



Transforming City Food Habits for LIFE

SUMMARY REPORT



This report presents a summary of the TRiFOCAL London project and satisfies the LIFE requirements to produce a non-technical summary for the general public (Layman's Report). The report has been prepared by the TRiFOCAL project partners WRAP, LWARB and Groundwork London. Images are subject to copyright.

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PARTNERS

About WRAP

WRAP is not for profit, working with governments, businesses and citizens to create a world in which we source and use resources sustainably. Our experts generate the evidence-based solutions we need to protect the environment, build stronger economies and support more sustainable societies. Our impact spans the entire lifecycle of the food we eat, the clothes we wear and the products we buy, from production to consumption and beyond. WRAP manages a range of programmes with food and drink including Love Food Hate Waste, Courtauld 2025 and the Food Waste Reduction Roadmap. www.wrap.org.uk



About LWARB:

The London Waste and Recycling Board is a partnership of the Mayor of London and the London boroughs to improve waste and resource management. The city's economic and environmental future depends on a transition to a low-carbon circular economy, and LWARB works to ensure that London's businesses, local government and communities thrive by helping them make the very best use of resources and materials. www.lwarb.gov.uk



LWARB
London Waste and Recycling Board

About Groundwork London

Groundwork London is a social and environmental regeneration charity (registered charity no. 1121105). For almost 20 years Groundwork London has been at the forefront of environmental and social regeneration in London; changing places and lives for the better, in some of the capital's most disadvantaged neighbourhoods. In today's challenging social and economic climate Groundwork London's has never been more important; creating better places, improving people's economic prospects and helping people to live and work in a more sustainable way. For more information visit www.groundwork.org.uk/london.



LIFE Programme

This project LIFE15 GIE/UK/000867 has received funding from the LIFE Programme of the European Union.

Project reference: LIFE15 GIE/UK/000867

Project Name: "Transforming City Food Habits for LIFE"

Abbreviation: TRiFOCAL London

Coordinating beneficiary: WRAP

Associated beneficiaries: LWARB and Groundwork London

Total budget: €3.2 million

Period: September 2016 to January 2020



GLOSSARY OF TERMS

The following terms are used in this project:

- **Avoidable food waste**
Food and drink thrown away because it is no longer wanted or has been allowed to go past its best. The vast majority of avoidable food is composed of material that was, at some point prior to disposal, edible, even though a proportion is not edible at the time of disposal due to deterioration (e.g. gone mouldy). 'Avoidable' includes foods or parts of food that are considered edible by the vast majority of people.
- **Unavoidable food waste**
Waste arising from food and drink preparation that is not, and has not been, edible under normal circumstances. This includes egg shells, pineapple skin, apple cores, meat bones, tea bags, and coffee grounds.
- **Message houses**
The message house was used to develop the messaging for the Small Change, Big Difference campaign. The message house depicts the over-arching campaign statement and core messages associated with the three themes of the project (food waste prevention, food waste recycling and healthy sustainable eating), as well as the supporting facts and evidence.
- **Assets**
The physical and digital materials and guidelines specifically designed for use on this project.
- **Carbon Dioxide Equivalent (CO₂e)**
Each greenhouse gas - gases that have a heating effect when released into the atmosphere - has a strength. Stronger gases cause more heating and weaker, less heating. As Carbon Dioxide (CO₂) is the most common and weakest of the greenhouse gases, all other greenhouse gases can be converted into their equivalent heating effect in CO₂ allowing for one metric on climate change/global heating rather than many. For example, emissions associated with food can be methane, carbon dioxide and other greenhouse gases and we convert them into CO₂e to simplify and provide one number.

ABBREVIATIONS

List of key-words and abbreviations:

- **C2025** Courtauld Commitment 2025
- **EHP** Environmental Health Practitioners
- **HaFS** Hospitality and Food Services
- **LWARB** London Waste and Recycling Board
- **PMB** Project Management Board
- **SME** Small and Medium sized Enterprises
- **TRiFOCAL** Transforming City Food Habits for LIFE
- **WCA** Waste Composition Analysis
- **WRAP** Waste & Resources Action Programme

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INTRODUCTION

Environmental issue

An estimated 89 million tonnes of food is wasted in EU countries each year¹, and modelling suggests this could increase to over 120 million tonnes by 2020². Food waste contributes heavily to global carbon emissions, with carbon emissions associated with the production and waste of food being equivalent to the third largest carbon emitting country after the USA and China³. Together with reducing food waste both in and out of the home, moving to eating more healthily and sustainably is the most significant demand-side measure for reducing the carbon impact of the food system.

Baseline situation



Figure 1 - Baseline situation and Top 10 food wasted⁴

¹http://ec.europa.eu/environment/eussd/pdf/bio_foodwaste_report.pdf

²http://ec.europa.eu/environment/enveco/resource_efficiency/pdf/Task1_report.pdf

³<http://www.fao.org/docrep/018/ar429e/ar429e.pdf>

⁴<http://www.wrap.org.uk/content/household-food-and-drink-waste-uk-2012-2012>



Figure 2 - Europe and London map depicting TRiFOCAL boroughs

Socio-economic context

London has a number of social and economic challenges to deal with over the coming years, which were targeted by this project. These include:

- Increasing population, currently 8.7 million, but forecast to reach 10 million by the 2030's.
- There is significant inequality across London. Rising food prices have placed family budgets under increasing strain meaning higher levels of child hunger and food poverty.
- Total waste management costs for London boroughs are forecast to increase by around 30% in the next 6 years.
- A dense urban environment and highly transient population, making recycling difficult.
- Food purchase prices within food service are predicted to rise, so by keeping the loss to a minimum this will contribute to economic stability.

Project summary

Running between September 2016 and January 2020, TRiFOCAL was a €3.2 million project funded by the LIFE programme of the European Union, addressing three key areas:



Figure 3- TRiFOCAL key areas

TRiFOCAL was delivered by three project partners who have together supported the development and adaptation of the campaign brand and materials for the main audience groups. In addition:

- WRAP specialised in the project evaluation, business engagement, citizens and dissemination/replication activities across the EU.
- The London Waste and Recycling Board (LWARB) worked with waste authorities and citizens.
- Groundwork London specialised in the communities and schools aspects of the project.

The project's innovative approach of combining food waste prevention and recycling, and healthy sustainable eating messages together was the first project of its kind and has generated lots of interest in the UK and the EU.

Stakeholders targeted

TRiFOCAL aimed to reach citizens at different points in their day, and across different areas of their life in order to increase the potential for them to see/interact with the messages and prompt changes in behaviour at the moments when they are most receptive (figure 4).

TRiFOCAL brought together a wide range of stakeholders to communicate with Londoners. Borough-by-borough, the team worked with local partners to help reach a wide range of people, including charities, restaurants, bloggers, community champions, health advocates and education providers. TRiFOCAL also worked with food businesses, large employers, public and third sector organisations, community groups and schools to deliver messaging to the project's target audiences.

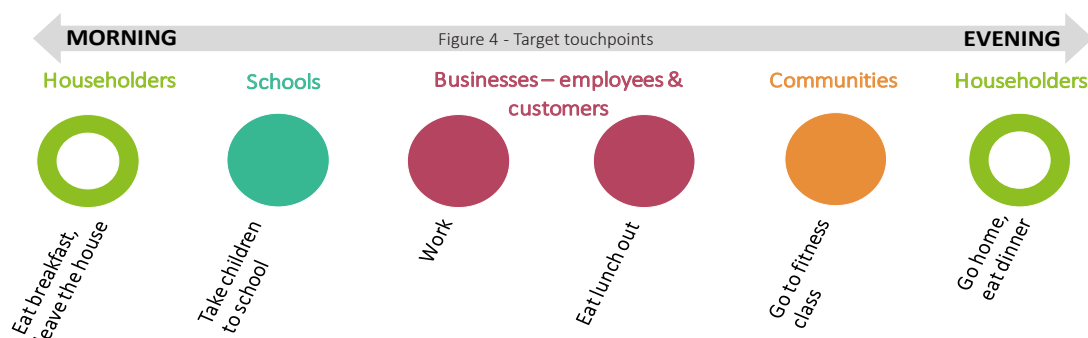


Figure 4 - Target touchpoints

The project aimed to encourage sustainable food behaviours by piloting campaign delivery in London and sharing learnings with a network of cities across the EU. TRiFOCAL engaged with all 33 London boroughs – with focused activity in 15 boroughs (figure 2, page 5, shown in green) and 11 replication cities to raise awareness and change consumer behaviour at a local level. The main objectives of the project have been met (see also: Project Impact).

Citizen campaign

SMALL CHANGE BIG DIFFERENCE

The project's citizen-facing campaign Small Change, Big Difference was launched in October

2017. It was developed with the three project partners to communicate the TRiFOCAL messaging on healthy and sustainable eating, food waste prevention and recycling, and targeted 18 to 34-year old Londoners. Unique messaging and branding was created and shared with the audience through the delivery of engaging and interactive activities, including advertising, social media, digital content, events and legacy content.

Below are examples of the messaging used to help tackle the environmental problem addressed by the project and encourage citizens to make small conscious changes that can make a difference.




Figure 5 - Small Change, Big Difference poster examples

Key deliverables and outputs of the project included:


- An online Resource Bank which includes good practice case studies, guidance and campaign resources from the London initiative that was shared across the EU and utilised by the EU replication cities.
- Case studies covering an assessment of impacts and showing best practice from London and the EU replication cities.
- Resource packs for schools/education providers, community leaders and large employers.

PROJECT IMPACT


FOOD WASTE REDUCTION

Target	Background	Achievement
<p>A 20% reduction in the per capita tonnage of avoidable food waste generated by Londoners, from around 63kg per resident to around 49kg per annum.</p> 	<p>This target was primarily based on the 21% reduction in avoidable food waste from UK households observed in the five-year period between 2007 and 2012.</p> <p>However, since the TRiFOCAL bid was submitted in late 2015, subsequent 2017 WRAP research demonstrated no significant change between 2012 and 2015 after accounting for population growth.</p> <p>Therefore, achieving another 20% reduction in a shorter (three-year for the entire project or two-year between the measurement points) period in hindsight appears to be ambitious.</p>	<p>The TRiFOCAL evaluation included a waste composition analysis which measured a 9% reduction in avoidable food waste generated per household per week (kg/hh/wk) between 2017 and 2019. The amount generated fell from 1.59 kg/hh/week to 1.44 kg/hh/week.</p> <p>On a related note, food waste overall (including unavoidable and possibly avoidable waste) decreased by 14% from 2.58 kg/hh/week to 2.21 kg/hh/week. A possible explanation for this is that a change in consumption habits has contributed to the reduction in waste observed; for example more possibly avoidable items such as bread crusts being eaten or more pre-prepared food being purchased.</p>



FOOD WASTE RECYCLING

Target	Background	Achievement
<p>A 5% increase in the amount of unavoidable food waste recycled by households across London.</p> 	<p>The project team thought that the action to reduce avoidable food waste in the home would mean less avoidable food waste in both the residual waste and the food waste recycling caddy.</p> <p>This target is based on the assumption that increasing food waste recycling, especially for unavoidable food waste, would be challenging.</p>	<p>The project observed no change in the weight of unavoidable food waste per household recycled via the caddy. On the other hand, there was a 14% increase in the amount of avoidable food waste recycled.</p> <p>It is more likely that citizens are preferring to use the caddy as a better disposal route for all types of food waste generated, due to the overall reduction in avoidable food waste.</p> <p>This interpretation may be an intermediate step to achieving even lower generation of food waste and further recycling of the unavoidable waste.</p>


HEALTHY SUSTAINABLE EATING

Target	Background	Achievement
<p>A 20% increase in the number of Londoners aware of key actions they need to take to eat more healthily and sustainably.</p> 	<p>The healthy sustainable eating target was aspirational and not based on historic performance as this was a new area for the project partners.</p> <p>To assess this target, Londoners were surveyed before and after the project activity. They were tested on their knowledge of healthy and sustainable eating and asked if they take action on their knowledge when shopping. A combination of the two responses was used to indicate awareness of key actions.</p>	<p>There was a 15% increase in Londoners demonstrating knowledge of and reporting taking action on healthy sustainable eating, according to the project evaluation survey.</p>

ENVIRONMENTAL TARGETS

Target	Background	Achievement
<p>Global water savings of 70 million cubic metres.</p> 	<p>The project set the water target relative to the avoidable food waste reduction target where one tonne of avoidable food waste reduced is equal to 650 cubic metres of water saved globally.</p> <p>Since the target was set, there have been improvements in water footprint methodology and the project used methods consistent with the Water Footprint Network, resulting in a water footprint of 4,385 cubic metres of water per tonne of food waste reduced.</p>	<p>TRiFOCAL observed a reduction of 52 million cubic metres of water use globally from the reduction of food waste in the six boroughs where food waste was measured. Of this, around 5% can be confidently attributed to TRiFOCAL activities: 2.6 million cubic metres.</p>
<p>Reductions in global CO₂ equivalent emissions of 430,000 tonnes per annum.</p> 	<p>Similar to the water footprint target, this factor has also been updated with better assumptions during the project's lifetime it has changed from 4 to 5.4 tonnes of CO₂ equivalent per tonne of avoidable food waste</p>	<p>The CO₂ equivalent emissions avoided from reduction of avoidable food waste in the six boroughs where food waste was measured are 22,000 tonnes per annum. Of these, 1,000 tonnes per annum can be confidently attributed to TRiFOCAL activity.</p>

ECONOMIC TARGETS

Target	Background	Achievement
<p>£330m savings in annual living costs for Londoners, or £37 (€48) per resident.</p> 	<p>The project assumed that one tonne of avoidable food waste would cost the equivalent of £3,055 for Londoners to purchase when setting the target. This has subsequently been updated to £3,034.</p>	<p>Londoners in the six boroughs where food waste was measured saved the equivalent of £7.50 per resident per year (€10) or a total of £12.5 million. Of this, 37p per resident or £600,000 is confidently attributable to TRiFOCAL activity.</p>

REPLICATION

Target	Achievement
<p>5 EU replication cities signed up at the start of the project and at least a further 5 signed up during the project duration.</p>	<p>TRiFOCAL successfully signed up 11 replication cities: Barcelona, Brussels, Burgas, Dublin, Ljubljana, Oslo, Milan, Sofia, Växjö, Vienna and the country Malta.</p>
<p>We estimated that by rolling out this package of work across the top 22 cities in Europe a reduction of over 1 million tonnes of food waste could be achieved within 5 years.</p>	<p>Based on the reduction in total food waste observed over two years in London – 7kg annually per person – this would correspond to 1.2 million tonnes of food waste reduced if the same trajectory of reduction is applied over the next 5 years (18kg per person) in the top 22 cities in Europe (excluding London).</p>

ATTRIBUTION

We have evidence to suggest a conservative estimate that around 5% of any change observed was due to TRiFOCAL activities. There is some evidence to suggest this figure could be substantially higher but it is not strong enough to estimate a percentage.





CITIZENS

Outcome: inspired householders in London to lead healthier and more sustainable lives through healthy sustainable eating, food waste prevention and more recycling of inedible food.

From students to busy working parents, we wanted to help everyone in London make small food changes to lead better, healthier, more sustainable lives.

Achievable changes, like buying the occasional pack of frozen vegetables instead of fresh or stretching a pack of beef mince across two meals instead of one – help make a huge cumulative difference.

Using the Small Change, Big Difference key messages on healthy and sustainable eating, food waste prevention and food waste recycling, we've worked with 15 London boroughs to deliver 4 waves of localised campaign activities.

Test and learn waves			Roll-out wave	
Wave 1	Wave 2	Wave 3	Wave 4	
October to December 2017	June to August 2018	January to March 2019	Week of action from 13 th to 20 th October 2019	
Hackney	Bexley	Hounslow	Brent	Lambeth
Lambeth	Tower Hamlets	Islington	City of London	Lewisham
Merton		Sutton	Croydon	Merton
			Hackney	Richmond
			Islington	Southwark
			Kingston	Sutton

Figure 6- Participating boroughs by waves

Borough activities

Waves 1 to 3

The delivery of the campaign was divided into waves of 3 months in duration and in order to optimise the campaign's messaging, tone and style, we adopted a 'test and learn' approach across the first three waves. After each wave, focus groups were set up to collate insights from citizens on the effectiveness of the campaign in their respective borough to identify potential improvements.

Focus group participants provided feedback on the campaign based on what they had seen, remembered and understood. The Small Change, Big Difference campaign identity and messages were then refined to better resonate with the audience, helping to make the campaign more impactful. During their respective waves, each London borough delivered campaign activities such as:

- Pop up events including speakers such as sustainable chefs and dieticians to engage with citizens through fun and interactive games and activities.
- Social media activity with food waste facts to raise awareness of the environmental issue of food waste and food waste reduction/recycling tips to make small changes that contribute to a big impact.
- Insightful and handy leaflets were created and distributed to Londoners.
- Billboards, newspaper and livery advertising was displayed in some boroughs and on public transport e.g. bus stops, tube/overground stations, recycling vehicle.
- Food waste prevention videos featuring healthy recipes.
- Cookery classes to engage directly with citizens about healthy and sustainable eating.



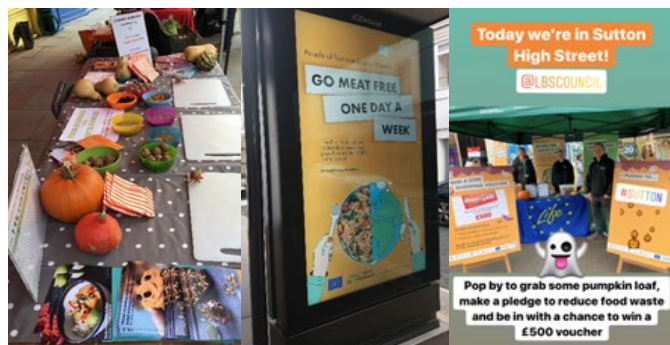
Wave 4

Our learning paved the way for a final roll-out phase (wave 4) across London. This drew on the results of the test and learn approach through a focused campaign week to gain wider reach within London with further localised activity in 12 boroughs.

A week of action took place across the capital in October 2019. Aimed at raising awareness of sustainable eating and food waste, this week of activity offered



Londoners tips and advice on how to store, cook and portion food correctly. Twelve London boroughs (see figure 6, page 9) supported the cause by hosting numerous events including workshops and cookery demonstrations, to help residents reduce their food waste and encourage them to recycle food waste in their council collection and eat more sustainably. Social media activity and out of home advertising were also organised to help give our planet a voice and spread the word.



London-wide activities

Along with the localised borough activities held throughout the lifetime of the project, London-wide activities have taken place. These enabled TRiFOCAL to reach a wider audience by sharing our key messages across the whole of London. These events also ensured continuity between each wave of activity.

Sustainable Food Fest



On 1st June 2018, Small Change, Big Difference hosted a Sustainable Food Fest at Mercato Metropolitano with award-winning Pan-Indian Chef Cyrus Todiwala OBE, DL. Cyrus organised an interactive cooking demonstration where he used a selection of the top 10 wasted foods in London households (see figure 1, page 5).

The event celebrated London's rich cultural diversity and the city's bountiful food culture, including the wealth of food waste prevention and healthy eating knowledge from around the world. As well as the cooking demonstration, members of the public were able to get involved in some interactive workshops run by TRiFOCAL partners Groundwork London and Veolia.



Cookery classes

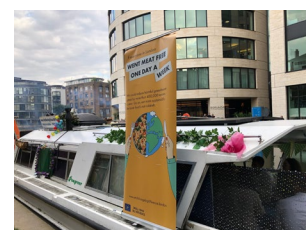
From July to October 2019, we held 30 healthy and sustainable cookery classes in 14 locations across London.

With the help of sustainable chefs, we've taught people how they can make delicious, healthy and waste-free meals easily at home and make a genuine difference to the planet. Amongst other things, we've shown them how to eat less meat, use up leftovers, store food so it doesn't go off, and generally get virtuous with their food.



Successful, unique and engaging, these workshops attracted a total of 266 attendees who were eager to adopt a more sustainable lifestyle by learning to cook healthy meals that generate little to no food waste.

When asked what they might do differently as a result of coming to this workshop, attendees were really enthusiastic to start making small changes to their cooking and eating habits.



'I can do a lot to reduce my food waste. I will cook with my son based on what I have learnt today and hopefully make him aware of food waste too'.

'Do small, more frequent food shops to reduce wastage.'

'I can freeze so much more than I thought. Thank you so much, this was a brilliant idea to get people to not waste food.'

'Cooking skills change waste into feast. We learnt lots of recipes without any difficulty... very clever idea'.

House of waste

A residential London home was temporarily transformed using tonnes of food to highlight the huge amount of food waste produced by households in the capital each year. The 3.75 tonnes, or 3,750 kilograms used to create the installation, represents the amount of perfectly good food binned by approximately 14 households⁵ over the course of a year.



This House Was Covered In Vegetables To Raise Awareness Of The Food Waste Problem



It may look like an elaborate Halloween display, but the reality of the picture above is a lot more sobering.

The installation was created to highlight the fact that well over half of all food waste produced in the UK every year comes from households⁶. All of the food used was later donated to London charity City Harvest, where it was redistributed to organisations that feed people in need.

With London producing a shocking 910,000 tonnes of food waste annually⁷, the equivalent of more than 7 million wheelie bins⁸, the Small Change, Big Difference campaign aimed to raise awareness of the city's food waste, which, if sent to landfill would be responsible for releasing more than 420,000 tonnes of CO₂ into the atmosphere each year⁹.

More than €360bn of food is lost before it even reaches the shops



Wasteful: A London home shows the huge amount of food binned by 14 households over the course of just one year. Photo: Jonathan Hordle/PA Wire



To support this stunt, press releases, news coverage and social media activity were delivered. The topline press results included 10 pieces of coverage including BBC London, The Sun, The Londonist and more which generated an overall reach of 24,466,663 individuals (excluding BBC).

The social media posts shared on Facebook, Twitter and Instagram were seen by more than 530,000 people.

For more information on the 'House of Food Waste' you can watch the video from the stunt using the Small Change, Big Difference website: <http://smallchangebigdifference.london/>



⁵ Based upon the average annual household food waste production of 260kg. Source WRAP

⁶ Around 70% of food we throw away in the UK (post farm gate) still comes from the home (i.e. of the total from manufacturing / processing, retail, hospitality and food service and homes (10.2 million tonnes), 7.1 million tonnes are from households)

⁷ Source WRAP

⁸ Based on a 240 litre London wheelie bin. Source <http://britishbins.co.uk/Wheelie-Bins-Sizes-And-Dimensions.html>

⁹ London currently incinerates much of its waste. Source WRAP

¹⁰ As of 18 December 2019

¹¹ As of 18 December 2019

Outcomes

Throughout the lifetime of the project, 4 delivery waves aiming to raise awareness on food waste reduction, recycling and healthy sustainable eating were delivered. A total of 15 London boroughs took part in at least one wave, resulting in the delivery of 20 localised Small Change, Big Difference campaigns. 30 healthy and sustainable cooking classes were held, attended by 266 citizens.

The social media campaigns increased the following of the Small Change, Big Difference social media accounts which counts more than 11,000 followers across three channels: Facebook, Instagram and Twitter¹⁰.

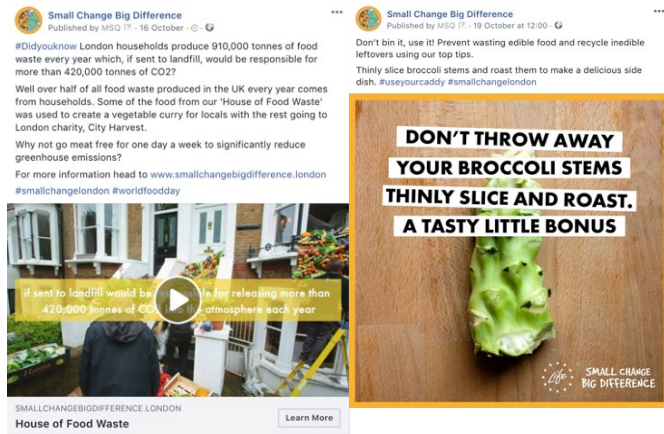


Figure 7- Example of social media posts published throughout the campaign

These also helped in redirecting citizens to the Small Change, Big Difference website for them to access more information and hints and tips. The citizen campaign website was visited more than 45,100 times accounting for a total of more than 82,000 page views¹¹.

All the activities held in the last three years encouraged citizens to learn more about the food waste issue and the small changes they can make in their everyday lives that can make a positive impact.



Resources

If you'd like more information on Small Change, Big Difference, healthy sustainable eating, food waste reduction and recycling, you can visit our campaign website and access our borough case studies here:

<http://smallchangebigdifference.london/>

To support citizens in bringing about impact in their boroughs, free resources have been developed and are available on the TRiFOCAL resource bank. These include:

- Leaflet
<http://resources.trifocal.eu.com/resources/a5-small-change-big-difference-leaflet/>
- TRiFOCAL Dissemination Video
<http://resources.trifocal.eu.com/resources/trifocal-bumper-video/>
- Smart Store cooking videos
<http://resources.trifocal.eu.com/resources/dublin-smart-store-cooking-mini-series/>



COMMUNITIES

Outcome: Engaged with 101 community groups across 9 London boroughs to deliver inspiring workshops and training sessions, encouraging members of the community to prevent and recycle food waste and adopt more healthy and sustainable eating habits.

As change happens when people are inspired by others around them, TRiFOCAL worked with community groups and community leaders using the citizen campaign Small Change, Big Difference.

Workshops and training tested a community level response and the ability of individuals and groups to break down big issues into achievable ambitions and projects.

This involved learning through interactive group activities encouraging Londoners to adopt sustainable and healthy habits such as:

- Eating a varied balanced diet.
- Eating more plant based foods including at least 5 portions of fruit and veg a day.
- Eating beans and pulses, which are cheap and contain protein, fibre, vitamins and minerals.
- Caring about where their food comes from and how it is produced.
- Eating fewer foods that are high in fat, sugar and salt.

By using an interactive and hands-on approach we helped inspire members of the communities across London to make positive behavioural changes with environmental and social benefits.



Workshops

Between September 2017 and January 2020, we held 20 community group workshops across nine London boroughs, delivered in a series of 3 or 4 sessions using our inspiring cooking workshops to prevent food waste, recycle unavoidable food waste and adopt more healthy and sustainable eating habits.

Delivered in local community spaces and attended by more than 210 citizens and community leaders, the workshops were hands-on and inspiring, enabling participants to increase awareness and take part in behaviour change actions with all the campaign messages.

Activities included discussions, sharing ideas and tips, measuring food waste at home and cooking demonstrations. Participants made pledges and undertook participatory home action. Information on date labels and food preservation as well as a weekly food waste diary helped raise awareness on the issues and impact of food waste and encouraged participants make small changes at home to help prevent food waste.

'Excellent tips to share with family & friends'

'Bringing people from different cultures'

'Educational, insightful and interactive'

Figure 8- Feedback from workshop participants

These workshops were very well-received and people were really engaged and determined to make a change in their home to best care for them, their families and the planet.

Training

In addition to the successful workshops, we delivered training sessions aimed at community leaders and leaders and a light touch training for event/festival goers. A total of 82 training sessions took place, attended by approximately 1,776 people. These trainings were organised and themed around the three key messages (healthy and sustainable eating, food waste prevention and food waste recycling) and shared valuable insights, opened up discussion and encouraged community action.

Inspired me to make a change at home

An eye opener. I'm certainly more aware

Engaging brings a sense of community - it motivates me to be more active in my local area.

Figure 9- Feedback from training participants

Participatory activities included food quizzes, hints and tips, sharing of experiences and challenges, and action planning to encourage participants to take the food waste matter in their own hands.

Events



The team held a stall and co-ordinated the 2017 and 2018 editions of the London Harvest festival, celebrating London's outdoor heritage, welcoming all citizens to enjoy a taste of what the farms and gardens of London have to offer including animal shows, horticultural display, farm craft activities such as pottery and delicious local food and drink.

Gathering more than 5000 citizens from diverse age groups and backgrounds, the 2017 London Harvest festival was the perfect opportunity for TRiFOCAL to share the key messages of the project through interactive activities. People who visited the TRiFOCAL stalls were involved in activities focused around the three campaign messages.

They were invited to participate to a giant salad toss and to learn about growing food from scraps, making smoothies to use leftover fruit up and trying new locally grown food items.

On 23rd November 2019, 22 community leaders from across London attended the launch of the community leaders' toolkit created to help disseminate the TRiFOCAL messages to communities.



Some attendees had previously attended the workshops or a training session and valued the opportunity to network with other community groups working in different sectors across London.

Outcomes

By participating in these workshops, trainings and events, citizens and community leaders have extended their knowledge and understanding of healthy and sustainable eating, food waste prevention and food waste recycling through fun and interactive activities.

Attendees developed their cooking skills, learned healthy recipes and useful tips on how best to store their food and completed food diaries to better understand food waste at home. These trainings helped extend the community leaders network and have opened the door to discussions about future local food related projects.

Results from the pre and post surveys conducted highlighted that people who attended a workshop spent fewer days eating or drinking something high in sugar and eating processed meat. When analysing attitudes it appears that participants became more motivated to reduce food waste in attempts to reduce their impact on the environment.

Resources

To support community leaders in bringing about impact in their local community, a Community Leaders' Toolkit and additional free resources have been developed and are available on the TRiFOCAL resource bank.

The 'Community Leaders' Toolkit includes:

- Campaign promotional materials and e-flyer
- Posters for workshops and activity sheets
- Pledge cards and food waste diary
- Pre-workshop survey
- Healthy eating, food storage and recipe sheets
- Shopping case studies
- Infographic and certificate
- Workshop booklet

You can download it for free using the following link:

<http://resources.trifocal.eu.com/resources/community-leader-toolkit/>

For more information about our community programme, the activities undertaken and the impact it had on communities you can access our evaluation case studies here:

<http://resources.trifocal.eu.com/resources/case-studies-communities/>



SCHOOLS

Outcome: Led experiential learning programmes for pupils, where they were actively involved as ‘food waste warriors’ monitoring weekly food waste in the lunch hall, identifying the most wasted foods and learning ways to prevent unnecessary waste.

Through the workshops we’ve found that children are already aware of sustainability issues such as plastic however are not yet aware of food waste as a sustainability issue.

By educating children at a young age we aimed to encourage them to foster positive eating habits that will become the norm as the children get older.

A curriculum-based programme was developed for use in primary schools which had impact on both ‘in school’ behaviours, and ‘out of school’ family behaviours. The programme included a series of lessons, a food waste audit and campaign days to engage pupils and the wider school community in the key Small Change, Big Difference messages:

1. Preventing avoidable food waste
2. Recycling unavoidable food waste
3. Eating healthy and sustainable foods

Learning has been shared via film, case studies and video-link ups between London and EU schools.



Groundwork London were responsible for the schools engagement and have curated an award-winning education programme designed for key stage 2 pupils in Year 3, Year 4, Year 5 and Year 6, aged between 7 and 11 years. It has been delivered in 24 schools in 9 boroughs across London with teaching resources published in late 2019.

Activities

The schools programme included 6 workshops that were delivered across a half term. We incorporated experiential learning throughout the workshops where the pupils learn through doing; they are actively involved as ‘food waste warriors’ monitoring weekly food waste in the lunch hall and investigating the main foods wasted.

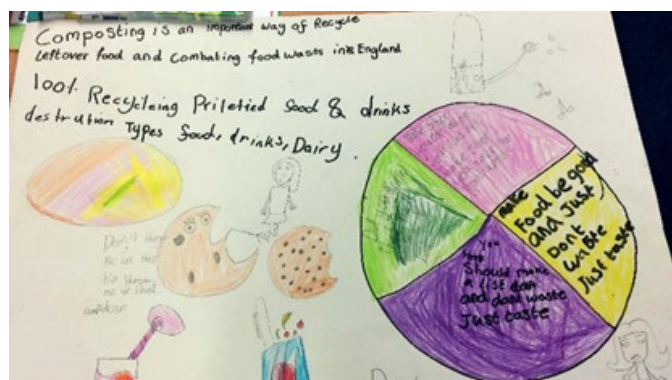


We used interactive elements such as smoothie making and board games as well.

To make pupils feel actively involved in their learning they were given a chance to make decisions about the school campaign day, giving them ownership of the campaign.

When devising the workshops, we worked with a panel of teachers to ensure the content was cross-curricular and in-line with current pedagogies and therefore relevant to what the pupils were already learning. The pupils utilised maths skills when we compared the weekly school food waste audit; they learnt about science through discovering that food waste produces methane which is a harmful greenhouse gas; and they utilised their English skills when creating campaign flyers for their whole school campaign day.

Each school was given a choice between a variety of campaign day approaches which involved hosting an event for the whole school including parents, pupils, teachers and kitchen staff. By choosing their own food waste campaign, pupils took ownership of the events, and chose something that is relevant to their school. In workshop four, the pupils were given autonomy to make decisions about the events, including who to invite, where they should take place and what activities to run to share their learning with the wider school community. The campaign days were pupil-led with each pupil running activities on the day.



Campaign days included using smoothie bikes so pupils and parents can make a smoothie made from bruised and wonky fruit and give them out at the school gates; crowdsourcing a leftovers recipe book from parents in the school, supported by the catering companies and kitchen staff, and one school has chosen to launch a community fridge, which collects surplus food and offers parents and pupils free food from the fridge.

Outcomes

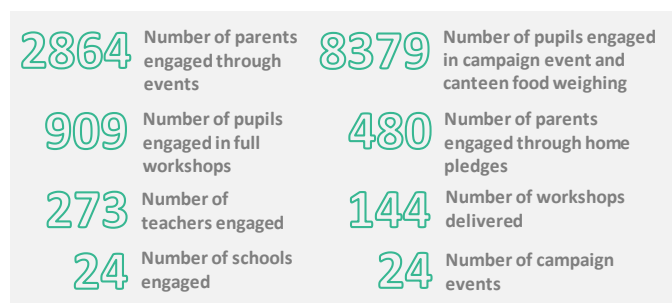


Figure 10- Key school package outcomes in numbers

The project aimed to determine the impact of workshops using a combination of surveys, focus groups, food diaries and key performance indicators. Results highlighted positive responses, with pupils and staff conducting additional activities outside of the workshops (in line with the campaign messages), some schools created their own songs/raps, and some even changed waste procedures in the school, signing up to food waste recycling collection services.

In addition, through pupils' home-school books, healthy and sustainable eating and food waste prevention/recycling exercises were completed with parents. This helped in the wider cascade of campaign messages. A set of 6 parent cookery workshops were also delivered in 2 schools. Many parents also reported ordering food caddies and started recycling their food waste following the workshops. It also had a knock-on effect in the school canteen with some kitchen staff amending their meal planning and reducing their food order. Kitchen engagement was particularly successful when delivered in partnership with school catering providers.

The pre- and post-intervention surveys highlighted significant increases in pupil knowledge surrounding the campaign topics. Following the workshops, 82% of pupils were able to correctly identify the appropriate proportion of fruit and vegetables within a meal (increasing from 51%), and 73% of pupils were able to identify three methods of food waste prevention (increasing from 6%). The surveys also highlighted changes in pupils' attitudes with 91% of pupils rating that they cared more about food waste following the workshops, (increasing from 31%). When asked what they planned to do differently after the workshops, most pupils highlighted activities related to food waste prevention (75%) with less pupils listing activities related to food waste recycling (32%) and healthy and sustainable eating (12%).

Resources

To support teachers, parents and pupils in bringing about impact in schools and at home, an education pack containing free resources was developed and is freely available on the TRiFOCAL resource bank:

<http://resources.trifocal.eu.com/resources/education-packs/>

The education pack includes:

- Food waste workbook
- 6 lesson plans
- Interactive games on the topics of food waste prevention/recycling and healthy sustainable eating
- Pledge templates
- 6-week audit for schools
- Campaign planner
- Posters
- Food investigation sheet
- Vocabulary sheets
- Certificate

For more information about our school programme, the activities undertaken and the impact it had on pupil knowledge, attitudes and behaviour, you can access our evaluation case studies here:

<http://resources.trifocal.eu.com/resources/case-studies-schools/>

Figure 11- Feedback from participants

"Before you visited, I didn't know how food waste links to global warming and climate change, or what happens to my food waste after I dispose of it."

"This has been the best school project because me, my mum, dad and brother are now really passionate about not wasting food."

"I loved being a food waste warrior because it was an amazing feeling teaching others top tips to avoid food waste."



BUSINESSES

Outcome: Supported companies to reduce their overall food waste, saving money, encouraging healthy and sustainable eating and working towards their Corporate Social Responsibility goals

TRiFOCAL's engagement with businesses had two key objectives: to (1) influence businesses to change their behaviour; and to (2) influence consumers to change their behaviour via business engagement. TRiFOCAL capitalised on WRAP's existing networks and previous work in this sector including their Hospitality and Food Service Agreement (HaFSA) which saved the hospitality sector over £67 million and cut 11% from food packaging and waste. Many of these organisations are continuing to collaborate with WRAP through the Courtauld Commitment 2025 and 'Your Business is Food, don't throw it away'¹.

HaFS businesses

TRiFOCAL engaged with restaurants, hotels, caterers and take-aways across London with the aim of influencing businesses to reduce waste, provide more healthy options for their customers and introduce food waste recycling in their kitchens and restaurants.



To achieve the objectives, TRiFOCAL encouraged businesses to use the toolkit 'Your Business is Food, don't throw it away', delivered training to food safety professionals to empower them to take

action on food waste, and designed a staff engagement toolkit using the project's citizen-facing campaign, Small Change, Big Difference.

It should be noted that the project was operating within the context of economic and political uncertainty surrounding Brexit² which had a particularly strong impact on the business engagement work; businesses reported that the timing was not suitable for implementing food waste measurement and/or that food waste was not a priority at this time. Therefore the project focussed on the legacy outputs.

The project set up a Business Working Group to bring together stakeholders from different sectors to pioneer and cascade good practice in London. This sharing of materials and best practice was achieved via a series of engaging events and chef ambassador programme.

Events

A total of 5 Business Working Group meetings were held during the project and attended by 128 organisations, of which 50 were Hospitality and Food Service (HaFS). The focus of each meeting evolved as the project developed from project inception and an initial all-stakeholder event to smaller workshop style sessions to encourage in-depth engagement: True Value of Food, Valuing food and Food Safety, Step up and Stop Food Waste.

At these sessions, participating businesses heard about how they can dramatically reduce the amount of food they throw away with an introduction to the 'Your Business is Food, don't throw it away' campaign materials.

¹ In the timeframe that TRiFOCAL was running, Your Business is Food, don't throw it away has been superseded at the UK national scale by Guardians of Grub <http://www.wrap.org.uk/content/guardians-grub>

² The project commenced in autumn 2016 after the UK's EU membership referendum. 2 x general elections were held during the project's lifetime and the expected Brexit date shifted 4 times (from 29 March 2019 to 12 April 2019, 31 October 2019 and, at the time of writing, 31 January 2020).



Peer to peer learning was encouraged through guest speakers, hosts and case studies; top chefs explained how reviewing and reducing portion sizes and making the most of ingredients can make a big difference financially.

Chef Ambassador programme

Champions and ambassadors pledged their support for the project via the business working group and a series of Ambassador case studies and videos were developed to provide a short, real-life narrative tool to help other businesses to adopt actions to address food waste issues and encourage a move towards sustainable consumption.

The champions and ambassadors will give recognition to organisations that are taking action on preventing edible food from going to waste, recycling inedible food, and promoting healthy sustainable eating.



The wall features 7 business sectors with 28 pledges from a range of organisations, demonstrating the project's cross-sector support.

Employers



The guide for large companies is aimed at anyone working in a company who wants to make a big difference by running an internal staff awareness campaign that challenges colleagues to

make small changes to their everyday food habits at work and at home. Tools, templates and messages are provided so that employers can design a bespoke campaign that is right for their organisation and staff.

Small Change, Big Difference has benefits for employers and employees. It can help companies reduce their overall waste (thereby saving money) and work towards achieving Corporate Social Responsibility goals. The project engaged with 89 large employers across all sectors in London, although resulted in few campaigns. A case study has been produced to demonstrate how the campaign has been adapted.

Environmental Health Practitioners (EHPs)

TRiFOCAL delivered training to engage EHPs and food safety experts in the topic of food waste, with the aim of developing a network of ambassadors to cascade sustainable and ongoing change across London and beyond. The training was delivered to 135 food safety professionals, including 77 environmental health practitioners.

Outcomes

109 pledges were made by participants at the TRiFOCAL Business Working Group. TRiFOCAL engaged with 48 influencers and was referenced in two strategies published by the Mayor of London:

- The London Environment Strategy: https://www.london.gov.uk/sites/default/files/london_environment_strategy_0.pdf
- The London Food Strategy: https://www.london.gov.uk/sites/default/files/final_london_food_strategy.pdf

Resources

To support businesses in monitoring and reducing food waste, toolkits and additional free resources have been developed and are available via the TRiFOCAL resource bank:

The 'Your Business is Food, don't throw it away' toolkit includes:

- 'Your Business is Food, don't throw it away' campaign material and tracking tools
- Food summary checklist
- Case studies

<http://resources.trifocal.eu.com/resources/your-business-is-food-dont-throw-it-away-toolkit/>

If you are a hospitality and food service business based in the UK, you can download the resources for WRAP's campaign 'Guardians of Grub' here: <https://www.guardiansofgrub.com>

Two extension packs were created to complete the toolkit.

- Food waste recycling <http://resources.trifocal.eu.com/resources/your-business-is-food-dont-throw-it-away-food-waste-recycling/>
- Healthy sustainable eating <http://resources.trifocal.eu.com/resources/your-business-is-food-dont-throw-it-away-healthy-sustainable-eating/>

Other resources available include:

- True value of food video series for hospitality and food service businesses (HaFS) <http://resources.trifocal.eu.com/resources/true-value-of-food-video-series-module-guide/>
- Valuing food and food safety videos <http://resources.trifocal.eu.com/resources/valuing-food-and-food-safety-video-series-module-guide/>
- Staff engagement pack for large employers <http://resources.trifocal.eu.com/resources/engaging-your-employees-in-small-change-big-difference-a-guide-for-large-companies/>

For more information about our work with businesses, the activities undertaken and the impact it had on business operations, you can access our evaluation case studies here: <http://resources.trifocal.eu.com/resources/business-case-studies/>



REPLICATION

Outcome: Involved 11 replication cities across Europe in replicating aspects of the TRiFOCAL project and Small Change, Big Difference campaign to reach citizens across the continent.

In a bid to spread the word and raise awareness around food waste prevention, recycling of inedible food and healthy sustainable eating, TRiFOCAL called upon cities across the EU to support the citizen campaign Small Change, Big Difference. 11 European locations (see above map) have joined in to pilot replication of the campaign internationally.

The aim of the replication programme was to inspire behaviour change around the three campaign messages focussing on one or multiple audience groups in cities across the EU. This involved localising the Small Change, Big Difference campaign materials and delivering activities in each city.

About the programme

The TRiFOCAL replication programme consisted of 6 elements as outlined in Figure 12. The TRiFOCAL project offered some budgetary resources to replication cities, although some financial costs and time commitment was required from the replication cities, mainly in delivering the localised campaign activity.

1 Replication cities were encouraged to make use of the TRiFOCAL resource bank; an interactive, multi-stakeholder platform which hosts guidance and examples of campaign materials from the London and EU pilot activity <http://resources.trifocal.eu.com/>

2 The TRiFOCAL team provided advice and bespoke training (capacity building) to each city to prepare/support delivery of the campaign. Training needs were agreed with each city and covered evaluation, campaign development, stakeholder engagement, etc.

The format included:

- TRiFOCAL visit to the cities for face-to-face training with their teams and selected stakeholders or site visit to activity in London if applicable
- Additional webinars

3 The replication programme was designed to be flexible so it could be tailored to complement local strategies and objectives. With this in mind, each replication city selected a target audience to deliver a localised version of the Small Change, Big Difference campaign.

- 1 Resource bank
- 2 Capacity building
- 3 Campaign replication
- 4 Dissemination seminar
- 5 TRiFOCAL Ambassador
- 6 TRiFOCAL Steering Group

Figure 12- Replication programme



4 Following the campaign activities, most of the cities organised a seminar on the results and lessons learnt from the project and their experience in implementing the campaign themselves. The purpose of the dissemination seminar was to share learnings to inform future delivery and influence and motivate local stakeholders to adopt the TRiFOCAL approach.

6 Replication cities participated in the TRiFOCAL Steering Group which convened twice per year to discuss progress and facilitate exchange of knowledge and learnings. This networking feature of the replication programme was particularly valued by the participating cities.

The campaign's adaptability meant that it could be tailored to fit with the cities' food strategies or waste plans and complement existing campaign activity. Some of the cities replicated the campaign to support the introduction of a new food waste collections or service changes, while others were looking for new ways to engage with residents or to tackle food waste issues with local businesses, schools and communities.



Using the key TRiFOCAL messaging and materials available, the cities collectively engaged with citizens, local businesses, schools and communities across Europe through a range of initiatives and activities.

Outputs and case studies from the activities delivered by the replication cities are available on the resource bank.

TRIFOCAL's approaches were piloted in urban settings outside London to test applicability to other cities and contexts. The replication cities brought new perspectives to the project and connection to other global actions on food waste.

The cities were given access to tested campaign resources, digital information and capacity training, creating lots of positive results and producing citizen focus on food waste.

КАРТОФИТЕ СА ЗЕЛЕНЧУКЪТ, КОЙТО
ГЕНЕРИРА НАЙ-МНОГО ОТПАДЪЦИ.
НЕ ИЗХВЪРЛЯЙТЕ ОБЕЛЖИТЕ ИМ В НАЙЛОНОВИ ПЛИКЧЕТА.

Resources

- Sofia replication case study
- Dublin dissemination seminar case study
- Vienna networking case study
- Malta case studies
- Closure reports from replication cities

Want to replicate TRiFOCAL? Contact us for more information at trifocal@wrap.org.uk.



PROJECT GOVERNANCE

Outcome: A strong partnership has been created between the three partner organisations, coordinated by WRAP.

Partner collaboration

Smooth and open communication between the project partners was crucial to ensure that everyone was working to the same timescales and objectives. The partner delivery teams worked closely together with clearly defined roles and responsibilities. Assets, schedules and message houses were developed to ensure that the campaign was aligned across the audience groups. In this way, the TRiFOCAL team took a holistic approach, not only in terms of integrating 3 messaging areas, but also in linking activities and audiences (figure 14).



Figure 14- Team photo at the Sustainable Food Fest event at Mercato Metropolitano which was organised and supported by team members from all three project partners, and connected the citizens, communities and business strands of the project.

Project governance

The project governance structure for TRiFOCAL is outlined in Figure 15 and detailed below.

The **Project Management Board (PMB)** was accountable for the delivery of the TRiFOCAL project as set out in the LIFE Grant Agreement. The PMB was responsible for monitoring the progress of the project against the overall project plan ensuring it adhered to the LIFE Grant Agreement and associated regulations.

Throughout the duration of the project, the PMB also managed the project risk register and met on a quarterly basis to discuss the progress, finance and deliverables.

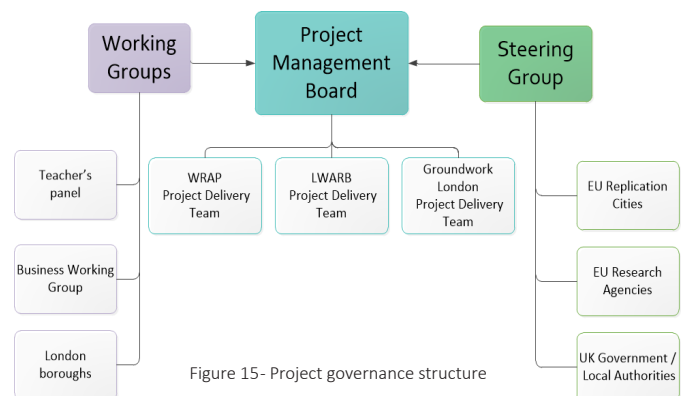


Figure 15- Project governance structure

The other elements in TRiFOCAL's project governance structure supported specific delivery outcomes:

- The **Steering Group** guided the EU replication activity and provided input for the resource bank and comprised the TRiFOCAL EU replication cities and representatives from other international organisations. The Steering Group held a total of 3 meetings in London, and 4 webinar meetings.



- A **teacher panel** of primary school teachers was set up to give feedback on the content of the sessions, including curriculum mapping. This created a programme ‘written by teachers for teachers’ to increase credibility and create a high quality and desirable programme.
- The **Business Working Group** supported the delivery of the TRiFOCAL business engagement activity and established a cross-sector network to cascade good practice and knowledge throughout London. See our case study for more information: <http://resources.trifocal.eu.com/resources/case-study-trifocal-business-approach/>
- Some **London boroughs** were engaged throughout the project via LWARB’s Local authority support managers and an existing network of borough food teams coordinated by the Greater London Authority.



Resources

More information is available in the ‘About Us’ section of the TRiFOCAL project website: <http://trifocal.eu.com/>

What’s next for TRiFOCAL?

The EU LIFE funding provided the TRiFOCAL partner organisations the opportunity to pilot a creative approach to combining three food-centric messages across place and time in London, while also encouraging engagement with European stakeholders, networking and dissemination. The project’s outputs contain a wealth of learning that will be carried forward into future work.

The TRiFOCAL After-LIFE plan sets out how the project partners plan to continue activity in the areas covered by the project. This not only refers to the place-based delivery approach aimed at various audience groups in London, but also extends to the networks and relationships developed over the course of the project and other learnings that will be incorporated into future business plans and projects.

For more info about the TRiFOCAL After-LIFE plan visit <http://trifocal.eu.com/project-resources/reports/after-life-plan/>

To find out more or contact the TRiFOCAL team, please email us at trifocal@wrap.org.uk.





Small Change, Big Difference

#SmallChangeLondon

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