

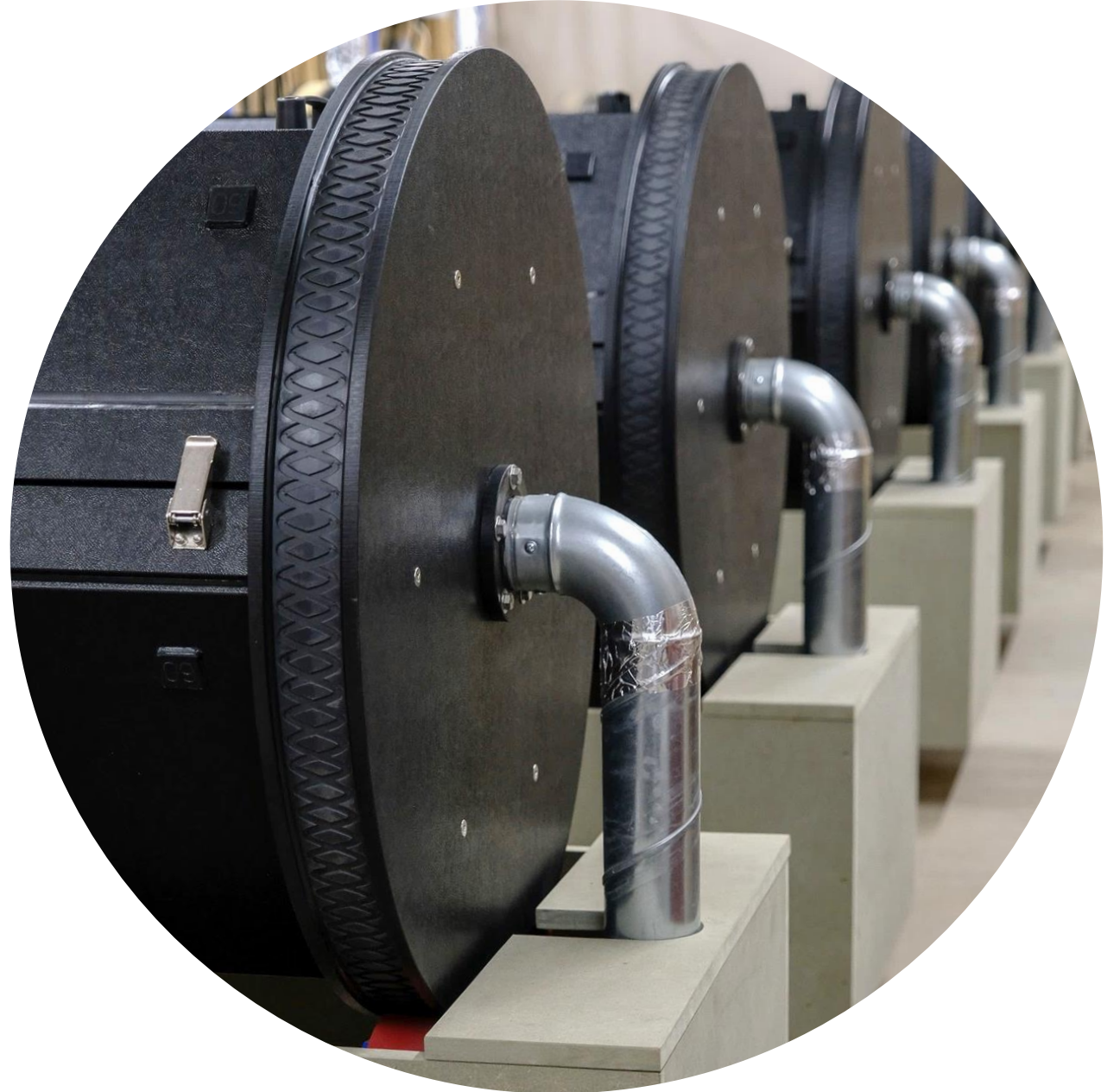


PRECISION
ORGANIC

SIMON HOLDEN & LEO WALTON

TOPICS

- INTRODUCTION
- THE SCIENCE
- THE TECHNOLOGY
- SUMMARY





INTRODUCTION

At Precision Organic we believe that we should be led by evidence and not assumption.

From the very start we have been led by science, and science is what will drive us towards success.

By measuring the essential inputs and outputs of the PODs we are able to control process accurately and reliably.

“Knowledge is power” and by collecting large amounts of data on the process we will be able to continually improve it.



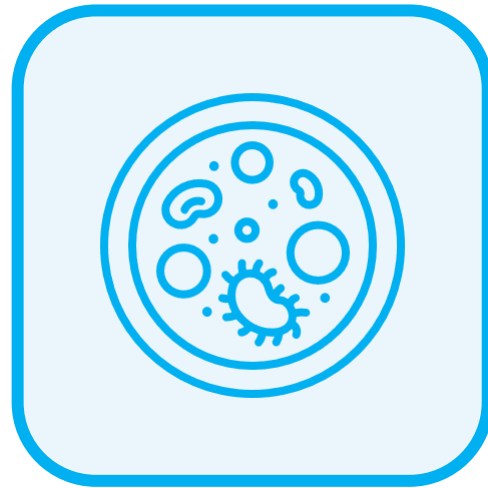
THE SCIENCE

AND THE CREATION OF A WORLD-LEADING
ORGANIC DISPERSAL SYSTEM

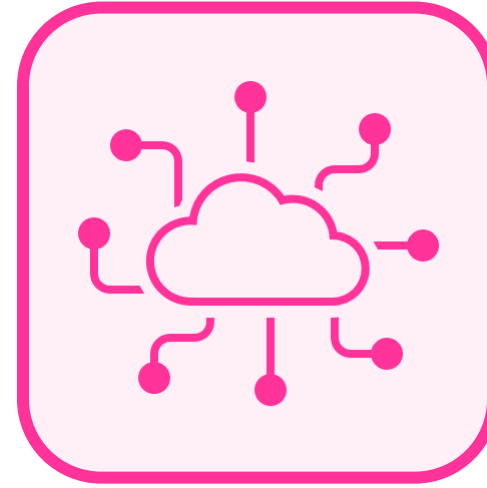
THE PRECISION ORGANIC DISPERSAL METHOD



**100%
NATURAL
PROCESS**



**MAXIMISE
NATURAL
MICRO-BIOME**



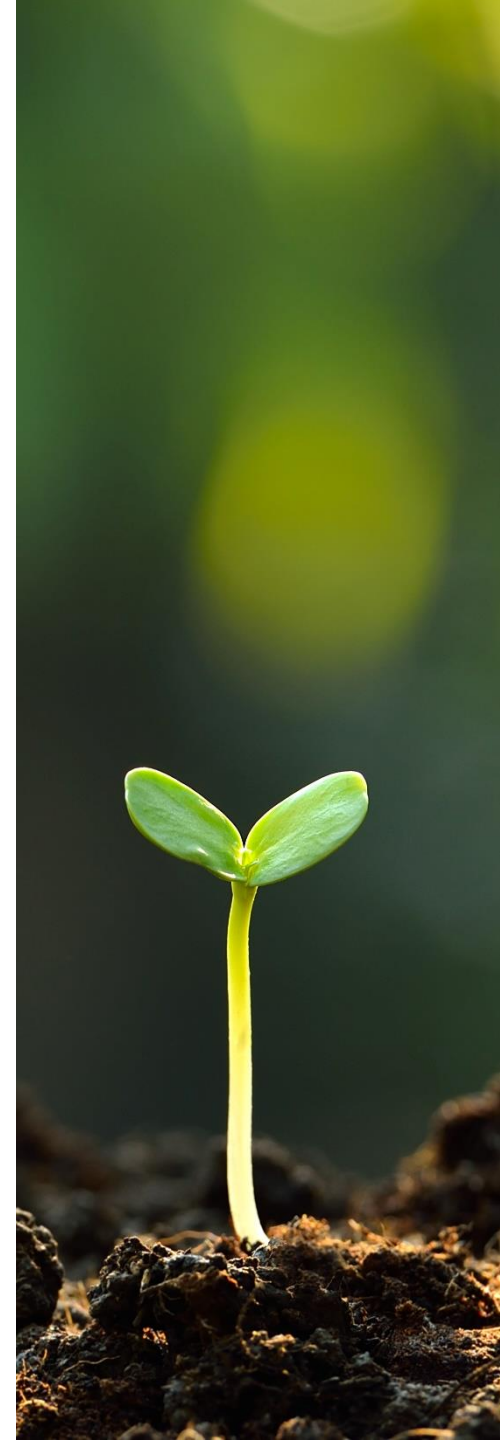
**CONTINUOUS
MEASUREMENT
AND CONTROL**



**NOTHING BUT
SOIL LEFT AT
THE END**

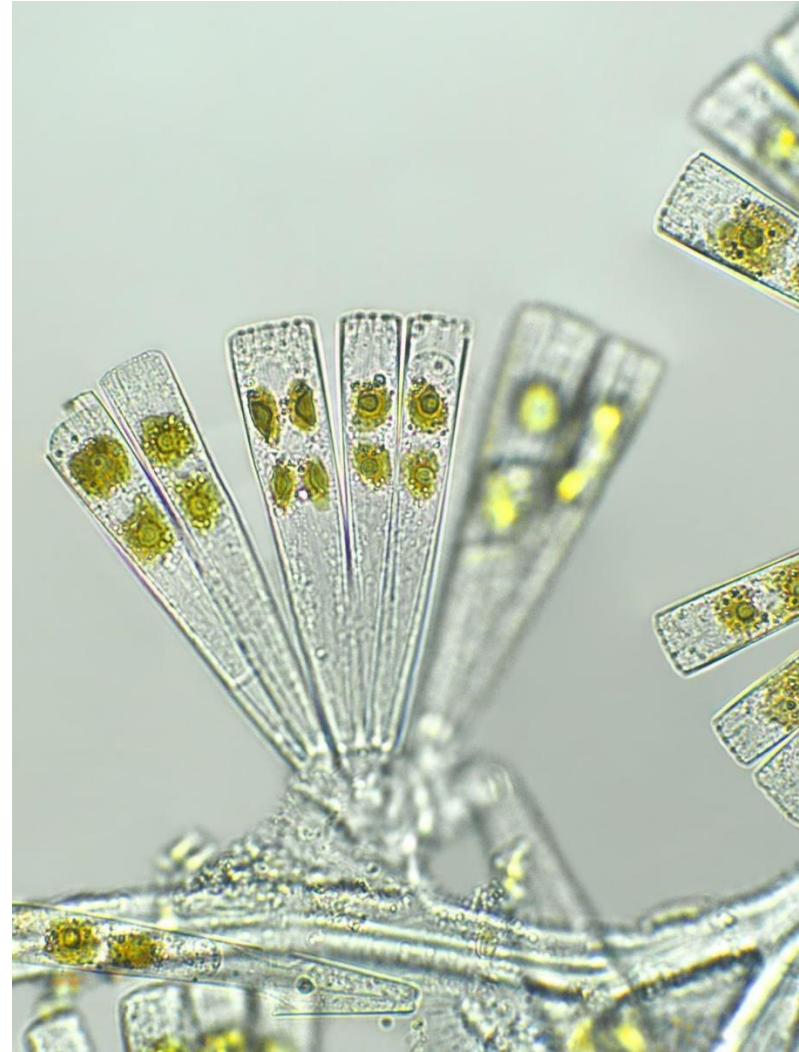
100% NATURAL PROCESS

- We create RTN Type 3 soil blend for use in the PODs
- It is specifically formulated to provide the optimal conditions for micro-biome
- RTN soil has been created by soil scientists and forensic taphonomists
- It is produced sustainably from renewable source materials
- Mother nature, turbo charged.



MAXIMISE THE NATURAL BIOME

- The RTN soil provides the perfect medium for micro-biome to thrive
- Micro-biome consists of bacteria, fungi, and other naturally occurring micro-fauna
- This micro-biome is the key to rapid decomposition



THE END PRODUCT

- Nothing is left at the end but the RTN soil and some additional nutrients
- There are no remains left, as all hard and soft tissue will be fully decomposed
- The RTN soil is screened to remove any prosthetics, pacemakers etc.





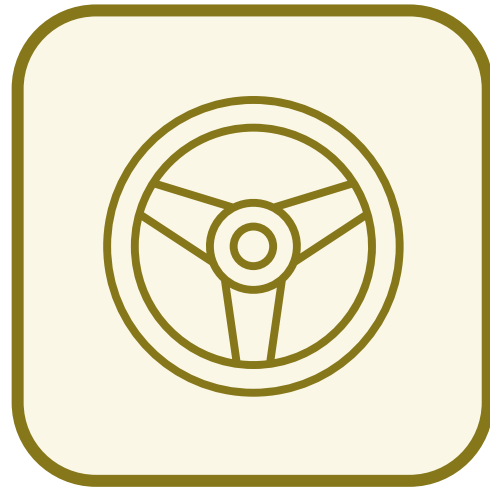
THE TECHNOLOGY

AND WHAT SEPERATES THE
PODS FROM THE REST?

WHAT CONTROLS OUR PODS



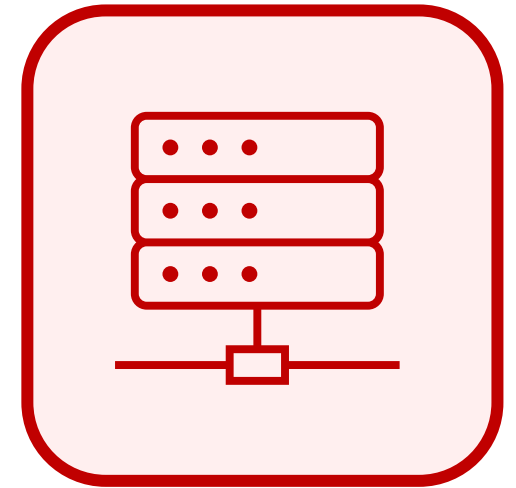
**CENTRAL
CONTROL
UNIT**



**SYSTEM
INPUTS &
DRIVE**



**SENSORS AND
MONITORING**



**DATA
COLLECTION
AND
ANALYSIS**

THE BRAINS OF THE OUTFIT

- Uses cheap and readily available micro-processor
- Wide range of hardware and software available
- Linux-based operating system - reliable and secure
- Large touchscreen for control and data visualisation



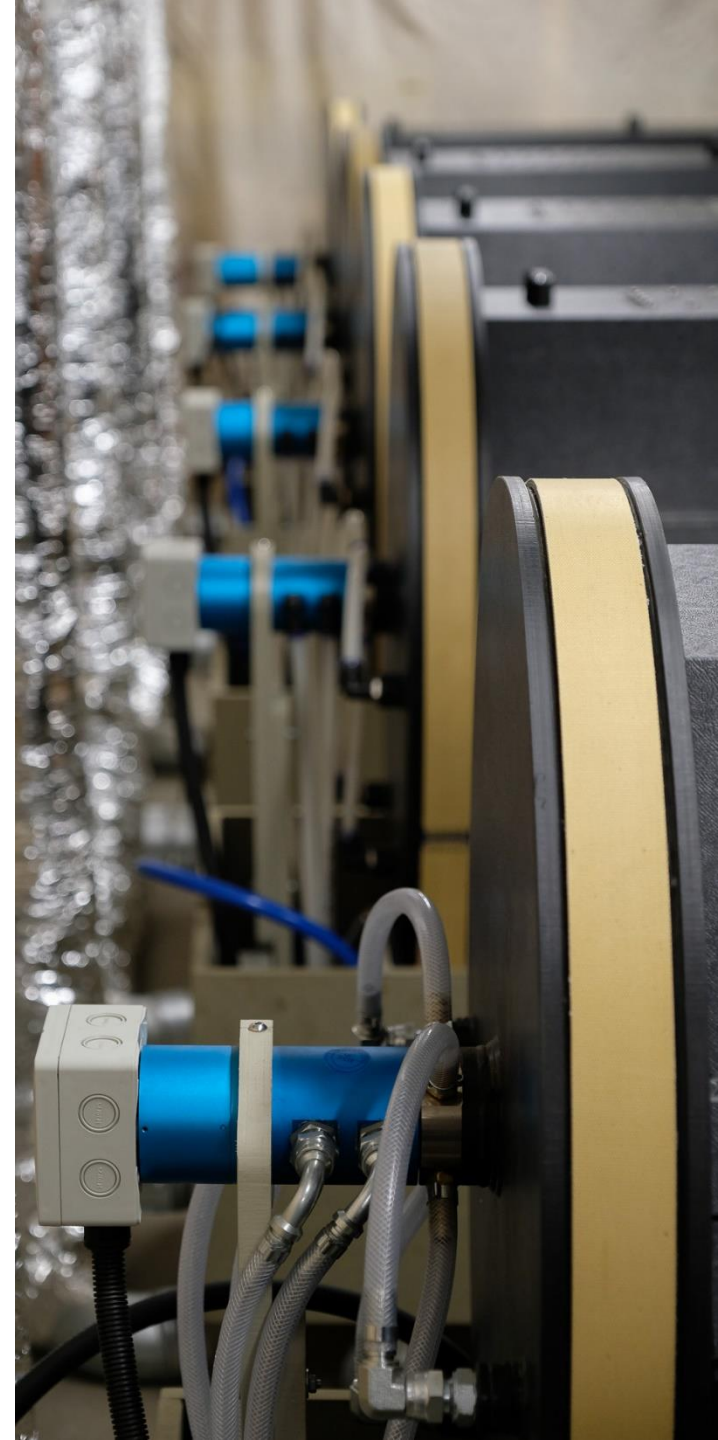
INPUTS INTO THE POD

- Other than RTN soil and the body we only add air, water, and heat
- We use compressed air so that it penetrates deep into the soil
- The water is purified to protect the micro-biome
- Heat is used to kickstart the process, as well as at the end



DRIVING THE POD

- Our POD is unique in that it can rotate in-situ
- The POD is slowly rotated at regular intervals
- Rotation ensures CO₂ release and even distribution of air and water
- POD rotation is protected by patents in the US, EU and UK



SENSORS AND MONITORING

- Multiple scientific-grade soil sensors per POD
- Other sensors mounted externally on waste gas duct
- Our system measures
 - Soil temperature, moisture content, and electrical conductivity
 - Waste gas CO₂ concentration, temperature, and humidity



SENSORS AND MONITORING

- Environment monitoring unit measures:
 - Ambient temperature and humidity
 - Ambient CO₂ concentration
 - Water quality
- Allows us to compare POD and ambient measurements
- Monitor water quality
- Also control water supply



DATA COLLECTION AND ANALYSIS

- We collect as much data as possible from each process
- Allows local data visualisation
- Collection of large data sets will enable machine learning
- When system is commercial, each system will upload data to central server



A background image of industrial machinery, likely a conveyor system, with large black rollers and metal supports in a factory setting.

IN CONCLUSION

Precision Organic has a very clear mission statement – to show that environmentally-positive end-of-life solutions are not only possible, but affordable and profitable.



THANK YOU

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