



Supporting best practice and standards

Advising on the development and implementation of national standards to support business, industry and the public in reusing and recycling plastics and reducing plastic waste.

The challenge

Australia is a world leader in implementing and ensuring compliance to national and international standards. While plastic standards exist for many components of the production process, for recycled content, import requirements and other areas of plastic manufacturing, the plastics field is largely unstandardised. There are vast differences between states and local councils in what is recyclable and how to treat it, leading both to consumer confusion and the lack of a standardised waste recovery processes. With no clear guidelines on allowable levels of post-consumer waste in recycled plastics, or clear recommendations on environmentally relevant targets for the use of recycled material in products and packaging, industry is explicitly asking for guidance and support.



There is currently strong public will and impetus for change amongst industry partners, though there is significant concern from industry that a lack of standards and guidelines is hampering market drive and innovation. This uncertainty leads to a low appetite for risk. Additionally, without national benchmarks, companies that initiate voluntary measures may be at a competitive disadvantage.

Our response

Challenges linked to the production, consumption and end-of-life of plastics can be turned into an opportunity for Australian industry. Innovative solutions for advanced sorting, chemical recycling and improved polymer design can have a powerful effect. We are playing a trusted advisor role in this field, providing a variety of sources of information to help guide the development and implementation of national standards and benchmarks.

We can provide technological assistance to optimise knowledge about waste leakage points. Our expertise in advanced manufacturing can guide the development of recycled plastics standards, such as advice on waste streams or resin types that currently suffer from low recycling rates due to contamination, issues with multilayered packaging, and advice on plastic additives that are better tolerated by recycling processes. Through the ASPIRE program, we have developed a successful framework to engage industry partnerships and facilitate uptake of voluntary measures. We also have a long history in the development of fibre technology, an area where guidelines for reducing microfibre losses are urgently needed.

The benefits

A clear set of guidelines for plastics recycling and recycled content will decrease contamination and increase the value of recycled stocks. This will help to encourage the development of onshore businesses within Australia. If consumers have a clear and consistent set of guidelines, there will be less leakage of plastic waste into the environment through illegal dumping. Setting standards for contents of recycled plastics will ensure clean products for the health and well-being of Australians.

As Australia's national science agency and innovation catalyst, CSIRO is solving the greatest challenges through innovative science and technology.

Contact us
1300 363 400
+61 3 9545 2176
csiorenquiries@csiro.au
csiro.au

For further information
CSIRO Oceans and Atmosphere
Qamar Schuyler
+61 3 6232 5195
Qamar.schuyler@csiro.au
csiro.au/plastics