



UBQ Materials: A Cost Competitive, Here and Now Solution

June 11, 2025



Co-funded by
the European Union



For centuries humans have extracted from Earth, depleting its resources, and creating **waste**.

This is one of the single biggest threats to our planet.

400M

tons of virgin plastic produced globally every single year

>2B

tons of Municipal Solid Waste are produced annually

13%

of global Municipal Solid Waste is Recycled.

>1.6B

tons of CO2 eq of GHG emissions annually generated from solid waste

**THERE IS A
SOLUTION:
UBQ USES
THIS WASTE**

UBQ is a viable solution TODAY!

Netherlands Production Facility

Fully Operational

80,000

Tons Annual Capacity

ZERO

operational water
consumption

ZERO

combustion

ZERO

effluents

ZERO

emissions

YOU SEE WASTE. WE SEE ENDLESS POSSIBILITIES.

Landfill & incineration bound waste, including all organics, and hard-to-recycle waste, becomes the singular feedstock used to make **UBQ™**.

**A HERE
AND NOW
SOLUTION!**

FOOD WASTE

DIRTY PAPER
& CARDBOARD

GARDEN
TRIMMINGS

HARD-TO-RECYCLE
PLASTICS



THE SOLUTION: UBQ™ MATERIALS

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



WASTE

Mixed municipal **household waste**, including organics & hard-to-recycle materials, **diverted from landfills and incinerators.**



PROPRIETARY UBQ™ MATERIAL

UBQ Materials' advanced conversion technology transforms waste into **UBQ™**, a **climate-positive thermoplastic.**



DIVERSE PRODUCTS

UBQ™, a new substitute to fossil-based resins enables you to create more **sustainable products without extracting new resources from the planet.**



UBQ Material Processing & Production



1



Leftover household waste arrives

ubq



2



Any remnants of minerals, metal and glass are removed



3



Breaking the organic material into its basic building blocks and binding it with inorganic materials



4



Conversion process using green energy, no water added.



5



Reconstruction of the matrix into our new bio-based matrix, **UBQ™**



6



UBQ™ material can replace conventional plastic or be mixed with most polymers to create more sustainable products

COMPLIANCES, CERTIFICATIONS AND VERIFICATIONS

Innovation that achieves the highest industry standards

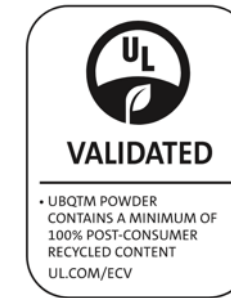
COMPLIANCES



REACH UK



CERTIFICATIONS & VERIFICATIONS



NEAR FOOD CONTACT STANDARD
USA & EUROPE



RECYCLABILITY APPROVAL



AUTOMOTIVE

Industry Leaders Choose UBQ™



McDonald's
(Arcos Dorados)



Mercedes-Benz



EXPANDING UBQ PARTNER
ECOSYSTEM

CONNECTING THE GLOBAL
SUSTAINABILITY VALUE CHAIN

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



UBQ™ is a **climate positive**, thermoplastic composite, **made from household waste**, including **all organics**.

It enables you to create more **sustainable products** without extracting new resources from the planet.



Cost competitive
with most oil-
based polymers



A **cost-stable solution**,
unaffected by
fluctuations in fossil fuel
prices



Suitable for **durable**
and **semi-durable**
applications, meeting
most performance
requirements



Compatible with **existing**
processes, polymers,
and **equipment**

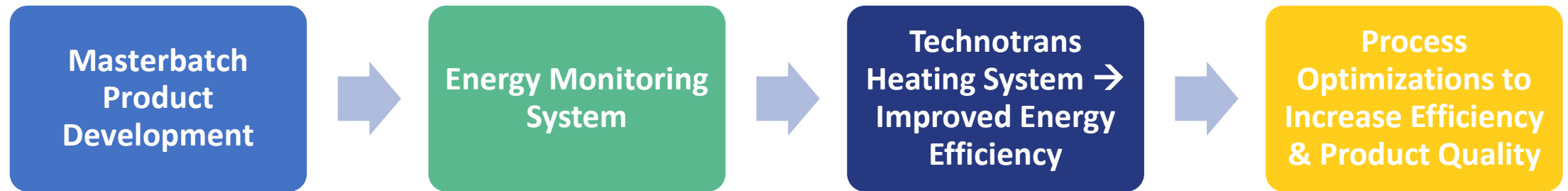


Safe for both people and
the environment



Produced using **100% solar and**
wind energy, with zero water
usage and no effluents

Thanks to the JTF for UMQ Supported Projects



JTF Just Transition Fund

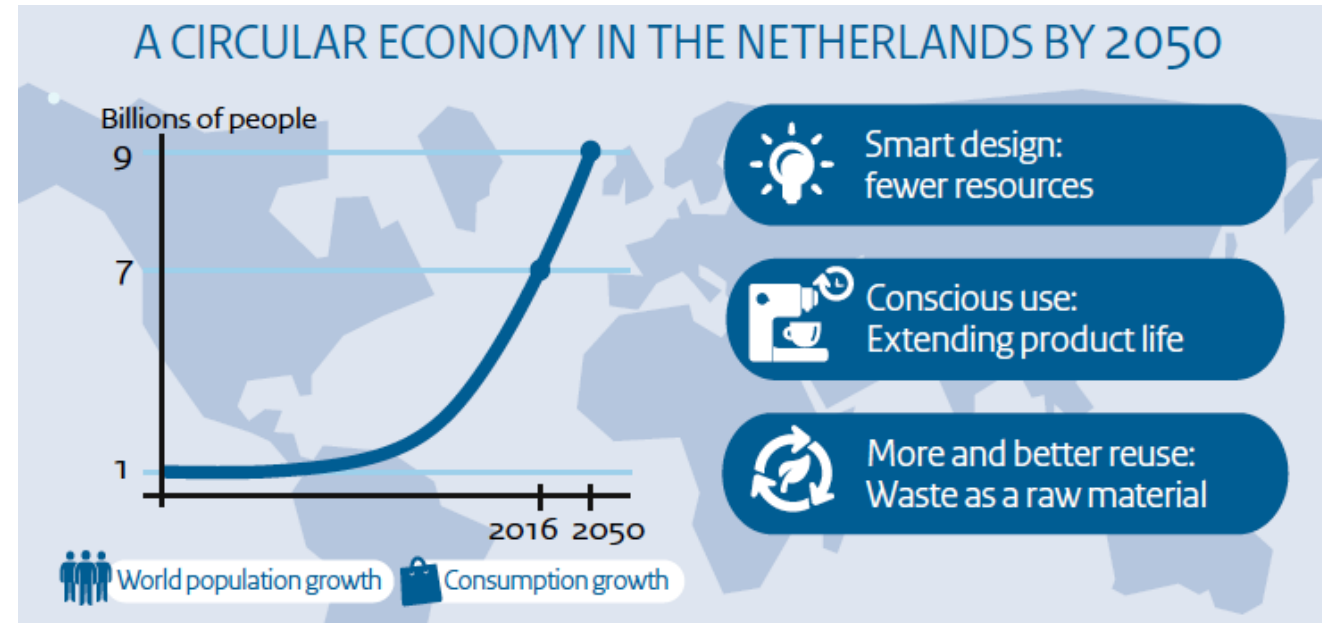


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Sustainability Targets Driving Business Practices

- Netherlands Circular Economy Program
 - Fully Circular by 2050
 - 50% reduction in primary raw material use by 2030
- National Climate Agreement
 - 49% CO2 reduction by 2030
- UPV – Dutch EPR Rules
 - Post-consumer waste strategies
- Upcoming ETS (Emission Trading Systems) Modifications and Improvements
 - Inclusion of municipal waste incineration and landfilling
 - Permanent carbon removals
 - Carbon accounting landscape shift from 100 to 35 years in building & construction
 - Non-permanent carbon capture and use



Renewing Waste to Evolve Plastics

Every kilogram of waste incinerated represents a lost opportunity for circularity.



The Netherlands burns over 3 million tonnes of waste annually, equating to:

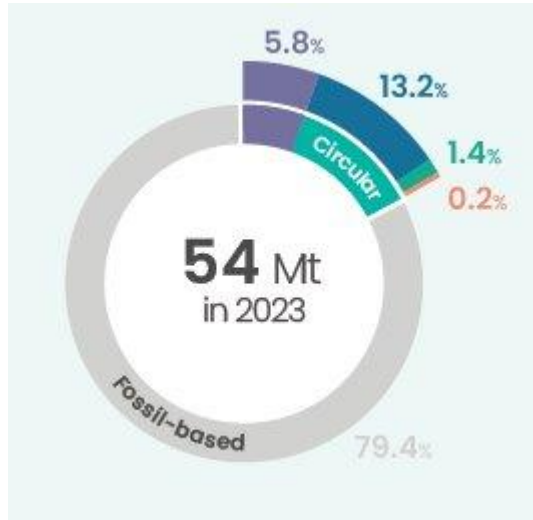
- 90 million tonnes of “ecological rucksack” at a MIPS ratio of 30:1
- 18 million tonnes at a MIPS ratio of 6:1



By converting waste into 80,000 tonnes of **UBQ Material**, we **prevent** between 480,000 & 2,400,000 tonnes of **negative impact on the Planet**.



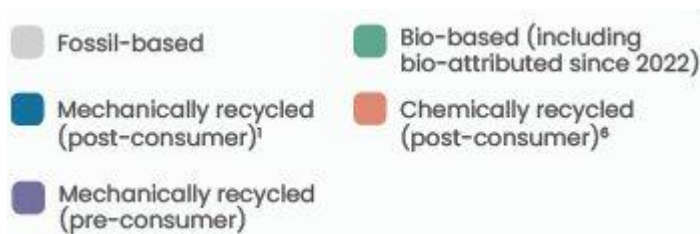
Turning Garbage into the Solution for Plastics



Despite decades of investment, only a small fraction of Europe's plastic production is genuinely recycled.

UBQ addresses **Both** Waste & Recycling Challenges by:

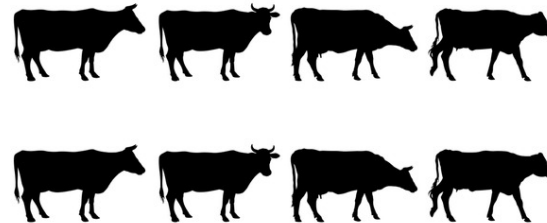
- Replacing fossil-based plastics
- Upcycling household waste—including mixed plastics—into high-performance materials



Garbage as the Key to Reducing Dutch Emissions

New housing
in the
Netherlands is
constrained
by a 47 Mt CO₂
cap (2023
allocation)

The UBQ Netherlands facility
carbon removal can offset the
CO₂ equivalent of ~27,000 dairy
cows

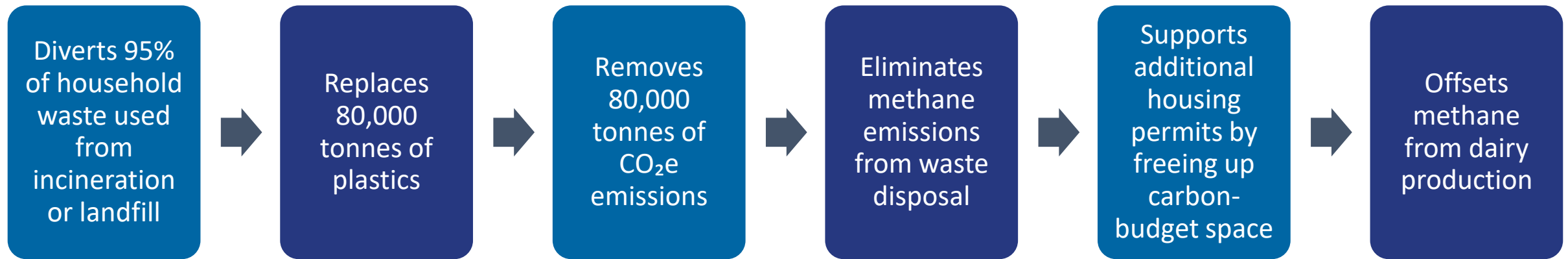


Even further, taking avoided
emissions into account, the net
greenhouse-gas benefit rises to
6–8 X that amount—and even
more with our NEW hemp-based
UBQ-Bio product



UBQ is Renewing the Planet – Today

At Full Capacity, our Netherlands Plant:



Make the Netherlands a Global Leader in Circularity

Partner with UBQ to Demonstrate a Truly Circular Economy

UBQ Masterbatch Portfolio

MASTERBATCH

The **UBQ™ Masterbatch** Portfolio makes it easy to combine with many polymers such as:

PP

PS

ABS

POLYOLEFINS

ELASTOMERS

UBQ™ Masterbatch is ideal for **injection molding**, and includes a **low flow option** for **extrusion**.



EASY HANDLING & INTEGRATION

- Dust free feeding with conventional plastics infrastructure
- Avoids or reduces need for drying



EXCELLENT DISPERSION & CONSISTENCY

- Maintains mechanical and flow properties of the polymer
- Consistent low odor processing



COST COMPETITIVE

- Enabled by high concentration of **UBQ™**, lower handling costs, excellent dispersion & performance consistency



MEASURABLE CARBON IMPACT

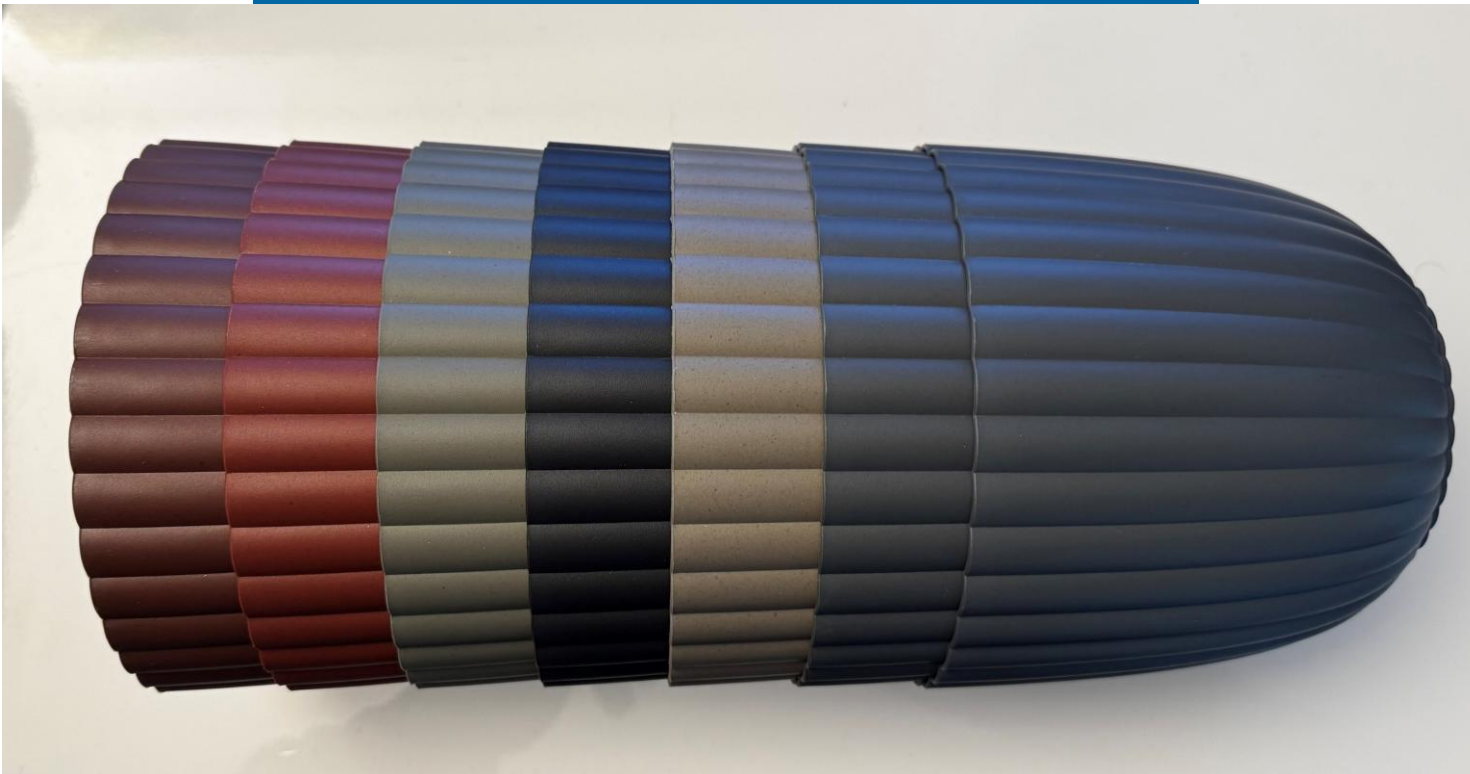
- **UBQ™** production yields negative carbon footprint

Benefits of UBQ Masterbatch

MASTERBATCH

Benefits of Masterbatch
All trials completed in less than 4 hours!

5/15% UBQ with Various Color Batches



Flowerpot made from
100% Masterbatch



60% UBQ

Strategic Partnerships for Innovation



UBQ & Hemp Combine to Form the Optimal
Sustainable Material for Building & Construction

Quality
Durability
High Performing
Cost Competitive

REAL LIFE SOLUTIONS

Many
Products Can
be Made with
UBQ Today!

CONSUMER DURABLES



Outdoor furniture



Shelves



Toolboxes



Storage Bin



Planters



Step Stool



Pet houses



Footwear



Hangers

BUILDING & CONSTRUCTION



Roofing



Fencing



Pipes &
Tubes



Flooring



Wall
Cladding



Decking



Brick

SUPPLY CHAIN & LOGISTICS



Pallets



Crates



Waste Bins

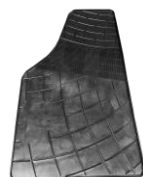


Trash Carts



Containers

AUTOMOTIVE



Car Mat



Mud Flap



Dash Mat



Front End
Module Bracket



Sound Generator
Bracket



Panel Air Duct

UBQ for Corporate Office Applications



UBQ for Corporate Campus Applications

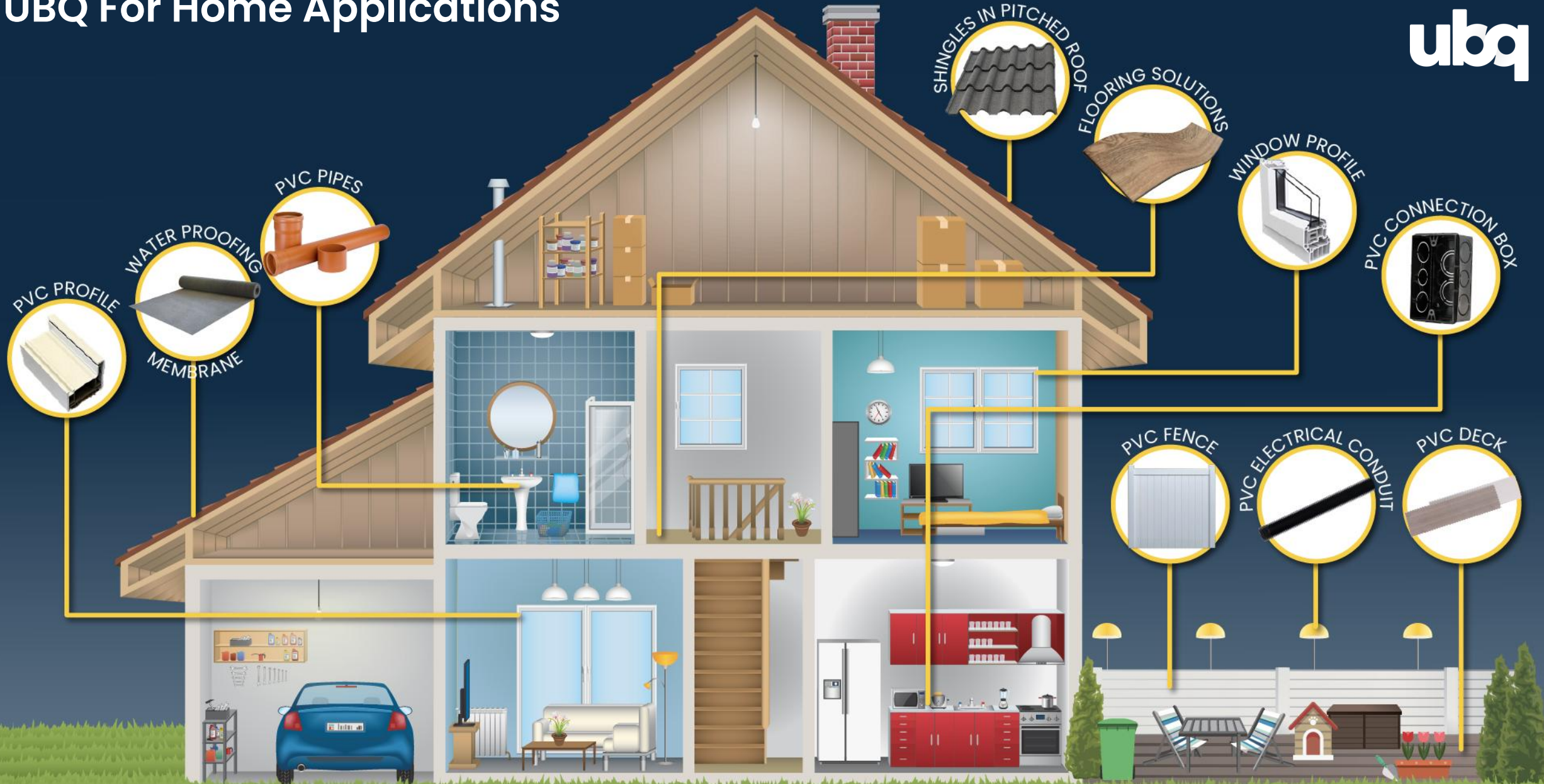


UBQ for Retail Applications

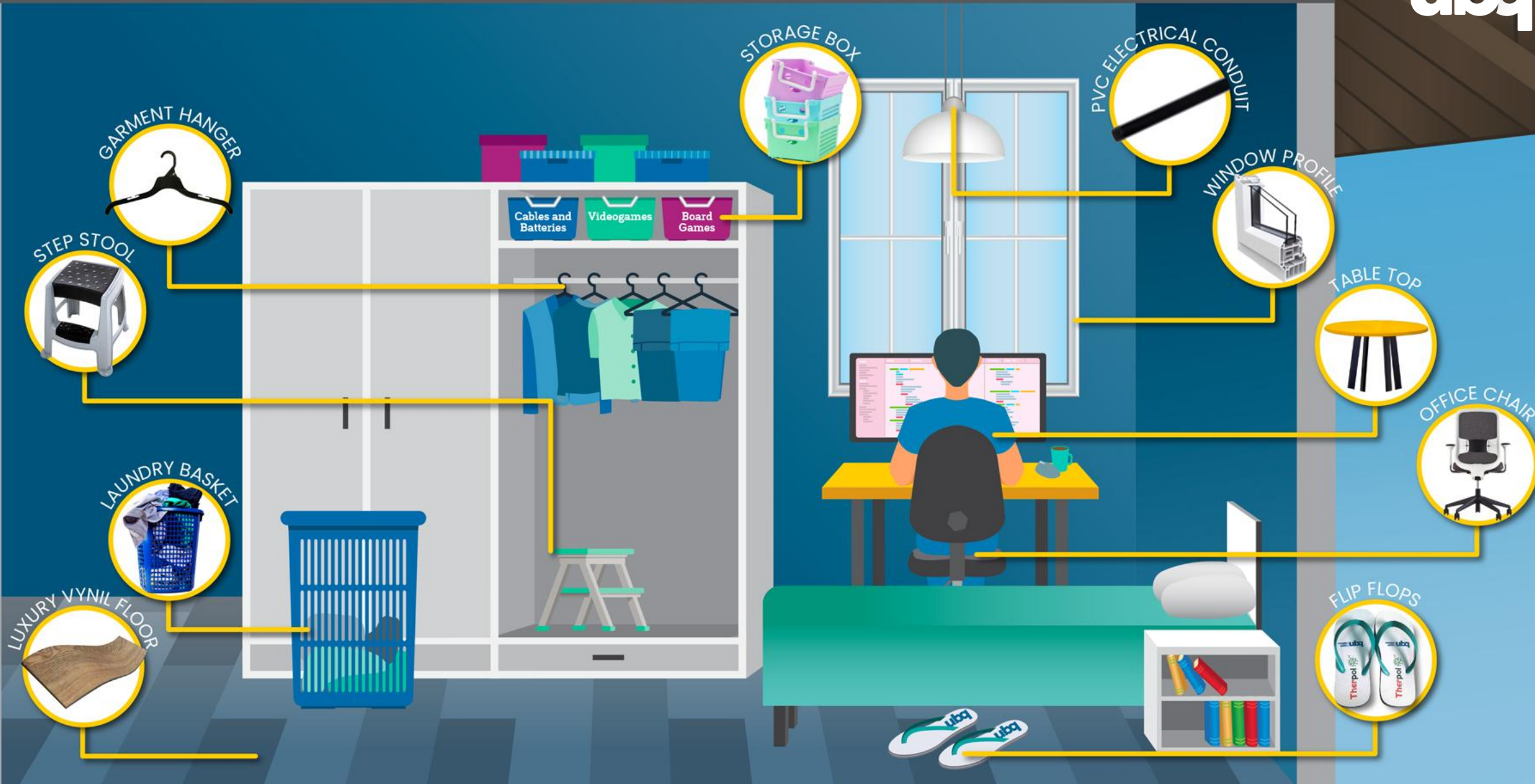


UBQ For Home Applications

ubq



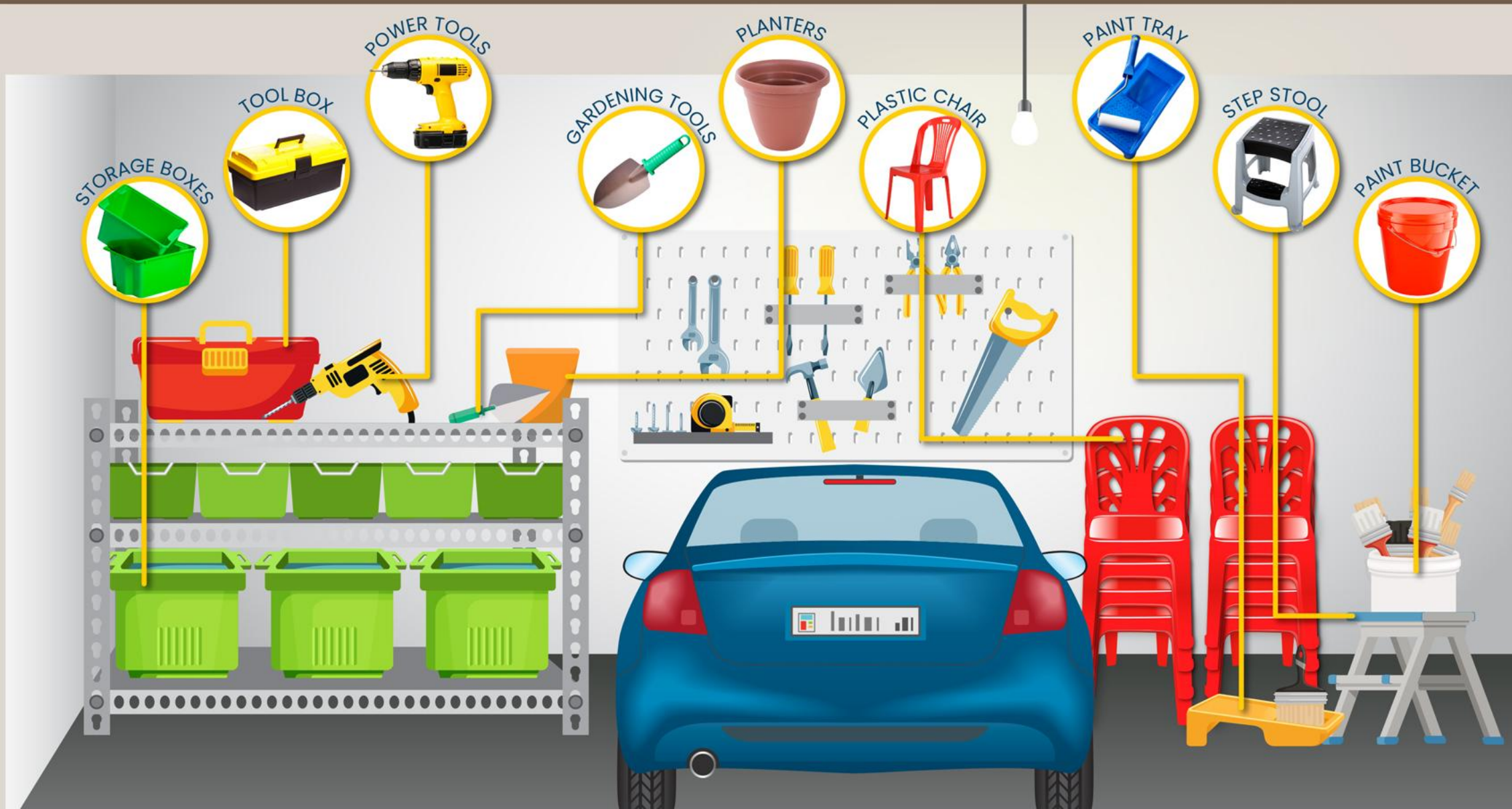
UBQ For Home Applications



UBQ for Lawn & Garden Applications



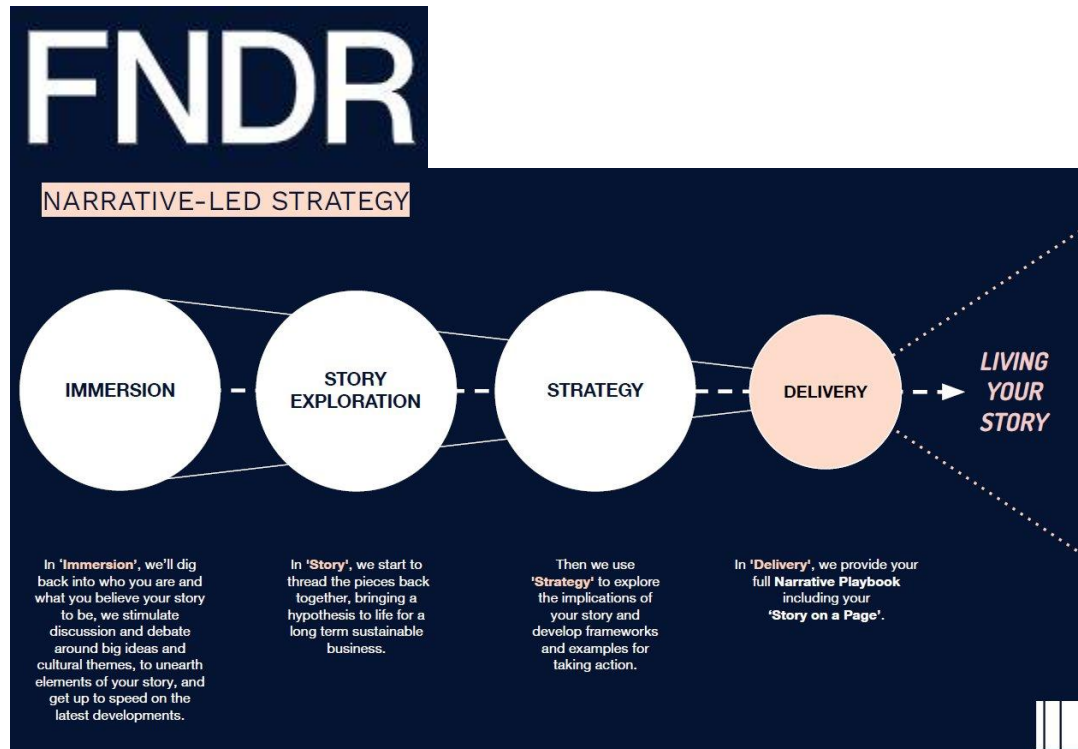
UBQ For Garage Applications



What's Coming...

Consumer Marketing Strategy

- Agency Retained to Refine UBQ Story to
 - **Better resonate with consumers**
 - **Build cultural relevance and brand trust**, and
 - **Accelerate adoption**



Carbon Monetization Project

- UBQ Biogenic Removal
- Registry Partner: Riverse
 - Leading EU Registry for Carbon Removals of Durable Products
- Initial Indications Obtained in July
- **EU Regulation:** The EU CRCF (Carbon Removals and Carbon Farming) framework is working to lower the permanence threshold to 35 years to facilitate removal claims in durable products.

riverse



CARBON STORAGE IN LONG-LASTING PRODUCTS

E.g. wood-based construction materials and other carbon-storing construction products



UBQ™ is a **climate positive**, thermoplastic composite, **made from household waste**, including **all organics**.

It enables you to create more **sustainable products** without extracting new resources from the planet.



Even a **small amount of UBQ** in formulations helps you move towards **carbon-neutral** or **climate-positive** goals.



Highly recyclable, promoting **resource conservation** and advancing the **circular economy**.



Reduces reliance on petroleum-based **plastics** and other extracted materials.



Removes carbon from the atmosphere through the **biogenic processes** in the **organic material**.



Avoid methane and carbon emissions generated by the decomposition of **organic waste in landfills**.



Encapsulates microplastics present in the waste, preventing their release into the environment.

Benefits You & the Planet

THANK YOU!

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