

# A case study of 'grass roots' innovation:

Cyclescape

September 2012

[www.ideasintransit.org](http://www.ideasintransit.org)

Deliverable 39.3



**John Richardson, Andrew May**

**Design School, Loughborough University, UK**

## CONTENTS

<b>1</b>	<b>Aims and scope.....</b>	<b>1</b>
<b>2</b>	<b>Initial innovator interview .....</b>	<b>1</b>
2.1	Aims.....	1
2.2	Confidentiality .....	1
2.3	The problem space.....	1
2.4	History and development.....	2
2.5	People involved in the development of the innovation.....	2
2.6	Stakeholder/end user involvement.....	2
2.7	Financial/commercial.....	3
2.8	Technology .....	4
2.9	Having impact on society and transport.....	4
<b>3</b>	<b>Final interview .....</b>	<b>4</b>
3.1	Aims.....	4
3.2	Confidentiality .....	4
3.3	Main changes in perspectives or outcomes since the outset.....	4
3.4	Main issues they faced.....	5
3.4.1	Lack of prior experience with the technical solution chosen .....	5
3.4.2	Inability to recruit open source, no cost developers .....	5

3.4.3	Lack of experience with a test-driven development approach .....	5
3.4.4	Domain name acquisition .....	5
3.5	The most positive outcomes .....	5
3.6	Doing things differently .....	5

#### **4 Research into the users of Cyclescape..... 6**

4.1	Introduction.....	6
4.1.1	Background .....	6
4.1.2	Aims .....	6
4.2	Method.....	6
4.3	Results – the Cyclescape Community .....	7
4.4	Results – the potential for Local Authority Officer engagement.....	8
4.4.1	Task roles and strategic objectives of employing organisations .....	8
4.4.2	Relationships with cycling stakeholders .....	9
4.4.3	Engagement with groups representing cyclists.....	9
4.4.4	Policy and practice with respect to public consultation; the diversity of those members of the public engaging in consultation exercises .....	9
4.4.5	Characteristics of current communication with members of the public and the groups representing cyclists .....	10
4.4.6	Opportunities, and risks, to local authorities / service providers that might arise from the adoption of Cyclescape by campaign groups and the expectation of contribution from providers.....	10
4.5	Summary and conclusions .....	10

## **1 Aims and scope**

This report is written by Loughborough University, and forms Deliverable 39.3 from the IdeasInTransit project. It presents the main findings from the initial and final interviews which were completed with the innovators within Workpackage 39, and also presents preliminary findings from the other research related to Cyclescape that was undertaken within this Workpackage.

## **2 Initial innovator interview**

This interview was undertaken with Simon Nuttall and Martin Lucas-Smith of CycleStreets on 16<sup>th</sup> June 2011. CycleStreets had received £27,000 funding from GeoVation® to develop Cyclescape.

### **2.1 Aims**

The aim of the initial interview was to understand the innovator perspective early on in the innovation process.

### **2.2 Confidentiality**

It was agreed from the outset that there were no issues to do with confidentiality or commercial sensitivity within this first interview.

### **2.3 The problem space**

Crowd-sourced cycling solutions, CycleStreets' bid to the GeoVation programme, is tackling the problem of making cycle campaigning more effective. In Cambridge (where CycleStreets is based) there is a critical mass of cyclists – a quarter of the population already cycle, and so it is relatively easy to campaign effectively for better cycling infrastructure. However, in other parts of the country the proportion of the population who cycle (as opposed to own a bike) is as low as 1 or 2%, and cycling campaign groups are often arguably much less developed. In both scenarios, campaign groups suffer from lack of time and capacity to campaign as effectively as possible.

Crowd-sourced cycling solutions proposed a web-based application, Cyclescape, that provides the functionality and resources necessary for cyclists to mount effective cycle campaigns. It is based on the lessons learnt and the best practice developed through the Cambridge Cycling Campaign, which Simon and Martin have been active members of for over 10 years. It is described in more detail in their Venture Plan, but will include means of accessing geographically tagged locations/photos of good and poor practice, planning applications, collision statistics and other information. It will also include tools for managing the campaign process, e.g. for creating and managing email lists.

The root causes of the problem being addressed are (i) that existing groups have to do a lot of work on any particular issue, a good proportion of which can be automated (ii) that newer campaigning groups have to essentially start from scratch, rather than adopt the procedures, best practice, and knowledge of more established groups. It is therefore difficult for different groups to make best use of their scarce resources.

Simon and Martin are both personally motivated by a love of utility cycling, and desire to see a wider uptake both locally and across the country. They are aware of the lack of capacity of local groups to manage the campaigning process as effectively as could be achieved. Having themselves developed

extensive experience of campaigning, they want to see this developed into resources which are useful to others. They have also been frustrated by seeing multiple cycling groups ask for the same types of help with their campaigning. At a personal level, they are also motivated by the technical challenges involved in developing the resources.

The societal trends that underpin a demand for this innovation are the need for more liveable cities, climate change, desire to reduce CO2 emissions and traffic congestion, and an increasing focus on the benefits of physical activity.

## **2.4 History and development**

The idea came about from a realisation that many cycling groups were coming across similar issues in relation to campaigning, and were asking for the same type of resources to help them work more effectively. It is a natural development of the cycling Photomap ([www.cyclestreets.net/photomap](http://www.cyclestreets.net/photomap)) they have previously created, which enables individuals to upload images of good and poor practice in relation to cycling infrastructure provision, and to geographically tag them.

Short term, they aim to create a step change in provision of resources for campaigning. After the GeoVation funding phase, when it is released widely, they see it moving to being an open-source project, where user communities can develop it as they see fit.

The main barrier going forward is one of finding suitable coders to do the development work, as much of the work is quite specialised and complex. The other main barrier will be getting the wide variety of campaigning groups around the country involved in the development of the resources, particularly the smaller groups.

They are taking a spec-driven (as opposed to agile) approach to development, where requirements are identified, priorities are developed, and a detailed specification (20 – 25 pages) is written out, possibly with diagrams to illustrate process flows. This can then be given to a coder who develops the spec into code, using whichever programming language is chosen.

## **2.5 People involved in the development of the innovation**

They have had various discussions with other cycling groups (e.g. Cyclists' Touring Club - CTC, London cycling campaign - LCC, Cycle Nation) and these have helped form the ideas for the innovation.

The main people involved from this point forwards will be Martin as project manager, with Simon contributing technical expertise as his time permits. They will hire two coders who will develop the basic code, plus a javascript developer to focus on the interface side. Towards the end of the project, they will look for an open-source team to take it forward.

They will aim to work with other campaigning groups, and also form partnerships with the decision makers that the campaigners are looking to target. In fact a key aim of the project is to enable groups to work more productively with decision-making organisations (principally Local Authorities), in order to move away from the kinds of more adversarial relationships with them that can sometimes be found.

## **2.6 Stakeholder/end user involvement**

The main stakeholder groups involved with Cyclescape are:

1. The individuals who cycle, who experience problems, and are interested in improving the transport infrastructure for cyclists. Those who have encountered problems, but are not necessarily part of campaigning groups. They can contribute evidence of good and poor practice using the tool.
2. The campaigning groups - e.g. CTC, LCC, Cycle Nation (an umbrella group covering regional campaigns around the UK, e.g. Northampton Cycling Campaign, Cheltenham Cycling Campaign, East Kent Spokes, Edinburgh Spokes, Manchester Mud Guardian, Derby Cycling Group), Cycling Embassy of Great Britain, other local groups. Described as a 'melting pot', they have a common overall campaigning aim, but have slightly different agendas. They also have varying forms of organisational structure.
3. The decision makers, the budget holders. These include local authorities (County, City and District), Central Government (DfT), other decision making and policy bodies.

Towards the last third of the coding process, they will open up the tool to the more developed groups to get their feedback.

User contributed data is key (the contribution of issues and photos in relation to good or poor cycling infrastructure provision). For this they recognise that a critical issue is to maximise the usability of the system. They have a good understanding of the user needs as they have been dealing with the various groups for many years and actively take part in meetings/discussions to understand their different perspectives.

The improved outcomes that they are looking for are:

- For individuals who cycle: an easier means of contributing issues, opinions, best practice, plus a feedback loop that tells them what is being done in relation to these inputs. Ultimately improved attitudes to cycling and improved policies and facilities.
- For campaigning groups: an easier way of mounting effective cycle campaigns, and a better working relationship with the decision makers.
- For the decision makers: access to better information on the needs of cyclists, better decisions for cyclists, or (if budgets do not allow implementation of solutions) an intention to improve facilities.

## **2.7 Financial/commercial**

One of the main financial constraints going forward is that the award they got is slightly less than that asked for, and this will reduce the amount of coding that can be done.

In terms of competitors, there are specific applications that compete to some extent, for example sites that enable requests for cycle parking, 'fill that hole' by the CTC, FixMyStreet etc. However, most of these are about maintenance, rather than improving provision which is the point of the toolkit. These other systems don't provide an integrated campaigning tool, so these are not really in practice competitors.

For longer term scalability, the intention is that once it is set up, it will largely run itself. If they can demonstrate that the tool works for different groups (e.g. campaign groups, LCC, CTC), they may be able to get these groups to invest in it. By making it open source, it will be cheap and easy for its maintenance and development after the project has finished.

## 2.8 Technology

It is based on standard web development. The main technical challenge is to decide on the programming language that will be used for system development. Further technical details are provided in the Venture Plan and Project Plan document provided by CycleStreets.

## 2.9 Having impact on society and transport

They are trying to maximise the impact of the innovation by:

- Maximising the ease with which people can get information into the system e.g. cycling issues, or planning applications.
- Providing the tools that may enable campaigners to come up with well-argued proposals to the decision makers.
- Enabling the campaigners and local authorities to work as partners rather than adversaries.

They will ultimately judge whether the innovation has been a success by:

- Seeing the implementation of cycling improvement objectives that groups have used the system to campaign on, though this is naturally heavily subject to other factors, principally Local Authority funding and political will
- The extent to which knowledge and good practice from one area is transferred to other areas
- The degree of uptake of the tool
- In the much longer term, whether there are changes in attitudes to cycling-relating issues. For example, whether cars parking in cycle lanes becomes socially unacceptable
- The extent to which the tool becomes the central hub resource, and individual comments and complaints become distilled down into an effective change process

## 3 Final interview

This interview was undertaken with Martin Lucas-Smith and Simon Nutall on 16<sup>th</sup> August 2012 towards the end of the development of Cyclescape.

### 3.1 Aims

The aim of the final interview was to reflect on the activity undertaken during the innovation process, and to make comparisons with the findings from the initial interview. The most relevant aspects are reported below.

### 3.2 Confidentiality

There were no issues of confidentiality.

### 3.3 Main changes in perspectives or outcomes since the outset

At the time of the interview Cyclescape was not completely finished. However the work to date, and the forward trajectory are very much in line with the original vision that was set out in the initial interview. One key change that occurred was that the original intention to extend the existing CycleStreets Photomap codebase was dropped in favour of a new, clean implementation in a different technology, Ruby on Rails. This had some implications outlined below.

### **3.4 Main issues they faced**

This section is a brief summary of issues faced during development, since they are described in detail in the final report prepared for the TSB, available here:

<http://blog.Cyclescape.org/2012/08/11/final-report-to-GeoVation/>

The main issue was one of delays and cost over-runs, incurred due to a number of reasons:

#### **3.4.1 Lack of prior experience with the technical solution chosen**

The decision to use Ruby on Rails as the code base has resulted in a more robust and future proof product. However the internal developers within CycleStreets had no specific expertise in this technology, meaning that timescales were harder to judge. Naturally, the developers that were recruited, however, were experts in this technology.

#### **3.4.2 Inability to recruit open source, no cost developers**

While the site has been in a closed beta phase, it has not had the public visibility and engagement to enable developers to be involved as users, who then want to help improve the product through open source code development.

#### **3.4.3 Lack of experience with a test-driven development approach**

Cyclescape was developed with a code base that involved automated testing, and internationalisation, and although this increased development costs, it has resulted in a less risky and more robust future development. In other words, there has been an emphasis on coding for the long-term, even if this has meant higher-than expected initial costs.

#### **3.4.4 Domain name acquisition**

The time and cost involved in acquiring a suitable domain name had not been anticipated.

### **3.5 The most positive outcomes**

The individuals involved in managing the creation of Cyclescape stated there were many positive outcomes from the GeoVation process, including:

- The incorporation of an extensive specification development phase
- Working with skilled and motivated developers
- The resulting creation of a solid working product that can be easily further developed
- Extensive use, and positive feedback from a beta test group

### **3.6 Doing things differently**

On reflection, the main thing that CycleStreets would have done differently would have been to factor in the extra cost and time associated with the software development. They are convinced that the technological choices made were the right ones since they enhance the future viability of the product. However, a clearer understanding of the time and cost implications at the outset would have helped with a smoother development process, and enabled an earlier identification of the likely cost and time over-runs.

## 4 Research into the users of Cyclescape

### 4.1 Introduction

#### 4.1.1 Background

Cyclescape was developed with the help of funding through GeoVation. Loughborough took the opportunity to use Cyclescape as a backdrop to more academic focussed research into public and organisational engagement with such tools. Cyclescape is described by its proposers, CycleStreets, as “a powerful but easy to use web-based system to resource existing cycling advocacy groups much more effectively” (Cyclescape proposal).

#### 4.1.2 Aims

The aims of this work were to undertake a stakeholder-focussed analysis of the potential impact of a tool such as Cyclescape. The particular objectives were to:

- Investigate the nature of campaign contributions with the beta version of Cyclescape.
- Carry out a series of interviews with local authority officers with specific responsibility for cycling provision
- Comment on the ability of a tool such as Cyclescape to engender engagement between providers and users of cycling facilities.

### 4.2 Method

Two main research activities were undertaken by Loughborough Design School research staff. A simple analysis (in a ‘snapshot’ format) was carried out of the nature and format of postings by cycling campaigners within an advanced beta version of Cyclescape.

In order to explore Cyclescape’s potential impact on ‘providers’ a series of semi-structured interviews were undertaken with local authority and transport agency officers. Interviews took place with:

- staff having a significant responsibility for implementing or promoting cycling in four major Midlands Urban Local Authorities
- staff supporting the cycling aspects of a county council’s sustainable transport initiatives
- staff tasked with increasing cycle usage by a Midlands transport executive

The key issues addressed in the interviews were:

- individual task roles and strategic objectives of employing organisations
- relationships with cycling stakeholders
- depth of engagement with groups representing cyclists
- policy and practice with respect to public consultation; the diversity of those members of the public engaging in consultation exercises
- characteristics of current communication with members of the public and the groups representing cyclists (communication channels)
- opportunities, and risks, to local authorities / service providers that might arise from the adoption of Cyclescape by campaign groups and the expectation of contribution from providers.

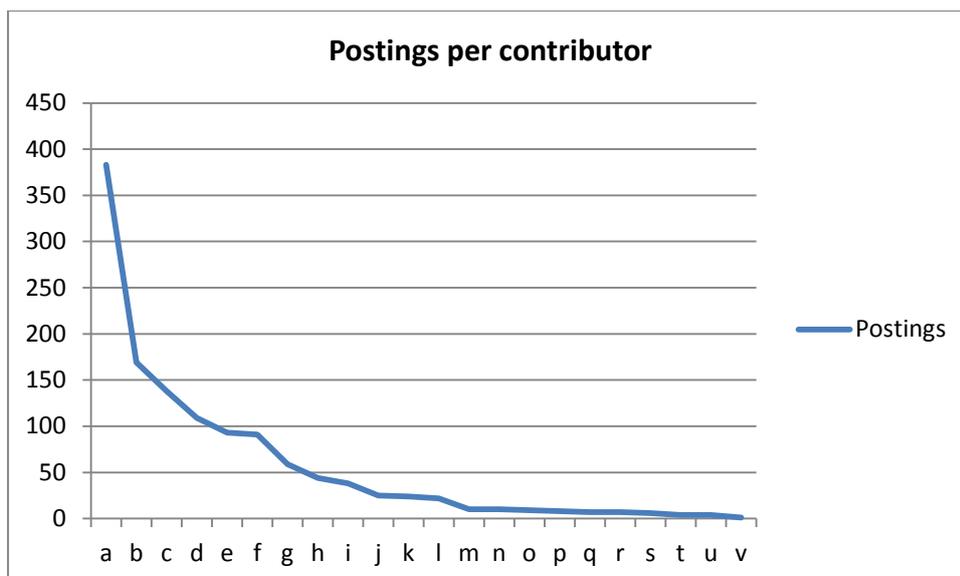
The focus of the discussions was therefore firmly placed on communication between local authority staff, the public they serve and activist groups rather than the efficacy of the tool for campaign groups. As might be expected, the interviewees' comments indicated a diversity of objectives, practice and experience between the various organisations – even those with apparently similar roles. However, the similarities and overlaps were probably more significant. The following section represents a summary of these positions and views.

### **4.3 Results – the Cyclescape Community**

Cyclescape is a managed, internet discussion space; potential contributors must register before gaining write access and sometimes more substantial read access. The registration process generates a user profile that allows individuals to define geographical areas of interest (zones, e.g. a city centre and routes, e.g. 'My route to work', and locations) that can then be used to filter discussion postings. This device is intended to ensure contributors need only receive information about issues that are of relevance. Individual postings can generate discussion threads that allow information exchange, extensive debate and idea development. The allocation of tag descriptors to postings supports searching to discover postings on related topics. These relatively simple features are intended to allow large volumes of postings to be managed in a way that is effective for participants. Whilst text-based postings are likely to be the most frequent type of contribution the system enables web links, images, graphics and documents to be attached to postings.

A snapshot assessment taken on the 14th June 2012 at an advanced stage in the beta-test phase of the application's development indicated considerable usage. Over a period of some 4 months there had been approximately 130 topics raised for discussion with a total of some 1250 postings. The majority of these postings were text comments but there were also web links to internet based documents and images associated with a small proportion of postings. Whilst some postings comprised very brief comments there were a substantial number of extended, technical contributions indicating serious discussion and significant investment of time by their contributors.

The beta-test community comprised some 20 individuals; the majority being committee members of the Cambridge Cycling Campaign. At the time of the snapshot, the entire membership of the organisation had not yet been invited in. However, the distribution of contributions across members was by no means even with 78% of the contributions coming from just 6 members and just 3 members generating 55% (see figure 1). Future evaluation of the live phase of the project could usefully consider the extent to which participation is broadened to include a wider user base. While the beta testing process may well have skewed the pattern and frequency of communication the domination of communication within special interest and campaign groups by a small group of members is relatively common.



**Figure 1. Postings per contributor in beta test phase; 4 months to June 2012.**

Cyclescape was expected to “enable members of the public and campaigners to easily pinpoint where cycling is difficult” and to “enable groups to include LA contacts in these discussions”. Thus, from the perspective of cycling campaigners, the relationship between end users (i.e. cyclists), campaign groups and decision making stakeholders is seen as critical.

The engagement of the public in the development and implementation of new cycling facilities is also seen as critical by central government. A 1998 White Paper issued by the (then) DETR (Department of the Environment, Transport and the Regions) (“A New Deal for Transport: better for everyone”) along with associated guidance documents required local authorities to consult with local people to enhance accountability and ensure expenditure had a greater chance of meeting local needs. This has resulted in a wide range of initiatives intended to elicit public comment about potential facilities and proposed changes. A good example is the Statutory Guidance to Local Highway Authorities in England on Rights of Way Improvement Plans issued by DEFRA in 2002. This document defines the groups that should be consulted in some detail although it is less specific about the way that this should happen. Further impetus has been given by the introduction of the Localism Act 2011. Whilst this legislation is focussed on planning and housing rather than transport infrastructure it adds to the expectation that local authorities should work more closely with the communities that they serve to deliver greater accountability and transparency regarding decisions.

Whilst Cyclescape is clearly intended primarily as a tool to support campaigners it has relevance to local authority officers tasked with consulting with respect to cycling infrastructure and initiatives. If nothing else, it might modify interactions with established local campaign groups.

#### **4.4 Results – the potential for Local Authority Officer engagement**

##### **4.4.1 Task roles and strategic objectives of employing organisations**

- Individual titles and role objectives vary considerably but tasks and activities show considerable consistency (liaison, assessment, consultation, policy development, provision

of technical advice etc.). Differences largely reflect the individuals' organisational designations and the organisation's strategic priorities.

- Authorities develop cycling facilities and policies within wider strategic ambitions (e.g. sustainability, safety, congestion reduction, environmental improvement and health benefits) that may well be funded from external strategic funding sources (Local Sustainable Transport Fund, NHS etc.).
- Funding for one-off schemes is increasingly constrained and they are more typically implemented as a part of larger highways or regeneration projects.

#### **4.4.2 Relationships with cycling stakeholders**

- As well as working closely with internal groups (highways, planning, leisure services) providers work with a network of external organisations that can be seen as cycling stakeholders. These will include, for example, groups representing cyclists' interests, the emergency services, transport agencies, major local employers and education providers.
- Interactions with stakeholders takes place via formal consultation exercises, regular discussion forums and specific exchanges with respect to individual issues.
- The need to meet the potentially contrasting requirements of different stakeholders results in outcomes that are not always understood by specific groups. However, some authorities placed a strong emphasis on explaining the reasons for all decisions and outcomes.

#### **4.4.3 Engagement with groups representing cyclists**

- Providers are aware of, and communicate with, a range of groups representing cyclists. These include local campaign groups, leisure oriented groups and local representatives of national groups.
- Consultation meetings are typically held on a regular basis with varying degrees of formality – some are held for information exchange while others are formally constituted and have budgets to fund small projects.
- Providers recognise the importance of gaining support from groups representing cyclists and recognise the technical knowledge that they can contribute. The assessment of the contribution of campaign groups was generally very positive.
- The energy and commitment of individual campaigners was widely acknowledged. However, the tendency for a small number of individuals to dominate the public discussion was frequently noted as an issue that needed to be taken into consideration.

#### **4.4.4 Policy and practice with respect to public consultation; the diversity of those members of the public engaging in consultation exercises**

- All providers follow standard policies and practice with respect to consultation on cycling facilities and transport infrastructure affecting cycling. This is partly driven by statutory obligations but also reflects a commitment to community engagement and transparent administration.
- Whilst a broad range of communication channels is typically employed it has been noted that some respondents will use multiple channels to make the same points.
- Although the level of response is often seen as satisfactory it is also recognised that some community groups (under 18s, older citizens, members of the Black, Ethnic and Minority (BEM) communities and women) are under-represented. Some staff also recognised that the views of novice and potential cyclists were not adequately represented.

#### **4.4.5 Characteristics of current communication with members of the public and the groups representing cyclists**

- Providers receive regular communications from members of the public regarding cycling issues. Previously these typically comprised letters and telephone calls. The majority are now emails – although the content is broadly similar, the arguments presented in written form are usually more temperate (compared with telephone calls) possibly because of the time and effort required to compose them.
- The requirement to generate a timely response to all external communications was recognised as an important requirement by all providers. This is a time consuming activity and the potential to deal with more communications was seen as limited by some interviewees.
- Ready access to digital technologies has provided significant benefits. Consultation via email is fast and cost effective. The ability to attach images to emails has improved the clarity of communications received from the public. The availability of Google Street View has reduced the need for site visits.

#### **4.4.6 Opportunities, and risks, to local authorities / service providers that might arise from the adoption of Cyclescape by campaign groups and the expectation of contribution from providers.**

- The advantages for campaign groups who may adopt Cyclescape were readily appreciated; groups that are less well established may be able to articulate their members' views more effectively. However, the advantages for groups that were already highly organised were less obvious; some interviewees believed they already understood these groups' needs very effectively and that a 'louder voice' was not necessary.
- It was observed that the adoption of tools such as Cyclescape would not, in themselves, increase the inclusion or participation of groups/individuals that were not currently engaging in the consultation process.
- The strong map orientation was seen as a positive feature and one that would maintain the benefits brought through more sophisticated email systems.
- The desirability of officers engaging directly with campaign groups via Cyclescape was viewed with some caution. Concerns included the time required to monitor on-going discussions on multiple topics, the need to make considered responses representing the local authority's position being inconsistent with a fast moving on-line discussion and the need to maintain a degree of 'distance' from any particular stakeholder. However, some individuals were less cautious and pointed out that they already used Facebook and Twitter and that engaging with Cyclescape would be something they would be prepared to consider.

### **4.5 Summary and conclusions**

Local authority staff with responsibilities for implementing cycling facilities and promoting cycling are part of a sophisticated 'system'. Their activities will reflect a strategic corporate vision with a variety of defined objectives (e.g. sustainability, health, environment, congestion reduction), partners and performance indicators. Long term relationships with relevant stakeholders are developed and maintained. Formal procedures determine the way in which staff respond to communications from members of the public.

Community engagement and consultation (within the organisation and externally) is a routine activity and responsibility is widely dispersed. Decisions are expected to be evidence based and transparent. All reasonable steps should be taken to engage with community groups to minimise exclusion; this is achieved by using a broad range of mechanisms and media. However, it is accepted that some groups are under-represented in cycling related consultation. These groups include women, under 18s, the elderly, those with disabilities and members of the BEM community.

Officers deal with communications from the public through a variety of media. Telephone and email are replacing letters. In most authorities incoming communications are filtered by a 'customer relations' team to ensure an efficient response. However, responses must be considered, represent Council policy and be made within a defined time period, wherever possible.

Given the complexity outlined above and Cyclescape's role as a communications tool, a potential to influence a wide range of issues might be a reasonable expectation. However, three broad areas of impact can be seen:

### **1. Consultation and engagement**

Cyclescape is intended to support groups with diverse characteristics. New groups who may lack experience with engaging with local authorities may find support for their development although the support for interactions with local authorities are likely to be indirect. Established groups may well be vocal, confident, informed and engaged with local authorities already. However, their voice and views may already be familiar to local authority staff.

It is not clear that the tool will, in itself, encourage participation by marginal individuals – individuals who do not perceive themselves as potential activists; the need for literacy, IT skills and a willingness to join a formally organised group represent significant barriers. In contrast, in non-urban areas where campaign groups are not active Cyclescape might provide an important mechanism for geographically dispersed activists to find each other and then communicate. Given the need to adopt, and be seen to adopt, a broad range of methods for engaging with the public, Cyclescape might play a useful role. However, opportunities for inputs from 'casual' contributors, as opposed to committed campaigners, would aid inclusion.

### **2. Discussion, policy development and intelligence**

Within the context of a limited constituency, Cyclescape has an opportunity to enhance debate and improve the quality of comments and contributed suggestions. This is very much in line with the current encouragement for Localism and the adoption of locally generated solutions. The map-based organisation and facilities for multi-media attachments provide valuable precision and enriched detail.

### **3. Fit with existing procedures and practice.**

Cyclescape represents a challenging extension to the communication media currently embraced by local authorities where careful management of communications with the public is regarded as a priority. Most local authorities have 'customer relations' who process incoming communications to ensure that all inputs are recorded and receive a swift response from the most appropriate person. Dealing with enquiries is an important and time consuming activity, and 'technical' staff are typically

operating at capacity. The very rapid rate of message exchange achieved in on-line discussion forums is not consistent with resource availability, the filtering of enquiries or the need for considered responses. A significant threat is perceived in the potential for relatively minor issues, including misunderstandings, to be broadcast rapidly and develop into major problems that will need to be addressed by an authority (a problem that Cyclescape may be less prone to because of its prioritisation capabilities). However, the opportunity to monitor discussions and identify problems at an early stage that can be resolved is potentially valuable.

#### **4. Recommendations**

Cyclescape would appear to offer significant advantages to campaign groups. Its flexibility means that it can be used by any campaign group whose focus is strongly linked to activities with a spatial/geographical dimension. However, with respect to the specific issue of engagement with local authority staff a mismatch in communication practice needs to be recognised to prevent disappointment regarding engagement. Local authority officers' interactions with the public are predominantly oriented towards a responsive mode and campaign groups may need to accept that officers' discretion to engage pro-actively in campaign group discussions may be limited. However, depending on workload there is a very real possibility that officers may find monitoring Cyclescape supported discussions valuable and a prompt to one-to-one interactions. Appropriate guidance to campaign groups planning to use Cyclescape would be beneficial.

While Cyclescape provides a clear example of a bottom-up innovation that has a good prospect of meeting its target users' needs and the needs of more disparate user communities who share a spatial orientation it also reflects a limitation with respect to interactions with 'external' organisations. The requirements of its intended users may be accommodated but this, understandably, may be less true of secondary users who belong to external user communities (e.g. local authority officers). If such potential interactions are considered important then a wider stakeholder analysis may be necessary at an early stage in the planning process.