

Cycling UK Mapping Project

Site development

Request for Proposal

January 2022



EUROPEAN UNION
European Regional Development Fund



EXPERIENCE

European Regional Development Fund

Contents

1	Introduction	2
1.1	Confidentiality clause	2
1.2	Intellectual property	2
1.3	Warning / disclaimers	2
2	Context and project requirements	4
2.1	Background to the client	4
2.2	Background to the project	5
2.3	Scope and requirements description (Full scope in Appendix 1)	6
3	Project timeline	9
4	People at Cycling UK	9
5	Criteria for selection of successful company	9
6	How to respond to this Request for Proposal	10
6.1	The Request for Proposal process and schedule	10
6.2	Format of response	11
6.3	Proposal	11
6.4	Governance and reference information	12
7	Appendix – Full Specification	14
7.1	Fully-functioned map tool	14
7.2	Listing-page maps	18
7.3	County page (ready to use)	20
7.4	'Near me' page (technical proof of concept)	22
7.5	Journey planner (simple as-is migration)	23
8	Appendix 2: Scoping Chart	24

1 Introduction

1.1 Confidentiality clause

The contents of this ITT together with all other information, materials, specifications or other documents provided by Cycling UK, or prepared by the tenderers specifically for Cycling UK, shall be treated at all times as confidential by the tenderers. Tenderers shall not disclose any such information, materials, specifications or other documents to any third parties or to any other part of the tenderers' group or use them for any purpose other than for the preparation and submission of a response to this ITT nor shall tenderers publicise Cycling UK's name or the tender without the prior written consent of Cycling UK. Cycling UK in turn confirms that it shall treat all information provided to it by the tenderer as confidential and further confirms that such information will not be disclosed by Cycling UK to any third parties, other than to (i) members of Cycling UK committees and (ii) advisers and consultants to Cycling UK.

Tenderers shall ensure that all third parties to whom disclosure is made shall keep any such information, materials, specifications or other documents confidential and not disclose them to any other third party except as set out above.

Tenderers must seek the approval of Cycling UK before providing to third parties any information provided in confidence by Cycling UK or its professional advisers and must maintain a register of all employees and third parties who have or have had access to such information. If so requested by Cycling UK, tenderers must make such a register available for immediate inspection by Cycling UK or its duly authorised representatives. The sharing of this information with any third party sub-contractor is also bound by the provisions.

1.2 Intellectual property

All intellectual property rights in this ITT and all materials provided by Cycling UK or its professional advisers in connection with this ITT are and shall remain the property of Cycling UK or its direct or indirect (licensing through an intermediary) licensors.

1.3 Warning / disclaimers

Nothing contained in this ITT or any other communication made between Cycling UK or its representatives and any party or part thereof shall constitute an agreement, contract or representation between Cycling UK and any other party (except for a formal award of contract made in writing by Cycling UK). Receipt by the tenderer of this ITT does not imply the existence of a contract or commitment by or with Cycling UK for any purpose and tenderers should note that this ITT may not result in the award of any business.

Cycling UK reserves the right to change any aspect of, or cease, the tender process at any time.

The information contained in this ITT is subject to constant updating and amendment in the future and is necessarily selective. It does not purport to contain all of the information which a tenderer may require. While Cycling UK has taken all reasonable steps to ensure, as at the date of this document, that the facts which are contained in this ITT are true and accurate in all material respects, Cycling UK does not make any representation or warranty as to the accuracy or completeness or otherwise of this ITT, or the reasonableness of any assumptions on which this document may be based. All information supplied by Cycling UK to the tenderers, including that contained in this ITT, is subject to the Supplier's own due

diligence. Cycling UK accepts no liability to tenderers whatsoever and however arising and whether resulting from the use of this ITT, or any omissions from or deficiencies in this document.

Cycling UK may exclude any tenderers from the tender process who have been found to be in breach of confidentiality or intellectual property rights and may pursue any remedy or take any other action for breach as it considers appropriate.

Cycling UK shall have the right, at its request, to require unsuccessful respondents immediately to return or destroy all documents and other materials and working papers relating to this project and all copies thereof and to destroy all electronic copies. The respondent shall, at Cycling UK's request, be required to confirm in writing that all such information has been returned or destroyed.

Cycling UK may use the information included in a tenderer's response for any reasonable purpose connected with this ITT. In particular, once a tenderer has been excluded, Cycling UK reserves the right to use any ideas contained in that tenderer's bid in any ongoing discussions with other tenderers but undertakes not to reveal the identity of the provider of such ideas.

Respondents should note that any quantities or volumes contained in this ITT are indicative only and any future quantities or volumes may vary from those stated.

It is the responsibility of suppliers to obtain for themselves, at their own expense all additional information necessary for the preparation of their response to this ITT. No claims of insufficient knowledge will be entertained.

Any supplier who directly or indirectly canvasses any employee of Cycling UK, whether they work for the representational arm of Cycling UK, or any member of their respective committees or working parties concerning the award of the contract will be disqualified.

All suppliers are recommended to seek their own financial and legal advice.

2 Context and project requirements

2.1 Background to the client

In 1878 the Bicycle Touring Club was founded in Harrogate and in 1887 incorporated (company limited by guarantee) as the Cyclists Touring Club Limited (CTC). Originally set up as a membership organisation, encouraging people to cycle and championing road safety we have fought and advocated for cyclists' rights for over 140 years. Between 2011 and 2012 we became a charity in England, Wales and Scotland delivering behaviour change programmes and continuing campaigning work for safer roads and safer cycling. In April 2016 we re-branded as Cycling UK. Although operating as Cycling UK the legal entity remains Cyclists Touring Club. We currently have around 71,000 members and 6,000 volunteers with a diverse range of stakeholders including activists, educators, employers, community groups and the wider cycling community to connect, equip and facilitate the cycling movement.

This is operationally delivered by around 125 staff based across the country and from our Headquarters located in Guildford.

We are part way through delivery of a 5-year strategy which has a mission to enable millions of people to cycle and in 2021 published an update to this strategy which refocused our priorities to the end of 2023/24. The last year and a half have seen huge changes in society and in the cycling landscape and as a result it felt appropriate to ensure we have clarity on our strategic objectives.

The 'what' – the core goal – remains the same: to get millions more people cycling.

As to why: cycling is now even more relevant in a post-pandemic world.

The 5-year strategy will therefore become more focussed as we build on the successes of our campaigning and behaviour change programmes with the refreshed strategy focussing on four priorities.

- we'll enable cycling for all;
- we'll speak for all who cycle;
- we'll strengthen our organisation; and
- we'll build sustainable membership.

The [strategy](#) is intended to support and further the delivery of our charitable objects which are to:

- promote community participation in healthy recreation by promoting the amateur sport of cycling, cycle touring and associated amateur sports;
- preserve and protect the health and safety of the public by encouraging and facilitating cycling and the safety of cyclists;
- advance education by whatever means the trustees think fit, including the provision of cycling, training and educational activities related to cycling; and
- promote the conservation and protection of the environment.

Cycling UK's digital presence is primarily through their website, <https://www.cyclinguk.org/> which is a Drupal 7 based site which is developed and updated in-house. Currently the organisation is undergoing a digital transformation which will include an upgrade to Drupal 9 on the main website.

2.2 Background to the project

2.2.1 Where the mapping project fits in

- Cycling UK is one of 14 partners collaborating on EXPERIENCE, a four-year experiential tourism project across six pilot regions in England and France. Experiential tourism connects visitors with the essence of a place and its community, and map-based functionality is key to this. More information can be found at www.cyclinguk.org/experience
- Cycling UK uses maps on its website to show the location of cycling-related resources and events from its own database; and to show the routes of recommended bike rides. It currently also uses a separate mapping tool to enable users to plan bike journeys.

2.2.2 Current functional needs

- Cycling UK is moving its website including the EXPERIENCE pages to Drupal 9 from Drupal 7. It wants to use this opportunity to improve the way it uses mapping for the EXPERIENCE project
- In future phases, Cycling UK and EXPERIENCE are open to the possibility of providing map-based services to users in ways other than via its website, eg via apps.

2.2.3 Business needs

- For more cyclists to identify Cycling UK and EXPERIENCE as a valuable resource for cycling information in Kent, Cornwall and Norfolk.
- To improve users' cycling experience through EXPERIENCE and Cycling UK's map-based content
- To make Cycling UK's routes and events and also campaigns, groups etc more successful by making them more findable via its mapping tools, particularly in the EXPERIENCE regions of Kent Cornwall and Norfolk.
- To show users more relevant content (eg EXPERIENCE events) via geolocation
- To explore how to create a better nationwide database of local cycling resources, eg by user-generated submissions

2.3 Scope and requirements description (Full scope in Appendix 1)

2.3.1 Fundamental requirements:

We require a Drupal 9 experienced web agency or developer, who can provide:

- A headless React-based SPA (single page application)
- React Leaflet experience and knowledge (or equivalent such as Mapbox GL JS)
- Drupal CMS API endpoint experience
- Experience and knowledge of OS maps, OpenStreetMap or OpenCycleMap for imagery
- Experience in API integrations
- The work must achieve WCAG2.1AA access standards.
- The solution must be fully responsive to fit within a custom bootstrap theme created by Cycling UK.
- The solution must give consideration to working as well as possible on devices with slow data connections eg 3G
- The solution should be built on standard secure frameworks that can be maintained in the future by Cycling UK

2.3.2 Project scope:

- Design, build and user test a set of map templates that will show entities as pins and route lines taken from the Cycling UK database. This will include search and filter functionality and the ability to only return results from a predetermined area (eg a county).
- Create a configurable 'lite' version of the map that editors can insert into other pages.
- Also design, build and user test the back-end process and the front-end UI for displaying news and campaigns articles that relate to a particular county or radius from postcode
- Migrate a third-party route-planning tool from Drupal 7 to Drupal 9.

2.3.3 Summary of specification:

The specification is based around five key steps, each with clear deliverables.

2.3.3.1 Fully-functioned map tool

- **Searchable & filterable maps** for points of interest, routes, events, and groups, probably using a headless React-based SPA (single page application):
 - This will be at the core of EXPERIENCE and will be able to be used elsewhere on the Cycling UK site.
 - The data will come from Cycling UK's database and possibly partner APIs
 - The search & filter pages should allow results to be seen in a map view and list view
 - We will want the option of combining some content types together on one map, especially points of interest and routes.
 - The maps will need to be used in different places, including in articles, and configured by editors and admins.

- Deliverables:
 - Fully working maps for POIs, Routes, Events, Groups, integrated with Cycling UK's database, with full search & filter and list-view functionality
 - Provided on demo landing pages. Set up a new content type to enable Cycling UK to create new pages with custom layers, title, teaser, thumbnail image.
 - With the question resolved of whether the fully functional version can be used when embedded in a page, or whether it needs to be shown in a standalone map view
 - Demo editorial pages with manually configured maps in them, and configuration tools
 - Provide design and build; collaborate on user testing

2.3.3.2 Listing-pages map

- **Cut-down version(s) of the main map app for use on listings details pages**, eg to show the location of a specific café or route
- Deliverables:
 - A fully working map function that could be automatically and manually populated
 - Demo pages for the following:
 - Simple listing page, dynamically populated with small map and pin showing location of the listing item (eg a café)
 - Route listing page, dynamically populated with the route line and with POIs filtering
 - The supplier would NOT be expected to design the full page, just the map part

2.3.3.3 County page

- **Dynamically populated pages for UK counties**, starting with the three EXPERIENCE counties of Kent, Cornwall and Norfolk. They would show routes, events, groups and POIs on a map (as described in 2.3.3.1) and also listing news articles relevant to the county. We need to retain and ideally improve SEO.
- These should not use manual tagging to associate content with counties
- This would involve design and user testing, and SEO
- Deliverables
 - Fully designed and working county pages for Kent, Cornwall and Norfolk that auto-update as geographically-relevant content is added to the CMS.

2.3.3.4 'Near me' page (technical proof of concept)

- This returns geolocated article content and map content by **radius from a point**, rather than county.
- If possible, allow **user-defined polygons** as well as radius
- This could initially be used for EXPERIENCE 'hub towns'. In future it could potentially be used to create local landing pages for users.

- It should also demonstrate how to identify **which local authority/ies the point or postcode is associated with, and how to return content that relates to those local authorities.**
- Deliverables
 - A rough demo page – maybe a version of the County page – that asks for a postcode and returns content that falls within a particular radius of a that point (eg within 10 miles)
 - If possible, an additional version of the page that allows the user to create their own polygon on a map and returns content that falls within the polygon
 - Using limited sample data that Cycling UK would provide, the page should also show which local authority/ies the point or postcode is associated with, and return some article content from the CMS that relates to those local authorities.

2.3.3.5 Journey planner (simple as-is migration)

- A **migration of an existing journey planner** from Cycling UK's Drupal 7 environment to its Drupal 9 environment
- The journey planner can be found at <https://www.cyclinguk.org/journey-planner> and is provided through an API by <https://www.cyclestreets.net/api/>
- If it transpires that there are now easier or more effective ways to offer the service than to use the API, Cycling UK would consider that.
- Deliverables
 - As-is migration
 - If there are easy UX wins to be made during the setup then we would do that; otherwise UX improvements would be made in a separate future project.

2.3.4 Measures of success, hosting and maintenance, budget

- The successful delivery of the project will be measured by:
 - Positive UX feedback about the map design, functionality and county pages
 - Successful auto-population of the EXPERIENCE county pages
 - Increased user engagement with routes, content, news and campaigns in the EXPERIENCE counties
 - Stronger SEO on the EXPERIENCE pages
 - Simple, efficient back-end controls for editors to use
- Hosting, maintenance and marketing will be covered elsewhere so should not be included.
- The **maximum** budget allocated for this phase of work contained in this RFP is £80,000.

3 Project timeline

The project should begin no later than March 1, 2022 with delivery before September 14, 2022. Detailed timeline to be agreed with the successful agency; **the project should be delivered in phases** between around June and September

4 People at Cycling UK

Cycling UK will give you a project manager as your day-to-day point of contact for this project. Our Drupal developers will be able to help with access to the Acquia environment, theming, and integration into the main website. Our editors and comms team will be able to input into content and we will ensure that data is clean. We should also be able to provide some access to our audience for user testing.

We need clear communication and collaboration, with clear signoff processes, particularly in the discovery and design phase. Delivery should be made in regular, testable stages. Where possible, we would like you to explain your work to our developers, laying the foundations for them to maintain the new systems. We would like some training for staff as appropriate.

5 Criteria for selection of successful company

Responses to this brief will be scored 0-4 on the following criteria:

- Experience of working with React and React Leaflet, if used
- Experience of working with online mapping solutions
- Drupal 9 capability and other relevant background
- Quality of outline, key techniques and methodologies
- Quality of project management plans
- Cost/value for money
- Governance documents and quality of references
- An understanding of the issues affecting the not-for-profit sector
- Engagement meetings

6 How to respond to this Request for Proposal

6.1 The Request for Proposal process and schedule

Cycling UK is happy to answer questions and/or provide clarification to interested suppliers prior to submission of proposals, and actively encourages such dialogue.

Please contact Sean Fishpool (Digital Product Owner) sean.fishpool@cyclingsuk.org, referring to the dates provided below regarding availability for a discussion, as well as directing any other questions to them by email in the first instance.

- Following an initial review of submitted proposals a shortlist of suppliers will be selected to go forward in the process.
- The shortlisted suppliers will be invited to engagement meetings to meet (some or all of) the client project team. This meeting is your chance to present your proposal, to meet the individuals involved in the process, to ask any questions you have, to verify anything you've picked up from this brief
- A revision of your proposal or additional documentation can be submitted prior to the final decision if you choose to.

Please note also that once Cycling UK has reviewed the proposal documents submitted and the presentations/demonstrations have taken place, it intends to select a preferred supplier.

Cycling UK aims to confirm its selection of the preferred supplier/solution and to notify them of their plans to commence the project shortly after.

The dates relating to this RFP are shown below.

Date	Details	Relevant Notes
11 January 2022	RFP advertised on website	
21 January 2022	Deadline for Confirmation of Interest	Send confirmation of interest by email to Sean Fishpool sean.fishpool@cyclingsuk.org
28 January 2022	Deadline for clarification questions	
1 February 2022	Deadline for written responses (to be received electronically)	Refer to section 6.2 for details of what to submit. Please send this information by email to Sean Fishpool sean.fishpool@cyclingsuk.org
2-3 February 2022	Internal review and shortlisting	

4-9 February 2022	Engagement meetings with Project Team	45 minutes, including presentation
10 February 2022	Deadline for shortlisted suppliers for submission of: <ul style="list-style-type: none"> • Governance Information • Reference Information • Revised Proposal • Additional documentation 	Refer to section 5.4 for details. Please send this information by email to Sean Fishpool sean.fishpool@cyclingsuk.org
11 February 2022	Internal review	To review written responses, references, governance info, feedback from meetings.
11 February 2022	Final appointment	
By March 1	Kick-off meeting	

6.2 Format of response

All responses to the RFP should be made in electronic format only, no hard copies are required.

Cycling UK would like the following information from prospective suppliers:

6.3 Proposal

1. An outline of the proposed approach including a description of the key techniques and methodologies to be applied
2. A breakdown of the project deliverables and their content
3. An outline project plan with phases, review points, milestones and timescales for the project
4. Details of the delivery team, their background and where and how they will be involved
5. An overview of your initial assumptions and risks (with mitigations)
6. Full costs including:
 - a. Professional Services broken down by phase and their associated costs
 - b. Details of which costs are required, and which may be optional
 - c. Costs for any third-party products or services
 - d. Any expense and travel costs

- e. Separate costings for each of the five steps of the project, based on the assumption that they will be built in sequence.
7. Dependencies, including estimated involvement of Cycling UK staff and stakeholders
8. Validity period. State for how long the quotation is valid.

6.4 Governance and reference information

Where the proposal is shortlisted, suppliers are required to submit governance pack and details of reference clients whom Cycling UK can contact directly, in line with the tender process schedule.

The **governance pack** must include:

1. Company profile, brief history and organisational structure
2. An up-to-date copy of your company organogram
3. A sample contract or standard terms & conditions of business
4. A sample payment schedule for a project of this nature to show whether payments are based on milestones, time periods etc., together with a clear statement of payment terms
5. The past three years of filed company accounts
6. Detail of organisation business growth: previous two years and projected two years
7. A copy of your GDPR, Data Protection and Information Security policies
8. A copy of your Equality and Diversity Policy

With respect to **reference clients**, these are of specific interest to Cycling UK and will play an important part in their decision-making. They should be organisations you have carried out similar projects for, whom you feel will reflect the approach and strengths of the proposition you can offer Cycling UK.

- Cycling UK is particularly interested in references from membership and charitable organisations of similar size, scale and complexity.
- Please provide at least three references:
 - 1 At least one reference client should have completed a project within the past 3 – 6 months if possible
 - 2 At least one reference client should have completed a project less than 18 months ago if possible
- For each reference provided, please indicate what has been delivered, and why this is relevant to Cycling UK.

Two or more references will be taken up for all companies shortlisted, prior to the final presentation.

Please provide full contact details of individuals at each organisation, who can be contacted directly by Cycling UK:

- Name, Job title, email address and the role they played in the project you delivered.



EUROPEAN UNION
European Regional Development Fund



EXPERIENCE
European Regional Development Fund

7 Appendix – Full Specification

- The specification is based around five key steps, each with clear deliverables.
- Broadly, we want a map tool to show items as pins and routes as lines, either “near” the user or within an area boundary. We want users to be able to search and filter these things. We want to also show some items in list view (particularly events and routes).
- Sometimes the map will need to have all of its search and filter functions available (eg on the main landing pages for events or places). Sometimes it may only need to be a cut down version (eg on a page listing an individual item). The maps should be editorially controlled by Cycling UK staff members without technical knowledge.
- We have outlined our current thoughts below but are open to alternative solutions if they would provide a better user experience.

7.1 Fully-functioned map tool

7.1.1 Summary:

- This step is to create the main map tool that will be the foundation for all the maps on the EXPERIENCE pages, and which can be used elsewhere on the site.
- Create searchable & filterable maps for each of the following content types in our current database, probably using a headless React-based SPA (single page application):
 - Points of interest (‘POIs’: accommodation, places to eat, shops, attractions)
 - Routes
 - Events
 - Groups
- Users should have the option of seeing events and routes in a sortable list view as well as a map view.
- The filters will be specific to the content type(s) that are being shown at a given time – eg one set of filters for events, one set of filters for routes
- Routes should be able to be shown on a map at the same time as POIs (eg to show which cafes are near a route).
 - We would probably like the flexibility to combine other content types (with filters) on the map at the same time in the future as well. For example, showcasing everything that is available within a small area at once (see section 7.4, ‘Near me’ page)
- The maps will need to be used in different places and configured by editors and admins:

- Main landing pages for the different content types - eg all Events, Routes, Groups, Places (POIs)
- Editorial article pages (eg to show the location of a few points - see 'configuration' below)
- Ad-hoc pages, eg for promotions
- Editors and site admins should be able to configure the maps that they embed into pages (eg initial location and zoom level; type of content; preselected filters; whether search and filter tools are displayed).

7.1.2 Deliverables:

- Fully working maps for POIs, Routes, Events, Groups, integrated with Cycling UK's database, with full search & filter and list-view functionality
- Provided on demo landing pages. Set up a new content type to enable Cycling UK to create new pages with custom layers, title, teaser, thumbnail image.
- With the question resolved of whether the fully functional version can be used when embedded in a page, or whether it needs to be shown in a standalone map view (see 7.1.4, below)
- Demo editorial pages with manually configured maps in them, including:
 - Map showing multiple hand-picked pins
 - Map showing pins from a simple query (eg all events in October)
 - Map showing route lines from a simple query (eg all off-road routes)
- Provide design and build; collaborate on user testing

7.1.3 Technical considerations

- Cycling UK's preference is for a headless React-based SPA (single page application) custom development solution, which would allow for a layered application of the map & map UI. But we are open to other technical suggestions if they offer equal flexibility.
- By leveraging React Leaflet (or equivalent) as a base mapping framework, this allows for map imagery and iconography to be open/flexible to further business scope. This solution would also allow for greater gains for UX as it would take the UI control out of Drupal CMS.
- To facilitate this Cycling UK anticipates the creation of a Drupal CMS API endpoint to pull all data, then all further functionality should run through the React solution.
 - The solution needs to be scalable to over 50k points and still be efficient on mobile devices. Thought needs to be given to use in areas with poor mobile reception
- Cycling UK editorial management
 - Titles and editorial content on all the maps pages in this project should be editable within Drupal, and not require admins to access React code
 - The same for the configuration of maps – eg which content types they show, whether they show filters or are pre filtered, and the initial location and zoom level.

- Configuration settings would include
 - Type of content to display (eg routes, groups, events, POIs), where one or more can be selected
 - Preselected filters – the staff member could further filter what is shown by preselecting relevant filters or keywords
 - The ability to hand-pick individual entities, eg a small number of POIs
 - Default view – the staff member could select the standalone map or embedded map view as the default view, the user could toggle to the alternative view if required
 - Initial zoom
- The application will need to work within the current Acquia Cloud Platform Standard hosting environment.
- Content would continue to be managed in Drupal (i.e. POI classification, routes etc) – no external work necessary as part of this project

7.1.4 Front-end functionality

- We envisage two views that can be toggled by the user (though we are open to alternative or hybrid approaches):
 - Standalone map view
 - The map would fill (or is constrained by) the viewable area
 - Work on desktop and mobile
 - Minimal header and footer
 - Postcode zoom function
 - Relevant filters
 - Embedded map
 - The map would be within the standard theme
 - It would need to work on desktop and mobile (special attention would be required on page scrolling and in map zooming)
 - Postcode zoom function
 - Option for editors/admins to turn off relevant filters to simplify page
- Mapping
 - We expect to use either OS maps or OpenStreetMap for imagery, possibly with the flexibility to let the user switch between maps, or in future to provide OS maps as a subscriber-only option

- Search
 - The search box would accept postcode, place name or entity name, and search automatically across all three, for whatever content type(s) the current map is configured to show
 - It would be useful to consider the feasibility of integrating maps results into the main site search - in a future project if necessary.
 - Consideration should be given to what comes out of the box with Drupal9, how it would work with Acquia, and how it might work with a React app
 - Consideration should be given to when the map should make use of the user's location

- Filtering
 - Filters would be specific to the content type(s) being shown. Examples might include the following:
 - Events: Date, Distance, Event type
 - Routes: Distance, bike type, difficulty
 - Groups: Ride types, paces
 - POIs: on/off toggles for cafes, shops, accommodation, attractions

- Display of results
 - Map view
 - Routes should be shown as lines on the route, with a differentiated start and endpoint icon.
 - A solution is needed to clearly display multiple overlapping routes
 - Routes should be able to be shown on a map at the same time as POIs (eg to show which cafes are near a route).
 - We would probably like the flexibility to combine other content types (with filters) on the map at the same time in the future as well. For example, showcasing everything that is available within a small area at once (see section 7.4, 'Near me' page)

 - All other entities should be shown as a pin, with an icon showing the entity type or entity subcategories in the case of POI
 - A solution is needed for when an entity belongs to multiple types, eg a bike shop that is also a café

 - As the user drags or zooms the map to a new area, pins and routes should automatically refresh

- List view
 - Users should have the option of seeing events and routes in a sortable list view as well as a map view. We are not sure if other content types (eg POIs) should be available in some kind of list view too (eg as on Google Maps)
 - Note the future question of needing to deal with results from within a boundary (eg a county) – see ‘County page’ requirements in section 7.3 below
 - Note the future question of geo-locating some articles onto a map, which would have a bearing on list view – see ‘County page’ requirements in section 7.3 below
- Sorting
 - A solution is needed around how/when to enable users to sort results in a list view. Eg events by date, distance, type, or other items by distance from postcode. Sorting will be relevant to some content types and irrelevant to others, and made more complex if there are multiple content types in the results (eg routes and cafes)

7.2 Listing-page maps

7.2.1 Summary

- Cut-down version(s) of the main map app for use on listings details pages, eg to show the location of a specific café or route
- Some processing of GPX route files

7.2.2 Deliverables

- Demo pages for the following:
 - Simple listing-item page, dynamically populated with small map and pin showing location of the listing item (eg a café)
 - Route listing page, dynamically populated with the route line and with POIs filtering
 - The route page should automatically display an elevation profile of the route.
 - This may require reprocessing GPX files when they are uploaded into the database, which should be allowed for in this project build.
 - We would be interested to explore what other information can be obtained about a GPX route via APIs, eg the surfaces it traverses (road, singletrack etc)
- The supplier would NOT be expected to design the full page, just the map part (and the elevation profile for routes)

7.2.3 **Technical considerations**

- Maps would need to be dynamically populated with the relevant pin(s) or route line(s) on listings-details pages

7.2.4 **Front-end functionality**

- Route maps would be shown with POIs filters
 - Ideally the user would have the option of showing POIs that are only near the route (as on cycle.travel)

7.2.5 **Back-end functionality**

- No specific back-end considerations at this stage

7.3 County page (ready to use)

7.3.1 Summary

- Cycling UK currently has a manually curated page for each UK county, with attracts strong search traffic. The pages contain an editorial introduction, plus lists of cycling groups and routes.
- Starting with the three EXPERIENCE counties of Kent, Cornwall and Norfolk, we would like to replace these with **dynamically populated pages, showing routes, events, groups and POIs on a map (as described above) and also listing news and campaigns articles relevant to the county**. We need to retain and ideally improve SEO.
- Cycling UK doesn't want to use manual tagging to associate content with counties
- A similar template would be used for 'nation pages' (Scotland, Northern Ireland, Wales) but these do not need to be built as part of this ITT
- This would involve design and user testing, and SEO

7.3.2 Deliverables

- Fully designed and working county pages for Kent, Cornwall and Norfolk that demonstrably auto-updates as geographically-relevant content is added to the CMS
- Content should include at least:
 - Map and list showing routes, POIs, groups, events
 - News, campaigns
 - Custom text section

7.3.3 Technical considerations

- The main challenges here are to find technically efficient and UX-friendly ways to show county items both on a map and in a listing.
- The map may not be so complicated: Cycling UK's current thinking is perhaps to show pins and routes across the whole viewport, to make things technically simpler, and to display a simple county boundary within the viewport
- The list seems more of a challenge. Cycling UK's current thinking is that the list should only show items from within the county, which would (a) mean the list needed to be precisely calculated, unlike the map, and (b) items outside the county would appear on the map but not on the list, which could be a UX problem
- Geolocation using polygons vs autotagging.
 - Cycling UK's expectation is that geolocation of items within boundaries will likely be solved using either polygons or autotagging, but is interested in other recommendations. Autotagging has the advantage of one-time processing (eg when a new item is added to the database, a one-time calculation determines which county it falls within, and it is automatically tagged with that county ID). However it is not so flexible as on-the-fly polygon calculations eg if extra boundaries were added (eg local-authority boundaries), or if users were allowed to create their own polygons to show localised information.

- The question of how content is geolocated also relates to the 'near me' page (section 4 in this document)

7.3.4 Front-end design and functionality

- Apart from the map and list functionality, one challenge in the county page design will be to curate and editorialise content in a way that preserves or improves the existing SEO, and draws the reader in. Also, working out how to organise a potentially large amount of content will be important.
- Cycling UK imagines that the page may contain:
 - A main map, as per section 2 above
 - Short overview of cycling in the county
 - 'Top 3's' based on map content, eg
 - Top cycle routes in Kent
 - Biggest cycle groups in Kent
 - Best cycling cafes in Kent
 - Best cyclists' accommodation in Kent
 - Next cycling events in Kent
 - ... with a 'see all' in each case
 - Latest news and campaigns articles
 - TBC how content would be drawn out, eg flagging content as "sticky" or "promoted", and/or using a "most popular" calculation?

7.3.5 Back-end functionality

- Editors would sometimes need a way of associating content with a whole county, not just a single location point

7.4 'Near me' page (technical proof of concept)

7.4.1 Summary

- This takes the geolocated news and campaigns content from point 3 and returns it by **radius from a point**, rather than county. It also returns events by radius (and could be used to return groups, routes, POIs)
- This could initially be used for EXPERIENCE 'hub towns'. In future it could potentially be used to create local landing pages for users.
- If possible, allow **user-defined polygons** as well as radius
- It should also demonstrate how to identify **which local authority/ies the point or postcode is associated with, and how to return content that relates to those local authorities.**
 - eg 'Your borough council is Tunbridge Wells Borough Council and your local highway authority is Kent County Council. Here's how to get in touch with them and here are the current news and campaigns that relate to them: '

7.4.2 Deliverables

- A rough demo page – maybe a version of the County page – that asks for a postcode and returns content that falls within a particular radius of a that point (eg within 10 miles)
- If possible, an additional version of the page that allows the user to create their own polygon on a map and returns content that falls within the polygon
- Using limited sample data that Cycling UK would provide, the page should also show which local authority/ies the point or postcode is associated with, and return some article content from the CMS that relates to those local authorities.

7.4.3 Technical considerations

- Scalability could be a consideration if at some point in the future Cycling UK wanted to offer the option of alerts/feeds to its 70,000 registered users based on their location.

7.4.4 Front-end and back-end functionality

- There are no additional front or back-end requirements at this point. The idea is that the solutions demonstrated will be built upon in subsequent projects.

7.5 Journey planner (simple as-is migration)

7.5.1 Summary

- A **migration of an existing journey planner** from Cycling UK's Drupal 7 environment to its Drupal 9 environment
- The journey planner can be found at <https://www.cyclinguk.org/journey-planner> and is provided through an API by <https://www.cyclestreets.net/api/>
- If it transpires that there are now easier or more effective ways to offer the service than to use the API, Cycling UK would consider that.

7.5.2 Deliverables

- As-is migration
- If there are easy UX wins to be made during the setup then we would do that; otherwise UX improvements would be made in a separate future project.

7.5.3 Technical considerations

- The build should allow for the possibility of additional API calls being added in the future (eg the route coming from CycleStreets and POIs coming from Cycling UK's server or elsewhere)

8 Appendix 2: Scoping Chart

This is a summary from the detailed specification above, separating out the scope and solutions that we are sure about, and those we are curious about

8.1 Fully-functioned map tool

Scope we're sure about

- Content types
- Need for search and filters

Scope we're curious about

- Exact technical foundation – the best advice we have had so far is for a headless React-based SPA
- Exactly how the search and filter should work
- How to accommodate both a map view and a list view and whether the approach should vary according to the type of content
- When to combine routes and POIs on the same map
- Whether to allow for the possibility of combining other types of content on the same map
- Which underlying map(s) to use and whether to plan for the possibility of subscriber-only map options in the future
- Whether this main map needs to be full-page or whether it can be embeddable with other editorial content on a scrollable page
- Whether to have an 'everything' search that searches across all maps content
- How to clearly display overlapping routes

Other uncertainties which are not in the specification document

- SEO on main landing pages

8.2 Listing-page maps

Scope we're sure about

- A map for listings pages, showing the location of the listing item (eg a café)
- Route listings should show both the route and filterable POIs

Scope we're curious about

- How best to process GPX files
- What information can be obtained about a GPX route via APIs, eg the surfaces it traverses (road, singletrack etc)

8.3 County page

Scope we're sure about

- Dynamically populated county pages, showing routes, events, groups and POIs on a map
- Also listing news and campaigns articles relevant to the county.
- Not using manual county tags
- Need for strong SEO

Scope we're curious about

- How best to determine which content belongs to a county
- How to show this on a map vs in list view – eg should the map show pins outside the county borders?
- How to make a readable, engaging county page beyond the map
- How to organise a potentially large amount of content for each county

8.4 'Near me' page (technical proof of concept)

Scope we're sure about

- Return geolocated article content that falls within the radius of a given point
- Ditto map-based content
- Identify which local authority/ies the point or postcode is associated with, and how to return content that relates to those local authorities.

Scope we're curious about

- If possible, allow user-defined polygons as well as radius

8.5 Journey planner

Scope we're sure about

- Migrate Cycling UK's third-party Cyclestreets API integration from Drupal 7 to Drupal 9

Scope we're curious about

- Whether any new integration or configuration options have arisen since our initial Drupal 7 integration.
- A UX and business review, though this should be a separate future project.