



UBQ

Giving Waste a New Life & Reshaping How Most Things Are Made

ORIGINALLY DELIVERED AT THE **FESTIVAL OF POLYMER INNOVATION 2024**
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Giving Waste a New Life & Reshaping How Most Things Are Made

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Yann Schnerb

VP Sales Europe UBQ Materials

You see trash. We see a resource and opportunity.
This “unrecyclable” waste is the singular
feedstock to make UBQ™

FOOD WASTE

DIRTY PAPER
& CARDBOARD

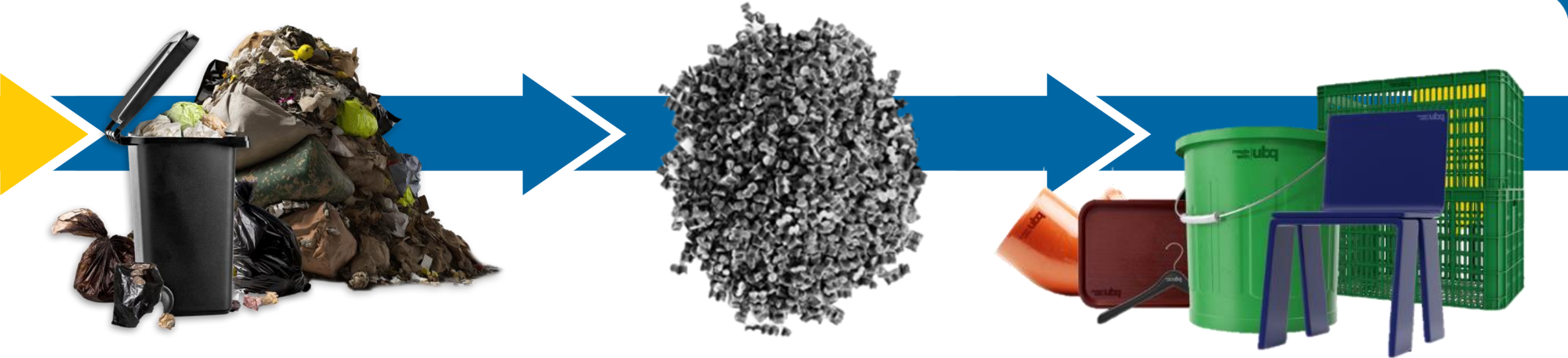
GARDEN
TRIMMINGS

UNRECYCLABLE
PLASTICS



The Solution: UBQ™ Materials

Converting organic and hard-to-recycle waste into a sustainable plastic substitute



WASTE

Unsorted municipal household waste diverted from landfills, including all organics.

UBQ™ MATERIAL

UBQ advanced conversion transforms waste into UBQ™ material, a climate-positive thermoplastic. This is a one component conversion, using 100% waste.

PRODUCTS

UBQ™, a new substitute to fossil-based resins can now be used by the industry to create sustainable and climate-positive end-products.

Advanced Waste Conversion Technology

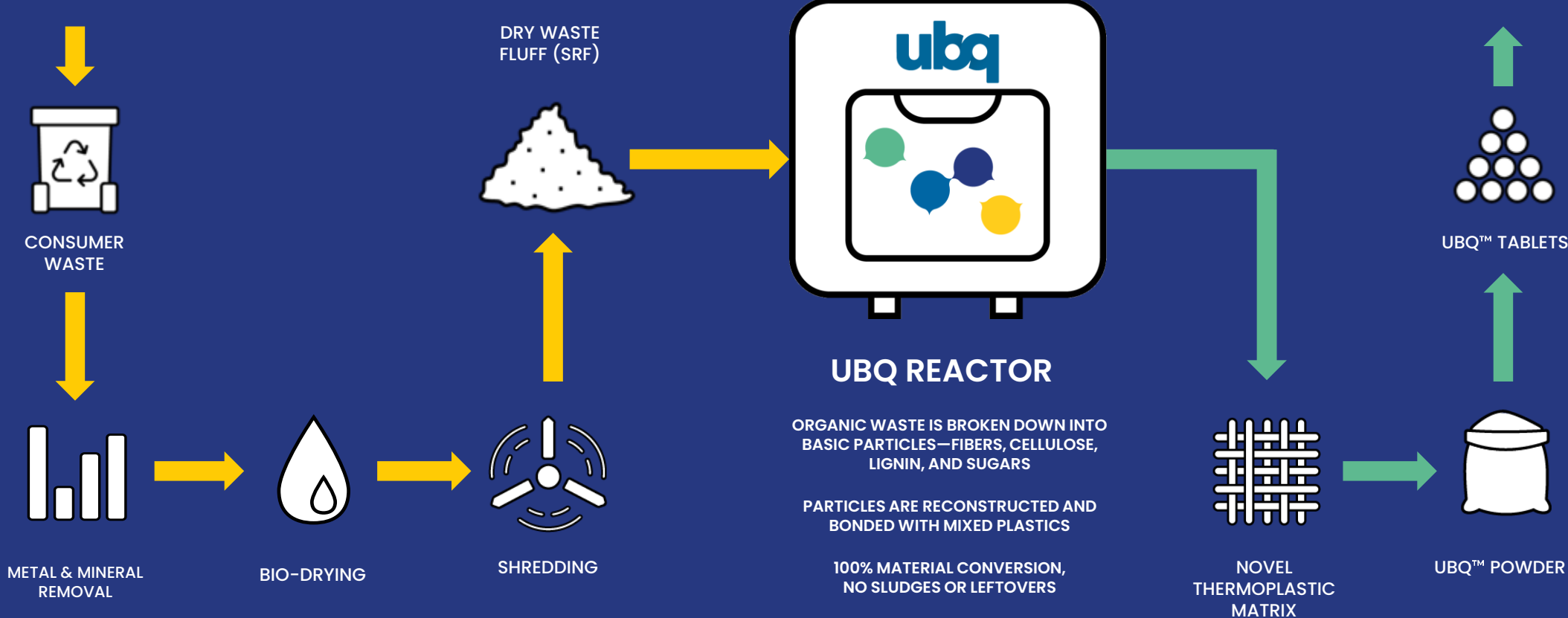
Patented process resulting in a homogeneous and consistent thermoplastic



CLIENTS



HOUSEHOLDS



ENTIRE PROCESS IS ENERGY-EFFICIENT, USES NO WATER AND GENERATES ZERO EFFLUENTS

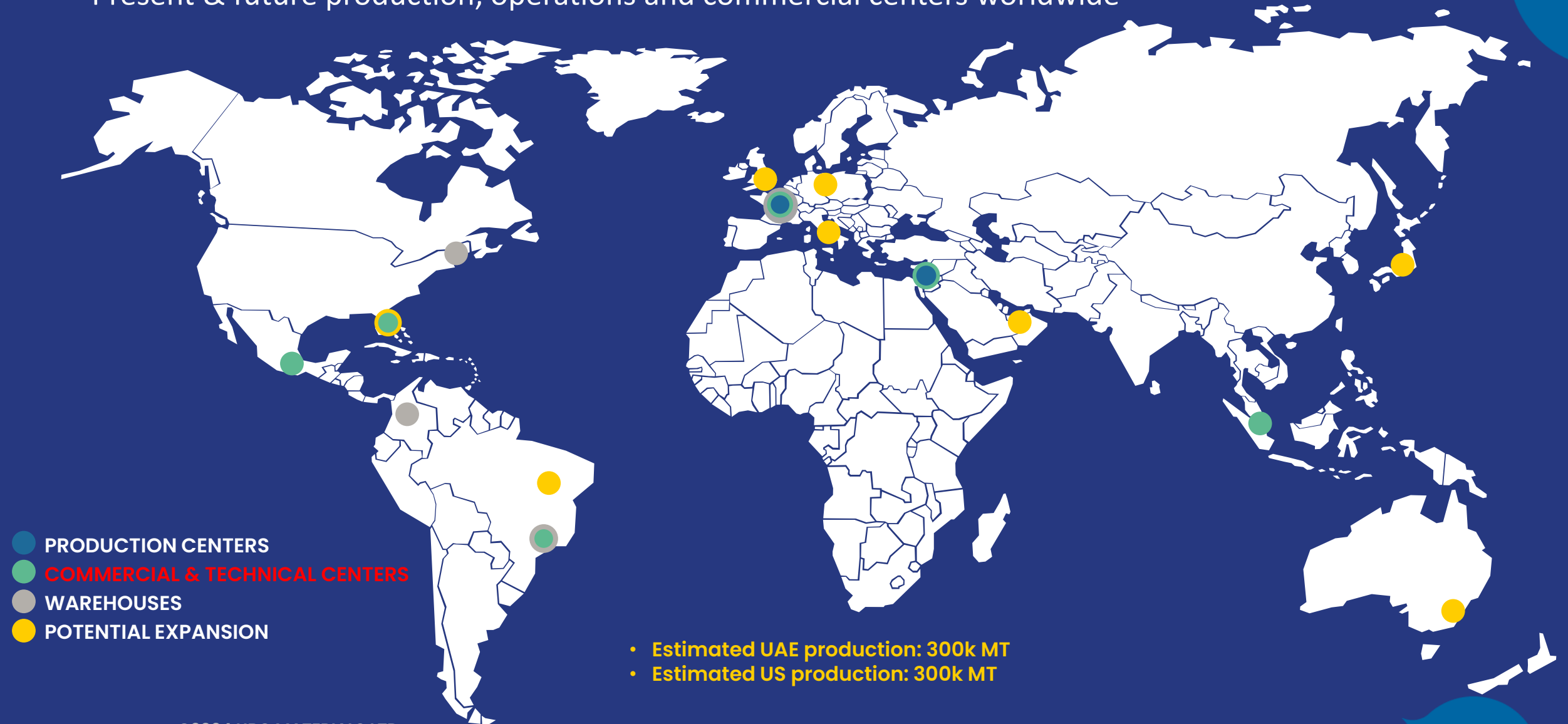
UBQ Material Process Production

A Simplified View



UBQ Global Expansion

Present & future production, operations and commercial centers worldwide



- Estimated UAE production: 300k MT
- Estimated US production: 300k MT

UBQ Delivers Carbon Benefits in Production and Removal



0.147

PRODUCTION

UBQ production creates less than 1/20 of the carbon of virgin polymer production



0.0012

LAND USE CHANGE

UBQ creates nearly 0 land use impact



-1.17

REMOVAL

UBQ removes nearly 1.2 kg of biogenic carbon per kg of UBQ produced



-1.02

TOTAL PRODUCT CARBON FOOTPRINT

The total carbon impact is -1.02 making UBQ a carbon-negative material

Units: 1 kg of CO₂eq per 1 kg of UBQ Tablets (GWP100)

Note: Cradle to Gate according to ISO 14040:2006

UBQ Measures Avoided Emissions in Our LCA



AVOIDED EMISSIONS OF 7.7kg

CO₂e CARBON AVOIDANCE

The reductions in greenhouse gas emissions that occur outside of a product's value chain, but as a direct result of using that product/material

HOW DOES UBQ PRODUCTION AVOID EMISSIONS?



Alternative Waste End-of-Life Scenario:

UBQ production diverts waste from landfills or incinerators, creating alternative end-of-life scenario allowing a considerable avoidance of GHG emissions.



UBQ Replaces Oil-Based Plastics:

Reducing demand for plastics avoids the emissions associated with extracting, refining, and processing the fossil fuels used as feedstock.

In-Market Products Made with UBQ™

UBQ stands for “ubiquitous” — reshaping how most things are made

LOGISTICS & SUPPLY CHAIN



CONSUMER DURABLES



AUTOMOTIVE



BUILDING & CONSTRUCTION



Tried & Tested Material Applications

Thousands of possibilities able to be implemented today



AUTOMOTIVE

Carrier Plates	Door Mirrors
Console Boxes	Headlight Brackets
Arm Rests	Battery Trays & Covers
Service Panels	
Airbag Retainer Boxes	
Front Bumpers	



CONSUMER DURABLES

Gardening Structures	Furniture
Garden Tools & Hoses	Footwear
Planters & Composters	Playground Equipment
Toolboxes	Point-of-Sale
Storage	Shelves & Trays
Hangers	Pet Houses & Accessories
Shopping Carts & Baskets	



BUILDING & CONSTRUCTION

Pipes & Tubes	Decking
Flooring	Sheets & Substrates
Wall Cladding	Bricks
Shock Pads	Bathroom Partitions
Semi-finished Sheets	Playground Floors
Decorative Surfaces	



LOGISTICS & SUPPLY CHAIN

Pallets	Logistics Boxes
Bottle & Dairy Crates	Rigid Packaging
Trash Bins & Cans	
Waste Crates	

Industry Leaders Choose UBQ™



Arcos Dorados



Mercedes-Benz



UBQ PARTNER ECOSYSTEM

CONNECTING THE GLOBAL SUSTAINABILITY VALUE CHAIN

Global brands, manufacturers, and compounders use UBQ™ material throughout their supply chain to accelerate their environmental goals.

Compliances, Certifications and Verifications

Innovation that achieves the highest industry standards

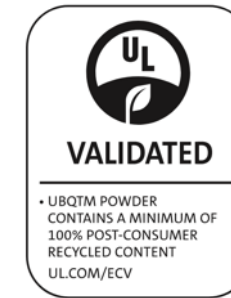
COMPLIANCES



REACH UK



CERTIFICATIONS & VERIFICATIONS



NEAR FOOD CONTACT STANDARD - USA & EUROPE



RECYCLABILITY APPROVAL



AUTOMOTIVE

McDonald's & Arcos Dorados

Serving up climate-positive McTrays



CHALLENGE

Fast food is a highly polluting industry, but food safety regulations make it challenging to introduce new sustainable materials



UBQ SOLUTION

Collaboration with Arcos Dorados, the world's largest McDonald's franchisee, across Latin America to reduce food and packaging waste while diverting carbon emissions



GAME-CHANGER

Arcos launches 18,000 McTrays made with UBQ™ throughout restaurants in Brazil, preventing over 3,700 kg CO₂eq



RESULTS

Arcos is developing new implementations of UBQ™ in building materials, displays and supply chain



CHALLENGE

As part of its sustainability roadmap, PepsiCo commits to achieving net-zero carbon emissions by 2040



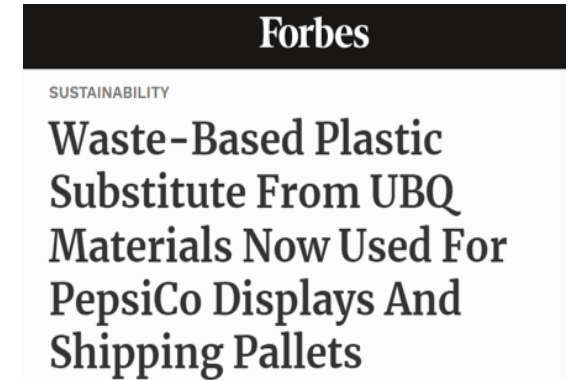
UBQ SOLUTION

PepsiCo and Ecoboxes develop pallets Made With UBQ™, launch 830-unit POC in Brazil - a pathway to reduce the carbon footprint of their logistics chain



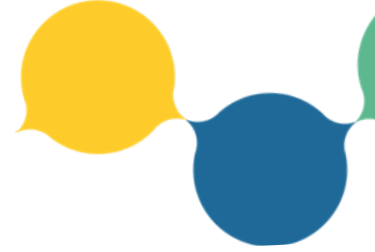
GAME-CHANGER

Pallet production increased to 30,000 units, plus new launch of Lay's displays Made with UBQ™ across Europe



RESULTS

PepsiCo and UBQ expanding their partnership, auditing all opportunities to reduce emissions in their supply chain



THANK YOU!

