You have just as many bacterial cells living on your body as human cells inside it.

3.0 x 10^13 (10,000 billion) human cells in the body

3.0 x 10^13 (10,000 billion) bacteria in the human body

10^10 (100 billion) bacteria on human skin

1000 different bacterial species on human skin

What areas do we consider biofilms present and why it is important to consumers?

**Consumer desire to manage their skin for aesthetic and functional reasons**

Personal care products provide prevention and control of skin conditions for:

- **Scalp health**
- **Face care**
- **Underarm health**
- **Feminine care**
- **Foot care**
- **Body care**

Aesthetics arising from:

- Grooming
- Personal appearance
- Aroma

Functionality arising through:

- Hygiene
- Protection
- Odour control

The global personal care market in 2019

Amount of which was attributable to biofilms:

- $339bn
- $91bn

A global industry

Proportion of each sector attributable to biofilms:

- 20% Skincare
- 20% Baby & Child
- 25% Hair Care
- 50% Bath & Soap
- 100% Deodorant