# Experts discuss pathways to reduce plastic pollution



In a recent discussion hosted by The Naked Scientists, Richard Thompson, a leading expert in plastic waste management, and co-host Chris Smith addressed the growing concerns surrounding plastic pollution and its implications on the environment. Their conversation delved into potential pathways towards mitigating plastic waste, highlighting the ongoing debates about the use of glass as an alternative to plastic packaging.

Thompson noted that while glass is often perceived as a more environmentally friendly option, it is considerably heavier than plastic, which raises concerns regarding carbon emissions produced during transportation. He emphasised that for certain types of plastic, such as milk bottles, there is substantial evidence supporting high recyclability rates. Thompson remarked, “If we can get those plastic bottles to be more circular... I don’t think it’s necessarily about going back to glass.”

The discussion also touched on the efficacy of deposit return schemes from various countries, suggesting that incentives might encourage consumers to return plastic bottles. He stipulated that simplifying the chemical formulations of plastics is essential for enhancing recyclability. Currently, Thompson highlighted the complexity in recycling due to the existence of over 16,000 different chemicals associated with plastics, with approximately 4,000 identified as potentially harmful. He observed, “That makes it quite challenging to recycle that material into a viable product.”

Thompson also pointed to a concerning statistic: less than 10% of all plastics produced globally have been successfully recycled. He indicated the need for a comprehensive approach that goes beyond merely managing waste, as current production rates of plastic continue to outpace waste management capabilities. His view is that certain single-use plastics, while contributing to waste, are not essential given their environmental and health costs. He proposed the establishment of essential criteria for plastic products to determine their necessity and identify alternatives.

Chris Smith expressed his growing anxiety about the pervasive nature of plastic waste encountered in daily life, recounting a recent shopping experience that left him grappling with the sheer volume of packaging waste generated. In response, Thompson acknowledged the immense benefits that plastics provide in various sectors, noting their role in medical applications, transportation, and reducing food waste. He asserted, "Plastics aren’t the enemy,” explaining that they offer significant societal advantages when used judiciously.

The conversation also underscored the importance of responsible consumer behaviour and the need for enhanced education regarding plastic use. Relaying his frustrations, Thompson stressed the necessity of integrating end-of-life considerations during the design phase of plastic products, stating that many product designers overlook this critical aspect. He remarked, “I was simply asked to make a product that performed and was attractive to the consumer,” referencing a common viewpoint among designers that neglects long-term sustainability.

As the discourse on plastic pollution continues to evolve, Thompson’s insights present a multifaceted approach to addressing the issue, advocating for simplification in plastic formulation and comprehensive design strategies to enhance recyclability and sustainability in an increasingly plastic-dependent world.

Source: [Noah Wire Services](https://www.noahwire.com)

## References

* <https://www.plymouth.ac.uk/staff/richard-thompson> - This URL supports Richard Thompson's expertise in marine biology and plastic pollution research. It provides details about his role as a professor at the University of Plymouth and his contributions to understanding microplastics.
* <https://royalsociety.org/people/richard-thompson-25317/> - This URL corroborates Richard Thompson's status as a leading expert in plastic pollution, highlighting his pioneering work on microplastics and contributions to policy changes.
* <https://braveneweurope.com/richard-thompson-the-godfather-of-microplastics-on-20-years-of-pollution-research-and-the-fight-for-global-action> - This URL supports Thompson's work on microplastics, discussing his early research and ongoing efforts to address plastic pollution globally.
* <https://e360.yale.edu/features/richard-thompson-interview> - This URL provides additional information on Thompson's views on plastic pollution, including the need for sustainable plastic use and global regulations to address the problem.
* <https://www.jesus.cam.ac.uk/articles/plastic-pollution-are-there-solutions-global-environmental-challenge> - This URL highlights Professor Thompson's emphasis on balancing the benefits of plastics with their environmental drawbacks and discussing solutions to mitigate plastic pollution.