ENVIRONMENT SEMINAR 2026 | SESSION REPORT

Sustainable packaging must work for people

Social sustainability and packaging design

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Professor Alastair Yoxall: Sheffield Hallam University

Professor Alastair Yoxall is a packaging ergonomics specialist at Sheffield Hallam University. His work focuses on how people use packaging, inclusive design and the social dimension of sustainability. He also teaches within the university's packaging degree apprenticeship programme.

KEY POINTS

- True sustainability combines environmental, economic and social dimensions.
- Packaging design must consider the wider system in which a product is used.
- Consumer behaviour can undermine technically sound recycling and reuse schemes.
- Involving users at the outset improves the prospects of success.

FULL SESSION REPORT

The packaging industry must place greater emphasis on human behaviour and social sustainability if it is to develop successful recycling and reuse systems, Professor Alastair Yoxall told delegates. His presentation challenged conventional thinking about sustainable packaging by arguing that environmental and economic measures alone are insufficient if products and systems do not work for the people expected to use them.

The neglected social dimension

Yoxall drew on more than two decades in packaging ergonomics and inclusive design, describing sustainability as three interconnected considerations: environmental, economic and social. He suggested that packaging debates often focus on carbon, recyclability and commercial viability while giving less attention to usability, accessibility, habits and the wider social impacts of design decisions.

He described modern packaging as serving multiple purposes, including protection, preservation, promotion, waste reduction, reuse, recycling, information, inclusion and innovation. Each function must be balanced with the others.

Design the system, not only the package

As the industry moves from linear approaches towards circularity, Yoxall argued, the challenge is not simply to redesign individual packs. Companies are designing interconnected social and technical systems involving consumers, collection services, sorting facilities and end markets. A change in one part can generate unexpected consequences elsewhere.

He highlighted the example of heavier reusable shopping bags. Replacing lightweight single-use bags can appear straightforward, but the environmental benefit depends on whether consumers actually reuse the heavier alternatives often enough. Without understanding behaviour, a well-intentioned measure may fail to deliver what was expected.

Reuse depends on user experience

Turning to foodservice packaging, he considered reusable cups, trays and containers in hospitals, hospitality environments and densely populated areas. Such systems must account for the realities of return, cleaning, convenience, user participation and accessibility, not simply the durability of the packaging itself.

Trials of reusable arrangements in retail and foodservice demonstrated the challenges that arise when people do not use systems as their designers anticipated. Practical testing of how people behave should therefore be built into any transition towards reuse.

Why Simpler Recycling can still be confusing

Yoxall described the introduction of workplace recycling containers at Sheffield Hallam University, where he said waste regularly ended up in the wrong bins despite supposedly clear arrangements. The experience had prompted a research project into how users interact with recycling facilities and why contamination occurs.

Rather than blaming users, he called for clearer and more intuitive systems. Familiar universal symbols used in other products, he suggested, could offer lessons for recycling communication. He also referenced the ‘mum test’ raised by Adam Read: if an ordinary member of the public cannot readily understand a disposal instruction, the system needs improvement.

Involve consumers earlier

Yoxall argued that businesses and policymakers too often introduce a system and ask people for feedback only afterwards. Involving users at the start could help avoid costly mistakes and improve the prospects of better outcomes. He also described research into how the social sustainability of packaging can be assessed, acknowledging that measures will continue to evolve.

His central message was that successful circular packaging requires environmental soundness, commercial viability and social usability. For foodservice businesses, that means asking not just whether a material can be recycled or reused but whether people can realistically participate in the system required to make it happen.

SESSION PHOTOGRAPHY





PRESENTATION MATERIALS

Awaiting slides from Professor Yoxall.

Source and publication note

This session report is intended to be an overview and is not a verbatim transcript.