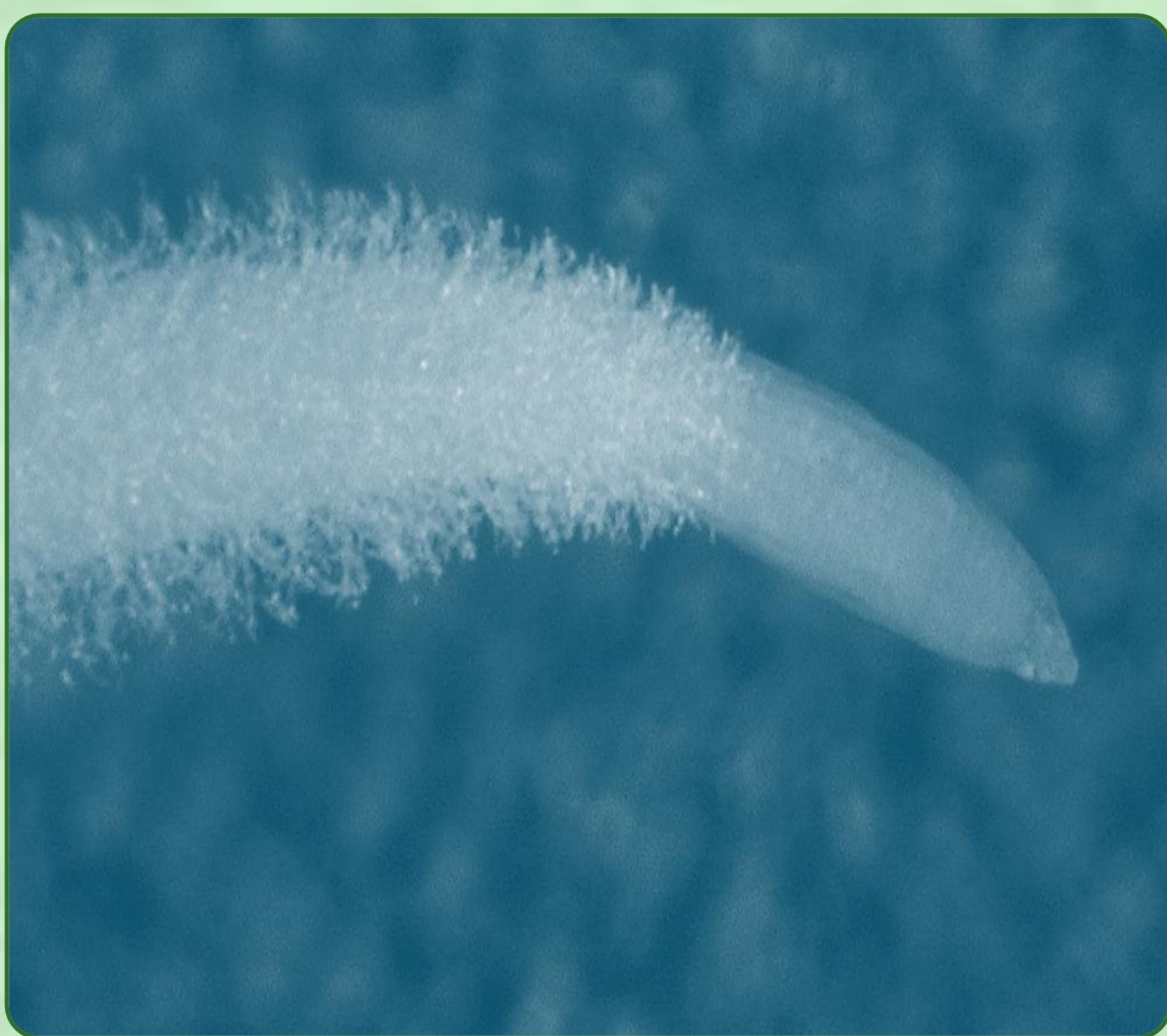


The plant roots as a model for  
**Collective Adaptive Behaviour**  
and as a source of inspiration for  
**Soft Robotics**

- The plant root system morphologically adapts to the environment to explore it with a number of rich sensorized probes
- Plants represent an excellent paradigm in terms of energy efficiency, low speed, strong actuation, and low power consumption
- Plants show adaptively variable growth and development during their lifetime



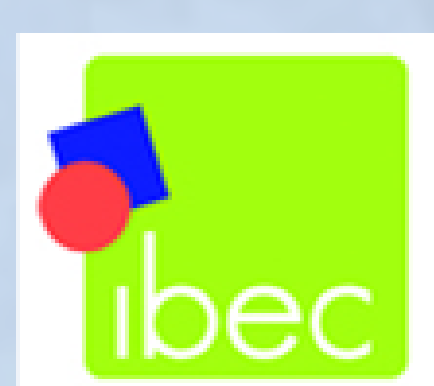
The **PLANTOID** project aims at taking inspiration from the smart, effective, and efficient strategies of plant roots to develop a new generation of robot and ICT technologies in sensing, actuation, and distributed adaptive intelligence for tasks of soil exploration and monitoring



### The PLANTOID Collaborative Project



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