

Kimberly-Clark launches innovative Australian-first nappy recycling trial

Kimberly-Clark, the maker of Huggies nappies, today announces a new nappy recycling trial that could be Australia's answer to the 1.5 billion disposable nappies that end up in landfill each year. With approximately 300,000 babies born in Australia every year, and about 95% of them wearing disposable nappies, the trial represents a step forward for the nappy industry.

The first trial of its kind in Australia, *The Nappy Loop* has been underway in South Australia since July 2022 and uses anaerobic digestion to turn the organic materials in used Huggies nappies into nutrient-rich compost, as well as bioenergy that is captured and used to power the recycling process.

The Nappy Loop team is being led by **Kimberly-Clark Australia**, along with Australia's national science agency, **CSIRO**, one of South Australia's largest composters, **Peats Soils and Garden Supplies**, **Solo Resource Recovery**, and early learning and care provider **G8 Education**. Together, the team has collected and recycled almost two tonnes of used Huggies nappies, proving that anaerobic digestion is a viable option for the recycling process.

Kimberly-Clark ANZ Managing Director, Belinda Driscoll said: "As Huggies is the most popular nappy brand in Australia, we not only set the standards in baby care, our goal is to set the standards for our industry in sustainability too. We believe we have a responsibility to lead by example and find better solutions for the community and our planet."

"Families and day care centres across the country rely on the convenience and performance of disposable nappies and while we work to innovate and create more sustainable products, recycling is one solution for disposable nappy waste. Identifying a recycling solution that works hasn't been easy due to the availability of technology and collection systems. Today is a very proud day for us, announcing that we have trialled right here in Australia, and it represents a big step in Kimberly-Clark ANZ's sustainability strategy." **Driscoll added.**

The Nappy Loop trial has adopted a B2B model, with Solo collecting used Huggies nappies from G8 Education's Welly Road Early Learning Centre in Mount Barker and delivering them to the Peats composting facility for processing. Utilising anaerobic digestion, the organic material in the used nappies is transformed into nutrient-rich compost whilst the plastic components are separated and evaluated for future recycled products. In addition, the anaerobic digestion process creates bioenergy which is captured and used to power the Peats composting facility.

CSIRO's Principal Research Scientist Dr Anu Kumar said: "CSIRO is working with Kimberly-Clark Australia to provide scientific validation of *The Nappy Loop* pilot to help tackle waste. Our research for this Australian trial will help inform the team on the potential scaling of the program to help reduce the amount of nappies ending up in landfill."

Managing Director of South Australia's largest composter, Pete Wadewitz, said: "Anaerobic digestion is a growing area of focus and possibility in Australia. The process has been used successfully in Toronto, Canada to recycle disposable nappies and we are excited to be introducing this innovative approach in the Southern Hemisphere as we work to solve the nappy waste issue."

G8 Education Head of Early Learning and Education Ali Evans said: "Through this partnership the nappies changed every day at our Welly Road centre are recycled instead of going into landfill. As educators of our future generations, sustainability is a core focus in all our 440 centres across Australia and we're excited to contribute to this partnership and the positive environmental impact it can make."

After five months of recycling used nappies, *The Nappy Loop* team is now exploring the opportunity to scale the program in South Australia and nationally. This includes partnering with **APR Plastics** to test the recycling of the recovered plastic from the nappies using pyrolysis, with the aim of having results available in early 2023.

PRESS BANK - including imagery, B-roll and infographics

https://drive.google.com/drive/folders/1-uw5f8m5C78QDOPPFNHfka8Y9h0GwNi5?usp=share_link

NOTES TO EDITORS

CSIRO is validating the results of the trial and the full report will be available soon. However, initial results show:

- The anaerobic digestion process was beneficial in biodegrading the organic matter in nappies (post separation of plastics) when mixed with expired food waste and beverages with high sugar content. Food waste and beverages not only help in separating the plastics from the shredded nappies but also provide additional liquid content and sugars for the anaerobic digestion process.
- The anaerobic digestion process was able to turn the fluff pulp and other organic components of the soiled nappies (after separating plastics) into nutrient-rich compost and biogas. CSIRO is still assessing how much biogas is produced from the degradable organics in nappies. However, early test results indicate a successful conversion of organic carbon during the digestion of nappies (post separation of plastics) to biogas.

Microplastics

In our process, the plastic and organic material in the nappies are separated from the start. CSIRO has done some initial tests using a fast-screening method and microplastic fragments were not observed in the 28 day digestate. We are now undertaking more robust testing as ensuring microplastics do not make their way to the compost is essential to meet certification standards.

What is anaerobic digestion?

Anaerobic digestion is an increasingly common process in industrial composting to break down biodegradable waste. Little microbes break down waste — such as food and drink products — and in our case, the result is nutrient-rich compost and bioenergy.

How much plastic is there in a nappy?

Our Huggies nappies are made up of approximately 40% pulp and 60% plastic (about half of which contains superabsorbent polymer). We are working hard to reduce this plastic content and in 2021 alone, we reduced 232 tonnes of plastic across our nappies.

Other Sustainable initiatives by Kimberly-Clark include:

- Huggies was the first major Australian nappy brand to launch Little Swimmers **Reusable Swim Nappies** for babies
- **Huggies Bio Baby Wipes** are 100% biodegradable - made with plant-derived fibres (50% cellulose and 50% processed cellulose (rayon))
- **UbK reusable period underwear** is now a market leader after just 12 months
- The very first Australian-made 100% bamboo toilet paper, **Kleenex Eco** and 100% bamboo paper towel, **Viva Eco** which both launched last year and produced at Kimberly-Clark's Millicent Mill in South Australia.

ABOUT KIMBERLY-CLARK

Kimberly-Clark and its trusted brands are an indispensable part of life for people in more than 175 countries. Fuelled by ingenuity, creativity, and an understanding of people's most essential needs, we create products that help individuals experience more of what's important to them. Our portfolio of consumer brands include Huggies, Kleenex, Viva, U By Kotex, Poise and Depend. We use sustainable practices that support a healthy planet, build strong communities, and ensure our business thrives for decades to come. To find out more, visit www.global.kimberly-clark.com/en-au/

ABOUT CSIRO

As Australia's national science agency and innovation catalyst, CSIRO solves the greatest challenges through innovative science and technology. CSIRO works with organisations large and small, delivering world-leading research and development solutions to help their business innovate, improve and grow. www.csiro.au/en/

ABOUT PEATS SOILS AND GARDEN SUPPLIES

Peats is a second-generation, wholly South Australian company focused on receiving, processing and marketing recyclable organic resources in bulk and bag forms. Our vision is to be a world leader in sustainable and innovative organics recycling. Our 45-year heritage and passion for organics recycling and the creation of valuable landscaping, garden and horticultural products has given us a reputation as a true environmental and carbon friendly company. www.peatsoil.com.au

ABOUT SOLO RESOURCE RECOVERY

Solo Resource Recovery is a 100% Australian owned and operated industrial services, and waste management company that has been providing efficient waste solutions for government, business and households for over 80 years. www.solo.com.au

ABOUT G8 EDUCATION

G8 Education Limited (ASX:GEM) is a leading provider of quality early learning education and care, with a range

of trusted brands and more than 440 centres across Australia. We are driven every day to achieve our purpose — creating the foundations for learning for life. Our team members make an immeasurable contribution to the lives of children in our care, our families, our centres and our communities and are critical to achieve our purpose and vision. <https://g8education.edu.au/>

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<https://investor.kimberly-clark.com/2022-12-07-Kimberly-Clark-launches-innovative-Australian-first-nappy-recycling-trial>