

Topic: Environment

What can we do to improve access to healthy, affordable food for all people, whilst delivering on improving the environment?

Concept outline

As a nation, we waste at least 13 million tonnes of food across the food supply chain in the UK every year. This is the equivalent to throwing away every one-in-five shopping bags that we carry home each month and costs the average UK family with children around £70 a month.

More than half of all food wasted in the UK, is wasted at household level. That is seven million tonnes of food and at least 2.5 million tonnes of this is fruit, vegetables and salads, the basis for a healthy diet. Diet-related ill health is estimated to cost the NHS £5.8 billion per year – more than smoking, alcohol or physical inactivity. The way that the nation wastes food is impacting our health, the environment and affordability of our food.

Our research indicates that factors impacting access to healthy, affordable food are complex, with the upcoming Agriculture Bill and the National Food Strategy already looking at addressing funding at farm level. Building on the growing public agenda on Climate Change and the public engagement success stories witnessed through independent campaigns such as Veganuary, our solution targets the public at the household level, from where spill-over benefits could be achieved at the farm and distribution levels.

Our concept entails creating a food waste movement enabling a behaviour change at the household level. The campaign will centre on **WastePad** – a mobile smart application which will enable users to monitor the food they throw away, act to reduce their food waste and share their stories with others.

WastePad incorporates four design features which, combined, have high potential for affecting a lasting behavioural change:

Track – The application will help users monitor the food that they throw away every day and show how much food is wasted in terms of mass. It will then translate this into the financial and environmental costs of the food thrown away. It also shows the user how they compare to other participants of the challenge, facilitating competition and positive reinforcement.

Act – Awareness by itself rarely leads to long-lasting change. This is where WastePad differs from a plethora of Carbon Footprint Calculators – in addition to tracking waste, it helps users to manage and ultimately reduce their food waste through offering practical tips, observations on the most wasted produce and linking external resources. This includes: cooking with leftovers, understanding expiry dates and meal planning. When the user has produce about to expire in their fridge, they can select this item in WastePad and get immediate feedback on how the food could be salvaged. Over time, such tips would become more personalised, using the inputted tracker data.

Share – This introduces a social element to reinforce positive behaviour in the context of household food waste. WastePad would show the user where they rank compared to other users and would leverage the power of social media (including Instagram and Twitter posts) so that users can share their stories and achievements in reducing food waste.

Reward – A system of rewards is crucial for continued engagement with the movement and will be varied as the campaign develops. The app will be designed to incorporate a points system which could be converted into both monetary (e.g. experience voucher coupons) and non-monetary rewards (e.g. achievement badges). With sufficient critical mass, we see WastePad facilitate community-based rewards e.g. through repurposing of land no longer used to create oversupply of food.

Testing of the idea undertaken

In the initial stage of the challenge, we have undertaken extensive research into food affordability and food waste as well as behavioural interventions, and engaged with numerous stakeholders to qualify potential solutions, including: the Department for Environment, Food and Rural Affairs (DEFRA), Waste and Resources Action Programme (WRAP) leads, the Food Foundation, the Centre for Diet and Activity Research (CEDAR), the Office for National Statistics (ONS), Henry Dimbleby – the lead for the National Food Strategy, as well as subject-matter experts at KPMG.

WRAP confirmed our hypothesis that food is most commonly wasted by households because it's not used in time. The root cause behind this issue appears to be linked to a lack of, or inconsistent, storage advice and poor meal planning, perpetuated by inducement to purchase large quantities at a discount. The "act" aspect of WastePad seeks to address this issue directly.

The breadth of our research indicates that the general public enjoys access to an immense amount of information on food waste (and how it could potentially be managed), but such information is often disparate, difficult to consolidate and apply in practice. Actionable, personalised advice is key for day-to-day behaviour change – this is where WastePad can be effective through tailoring the food-saving advice based on individual's waste data as well as act as an educational prompt at schools.

Obstacles identified and overcome

One of the key obstacles presented by the challenge was the structuring and financing of WastePad and the underlying movement. Having consulted with numerous stakeholders, we believe the most robust set-up would involve structuring WastePad as a social enterprise as opposed to a for-profit business or a government-owned initiative. Such structure will allow us to credibly engage and lead on the food waste agenda through cooperation with a wide array of stakeholders (think tanks, researchers, central and local government as well as individual businesses) whilst minimising conflict of interest. It will also allow us to consolidate funding sources (public and private) to develop the app and advertise the movement initially.

Due to EU Exit preparedness measures by the supermarkets, our primary stakeholders contact was minimised during the challenge. Regardless, we were able to engage with Aldi to test our initial research outline. We have also drawn on experiences and efficacy studies shared with us by the Food Foundation; the example of the "Eat them to defeat them" campaign to encourage children to eat vegetables presents a convincing case study for securing funding from the Supermarket consortium, and using retail space and supermarket-led advertising vehicles for a public-benefit campaign. When implementing WastePad, we would engage with the supermarkets via DEFRA to secure a portion of the required funding.

The campaign will require momentum and strong backing from influential stakeholders to gain traction in the public space. The positive feedback we have received on our concept, including from DEFRA and Henry Dimbleby suggests that public figure endorsement is not only viable but could also be secured with minimal funding. We would use the Food Foundation learnings, such as how to effectively engage primary schools through campaign materials, to sustain the movement.

Cost-effectiveness and scalability

Whilst the concept will require initial funding for the app to be built, tested and marketed, the concept is easily scalable once implemented. The running costs are expected to be mostly fixed once the concept is operational, presenting a great return on investment where the campaign is successfully rolled out through social media platforms. Initial estimates for application development suggest a prototype development time of 3-6 months, and an initial development cost of £75,000-£100,000, depending on exact complexity of the developed features.

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