

# Utilising Bacteria for Cleaning Solutions

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# Introducing ABS



Advanced Bacterial Sciences (ABS) innovative, environmentally friendly and cost-effective bioremediation solutions to deliver your **scientifically clean commitments**. These solutions enable clients, and potential clients, to do the right thing financially and for the planet. With **ESG weighting increasing to >60%** in many tender processes our solutions can help meet these levels.

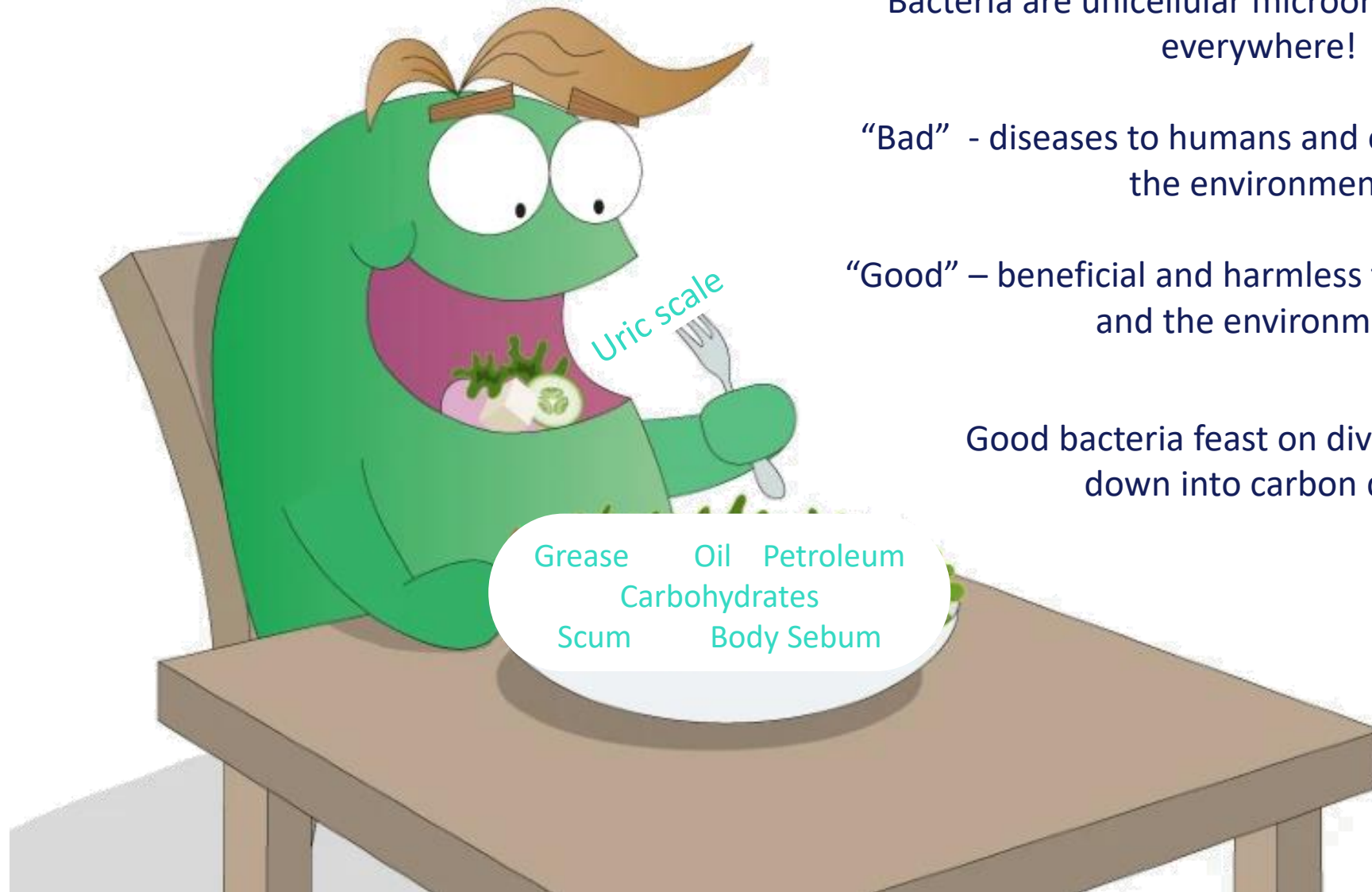
ABS is a **leading-edge biotechnology** organisation with some of the best minds in the business. These experts use friendly bacteria in the removal of contaminants, pollutants and toxins, from soil, water, and other environments.

ABS is unique in that they have twenty-five of these minds in our own purpose-built, million pound laboratory in Lancaster, constantly creating **world-changing solutions for now and the future** and we'd welcome the opportunity to show you these in action and meet the Product Development team.

With ABS as a strategic partner, you have the opportunity to materially change the carbon footprint of your clients, prospects, and yourselves **on the journey to carbon net zero**.



# Bacteria and Cleaning



Bacteria are unicellular microorganisms that live everywhere!

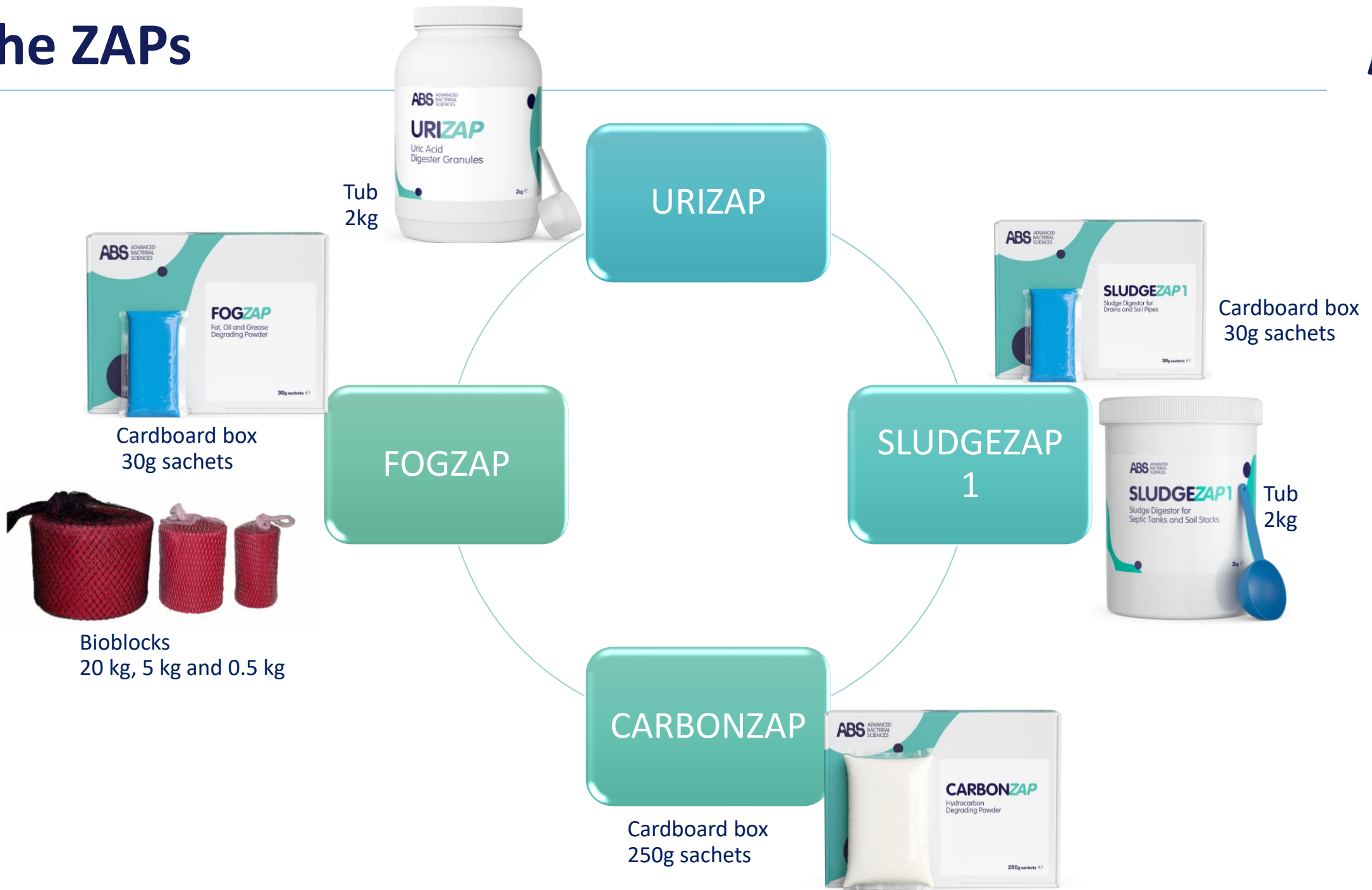
“Bad” - diseases to humans and other animals, and the environment

“Good” – beneficial and harmless to humans, animals and the environment

Good bacteria feast on diverse residues break them down into carbon dioxide and water

Grease    Oil    Petroleum  
Carbohydrates  
Scum    Body Sebum

# The ZAPs



## WHERE?

- ✓ In flushing urinals
- ✓ In waterless urinals
- ✓ In troughs

## WHAT?

- ✓ Removes uric acid/scale removal
- ✓ Decreases/eliminates odours
- ✓ Reduces blockages
- ✓ Improves drainage
- ✗ Struvite removal
- ✗ Food waste
- ✗ Sludge
- ✗ Hair
- ✗ Organic waste





# URIZAP: Benefits and case study

URIZAP is a patented, world-first microbial formulation that eliminates urinal blockages and foul odours, with regular use preventing recurrence.

Suitable for all types of urinals, URIZAP digests built-up uric acid without the need for harsh chemicals.

One scoop a week, with one cup of water, is all takes to maintain free-flowing urinals!

Before



After 6 weeks



## The Benefits

\*Figures based on 1,000 urinals excl. upstream & downstream benefits



Between 10 and 30 million litres of water saved per year



Around 11,200 litres of chemicals saved per year



About 14 tonnes of single-use plastic saved per year



On average 25 tonnes of carbon emissions reduced per year



Depending on location, 50-400% cost savings

\*These figures are extrapolated from trials involving over 250 urinals, with a range of urinal types, flush systems, number of historic blockages and cleaning regimes.

## WHERE?

- ✓ WCs
- ✓ Kitchens
- ✓ Soil stacks
- ✓ Septic tanks
- ✓ Other pipework in kitchens and WCs

## WHAT?

- ✓ Removal of sludge and organic waste
- ✓ Dissolves carbohydrates (starches/sugars) vegetable/fruit waste, greases, oils and fats

- ✗ Hair
- ✗ Sand
- ✗ Inorganic components of soil  
e.g., lime
- ✗ Rust



# SLUDGEZAP 1: Soil Stacks – Benefits and case study



Food disposal and inappropriate waste disposal can cause sludge build-up can block the pipework of the sewage system. Removal with chemicals is hazardous and ineffective as it is a temporary solution to an ever-existing problem.

This bacteria-based solution eliminates blockages by breaking down organic matter found in soil pipes and stacks.

## The Benefits



Reduces need for mechanical intervention



No damage to the environment



Maintains infrastructure integrity



Safe to use and easy to apply



Significantly reduces odour



Reduces carbon emissions

Before



After 6 weeks





## WHERE?

- ✓ Grease traps in kitchens
- ✓ Grease pits
- ✓ Wet wells, lift and pump stations
- ✓ Interceptors
- ✓ Water treatment plants



## WHAT?

- ✓ Mitigates odour
- ✓ Decreases biological oxygen demand (BOD) improving sewage water quality
- ✓ Dissolves fats, grease and cooking oils
- ✓ Degrades carbohydrates, vegetable/organic waste
- ✗ Proteins
- ✗ Inorganic components of food e.g., salts, minerals
- ✗ Rust

# FOGZAP: Benefits and case study

FOGZAP is a powder-based, environmentally friendly bacterial treatment that completely digests fats, oils, grease and saponification (FOGS) in kitchen waste systems, preventing re-congealing downstream.

This two-phased treatment is a simple, cost-effective, and safe way to remove FOGS from grease traps and grease recovery units.

Before



After 6 weeks



## The Benefits



Effectively clears blockages



Reduces frequency of pipe replacement



Safe to use and simply to apply



Non-toxic to humans and animals



Reduces carbon emissions

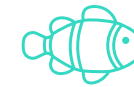


Reduces road closures

# ORIGINS – the washroom line



ORIGINS carefully designed to be



Safe for aquatic life



Safe for human health



Free of toxic chemicals



Biodegradable



Bio-based



And minimise single-use plastics.

The washroom products come as a powder packaged in a rapidly soluble sachet and with a post-recycled plastic or aluminium bottle.

A high-foaming product that can remove stubborn organic soil, soap scum, and general grime. Bacteria have been introduced to eliminate and compete with odoriferous bacteria eliminating the source of bad smell.



## Washroom Surface Cleaner

Foaming and microbial agents that do the cleaning for you!

### The Benefits



Good bacteria that fight the odour-causing bacteria



Enhances the washroom experience, thereby enhancing customer satisfaction



Refreshing orange blossom fragrance



Tackles soap, organic soils, grime, stains



Safe for the planet, humans and animals

We have harnessed the power of billions of beneficial bacteria to attack and digest the root cause of limescale, uric scale and struvite, leaving you with cleaner, fresher toilets and urinals for longer!



## Toilet & Urinal Gel

Environmentally friendly and easy descaling, for a cleaner, better planet!



1L e

### The Benefits



Eliminates the cause of odour



Removes scale deposits



Not tested on animals



Non-toxic to humans and animals



Is 100% biodegradable, bioderived, biocompatible and biological



Safe for the planet



# Surface Descaler: Benefits



Our specifically formulated probiotic microbes clean 24 hours a day, removing the cause of limescale and odours - even in inaccessible corners and grout. This means your surfaces stay cleaner for longer, and you can spend more time doing the things you love.



## Descaler & Deodoriser

Easy, hassle-free descaling and deodorising – powered by nature

### The Benefits



Powerful microbes that continue to clean, even after you've walked away



Enhances the washroom experience, thereby enhancing customer satisfaction



Removes and prevents causes of odour at the source



Absolutely impeccable orange blossom fragrance



Regular use avoids the recurrence of odours and stains



Safe for the planet, humans and animals