A new generation of sustainable products by design

80% of the environmental impacts of today’s products and services are determined at the early stages of product design and development. So considering sustainability early-on in design can reduce current product impacts, and also provide a platform for new-to-the-world ideas and New Product Development (NPD).

Like many companies Asda has a formal, well-structured ‘stage-and-gate’ process for NPD - which helps create new and improved products, that meet changing consumer expectations, and take them to market. This pilot project with Asda, and 3 key suppliers, developed an approach to embed sustainability criteria into this process, helping to:

- Consider sustainability from the very beginning of the process.
- Map the main sustainability impacts of selected categories defining how suppliers can tackle these.
- Deliver a series of inspiring and imaginative NPD ideas that are sustainability-led.

The next steps are to work with Asda to replicate the process more widely.

Integrating sustainability into New Product Development

WRAP's Sustainable-NPD approach aims to seamlessly integrate environmental and social factors into the development process. This can help company’s ‘design-out’ sustainability problems and deliver a platform for new ideas and inspiration.

"Asda recognise embedding sustainability into New Product Development is vital to achieving our 2020 sustainability goals. This process has really helped our suppliers engage with sustainable product and packaging design and we look forward to keep working on these promising ideas and tools”

Karen Todd, Head of Zero Waste, Asda

Summary | Project Process | Project Stages – in detail | Next Steps
The overarching process included for four key phases: INFORM, ASSESS, INNOVATE and EMBED. This case study describes the approach and findings up-to and including stage 3.2.

Summary

Project Process

01. INFORM
   - 1.1 Discover
     Research the company's approach to product development and sustainability
   - 1.2 Sustainability & NPD workshop
     An introductory session to engage suppliers in the pilot project process

02. ASSESS
   - 2.1 Hotspots Profiling
     Suppliers conduct a hotspots analysis of a pilot product to identify its main sustainability impacts. They also research consumer insights on sustainability for the pilot product. A group session is helpful to validate the findings

03. INNOVATE
   - 3.1 Creative Workshop
     Generate sustainability-driven ideas
   - 3.2 Distillation
     Develop and select best ideas
   - 3.3 Roadmap ideas

04. EMBED
   - 4.1 Building The Asda sustainability & NPD toolkit

Project Stages – in detail

Next Steps
After researching Asda’s product development process and sustainability goals, to ensure the tools would fit, WRAP ran a kick-off workshop to engage the project team. This introduced the whole team (Asda & suppliers) to Asda’s sustainability aims for the project; consumer insights; and example sustainable design approaches.

The workshop agenda is presented below:

**LEARNINGS: USE A SIMPLE HOTSPOTS FRAMEWORK**

The kick-off meeting closed with ‘warm-up’ exercises for the next project stage – and suppliers were tasked with next steps to:

1. Agree with Asda a specific pilot product, or category, within their own-brand portfolio.
2. Conduct a ‘hotspots analysis’, using WRAP’s hotspots framework. This very simple tool - example below - helps identify the main sustainability impacts & opportunities.
3. Obtain relevant consumer insight around sustainability for the product category.

These tasks form the basis of the ASSESS phase – and the outputs provided crucial input to the INNOVATE phase.
Suppliers completed the profiling tasks: identifying the main sustainability impact areas; and compiling consumer insights. Two examples are shown below:

LEARNINGS: CROSS-FUNCTIONAL INPUTS ADD VALUE
Suppliers reported that convening cross-functional teams early on in the process added significant value, and typically wouldn’t otherwise occur. As an outcome, collaborative working within Young’s now begins earlier than it has in the past - involving more people, from sourcing to packaging etc. Conversations are also now including sustainability more frequently.

Young's Seafood: pilot project
Young's Seafood focused on chilled breaded fish and identified hotspots as:

- **Ingredients**: fish by-catch & sea discards, cereal growing;
- **Processing & manufacturing**: in-factory processes consume energy & water;
- **Distribution**: ordering patterns can result in waste if amended without warning; and
- **In-home**: shelf-life & food waste, cooking, oven/grill and shallow frying.

Asda's customer insight highlighted sustainable sourcing of fish as a key touchpoint for Asda shoppers. However, consumers are confused and don’t really understand the sustainability issues around fish (e.g. over-exploitation) – and there are many opportunities in this area.

Yeo Valley: pilot project
Yeo Valley focused on single-serve cheesecake desserts and identified hotspots as:

- **Ingredients**: fruits, soft cheese and the biscuit base are all high impact ingredients;
- **Processing & manufacturing**: waste can be up to 30% for dual ingredient processing, surplus fruits also lead to waste;
- **Distribution**: damages and overs are created through distribution; and
- **In-home**: consumers waste products at home through poor storage, over-buying or mishandling.

Consumer insight suggested shoppers seek out pack formats that don't waste, and are turned off by excessive packaging. They actively seek best-before codes, driven by value for money. There is confusion around the when & how of product refrigeration & freezing to reduce food waste. There are opportunities for better communication through improved guidance.
INNOVATE Phase: generating NPD ideas and innovations

The final stage in the pilot project was about generating inspiring sustainability-led NPD ideas that addressed the hotspots identified and insights from consumer research.

A one-day, creative workshop was held with the entire project team (Asda and suppliers). Ideas were ‘live sketched’ by designers during the workshop and resulted in 10-20 ideas and opportunities for each pilot product. The collective group then ranked these ideas based on their feasibility and commercial & sustainability potential to identify the top ideas for further development.

**LEARNINGS: FULL LIFE VIEW = BASIS FOR INNOVATION**

Suppliers found it valuable to consider the full product life cycle perspective. This gave a much broader base for ideas and innovative thinking. The hotspots framework was found to be useful and the range and number of ideas generated came as a surprise. Having 3 different suppliers in the room to share ideas was also really well received.

**Young's Seafood: idea generation**

Young’s ideas explored a variety of sustainability innovations, from new formulations to reduce the product footprint, new packaging formats, through to consumer education - two of which feature here:

- An app concept that helps educate consumers about better fish sustainability choices
- Inspiring/creative recipe changes to minimise coating impacts e.g. semolina/polenta
Yeo Valley: idea generation

Yeo Valley looked at single-serve desserts and explored ideas around sustainable packaging innovation, food waste reduction, sustainable sourcing, and product reformulation. Three of these ideas and shown here:

1. **Dual purpose product concept**: can be eaten as a soft mousse or as an ice cream. Comes with a stick that can be used as a spoon or ice cream stick – to aid decanting to freezer.

2. **Packaging concept**: makes it squashable.

3. **A concept offering a standard flavour pot plus a random flavour made from over-production**.

   - Uses surplus fruits, which are a waste hotspot.
   - Helps edit consumer choices.
   - Tackles high ratio and visibility of packaging for single serve product.
   - “Addictive ergonomics.” Makes recycling fun.

   - Increases product life as a way of tackling food waste.
   - Two consumption experiences for the price of one.

Summary

**Project Process**

**Project Stages – in detail**

**Next Steps**
Greencore: idea generation

Ideas for Greencore’s pilot project considered the wider product range and explored a number of ideas from new packaging formats, more efficient ways to cook, formats to reduce product waste, to various sustainability communications and behaviour change opportunities. Three examples are shown here:

- Innovative pack that allow microwaving to get finish on top instead of oven
- Oven cooking is a major hotspot for this product
- Consumers want the convenience of microwave and quality of oven. Innovation could provide a win/win
- Changing the shape of packaging to reduce re-heat times– e.g. split-packs for different densities / increased surface area on base / inlets to allow increased heat penetration to centre of product
- Innovative labelling to show consumers they can freeze products up to expiry date, not just on the day of purchase

Summary

Project Process

Project Stages – in detail

Next Steps
Asda has demonstrated clear leadership in this area by adding an NPD specific goal to its 2020 Corporate Sustainability Strategy - to “Incorporate Sustainability into the New Product Development process”.

These supplier pilot projects have demonstrated that sustainability can fit into normal NPD processes and can be a driver for innovation for Asda and its suppliers. The results so far provide a strong platform for Asda to further build the internal case and steps to include sustainability in their NPD processes.

The pilot projects have also created a number of promising and inspiring NPD ideas that can be sustainable and successful – and which are being developed and investigated further.

“\textit{This project gave us lots of great new NPD ideas that we have taken away to work on inside Yeo Valley now. We really got a lot out of the process, with the first product inspired by the session already on the shelves}”

\textbf{Ben Hallam, Head of Development, Yeo Valley}

\textbf{KEY LEARNINGS: EMBEDDING IN THE DAY-TO-DAY}

The pilot project was well received by the suppliers but each flagged the need for commitment from Asda commercial teams in order to be able to develop the more innovative ideas that were generated. This would go a long way towards embedding in the day-to-day. Ultimately, to be successful, sustainability needs to be woven into NPD via commercial documents. Other key observations were that:

- The process should be linked to a live NPD project; and
- The process might be particularly well-suited to key target areas, where it could be incorporated as part of a longer term, strategic partnership between Asda and the supplier (e.g. developing a longer term vision/roadmap).

\textbf{Courtauld 2025}

WRAP is continuing to develop support tools & guidance for companies wanting to exploit the opportunities Sustainable-NPD could bring their business. Courtauld 2025 signatories can access support to explore how sustainability aspects could be built into existing processes, as well as advice on implementation and building the business case. For more information, please contact courtauld2025@wrap.org.uk

Find out more about Courtauld 2025 at \url{www.wrap.org.uk/courtauld2025}