

Simba's R&D Journey

Designing for Sustainability

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Sustainable design from Micro to Macro.





Who is Simba ?

A family owned company that started as a towel manufacturer in Melbourne and transitioned over 40 years into Australia & New Zealand's largest supplier of commercial linen and one of the major suppliers of linen to Australia's retail stores

Who is Simba ?

The numbers



The biggest supplier of commercial Linen in Australia & NZ



A major supplier of linen to major Retail stores



We bring about 2500 TFE into Australia each year



We can hold 10,000 pallets in our Bayswater warehouse



Up to 900,000 tonnes of our products are laundered each year

Who is Simba ?

The soul

Simba Conscious

Our Strategy to 2030

Simba Conscious is our strategy to drive better sustainability outcomes for our customers, suppliers and within our own operations. Consisting of 4 key pillars we have set ambitious, specific and measurable goals aligned with the United Nations Sustainable Development Goals to demonstrate our commitment to global sustainability priorities



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SIMBA CONSCIOUS - Sustainability Framework

Better Together

Product Stewardship

**Design for
sustainability**

**Takeback and
recycle**

**Project investment is based on
Triple Bottom Line impacts**



Our Vision

Strategic Pillars

Areas of focus

Underpinning
principles

SDG contribution

Simba had neither the resources or the capabilities to complete all tasks, thus “Better Together”.

Timing (4 to 5 years ago) corresponded with Deakin’s initiative to bid for an ARC grant to set-up the Future Fibres Hub.

Main aim then was to identify the options for our end of life take back scheme

At the same time microplastics became a global environmental issue

With a 5 year R&D horizon we thought we could do Microplastics first then move onto our end of life options

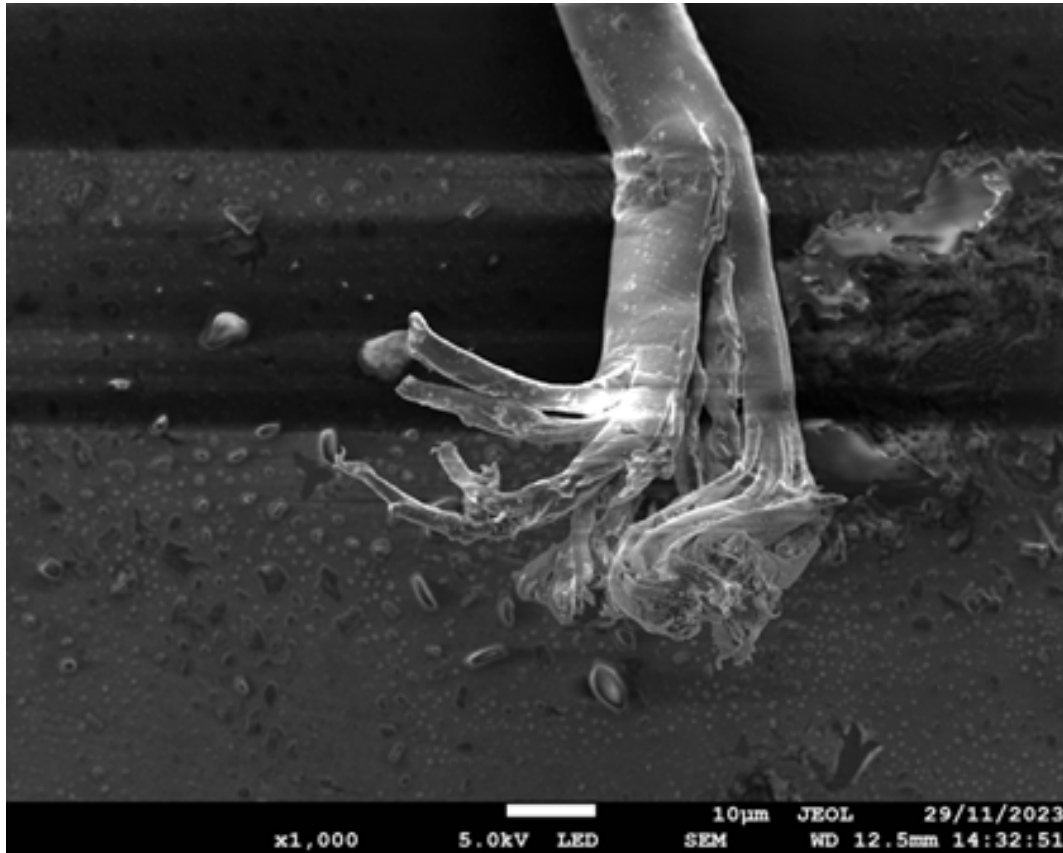
Commercial vs University aims and outcomes

- Please do not underestimate the effort required to sell R&D to a business that has always been able to solve its own problems.
- Marketable collateral (\$) vs papers and R&D recognition
- Aim to have a “recipe” for sheeting fabric that sheds 80% less microplastics
- 3 yrs in have we got value for our investment ?



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How are microplastics formed ?



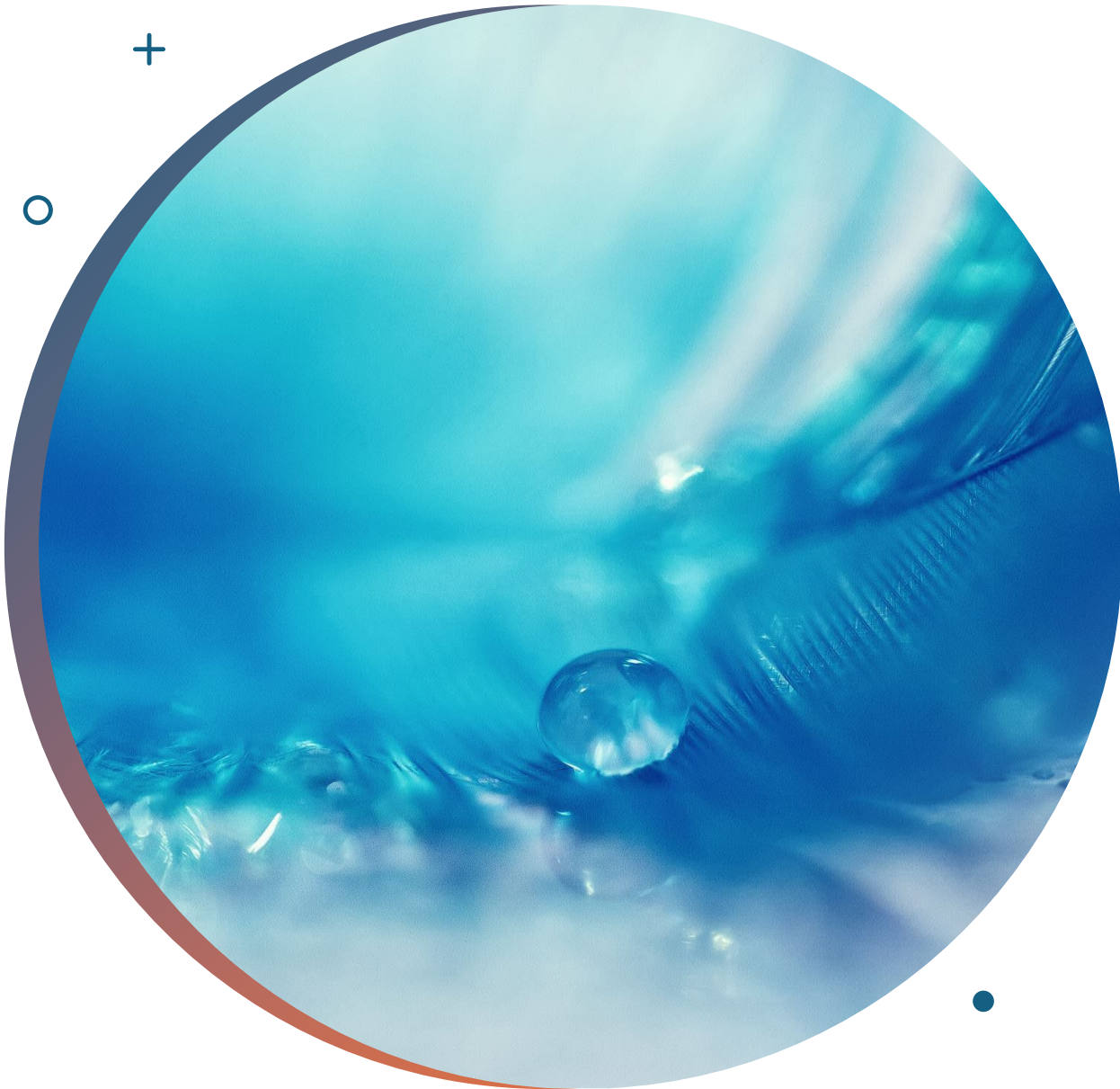
Shear stress from twisting



Tensile stress from bending

What other valuable gems have we got ?

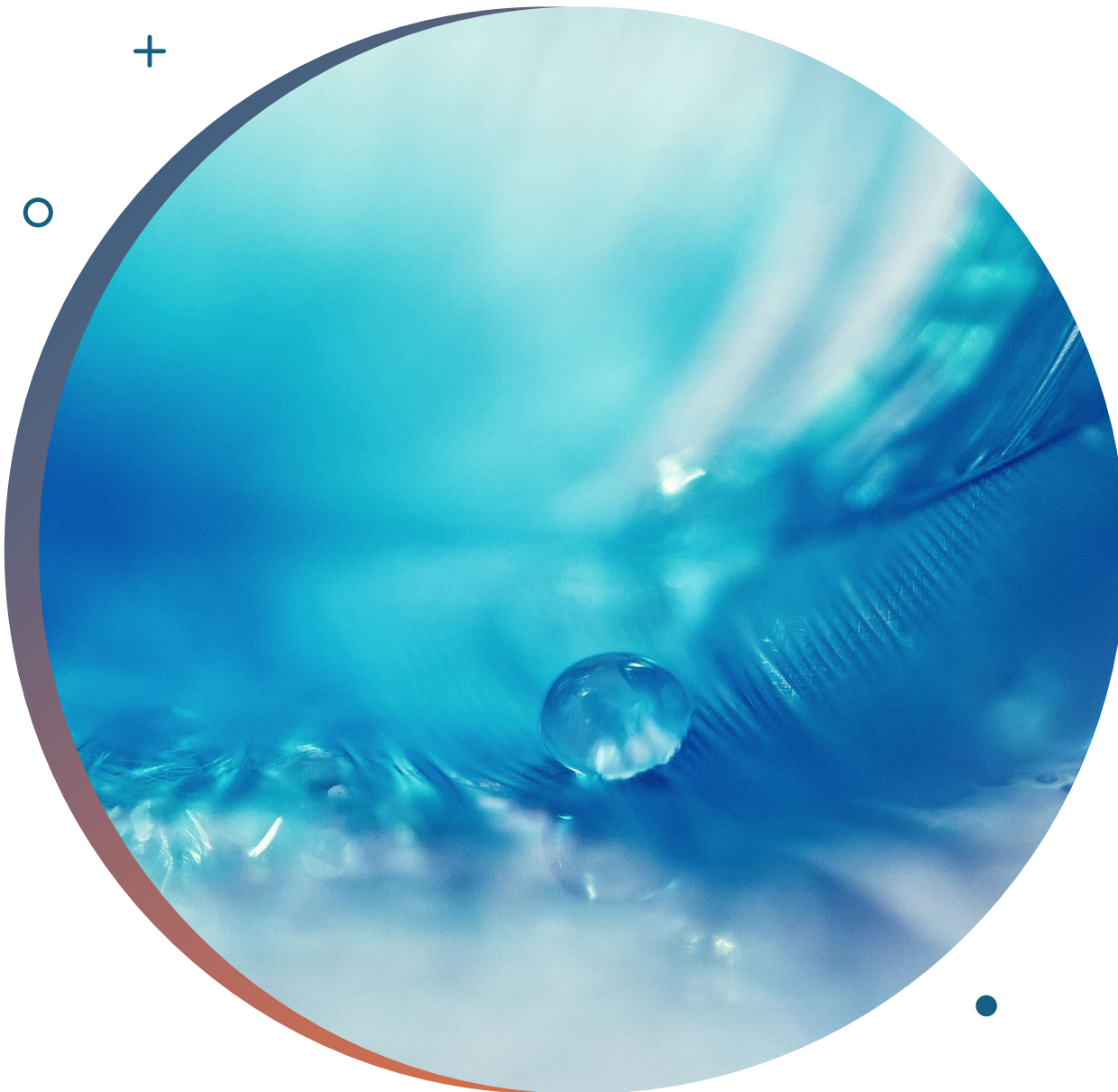
- Only 15% of fibre fragments in laundry waste water are microplastics
- We know the washing factors that increase and decrease microplastic release from textiles
- We have identified the fabric design parameters that increase and decrease microplastic release
- We are now confirming our “recipe” for the most environmentally friendly sheet fabric
- Implementation could reduce microplastic release from commercial laundries by 60 tonnes / yr (50%)
- This MAY satisfy legislation or regulations should they be introduced.



Plan B ?

To meet our ambitious goal

- We have also partnered with a company that has developed a microplastic capturing technology that has been proven on a commercial scale to be effective
- Until sheets change dramatically, they will continue to shed some level of microplastics. While that scenario remains, this technology can enable us to meet our ambitious goal.





Thank you