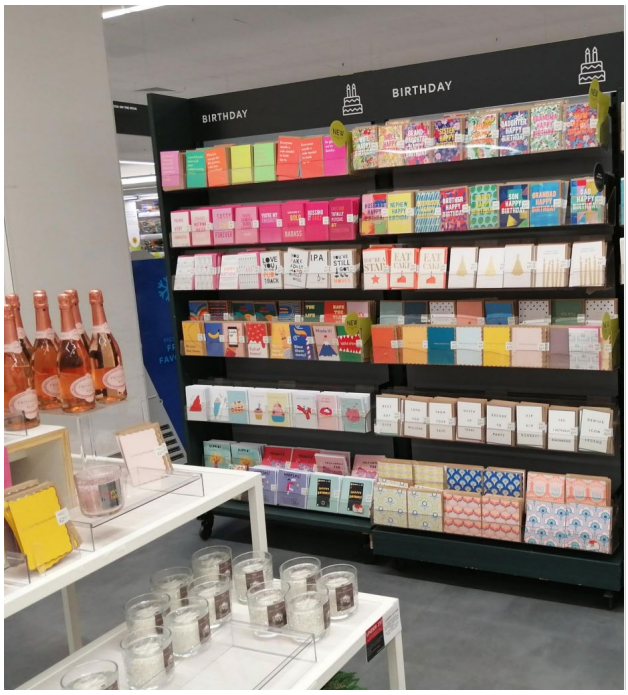
SDG Accord Case Study

The SDG Accord

The University and College Sector's Collective Response to the Global Goals

LEEDS BECKETT UNIVERSITY
LEEDS BUSINESS SCHOOL



Integration of SDGs in

☐ Institutional governance/strategic level
☒ **SDGs in research**
☐ SDGs in campus operations
☐ SDGs in curriculum development
☐ SDGs in student engagement activities
☒ **SDGs into community activities**
☐ SDGs at a whole-institution level

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Focus on

☐ Goal 1 - No poverty
☐ Goal 2 - Zero hunger
☐ Goal 3 - Good health and wellbeing
☐ Goal 4 - Quality education
☐ Goal 5 - Gender equality
☐ Goal 6 - Clean water and sanitation
☐ Goal 7 - Affordable and clean energy
☐ Goal 8 - Decent work and economic growth
☒ Goal 9 - Industry, innovation and infrastructure
☐ Goal 10 - Reduced inequalities
☐ Goal 11 - Sustainable cities and communities
☒ Goal 12 - **Responsible consumption and production**
☐ Goal 13 - Climate action
☐ Goal 14 - Life below water
☐ Goal 15 - Life on land
☐ Goal 16 - Peace, justice and strong institutions
☐ Goal 17 - Partnerships for the goals

Summary:

The Retail Institute is an academic research centre that provides Fast Moving Consumer Goods (FMCG) industries with applied research solutions[1]. The centre was approached by Marks and Spencer, a multinational department store and grocery retailer based in the UK, with a brief to provide scientific insights to support revisions of their packaging strategy.

Marks and Spencer (M&S) has 1,035 stores in the UK and 452 overseas. They are known for their environmental agenda and in 2007 it launched an initiative called Plan A, a programme aligned with the SDG goal on sustainable consumption and production of goods[2].

In 2021 the company commissioned the Retail Institute to provide research on the sustainable packaging solutions for their long-term strategy. The retailer offers over 7500 distinct own-brand products in its food halls[3], supplied by a widespread network of food and packaging suppliers. Therefore, optimising packaging sustainability is a significant long-term challenge.

[1] The Retail Institute – website link
[2] Marks and Spencer, 'Sustainability', available at < https://corporate.marksandspencer.com/about-us> accessed, 11th April 2023
[3] The Grocer; 'Why Marks & Spencer's new stores…', available at https://www.thegrocer.co.uk/the-grocer-blog-daily-bread/why-mandss-new-stores-are-working-so-much-better-for-the-retailer/675305.article, accessed 12 April 2023.

The study addressed the following objectives:

1. Reducing the use of plastics in food packaging;
2. Making necessary plastics easier to recycle;
3. Understanding new technologies and business models for the sustainable future of food retail.

The outputs provided the retailer M&S with a roadmap to:

- Reducing volumes of plastics where environmental benefits of food-protection are not present;
- Intelligence on market-ready packaging solutions that offer sustainable benefits (e.g., multi-polymer to mono-polymer pouches);
- Enabling the business to invest in new materials to gradually eliminate fossil-based plastics, with a shortlist of patents and bioplastics ready for industrial scale-up;
- Evaluation of alternative business models to build on the retailer's wider work in developing sustainable global food and packaging systems.

Outline the 3 key benefits of integrating this theme:

1. Immediate reduction in packaging material across a multi-national grocery operations;
2. Gradual reduction in reliance on fossil-based materials and contribution to up-scaling innovative and sustainable material technologies for food protection;
3. Long-term strategy for sustainable retailing of food production and consumption.

Outline the barriers or challenges encountered in integrating this theme and how you overcame these:

1. **Reduction in plastics versus higher carbon impact of existing alternatives.**

   Replacing plastic packaging with paper, glass or metal can have impact on higher GHG emissions for transportation or recycling processes. Our research recommended overall reduction of packaging material as a strategy, for example replacing labels and sleeves with printed lids, which are lighter and already present in packs.

2. **Consumer behaviour challenges with correct disposal of post-consumer waste.**

   The research identified confusing or inconsistent OPRL (recycling/disposal) labelling for consumers. The audit of all food hall packs provided M&S with a detailed list of categories where these communications have to be rectified and unified to help consumers dispose of product waste correctly.

Also, the study did not recommend the use of compostables in food packaging due to scholarly evidence that consumers do not have sufficient knowledge on how to correctly dispose of such packs. Despite existing accreditations for compostables there is plenty of confusion about industrial and home composing, leading to contamination of kerbside waste streams. Hence, the study did not recommend using these materials until industrial compostables collection is available to everyone in the UK.

3. **Prohibitive costs of material change (from fossil-plastics into bio-plastics).**

   The research conducted a techno-economic analysis to help the retailer build an internal business case for use of bio-based materials in packaging. Every emerging technology is more costly than the established solutions. However, we expect the cost of fossil fuels to rise as it becomes scarce, and for the bio-polymers to become a viable and cheaper as an alternative. This 'sweet spot' financial argument can provide retailers with an incentive to invest into new technologies for the essential types of plastics that eliminate food waste.

Please outline your conclusions and recommendations to others:

While plastic pollution is an important environmental matter, the reliance on fossil fuels or GHG emissions associated with food production capture less media attention. The carbon impact of any change within the food supply chain should be considered carefully and no single material should be banished. Although plastic packaging is often perceived by consumers as unnecessary, it is fundamental to preserving our food resources[4].

Agriculture significantly contributes to climate change with half of the world's habitable land used for food farming[5], creating demands for water use, land repurposing and farming practices that release pollutants into the soil and waterways. Although the problem of leakage of FMCG plastics into the environment is important, businesses alone cannot fix the failures of localised waste management systems.

Our research equipped a large-scale retailer with insights into systemic approaches to help them embrace sustainable consumption and food production. Their strategy has the potential to enable consumers to make more pro-environmental choices, driving societal change.

[4] For example: 'Effect of shrink wrap packaging for maintaining quality of cucumber during storage', 2012 – Journal of Food Science & Technology

[5] Our World In Data, '*Half of the world's habitable land is used for agriculture',* available here, accessed 11/4/2023.