

The missing intelligence layer for packaging circularity

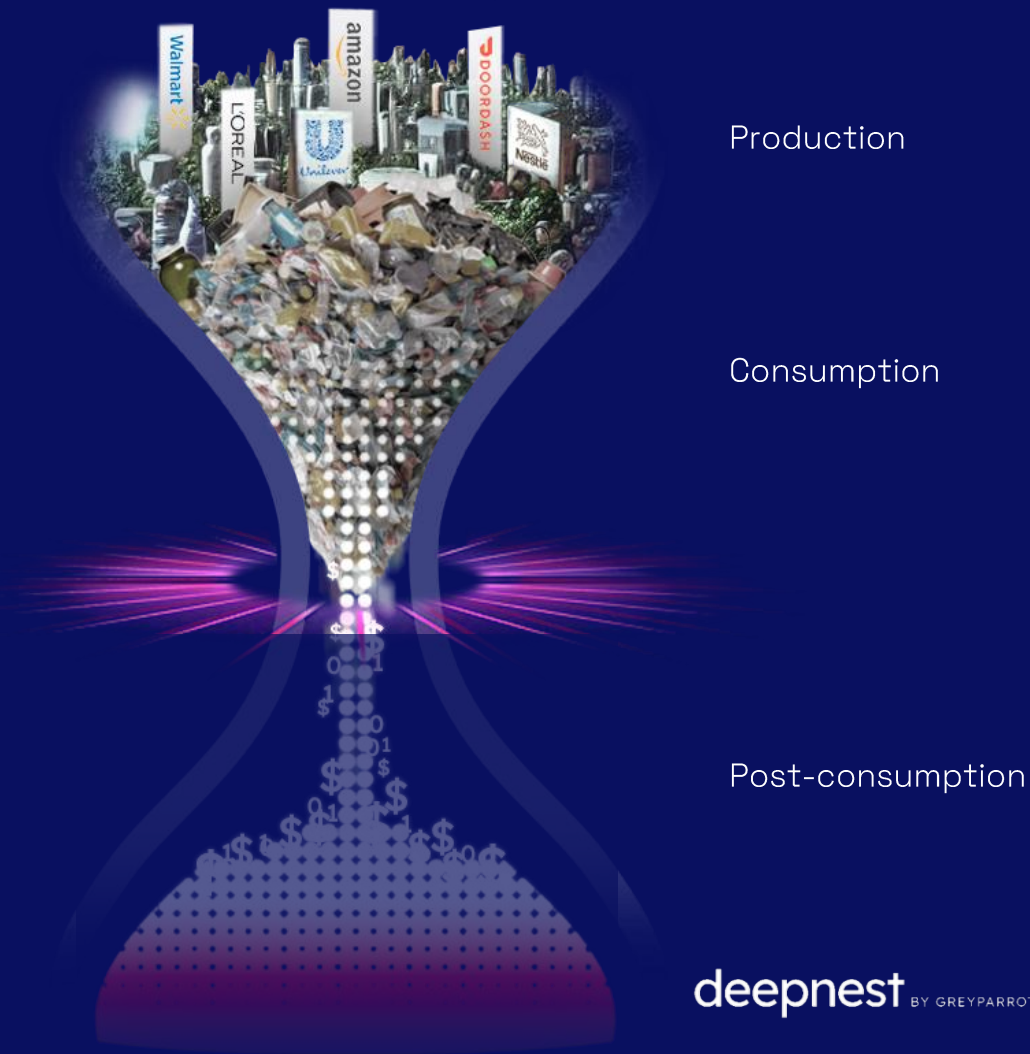


Ambarish Mitra
Co-founder at Greyparrot

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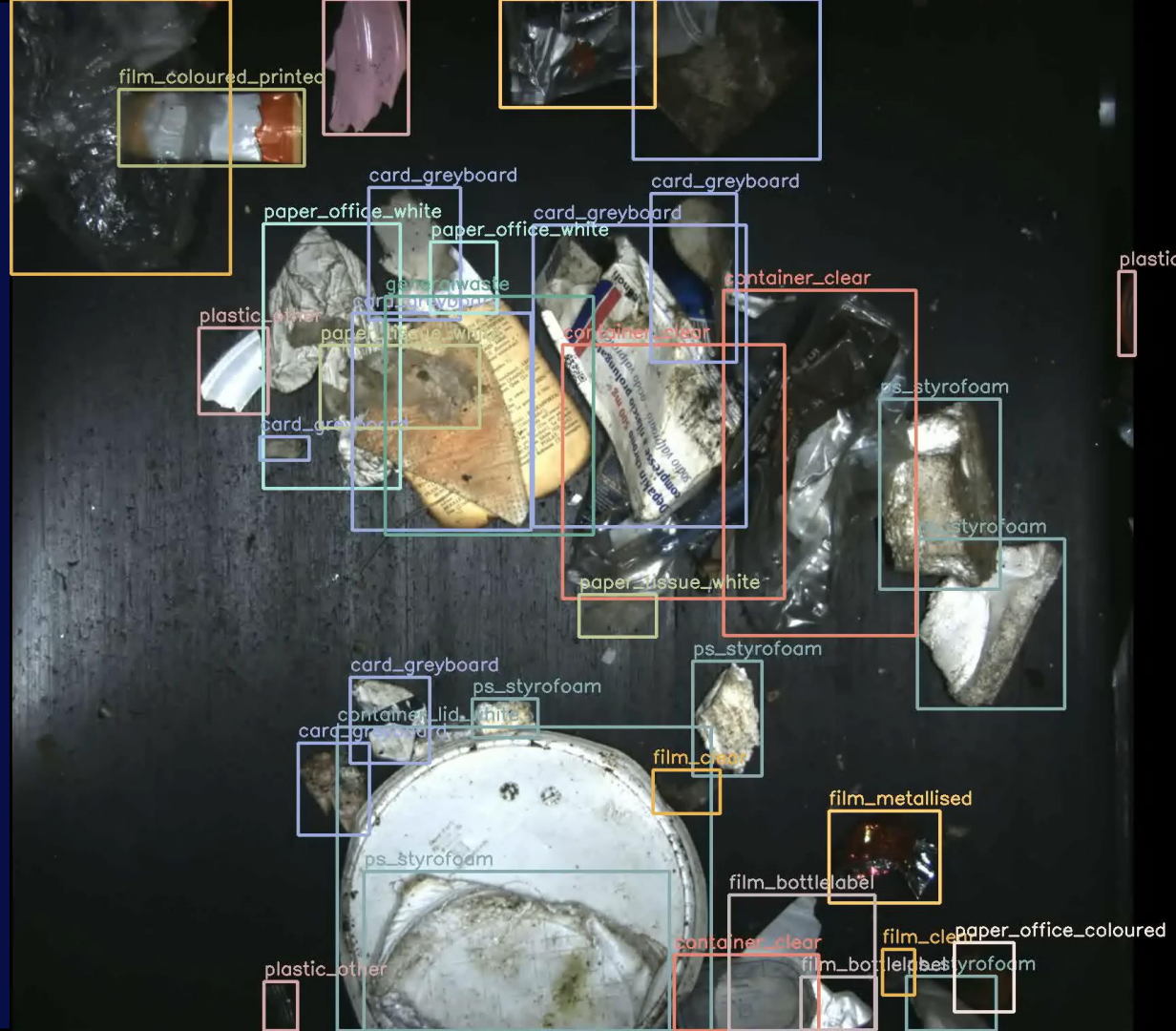
The fate of waste
is hidden in the
shadow economy.



Imagine a world where
packaging waste is
not a problem - its
true value ready to be
unlocked.



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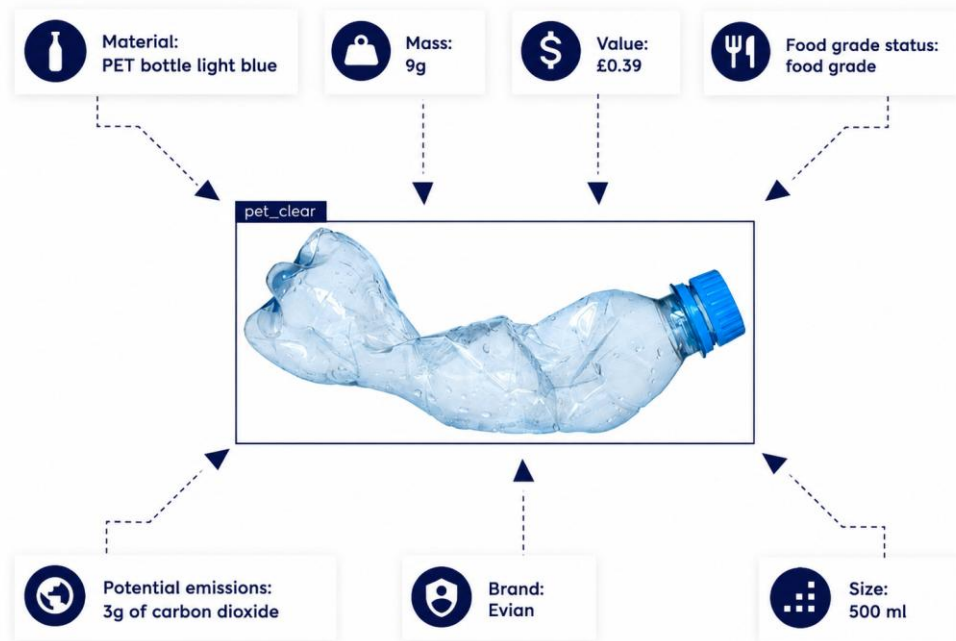




TRACKING 2.7 BILLION WASTE OBJECTS/DAY

250+ Analyzers deployed in 20+ countries,
52 billion waste objects analysed in 2025 alone

AI sees this in every object



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PET		Fibre	
Flexible plastic		Metals	
HDPE		WEEE	
Pots, Tubs and Trays		Glass	
Plastic Other		Fabric	
Black Plastic		Composite	
Contamination		+ More...	

NatureStore
iTainer Robot

Can you spot the Starbucks Cup?



STARBUCKS



BRAND PARTNERS



“Insights like these **could critically help to inform future packaging design**, enable recyclability in practice and at scale.”

Dr Liz Smith, Global R&D Head of Deodorants

L'ORÉAL

“Waste intelligence tools have great potential to provide **new visibility** into how packaging is actually being sorted.”

Brice André, Global VP Sustainable Development & Packaging

Huhtamaki



Coca-Cola



“To help achieve our circular packaging goals, we must move beyond aspirational guidelines and embrace **real-world evidence.**”

David Lickstein,
Global Head of
Packaging Innovation



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1

TRACK

Quantify real-world
recyclability, not
theoretical claims

2

OPTIMISE

Pinpoint how specific
design components
affect recovery rates.

3

FORECAST

Model what-if scenarios
to assess financial
impact of EPR

Packaging Performance & Impact Framework

COMPOSITION



METRICS

**SORTABILITY
RATE**
(TARGET STREAM)

**CONTAMINATION
RATE**

**RESIDUE
RATE**

PROPORTION
(w/o cap)

VOLUME

Packaging Performance & Impact Framework

COMPOSITION

1

PERFORMANCE



PATTERN SATURATION
ACROSS MRFs and PRFs IN
KEY MARKETS:

UK

EU

USA

METRICS

**SORTABILITY
RATE**
(TARGET STREAM)

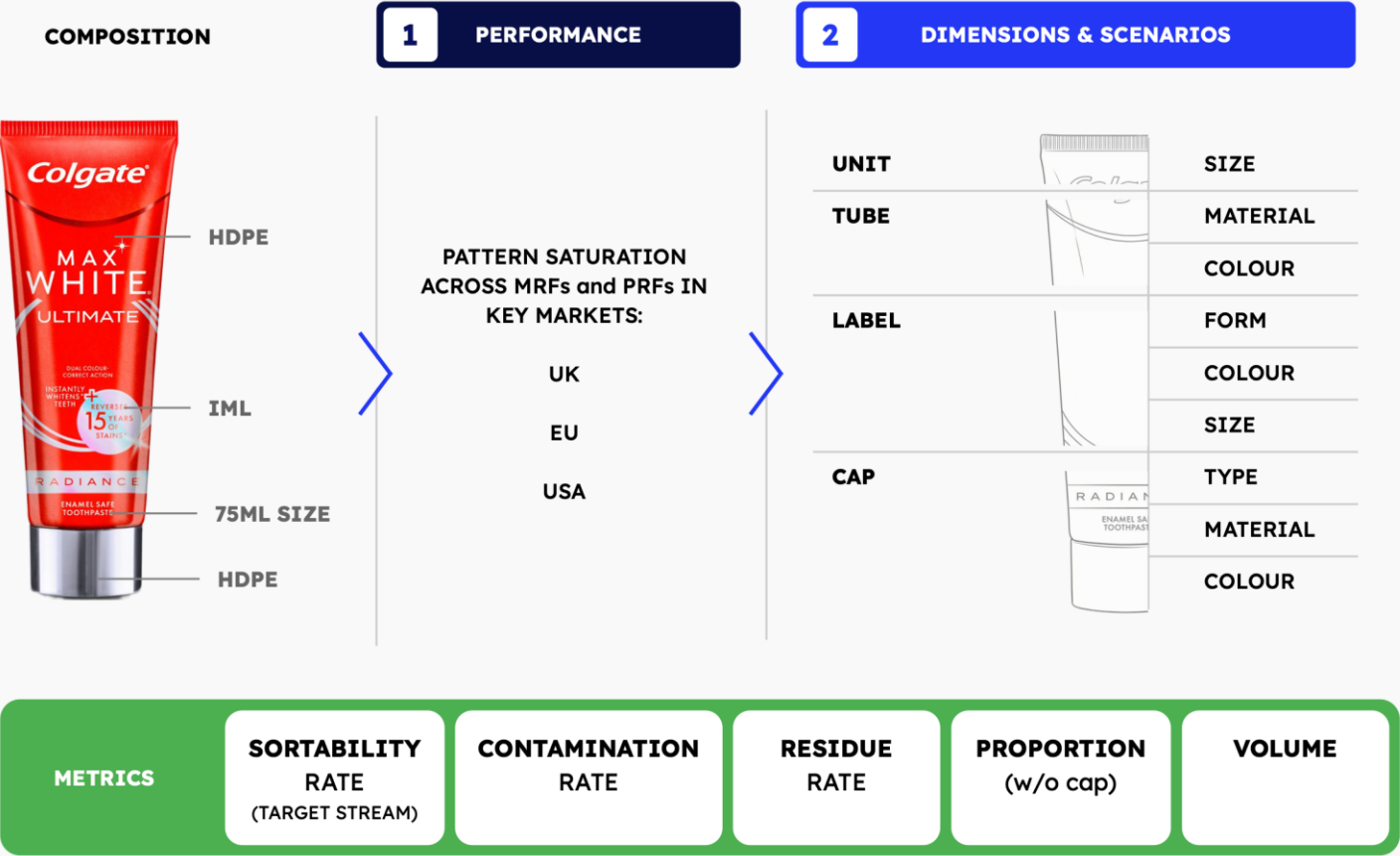
**CONTAMINATION
RATE**

**RESIDUE
RATE**

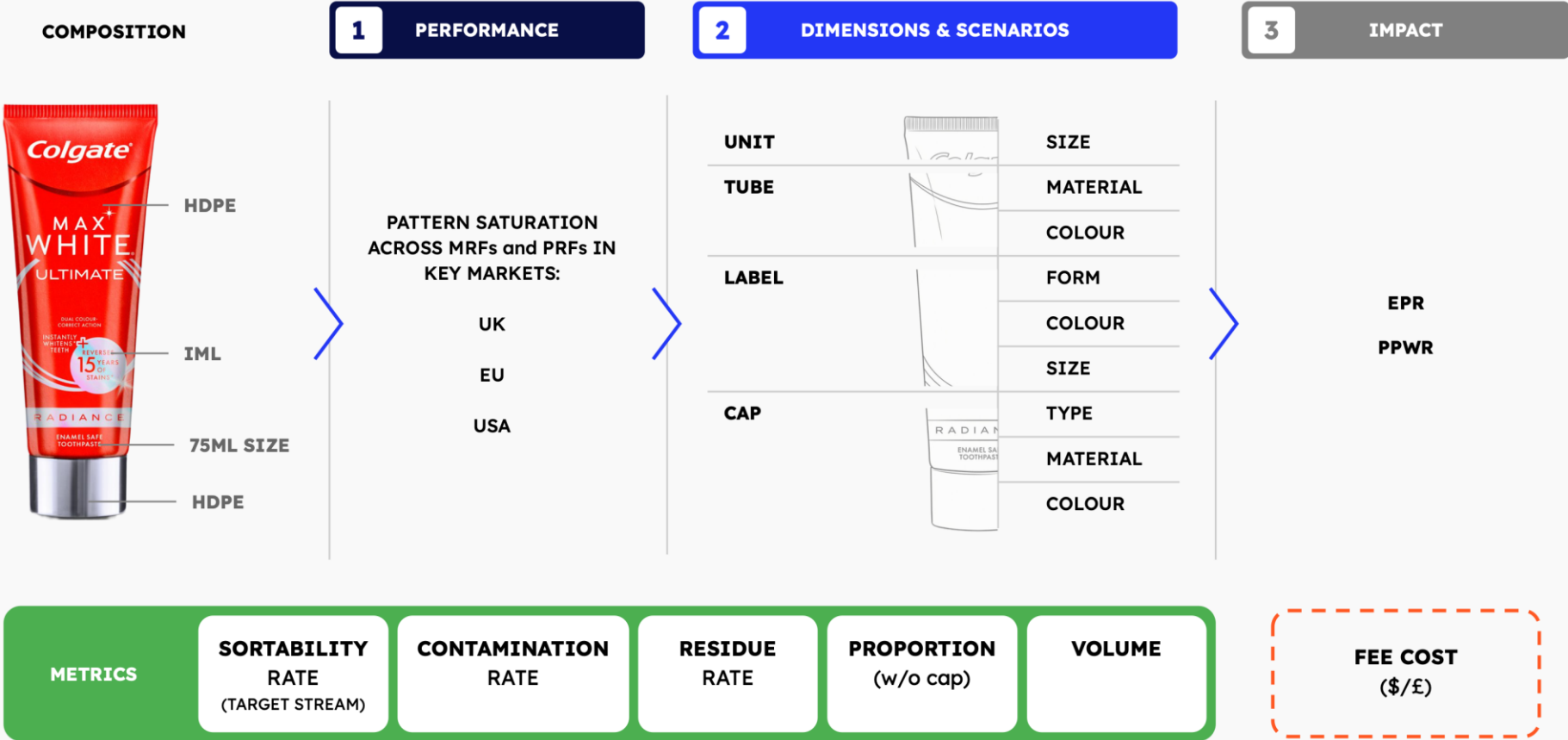
PROPORTION
(w/o cap)

VOLUME

Packaging Performance & Impact Framework



Packaging Performance & Impact Framework



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Bottle without sleeve



Bottle with sleeve



Images captured by Greyparrot Analyzer units, which our AI assesses based on material, shape, colour and food-grade status. Our AI identified the bottle on the right as “covered”, reflecting the full label sleeve.

The results tell a clear story:

A full sleeve on a plastic bottle makes it 3 times more likely to end up in landfill or incineration.

3X

1. Go sleeveless



2. Reduce sleeve size



3. Make sleeves removable



MATERIAL RECOGNITION

HDPE_OPAQUE



BRAND RECOGNITION

AVEENO



PET_COLOURED



JOHNSONS_BABY



“Model what-if scenarios to forecast the financial impact of EPR on design changes, such as adjusting **translucency** or switching **material types** - before physical prototypes are manufactured”

David Lickstein,
Global Head of Packaging Innovation



Aerosol Form Factor & Sortation Behaviour



68%

of **aerosols** are **successfully sorted** to the target stream by the MRF infrastructure.

Aerosol Form Factor & Sortation Behaviour



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Together, we can return more of your products to
the circular economy

Thank you.



Here it is