



D7.9

Online access and support Centre of Excellence



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1 Introduction

REFRESH is an EU H2020 funded research project taking action against food waste. Twenty-six partners from 12 European countries and China are working towards the project's aim to contribute towards Sustainable Development Goal 12.3 of halving per capita food waste at the retail and consumer level and reducing food losses along production and supply chains, reducing waste management costs, and maximizing the value from un-avoidable food waste and packaging materials.

The overarching aim of the project is to demonstrate the potential for a pan-European Framework for Action (FA). The approach will first be tested in four EU countries [Germany, Hungary, Spain and The Netherlands] and then replicated in China which is where this work stream fits in. The agreement requires the development of a web-based platform, which will promote and support the wider replication of the FA approach.

The aim of Work Package 7 (WP7) on "Communication, impact oriented dissemination, and exploitation" in REFRESH is to effectively communicate and interact with a diversity of core stakeholder groups, execute impact oriented dissemination activities and exploit the results of REFRESH to facilitate the substantial reduction of food and packaging waste across EU and third countries.

This report is part of Task 7.3, the aim of which is to develop and disseminate tools, databases and other targeted information to specific stakeholder groups, and encompasses the activities set out in subtask 7.3.3 (to create an accessible resource library).

Please see the following sections for more details about the structure and development of the Community of Experts (CoE).

2 Scope of requirements

The scoping of the CoE began at an early stage of the project, using the first Governing Council (GCM_1) meeting as a brainstorming session to discuss audience, functionality and objectives. Referring back to the DoA, "the Centre of Excellence will provide an IT-based platform, connected with the REFRESH website, which would enable wider communication outside of the existing REFRESH consortium". The DoA goes on to state that "the criteria for the CoE will be established at the beginning of this task, and will address questions including participants, location, contribution to dissemination tasks (WP7) and China replication outreach".

With this in mind, WRAP focused on the CoE at the first Governing Council meeting (September 2015) in the Netherlands. One of the first agreed outcomes from the discussions was to change the name from the 'Centre of Excellence' to the 'Community of Experts'. It was felt that this encapsulated what the CoE was trying to achieve – a platform to share resources, knowledge and expertise on



the subject of food waste. Any references to the CoE in the context of this report therefore refer to the 'Community of Experts'.

2.1 CoE – Scope & Vision

As outlined above, the primary purpose of the developing the CoE platform is to support Task 7.3, the aim of which is to develop and disseminate tools, databases and other targeted information to specific stakeholder groups, and encompasses the activities set out in subtask 7.3.3 (to create an accessible resource library).

The scope of the CoE therefore was tightly defined as the '*design, development and maintenance of a secure web platform for the hosting and dissemination of data, information and research outputs (e.g. blogs, tools, slide decks, visualisations) about food waste and food packaging waste from various sources, to include outputs from the REFRESH project which are published on the REFRESH website at eu-refresh.org.*'

By developing such a platform the long term vision for the CoE is to provide:

- A dedicated single point of contact to effectively promote and share knowledge about food waste with multiple stakeholders
- Develop a community of like-minded individuals who can share insights across sectors and geographies
- Improved engagement with retail, manufacturing and research sectors by providing a high quality tool for engagement
- Provide cost savings through efficiency of administration, maintenance and shared functionality

2.2 Developing a Functional Requirements Specification

Once the scope and vision for the CoE had been defined, a Functional Requirements Specification was written by WRAP and Anthesis.

The purpose of developing the Functional Requirements specification was to develop a formal document which describes in detail for software developers (in this case our contractors) the CoE's intended capabilities, appearance, and interactions with users. The functional specification is the guideline and continuing reference point for the initial development and on-going iteration of the CoE, a copy of the Functional specification can be found in [Appendix 1](#).

Outlined below is a summary of the Functional Requirements that are integral to the CoE and its vision:

Functional Requirement	Summary
Account management	User support and clear user permission hierarchy (e.g. administrator, user, viewer etc.).
User Interface	Easy to user interface (good, intuitive interface using current best practice UI principles) for both the front end user experience and the back

	end administrator experience
Discussion forum/blog functionality	The ability for users to post and respond to discussions on specific topics featured within the CoE.
Dynamic Content	Provision of a vehicle for uploading content (e.g. text, reports, graph, graphics, pdfs and other forms of visualisations etc.). This should include the possibility to tag or highlight pieces of important content to the user audience.
Searchable	Ability to search across the platform to find documents, and insights relevant to search criteria (e.g. key word search, tag search etc.).
Events	Ability to sign up to events highlighted on the platform.

As evidenced on the table above the elements of functionality that the CoE must encapsulate to meet the vision we want to create:

1. *Wanted sharing of materials and insights;*
2. *Ability to begin conversations and have interactions online with multiple stakeholders regardless of geographies.*

2.3 Digital Project Process

In addition to outlining the intended capabilities of the CoE the Functional Requirements Specification set out the key project development steps that the winning contractor must adhere to. These are as follows:

Stage	Summary
Project inception	Ensure that the project objectives and scope, specification, budget, timescale and quality parameters are agreed.
Discovery	Provide a comprehensive scoping of the user and technical requirements for the platform, incorporating engagement with key stakeholders and WRAP staff (including programme teams, and digital design teams).
Design	Develop the full page designs for the platform which are appropriate to the audience and engaging to users.
Development	Implement the agreed outcomes of the Discovery and Design phases, in accordance with the requirements of WRAP's Technical Guidelines, to create a secure data management tool within an engaging and intuitive user experience.
Testing	Ensure the platform is fully operational, error-free, and meets the agreed specification, through a structured process of

	programmer and user acceptance testing.
Deployment	Migrate the platform from a testing to a live environment

2.4 Selecting a Contractor

The Functional Requirements Specification brief was shared with a contractor on the WRAP approved Digital Framework for them to provide a quote. The decision to send the Functional Requirements Specification to one potential contractor rather than go out to tender was felt to be the most cost and time effective way to approach this piece of work. The Functional Requirements Specification can be found at [Appendix 2](#) together with the contractors' proposal at [Appendix 3](#).

3 Discovery: Requirements workshop

On acceptance of the proposal, 'Discovery' could commence. The first action within the Discovery phase was to participate in requirements workshop. The purpose of the workshop was to flesh out in more detail the; intended audiences and user journeys to get a deeper understanding of who would be using the CoE and how they would be using the platform.

The workshop was organised with the contractor and members of WRAP and Anthesis. The workshop was divided into two parts covering content and strategy requirements first and technical requirements in the second slot.

Requirements Workshop Part 1

- Introductions
- CoE strategic themes and objectives
- Target Audiences
- Content

Requirements Workshop Part 2

- CMS introduction
- Permissions
- Hosting
- Functionality

Following the workshop, a questionnaire ([Appendix 4](#)) was circulated to the members of the REFRESH Executive Board, and to the Ecologic Institute (Communications partner) which included the following questions.

1. Who are the audience groups that need to be engaged? Please list out the types of businesses this audience may belong to and provide examples of their specific role (s)?
2. Why have these audience groups been identified as the most suitable audiences to be targeted?
3. Can these audience groups be divided into primary and secondary audience groups?

4. Are there particular challenges for each audience group that the Refresh CoE can help solve?
5. What actions do we see users completing when they come to the Refresh CoE site?

The information gathered from the responses to the questionnaire were used to establish four key user personas to ensure that the site was built from a user's point of view, based on their characteristics/context, needs and goals. As most people visit a site with a clear goal in mind, the next step was to develop user journeys to achieve that (or a suitable alternative).

The four identified personas are detailed below.



Figure 1 Persona – Multinational (learner)



Figure 2 Persona – SME



Figure 3 Persona – Multinational influencer

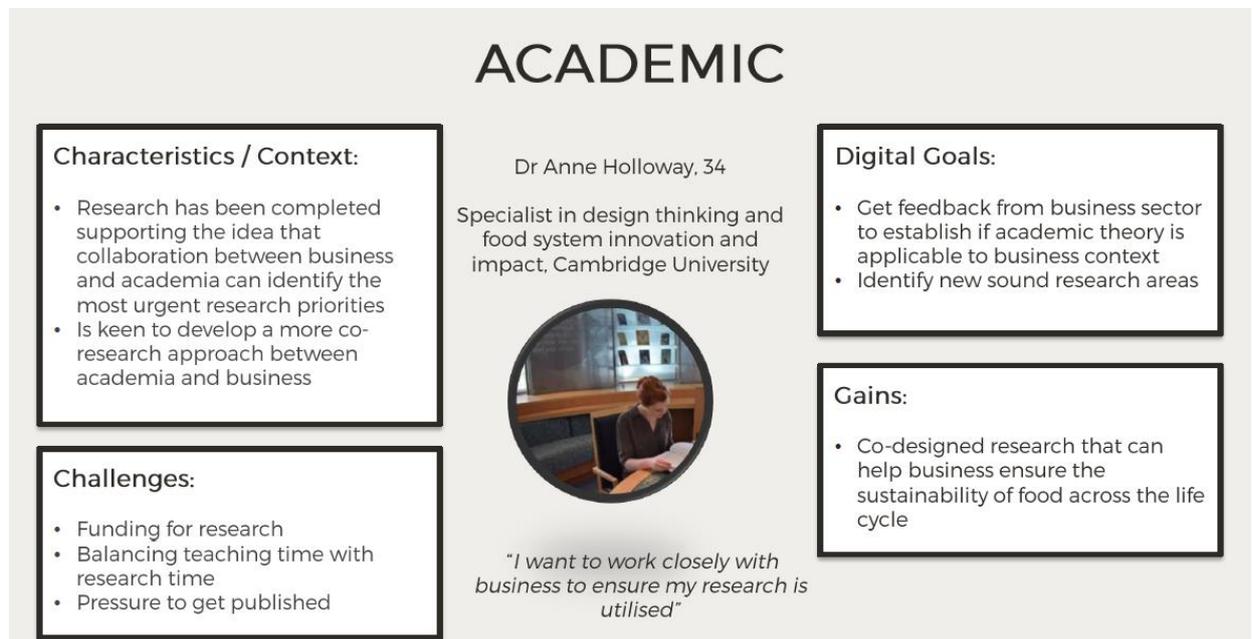


Figure 4 Persona – Academic

4 Design: Site maps, wireframes and the CoE interface

Whilst our strategy was for the CoE to last beyond Refresh / be distinct – we chose the Refresh look and feel to ensure consistency with other project deliverables. We were also conscious of learnings from other projects such as FUSIONS, where the project name became a brand in itself and gave credibility to its outputs. As the Refresh project is of a similar vein we believe that using the branding of Refresh will benefit the platform by heightening the credibility and use of the CoE due to its links to the project.

4.1 Site Map

After concluding the Discovery phase of the project, the contractor used the insights gathered (notably the questionnaire and user personae) to map out framework of the platform.

The site map developed was centred around key pages/features that all personae would use. This means that the map is focused on pages that multiple users interact with regardless of their goal or specific user journey.

As there are a core number of pages that all user personae will interact with, the design of the platform has been kept simple and clean and can split as shown below in figure 5.

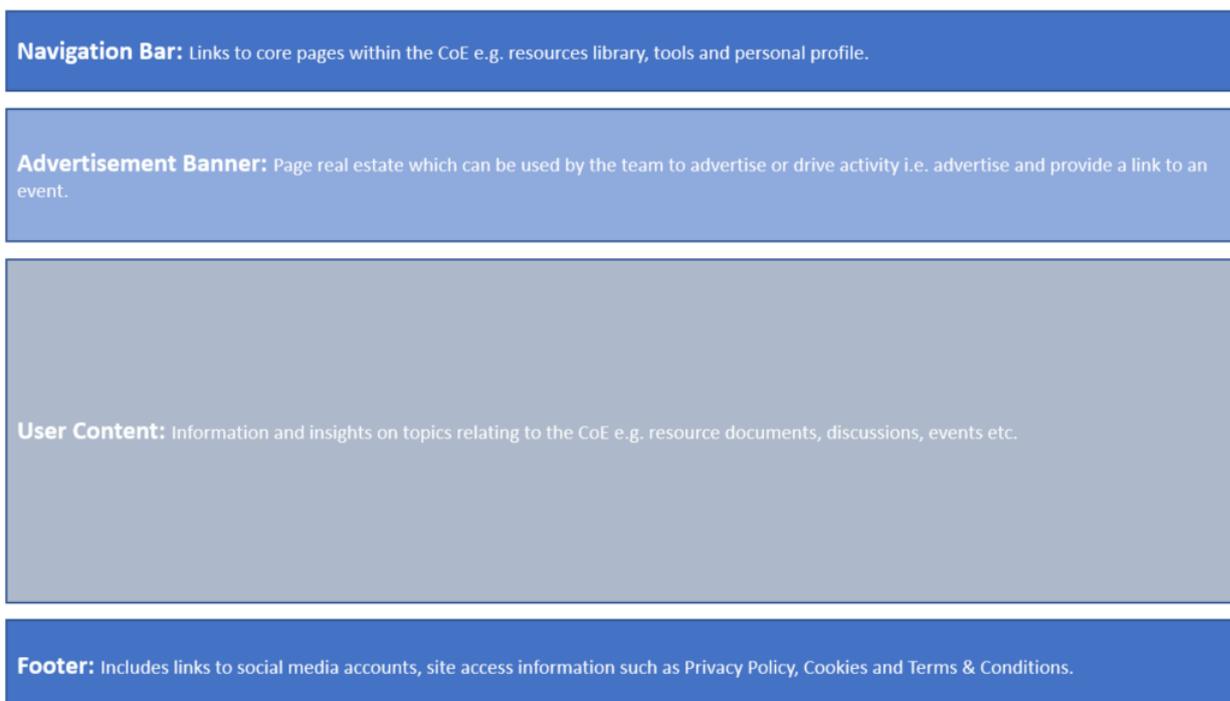


Figure 5: Site map interaction points

4.1.1 Navigation Bar

The main site navigation of the CoE website consists of the following (status September 2017):

- About
- Resources
- Blueprint
- Contact

This allows the user to navigate the site via the top level sections of the site. This navigation will be present on all pages of the website which will provide familiarity to the user.

4.1.2 Advertisement Bar

On the homepage there is 'advertisement' bar which is used to bring life to the key asks of CoE users which is to [1] login and share insights with others and; [2] to browse the resources library to learn more.

The advertisement bar has been implemented as it is editable and allows WRAP to highlight new and exciting activities quickly in an effective manner (the prominence of the location ensures that if a user visits the CoE they will see the content).

It must be noted that the advertisement bar only appears on the homepage.

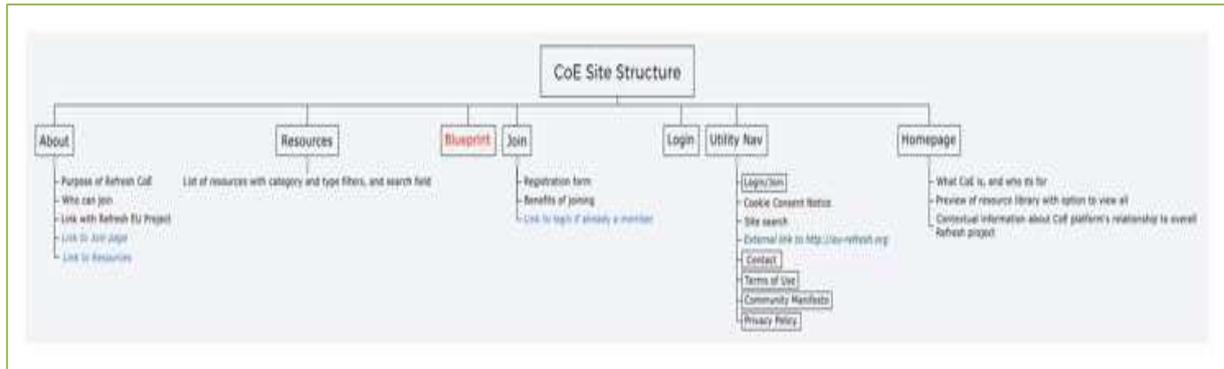
4.1.3 User Content

The main portion of the real estate of the platform homepage is assigned to user content, specifically; popular resources. A user can use this section of the website to do a quick review of the latest resources available on the CoE.

4.1.4 Footer

The footer navigation consists of the following:

- About
- Resources
- Contact Us
- Privacy Policy
- Cookies Consent
- Terms of Use
- Links to social media accounts



Note that the Blueprint placeholder is included in red for future provision

Figure 6: Footer navigation

4.2 CoE Wireframes & Mock-ups

Once the framework for the homepage had been agreed and defined the contractor used the design principles agreed with WRAP and Anthesis (simplicity, and nothing more than 3 clicks away) to develop other key pages of the CoE. These pages are as follows:

- Resources Library
- Individual Resource Summary
- My Profile
- Animal Feed Tool Page
- Contact Us

Outlined below is a summary on the purpose and design elements of each page.

4.2.1 Resources Library

After the homepage the most critical webpage within the CoE is the Resource Library page as searching for and gaining access to the right insights is one of the fundamental purposes of the CoE.

Purpose: To support users in accessing the latest food waste insights the CoE has a resource library. The resource library is a single access point for all REFRESH and wider food waste related insights.

From the point of the user the resource library is a place to take away from and the information in this page should be tempting, clear and drive further click-throughs of the website.

Design: As a single access point the webpage needed to be:

- Visual – easy to see all of the resources available
- Searchable by keyword
- Filterable using predefined phrases or tags

The above criteria have been met by:

- Using a tile design to display resources including and image, title and author clearly indicating what the resource is and who it is attributed to;
- Key words and tags available in the filter bar and 'Browse Resources' drop down enable users to refine their search across multiple categories including: tags, topics, resource type etc.
- Search bar at the top of screen enables users to search by their key words.

A screenshot of this page is below:

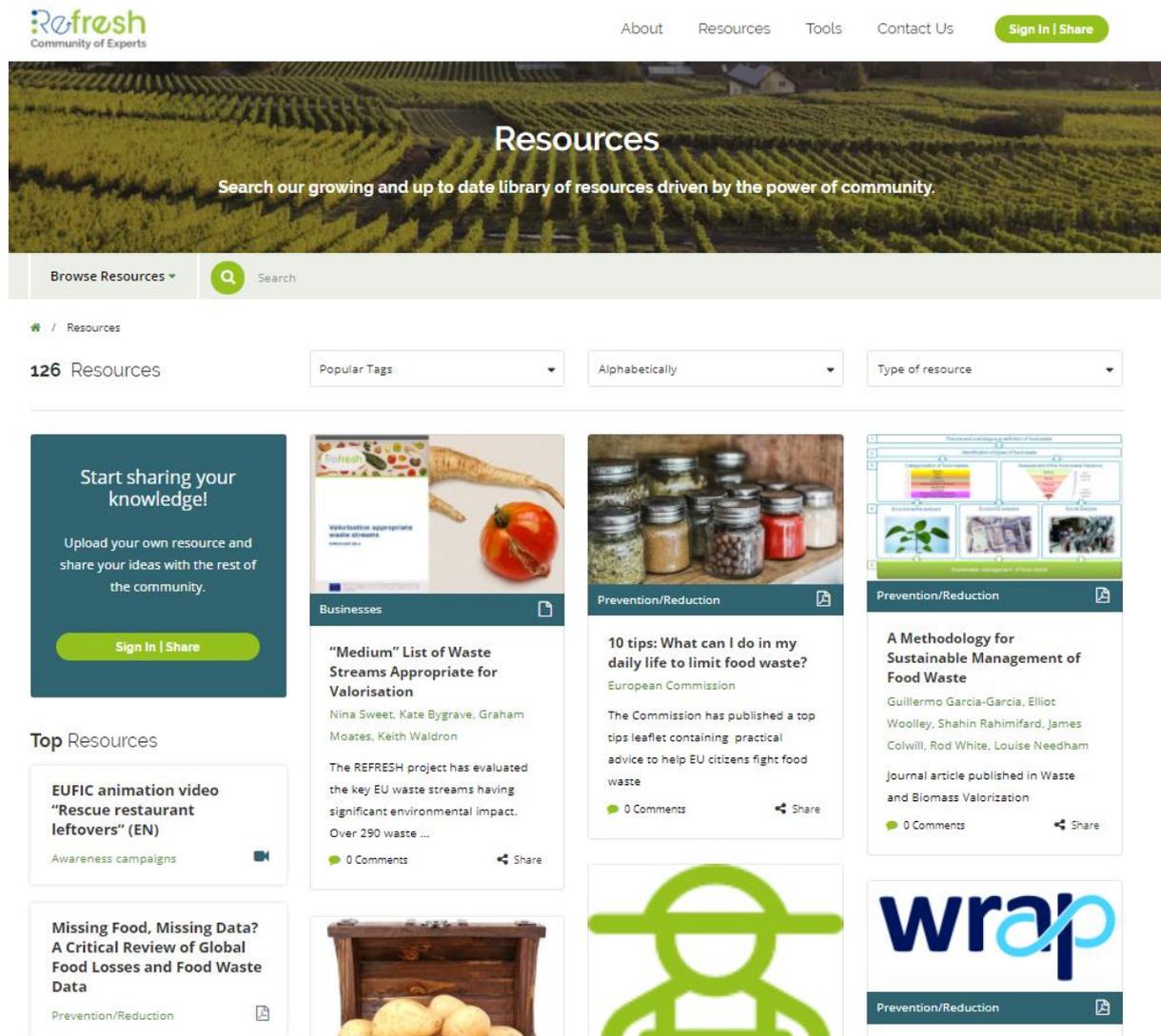


Figure 7: Resource Library page image

4.2.2 Individual Resource Summary Page

Once a user has found their desired resource in the resource library they then need to review the detail attached to said resource. To access this detailed level of information they visit the 'Individual Resource Summary Page'.

Purpose: This page provides the user with a summary overview of all of the information they may need to make an assessment of the resource to decide if it is useful to them.

Design: The design of this page is two-fold as:

1. The page needs to be short and concise with enough information to provide the reader with depth to make an informed decision. The formatting needs to be clean and consistent to help the user move from one resource to the next with ease.
2. Each individual resource page is populated by a member of the CoE (as they are the people that provide the insights) therefore the 'user template' must also be simple without too many fields which would be time consuming and present a barrier to sharing insights.

The information covered within this page consists of:

- Title
- Authors
- Topic Tags
- Overview of resource
- Files to download
- Videos & Images (if attached)
- Comments

Screenshots of the pages which form the individual resources page can be seen below:

The screenshot shows the Refresh website interface. At the top, there is a navigation bar with the Refresh logo (Community of Experts) and links for About, Resources, Tools, and Contact Us. A user is logged in as Jennifer Wilson, with a 'Share a resource' button and a 'Logout' button. Below the navigation bar is a search bar and a 'Browse Resources' dropdown menu. The main content area displays the resource page for 'Disco Chop Toolkit: How to organise a small scale food waste event'. The page includes the title, upload information (uploaded by Feedback on 2nd August 2017), and tags for 'Food waste', 'Food consumption', 'Consumer attitude', and 'Consumer awareness'. There are social media sharing icons for Facebook, Twitter, LinkedIn, and Google+. An 'Overview' section provides a brief description of the toolkit. To the right, there is a call to action to 'Start sharing your knowledge!' with a 'Share a resource' button. Below this, there is a 'Similar Resources' section featuring a resource from the ECR Community Shrinkage & On-shelf Availability Group titled 'Preventing Food Waste - Simulation Tool'.

Files

FSK-Disco-Chop-Small-Scale-Event-Toolkit 2 MB

Videos



Prevention/Reduction

Improving Transfer in the Food Sector by Applying a Target Audience-Centered Approach

Strotmann, Christina; Niepagenkemper, Linda; Göbel, Christine; Flügge, Fara; Friedrich, Silke; Ritter, Guido; Kreyenschm

28 March 2017

0 Comments Share



Browse Resources

Search

Resource Share

My Account



Jennifer

Edit my profile

Logout

Submit Resource

If you have a resource that you think would be of value to the community, or would like to share something available elsewhere, please use the form below to submit the resource for consideration.

The REFRESH: CoE team will review the information provided by you, and where it meets the criteria for inclusion on the website, the resource will be added for others to access on the Resources page.

Please note that material submitted to this site should be factually correct, not support a particular cause or person, not violate food safety regulations or endanger public health, and not contain content that could be considered libel or slanderous.

The inclusion of a resource does not represent an endorsement or reflect the view of the organisations involved in the running of the site.

Resource Title

Provide title of the resource (character limit : 100 including spaces).

Resource Title

Resource Summary

Provide small summary for the resource (character limit : 120 including spaces).

Resource Summary

The image shows a form for creating a resource page. It is divided into three main sections:

- Resource Description:** This section has a title and a sub-instruction: "Provide a description of the resource (character limit is 2,000 including spaces). This may be an abstract or executive summary from the resource." Below this is a large text area with a rich text editor toolbar containing icons for bold (B), italic (I), bulleted list, numbered list, link, and unlink.
- Contact Information:** This section contains three input fields: "Contact Name", "Contact Email", and "More Information Link".

Figure 8: Resource page images

4.2.3 My Profile

To share insight documents, and comment on other members resource posts a user must be a member of the CoE and therefore must complete a user profile to set their notification preferences, interests and track what they have shared.

Purpose: A place for users to manage their preferences (this informs what notifications they receive i.e. you select topics you'd like to follow), and review their contribution to the CoE and how this develops over time.

Design: Using best practice principles to create a simple and easy to use profile page.

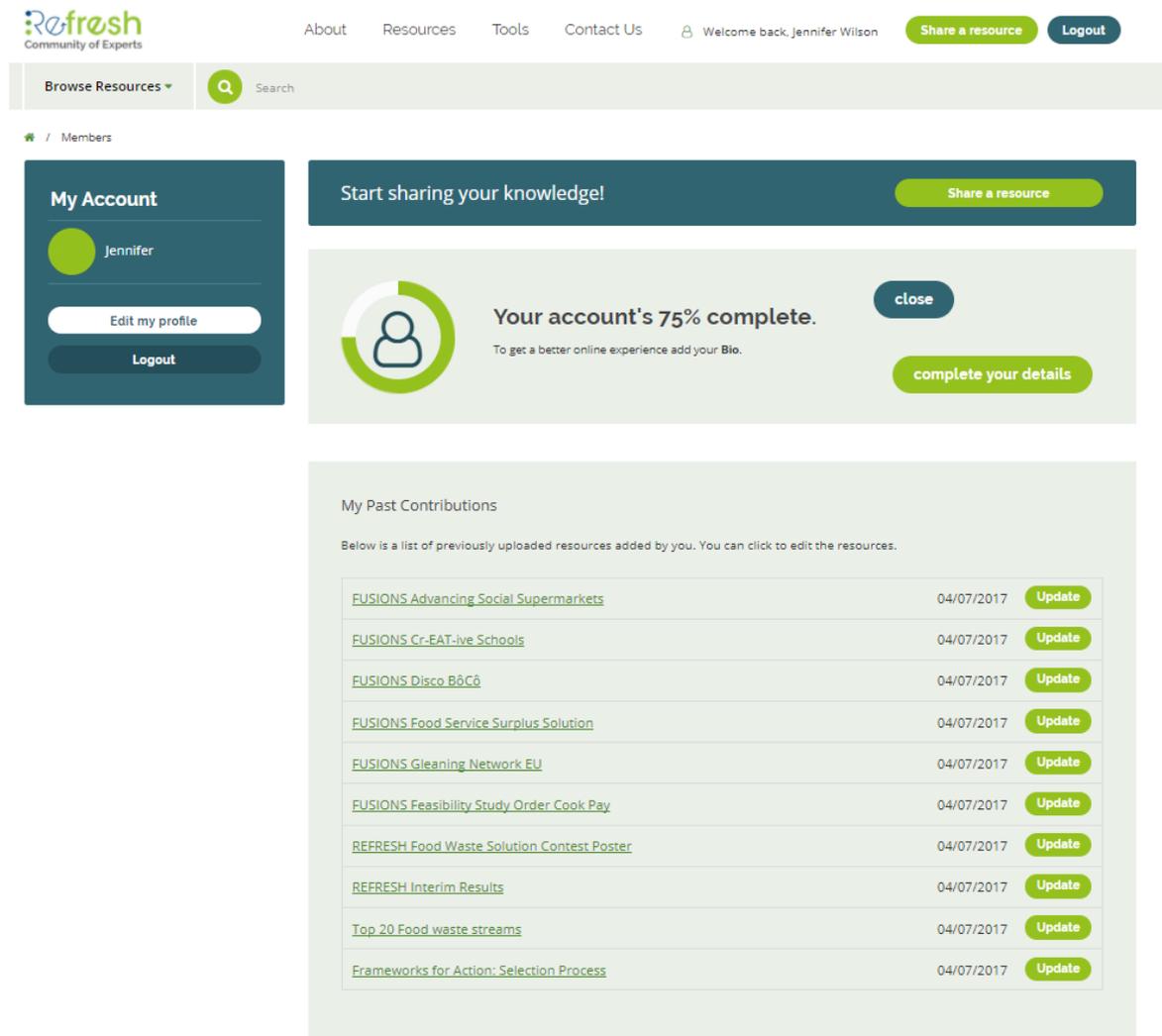


Figure 9: User profile page image

4.2.4 Contact Us

To foster the spirit of collaboration between the user and the CoE team a method for contact has been developed.

Purpose: If a user has difficulty accessing information or would like to learn more about how to contribute to the CoE a user can visit the Contact Us page and submit their query which will be sent directly to a monitored inbox.

Design: A simple and clean submission form – as seen below.

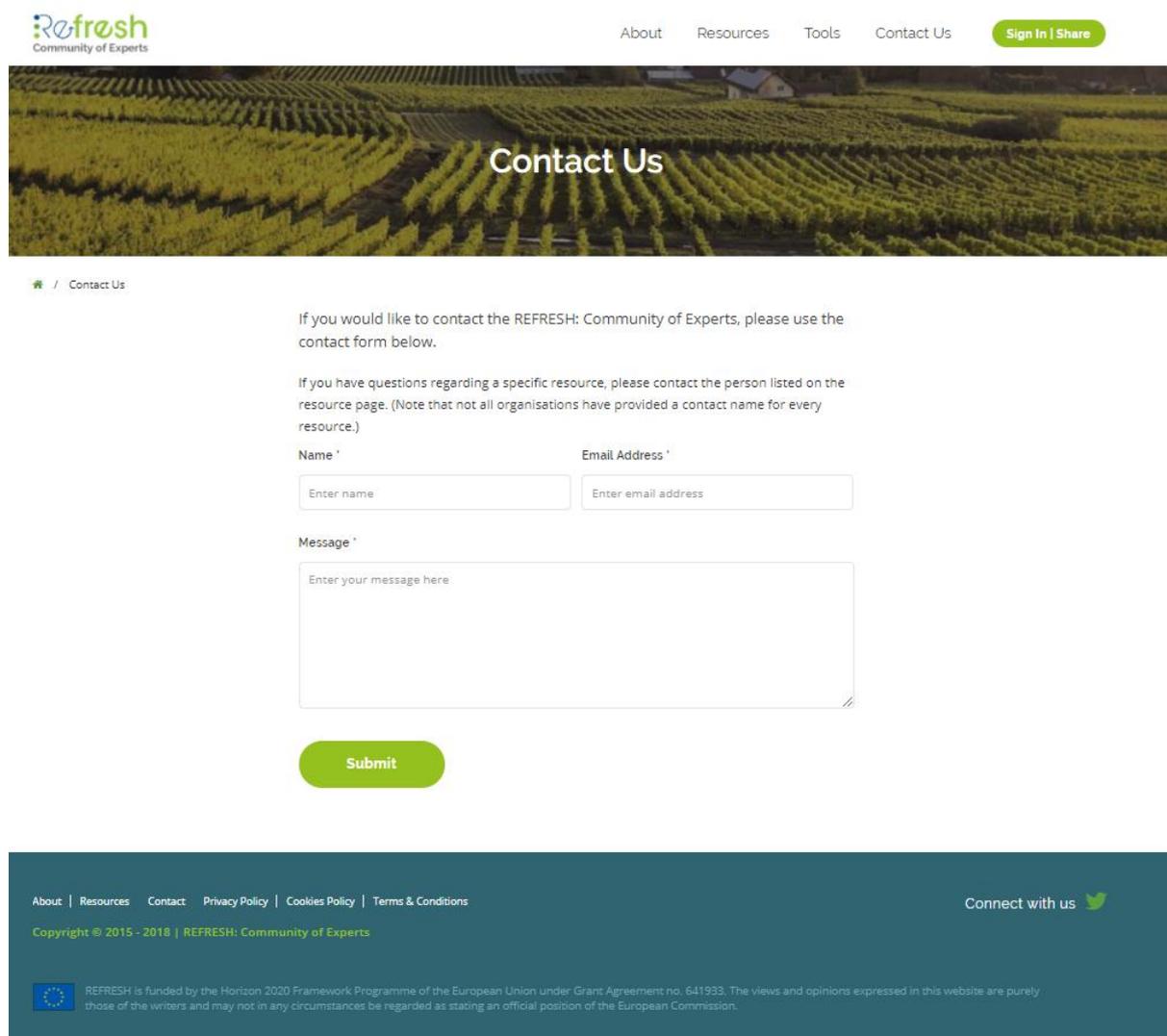


Figure 10: Contact us page image

4.2.5 Animal Feed Tool

In addition to supporting the dissemination of report outputs of the REFRESH project the platform will also host and highlight other project outputs, notably decision making tools such as the animal feed tool, developed by Feedback within Work Package 6.

Purpose: To develop an interactive tool which, dependant on your role within the supply chain takes you through a series of questions which result in tailored insight into how you can reduce the food waste impact associated with your role and how this can be potentially redirected in animal feed.

Design: Clean interface with legible writing and indicators on how to flow through the questions and reach results.

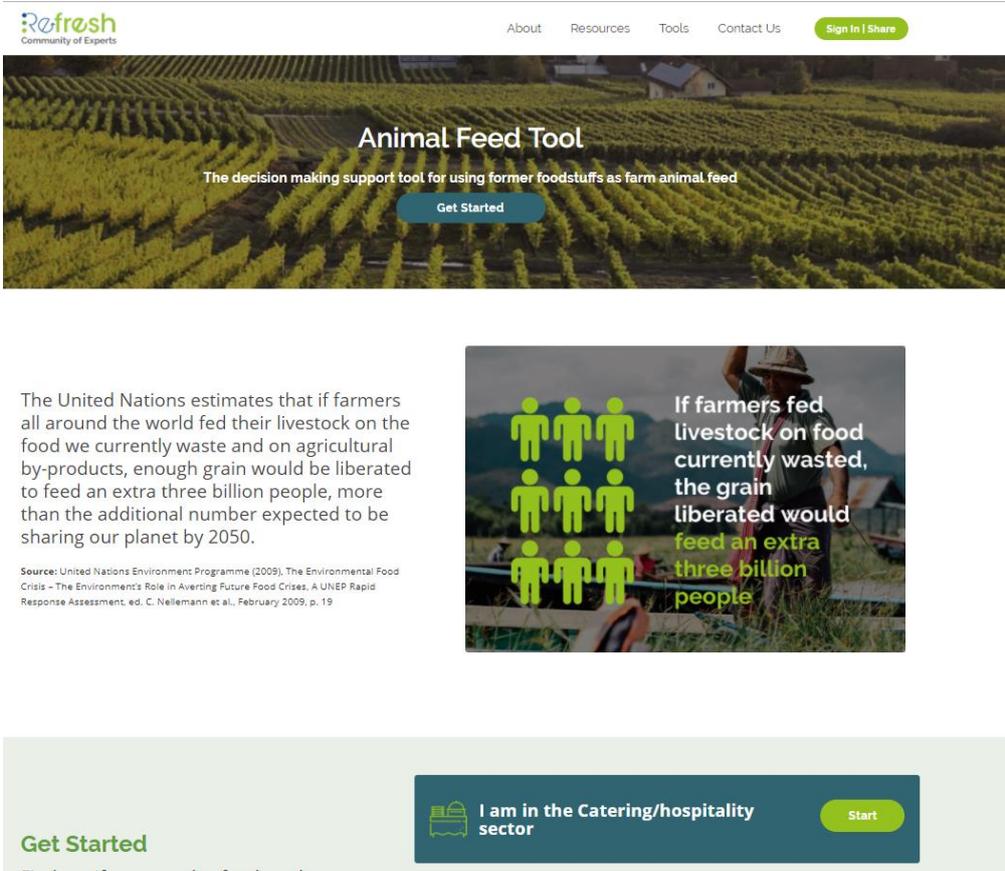


Figure 11: Animal Feed Tool image

4.3 Visual Identity

All the original REFRESH materials (online and offline) share a visual identity consisting of the logo, identifying images, and a colour scheme. These are to be used in all project-related materials.

The styling for the CoE was adapted from this visual identity- adapting the REFRESH logo to maintain consistency. The colour scheme of the site also reflects the REFRESH branding.



Figure 12: CoE logo and visual identity

We chose to keep the REFRESH logo for consistency and brand recognition; the logo’s symbolism is as follows: the pointed “E” represents the circular economy, the dotted line for “R” represents the 3 focus areas of the food use hierarchy: prevention, re-use, recycle. We removed the background oval to make the logo and produced our own background images for the site header.

4.4 Connecting content to user personae

A key element of the design of the CoE is how the user interfaces with the resources and interactions that take place. How this is organised is within the knowledge management architecture.

Following previous project experience of the WRAP Product Sustainability Forum and following best practice (review conducted by Anthesis) WRAP and Anthesis found that the simplest and most appropriate strategy to connect resources together in a comprehensive framework was to use 'Tags'. Therefore, a tagging taxonomy is the foundation of the CoE knowledge management architecture.

Tags are a common way to structure and connect information as you can create your own lexicon/attribute structure which orders your database information (in our case resources) in a structure which is unique to you. Additionally, a key benefit of using tags for knowledge management is that tags can be used multiple times by the platform to structure the same information but for different purposes – e.g. using the resource tags to generate user preferences.

Also tags are unlimited (should you wish them to be) and therefore you can apply multiple tags to database items/resources which allows you to create a multi-layered and comprehensive knowledge management structure.

4.4.1 Developing the tagging taxonomy

Prior to the Functional Requirement Specification being written a draft tagging taxonomy was developed by Anthesis for review by the REFRESH partners. The tagging taxonomy sought to define and develop the tagging hierarchy and how this should be defined so that pre-work could be conducted to test out different tagging structures prior to the launch of the CoE. At the end of this stakeholder consultation an initial tagging structure was defined, a copy of this can be found in [Appendix 5](#).

During the discovery stage, the concept and tagging taxonomy was revisited with the EC stakeholders. This review extended the taxonomy beyond its initial focus from purely topic and supply chain stage focused tags to tags which make reference to audience and author.

The tagging taxonomy that is now used by the CoE covers the following:

- **Topics:** from prevention/reductions to valorisation there are 7 headings of topic tags with an additional 20 subheadings to choose from
- **Target Audience:** i.e. NGO, academia, retailers etc
- **Author:** i.e. companies, NGOs and or trade associations
- **Type:** select the type of resource that is being shared i.e. audio, tool, infographic

4.4.2 Implementing the knowledge management structure

Once the tagging taxonomy had been defined we provided this framework to the contractor who implemented this into two key processes of the CoE:

1. Sharing a resource
2. Setting user preferences

The tagging taxonomy is embedded in these processes in the following ways:

- 1. Sharing a resource:** When a user uploads and shares a resource they must use the tags to categorise their resource. The platform then uses these tags for the resource library by using the tags in the resource categorization, filter drop downs and using the tags as a reference point for key word search results. See figure XX for how the tags have been incorporated into the sharing a resource user flow.

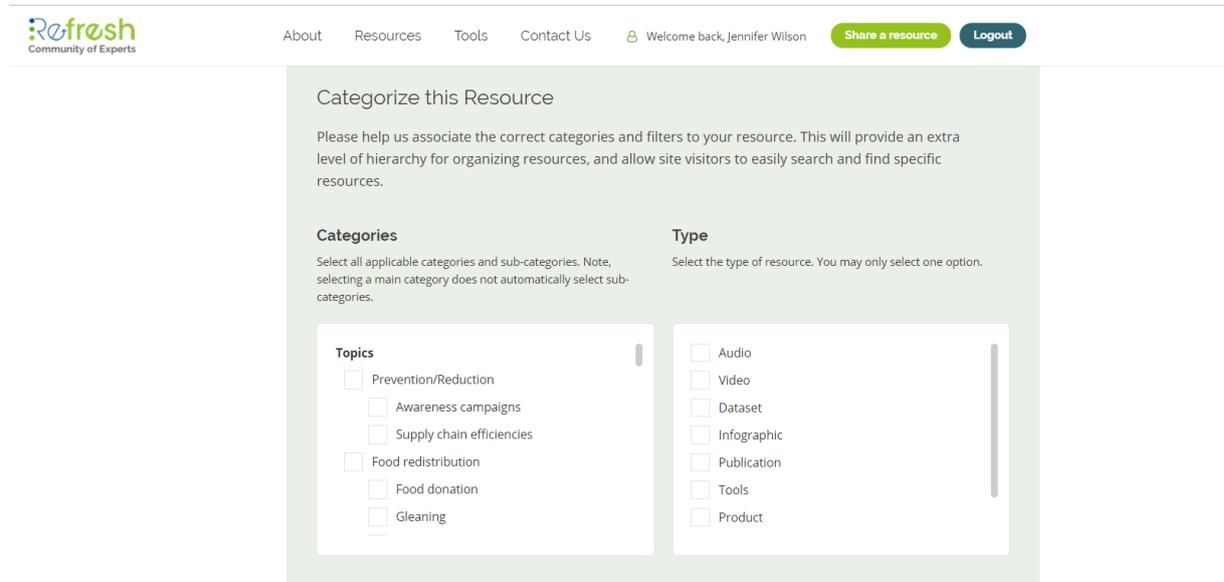


Figure 13: Categorize a Resource page image

- 2. Setting user preferences:** As briefly discussed above, tags can be used in many ways to achieve multiple purposes. The second way in which we engage with and use the tagging taxonomy is to enable users to 'follow' tags they are interested in.

Instead of using the full taxonomy as defined above the platform repurposes the topic tags. So that when a user creates their profile they are asked to select the topics they want to receive notifications about. The user then can select multiple tags from the list available to them.

The system then stores their tag preferences in the database and when a different user shares a resource with their tag preference they receive an automatic notification that a new resource has been shared. See the screenshot below for how the tagging taxonomy has been integrated into the user preferences user journey:

Interests

Topics

- Prevention/Reduction
- Awareness campaigns
- Supply chain efficiencies
- Food redistribution
- Food donation
- Gleaning

Update Password

To update your password fill in the fields below

Password

Confirm Password

Upload Profile Image

[Choose File](#)



[Save Profile](#)

Figure 14: Topic Tags page image

5 Production

5.1 Development

With regards to the development of the CoE, the contractor adopted an agile development process to create the online platform. The development of the tool was run in sprints, with regular releases to a staging (user acceptance) system for WRAP and Anthesis to review and monitor progress. Developers also made full use of automated testing and deployment, including Web Content Accessibility Guidelines automatic testing. The steps of the contractors' approach to the development process are outlined in the subsequent sections.

The contractor's approach to delivering software which is both user-friendly and fit for purpose was to ISO 9241-210 [Human-centred design](#) principles:

1. User involvement – in all stages of the design and development
2. Iterative development – we follow an 'agile' development process
3. Task led design – based on a clear understanding of the users and key tasks
4. User evaluation – the design is driven and refined through user involvement
5. Holistic design – aimed at addressing the whole user experience
6. Multidisciplinary team – to ensure a mix of skills and perspectives

The 'agile' development process adopted is summarised in the Figure below.

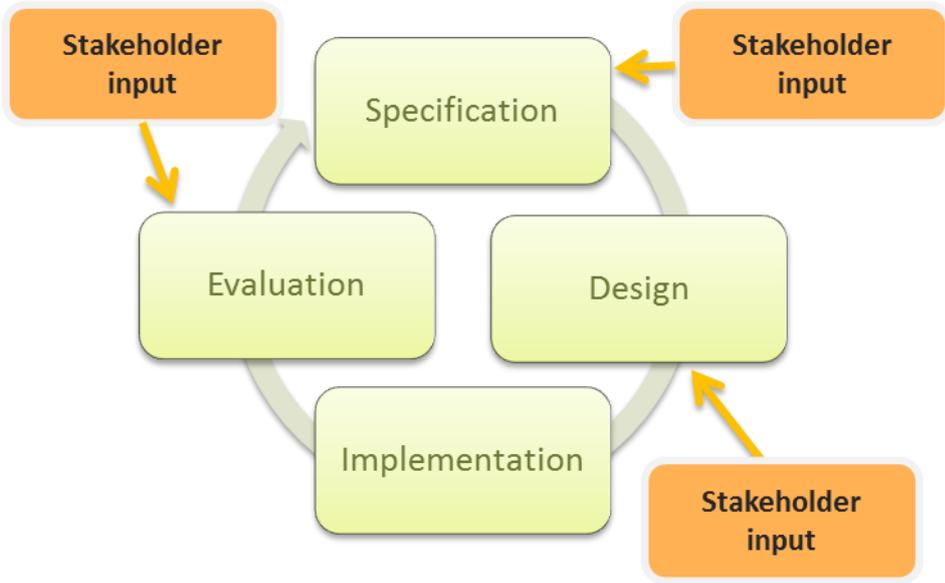


Figure 15: 'Agile' development process

Note that the agile software development process constitutes a series of these cyclical processes which operate at a feature, module or version level. Using this process provides a framework to ensure the required service levels and expectations for usability are met.

Quality Control Systems

To manage the software development process, the contractor used Jira. Jira provides full version control, bug tracking and feature management. WRAP colleagues were able to access Jira directly to track progress and work with the collaboratively on triaging development priorities.

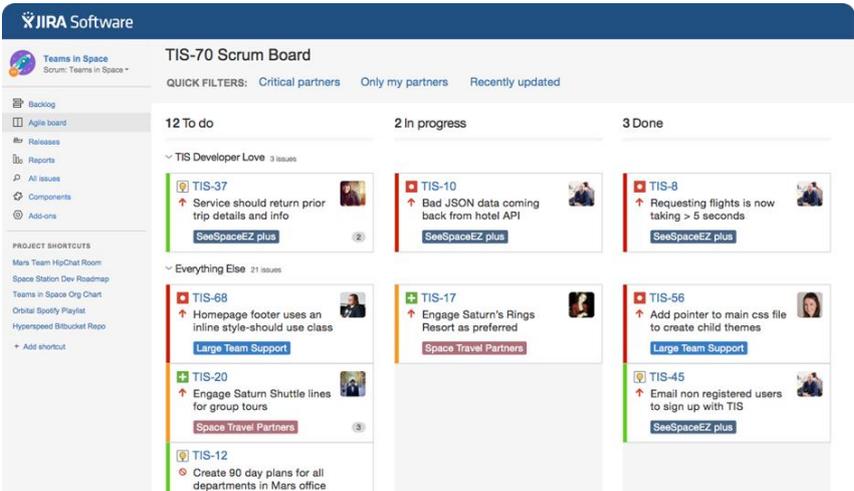


Figure 16: Jira page image

5.2 Site functionality

Outlined below is summary of the how different user levels are mapped onto the CoE functionality.

Action	Non-registered User	Registered User	Admin
Access and read the homepage	x	x	x
Access and download resources from the resources library	x	x	x
Register for CoE membership	x	x	x
Contribute a resource to the CoE		x	x
Publish a resource to the CoE*			x
Comment on other users resources		x	x
Receive notifications from the CoE (e.g. new resources have been shared)		x	x
Use CoE tools (e.g. Animal Feed Tool)	x	x	x
Sign-up to CoE events		x	x
Create membership profiles			x
Invite new members to the CoE			x
Edit public facing pages of the CoE			x

*Please note that there is a safeguard in place where only an administrator can publish a resource to the CoE enabling a member of the WRAP to moderate content.

5.3 Future plans

The structure and content of the CoE can be adapted as the site evolves and more resources and opportunities to get involved become available. Over the next couple of months the following website sections are planned to be added (or further developed):

- New – Animal Feed Tool ‘was launched’ on the 18th October 2017
- Blueprint – a key output of REFRESH, this is not due until the end of the project, but will sit on the CoE
- The Food Waste Compositional Database developed in Work Package 6 is currently in its testing phase (January 2018) and when signed off will be accessed via the CoE.

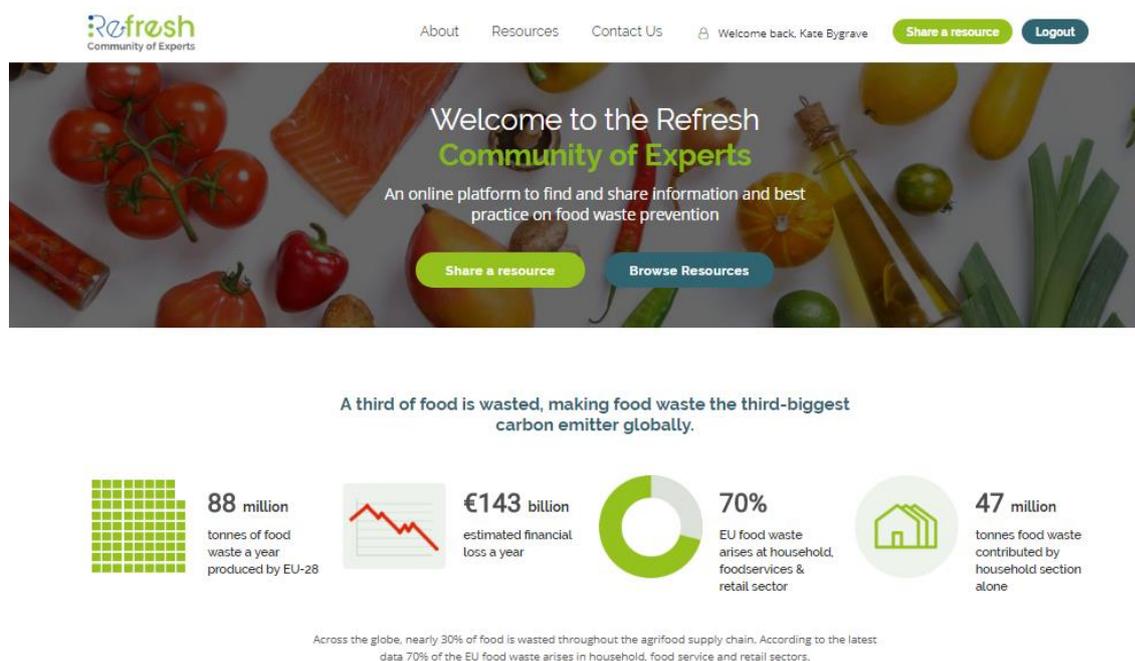


Figure 17: CoE homepage image

6 Launch and dissemination

6.1 Launch

The CoE was launched internally on 10 July 2017 for all immediate partners¹ to use and test.

The aim was to establish a community feel prior to a public launch – so this involved a ‘call for content’ whereby REFRESH partners and members of the EU Platform on FLW were encouraged to register and upload resources to the site.

The internal launch went on longer than planned due to technical issues with the site. These will be reflected on later in the learnings section of the report; however it meant that the planned public launch date had to be postponed.

In a second step all partners were asked to provide contacts of potential content providers for the CoE. A list with 168 contacts was assembled and a mailing sent out on 12 September 2017. In this mail the CoE was introduced and the contacts were invited to become a member and exclusively upload their resources prior to the official launch. On 19 September 2017 the REFRESH Newsletter no 4 was sent out containing a CoE call for content as its first news.

The public launch of the CoE was announced on World Food Day, 16 October 2017.

¹ REFRESH consortium; EU Platform on FLW members

6.2 Dissemination

6.2.1 By joint forces of REFRESH CoE and Communication Team

On 16 October 2017 a **press release** entitled “Online Community of Experts helps tackle food waste in Europe” (<http://eu-refresh.org/online-community-experts-helps-tackle-food-waste-europe>) was issued.

A **mailing** about the CoE was sent to 1440 contacts including 49 established contacts to multipliers that had been helpful to successfully communicate the REFRESH Food Waste Solution Contest (<http://eu-refresh.org/contest>) in October 2016.

The CoE was prominently announced on the **REFRESH website** and since then is accessible via a permanent banner on the homepage. Attractive visuals have been created to promote the CoE (see following figure 18).

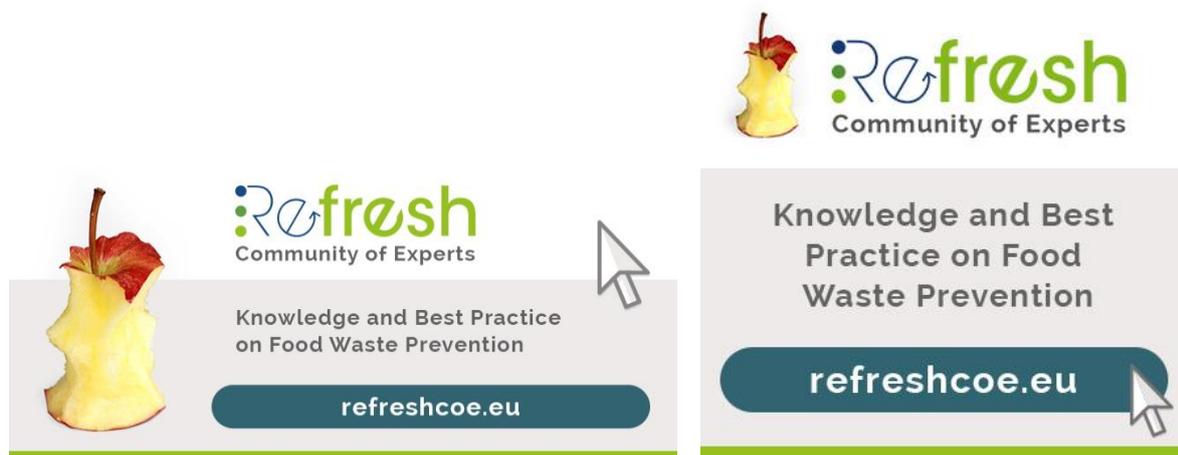


Figure 18: REFRESH: CoE website banners

A **Tweet series for the CoE launch** was created and tweeted via @EUrefresh. The Tweet series contained agreed statements and portraits of the following three VIPs (see figure 19):

- Vyentis Andriukaitis, European Commissioner of Health and Food Safety
- Marcus Gover, WRAP CEO
- Toine Timmermans, REFRESH Coordinator



Figure 19: VIP Tweets about REFRESH CoE

Furthermore four animated GIFS and a static image were created to draw attention to the CoE Tweets (see figures 20 to 24).

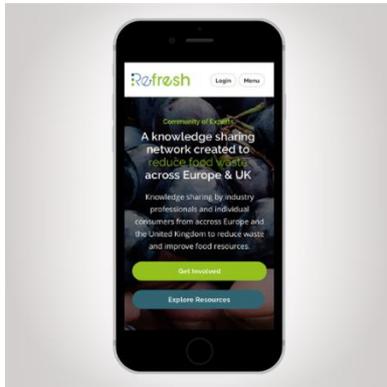


Figure 20: Static image for tweet about REFRESH CoE



Figure 21: Animated GIF with two images for tweet about REFRESH CoE

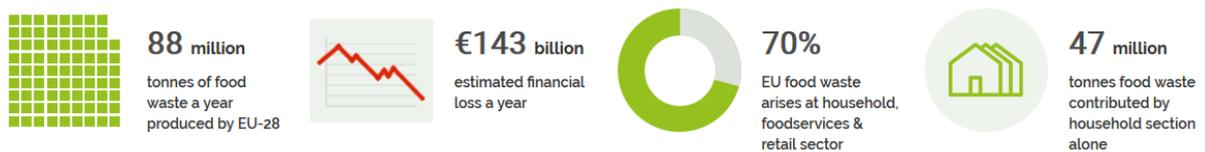


Figure 22: Animated GIF with four images for tweet about REFRESH CoE



Figure 23: Animated GIF with two images for tweet about REFRESH CoE



Figure 24: Animated GIF with four images for tweet about REFRESH CoE

Since the launch of the CoE uploads of selected resources are also announced on Twitter via @EUrefresh.

Repeated posts were also made on **Facebook** to promote the CoE.

6.2.2 By REFRESH partners

On 12 October 2017 a dissemination package was sent to all REFRESH consortium partners and all members of the EU Platform on FLW asking them to help spread the word about the launch of the CoE. The dissemination package was intended to make it as easy as possible for the partners to feed the news into their channels and networks. It contained the following materials:

- Press release as PDF to be forwarded as a personalized mail to relevant colleagues and key stakeholders

- Press release as Word doc to make a tailored press release to be sent by the partners' organizations and distributed widely to their networks. To tailor the press release partners were encouraged to translate it into their native language, include a quote from someone from their organization, or mention their organisation's role in the project.
- Text suggestions for tweets including free animated GIFs and static pictures
- A list of ideas on how to share the news (e.g. post on your website, share in social media, include in your newsletter)

Google Analytics stats displaying the activity around the public launch date can be found at [Appendix 6](#).

7 Learnings

Clarity of requirements:

Within the DoA there are references to the CoE in both WP2 and WP7, but no specific details on what is expected. WRAP therefore had to start conversations to decide early on what we wanted it to be.

In future if a resource such as this is specified in a project there should be thought given to clear direction on purpose, scope, functionality and platform in order to guide the delivering partners.

Defining scope, function, purpose and platform:

With a broad remit in the DoA and many existing online resources, including the EU-Refresh.org website, it was important to develop and maintain a clear vision for the CoE from the outset to avoid delay, scope creep, wasted effort and money, lack of clear purpose for the user and repletion of existing tools.

During the early scoping sessions WRAP and Anthesis maintained a clear vision of what the CoE should deliver to stakeholders. The main goals were that it should:

- focus on interaction, rather than be just another 'library'
- be designed to continue life beyond REFRESH

Reflecting the vision and scope in design decisions:

These criteria influenced all of our decisions including name, style and technology platform.

- Name should reflect the desired purpose of the platform:
We opted to change the name from "Centre of Excellence" to "Community of Experts" to reflect the focus on building a community of people with knowledge and expertise rather than a repository of information 'telling' the user what is excellent or not.
- Platform should be designed with future rebranding in mind:
We opted to use the EU-Refresh look and feel but in a paired back, minimal way. This linked the CoE to the REFRESH project but allowed for

rebranding after Refresh in order for the platform to remain current and relevant

- The choice of technology should allow the platform to be adopted, transferred and maintained by a third party after the end of the project: We specified an open source software base with a wide support community, for the platform. This ensured that there would be a range of potential technology partners for any organisation which adopted the CoE after the end of REFRESH.

Choosing and managing a contractor:

Choose your contractor early and involve them in developing the brief. Early discussion will identify whether potential contractors share your vision and approach. Those who do can bring technical knowledge to the process to support your vision rather than constraining it through incorrect and inappropriate technology and design choices.

Be specific with contractors so as to avoid things you would have 'expected' as part of the development ending up as 'change requests' with added cost.

We had an issue with lack of consistency of Project Managers at our contractor. This had implications for the efficiency of development. Whilst this is always a potential scenario with any supplier, steps can be taken early on to maintain consistency of contact at the contractor.

Keeping stakeholders involved through the process:

Where there are other partners and stakeholders involved in the project, make sure to keep them involved throughout the process. In the development of the CoE we considered the needs and views of the other REFRESH partners.

We also had an agreement with DG SANTE to use the CoE as a communication platform for best practice coming from the EU Platform on Food Losses and Waste – ensuring partner and stakeholder requirements are considered, and they are kept updated at each stage of development is crucial.

Managing security and user access:

Comment boxes, forums and interactive resource sharing platforms are susceptible to abuse from users looking to cause trouble, promote extreme views, sell services etc.

Managing forums etc through moderation is resource intensive.

Therefore a workable process for managing security risk and user access is required.

We set up user registration with manual approval, manual approval for uploading material and automated comment function (no moderation) with review by internal staff on a daily basis.

Managing technical issues:

We experienced a technical issue with spam filters in EU which not anticipated forced us into a soft launch. These blocked the confirmation emails sent to users signing up to the CoE in some cases.

However, we turned this around to our benefit as this was then used by selected partners to test and populate the site ahead of the public launch. We would definitely take that approach again.

Developing further:

Allow budget and resource to add further developments once the initial site/platform is delivered.

As we developed the platform, we identified new functionalities to improve it and make more of a community. Fortunately, we had spare budget, resources and time to enable us to add these in a phased rollout.

Promoting and populating:

A successful and co-ordinated campaign of promotion around the launch of the platform was important in attracting the registrations of experts. The Coordinated launch activity – across REFRESH & DG Santé – worked well for maximum impact.

8 Life after REFRESH

In 2017 the REFRESH project and DG SANTE identified an opportunity to collaborate and use this site as a key knowledge sharing platform for the EU Platform on Food Losses and Food Waste (FLW). The EU and Member States are committed to meeting the [Sustainable Development Goals](#) (SDG), adopted in September 2015, including a target to halve per capita food waste at the retail and consumer level by 2030, and reduce food losses along the food production and supply chains.

The CoE was therefore developed in partnership with DG SANTE, with a longer term plan in place to transfer the hosting of the site to the EC once the REFRESH project ends in 2019.

This means the community and the resources will remain available and accessible – and provides a tangible output from the project that will serve as a point of focus for many years to come.

Further details about the EU Platform and its membership can be found [HERE](#).

9 Appendices

9.1 Appendix 1 – Brief for the CoE development

COMMUNITY OF EXPERTS

BRIEF

Project Background

REFRESH is an EU H2020 funded research project taking action against food waste. Twenty-six partners from 12 European countries and China are working towards the project's aim to contribute towards Sustainable Development Goal 12.3 of halving per capita food waste at the retail and consumer level and reducing food losses along production and supply chains, reducing waste management costs, and maximizing the value from un-avoidable food waste and packaging materials.

The overarching aim of the project is to demonstrate the potential for a pan-European Framework for Action (FA). The approach will first be tested in four EU countries [Germany, Hungary, Spain and The Netherlands] and then replicated in China which is where this work stream fits in. The agreement requires the development of a web-based platform, which will promote and support the wider replication of the FA approach.

The core objective of this work stream is to develop and maintain a web-based platform which will be both a repository for information, and an interactive space where users can interact, share and learn from their own experiences.

As suggested within the project 'Description of Actions', key elements of the platform should;

- Demonstrate the potential of cross-sector collaboration to prevent food & packaging waste;
- Enhance the innovation capacity of food chain actors; and
- Bring together a wide range of accessible on-line guidance, key insights and decision support tools in an integrated manner.

More information about the project REFRESH can be found via the website www.eu-refresh.org.

Objective of this work

The primary objective of this work is to create, maintain and responsively develop a secure online platform (Centre of Excellence - CoE) for hosting data, information and research outputs (e.g. blogs, tools, slide decks, visualisations) about food waste and food packaging waste from various sources, to include outputs from the REFRESH project which are published on the REFRESH website at eu-refresh.org.

In doing so the CoE shall:

- Effectively promote the knowledge and resources about food waste with all stakeholders;
- Foster discussion and knowledge sharing across sectors and geographies
- Further improve engagement with the sectors by providing a high quality tool, helping to maintain its profile as key contributor on the topic of food waste
- Provide a single point for knowledge and insight relating to food waste reduction across the supply chain
- Provide cost savings through efficiency of administration, maintenance and shared functionality

WRAP undertakes its digital creation projects through a series of defined stages. The objectives of work stage for each project are:

Stage	Summary
Project inception	Ensure that the project objectives and scope, specification, budget, timescale and quality parameters are agreed.
Discovery	Provide a comprehensive scoping of the user and technical requirements for the platform, incorporating engagement with key REFRESH stakeholders and WRAP staff (including programme teams, and digital design teams).
Design	Develop the full page designs for the platform which are appropriate to the audience and engaging to users.
Development	Implement the agreed outcomes of the Discovery and Design phases, in accordance with the requirements of WRAP's Technical Guidelines, to create a secure data management tool within an engaging and intuitive user experience.
Testing	Ensure the platform is fully operational, error-free, and meets the agreed specification, through a structured process of programmer and user acceptance testing.
Deployment	Migrate the platform from a testing to a live environment

This work will also require;

- **Maintenance:** to ensure the platform remains fully functional to the operational specification, and to provide responsive support to users
- **Project Management:** through all stages of work to ensure successful delivery to specification, time, budget and quality

Functional Requirements

WRAP wishes to appoint a single supplier to develop and maintain the CoE. The service provider will be required to provide a single web-based software platform which stores knowledge and resources focused on food waste reduction, enabling a wide audience to have access to this information. This functionality needs to be capable of allowing content to be uploaded by third parties in a way that preserves data integrity.

The following requirements are needed for the CoE:

Functional Requirement	Summary
Account management	User support and clear user permission hierarchy (e.g. administrator, user, viewer etc.).
User Interface	Easy to user interface (good, intuitive interface using current best practice UI principles) for both the front end user experience and the back end administrator experience
Discussion forum/blog functionality	The ability for users to post and respond to discussions on specific topics featured within the CoE.
Dynamic Content	Provision of a vehicle for uploading content (e.g. text, reports, graph, graphics, pdfs and other forms of visualisations etc.). This should include the possibility to tag or highlight pieces of important content to the user audience.
Searchable	Ability to search across the platform to find documents, and insights relevant to search criteria (e.g. key word search, tag search etc.).
Events	Ability to sign up to events highlighted on the platform.
Visualisations	Use of graphical and visualisation techniques to interpret and make the insights associated with the report outputs to be accessible to a wide audience. Specifically the development of a roadmap style visual which will be used to chart users' journey through the food waste management journey.
Responsive Design	The tool should be designed responsively so it works well on both desktop and mobile applications such as mobile phones and tablets.
Monitoring and evaluation	The ability to measure the CoE's performance (e.g. access rate, page loading time, bounce

	rate, document downloads, shares etc.) including the provision of statistics on platform usage;
Data Security	<ul style="list-style-type: none"> • The data/information should be stored in way that it is secure and protects it from interference, access, from unauthorised third parties; and • To ensure that WRAP has sufficient legal protection and, in particular, is protected from any data-related liabilities both now and in the future, in line with UK and European Data Protection Regulations.

The development process

The successful service provider will follow WRAP's digital development stages. These are broken down in more detail below;

Project inception

At the start of the project, attend an inception meeting at WRAP's offices in Banbury to confirm the project plan (e.g. objectives, scope, specification, budget, timescale, quality parameters, and risks identified) and other technical requirements.

Discovery

1. Agreeing with WRAP the scope and methodology for this stage. Including in particular:
 - Objectives/purpose of the platform
 - Key requirements and limitations
 - Identifying key stakeholders
2. Preparing for and undertaking stakeholder consultation, specifically on the CoE expectations from users. This may require a variety of formats as appropriate, such as 1-2-1 discussions, workshops, online surveys or user journey mapping etc.
3. Sharing the findings with WRAP and providing a full technical specification incorporating stakeholder feedback.
4. Developing wire frames/user journey for the operation of, and user journey through the platform.
5. Ensuring consideration of fundamental system aspects such as security and user authentication.

Specific additional REFRESH platform requirements are as follows:

- Consulting with the WRAP digital team, to fully understand requirements
- Consult with the REFRESH project team to understand their contributions to the CoE and on-going management needs for the platform

- Develop the platform architecture including the different pages/sections of the platform, databases of user data, administration functionality, and knowledge management framework
- Identifying common functional requirements that could be linked to existing industry developments or plugins

Design

1. Identify the relevant branding and non-functional design elements that need to be included.
2. Building the wire frames/user journey mock-ups from the discovery stage to create detailed full page designs for the platform. These should cover common elements such as user account screens, login screens (where appropriate), user upload interfaces, format of menus and dropdown lists etc.)
3. Consider the initial platform architecture for the knowledge management and database.
4. Ensure that the design is appropriate and engaging through consultation with WRAP and stakeholders on the proposed design options (it likely that options will be needed initially to move the process to the final design), collating and incorporating feedback.
5. Agree a final working design with WRAP. With a view that additional feedback should be expected during the testing stage, the feedback later on in the process should be minimal as the majority of feedback should be captured during the design stage.
6. The platform should be designed using a responsive approach where the user interface is able to be used on both tablets and desktops.

Specific additional REFRESH platform requirements are as follows:

- Some parts of the platform will not be visible to users only administrators, both the administrator and front end user journey should be as completely mapped as possible during the design stage making the administrator journey as simple and easy to use as the front end user journey
- The visual design of the platform should reflect REFRESH branding and provide clear visual clues to the content of the platform
- Please provide all visuals and designs as they would appear on both a laptop/desktop screen and a mobile device (e.g. mobile phone and or tablet)
- It is expected that WRAP digital team and REFRESH stakeholders are consulted during the design stage

Development

1. Undertaking agreed development work to create the platform (potentially in a phased approach depending on the features to be rolled out) as defined by the findings from the discovery stage, the agreed final working design from the design stage and in accordance with any other technical requirements.
2. Drafting and agreeing platform copy for each element of the design (WRAP have final sign-off).
3. Providing simple and clear documentation on how to use the first iteration of the platform.

Authentication

The platform will require a clear and simple user authentication hierarchy. This needs to ensure that it covers types of users and their associated permissions (e.g. what an admin has rights to, an authenticated user, an unauthenticated user etc).

Data Security

Ensuring security of all data collected by or housed within the platforms database is critical. The data must be protected from unauthorised processing, accidental loss or destruction, unauthorised access, disclosure or transfer, therefore database security and protection must be integral to the database and system design. The database/system design must demonstrate how it adheres to legal requirements.

- Risk register – what are the risks and how will they be mitigated?
- Multiple levels of security
- Ensuring correct SSL certificates are in place for the platform
- Unit testing or security scans to confirm security requirements
- Ensuring that the platform complies with current cookie laws

Testing

1. A staging server shall be provided to host the platform and any builds and for the purpose of testing before deployment.
2. Alpha and beta testing:
 - **Alpha testing:** Alpha testing will be conducted on a staging server by the appointed supplier and WRAP. The supplier will provide use cases to inform and direct the alpha testing. Amends to the platform may need to be made as a result of alpha testing to resolve issues identified and to reflect feedback from WRAP. If amends need to be amend a second alpha version of the platform should be released to WRAP for testing & approval. The site needs to be ready for external Alpha testing with key stakeholders for Easter 2017. During the project meetings WRAP and the subcontractor will define and confirm

which functionality will be included in Alpha testing.

- **Beta testing:** WRAP may wish to conduct a second phase of testing (beta) and invite specific REFRESH project stakeholders to provide their thoughts and feedback. This would follow a similar process as described in alpha testing. A beta testing phase will be agreed upon during the discovery stage and if agreed on will be the last round of feedback to be incorporated into the platform. When the feedback has been incorporated and changes made, WRAP will sign-off the tool for deployment to the live server.

Deployment

The platform will be deployed to a live server for users to access.

Maintenance

Propose and agree with WRAP a suitable Service Level Agreement (SLA) which covers off how the on-going support and maintenance of the platform will be administered (including the timings for actions such as bug fixing to be delivered). Maintenance tasks are likely to include but are not limited to:

1. Modifications or amends to the code base which covers:
 - i. Database fields, filters and reports;
 - ii. Internal and external user functionality;
 - iii. Data input/import and output/export functionality.
2. Design – minor modifications to styling, templates and visual elements
3. Data and reporting – running bespoke query reporting
4. User support – assisting the WRAP administrator users, and external user, with use of the Portal
5. Guidance – provision of technical guidance where necessary
6. Project support – liaison with third parties and attendance at meetings where required
7. Providing a responsive and helpful method for WRAP and users to raise queries and issues
8. Fixing bugs and system errors in line with the SLA agreement.
9. Maintaining a maintenance and development log in a shared space that can be accessed by specified members of the REFRESH team. The log should cover the following: issue, date, owner, actions, priority, time estimate and time spent.
10. Hosting: The tool may need to be hosted on WRAP's servers at the completion of the project, the development of the tool should allow for this. Additionally, it should be developed in a way which would enable WRAP to transfer the tool to other third parties or servers in the future if

necessary. Easy transition of the tool in future between different parties is highly important; please provide a description of this process as part of your submission.

General requirements

Using project management and team management techniques or tools to ensure the project delivers the stated requirements and objectives, within the agreed timescale and budget and to WRAP's satisfaction of quality.

- Implement and adhere to a rigorous quality assurance process
- Providing a project plan as part of the inception and discovery stages which can be updated and maintained throughout the lifecycle of the project
- Ensure on-going liaison with WRAP's Digital Team and project management team to ensure alignment with wider WRAP requirements
- Provide progress reports to the WRAP project manager on a monthly basis by email
- Provide a training manual/user guide for the administrator functions of the portal

Team Requirements

A structured project team of named individuals with appropriate skills, capability, experience and allocated appropriately to manage and deliver the work. The skills required are:

- Ability to understand aspects of food waste and the food waste hierarchy, and the context objectives and specific requirements of WRAP
- Experience of undertaking stakeholder consultation, engaging with companies, sector groups, and individuals
- Expertise in information architecture
- Strong design skills and capability
- Expertise in software development across a range of platforms
- Strong skills and experience in database design and handling complex data structures
- Responsive, friendly, professional and proactive approach to its relationship with customers

Timelines & Budget

Upon confirmation of project kick-off WRAP and the successful project team will work together to draw up a timeline for the successful delivery of key milestones. **Please provide an indicative delivery timeline as part of your brief response.**

*Please note there is a hard delivery deadline of Easter 2017 for external Alpha testing with external stakeholders.

– for alpha testing

The value of this work is indicated below:

£0-£5k	£0-£10k	£5k-£15k	£10k-£25k	£20k-£35k	£25k-£50k	£40k-£75k	£60k-£100k	£75k-£125k	£100k-£150k	£125k-£200k	£175k-£250k
				✓	✓						

As part of the overall costings for this project please also provide indicative costings for hosting and maintenance for the tool for a period of five years. This line item is outside the scope of the core budget.

Project deliverables

Outlined below is a summary of the key deliverables with this project:

- CoE platform complete with all approved functional requirements
- Ability to monitor and evaluate the performance of the platform, including statistics of site usage and engagement hotspots
- Thought leadership on future options for functionality and the use of the platform
- Training materials to support the use of the platform by different user level

How to respond to this brief

Please provide the following in your response to this brief:

- A description of your working methods and the methodology to be employed to deliver the work, including an outline programme of work showing tasks and timescales
- A description of the project team who will manage and deliver the work, including a list of individuals, their respective roles within the organisation and, for the purposes of this work their relevant skills and experience including any relevant professional qualifications
- Project timeline for all key deliverables and digital project phases
- No more than 10 x A4 sides at minimum 10pt font (excluding cover page, index, executive summary and appendices)
- A full breakdown of costs inclusive of VAT, to include the distinct elements of the work including the time allocated to each member of the project team for each element. Expenses should be identified separately and must be included as part of the total cost of the work.

Table 1: *Example* time/cost breakdown inclusive of VAT

Role:	Project Director	Project Manager	Senior Consultant	Consultant	Junior Consultant	Total days	Total cost (incl VAT)
Name:	Joe Bloggs	John Smith	Name	Name	Name		
Day rate (incl VAT):	£850	£720	£650	£520	£420		
<u>Project Management</u>							
Initiation meeting	1	1				2	£1,570
Monthly progress reports		4					£2,880
Quarterly meetings	4	4				8	£6,280
Develop delivery plan			3			3	£1,950
Discovery			5	2		7	£4,290
Design principles			4			4	£2,600
Design wireframes				4		4	£2,080
Development	2		10	10	15	37	£18,000
Testing			5			5	£3,250
Total days	6	9	27	16	15	73	
Total Fees (incl VAT)	£5,100	£6,480	£17,550	£8,320	£6,300		£43,750
Expenses incl. VAT							£850

9.2 Appendix 2 – Requirements Specification

Document author and versions

Author

Nigel Kelley

Project Manager

Nicola Robertson

Account Director

Versions

Version	Author	Date	Revision Details
0.1	Nigel Kelley	25 th January 2017	First draft
0.2	Nigel Kelley	3 rd February 2017	Second draft after internal review
1.0	Nigel Kelley/Nicola	3 rd February 2017	First draft for client review

Robertson

2.0	Nigel Kelley/Nicola Robertson	14 th February 2017	Second draft for client review
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3.0	Nigel Kelley/	16th February 2017	Third draft for client review
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Approval

Once this document is approved please return a signed copy with the details below completed.

Signed by a duly authorised representative for and on behalf of WRAP.

NAME:	Ffion Batcup	POSITION:	PROJECT MANAGER
DATE:	23/2/2017 14:45 PM GMT	SIGNATURE:	 03A9B718940B4E7...

N.B – This document captures the full requirements for the WRAP REFRESH project. However, according to budget restraints, some requirements may be removed from scope before the project is progressed to its production phase. The final list of features and functionality that will be delivered by the REFRESH project will be detailed in the Features Specification document that will be created at completion of this solution definition project phase.

Also, this document outlines a set of requirements as it applies to REFRESH. There are further requirements associated with the CMS that need to be taken into consideration for future project phases. These will also be detailed in the aforementioned Features Specification document.

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1. Introduction

This document is the output of the requirements gathering workshop on Wednesday 11th January 2017 where representatives from WRAP – Kate Bygrave, Ffion Batcup, David Rogers, Dan Neil and Jennifer Wilson – and from Equator – Nicola Robertson, Breda Doherty, Nigel Kelley and Paul Francis – spent a day working through the specific requirements that the Refresh website should deliver against.

It should be noted that these are WRAP's requirements but there may be technical, budget and time restraints to the delivery of some of these requirements, at which point prioritisation should be undertaken.

This document breaks down the Business Requirements into the following main areas:

1. Business objectives
2. Design & UX
3. Content/CMS
4. Resource Library
5. Technical

Each item in the table in section 3 describes WRAP's requirement for the REFRESH: CoE website and how Equator will work to meet them.

2. High Level Approach

The REFRESH: CoE project is broken into phases. The 1st phase, which is in progress now, is the solution definition phase. This phase completes with the delivery of a Features Specification document that describes what will be delivered in the production phase of the project. In order to complete this solution definition phase, a number of deliverables will be delivered to WRAP for sign off. The first is this requirements document; the next will be a set of wire frames and design concepts. Once these items are agreed, Equator will fully scope the project, compile the Features Specification and create a project plan for delivery of the final website through the production phase. A project plan for the Discovery Phase is delivered with the Requirements document which WRAP will need to confirm with Equator that the dates outlined for feedback loops are achievable from their side so Equator can update if required. A round of amends to this document has been factored into the plan but any additional feedback that is provided after this will delay progress of the discovery phase.

Throughout these project phases, it is useful to have sight of an overarching strategy. For this, Equator created specific Personas and User Journeys that were presented at the requirements gathering workshop. These help to focus thinking throughout the project specification and delivery on what type of people are using the site and their needs and goals. This ensures that, while meeting the business requirements detailed in section 3, the end product also never loses sight of what its users will need from the website.

2.1 . Personas

At the requirements gathering workshop, eight Personas were created:

- Multi-national Learner

- Multi-national Influencer
- Food Activists
- SME Learner
- SME Influencer
- Academic Learner
- Academic Influencer
- Policy makers

However, at the workshop it was established that only four of these personas should be focused on – New to Multi-national Learner, SME, Multi-national Influencer, Academic – as it was felt that these are the four personas most relevant to what WRAP want the Refresh website to achieve. The full details of each of the personas are available in the slide deck circulated following the workshop – this can be provided again if necessary. Images of the slides are provided in Appendix B. Below is the collated output from the workshop on each of these eight personas that will be referred to throughout the project to inform how Equator defines and delivers the new REFRESH: CoE website.

2.1.1. Multi-national Learner

The key call to action for this persona is to gain advice on what they could do to reduce waste.

The key journey on the REFRESH: CoE website for this user is a browsing journey and the needs that should be satisfied on this journey are:

- Easy to fill in form to allow registration
- Access to download resources

2.1.2. SME

The key call to action for this persona is to get information on what initiative would make sense for their business.

The key journey on the REFRESH: CoE website for this user is a browsing journey and the needs that this journey should satisfy are:

- Easy to fill in form to allow registration
- Access to download resources

2.1.3. Multi-national Influencer

The key call to action for this persona is to share information of the success they are having in reducing waste.

The key journey on the REFRESH: CoE website for this user is a browsing journey and the needs that should be satisfied on this journey are:

- Easy to fill in form to allow registration
- Share resources

2.1.4. Academic

The key call to action for this persona is to contact businesses and work with them to ensure the research they have carried out is utilized. They are very interested in enlarging their scientific outreach by including business relevant information in their research and would look for protocols and data.

The key journey on the REFRESH: CoE website for this user is a browsing journey and the needs that should be satisfied on this journey are:

□ Get feedback from businesses supporting their academic theory.

- Easy to fill in form to allow registration
- Share resources

2.2 User journeys

Most people visit a site with a clear goal in mind so we need to make the journey to achieve that (or a suitable alternative) as simple and easy as we can.

The design and development of this website will take all aspects of the key personas needs into consideration to make their journey and overall experience on the Refresh site as unambiguous and clear as possible.

3. Detailed Requirements

The following table collates the requirements for the design and build of the REFRESH: CoE website as Equator understand them. Each requirement contains a description of the requirement that the REFRESH: CoE website should deliver against and a high level outline of how Equator will ensure the requirement is met.

Each requirement has been given the following:

- ID Number
- Requirement Title
- Requirement Description • Priority (must have/nice to have)

Areas requiring further information are currently identified in square brackets [].

3.1.WRAP Requirements

The following table collates the requirements for the design and build of the REFRESH: CoE website as Equator understand them. Each requirement contains a description of the requirement that the REFRESH: CoE website should deliver against and a high level outline of how Equator will ensure the requirement is met.

In the absence of specified requirements by WRAP, Equator will progress with functionality they deem to fulfil key user / website objectives. This means any prescriptive or specific approaches required must be outlined by WRAP up front.

Any features or functionality that is added to the REFRESH: CoE project following the sign off of this document will be treated as a change request and subject to Equator's change control process.

4. Next steps

When you have had a chance to review this document we would advise a call to run through it and address any immediate questions you may have.

WRAP will have to collate their feedback on the document and feedback to Equator. Equator will then update the document with any required amends and send back to WRAP to sign off on.

After sign off on the document Equator will create a feature specification document and a project plan for development phase.

5. Contact details

Equator, 144 Elliot Street, Glasgow, G3 8EX

Nicola Robertson

Account Director

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6. Appendix

6.1. Personas

Multi-national (learner)

Characteristics / Context:

- Reputation and corporate responsibility big drivers
- Bottom line a priority
- Increasing consumer pressure for companies to engrain ethical and environmental sustainability into their products

Challenges:

- New ways of working
- Motivating staff

John, 41
Sustainability manager, Metro
Cash & Carry, Germany



"What are supermarkets in the UK doing to reduce waste"

Digital Goals:

- Get examples of what other companies have done
- Get a good overview of incorporating food waste prevention as part of the company's wider sustainability strategy

Gains:

- Customer satisfaction
- Improved efficiencies
- Good PR

6.1.1. Multi-national Learner

6.1.4. Academic

ACADEMIC

Characteristics / Context:

- Research has been completed supporting the idea that collaboration between business and academia can identify the most urgent research priorities
- Is keen to develop a more co-research approach between academia and business

Dr Anne Holloway, 34

Specialist in design thinking and food system innovation and impact, Cambridge University



"I want to work closely with business to ensure my research is utilised"

Digital Goals:

- Get feedback from business sector to establish if academic theory is applicable to business context
- Identify new sound research areas

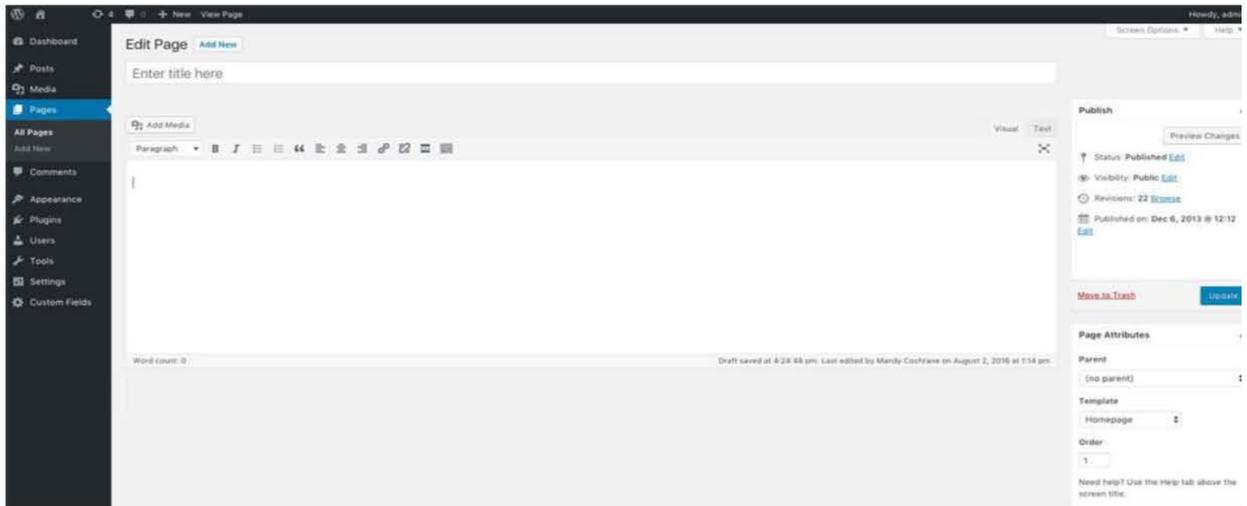
Challenges:

- Funding for research
- Balancing teaching time with research time
- Pressure to get published

Gains:

- Co-designed research that can help business ensure the sustainability of food across the life cycle

6.2. Wordpress screens



6.2.1. Rich text editing

Appendix 3 – Contractor proposal

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1. Introduction.

WRAP have approached Equator as their Digital Partner to create and maintain a secure online platform (Centre of Excellence - CoE) for hosting data, information and research outputs (e.g. blogs, tools, slide decks, visualisations) about food waste and food packaging waste from various sources.

In result, the CoE will achieve the following:

- Effectively promote the knowledge and resources about food waste with all stakeholders;

- Foster discussion and knowledge sharing across sectors and geographies

- Further improve engagement with the sectors by providing a high quality tool, helping to maintain its profile as key contributor on the topic of food waste

- Provide a single point for knowledge and insight relating to food waste reduction across the supply chain

- Provide cost savings through efficiency of administration, maintenance and shared functionality

Equator have detailed below our suggested approach to the development and design of this website, alongside investment and next steps.

2. Solution Overview

We have based we have based our ballpark estimate on the detail and key requirements outlined in the brief provided by WRAP. These are listed below (as provided by WRAP). WordPress has been selected as the most appropriate technology to build within. As per WRAP network requirements, it is a PHP technology. WordPress powers 26% of all live websites and with that much usage there is an enormous support network. This makes WordPress a more cost effective solution than Drupal, which was also considered. The familiarity and ease of use that WordPress offers end users also make it particularly appropriate for the nature of the REFRESH site. It is also a favourable technology in which to build 'community' based websites, which REFRESH will be.

2.1 Project Phases.

Phase 1: Discovery and Solution Definition

Equator believe that the more effort we invest in a project at the outset, the better the results will be. This is why we pride ourselves on our proven Discovery and Solution Definition methodology that has been refined to maximise project efficiency and quality. The reason the discovery and solution definition phase is crucial to the success of the project is that it is far more than just understanding WRAP's objectives as detailed in your brief. Moreover, it is concerned with understanding the needs of WRAP, your customers and the technical requirements that will fully define the solution.

The key stages of the **Discovery** and **Solution Definition** are:

- Requirements gathering
- Research and Strategy
- Design Principles
- Scoping

We approach each of these stages iteratively and as an inclusive process. The benefit of this approach ensures WRAP are fully engaged in each of the activities, accepting each stage's output before progressing to the next.

Requirements Gathering

Every project begins with Requirements Gathering. This workshop would involve engaging with the key stakeholders for the REFRESH site to fully define the requirements and to ensure we are carrying these through into the scoping and production phases.

Research and Strategy

Our next goal is to define the personas that the solution needs to cater for, what each of these personas' goals are and what user-stories are needed to accomplish those goals. The benefit of this approach for the customer is that the ultimate solution has a higher propensity of achieving its KPIs, if all the persona requirements are fully considered.

Design Principles

Investing in concept design at the outset allows a better idea of the structure and layout of our vision for the REFRESH site. The benefit of this approach is that it allows stakeholders to agree on a design direction before roll out.

Scoping

Scoping is the final activity in our proposed solution definition phase. It is at this stage that our project team work together to define the proposed solution architecture that will meet the objectives, including system elements, features and components. In the scoping session, the project team flesh out all the features and services that they will be developing and estimate the required time to deliver them.

Phase 2: Design and Development

Having completed a thorough Solution Definition process, we can now confidently begin the design and development phase of the project.

Roll out the Conceptual Design

This is where we continue to develop our conceptual design and the vision for look and feel for the website to key pages and templates from those developed for prototyping. WRAP will have sign off on this aspect before progression.

An Agile SCRUM Development Methodology

Equator's development approach is based on an Agile SCRUM methodology. A key feature of how an Agile development process works is its iterative approach. This process is based on SCRUM where the project is broken down into a series of effective sprints of two to three weeks' duration. Please see the diagram below for key stages in each sprint:

Each sprint focuses on the development of complete, tested and fully functional development features. These features are driven by the personas agreed during the scoping phase. By revealing the solution in increments it ensures that WRAP is able to optimise their requirements throughout development, thereby reducing the impact of change on costs and delivery timescales.

Phase 4: Deployment and Stabilisation

The days and weeks following the release of a new version of software, particularly an initial release, is a critical period for any project. Whilst a robust testing and development process can decrease the probability of defects remaining within the code it cannot guarantee bug free code.

It is important that users providing feedback are contacted and provided with a workaround and informed when a fix for their issue is likely to be available.

Categorisation and prioritisation of defects will depend on policy but should be defined and clearly communicated to the project team prior to the stabilisation period.

Phase 5: Maintenance

It has been suggested that once live, the website will not require any major updates for a period of time to allow it to stabilise, and for users to begin using the site. It is therefore suggested that instead of an initial monthly retainer, we use the agreed WRAP rate card for any ad-hoc requests for updates. This rate is £750 per day Inc. VAT.

3. Project Team

Throughout the project the following senior team members from Equator will oversee your solution.

- Nicola Robertson:** Account Director

- Patrick Bjorkman:** Creative Director

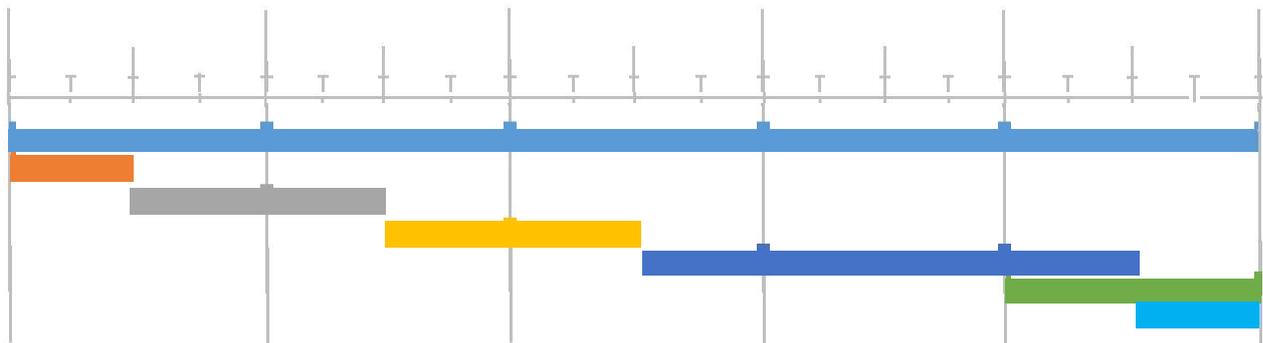
- David Petrie:** Development Director

Once scope of project is agreed Equator will form the full team for the project (namely project manager, lead designer and wider development team). The team will be formed based on the most relevant expertise.

4. Timescales

The estimated project delivery timescale is 5 months for complete project delivery. This may be refined when we come to the scoping element of Discovery.

Month 1 Month 2 Month 3 Month 4 Month 5



- Project Management
- Project Inception
- Discovery
- Design
- Development
- Training
- Testing

6. Assumptions and considerations

A few assumptions have been made when writing this proposal:

- The costs are based on the site being built in WordPress as documented in this proposal. If a change in CMS is requested then this will impact investment.

- Once this has been done, Equator could revise the investment if elements have been removed.

- Currently costs are high level at this initial stage. They will be fully detailed at the stage of scoping.

9.3 Appendix 4 – Stakeholder questionnaire

REFRESH: Community of Experts (CoE) Requirements Gathering.

Audience Questions - Please complete the below questions focused on the audiences for Refresh: Community of Experts (CoE)

- 1. Who are the audience groups that need to be engaged? Please list out the types of businesses this audience may belong to and provide examples of their specific role (s)?**

- 2. Why have these audience groups been identified as the most suitable audiences to be targeted?**

- 3. Can these audience groups be divided into primary and secondary audience groups?**

- 4. Are there particular challenges for each audience group that Refresh can help solve?**

- 5. What actions do we see users completing when they come to the Refresh site?**

9.4 Appendix 5 – Initial tagging structure

Sector / actors / places	Stages / operations / localisation	Measurement / transformations	Useful terminology / types of food	Type of resource	Institutions / programmes
Food services	Climate change	Baseline	Date marking	App	Committee of the Regions
Hospitality	Food consumption	Data	Diet	Article	European Economic and Social Committee
Households	Digital	Edible	Food hygiene	Award	European Commission
Logistics	Ecodesign	Evaluation	Food losses	Best practices or Good practices?	European Parliament
Manufacturing	Ecological	Methodology	Food safety	Book	Food and Agriculture Organisation
Primary production	Education	Inedible	Food use hierarchy	Case study	Good Samaritan legislation
Processing industry	Efficiency	Sewer	Food waste	Certification	OECD
Retail	Environment	Consumer attitude	Health and wellness	Coalition	Sustainable Development Goals
Wholesale	European	Consumer behaviour	Imperfect produce or imperfect fruits and vegetables?	Consumer education	SDG 12.3
	Financing	Consumer perception	Leftovers	Contest	United Nations
	Green	Economic impact or value?	Liability	Cooking tips	United Nations Environment Programme
	Hunger	Social impact	Liquid waste	CSR (Corporate Social Responsibility)	World Food Programme
	Infrastructure	Consumer awareness	Local food or Short supply chain?	Educational material	World Health Organization
	Innovation		Meal planning	Fact sheet	World Resources Institute
	International		Menu	Fiscal incentives	
	Local		Portion size	Framework agreement	
	Marketing		Produce ?	Guidelines	
	National		Product label	Infographic	
	Non profit		Shelf life	Interview	
	Nutrition		Shopping	Legislation	
	Organic		Spoilage		
	Packaging		Supply chain		
	Regional		Surplus food		
	Research				
	Resources				
	Rural				
	Supply chain				

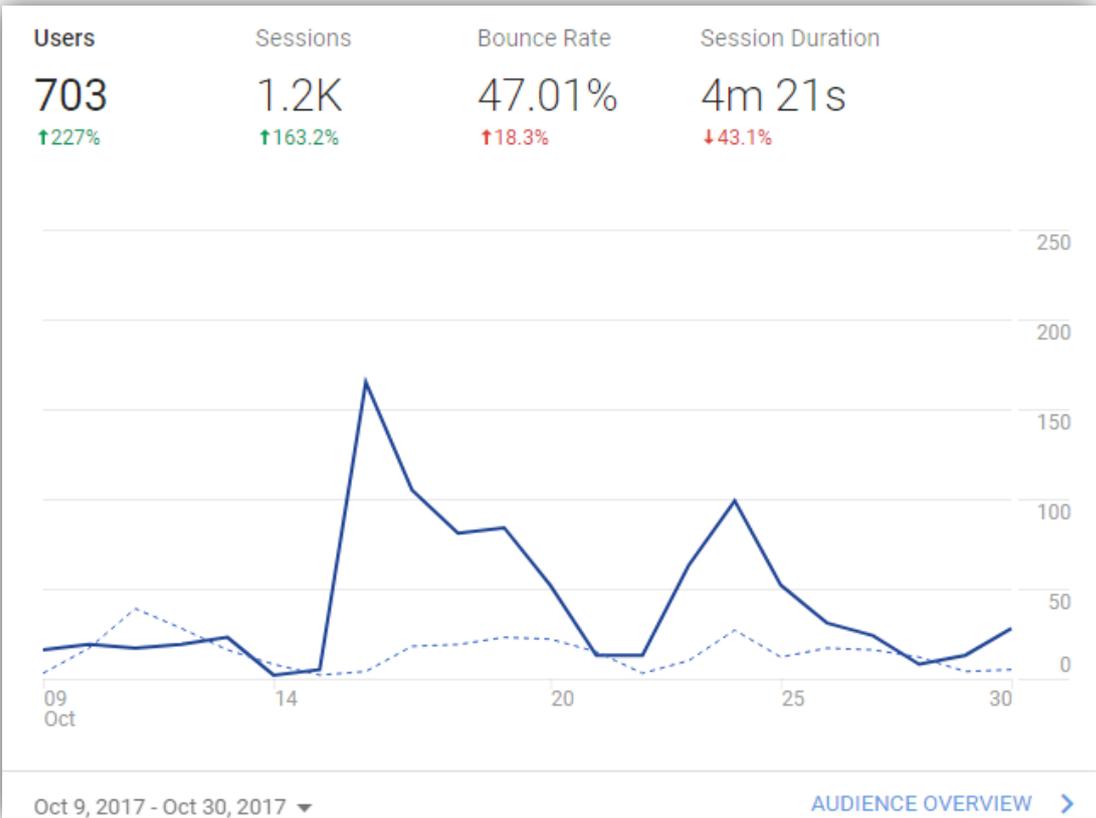
	management Sustainability Technology Urban Waste management		Waste	Pact Partnership Procurement Product Programme Project	
Academia Business Celebrity Charity organisation Chef Consumer Employee Environmental Organisation Expert Family Farmer Food bank Food business operator Food manufacturer Foundation Government Local authority NGO Processor Retailer Small and medium	Conservation Distribution Food donation Food processing Food redistribution Food waste prevention Food waste recycling Food waste reduction Harvesting Overproduction Refrigeration Storage Transportation	Anaerobic digestion Byproducts Composting Feed or animal feed? Gleaning Industrial use Landfill On-site processing Renewable energy	Baked goods Bread Cereals/grains Confectionery Convenience foods Dairy Dried foods Drink or beverage? Eggs Fast food Fats and oils Fish Food Fruits Legumes Meat Milk Nuts and seeds Pet food Sandwiches Seafood Vegetables	Public campaign/awareness campaign Public policy Public/private procurement Recipes Regulatory framework Report Roadmap School programme Service Social media Survey Tax Toolkit Training UTP (Unfair Trading Practices) Voluntary agreement Webinar Website	

enterprises					
Teacher					
Trade association					
Trader					
Volunteer					
Wholesaler					
Children					
Teens					
Students					
Adults					
Seniors					
Parents					
Canteen	Agriculture				
Catering	Energy				
Community	Trade				
Farm	Climate				
Garden	Fisheries				
Grocery store	Aquaculture				
Home					
Hospital					
Hotel					
Kitchen					
Restaurant					
School					
Supermarket					
University					

9.5 Appendix 6 – Website analytics

The following have been sourced from Google Analytics, focusing on the period 9th October – 30th October 2017 – highlighting the peak in activity following the launch on the 16th October.

Number of users



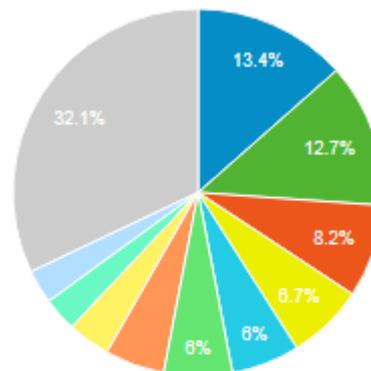
What pages do your users visit?

Page	Pageviews	Page Value
/	1,019	\$0.00
/resources/	481	\$0.00
/animal-feed-tool/	373	\$0.00
/members/	236	\$0.00
/members/bio/13/	228	\$0.00
/login/?redirect=http...freshcoe.eu/members/	210	\$0.00
/about/	150	\$0.00
/register/	142	\$0.00
/members/edit-profile/	103	\$0.00
/members/resource-share/	94	\$0.00

Oct 9, 2017 - Oct 30, 2017 ▾ [PAGES REPORT](#) >

User locations (top 10)

1.  Spain
2.  United Kingdom
3.  United States
4.  Italy
5.  Germany
6.  India
7.  Hungary
8.  Netherlands
9.  Belgium
10.  France



Overview of User behaviour

All Users
100.00% Pageviews

+ Add Segment

Oct 9, 2017 - Oct 30, 2017 ▾

Overview

Pageviews ▾ vs. Select a metric

Hourly Day Week Month

