aquapak

Accelerating our transition to a Circular Economy

by Ceresana©

FoB:Plast

Future of Bio Plastics

NEW PLASTICS ECONOMY

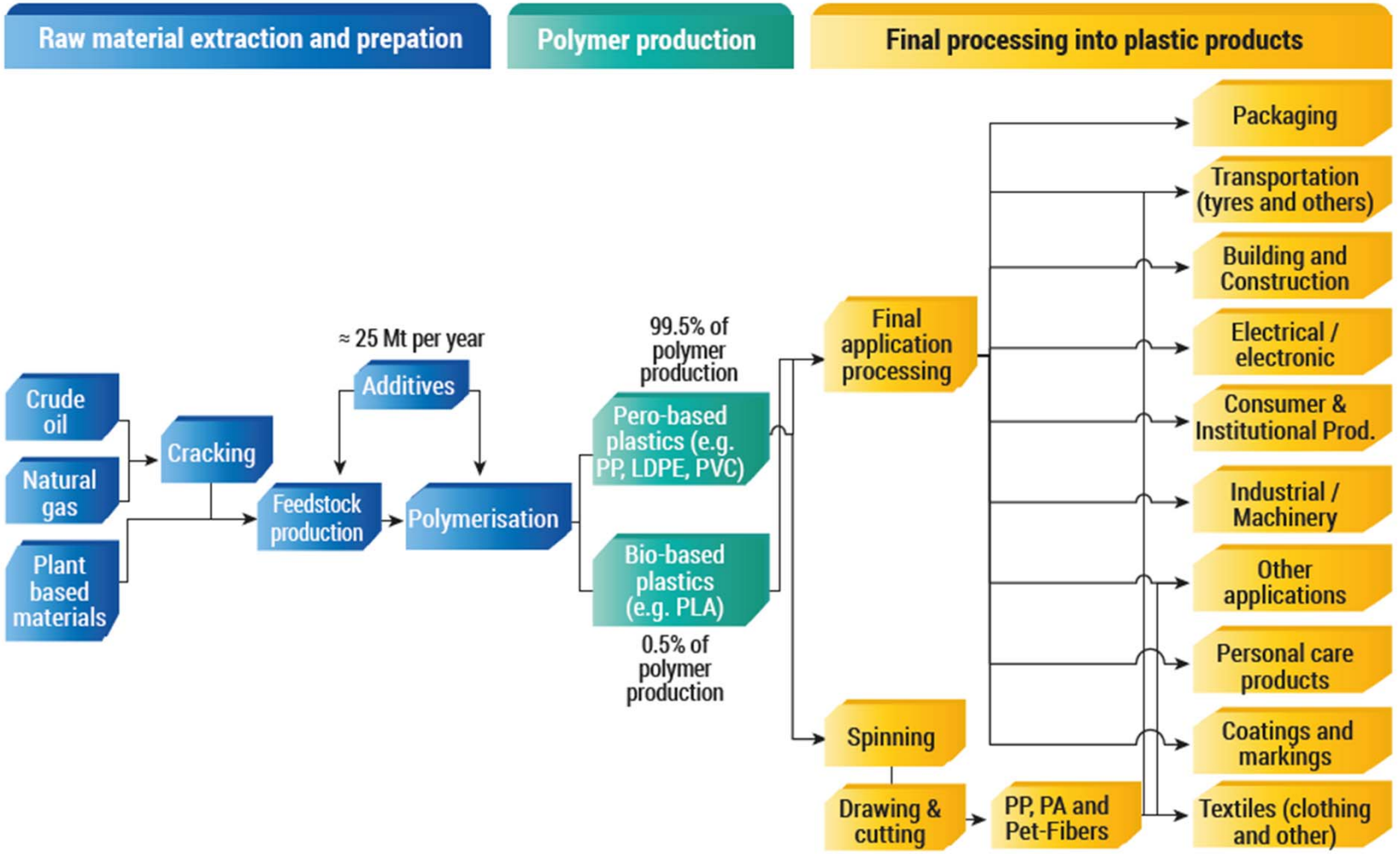
Global Commitment

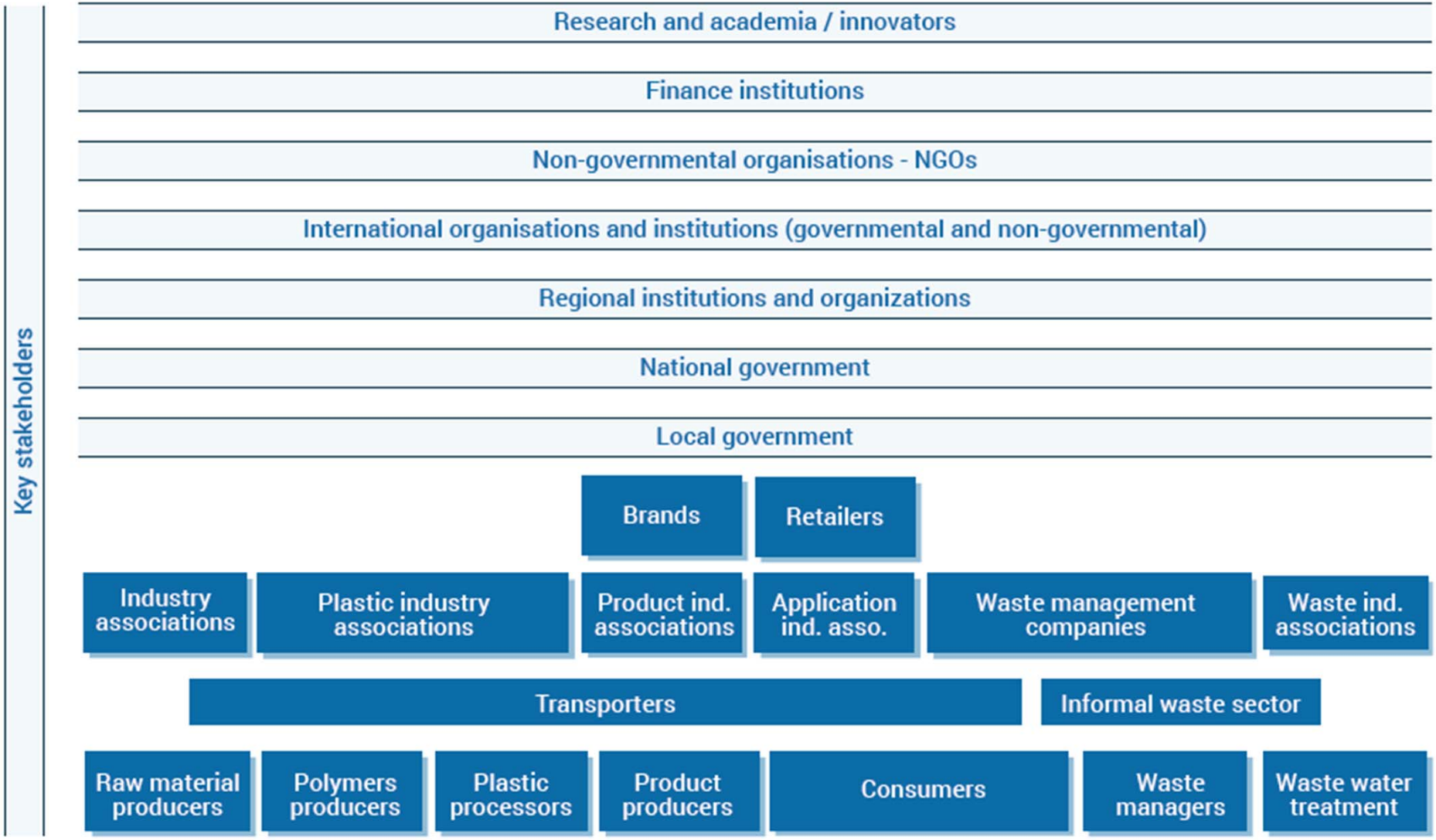
USING INNOVATIVE POLYMERS TO DELIVER THE CIRCULAR ECONOMY

Aquapak UK overview

Manufacturing, R&D and Tech Support HQ

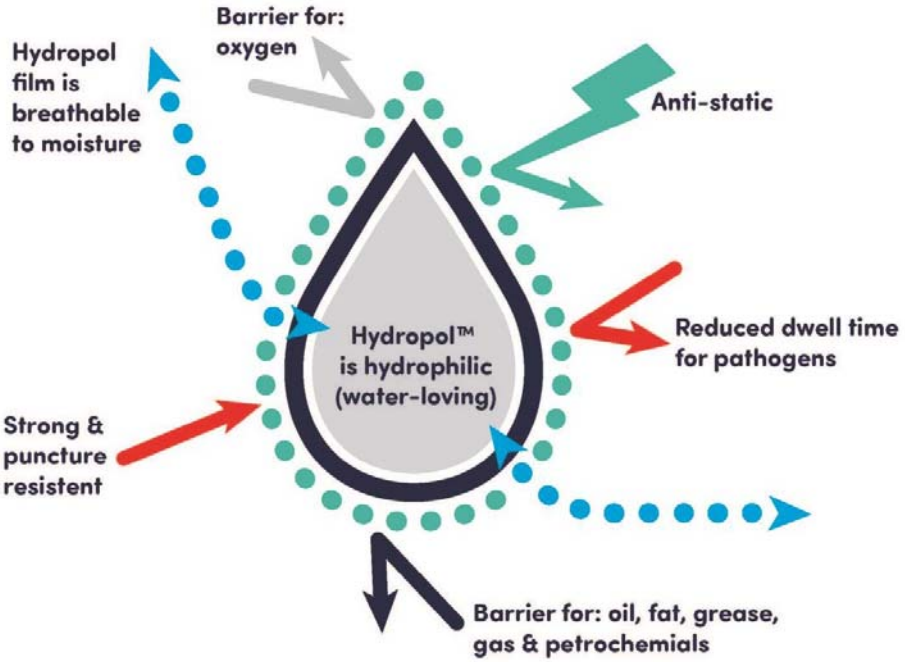
- 4700m^2 compounding facility in Birmingham, U.K.
- Production capacity 10-30,000MT capacity
- Equivalent to 1 billion m^2 of film or co-ex paper
- 2 full scale & pilot lines operational
- 30+ polymer patents filed
- World class R&D capabilities and resource
- Global supply & distribution


Raw material extraction and prepation
Polymer production
Final processing into plastic products
Crude oil
Natural gas
Plant based materials
Cracking
≈ 25 Mt per year
Additives
Feedstock production
Polymerisation
99.5% of polymer production
Pero-based plastics (e.g. PP, LDPE, PVC)
Bio-based plastics (e.g. PLA)
0.5% of polymer production
Final application processing
Spinning
Drawing & cutting
PP, PA and Pet-Fibers
Packaging
Transportation (tyres and others)
Building and Construction
Electrical / electronic
Consumer & Institutional Prod.
Industrial / Machinery
Other applications
Personal care products
Coatings and markings
Textiles (clothing and other)


Key stakeholders
Research and academia / innovators
Finance institutions
Non-governmental organisations - NGOs
International organisations and institutions (governmental and non-governmental)
Regional institutions and organizations
National government
Local government
Brands
Retailers
Industry associations
Plastic industry associations
Product ind. associations
Application ind. asso.
Waste management companies
Waste ind. associations
Transporters
Informal waste sector
Raw material producers
Polymers producers
Plastic processors
Product producers
Consumers
Waste managers
Waste water treatment

Hydropol™ Polymer Technology

Innovative hydrophilic chemistry provides enhanced barrier performance, strength and multiple end-of-life options



Key Features

- ✓ Non-toxic
- ✓ Tailored solubility (10°C - 80°C)
- ✓ Biodegradable
- ✓ Marine-safe
- ✓ No harmful microplastics
- ✓ Compostable
- ✓ Suitable for AD plants
- ✓ Simple integration into existing manufacturing processes.

Hydropol™ in end-of-life

Supporting multiple safe disposal options

Products made with Hydropol are **safe for existing recycling processes** and **fully biodegrade** should they enter the environment without creating toxins or harmful microplastics.

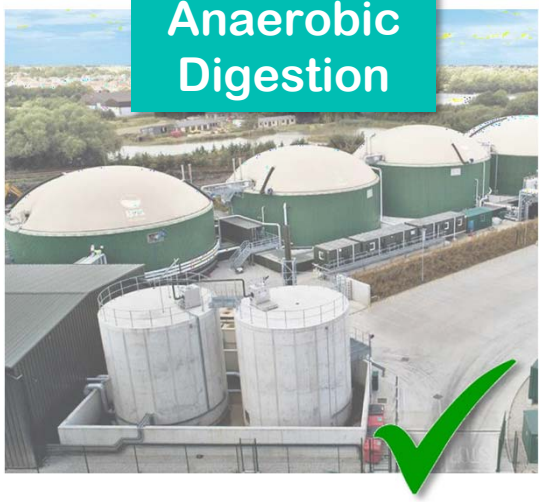
Recycling

- Integrates with existing recycling processes (domestic & commercial)
- Fully dissolves in the paper recycling process
- Allows for raw material recovery

Composting

- Fully biodegrades in compost facilities
- Reduces release of methane from traditional end-of-life options

Anaerobic Digestion



- Fully biodegrades in dedicated facilities
- Bacteria break down Hydropol in the absence of oxygen
- Produces renewable energy in the form of biogas

Advanced Biodegradable Barrier Technology

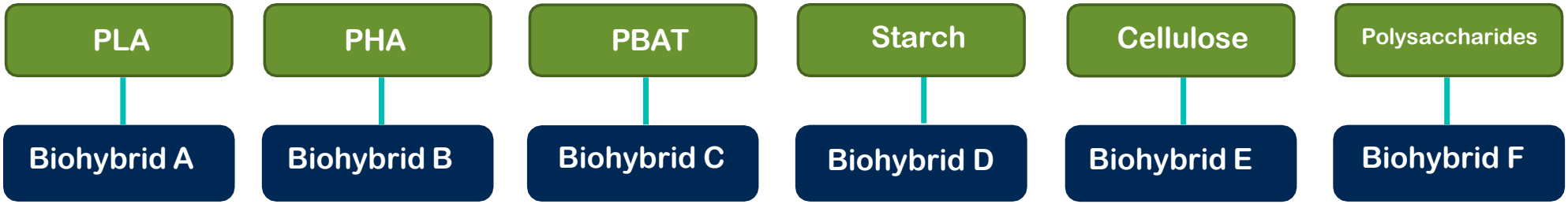
Biohybrid Project Platform

What is a biohybrid? New polymer technology to replace complex multi-layer materials that are impossible to recycle and subject to future bans.

Why is this needed? New legislation driving a move to mono-material structures and elimination of packaging that could be littered and damage the environment.

Hydropol™ functionality and strength removes the need for complex packaging structures and unlocks a vast number of new **biohybrid** compound opportunities using 3rd party bio-sourced materials including cellulose.

Generation of unique new materials combining Hydropol USPs with individual biopolymer function and performance



Strategic Partnerships

Industry, academic and commercial representation

"We're at the cutting-edge of polymer technology and sustainable science so work closely with leading institutions to ensure we stay at the forefront of this rapidly changing industry for the benefit of our customers and the planet."

Thank you!

Dr John R Williams
CTO
jwilliams@aquapakpolymers.com