Re-design of **BIOPLASTIC** COMPOSTING PROCESS

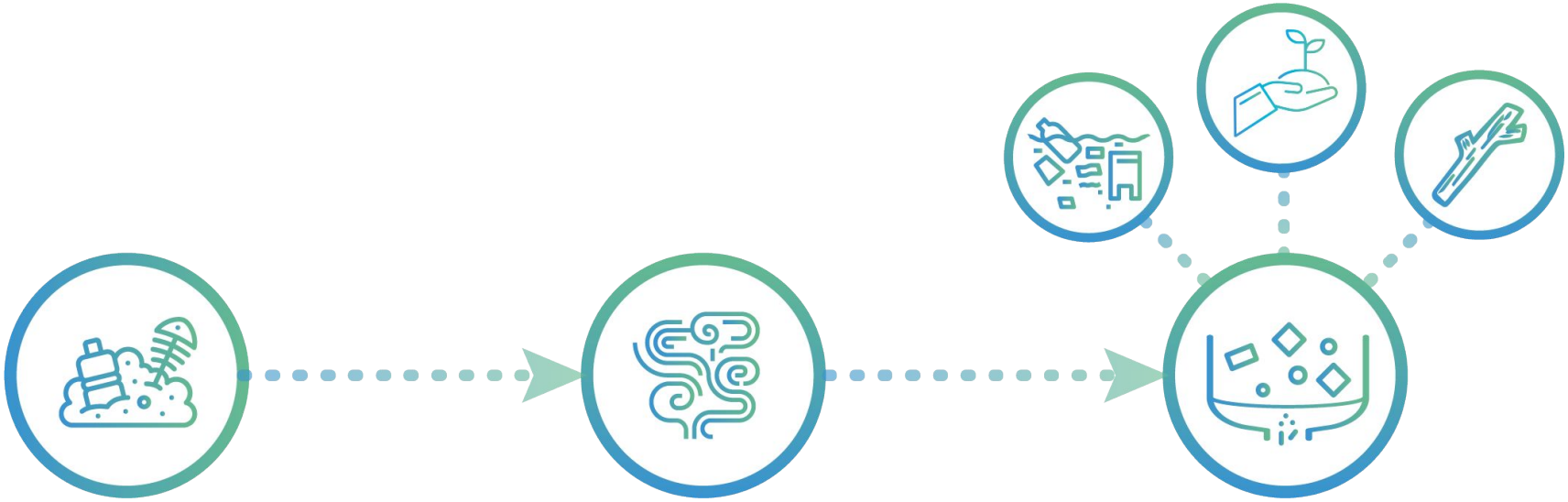
CBI Challenge Based Innovation

BIO theory

Meet Our Team

AIMAG

AIMAG pursues and guarantees services based on quality, efficiency, convenience and safety, paying great attention to respecting the environment, the needs of customers and the community.



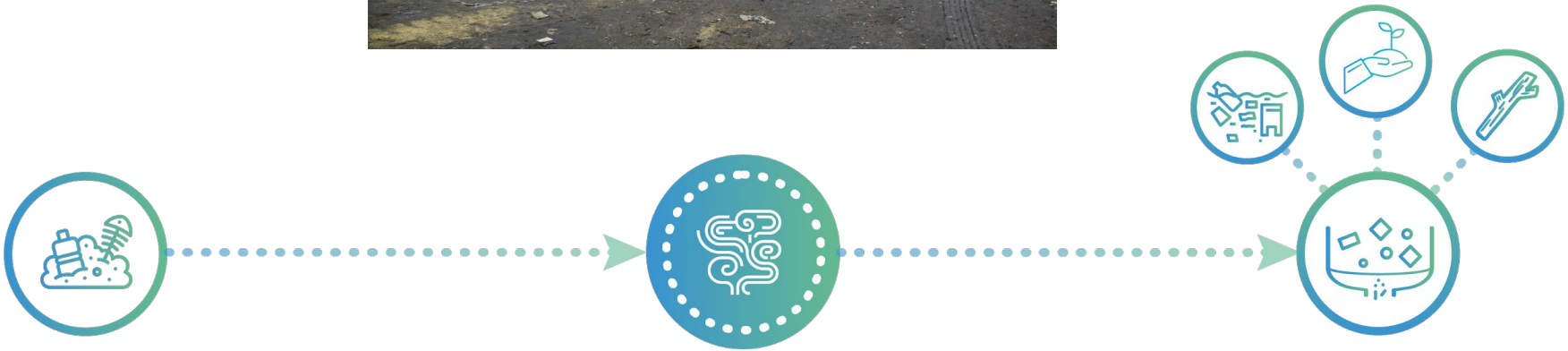
Inlet waste

Biotunnel
(aerobic phase)

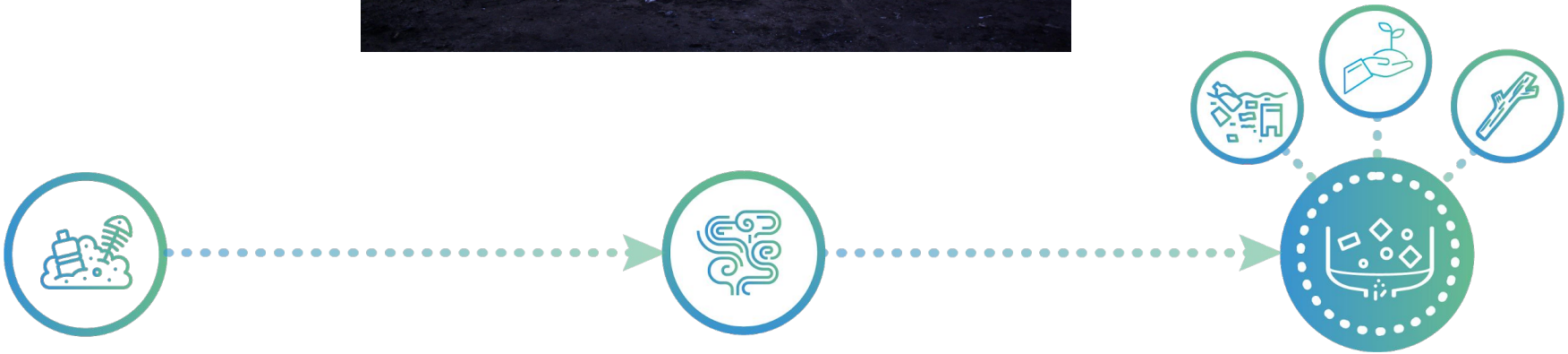
Sieve

Inlet waste

Biotunnel



Sieve



COMPOST

OVERFLOW

WOOD

Overflow composition

Inert

What can not bio-degraded

What can not become compost

Organic

Organic not yet composted

Bioplastics

The Challenge

Bioplastic recovery process innovation

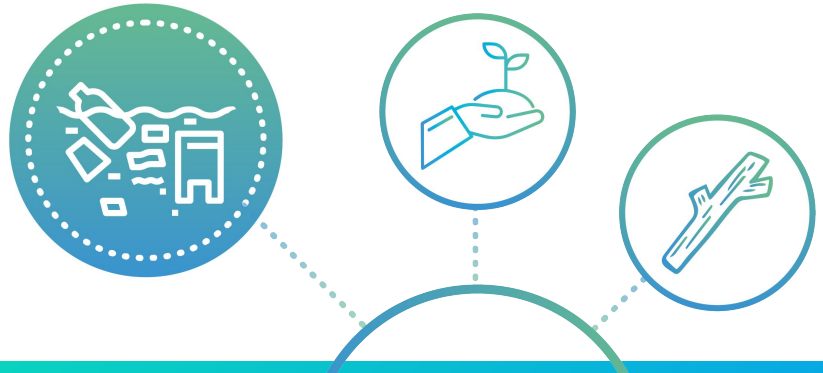
“How might we manage bioplastic in a composting plant, **in order to avoid bioplastic to go to landfill, also optimizing the process?”**

Divide bioplastic from the other waste

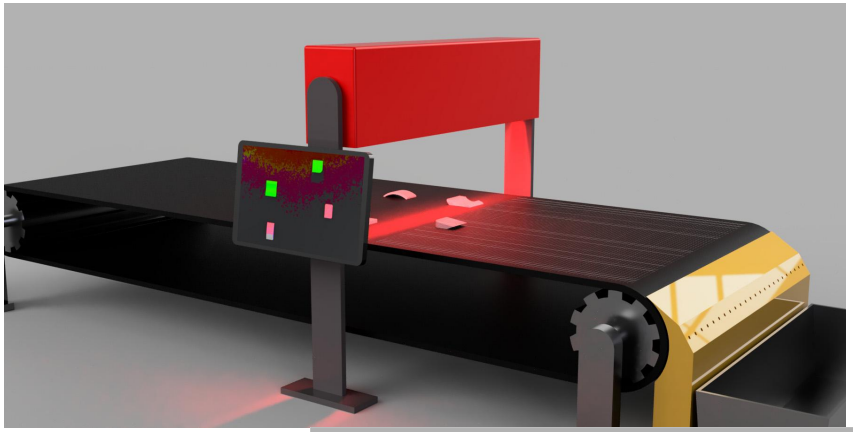
Where do separate?

We want to recover organic fraction that didn’t compost in one turn.

- Smaller volume
- Drier
- Percentage of organic waste that did not degradade

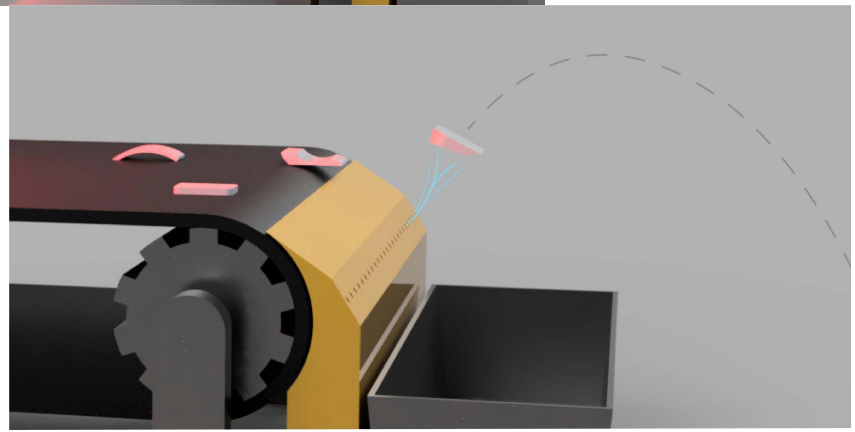


The machine



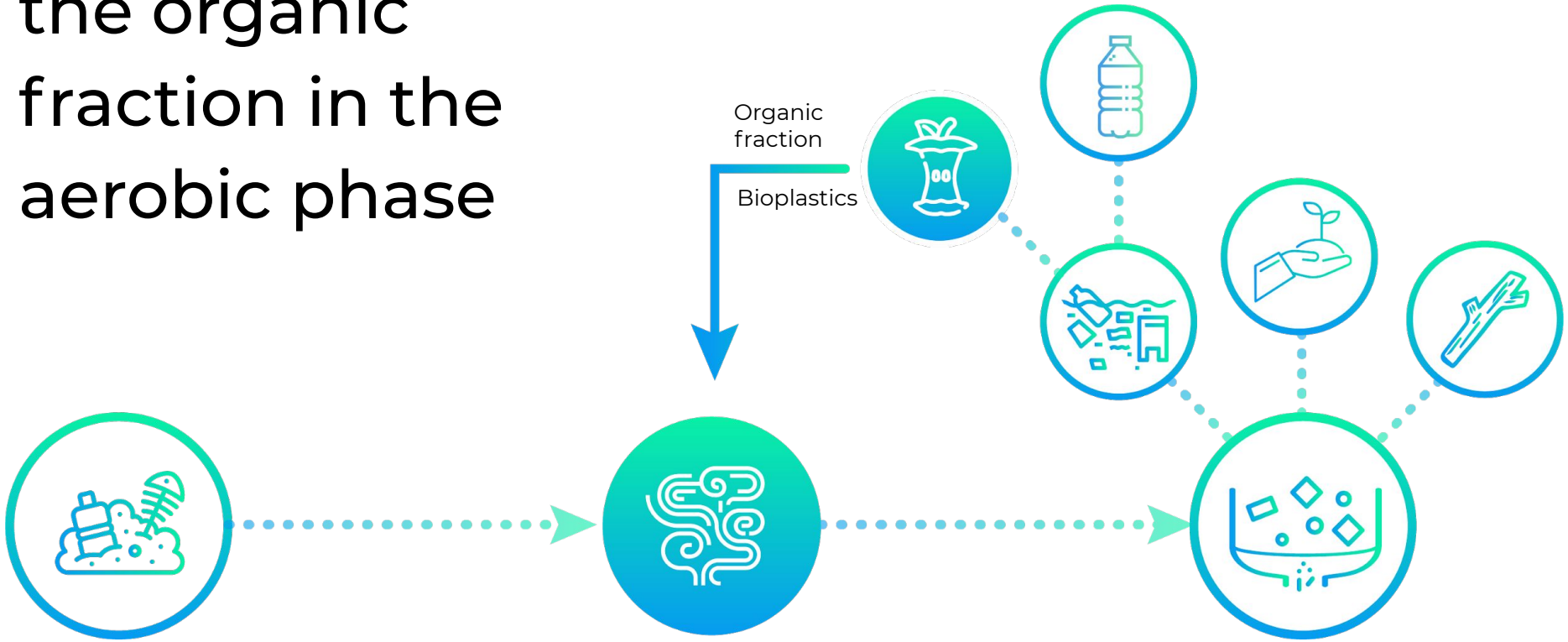
TOMRA

PELLENC ST



Detection of organic fraction by Xray or NIR scan and separation through air flow

Re-introduce the organic fraction in the aerobic phase



New data

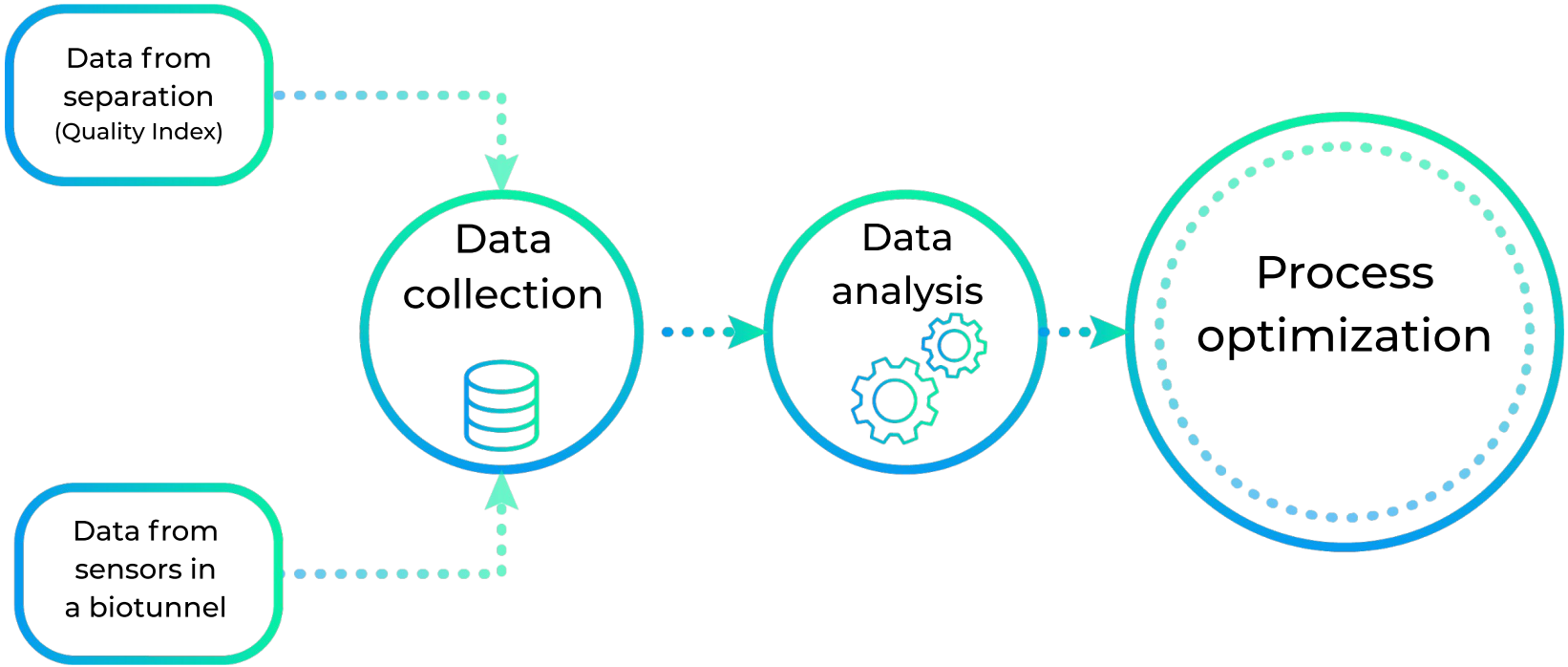
Overflow composition

Inert

Waste quality index

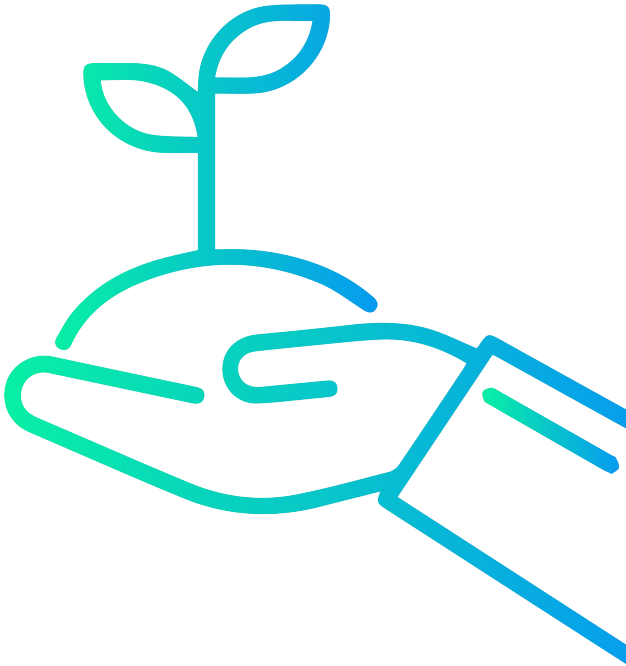
Organic

Process quality index


Data from separation (Quality Index)
Data from sensors in a biotunnel
Data collection
Data analysis
Process optimization

Process optimization

To compost almost all the organic fraction, in order to reduce the quantity of biodegradable waste that currently ends in the overflow



Sustainable Development Goals

11.6 - By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management.

12.6 - Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle

Thanks for your attention

BIO theory