#OneLess
A practical guide to tackling ocean pollution at source
Executive summary

Since 2016, #OneLess has applied an experimental, systems change approach to reducing marine plastic pollution at source, using London as a model. Plastic pollution is one of the most significant and growing threats to ocean health, with at least eight million tonnes of plastic entering the ocean annually from land. Single-use plastic bottles are a major contributor and Londoners are among the highest consumers of bottled water in the UK, estimated to be using over one billion annually citywide. There is increasing recognition that no single solution will solve this issue and that a systems change approach holds the most promise for long lasting impact.

#OneLess strives to foster a connection to and appreciation of the ocean, using the plastic bottle as a symbol for the impact of human activity on ocean health and a mechanism to enable change. It is deeply rooted in the belief that uncovering and reflecting intrinsic ocean values - beyond short-term economic gain - can enable a more ocean-friendly society.

Through a unique combination of a values-based and systems change approaches, #OneLess has made demonstrable progress in addressing plastic pollution. Since 2016, the project has ignited a pioneering network of 85+ organisations in London who have collectively removed five million single-use plastic water bottles and nine million single-use plastic items from sale and supply chains. It has also launched London’s first modern-day network of drinking fountains in partnership with the London’s Mayor and MIW Water Cooler Experts, which catalysed a £5 million investment from the Mayor and Thames Water to install a further 100+ fountains across the capital.

#OneLess has also played a significant role in policy advocacy for the reduction of unnecessary plastic waste in London, resulting in a commitment from the Mayor to reduce single-use plastic at source in the city. Inspired by the impact of #OneLess in London, the Zoological Society of London (ZSL) has taken #OneLess to the British Indian Ocean Territory and the Philippines. We have shown that the approach is highly applicable to a wide range of contexts and cultures.

The following guide shares learnings and recommendations from the #OneLess project to empower other change-makers in applying this approach. The reader will be taken on a step-by-step journey through robust methodologies, supported by systems change tools and prompted with ‘questions to consider’ along the way.
Using #OneLess as a living case study, this guide makes the following recommendations for catalysing systemic change around a chosen conservation issue:

1. Set up a team based on a shared intention and desire to affect change, and then establish the project’s scope, and the boundaries of the system you are trying to change.

2. Identify stakeholders across the system, highlighting the ‘key players’ who are both interested in engaging and highly influential in the system.

3. Diagnose the system by looking at behaviours, enablers, barriers, actors, innovations and external pressures – and engage stakeholders to understand how they perceive the system.

4. Map the system by visualising its different levels and complex dynamics, then sense-check these findings with engaged stakeholders.

5. Identify key ‘leverage points’ (opportunities for action) and decide the best areas to intervene.

6. Engage and energise people around the project and then experiment with different interventions – trigger new approaches and solutions that test different leverage points.

7. Communicate strategically about activities to build a connection between human and ocean values.

8. Sustain impact over time - undertake a system rediagnosis to identify changes in the system and continue to adapt, monitor and evaluate interventions and share findings with others.

9. Recognise that the team does not need to continue forever in the same form - identify when you have reached a ‘tipping point’ in changing the system and who are the actors to sustain that impact over time.

The guide concludes with personal reflections from the #OneLess team to support others in kick-starting their own values-based, systems change journey.
Foreword

Every year, an estimated eight million tonnes of plastic enter our ocean, with around a quarter of this finding its way into the marine environment via our rivers. It is possible to stop this enormous tide of plastic entering our ocean every year, but it requires systemic change. Our vision is for unnecessary single-use plastic to become a thing of the past, resulting in a much cleaner, healthier and resilient ocean. This guide is the first step in beginning your own single-use plastic reduction revolution.

This guide brings together five years of learning, experience and measured impact. Here we share our findings on how to tackle ocean plastic pollution at source in an urban city – using London as a model – through an approach that brings together evidence, experimentation, and the values of protecting the aquatic environment to tackle the systemic problems behind our plastic pollution. The framework and set of principles established in this guide can be applied and adapted for your own environmental conservation issue.

Abby Chicken, Sustainability Manager, Selfridges
“Needless plastic waste from food and drink packaging blights our streets. It finds its way into oceans, harms our rivers and wildlife and takes centuries to break down. Having a clean environment is important to us all and we need everyone to act to help keep local areas clean and green.

“To help cut single-use plastic bottles in London, I worked with ZSL and #OneLess to install 28 drinking water fountains across the city. Following the successes of that project I have partnered with Thames Water to install over 100 more. I also launched Refill London – a water refill scheme where businesses can sign up and offer free tap water refills to the public – and there are now over 4,000 refill points across the city. Together these schemes are helping Londoners make the switch to reusable bottles and in turn protecting our environment.”

SADIQ KHAN, MAYOR OF LONDON

How to use this guide

This guide is aimed for organisations, campaigns and cities around the world that are interested in #OneLess as a systems change approach to environmental conservation. Systems change means tackling the root causes of social issues, problems that are often ingrained into the structures and processes that underpin business, government or society.

Systems change is a holistic approach that considers attributes of an entire system to solve a problem.

More and more people are now turning to systems change practices to better understand how to use their resources, position and influence to address challenges and affect positive change – be that from within civil society, philanthropy, business, international development or government.
Is this guide right for you?

• Do you want to use a systems change approach and draw on people’s values to tackle your own environmental issue?

• Do you want to stop ocean plastic pollution at source and enable more sustainable approaches?

• Are you interested in working with your local government to transform the hydration system in your city (including infrastructure and policy)?

• Do you want to establish a community of businesses and other organisations to champion ocean health and plastic pollution reduction?

• Do you want to challenge behaviours and create the right conditions for people to stop using single-use plastic water bottles?

• Do you want to reduce the single-use plastic footprint of your organisation, community, or city?

• Are you interested in running a design competition to unearth local solutions and innovative new ideas to deal with an environmental issue?

If your answer is yes to any of these questions, then this guide is right for you. You may be a practitioner in government, business, civil society or elsewhere, who wants to make change. You might be a scientist focused on marine conservation solutions, or you could be an innovator working on developing interventions to the challenge of plastic pollution. You may be working on a different systemic challenge and are interested in learning from other case studies to apply to your area. No matter which kind of changemaker you are, we are united by our mission to change a system that is harming the ocean and a determination to find new ways of tackling plastic pollution.

‘As a major business district in one of the biggest cities in the world, we wanted to show that it’s possible to break the pollution pathway with a programme that rewards the right behaviours. We knew that if we could be successful, we could inspire other districts, communities and individuals to make a difference.’

CANARY WHARF GROUP, #ONELESS PIONEER NETWORK MEMBER
1. Introducing #OneLess
   This section will introduce you to #OneLess, covering the issue of plastic pollution in London, our experimental approach to tackling it, and some tips on why and how to use this guide.

   1.1. About #OneLess
   1.2. Our approach
   1.3. Our achievements

2. A systems change approach for tackling ocean plastic pollution at source
   This section will walk you through the different phases of our systems change approach, as well as the tools and the methods that have supported our project.

   2.1. Collaborate – set up a team, identify and engage stakeholders
   2.2. Diagnose the system – connecting to values and dynamics
   2.3. Strategy design for systemic interventions
   2.4. Act – intervene through experimenting, facilitating, enabling others’ learning, influencing, and communicating for change
   2.5. Sustain movement and respond to change – research, monitor, evaluate, learn and adapt

3. Starting your own #OneLess journey
   In this final section we share our recommendations and reflect on how the tools and methods we describe throughout this guide helped us to achieve our project goals. We discuss the challenges and opportunities we faced along the way to support you in kick-starting your own journey.

   3.1. How a systems change approach helped #OneLess make a difference in London
   3.2. Tools to support you as changemakers
   3.3. Other change initiatives and solution providers
   3.4. Tell us what you think of this guide and get in touch!

4. Glossary terms
1. Introducing #OneLess

1.1. About #OneLess

The problem

Many of the problems facing the ocean today are caused by decisions based on a narrow set of interests (such as short-term economic gain), rather than the full range of human values. Global institutions have tracked productivity and economic growth but failed to capture the cost of degrading our natural foundations and undervalued the benefits of our ocean to humanity. Plastic pollution is one of the most significant and growing threats to ocean health, with eight million tonnes of plastic entering the ocean annually from land. The problem is pervasive with every part of the ocean now affected including the Arctic – an area virtually void of human activity.

There is increasing recognition that there is no single solution to this problem, and that a systems change approach has the most promise.
Our work is rooted in the conviction that uncovering and reflecting the importance of the ocean and the full range of human values will lead to a more ocean-friendly society, one in which the ocean is healthier and less threatened by plastic pollution\textsuperscript{12}. Single-use plastic bottles are a major contributor to the ocean plastic problem and are one of the most discernible items of litter found in the marine environment around the world\textsuperscript{13}, including in London\textsuperscript{14}. The rise of a disposable society has played a big role in accelerating this but, by shifting towards a society that reduces and reuses, we can tackle the problem.
Ocean plastic pollution is a global problem needing locally appropriate solutions. Innovation is increasingly important at a city level and is driven by healthy competition. London is a coastal city, directly connected to the ocean via the iconic River Thames, and our actions in the UK’s capital profoundly impact the ocean. Londoners are among the highest consumers of bottled water in the UK, with Londoners estimated to be using 175 bottles per person per year – that’s over one billion annually citywide.

With clean drinking water available from the tap, and a direct link to the ocean via the Thames, London was the ideal start-point to drive systemic change at a city level, breaking down barriers to eliminate single-use plastic water bottles for good. We considered London big enough to pose many challenges but small enough to make our aims achievable and replicable to other major coastal cities. With 40% of the world’s population living within 100km of the coast, the need and potential for scale is significant.

We used the single-use plastic water bottle as a flagship item to represent the enormous issue of unnecessary, disposable plastic. As a ubiquitous and widely recognised product, the plastic bottle enabled us to connect people with the ocean. It helped people to understand that everyday behaviours, such as buying bottled water, have an impact on the ocean and that small changes do make a big difference.

‘Choosing London was significant, not only as ZSL and TEP were based here, but also because it’s an iconic city, and if we could use the city as a demonstration of a whole system then it could be done in other cities around the world.’

ANNA BIRNEY, GLOBAL DIRECTOR OF SYSTEMS CHANGE LEARNING, FORUM FOR THE FUTURE
1.2. Our approach

We took a uniquely collaborative approach, working with a rapidly growing movement of changemakers to find and implement solutions to transform the system of hydration in London. Importantly, our approach has been informed by science, with a commitment to ongoing monitoring and evaluation across all our activities. #OneLess is deeply rooted in the belief that to create transformational change for the sake of the ocean, we must foster a connection to and appreciation of its value.

‘The tidal Thames is our local patch of ocean, welcoming our rivers upstream to merge with the global ocean on the tides. It is part of one big connected system and any issues are inherently interlinked and intersectional, requiring collaboration across the multiple agendas, sectors and people living and working around it. The systems analysis frame and tools really help to bring this home to a wide audience and can be adapted for any challenge you may be facing.’

AMY PRYOR, TECHNICAL DIRECTOR, THAMES ESTUARY PARTNERSHIP
**A values-based experiment**

Values can provide the why – the personal connection to what we’ll take action to protect – and are at the heart of any collaboration that sets out to make real change.

‘Taking a values based approach is very simple. Start with what really matters to people, with what they hold dear, what they treasure – use that as a jumping off point for celebration, for problem solving, for driving change, for learning, for finding common ground. Putting value first means shaping solutions that recognise the multitude of ways that the ocean is vital to us and seek to safeguard what we treasure while respecting what is valuable to others.’

This principle was critical to #OneLess. It provided our motivation for change and guided our engagement with others, as we believe that everything we do touches the ocean. In every strategy, analysis and action we took, we ensured that the value of the ocean was central to our messaging. The diverse, intrinsic values of the ocean are key – and that means looking beyond its economic value. We also drew on human values such as openness, friendship and curiosity to create a collaborative, learning experiment. Establishing these values at the outset meant that we had a handrail to hold as the experiment progressed and we could reflect on whether our actions lived up to our desired values.

**A systems change approach**

We took a systems-based approach to changing the way we source drinking water, identifying the barriers to reducing plastic pollution and strategically choosing actions that could turn the tide on single-use plastic water bottles in London. We did this by taking a collaborative approach to connecting, facilitating and mobilising action at different levels of the system – be it government, business or at a community level – as well as devising our own interventions. Across the system, we worked to influence and change policy, drinking water infrastructure, behaviour, institutional practices and peoples’ deeper held beliefs and values.

‘Having a focus on valuing the ocean has anchored us and our communications. Seeing how that animated a conversation about waste and added meaning to the project for stakeholders has been exciting.’

HEATHER KOLDEWEY, SENIOR MARINE TECHNICAL ADVISOR, ZSL

‘The systems change approach has allowed us to effectively connect a range of different stakeholders that are all working towards the same goal that might not have otherwise been connected.’

ALICE CHAMBERLAIN, MARINE PROJECT COORDINATOR, ZSL
An evidence-based approach

Applying solutions and interventions that have been informed by science has been crucial to our approach.

One of the first steps of our scientific approach was to increase our understanding of London’s plastic bottle problem by monitoring the extent of plastic bottle pollution in the River Thames and deepening our understanding of London’s behaviour and attitudes towards reusable water bottles. In addition, the impact of project initiatives were regularly monitored and evaluated. This allowed us to effectively adapt our approach in real time, monitor the impact of the project, share findings with others and inform the recommendations and future interventions made by policymakers.

‘Our collaboration with #OneLess was the right thing to do, everyone was talking about it, and it aligned with our work to reduce single-use plastic. On another level, the fact that we have a lot of staff, students, and visitors as an organisation meant we knew actions such as a water fountain would be well used, and we can have a great influence on behaviour.’

LONDON SCHOOL OF ECONOMICS, #ONELESS PIONEER NETWORK MEMBER
A guide to installing drinking fountains
Changing the way we drink water

The River Thames: Plastic bottle pollution
2019 report

Figure 3: #OneLess reports sharing findings, implications and recommendations for future research.
1.3. Our achievements

Brought together a pioneering network of 85+ organisations in London seeking to eliminate their plastic water bottle footprint. To date, our network of #OneLess pioneers have removed five million single-use plastic water bottles and nine million single-use plastic items from sale and supply chains.

Installed London’s first modern-day network of 29 drinking fountains in partnership with the London’s Mayor and MIW Water Cooler Experts. In just two years the fountains refilled 750,000 bottles and catalysed a £5 million investment from the Mayor and Thames Water to install a further 100+ fountains across the capital.

Reached five million individuals through our ‘Hello London, Goodbye Ocean Plastic’ campaign. Crucially, one in three Londoners surveyed said they were more likely to stop buying single-use plastic water bottles after seeing this campaign.

Worked with the Mayor to ensure the 2018 Environment Strategy for London committed to cutting single-use bottles and rolling out refill alternatives.

Removed more than 125,000 plastic bottles from the River Thames since April 2016, through riverside clean-ups, with the help of Thames21 and volunteer citizen scientists.

Delivered the #OneLess joint statement to mayoral election candidates, signed by 40 London businesses, calling for education and action around single-use plastic water bottles in London.

Presented to the World Economic Forum, United Nations and other audiences across the UK and overseas.

Changed the behaviour of UN delegates and were instrumental in the United Nations HQ in New York, US, becoming single-use plastic water bottle free.
A systems change approach for tackling ocean plastic pollution at source

2.1. Collaborate – Set up a team, identify and engage stakeholders

Aligning on a shared intention and desire to affect change is key; this might also be a shared recognition of the challenges you are facing together. Finding the right people and partners to work with can make or break any systems change approach, as well as knowing your own role and influence in the system. Setting up the right conditions (such as design principles and values, decision-making protocols, ways of working, meeting rhythms) and incentives for multi-stakeholder collaboration is a critical, yet sometimes overlooked, part in of the process.

This section covers the different phases of our systems change approach, as well as the tools and the methods that have supported our project.
What we did:

Setting up the team

#OneLess was born from the Marine CoLAB, a collaboration of marine and related non-governmental organisations (NGOs) working together to put value at the heart of shaping solutions for our ocean. CoLAB partners aim to increase collaborative action and explore how to communicate more effectively on why the ocean matters.

The #OneLess team is made up of four different organisations, each bringing key skills to the partnership: Forum for the Future, International Programme on the State of the Ocean (IPSO), Thames Estuary Partnership (TEP) and ZSL (Zoological Society of London).

When the project started in 2016, it was agreed that ZSL would drive #OneLess, and the project management team would be based at ZSL’s London Zoo head office. ZSL hired a full-time coordinator, who was supported by a part-time project manager. Additionally, TEP provided a part-time coordinator and part-time project manager to lead on the local-based, early research phase of the project. As we moved from research into action, the project evolved and our needs grew. In 2018, we carved out resources within our grant funding for a full-time project coordinator, a full-time project manager, and additional support from senior staff members, all based at ZSL. As our monitoring and evaluation activities progressed, we also needed someone to manage this element of the project. Therefore in 2019, we hired a full-time evidence and evaluation officer; although as the project approached its final year in 2021, this need reduced and the role became part-time only.

As part of our team set up process, we developed a shared set of design principles which, over the years, has helped us prioritise and evaluate our activities.

‘The power of effective and trusted collaboration – I’ve worked in lots of different collaborations and this is the strongest, most cohesive and enjoyable one. The level of trust we have developed in each other and the ease with which we all help each other and ‘pitch in’ is, for me, one of the most important things about #OneLess.’

FIONA LLEWELLYN, SENIOR MARINE PROJECT MANAGER, ZSL
The strengths of our team:

**Forum for the Future**: Experts in systems analysis, strategic guidance and bringing together stakeholders together to collaborate. Works with business, government and civil society to solve complex sustainability challenges and transform and innovate systems. Forum inspires new thinking, builds creative partnerships and develops practical innovations to change the world.

**IPSO**: Skilled communication and campaign strategists. Brings together science and communications to increase our understanding of the role of the ocean at an Earth System level.

**Thames Estuary Partnership**: Brings together local knowledge and partners from across London. Enables knowledge exchange and a cross-sectoral, multi-discipline approach to sustainable management of the Thames Estuary, striving to make the Thames the most sustainably managed estuary in the world for over 20 years. They connect people, sectors and ideas across land and water for the social, environmental and economic benefit of the Thames and her communities.

**ZSL**: Leaders in marine science and conservation, with expertise on the impact of ocean pollution. Develops conservation solutions to create a world where wildlife thrives. ZSL’s work is realised through ground-breaking science, field conservation around the world and engaging millions of people through its two zoos.

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*Figure 4: The six design principles of #OneLess.*
The funding model

#OneLess is primarily a grant-funded project, generously supported by the Calouste Gulbenkian Foundation (CGF)\(^\text{25}\) and the Oak Foundation\(^\text{26}\), with further support from ZSL’s long-term corporate partner Selfridges\(^\text{27}\), who helped co-found #OneLess and subsequently became a member of the #OneLess Pioneer Network.

The #OneLess partners had a pre-existing relationship with CGF through the CoLAB, and worked closely with them to develop a co-funding bid for CGF and the Oak Foundation. Initial funding from CGF and Oak was granted for two years; 2016-18. A further three years of funding was subsequently granted from both foundations to take the project to the end of 2021, in-line with the project’s strategy as a time-bound experiment.

As momentum, collaborations and targeted opportunities grew, additional funding for staff and project activities between 2016-20 was also secured from Selfridges through ZSL’s Project Ocean partnership\(^\text{28}\), as was separate funding from MIW Water Cooler Experts\(^\text{29}\) and the Greater London Authority\(^\text{30}\) (GLA) for the discrete Fountain Fund Project in 2018.

Throughout the duration of the #OneLess project, in addition to submitting regular reports to funders, we maintained a close and supportive relationship with our funders. We shared progress and developments with our funders through calls, emails and biannual meetings, going above and beyond standard reporting. We also invited their involvement in activities where appropriate. For example, funders were invited to attend and participate in #OneLess stakeholder workshops, and CGF recently supported an externally facing campaign we led in 2021, as a part of our policy advocacy workstream.

‘The fact the funders have felt part of the collaboration has created a very transparent, honest and effective dynamic that has made us more effective.’

HEATHER KOLDEWEY, SENIOR MARINE TECHNICAL ADVISOR, ZSL

Identifying where to start – establishing the project’s scope and your system’s boundaries

This can often be the hardest part of any change initiative – getting started, establishing what system you are looking at, and defining its boundaries and purpose. In defining the boundaries of your system, you will also be defining the scope of your project.

‘A system is an interconnected set of elements that is coherently organised in a way that achieves something. A system must consist of three kinds of things: elements, interconnections, and a function or purpose\(^\text{31}\).’

The challenge #OneLess set out to address in London is the ubiquity of single-use plastic water bottles. When establishing the system we wanted to work with, we decided not to set our boundary around the plastic packaging system. Instead, we looked beyond this to the specific purpose the plastic bottle serves, which is for people to be able to drink water on the go. We agreed that ‘hydrating London’ was the system #OneLess would be working within, and we set our boundary around this. By identifying the boundaries of our system, we also defined the scope of our project.

This helped us identify who we might engage with, both to learn more about the challenge, and to start working with the right people. For example, focusing on hydration meant that, for the purpose of #OneLess, the conversations around waste management and a circular economy became secondary.
Making choices about our #OneLess system boundaries

DIFFERENT SYSTEM BOUNDARIES LEAD TO A DIFFERENT STRATEGIC FOCUS

**FOCUS ON**
- Behaviour change through alternatives to single-use plastic water bottles
- Waste management, supply chains and circularity

**FOCUS ON**
- Hydration, infrastructure, perceptions about tap water, connections to the value of the ocean

**FOCUS ON**
- Filling Londoner’s hydration needs while connecting them to the value of the ocean

**FOCUS ON**
- Closing the loop on single-use plastic water bottles, moving towards a waste system that prioritises reuse

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Figure 5: Determining the boundary of our system.
‘In systems work boundary setting is more an art than a science; there was a real ‘aha’ moment in the diagnosis phase when we were trying to find a way to frame both the problem and scope. The reframing of the system boundary to hydrating London was an unlock moment as it helped us really make choices about our strategy and interventions going forward. You can know when you have the boundary setting right as it has that feeling of ‘ah, that’s how we need to see things.’”

ANNA BIRNEY, GLOBAL DIRECTOR OF SYSTEMS CHANGE LEARNING, FORUM FOR THE FUTURE
Identify stakeholders across the system

Who is interested in engaging with #OneLess?

Figure 6: Power mapping and analysis to prioritise points of influence or change.  

Who is most influential in terms of the way people hydrate in London?
We used the team’s expertise to build a list of key sectors and organisations involved in our chosen system. From the outset, we prioritised engaging those stakeholders already interested in reducing single-use plastic in London. This included organisations involved across businesses and civil society initiatives working on different aspects of the hydration system. We then identified those who did not fall into this category, but would still be essential to engage with, such as the Greater London Authority33. Our final list of stakeholders came from key points within the system – across different sectors and from different types of organisations. We later highlighted which of these stakeholders would be ‘key players’ for the change we were looking to make. We did this by mapping the perceived power of stakeholders on a graph with two axes – their relative influence vs. interest in our mission (see figure 6). Our key players were those with both high interest and high influence within the system. This was an iterative exercise we kept coming back to and we later identified other stakeholders as key players in helping us to plug gaps in our network. All of these organisations would help us get a range of viewpoints and a broader understanding of how stakeholders perceive the hydration system in London.

**Action-learning approach**

‘Action research is a method used for improving practice. It involves action, evaluation, and critical reflection and – based on the evidence gathered – changes in practice are then implemented34.’

By regularly reflecting on our actions and the progress being made, we were able to challenge our assumptions and be experimental. The next four sections outline the elements of this approach and show how our learnings continually improved our project’s effectiveness.

**Questions to consider**

- What values are informing the design of your own approach? What design principles derive from these values? How might collaboration play a role in your approach? Who do you need to collaborate with, why, and when?
- How do you define your system’s boundaries? What is in and what is out? Why?
- What is your role in intervening to tackle the problem and improve the situation (your assets, capabilities, priorities)?
2.2. Diagnose the system - Connecting to values and dynamics

The first step to achieving change is understanding the system you want to work with by looking at the behaviours, enablers, barriers, actors, innovations and external pressures that are affecting it, as well as how they might relate to each other, and how they might together create change. We call this part of the process a ‘system diagnosis’ as it establishes an overview of the challenge and starts mapping the different actions you might take to tackle the problem.

What we did:

Gather evidence

We conducted a series of interviews with stakeholders from the key sectors and organisations we had identified at the previous stage to understand how different stakeholders contribute to and perceive the problem of single-use plastic bottles and, if they are trying to address it, how. This was based on a set of questions that look to draw on the multi-level perspective\(^{35}\), a framework for understanding the different levels of a system and the interactions between them.
Mapping London’s hydration system

Figure 8: Visualising the different levels and complex dynamics of the hydration system in London.
Next, we created a map of the hydration system in London. There are many helpful frameworks and approaches to mapping systems, but at #OneLess we prioritised the multi-level perspective and the iceberg framework. These allowed us to visualise the different levels and complex dynamics of the hydration system in London, including the interconnectivity of policy and public drinking water infrastructure, as well as the deeper level of values and perceptions of tap water. They also helped us to consider mental models: the assumptions, beliefs and values that underpin the system, and thereby develop an understanding of how our stakeholders perceive plastic water bottle use in London.

Importantly, creating this map helped us to question our assumptions about London’s hydration system and begin to consider where and how we could intervene to create change.

**Test findings**

Having mapped London’s hydration system, we invited the stakeholders we had identified as key players to a workshop to review our map of London’s hydration system. Together we discussed the challenges that stakeholders were experiencing in trying to eliminate single-use plastic water bottles. We noticed that, while there were barriers to change within London’s hydration system, there were also opportunities, energy and momentum for action.

This workshop provided an opportunity for us to test our understanding of hydration in London, to make changes to the map we had created and ensure it was an accurate reflection of the system. It was also an important step to start building engagement, helping us to get buy-in from stakeholders and move towards action. Following the workshop, we identified a series of priority intervention points and started building relationships with the key stakeholders we needed to collaborate with to begin our interventions.

‘I loved the first systems mapping workshop when we had such a diverse set of stakeholders, from Newham Council, to Arsenal Football Club, to Selfridges, in a room together and everyone was out of their comfort zone. Through the mapping process, people found their place in the system and it was surprisingly easy to identify those common barriers to change and see how everyone had their role to make a difference and change the system, which was very uniting.’

HEATHER KOLDEWEY, SENIOR MARINE TECHNICAL ADVISOR, ZSL
Questions to consider

- Where is there resistance to change – where is the system ‘frozen’, with change unlikely to happen any time soon?
- Who has power, resources and influence in your system? Are there any blockages?
- Where are new ideas and innovations coming from? What are the signals of change or trends that are creating pressure for change?
- Where are there ‘hope spots’? What positive examples are there where things are already changing?
- Where might there be ‘ripple effects’ in the system? What parts are interconnected and, if changed, might lead to further effects?
2.3. Strategy design for systemic interventions

Assessing where you can make the most difference and how you are going to affect change in the system will inform your overall strategy. This draws on assumptions you are making about how change happens. Useful frameworks for this stage include the multi-level perspective and the six steps to significant change which, combined with the approach of action research, can all inform your decisions over time.

Once you have understood how your system operates, the next step is to decide where you might be best placed to intervene. This process is a combination of identifying the key ‘leverage points’ and reflecting on your own assets and resources. Leverage points are the:

‘Places within a complex system (a corporation, an economy, a living body, a city, an ecosystem) where a small shift in one thing can produce big changes in everything.’

For example, we identified ‘social norms’ as a leverage point in our system. A small shift towards making single-use plastic water bottles a taboo, and refillable water bottles the norm, could trigger large scale behaviour change across the system.

Having identified the key leverage points, think about what your intervention areas look like. Create a criteria or selection process to identify which leverage points are likely to be the most effective. Also consider what your interventions look like as a whole – do they create a set of coherent actions? Following the multi-level perspective model, choose a mixture of intervention points that create pressure at multiple points of your system – this is how to cultivate systemic interventions.

What we did:

Understanding our overall theory of change

#OneLess used all three frameworks mentioned above – the multi-level perspective, the six steps of change, and the iceberg model – to inform the design of our strategy and to assess the different areas in which we could intervene. In 2016, the first year of the project, we used these frameworks along with our system diagnosis to develop a simple theory of change that we could use to communicate our strategy to external audiences.

Figure 9: Six steps to change a system.

6 steps to significant change

- Experience the need for change
- Diagnose the system
- Create pioneering practices
- Enable the tipping point
- Sustain the transition
- Set the rules of the new mainstream
London’s Refill Revolution: the #OneLess theory of change

By uncovering the systems and infrastructure that underpin single-use plastic water bottles in London, #OneLess is aiming to develop an approach that can be applied to other single-use plastic items on a global scale.

Achieving our aim of transforming London-on-Sea into the first city in the world free of single-use plastic water bottles will require a collective, system-wide change in the way water is delivered and consumed in the city.

4 LEVELS OF CHANGE

1. Policy
   - Achieve policy and legislative changes at the local and national level that enable and support the reduction of plastic pollution in the ocean

2. Structure
   - Create a structural change in the way water is delivered in London, from single-use plastic packaging to a new refillable model

3. Behaviour
   - Change the predominant drinking water behaviour in London, from using single-use plastic water bottles to a refillable bottle

4. Values
   - Increase the sense of connection between people and the ocean.

A FLAGSHIP SPECIES

Single-use plastic bottles are one of the most commonly found forms of plastic packaging littering the world’s beaches.

#OneLess is a collaborative initiative, run by the Marine CoLABoration, and led by four members of this collaboration: ZSL (the Zoological Society of London), Forum for the Future, IPSO and the Thames Estuary Partnership. Each member of the collaboration brings their own unique skill sets, enabling us to deliver a truly ground-breaking and multi-disciplinary project.

#OneLess Passed on to other cites globally

A Model Adopted by other ‘plastic species’

PARTEERS:
#OneLess is a collaborative initiative, run by the Marine CoLABoration, and led by four members of this collaboration: ZSL (the Zoological Society of London), Forum for the Future, IPSO and the Thames Estuary Partnership. Each member of the collaboration brings their own unique skill sets, enabling us to deliver a truly ground-breaking and multi-disciplinary project.

Figure 10: Our theory of change.
Deciding on systemic intervention points

After creating a map of London’s hydration system in 2016, we identified 11 leverage points, which formed the basis of our intervention design. These are shown below in the yellow boxes:

1. BUSINESS CASE How might we build the business case to encourage business-level support of alternatives?

2. PRODUCT-SERVICE DESIGN SOLUTIONS How might we find innovative design solutions at a variety of scales?

3. SCALING How might we work with disruptors to scale new product-service solutions?

4. INFRASTRUCTURE DESIGN How might we influence the design of London’s water infrastructure so it supports refilling?

5. PRIORITISING PREVENTION AND REUSE: How might we move towards a waste system that prioritises ‘prevention’ and ‘re-use’ over ‘recycling’ and disposal’?

6. IMPACT EVIDENCE How might we build the evidence of impact of shifting behaviour?

7. SOCIAL NORMS How might we make single-use plastic water bottles a taboo and using a refillable water vessel the norm?

8. CULTURE How might we tackle negative perceptions about the drinkability and healthiness of tap water?

9. JOINING UP How might we coordinate action with other actions, initiatives and campaigns on ocean plastic?

10. JOINING UP How might we find and build evidence that aligns our objectives with existing policy objectives, political priorities and industry initiatives?

11. VALUING THE OCEAN: How might we communicate more effectively so that Londoners feel connected to the ocean and develop a shared appreciation of its value?

Figure 11: London’s hydration system mapped in 2016, including the leverage points we identified.
As a team, we created a series of selection criteria and questions based on our overall objectives to help us identify which combination of interventions would be the most effective in applying pressure at multiple points in the London hydration system.

Stage one: What is the intervention’s impact on the system?
• Does it have the potential to address any of the leverage points?
• Does it change the power in the system? (eg policy, legislative, market power)
• Could it shift the way Londoners value the ocean?

Stage two: How does the intervention fare against our agreed selection criteria?
• Is it iconic? Is it mobilising and communicative? Does it have symbolic value?
• Is it revolutionary? Is it fundamentally different from current practices; a totally new way of doing something? Is it bold? Does it tackle some of the root causes of the problem?
• What is its reach? What is the size and scale of the reach of the intervention?
• What is its influence? How influential could it be with key stakeholders? (Key stakeholders are those who hold power – eg policymakers, large businesses, opinion formers)
• Is it feasible? Can it be done?
• How committed are the stakeholders? Is there energy, enthusiasm and momentum? How engaged have they been to date? Do the stakeholders hold power?
• What is its influence? How influential could it be with key stakeholders? (Key stakeholders are those who hold power – eg policymakers, large businesses, opinion formers)
• What is the wider social and environmental impact of the intervention? What are the sustainability credentials of the intervention?
• Will it catalyse bigger change? Does it capitalise on existing activities and context and drive them forward? Is it timely? Does it build momentum?

Stage three: Consider what the interventions look like as a whole
• Taken as a whole, what is the mix and representation of the interventions?

Stage four: Consider what budget and resources we have
• How much staffing will be required and over what period of time?

Stage five: Consider our capacity to act – what will our level of engagement be?
Engagement with an intervention can range from minimal through to a high level:
• Will we direct people to our website to find more information?
• Will we pledge to create change within our sphere of influence?
• Will we ask others to act and send us evidence of their impact and/or a case study?
• Will we form a community and learn from others who are also taking action?
• Will we invite others to collaborate with us to create change?
• Will we catalyse change ourselves?
When mapping the hydration system in 2016, we captured policy within one of our 11 leverage points. At this point in time, we hadn’t sought to change or influence policy, but rather to align with existing policy objectives around reducing single-use plastic. However, by 2017 we had seized the opportunity to work with the Greater London Authority, the London Assembly Environment Committee, the Parliamentary Environmental Audit Committee, and the Mayor of London to change and influence the London Environment Strategy. Through the process of action-learning we reflected on these opportunities and reshaped our understanding of policy as a leverage point for #OneLess. We realised that influencing policy, rather than simply aligning with it, provided a major opportunity for change. We acted on this learning and adapted our approach to prioritise influencing decision-makers and driving policy change within our strategy.

‘It’s important to understand the difference between systems diagnosis (mapping and understanding the system) vs knowing where to intervene based on available resources and our own position and legitimacy in the system.’

CORINA ANGELOIU, PRINCIPAL DESIGN STRATEGIST, FORUM FOR THE FUTURE

Questions to consider

- How do your goals challenge the system you’re working with? What is your contribution to change?
- What are your assumptions about how change happens and how might they inform your design?
- How is your approach to change aligned to your overall strategy?
- How do you ensure your processes are systemic, and that they are values-based, experimental, collaborative and have learning embedded in them?
- What are the selection criteria specific to your challenge that will help you decide where and how to intervene?
2.4. Act – Intervene through experimenting, facilitating, enabling others’ learning, influencing and communicating for change

There are three parts in this phase:

Engage and energise people around your project
Find those who have the energy and resources to take action and are already aligned with your values.

Experiment with different interventions
Trigger new approaches and solutions that test one or more of the leverage points that you identified in strategy design.

Communicate strategically
Set communication objectives and plan your activities to build a connection between human and ocean values.

What we did:
This section details the approach and projects that #OneLess implemented to change the way people in London drink water, as set out in our 2016 strategy.

Engage and energise people with #OneLess
Following our initial stakeholder workshop in 2016, #OneLess engaged in ongoing conversations with many different organisations around the issue of single-use plastic water bottles in London. These highlighted the challenges and opportunities within the hydration system, and we wanted to pull this dialogue together under one umbrella to provide a platform for organisations to connect with each other and showcase their findings.

As a result, we created a ‘Pioneer Network’ of businesses, councils, local authorities, academic institutions, emerging innovators and landmark venues in London who were all ahead of the curve in voluntarily reducing and eliminating plastic water bottles or encouraging new ways to drink water. We refer to this group as ‘early adopters’. The Pioneer Network has since acted as a collective movement, supporting other early adopters to eliminate bottled water, sharing learning on what is effective, keeping the momentum behind their efforts and helping organisations to collaborate on reducing plastic water bottles in London.

‘The Pioneer Network brought together a community based on shared values. It enabled organisations to see themselves as part of the system, network with others who had similar challenges within very different types of organisations and collaborate with each other to find clear ways they could change their part of the system for the better in a way that worked for them.’

AMY PRYOR, TECHNICAL DIRECTOR, THAMES ESTUARY PARTNERSHIP
Experiment with different interventions

We created experimental interventions based on the leverage points highlighted by the system diagnosis we undertook in 2016, where we sought to inject momentum and apply varied approaches at different levels of the system.

We developed the following experiments responding to the leverage points we identified in 2016 (see figure 11, p30):

- **Leverage point one: How might we build the business case to encourage business-level support of alternatives?**

  **Pioneer Network** – We organised, convened, and facilitated annual learning events to catalyse wider engagement, broker peer-learning and support organisations in taking action to build the business case to reduce single-use plastic. We offered support, mentoring and smaller collaborations to help the networks’ pioneering action take hold and build momentum across London.

  ‘Start by finding out more information on alternatives to single-use plastics and talk to other venues that are making similar changes. Then just do it! The reusable cup system has been positively received by the public on social media, who see the change and appreciate it.’

  LORDS CRICKET GROUND, #ONELESS PIONEER NETWORK MEMBER
• Leverage point two: How might we find innovative design solutions at a variety of scales?

Design Fellowship – We recruited a group of 17 emerging designers and innovators to work alongside industry experts to respond to a set of challenges put forward by Pioneer Network organisations. This involved facilitating a week-long summer school and exhibiting the new product-service solutions to eliminating single-use plastic water bottles at the London Design Festival in 2018.

• Leverage point four: How might we influence the design of London’s drinking water infrastructure so it supports refilling?

Fountain Fund – A major barrier to refilling was limited access to refill points when out and about in London. In 2018, we worked with the Mayor’s office to launch a pilot project, installing a network of 28 drinking fountains across London. The positive uptake of these initial fountains catalysed a £5 million fund by the Mayor of London and Thames Water to help deliver over 100 further public fountains across London.

‘Initially there might be resistance and nervousness from certain organisations when considering an outdoor fountain or refill station. But the UK has some of the best drinking water in the world. Once fountain installations have taken place, that initial fear goes away. We are facilitating that culture change.’

MIW WATER COOLER EXPERTS, #ONELESS PIONEER NETWORK MEMBER
• Leverage points seven and eleven: How might we make single-use plastic water bottles a taboo and using a refillable water bottle the norm? How might we communicate more effectively so Londoners feel connected to the ocean?

Communication campaigns – These enabled wider engagement and pressure for change with more individuals, communities and stakeholders, while connecting people to the value of the ocean. Examples include: #OneLess pledge campaign44, Hello London campaign45, and #LoveYourBottle campaign46.

• Leverage point nine: How might we coordinate actions with other actions, initiatives and campaigns on ocean plastic?

Involvement in other initiatives – #OneLess collaborated with other organisations working on plastic pollution, bringing our learning and influence together to create wider change. Examples include Refill London47, and Plastic Free Parliament48, with Surfers Against Sewage49.

• **Leverage point ten: How might we influence decision-makers and drive policy change?**

  **Policy advocacy**[^50] – We worked to influence policy at both the London and national levels. This included writing to the Mayor of London, Sadiq Khan; providing evidence to the London Assembly’s Environment Committee; building and maintaining a good working relationship with the Greater London Authority (GLA); undertaking research for the GLA on bottled water usage and refill schemes in London; engaging in national policy consultations on relevant issues; providing evidence to the House of Commons Environmental Audit Committee; and developing and coordinating a joint statement from the #OneLess network detailing specific policy asks for London mayoral election candidates in 2021[^51].

  Although each intervention was created in response to a specific leverage point, there was crossover between all of them and, as such, we indirectly tackled the remaining leverage points within our activities. For example, leverage point eight was also touched upon within our policy engagement work by advocating for better public messaging around the safety of tap water from the Mayor’s office.

  The communications and campaign objectives included:

  • Making single-use plastic water bottles undesirable in the modern era.
  • Encouraging key influences to refill, to enhance the perception of refilling as modern and attractive.
  • Tying single-use plastic bottle pollution to ocean impact.
  • Positioning London as a coastal city linked to the ocean by the River Thames, for example by referring to London as ‘London-on-Sea’.
  • Triggering positive ‘benevolent’ and personal values in relation to the ocean.

  To facilitate a connection between ocean protection and human values, we used the Schwartz tool during stakeholder engagement workshops[^52]. This tool helped stakeholders to identify the ‘values’ they hold, helping them to align these with their ambition to tackle single-use plastic and protect the ocean from harmful pollution.

  [^50]: The communications and campaign objectives included:

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The name – #OneLess – was adopted as an antidote to the huge and depressing numbers in circulation about the scale of plastic pollution and the feelings of paralysis this tended to produce. There are up to 13 billion tonnes already in the ocean – how do you deal with 13 billion tonnes1? But, if you refill, that is one less bottle that will join the problem – it’s a solution, it’s manageable, we can all do it and have an impact. The fact that Londoners each use 175 bottles per year shows the power of individual action, but also how that could be readily amplified through making change in your sphere of influence, such as family, friends and work colleagues.

It was designed to trigger frames about living the change you want to see; being smart; ‘every little helps’; every journey starts with a first step; everything we do touches the ocean.

Figure 14: Schwartz: Basic Human Values53.
How plastic water bottles damage the ocean

The great river Thames links London with the ocean by bringing us oxygen, water, fish and nutrients. Yet, flowing the other way, from city to ocean, is plastic. Lots of it. A water bottle – even when put in a bin – can find its way to the sea by floating down the Thames or blowing through the air.

Most ocean litter is plastic, used on land before travelling out to sea via wind and waterways, such as the Thames.

In the UK we get through 13 billion single-use plastic water bottles each year – more than 200 per person.

Each plastic water bottle – made to be used once and then thrown away – takes 450 years to break down into tiny, toxic plastic particles, called microplastics.

It is estimated that there are more than 150 million tonnes of plastic in the ocean today.

The plastic ends up in the food chain, with microplastics in the fish we eat.

Switching from single-use to refillable water bottles makes sense for London, the Thames, the ocean and our planet.

Every time you refill, one less single-use plastic bottle will pollute our land and water.

Help save our ocean, one drink at a time!

Because everything we do touches the ocean

@OneLessBTL

Loving London-on-Sea
Loving the ocean!

By 2025 it is expected to contain 1 tonne of plastic for every 3 tonnes of fish.

In the process it kills sea birds and marine creatures, poisons the water and damages habitats and ecosystems.

Thanks ... for refilling and helping us to reduce single-use plastic water bottles in London and in the ocean.

Figure 15: An infographic created to raise awareness of plastic pollution in London.

Figure 16: #OneLess signage placed next to refill points in London to encourage refilling.
Project communications were rooted in values, designed to trigger positive value responses in support of the ocean and against waste and pollution.

The design work utilised ocean imagery in support of this but in a way that was firmly linked to London and different to the usual photographic approaches showing either beauty or destruction.

We coined the name London-on-Sea and the messaging and design was colourful, positive and had a sense of momentum.

The communications amplified a sense of pride in London as a modern, cool, pioneering city getting to grips with plastic pollution. It positioned all Londoners as part of that movement rather than as part of the problem as bottle users.

This framing, and the establishment of an ocean link, was immediately successful, with all external parties relating their single-use plastic bottle commitments to ocean concern. The Mayoral Office and Environment Minister couched their announcements and commitments in ocean terms, and the companies and institutions that joined the Pioneer Network pitched their involvement in terms of ocean protection.

The campaign tone was positive, engaging, exciting, innovative, celebratory and pro-London. It is a positive campaign driven by early adopters and thinkers who love London and the Thames and the ocean. They are proud of and interested in solutions and alternatives.

The primary media channel for amplification was social, rather than legacy, and through the public-facing platforms available to the Pioneer Network, who were encouraged to promote their reduction efforts and commitment to the campaign and ocean.

‘The thing that has stayed with me is how quickly everyone picked up on the ocean connection and began using that as their motivation for change. The idea of London as a coastal city really resonated and contributed to the willingness to engage.’

MIRELLA VON LINDENFELS, DIRECTOR AND CO-FOUNDER, IPSO

Take the first step: make the #OneLess pledge

Make a personal commitment to stop using single-use plastic water bottles replacing them with refillable bottles, drinking fountains, and tap water.

www.onelessbottle.org/get-involved
‘Values are at the heart of all our decisions and using a values-based approach to developing communications can enable a deeper understanding across our multi-cultural society. Understanding the root causes to behaviour and the values that drive them can help to craft inclusive communications that can enable us to transcend socio-cultural and economic barriers to ensure that people from all backgrounds, ethnicities, and abilities can understand and celebrate their connection to the ocean and how to safeguard it for future generations, no matter where they live.’

AMY PRYOR, TECHNICAL DIRECTOR, THAMES ESTUARY PARTNERSHIP

We used an individual call-to-action which created an opportunity for face-to-face engagement at events. Individuals were encouraged to take a personal pledge to go single-use plastic water bottle free and we mounted pledging stations at London events including in-store events at Selfridges, but also at international ocean events including the United Nations (UN) Ocean Conference. This allowed us to profile the campaign with a view to replicating it, but also to shine a positive light back on to London. Our work with the UN for the conference resulted in the UN headquarters, New York, USA, promoting refill alternatives, removing single-use plastic water bottles from meeting rooms and negotiations and ultimately, the complete removal of single-use plastic from its catering supplies.
We undertook a major evolution in our communications campaign with the creation of ‘Hello London’. This built on the success of the project in normalising refill bottles in London, underpinned by the work of our high-profile Pioneer Network, and the growing infrastructure of fountains in prominent locations.

Hello London pivoted to targeting incomers to London, making them aware that London is a city that refills. This was dual purpose, actually encouraging tourists and tourist providers to get on board the #OneLess programme while reinforcing the position for Londoners themselves: this is who we are, we refill. The campaign utilised street advertising and a competition tie in with Time Out London to embed the campaign with our London audience.

**Three key take-outs for communications from #OneLess are:**

- Communicate with where people are – not where you want them to be; literally, in this case, that was London. We had to bring the ocean to them via the Thames and via a behaviour they recognised in purchasing and disposing of single-use plastic bottles for water.
- People share common values and it is possible to trigger these with appropriate communications. No one likes waste or pollution but we needed to trigger a positive value to get them to change, and to create a sense of agency. Ultimately, positive is more powerful than negative if you want people to join a movement.
- Communications must talk to the target audience and not to yourselves: policy experts, scientists, the board etc. It’s an easy trap to create communications that resonate with the people approving it rather than the people it ultimately needs to influence. That can mean bold departures in design or approach but, if they work for the desired audiences, they will work for the campaign.

**Questions to consider**

- What emerging areas are there for enabling change?
- What projects or interventions exist in your system? Who is doing what and where already?
- What leverage points could you start acting on that fit well with your assets (skills, relationships, resources, mindsets)?
- What leverage points enable you to act effectively? Are there any gaps, and how would you fill them?
2.5. Sustain movement and respond to change – Research, monitor, evaluate, learn and adapt

Enabling systemic change is a process that happens over time and results from the reconfigurations of relationships and dynamics at different levels of the system that you’re trying to shift. It’s often a lot easier to create momentum for change than to sustain it. This phase recognises the effort needed to sustain the movement and continually adapting changing circumstances. Consider the wider implications your initiative might have – beyond the scope of your initiative, project, or organisations involved, as well as beyond the boundaries of the system you identified. Sustaining momentum might require you to evolve your role, consider your exit strategy and legacy, as well as identify what is still required for change to be sustained over time.

**What we did:**

**A system rediagnosis:**

We met as a team every six months to assess our progress and whether any changes to our approach or strategy were required. At the end of 2019 we recognised that the system we were working in had been changing over the years of our project. These changes included:

- A large media push around plastic pollution had begun to change people’s attitudes towards ocean protection\(^5\) such as Sky Ocean Rescue\(^6\) and the BBC documentary *Blue Planet II*\(^7\), which first aired in the UK in 2017.
- Civil society organisations were putting increasing pressure on governments, legislators and business, and enabling policies were emerging at a local and global level.
- Organisations were starting to tackle their plastic procurement and waste strategies\(^8\).
- The Covid-19 pandemic had added a completely new layer of complexity to navigate.

We chose to undertake a **system rediagnosis** in 2020 to update our 2016 diagnosis. We sought to find out if our original leverage points had shifted, if the barriers to change had themselves changed, whether new barriers had arisen and where new opportunities for action might lie.

The highlights of our system rediagnosis can be read [here]\(^9\), which includes detailed maps ready to download.

On the next page is a high-level summary of our system rediagnosis, illustrating the hydration system in 2020 in London:

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**A key challenge is perception – challenging myths around the hygiene of drinking fountains and making it a normal behaviour to refill. We’ve got to show it’s cheaper, more accessible and more attractive.’**

SUSTAIN, #ONELESS PIONEER NETWORK MEMBER
How the system has shifted since 2016

Deposit return scheme is gaining momentum; refill-on-the go is scaling with drinking water infrastructure beginning to be embedded in the design of new spaces.

No sustainable alternatives to bottled water have emerged to allow businesses to protect revenue.

Ocean plastic campaigns are playing a key role in individuals transitioning away from single-use plastic water bottles.

Using single-use plastic water bottles is becoming undesirable behaviour and moral case for change is dominant for both individuals and organisations.

Values of pride and conformity are increasingly associated with refill behaviour and shock and shame with single-use–plastic water bottle purchase.

Negative perceptions around drinkability and healthiness of tap water continue to be a barrier.

Circular economy narrative has gained traction, but regulation to push business and industry to act lags behind.

85+ #OneLess Pioneer Network organisations are leading the charge on tackling single-use plastics in London.

Increase in funding and policy interventions to enable refill behaviour in London have increased. For example, a £5m investment from the Mayor’s office and Thames Water to install over 100 fountains.

Figure 17: Visualising London’s hydration system in 2020.
Collect evidence and share learnings:

What we measure:
As a team we continued to monitor and evaluate the success of our #OneLess initiatives to inform future initiatives and provide recommendations to policymakers. During project planning we identified our key progress indicators for the outcomes we were trying to achieve and continued to report on these regularly. These include:

• Targets for stakeholder engagement and bottle numbers in circulation, captured via pledge forms, Pioneer Network sign-up forms and case studies.
• The abundance and composition of plastic drink bottles deposited by the tide along the River Thames, collected by citizen scientist.
• Behaviour change indicators, such as how often people use single-use plastic.
• The potential impact of external factors, such as Covid-19, on behaviours and attitudes towards single-use plastic water bottles.

‘We created an evidence base to inform project activities. This scientific approach is a real strength, it makes us stand out from other projects.’
ALICE CHAMBERLAIN, MARINE PROJECT COORDINATOR, ZSL

How we measure:
We reviewed our theory of change to ensure we had incorporated appropriate methods to gather evidence for the design of our project. These include:

• Fitting #OneLess public drinking fountains with flow meters so that we could record how often they are being used by members of the public, allowing us to monitor the number of 500ml bottles being refilled.
• Monitoring the number of bottles being removed from the River Thames through litter clean-up activities, in partnership with Thames21.
• Working with the #OneLess Pioneer Network to record the number of bottles being eliminated from their supply chains in London.

How we share our impact:
We shared our findings regularly with project partners and stakeholders, through several ways:

• We circulated a monthly infographic, see figure 18, which included an update on metrics and impact to date.
• We developed a portfolio of Pioneer Network case studies, involving institutions of varying size and sector in London that had taken steps to reduce single-use plastic bottles and encourage refilling. The case studies served to inspire, influence and provide learnings to other organisations yet to act.
• We ‘bottled’ the #OneLess approach within this guide to equip others with the approaches and methodologies that were useful in enabling systemic change around single-use plastic water bottles in London. We hope this guide will inspire others to reflect on what challenges they wish to solve and help them to design and execute a successful strategy for change.
• We delivered a range of experimental projects to take action in the areas that would enable London to eliminate single-use plastic water bottles and captured these in case studies as shown below.
• We produced a public-facing report, ‘The River Thames: Plastic bottle pollution’ to share our key findings from the Thames Bottle Monitoring Programme. This also details a replicable method for bottle monitoring, which other citizen science groups can adopt to monitor plastic bottle pollution in their area.

• We compiled our learning and experience from the London Drinking Fountain Fund Project and published an open-access ‘Guide to installing drinking fountains’. The guide provides stakeholders with the know-how to further expand the fountain network across London and beyond.

**Figure 18: Indicators monitored by #OneLess presented in a shareable infographic.**

*Reading the Pioneer Network case studies was a real moment of inspiration for me. There are so many people dedicated to leading change in their own communities - and so much we can learn from them.*

SHAUNA JORDAN, MARINE PROJECT MANAGER, ZSL

*The stand-out moment for me was the Pioneer Network event in 2019, when organisations presented how they had changed their systems, gone above and beyond eliminating plastic bottles, and become brilliant ocean ambassadors.*

HEATHER KOLDEWEY, SENIOR MARINE TECHNICAL ADVISOR, ZSL
DP World London Gateway
*Joined the #OneLess pioneer network in Nov 2018

At a glance

DP World London Gateway is the UK’s most integrated logistics hub: a true-deck seaport and rail terminal on the same site as an expansive landbank, for the flexible and fast development of logistics facilities and warehouses. The smart trade facility has 500 core staff and covers over nine million square feet of land, making it four times the size of the city of London.

londongateway.com

Case study 1: Hello London, #GoodbyeOcean – read how we partnered with 20+ organisations including advertising company JCDecaux across the city to raise awareness of all the alternatives to bottled water available in London.

Case study 2: #OneLess summit – read how we brought together 100+ organisations to showcase the pioneering action happening across London and discuss what it takes to create lasting, sustainable change.

Case study 3: London Drinking Fountain Fund – read how we worked with the Mayor of London to pilot a new network of modern drinking fountains across the city to make it easier to refill on-the-go.

Questions to consider

- To what extent have the drivers of the system shifted over time?
- What barriers have you made progress on? What new barriers have emerged?
- Are there any indications that the system might be slipping back into old patterns?
- How will you know when your role is coming to an end and have you established an exit process?
- What types of further actions or interventions are required to sustain momentum in your specific situation? Who is best placed to intervene in the future?
- How can you focus your energy and contribute to change beyond the scope of your current initiative? Where are the opportunities for wider impact?

Figure 19: A case study of #OneLess pioneer, DP World.
Starting your own #OneLess project

“We have to generate in everyone a sense of environmental irresponsibility when using single-use plastic. We hedged around for too long on the issue of the one litre single-use plastic bottle and now, having made the change, we have to ask ourselves: what was all the fuss about? Just do it!”

EDEN CATERERS, #ONELESS PIONEER NETWORK MEMBER
3.1. Reflecting on how a systems change approach helped #OneLess enable change in London

What was the ‘recipe’ for successfully bringing this group together? Below are some of the reflections from the group:

‘A systems change approach and frame was beneficial on both an operational level and for engaging stakeholders. It really resonated with Pioneer Network members and helped explain the complexity of the issue in simple terms linked to clear action. It has given us real focus and a clear pathway while allowing flexibility for experimentation around the leverage points.’

AMY PRYOR, TECHNICAL DIRECTOR, THAMES ESTUARY PARTNERSHIP

Why was the approach that #OneLess took so successful?

The systems change approach gave #OneLess a clear vision from the start, developing our understanding of the barriers to change and guiding us to target specific areas to create significant impact. Our approach has enabled us to form effective and trusted collaborations with project partners, drawing on the expertise of different organisations and forming a network of supporters that are all working towards the same goal. The multi-faceted nature of #OneLess has allowed us to appeal and engage with a wide audience, ultimately leading to a diverse range of effective and impactful initiatives.

The systems change approach may appear complex and the language hard to understand at first but, when applied correctly, the approach can have significant long-term impact.

On the next page we share some further reflections from the group.
#OneLess team reflections on what a systems change approach provided

A methodology for action research, which...

- ... made the project more robust
- ... provided an evidence base
- ... helped to monitor progress
- ... enabled evidence-based strategizing
- ... rooted us in reality, rather than being a reactionary campaign

Frameworks to understand and intervene, which...

- ... provided wider perspective of the complexities of the system
- ... provided a solid framework and gave us structure
- ... created a blueprint for other cities
- ... provided a clear pathway and rationale to and for success
- ... provided focus and a clear vision of barriers
- ... gave us language that resonated with stakeholders
- ... provided specific areas to target and legitimate interventions
- ... improved our understanding of our role in the system

A process for collaboration, which...

- ... made us more appealing to a wide audience
- ... helped us to share learnings
- ... gave us a shared goal
- ... enabled engagement with brilliant ocean ambassadors
- ... gave us a community of practice
- ... enabled sharing of common barriers to change
- ... helped us to maximise our impact
- ... enabled real policy progress
- ... united a diverse set of stakeholders in a shared experience, out of our comfort zone but all in the one room, finding our role in a shared system
- ... set the project apart from other campaigns
We often think about the work of systems change being about system thinking, analysing the problem to find the perfect solutions - but #Oneless shows how the messy work of collaboration, engaging stakeholders and constantly reviewing assumptions is the real work of change, coming together as a system and seeking to create impact.’

ANNA BIRNEY, GLOBAL DIRECTOR OF SYSTEMS CHANGE LEARNING, FORUM FOR THE FUTURE
Capacity building and learning opportunities to help you apply systems approaches:

- School of System Change Basecamp
- Marine Compass - a learning journey to support marine and coastal practitioners apply systems and values approaches in their work
- Acumen Academy and Omidyar Foundation – Systems Practice course
- Systems sanctuary
- DRIFT

Methods and tools for using a systems approach:

- Keep an eye out for the CoLAB toolkit coming in 2021/2022
- Read a practitioner’s guide to systemic change
- Learn more about systems mapping and the different tools available, including the Multi-Level Perspective, the Iceberg Model and Levels of Paradigm Framework
- A systemic perspective on the breakthrough of rock’n’roll
- Read more information about theories of change
- Read more about systems approaches on the School of System Change blog

#OneLess publications:

- Download our guide to installing drinking fountains including a map of London’s new fountain network
- Download The River Thames: Plastic bottle pollution – 2019 report
- Download our Pioneer Network case studies
- Keep an eye out for our Thames Bottle Monitoring and #OneLess review papers coming 2021/2022.

‘Enabling systemic change around any issue can feel overwhelming, but having a step-by-step process and a selection of tools can provide an antidote to this and drive real action.’

SHAUNA JORDAN, MARINE PROJECT MANAGER, ZSL
3.3. Other change initiatives and solution providers

**Initiatives**
- City to Sea
- Ellen MacArthur Foundation
- Frank Water
- Keep Britain Tidy
- National Geographic Society
- Ocean Unite
- Sky Ocean Rescue
- Surfers Against Sewage (SAS)
- Sustain
- Thames21
- ZSL (Zoological Society of London)

**Solution providers**
- Ape2o
- Brita
- Chilly’s
- Helpful App
- MIW Water Cooler Experts
- Ooho
- Refill
- Sipple
- The London Fountain Company

3.4. Tell us what you think of this guide and get in touch!

**Has this been useful?**
This toolkit was created to inspire and support other changemakers in starting their own #OneLess journeys. As we wrap up this chapter of our multi-year experiment in enabling systemic change in London, we would love to hear how you’re adapting and adopting the approaches from this guide.

[Please click here to complete our short survey.](#)

**Contact #OneLess**
We’re also testing ways in which we, the #OneLess team, can support stakeholders in other cities through this process. If you think you might benefit from a learning partner or a systemic change coach along the way, please get in touch.

**#OneLess**
- website: [www.onelessbottle.org](http://www.onelessbottle.org)
- email: oneless@zsl.org
- Instagram and Twitter: @OneLessBTL

**Forum for the Future**
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**IPSO**
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**Thames Estuary Partnership**
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**Zoological Society of London**
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- Rachel Shairp
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- Shauna Jordan
- Surshti Patel
4.1. Glossary

**Actor** – an individual or a group that plays an active role within the system, for example humans, organisations or policymakers.

**Barrier** – something preventing or blocking change within the system. This could be economic, social, political, technological or another type of barrier.

**Driver** – something that encourages the development or evolution of a system. This could be economic, social, political, technological or another type of driver.

**Enabler** – something that aids or supports the desired change within the system.

**External pressure** – anything that sits outside the boundary of the system but influences what happens within the system.

**Flagship item** – the most important item of single-use plastic for the #OneLess project. In our project, this was the single-use plastic water bottle.

**Holistic** – an approach that aims to describe or tackle an issue as a whole, rather than targeting specific parts.

**Hydration system** – the complex system which enables Londoners to drink water on the go.

**Human values** – these are ideas that guide our individual and collective actions and behaviours. Human values include truth, honesty, loyalty, love and peace.

**Innovation** – taking action to create or implement a new idea, for example a solution, method, product or process.

**Intrinsic ocean value** – the essential characteristics of the ocean that make it valuable to all life on Earth, and the understanding that the ocean is important by its very nature. (The contrasting type of value is instrumental value, which is the value that something offers as a means to a specific desired or valued end).

**Leverage point** – an area where, if a little pressure is applied, or small action is taken, much larger change can be affected within the system.

**Mental model** – a construction of thought processes, assumptions and beliefs about how the system works. A mental model illustrates how an individual or group perceives their reality and their role within it.

**Refill revolution** – a large-scale behaviour change enabling a culture shift from purchasing single-use plastic water bottles to using refillable alternatives.

**System** – a set of things – objects, individuals, groups or processes – interconnected in such a way that they produce their own pattern of behaviour over time.

**Systemic** – describes an action that affects the system as a whole, rather than targeting parts within it.

**Systems approach** – a holistic approach that considers attributes of an entire system to solve a problem.

**System diagnosis** – developing an understanding of the system you are seeking to work with by looking at the behaviours, enablers, barriers, actors, innovations and external pressures that are affecting it, as well as how they might relate to each other and how they might, together, create change.

**System dynamics** – the interactions and relationships between various actors and elements within the system.

**Systems thinking** – a school of thought which focuses on recognising the interconnections between the parts of a system and synthesising them into a unified view of the whole.

**Theory of change** – this is an explanation or description of how the desired system change will become a reality, and the effectiveness of certain actions and/or approaches to achieve this change.

**Values-based approach** – an approach that places values at the root of an initiative. #OneLess was anchored in ocean values and goes directly to why this environment is important to people.
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Because everything we do touches the ocean.