

**cycle  
BOOM**

DESIGN FOR LIFELONG  
HEALTH & WELLBEING

# First Stakeholder Advisory Group Meeting

12 March 2014

# Agenda

| Item | Time  |  |
|------|-------|--|
|      | 09.45 | Arrival   Coffee   |
| 1.   | 10.00 | Welcome & Introductions [Tim Jones, Oxford Brookes University (OBU)] <ul style="list-style-type: none"><li>Meeting Objectives   Advisory Group Terms of Reference   Project Branding</li></ul> |
| 2.   |       | cycle BOOM Overview [Tim Jones, OBU] <ul style="list-style-type: none"><li>Overview of Work Packages</li></ul>   |
| 3.   |       | WP2: Design and Policy Scoping [Emma Street, University of Reading]  |
| 4.   |       | WP3: Examining Existing Data [Kiron Chatterjee, University of the West of England (UWE)]   |
| 5.   |       | WP4: Cycling Life History Interviews [Heather Jones, UWE]  |
| 6.   |       | WP5: Cycling Mobility Observation   Interviews [Justin Spinney, Cardiff University]  |
| 7.   |       | WP6: Cycling and Wellbeing Trial [Carien van Reekum, University of Reading]  |
| 8.   | 12.00 | Roundtable Discussion <ul style="list-style-type: none"><li>General Approach   Methods</li></ul>   |
|      | 13.00 | LUNCH  |
| 9.   | 14.00 | April - September 2014 Plan <ul style="list-style-type: none"><li>Recruitment</li><li>Participant Journey</li></ul>  |
| 10.  | 15.00 | Roundtable Discussion <ul style="list-style-type: none"><li>Recruitment and the 'Participant Journey'   Impact   Stakeholder Involvement</li><li>Date of the Next Meeting</li></ul>            |
|      | 16.00 | CLOSE  |

# Design for Wellbeing Call



## **Design for Wellbeing: Ageing and Mobility in the Built Environment**

**Call Type:** Expressions of Interest

**Closing date for Expressions of Interest:** 12:00 noon on 10 September 2012

**Closing date for full proposals for invited applicants only:** 16:00 on 28 November 2012

### **Summary**

The Engineering and Physical Sciences Research Council (EPSRC) is leading a call with the Economic and Social Research Council (ESRC) and the Arts and Humanities Research Council (AHRC) for evidence led research into ageing and mobility in the built environment. The call is being run under the auspices of the Lifelong Health and Wellbeing (LLHW) cross-council ageing research programme which supports research addressing factors throughout life that influence health and wellbeing in older age.

The EPSRC, ESRC and AHRC invite research proposals from interdisciplinary consortia able to address the scope and interdisciplinary ambitions of the call.

There is up to £7M available through this call: EPSRC will commit up to £4M, ESRC up to £2M and AHRC up to £1M to support a maximum of five large multi-disciplinary projects of up to three years. A two stage process

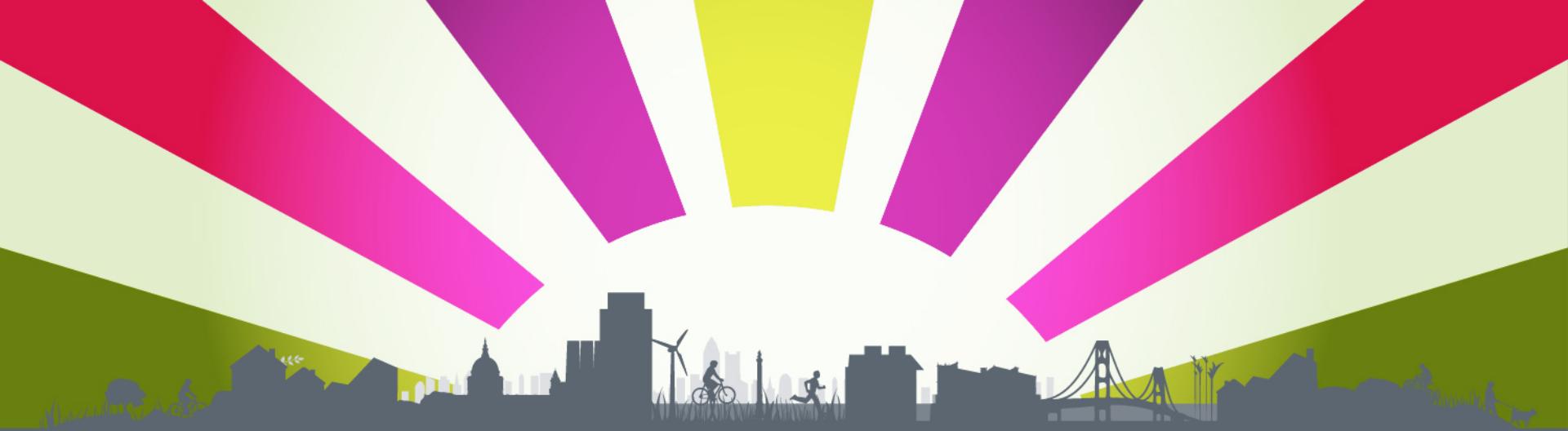
# BOOM!

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Promoting  
Independent Cycling  
for Enhancing Later  
Life Experience and  
Social Synergy  
through Design  
(PrICELESS Design)



- Brings together representatives of organisations with specialist knowledge or interest in how built environment design and bicycle technology affects cycling mobility and wellbeing amongst the older population.
- Established to support the project and advise on how to ensure the project findings have an impact within policy making and industry.



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DESIGN FOR LIFELONG  
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# **WP2: Design and Policy Scoping**

Emma Street & Philip Black:  
University of Reading



## Aim:

To develop understanding of older people's mobility and its relationship to wellbeing.



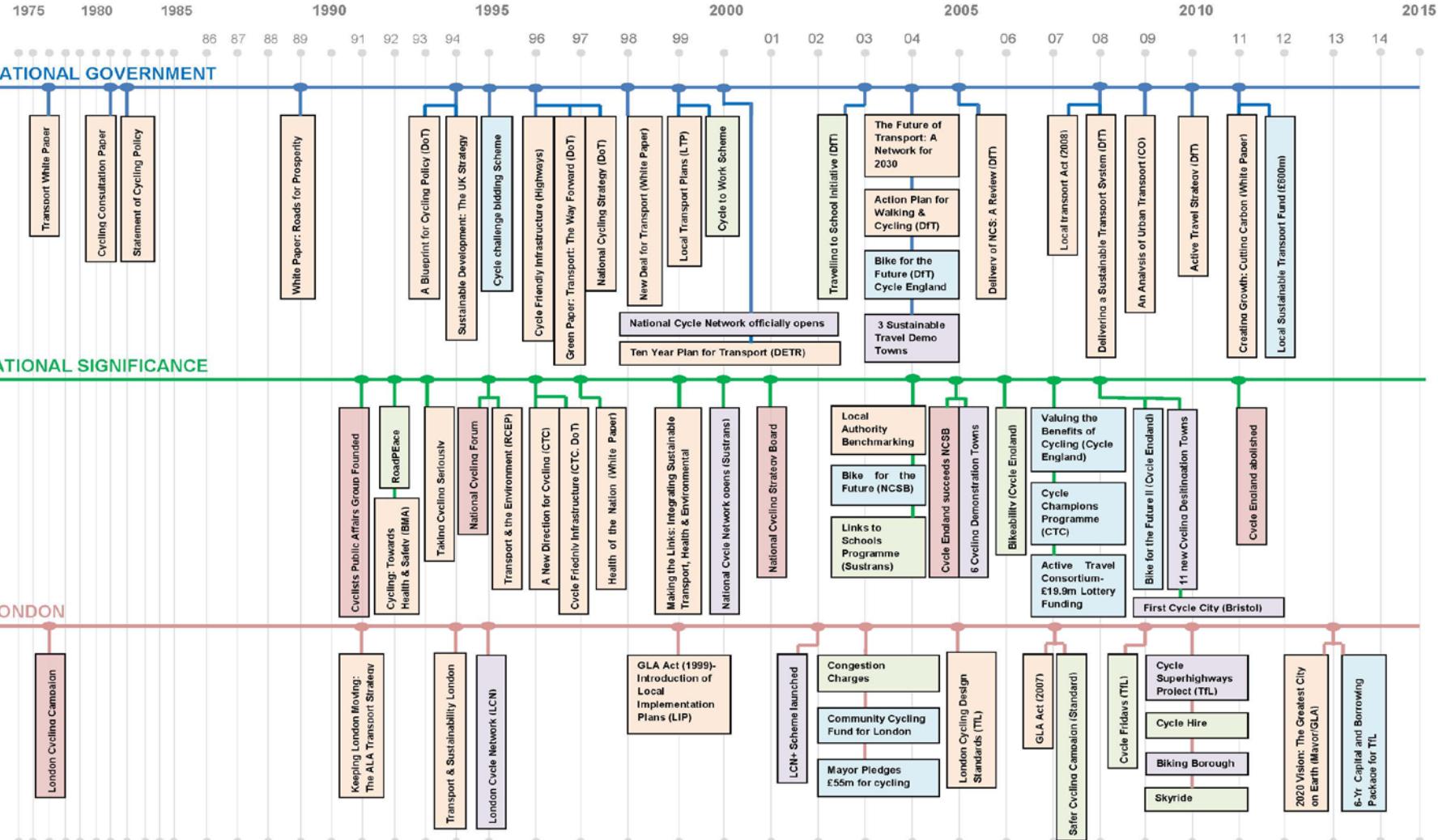
- **Explore** the ways in which older people's mobility is constructed and understood in government policy;
- **Identify** examples of best practice in relation to older people's engagement in cycling;
- **Assess** the barriers preventing older people from cycling and the factors likely to increase cycling into old age;
- **Understand** the relationship between cycling and the social, physical and mental wellbeing of older people;
- **Review** existing research adopting a life course approach;
- **Engage** policymakers and the wider public in mobility and ageing issues.

## Policy Review

- A historical and thematic overview of policy related to cycling in the UK.
- Timeline of significant cycling events / policies nationally; in London; in Cardiff, Oxford, Reading and Bristol
- Overview of how dominant policy discourses have changed over time
- Understanding the emerging role of wellbeing and health in 'official' cycle policy and guidance

# WP2: Policy Timeline

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- **Review** of the academic literature, existing datasets and sources (e.g. surveys), and government policies and programmes relating to design, wellbeing and (cycling) mobility
- **Thematic approach** – Mobility; wellbeing; ageing; design

# WP2: Thematic Approach

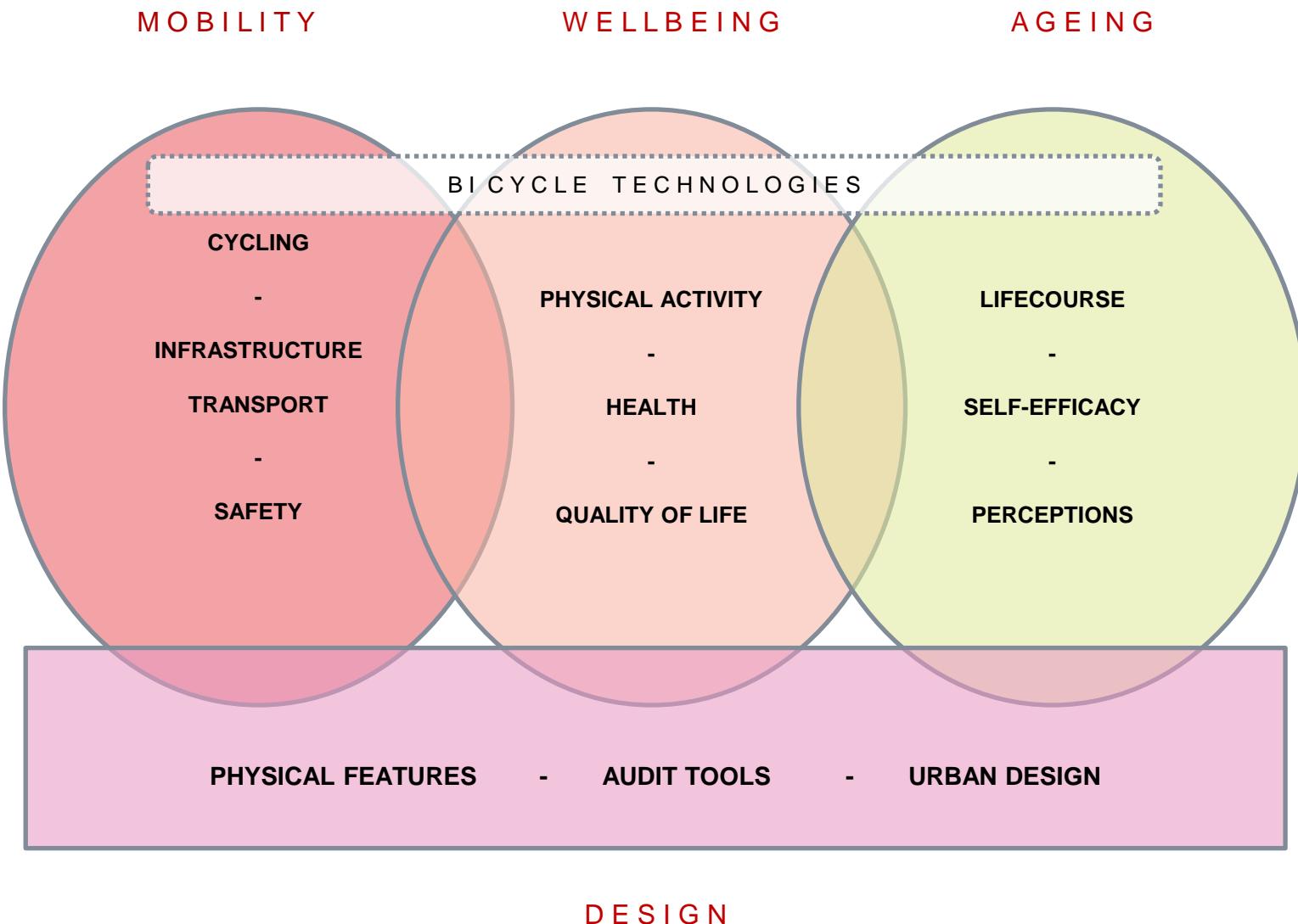


Figure 1: Four Key Themes for Scoping Exercise

## WP2: UK Case Studies

- 4 UK case study locations
  - Reading
  - Oxford
  - Cardiff
  - Bristol
- Interviews with local stakeholders to build picture of activity/context at each site



# WP2: EU Best Practice

- Seville, Spain
  - Regional capital
  - Historic urban core
  - Low cycle rates (x10 increase in cycling 2006-10)
  - Stakeholder interviews
  - 8-80 initiative
  - Links to Bogota, Colombia



- Munich, Germany
  - Regional capital
  - MobilitUM 2014 conference
  - Cycling for older people initiatives
  - Stakeholder interviews

# Scoping study - Outputs



- Scoping study report combining policy and thematic/literature review
- Building a comprehensive picture of older people and cycling at national and urban/local scale
- Evidence base to inform and support other work packages, and enhance understanding of place-specific factors such as governance frameworks in case study cities

# **WP3: Examining Existing Data**

Kiron Chatterjee: University of the West of England (UWE)



# Role of WP3

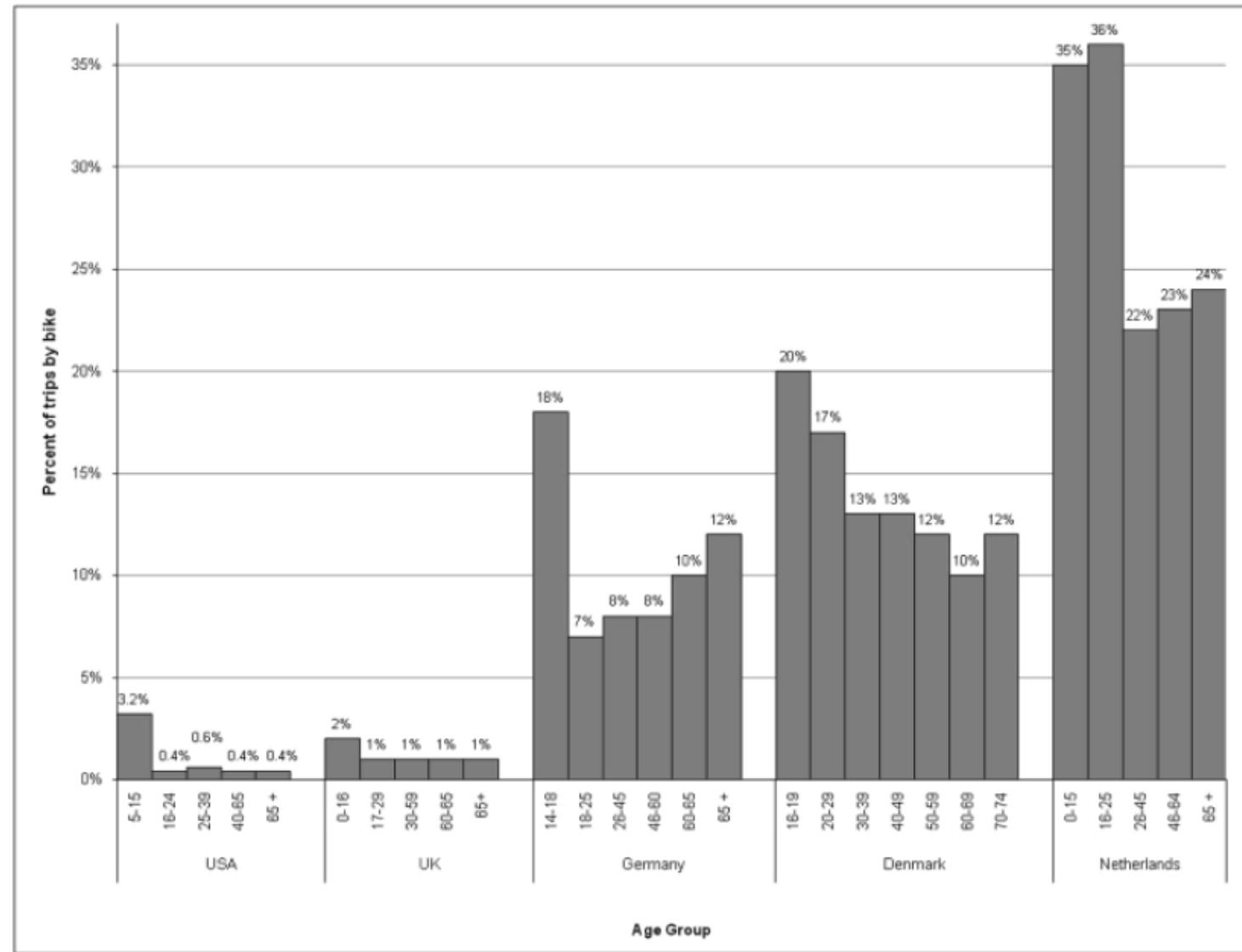
- Set the scene and inform the rest of project.
- Generate complementary findings to those of other work packages.
- Establish authoritative, up-to-date evidence on older people and cycling in UK.
  - Statistical evidence at national and local level.
  - Qualitative insights from locations across UK.
- Not attempting to benchmark UK against other countries (but see WP2).

# Objectives

1. Create a rich description of older people's participation in cycling.
2. Provide informative profiles of older cyclists.
3. Reveal the motivations and barriers for older people cycling.
4. Assess the success of cycling initiatives in engaging older people.
5. Map out the potential expanded market for older people cycling.
6. Identify limitations of existing data on older people cycling and remedies to this.

# What we already know

# National comparison



Indicator:  
Share of  
trips by  
bicycle

Period:  
2000-02

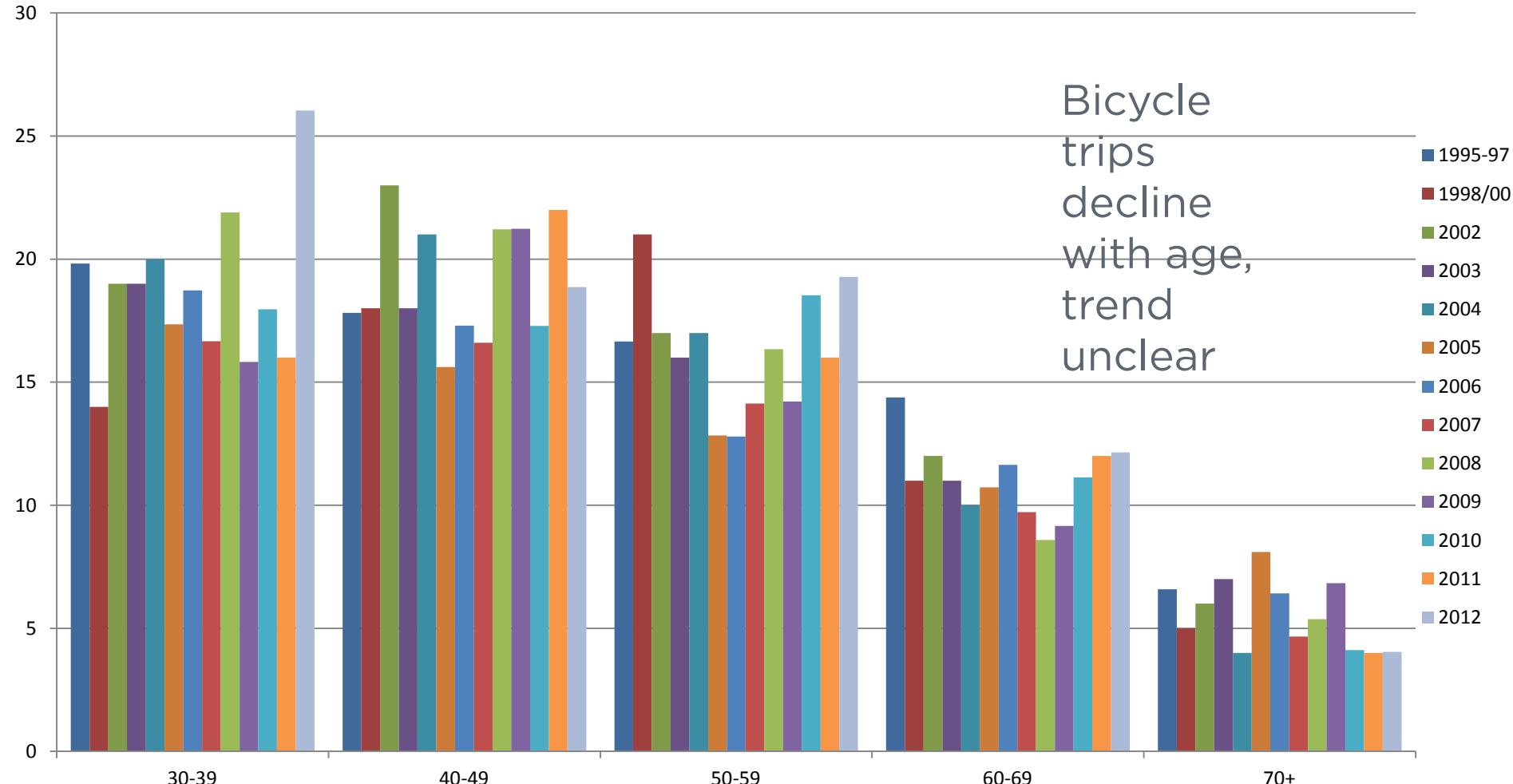
Source:  
Pucher and  
Buehler  
(2008)

Low bike  
share  
across age  
groups in  
UK

# Trend over last 15 years in GB

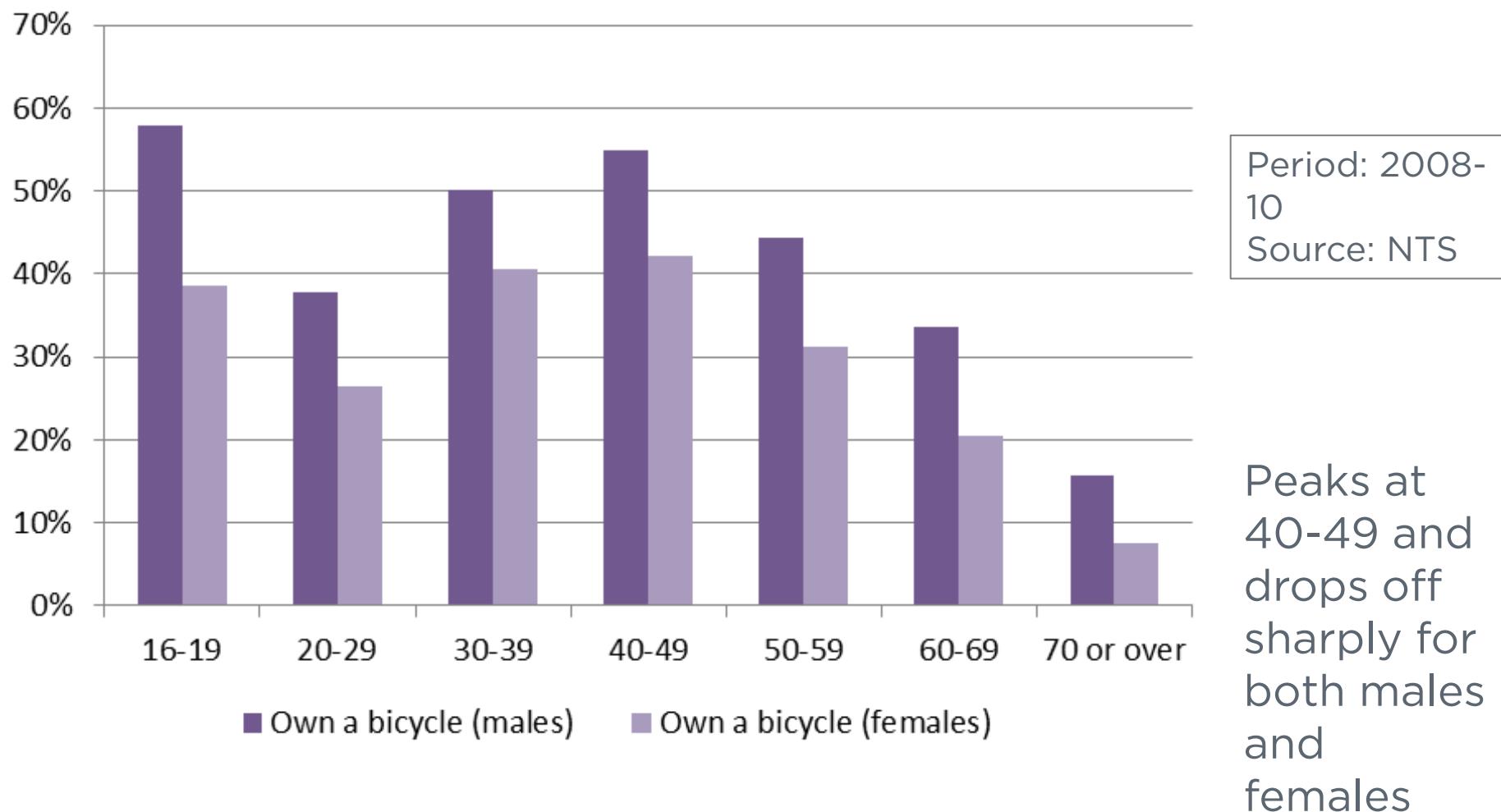
Indicator: Bicycle trips per person per year (source: NTS)

Bicycle  
trips  
decline  
with age,  
trend  
unclear

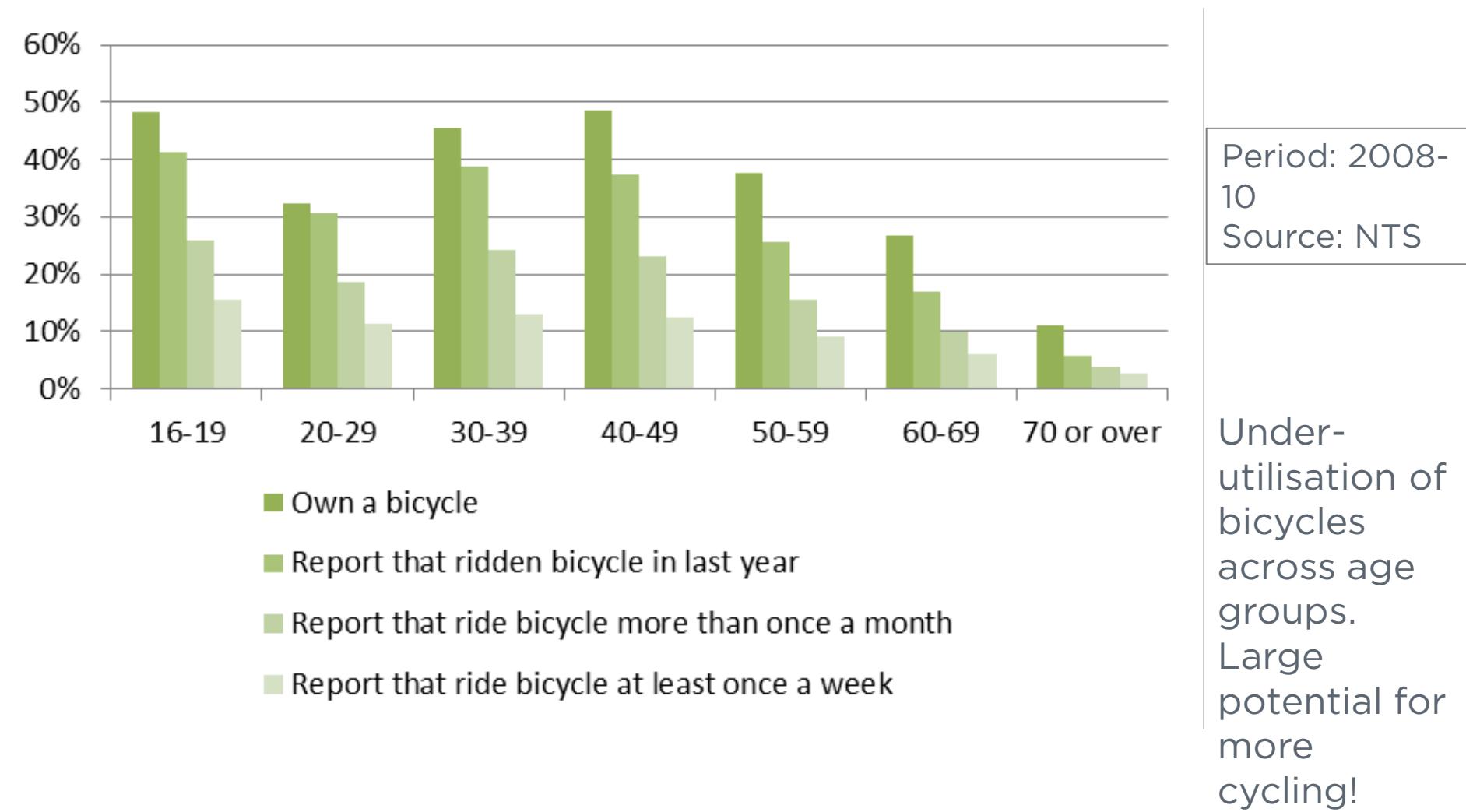


# Richer description of bicycle ownership and use

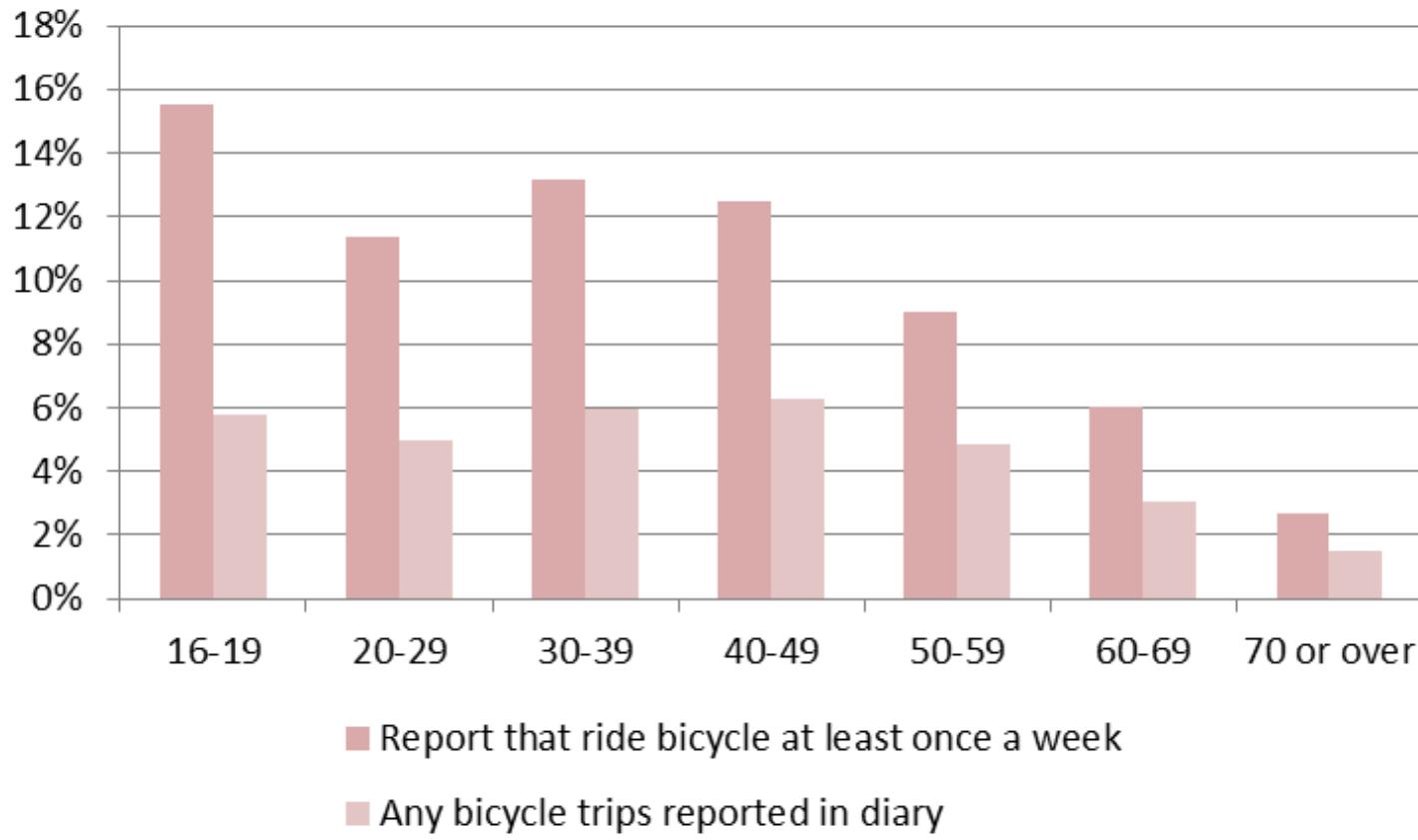
# Bicycle ownership



# Self reported bicycle usage



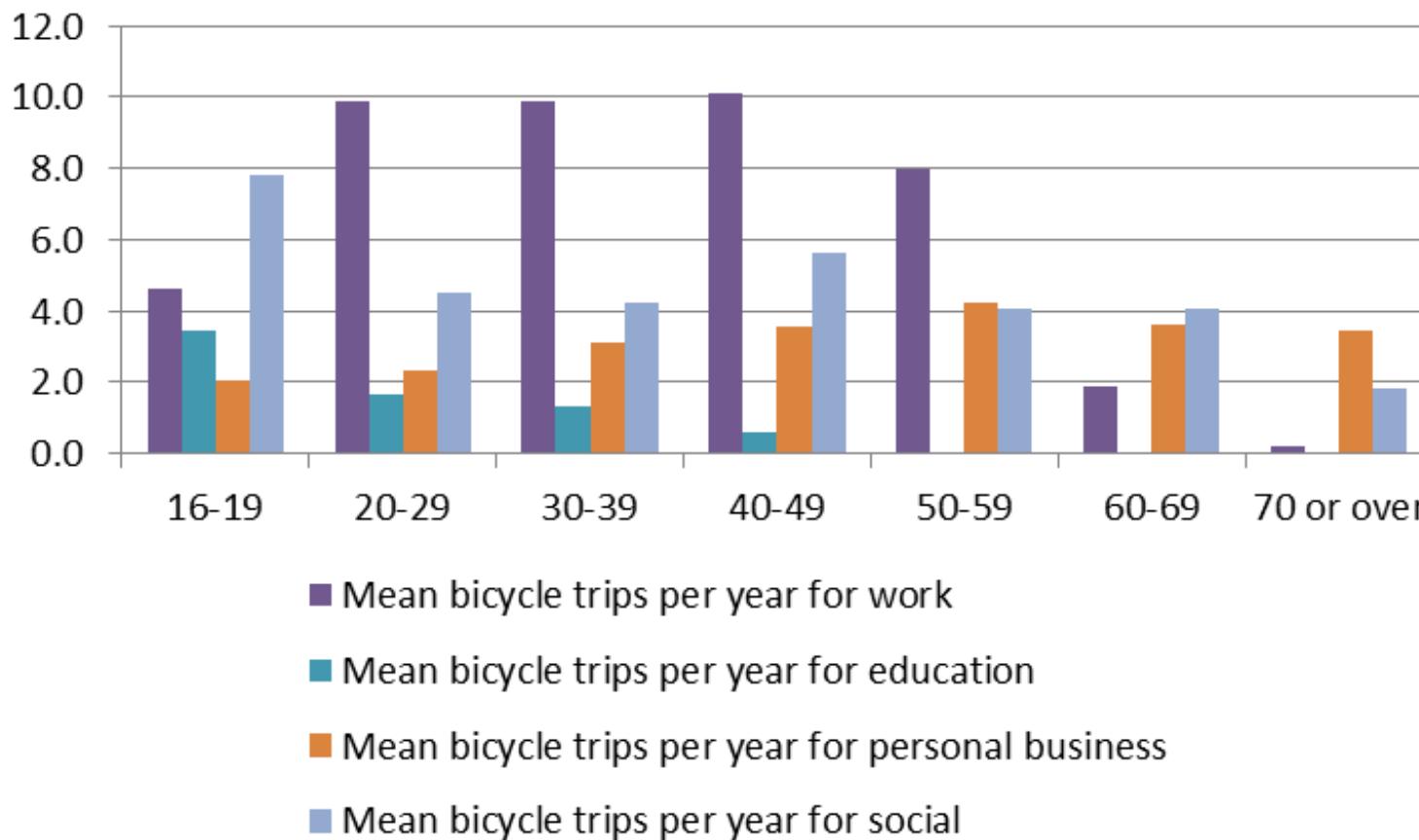
# Bicycle trips recorded in diaries



Period: 2008-10  
Source: NTS

Confirms decline in bicycle trips with age (diaries indicate half usage levels of self reporting)

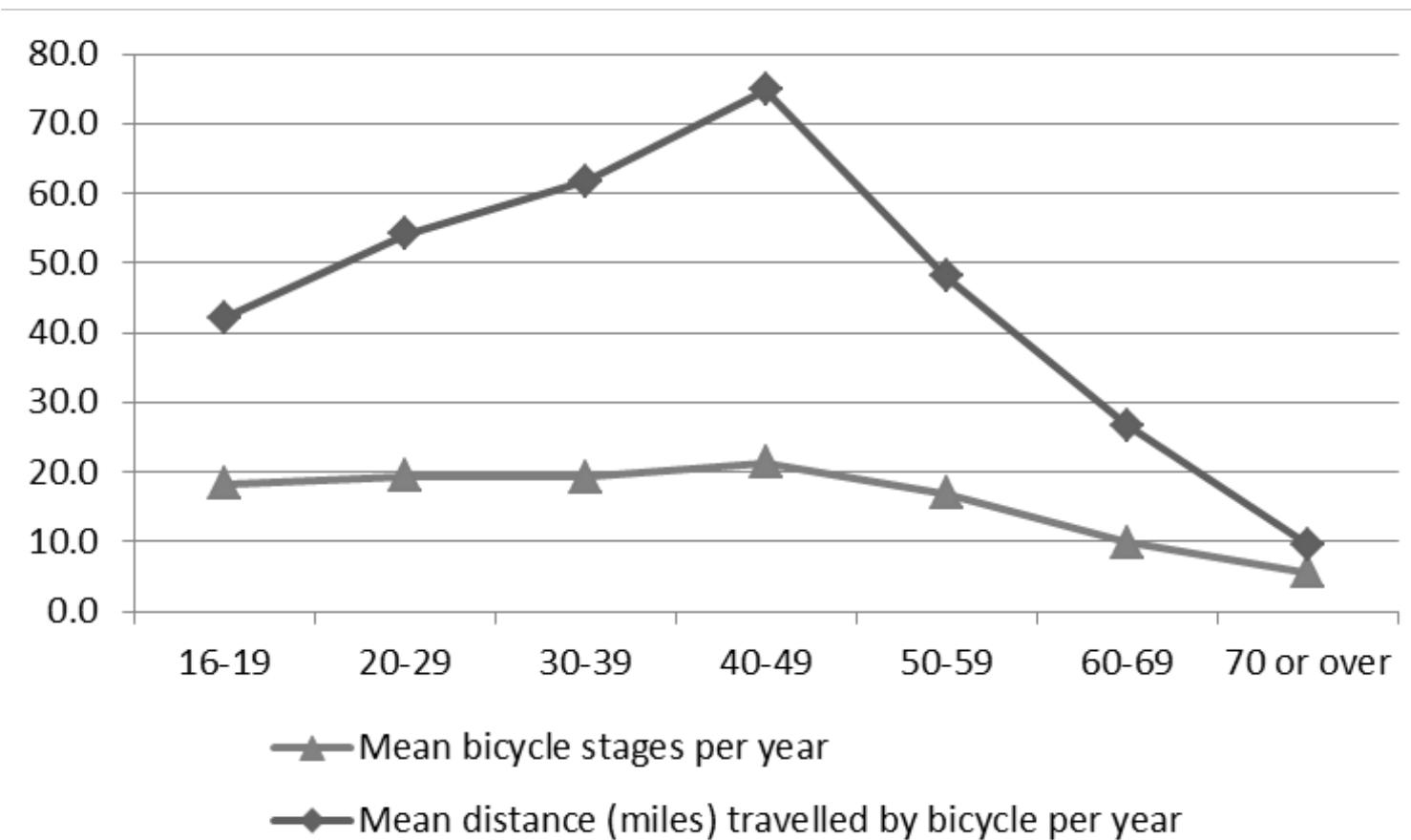
# Purpose of bicycle trips



Period: 2008-10  
Source: NTS

Personal business and social become main purposes as age

# Bicycle stages and distance



Period: 2008-10  
Source: NTS

Distance falls more steeply than stages as age

# Profiles of older cyclists

# Profile of older cyclists (60-69)

| Characteristic             | Own bike | Report bike trip |
|----------------------------|----------|------------------|
| Across all aged 60-69      | 27%      | 3.0%             |
| Live in Metro area         | 16%      | 1.0%             |
| Live in rural area         | 38%      | 3.5%             |
| Live in purpose-built flat | 12%      | 2.9%             |
| Live in detached home      | 37%      | 3.5%             |
| Own 0 cars                 | 14%      | 3.5%             |
| Own 2 cars                 | 36%      | 2.9%             |
| Lowest income quintile     | 22%      | 3.7%             |
| Highest income quintile    | 41%      | 3.6%             |
| Female                     | 20%      | 1.9%             |
| Male                       | 34%      | 4.3%             |
| Non-white                  | 7%       | 1.6%             |
| White                      | 28%      | 3.1%             |

Period: 2008-10  
Source: NTS

Own bikes - wealthy, male and white!

Use bikes - male and white but more mixed

# Built environment and bicycling

| Settlement type       | 16-59 | 60+  |
|-----------------------|-------|------|
| London                | 5.9%  | 2.2% |
| Metro                 | 3.9%  | 1.0% |
| Other urban over 250k | 6.6%  | 2.7% |
| Urban 25k to 250k     | 6.0%  | 2.3% |
| Urban 10k to 25k      | 5.5%  | 2.9% |
| Urban 3k to 10k       | 5.0%  | 2.5% |
| Rural                 | 5.4%  | 2.6% |
| Overall               | 5.6%  | 2.3% |

Indicator:  
Any bicycle trips reported in diary  
Period: 2008-10  
Source: NTS

60+ relatively more likely to cycle in smaller settlements (than 16-59)

# Attitudes to cycling

| Agreement with statement                       | 16-59 | 60+ |
|--|-------|-----|
| Disability/health making it difficult to cycle | 6%    | 43% |
| Not kind of person who rides bicycle           | 30%   | 48% |
| Confident cycling on roads                     | 41%   | 22% |
| Too dangerous for me to cycle on roads         | 57%   | 72% |
| Cycle (more) if more dedicated cycle paths     | 55%   | 42% |
| Rather cycle than use public transport         | 40%   | 18% |
| I (would) enjoy cycling as a leisure activity  | 72%   | 45% |

Period: 2009-10  
Source:  
DfT Climate Change and Transport Choices Segmentation Model project (N=3923)

Less able/inclined to cycle and discouraged to cycle on roads

# Other themes and data sources



- Contribution of cycling to physical activity and association with health and wellbeing (HSE)
- Cycling for leisure (APS)
- Bicyclist accident involvement (Stats 19)
- Local variation in bicycle use and the profile of bicyclists (NHTS, APS)
- Route user age profiles (Sustrans)
- Engagement of older people in cycling initiatives (e.g. Sky Ride participant data)
- Cycling experiences and thoughts (interviews from UWAC, Cycling City and Town evaluation)

# For discussion

- Do you have suggestions for priorities?
- Can you suggest data sources that would be useful?
- What do we want to know but there is no data currently available?

# **WP4: Cycling Life History Interviews**

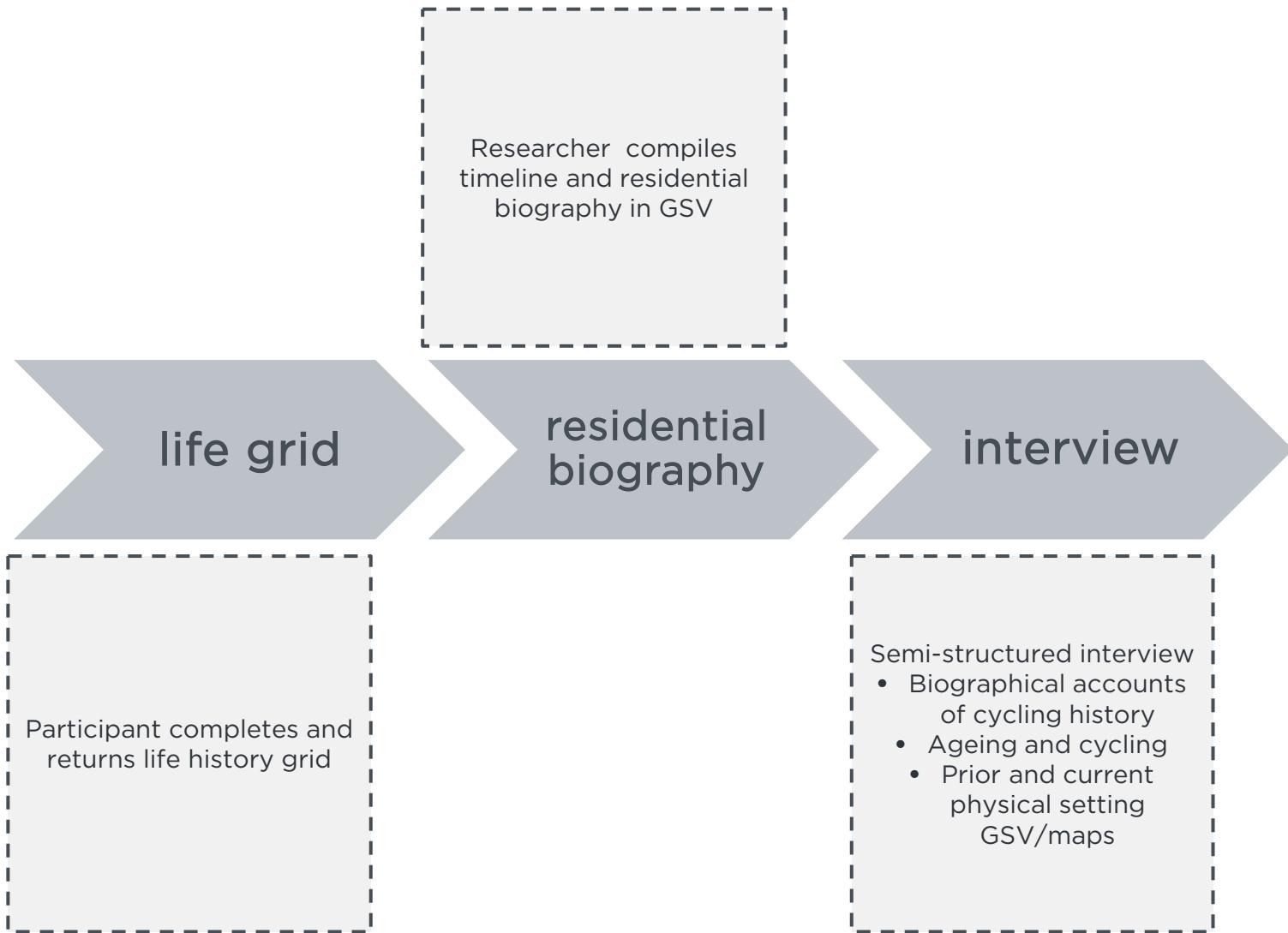
Heather Jones: University of the West of England (UWE)



- 1) Currently cycling
- 2) Early adulthood but no longer
- 3) Mid-adulthood and/or early but no longer

Through individual life histories of cycling reveal

- whole-life view on engagement with cycling
  - Behaviour change and continuity in relation to life events and transitions and evolving social and physical settings
  - potential to cycle through life
- experience and narratives of cycling and ageing
  - How cycling is affected by mid / later adulthood transitions?  
e.g. changing work patterns, family structure, roles, health
  - Adaptive, restorative and diminishing changes
  - Outlook for future cycling
  - What narrative forms are present ?

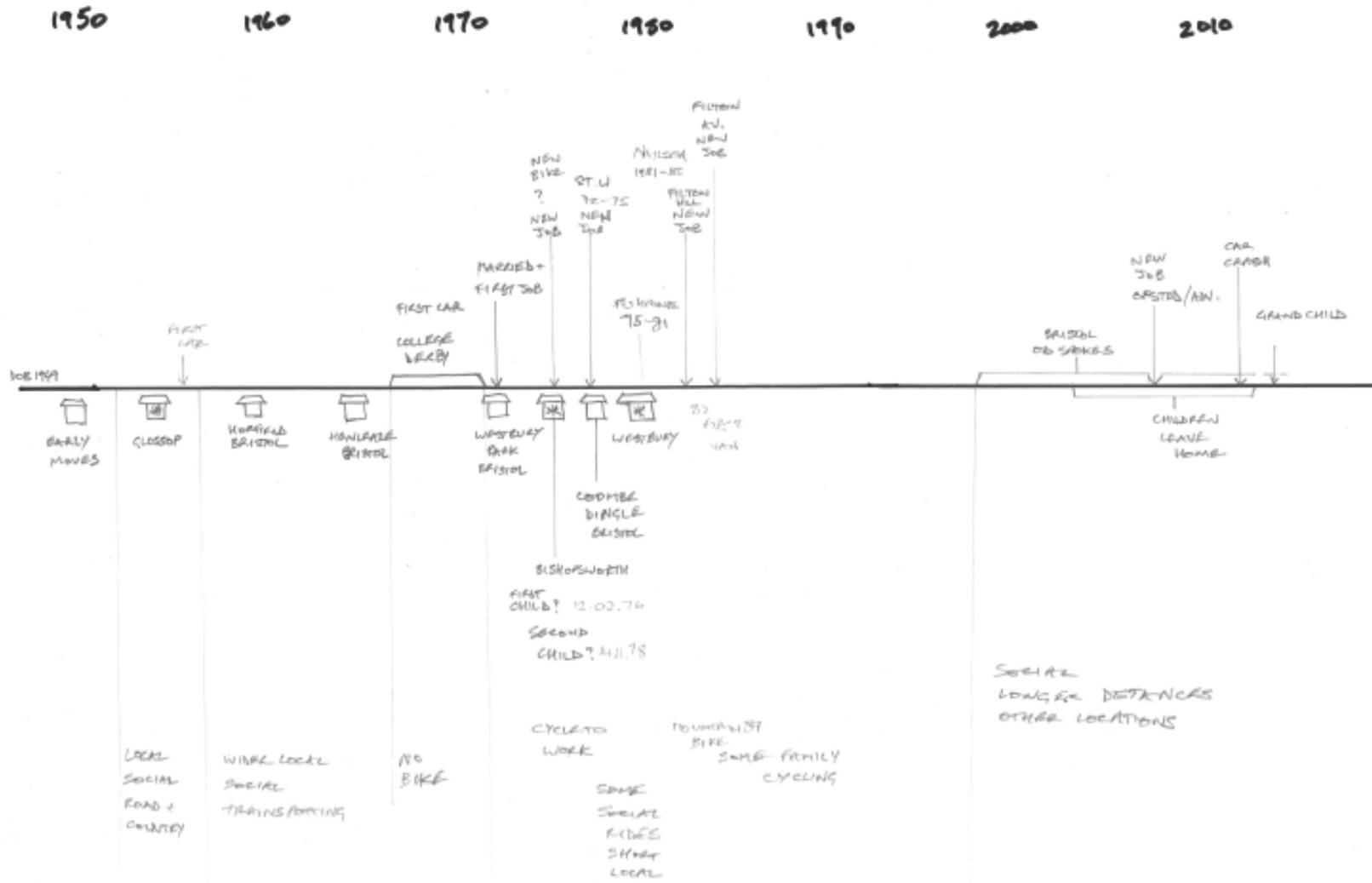


# Life history grid

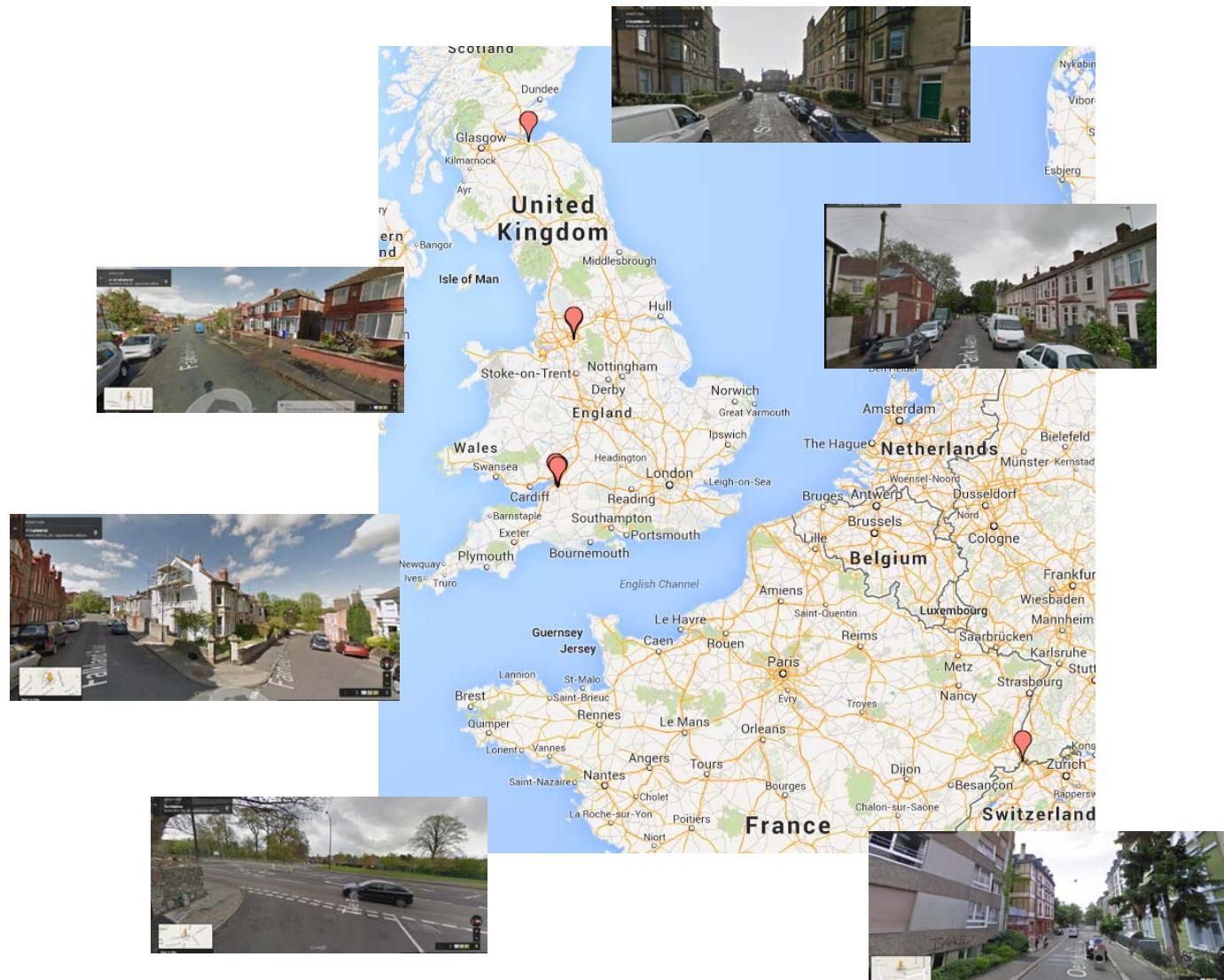
| Year of birth: 1963                              | 1950s | 1960s                           | 1970s  | 1980s  | 1990s  | 2000s   | 2010s  |
|--|-------|---------------------------------|--|--|--|---|--|
| Residence  |       | HARLOW,<br>ESSEX                | → 1977<br>ADFOXTON<br>MELFORDSHIRE<br>TO 1980                      | CHATHAM<br>KENT 82-83<br>CLYD<br>HEREFORD<br>TO 1982<br>1983           | WESTBURY<br>ON TRYM  | WESTBURY<br>ON TRYM   | WESTBURY<br>ON TRYM                              |
| Household  |       | MUM, DAD,<br>OLDER SISTER       | M, D, SISTER   | M, D<br>↓<br>2 WORK<br>COLLEAGUES<br>IN HOUSE<br>↓<br>STUDENT          | PROFESSIONAL<br>WITH<br>FEMALE<br>DAUGHTER<br>1991<br>1992<br>SON 1995 | M.E., WIFE,<br>SON & DAUGHTER.  | DAUGHTER TO<br>UNIVERSITY 2010<br>SON TOUNI 2011 |
| Education /<br>work<br>(paid / unpaid)           |       | PRIMARY SCHOOL<br>1968          | SECONDARY<br>SCHOOL<br>HARLOW<br>THEN<br>WIGGAGE, HOLLOWAY<br>1977 | SIXTH FORM<br>LEEDS 1980-82<br>PAID WORK<br>82-83<br>UNIVERSITY 83-86  | PAID<br>JOB<br>1986<br>NAILSEA   | JOB<br>FILTON<br>1988-<br>2005<br>JOB<br>CENTRE<br>OF<br>BRISTOL<br>2005-2010 | JOB<br>CHIPPENHAM<br>WILTS<br>2010 - NOW         |
| Activities /<br>hobbies /<br>leisure             |       |                                 | FOOTBALL<br>SPORT<br>ADVENTURES<br>WITH FRIENDS                    | FOOTBALL<br>BASKETBALL<br>(SCHOOL + UNIV.)<br>FOOTBALL AT WEEKENDS     | ACTIVE<br>HOLIDAYS   | WALKING<br>WITH<br>KIDS, FRIENDS<br>5-A-SIDE                                  |  |
| Transport  |       | KIDS BIKES<br>IMMEDIATE<br>AREA | 1975 FIRST<br>"REAL" BIKE<br>5-SPEED RACER                         | USE OF CAR<br>BOUGHT<br>GOOD BIKE<br>1980. BUSES<br>SOLD IT IN<br>1990 | NO BIKE  | KIDS HAVE NEVER HAD BIKES   |  |
| Cycling -<br>owned or had<br>access to a<br>bike |       | TOY BIKES<br>ETC                | ↓  | ↓  | ↓  |   |  |
| Cycling -<br>activity                            |       |                                 | WENT EVERYWHERE<br>ON BIKE<br>FROM 1975 → 1986<br>THEN GOT A CAR   | CYCLED AT<br>CENTRE PARKS<br>ONCE                                      | NO OTHER<br>BIKE USE.  |   |  |

# Timeline

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# GSV residential biography



# Pilot interview



- Ageing and cycling
- Past routes
- Aspiration for cycling

# For discussion

- How to tailor the method for interviews with those no longer cycling and may not have for some time
  - Not making it an inquisition
  - times of potential cycling
  - Exploring outlook for cycling
- How to use GSV/maps in interviews and in analysis?

# **WP5: Cycling Mobility Observation | Interviews**

Justin Spinney & Nick Humes:  
Cardiff University



# **WP6: Cycling and Wellbeing Trial**

Carien van Reekum:  
University of Reading



# Mediating factors



- Is exercise and better cognitive performance in older age causal?
- Better cardiovascular/cerebrovascular health?
- Effects of other factors:
  - Depression
  - Social interaction/engagement

- AIM: To test the impact of (re)discovering cycling on mental health and wellbeing in older adults.
- What is well-being?
  - Mental & physical health
  - (Social) engagement
  - (Life) satisfaction
  - Purpose in life
  - Feeling “happy”
- Approach taken: focus on cognitive performance and self-reported well-being

- Cognitive function
- Eudaimonic wellbeing
- Hedonic wellbeing (life satisfaction)
- Physical health

- Participants:
  - 80 Middle to older aged (50 and up) – not currently cycling
    - From different WPs
    - Recruited in Reading & Oxford
    - Half will e-bike
  - 20 same-aged controls
- 3 x per week for 30 mins each
  - Self-reported recording of actual activity level (frequency, duration, distance)

# Measures of cognitive function

- Standardised tests – MMSE (but too global – initial testing for profiling reasons)
- General processing – incl memory
- Executive function: Shifting, updating, inhibition (Miyake et al., 2000), “working memory”
- Tasks:
  - CERAD elements
  - Letter memory
  - Plus-minus
  - Stroop/Go-No Go/Eriksen flanker task
  - Pro-active interference

# Psychological well-being

- Eudaimonic vs hedonic well-being
- Hedonic WB: Satisfaction with Life Scale (Diener, 1985)

Below are five statements with which you may agree or disagree. Please circle the item that best reflects your agreement with each item. Please be open and honest in your responding.

- 1 = Strongly disagree  
2 = Disagree  
3 = Slightly disagree  
4 = Neither agree nor disagree  
5 = Slightly agree  
6 = Agree  
7 = Strongly agree
- 

1. In most ways my life is close to my ideal.      1    2    3    4    5    6    7
2. The conditions of my life are excellent.      1    2    3    4    5    6    7
3. I am satisfied with my life.      1    2    3    4    5    6    7
4. So far I have gotten the important things I want in life.      1    2    3    4    5    6    7
5. If I could live my life over, I would change almost nothing.      1    2    3    4    5    6    7

# Psychological well-being

- Scales of Psychological Well-Being (PWB, Ryff, 1989)
- Autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, and self-acceptance
- Items include
  - “I have confidence in my opinions, even if they are contrary to the general consensus”
  - “I am quite good at managing the many responsibilities of my daily life”
  - “I think it is important to have new experiences that challenge how you think about yourself and the world”
  - “People would describe me as a giving person, willing to share my time with others”
  - “I am an active person in carrying out the plans I set for myself”
  - “Some people wander aimlessly through life, but I am not one of them”
  - “When I look at the story of my life, I am pleased with how things have turned out”

# Questionnaires of physical health



- The SF-36v2 Health Survey
  - vitality
  - physical functioning
  - bodily pain
  - general health perceptions
  - physical role functioning
  - emotional role functioning
  - social role functioning
  - mental health

- Outcomes:
  - Cycling as another means for exercise to promote mental and physical health
  - Demonstrating better health will stimulate the public to (re)engage in cycling
  - Policy making
- Issues:
  - Compliance
  - Age distribution of volunteers
  - Cycle ownership, maintenance & repair
  - Safety of participants throughout the trial

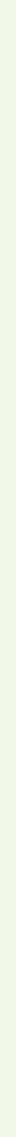
# Example of the Stroop task

- Your task is to name the colour of the ink that a word is printed in, and ignore the meaning of the word:

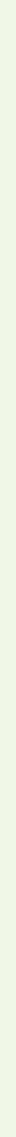
RED

GREEN

BLUE



**GREEN**



BLUE

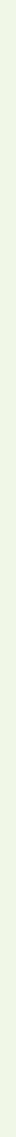
**RED**

WHITE

BLUE

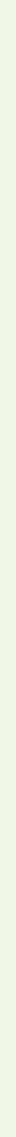


BLACK



RED

BLACK



**GREEN**

# Roundtable 1



1. Are you aware of any policies or programmes promoting older people's cycling in the UK or EU?
2. Do you have suggestions for any other possible data sources to analyse?
3. Do you have any comments on the empirical methods we are proposing?

# Recruitment and Participant Journey

Tim Jones, Ben Spencer, Nick Beale:  
Oxford Brookes University



# Sampling approach & participant journey

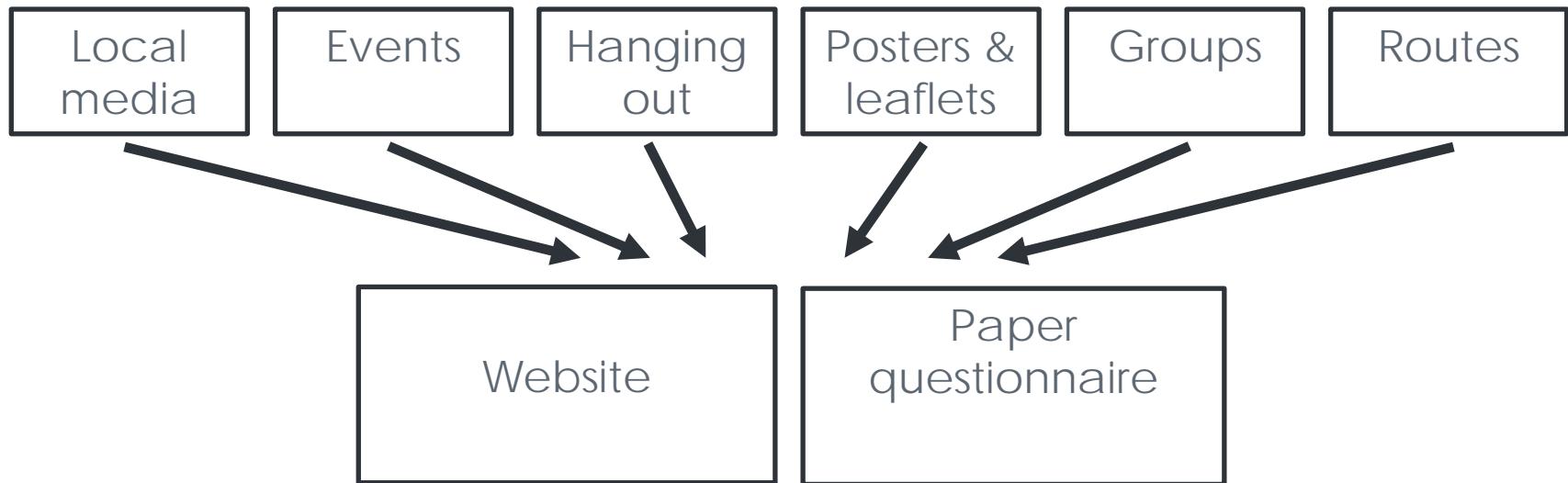
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## cycle BOOM sampling approach and participant journey

| SAMPLING FRAME   |   |               |               |               |
|--|---|---------------|---------------|---------------|
| Oxford   Reading   Bristol   Cardiff   |   |               |               |               |
| Selected Urban   Suburban   Peri-urban areas   |   |               |               |               |
| TARGET SAMPLE POPULATION   |   |               |               |               |
| 240 older people [120 Wave 1 in 2014   120 Wave 2 in 2015]   |   |               |               |               |
| Male   female  |   |               |               |               |
| Age 50-59   60-69   70+  |   |               |               |               |
| English Indices of deprivation   |   |               |               |               |
| SAMPLE RECRUITMENT   |   |               |               |               |
| <a href="http://www.cycleboom.org">www.cycleboom.org</a>   events   media   groups   snowballing   hanging out |   |               |               |               |
| SAMPLE SCREENING SURVEY  |   |               |               |               |
| <b>currently cycle</b>   <b>do not currently cycle</b>   |   |               |               |               |
| PARTICIPANT JOURNEY   WAVE 1   |   |               |               |               |
| METHOD   | OXFORD  | READING       | BRISTOL       | CARDIFF       |
| Cycling life history interview<br>[n=120]  | 10<br>↓<br>10   | 10<br>↓<br>10 | 15<br>↓<br>15 | 15<br>↓<br>15 |
| Cycling mobility observation-interview<br>[n=50]   |   |               |               |               |
| Cycling and wellbeing trial<br>[n=40 + 10 control]   | Pedal cycle<br>10<br>Electric cycle<br>10<br>Control<br>5 |               | 10<br>5       | No trials     |
|  |   |               |               | No trials     |

Version 1.0 | Last updated Feb 12 2014

# Recruitment





 Participate in our study

 Subscribe to our newsletter

 Read our blog

 Follow our Tweets

 Pin your cycling photos

You are here: [Home](#) / [Contact](#) / Register Your Interest

## Register Your Interest

We are looking for a diverse range of participants approaching later life (aged 50-59) and in later life (age 60+) living in the Bristol, Cardiff, Oxford and Reading areas to take part in our cycle BOOM study. We are especially interested in hearing from people who don't regularly cycle any more.

Whether you cycle or not, we are interested in hearing from you! We will be selecting people in the first quarter of 2014. We will get in touch with those we'd like to work with by the end of March 2014. If you have not heard from us by that date then unfortunately we will not have been able to select you to participate in the study.

**Privacy policy:** The information requested below will allow us to draw a diverse sample of participants.

All information is collected and stored in line with our [privacy policy](#), this also covers data security, including details on 128-bit SSL encryption.

# Participant questionnaire

Once you have completed the form, you can seal it back to us directly using one of the seals on the document, ready to post.

Further information

Nick Bleakley - Project Manager

Tel: 01865 382752

Email: nbleakley@prookes.ac.uk

**FREEPOST XXXXX**  
**cycle BOOM**  
Oxford Brookes University  
Department of Planning  
Headington Road Campus  
Oxford OX3 0BP



**cycle BOOM**  
Design for lifelong health  
and wellbeing  
**PARTICIPATION FORM**

The cycle BOOM team are looking for a diverse range of participants approaching later life (aged 50-59) and in later life (age 60+) living in XXXX [details of neighbourhood] to take part in our cycle BOOM study

We are especially interested in hearing from people regularly cycle any distance

Whether you cycle or are interested in hearing

**How will we use the information?**  
We collect and store information in order to consider whether a candidate to take part in the study. We will not share your details with third parties unless required by law.

The information you provide and used in accordance with the Protection Act 1998. All information collected about you during research will be kept strictly stored securely at Oxford Brookes or in another secure data facility.

**Access to your information**  
Contacting us

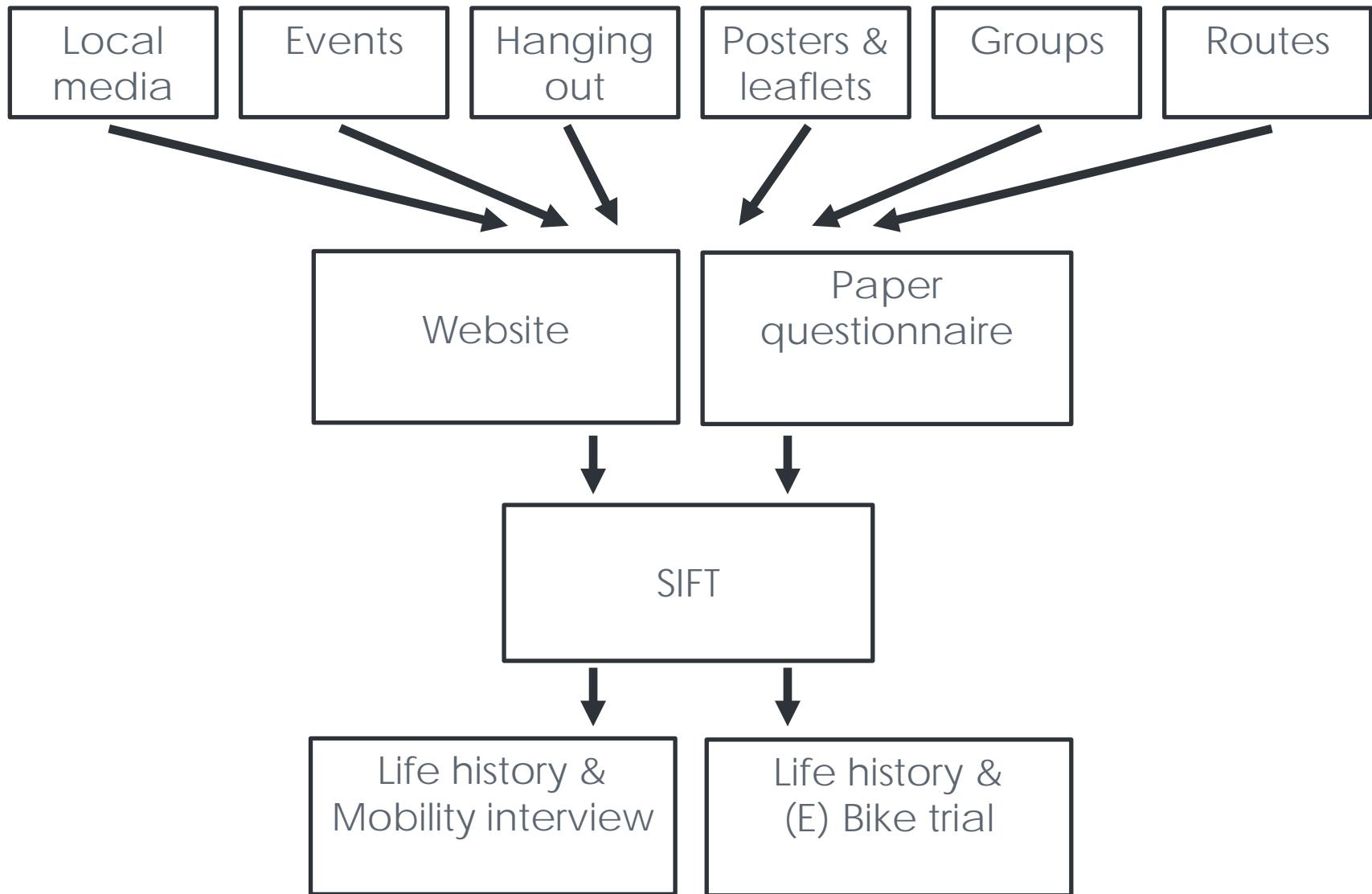
You have the right to request personal information that we hold about you. You may also withdraw at any point and request that we delete any information that we hold about you, if you would like a copy of information removed or if you have any concerns about our approach to data handling please contact the Project Manager, Nick Bleakley or email nbleakley@prookes.ac.uk

## PARTICIPATION FORM

Thank you for your interest to take part in the study, please complete the form below. Alternatively you can visit [www.cycleboom.org](http://www.cycleboom.org) and complete the form online.

|  |                       |
|--|-----------------------|
| First name   | Gender                |
| Last name  |                       |
| Year of birth*   |                       |
| Ethnic group<br>(Please tick one)  |                       |
| White  |                       |
| Asian or British Asian   |                       |
| Black or African/Caribbean/Black British   |                       |
| Mixed or multiple ethnic group   |                       |
| Other ethnic group (please specify)  |                       |
| Rather not say:  |                       |
| Full-time employment   |                       |
| Part-time employment   |                       |
| Away from work on sick leave/maternity leave or temporarily off work   |                       |
| Retired  |                       |
| Looking after family home  |                       |
| Student  |                       |
| Other (please specify):  |                       |
| <b>Are your day-to-day activities limited because of a health problem or disability that has lasted, or is expected to last, at least 12 months?</b>         |                       |
| Yes, limited a lot   | Yes, limited a little |
| Select which sentence best describes your current thinking about cycling?  | No                    |
| I am not planning to ride a bicycle in the future  |                       |
| I am thinking of riding a bicycle in the future  |                       |
| I am planning to ride a bicycle this year  |                       |
| I already ride a bicycle but I am planning on stopping this year   |                       |
| I already ride a bicycle and I intend to continue to do so this year   |                       |
| <b>What was your age when you last rode a bicycle?</b>   |                       |
| Participants year of birth must be before 1964 to qualify for this study.  |                       |
| For further information on this study please visit our website <a href="http://www.cycleboom.org">www.cycleboom.org</a> or see overleaf for contact details. |                       |
| EPSRC<br>Engineering and Physical Sciences Research Council<br>Funding the Living Health and Well-being programme, Grant No K900002021                       |                       |
| Lifelong Health & Well-being<br>University of Bristol  |                       |
| OXFORD BROOKES UNIVERSITY  |                       |
| Cardiff University   |                       |
| University of Reading  |                       |

# Recruitment



# Participant information



**What is the purpose of the study?**

cycle BOOM is a study to understand cycling amongst the older population in the UK and how this affects independence, health and wellbeing. The aim is to advise policy makers and practitioners how our environment and technologies can be designed to help people to continue to cycle in older age or to reconnect with cycling. This will be done through a 'toolkit' of advice and guidance supported by a short documentary film.

The cycle BOOM study is a 3-year project that started in October 2013 and that is funded under the UK Research Councils' Lifelong Health and Wellbeing programme. The study is being led by Oxford Brookes University in partnership with the University of Reading, University of the West of England (Bristol) and Cardiff University.

**Why have I been invited to participate?**

cycle BOOM is working with people aged over 50 with different levels of cycling experience living in the Oxford, Reading, Bristol and Cardiff areas. You have been selected to take part based on the background information you provided in the screening survey. Altogether we are inviting around 240 people living in the four study areas to take part. These are people with a variety of experiences of cycling and will include people who no longer cycle and those who have more recent experience of cycling.

**Do I have to take part?**

It is completely up to you to decide whether or not to take part in the study. If you decide to take part then you will need to sign and return the enclosed consent form to the project manager at the contact address overleaf. You are free to withdraw from the study at any time without giving a reason.

**What will happen to me if I take part?**

This part of the cycle BOOM study involves two tasks (Task A & B). If you no longer cycle you will only be asked to take part in task A. If you currently cycle you will be asked to take part in task A and B.

**Who is organising and funding the research?**

Cycle BOOM is being led by Dr Tim Jones a Senior Research Fellow in the Department of Planning at Oxford Brookes University, The University of Reading, the University of the West of England (Bristol) and Cardiff University and are partners in the research. Cycle BOOM is funded by the UK Research Council's through the Lifelong Health and Wellbeing (LHW) programme.

The study has been reviewed and passed by the Research Ethics Committees of Oxford Brookes (Ref No X000 and No X000) and University of Reading (Ref No X000) and complies with the requirements of Cardiff University and the University of the West of England.

**Contact for further information**

If you require any further information please contact:

**Nick Beale** – cycle BOOM Project Manager  
Oxford Brookes University, Department of Planning  
Headington Road Campus, Oxford OX3 0BP  
Tel: 01865 482752  
Email: [nbeale@brookes.ac.uk](mailto:nbeale@brookes.ac.uk)

- Further details are available at [www.cycleboom.org](http://www.cycleboom.org)
- Further details of the LHW programme <http://bit.ly/1gRQWY>

If you have any concerns about the way in which the study has been conducted, please contact the Chair of the University Research Ethics Committee on [ethics@brookes.ac.uk](mailto:ethics@brookes.ac.uk)

**Request our newsletter and bookmark our blog at [www.cycleboom.org](http://www.cycleboom.org)**

**Follow us on Twitter** [www.twitter.com/cycle\\_BOOM](http://www.twitter.com/cycle_BOOM)

**Like us on Facebook** [www.facebook.com/cydeboom](http://www.facebook.com/cydeboom)

EPSRC  
University of the  
West of England  
Gates and Crellin  
London School of Economics  
University of Reading

Research Grant No:  
EP/K037242/1

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**TASK B: CYCLING MOBILITY OBSERVATION-INTERVIEWS**

If you currently cycle we will arrange a separate occasion to observe you taking part in a routine journey or a shopping trip, for example, or a recreational activity where you regularly take part in. We will ask you to wear head mounted electroencephalography (EEG) sensors to measure the electrical activity in the brain and electromyography (EMG) to measure electrical signals produced by the muscles in your face. You will be asked to wear eye-tracking glasses to record your activity. The devices are safe, fit comfortably and hygienic. A video recorder will be mounted on your bicycle handlebar to record your speed and your location. GPS proximity sensors will also be placed on your bicycle. The researcher will follow you with a video camera and they will be fitted with a video camera on their bike and will take no longer than one hour. After completing it you will need to return the life history grid in the pre-paid envelope. If you are unsure of how to complete the task you can contact us for support using the details at the end of this document.

We will contact you within 7 days of receiving your 'life history grid' to organise a follow up interview. This can take place at your home, at the University or another convenient public place and will take no longer than one hour. We will use an illustrated timeline at the interview (compiled from the 'life history grid') to explore the role that cycling has or has not played during your lifetime. The interview will also involve looking at some maps and street view images of the places you have lived to better understand the geographical context for cycling. We will ask your permission to audio record the interview to help with our analysis and also your permission to return at a later date to film a documentary video targeted at illustrating our findings. If you no longer cycle you will not be required to take part in task B.

**TASK A: CYCLING LIFE HISTORY INTERVIEW**

This task will involve mailing you a 'life history grid' in the post for completion in your own time. On the grid we ask you to provide brief details on where you have lived, family circumstances, place of education and work, methods of transport, hobbies/leisure activities, and when you have cycled in your life. The task is relatively straightforward and will take no longer than one hour. After completing it you will need to return the life history grid in the pre-paid envelope. If you are unsure of how to complete the task you can contact us for support using the details at the end of this document.

We will contact you within 7 days of receiving your 'life history grid' to organise a follow up interview. This can take place at your home, at the University or another convenient public place and will take no longer than one hour. We will use an illustrated timeline at the interview (compiled from the 'life history grid') to explore the role that cycling has or has not played during your lifetime. The interview will also involve looking at some maps and street view images of the places you have lived to better understand the geographical context for cycling. We will ask your permission to audio record the interview to help with our analysis and also your permission to return at a later date to film a documentary video targeted at illustrating our findings. If you no longer cycle you will not be required to take part in task B.

**What should I do if I want to take part?**

If you are happy to take part please complete and sign the attached consent form and return it to the project manager using the contact details below. We will then contact you within 14 days of receiving it to confirm your participation and to confirm survey arrangements.

# Oxford - Registered Interest

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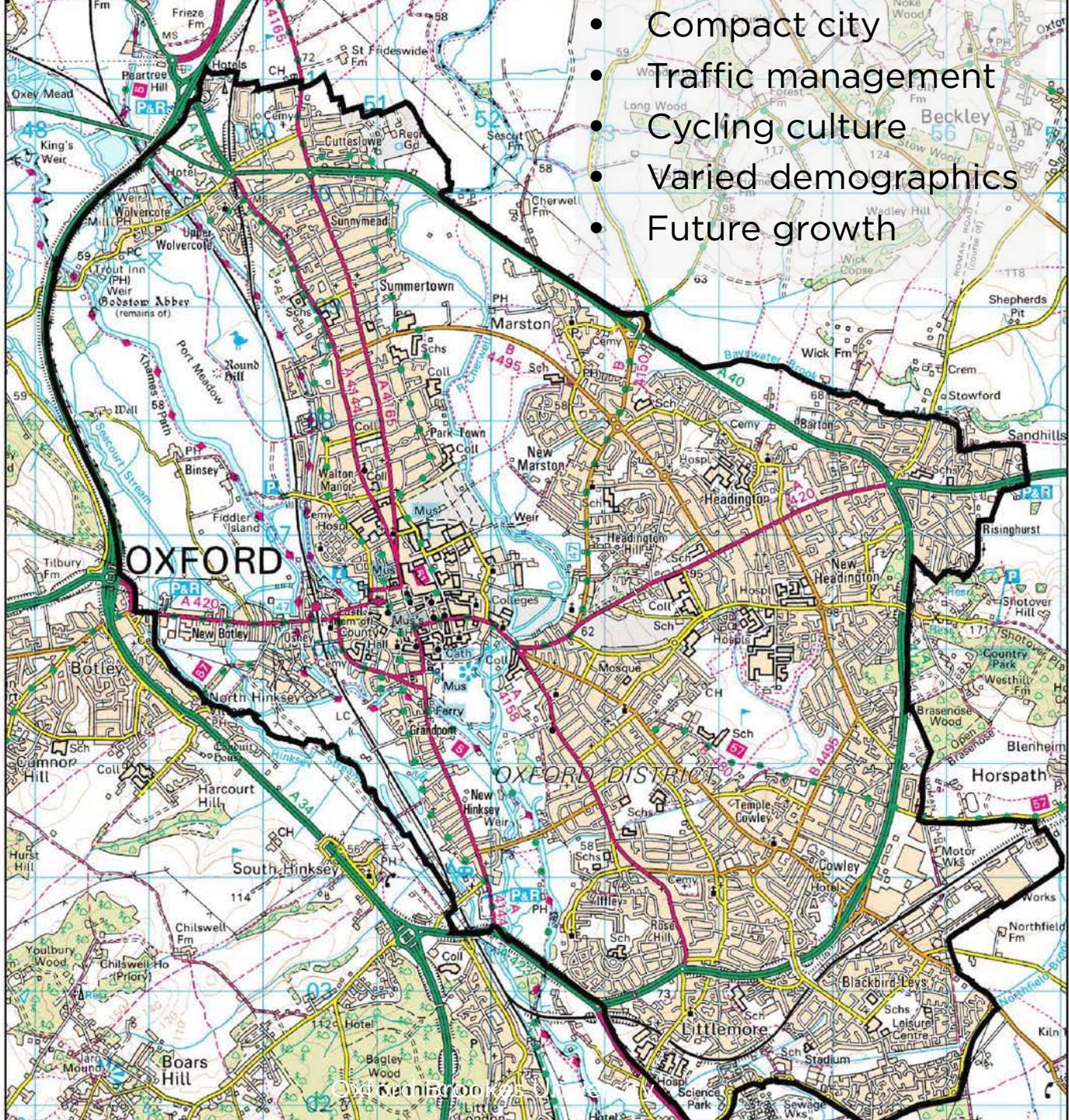


# Oxford - Registered Interest

| METHOD   | OXFORD         |             |           |             | I'll let you decide |
|--|----------------|-------------|-----------|-------------|---------------------|
|  | M: 50-59:      | M: 60-69:   | M: 70+:   | F: 50-59:   |                     |
| Cycling life history interview<br>[n=120]          | M: 50-59: 3    | M: 60-69: 1 | M: 70+: 0 | F: 50-59: 0 | 1 0                 |
|  | M: 60-69: 8    | M: 70-69: 5 | M: 70+: 0 | F: 60-69: 2 | 5 0                 |
|  | M: 70+: 4      | F: 70+: 4   | F: 70+: 0 | F: 70+: 0   | 0 0                 |
|  | ↓              |             |           |             |                     |
|  | M: 50-59: 3    | M: 60-69: 8 | M: 70+: 2 | F: 50-59: 0 | 3 0                 |
|  | M: 60-69: 8    | M: 70-69: 5 | M: 70+: 0 | F: 60-69: 2 | 2 3                 |
| Cycling mobility observation- interview<br>[n=50]  | M: 70+: 2      | F: 70+: 1   | F: 70+: 0 | F: 70+: 0   | 0 0                 |
|  | ↓              |             |           |             |                     |
|  | M: 50-59: 3    | M: 60-69: 8 | M: 70+: 2 | F: 50-59: 0 | 3 0                 |
|  | M: 60-69: 8    | M: 70-69: 5 | M: 70+: 0 | F: 60-69: 2 | 2 3                 |
|  | M: 70+: 2      | F: 70+: 1   | F: 70+: 0 | F: 70+: 0   | 0 0                 |
|  | e-Bike only    |             |           |             |                     |
| Cycling and wellbeing trial<br>[n=40 + 10 control] | M: 50-59: 0    | M: 60-69: 1 | M: 70+: 0 | F: 50-59: 0 | 4 1                 |
|  | M: 60-69: 1    | M: 70-69: 5 | M: 70+: 0 | F: 60-69: 2 | 8 3                 |
|  | M: 70+: 0      | F: 70+: 1   | F: 70+: 0 | F: 70+: 0   | 4 0                 |
|  | Pedal cycle    |             |           |             |                     |
|  | M: 50-59: 0    | M: 60-69: 1 | M: 70+: 0 | F: 50-59: 0 | 2 3                 |
|  | M: 60-69: 1    | M: 70-69: 5 | M: 70+: 0 | F: 60-69: 2 | 6 8                 |
| Pedal cycle<br>Electric cycle                      | M: 70+: 0      | F: 70+: 1   | F: 70+: 0 | F: 70+: 0   | 6 1                 |
|  | Electric cycle |             |           |             |                     |

# Approach to sampling: Oxford (shire)





- Compact city
- Traffic management
- Cycling culture
- Varied demographics
- Future growth



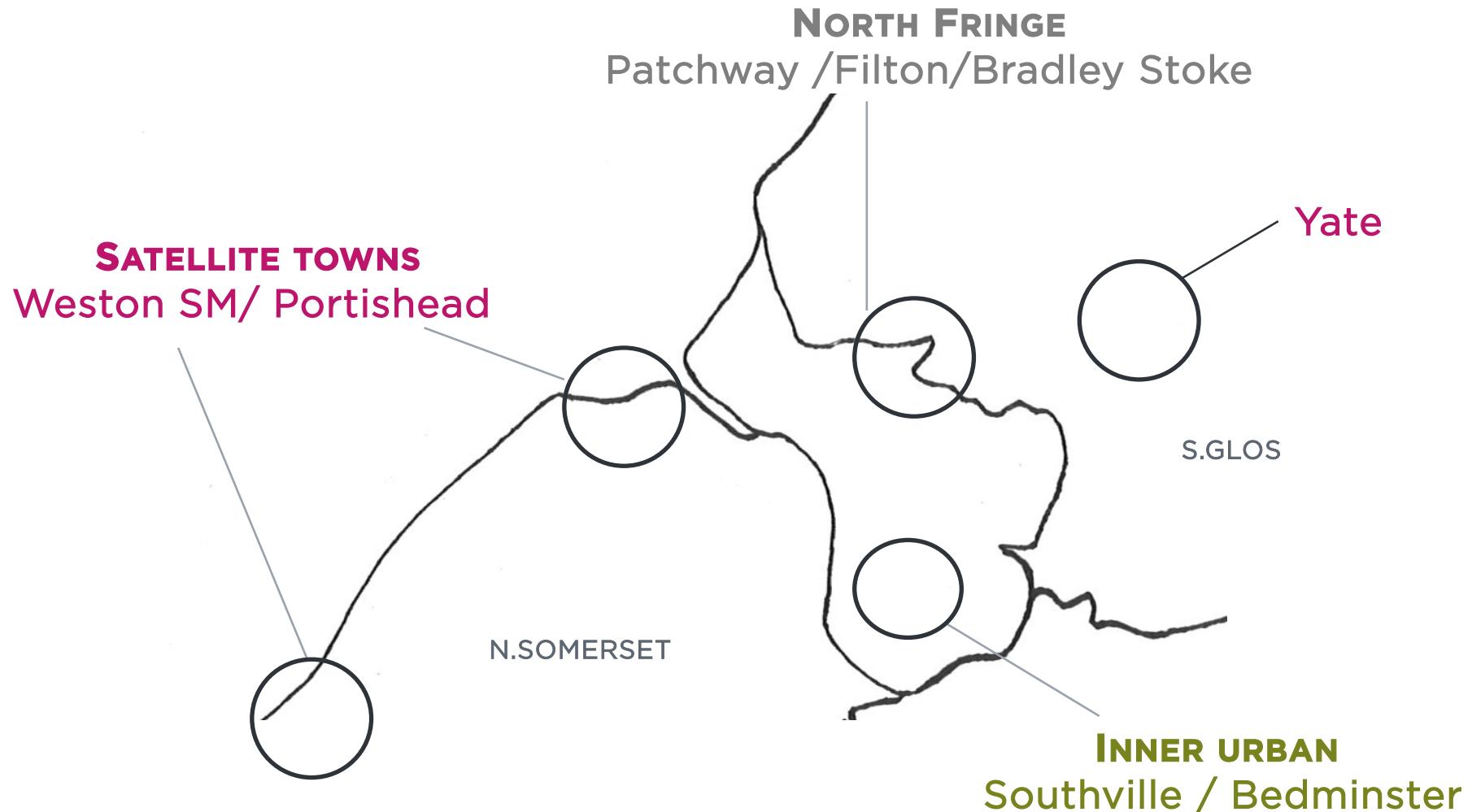


**Pop 36,600 (2001)**  
5 miles to Oxford  
Fast growing  
Conventional road hierarchy  
Mix of housing types  
Slightly higher age profile than Oxford  
NCN route 5

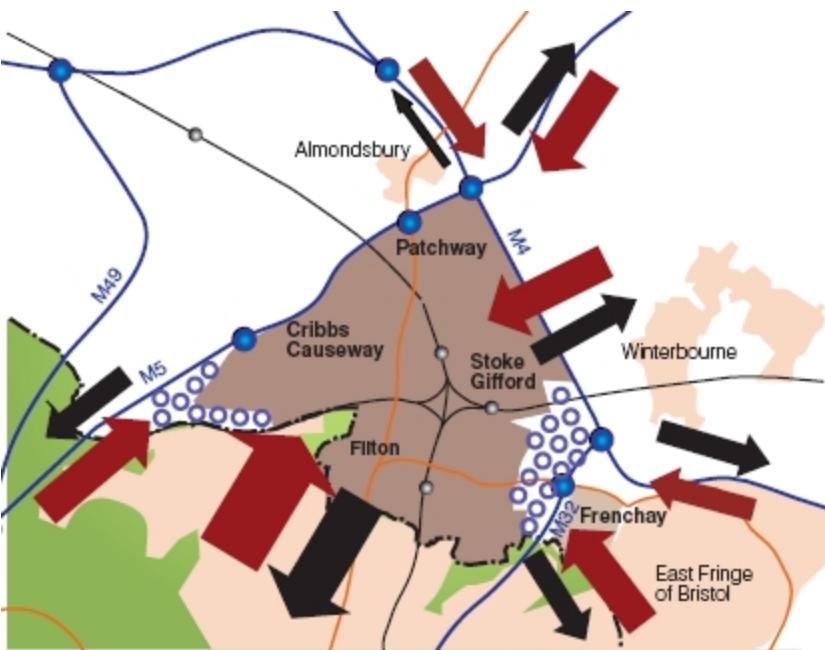
**Pop 28,700 (2001)**  
15 miles to Oxford  
Fast growing  
Conventional road hierarchy  
Mix of housing types  
Slightly higher age profile than Oxford  
NCN route 51

# **Candidate areas: West of England**





## Filton, Patchway, Bradley Stoke



- contiguous with Bristol
- bounded by M4/M5
- population ~ 50,000
- Major employment
  - Significant commuter movements
  - North Bristol SusCom
  - LSTF smarter choices promotion and key routes
- Cycling City Legacy
  - Concorde way
- Some hills

# North Fringe



Patchway/ Filton  
1930-1960s  
Priority neighbourhoods

Bradley Stoke  
1980s/1990s



# Southville/ Bedminster

- South of city centre,  
  bounded by river to north
- Gentrified/deprived
- Hilly
- R+NCN 33 + 4
- Cycling city legacy
  - Malago greenway
- 20 mph zone
- LSTF: river crossings
- Traditional high street



# Bedminster & Southville



late c19th &  
early c20th  
High density  
terraced/ semi-  
detached/ flats

Interspersed  
with former  
and current  
industry



- Circa 75,000
- 18 miles from Bristol
- older age profile and ageing.
- 1% most deprived
- C19<sup>th</sup> seaside resort/ late C20th + C21<sup>st</sup> growth
  - Enterprise area
- Reasonably flat
- LSTF: limited cycling measures
- NCN 33 + 26

- 22,000
- 8 miles from Bristol
- dormitory town
- recent growth and ageing
- retirement developments
- More affluent
- LSTF: enhanced routes
- NCN 41 + 26

# Weston Super Mare



1950s/60s/70s housing  
medium density

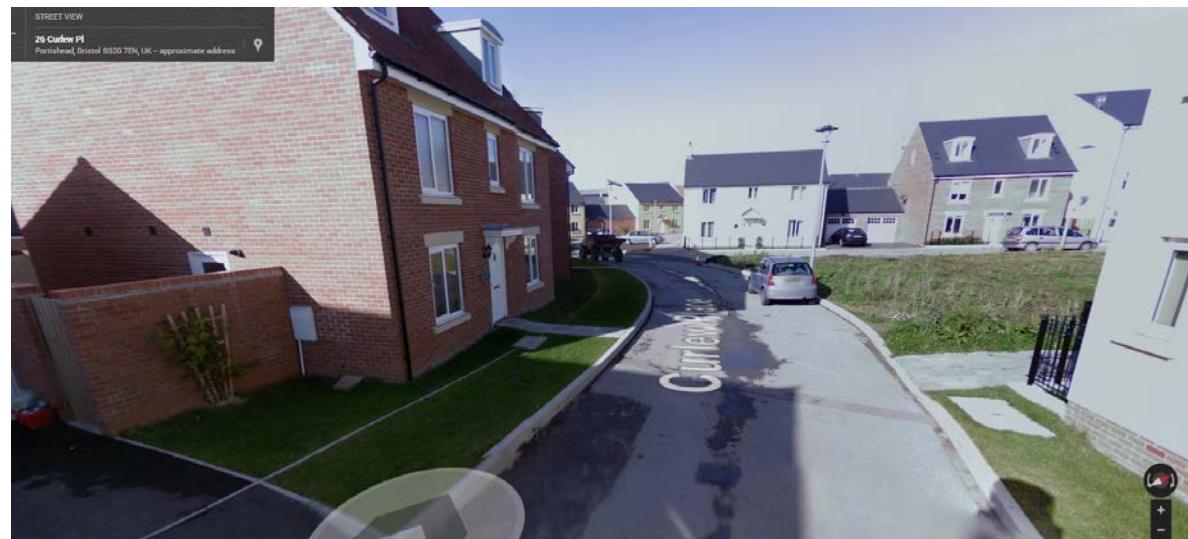


C21<sup>st</sup> ‘urban villages’ /  
extensions

# Portishead



medium density,  
1970s/80s and c21st  
housing estates



# Candidate areas: Reading

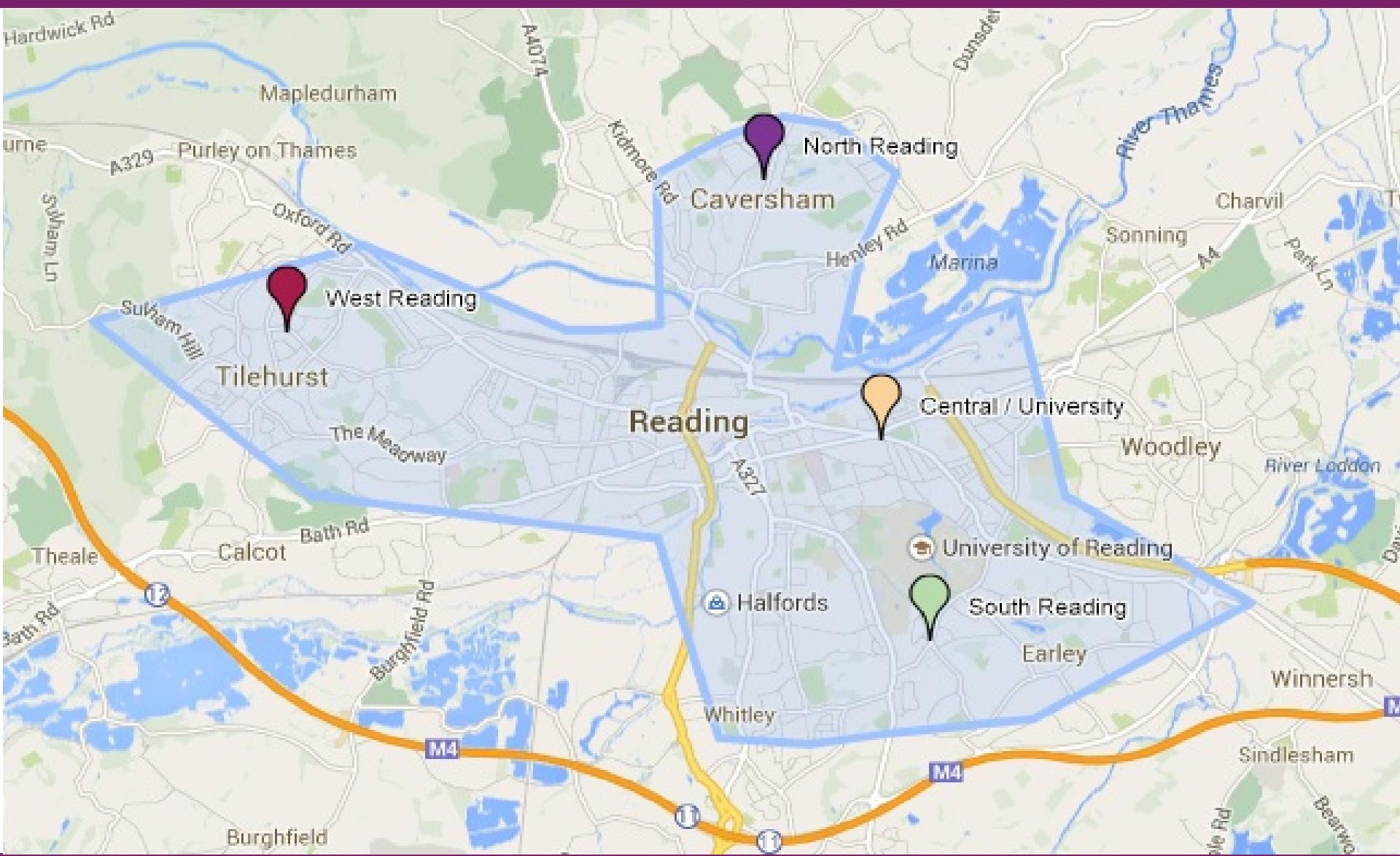


# Reading: 4 locations



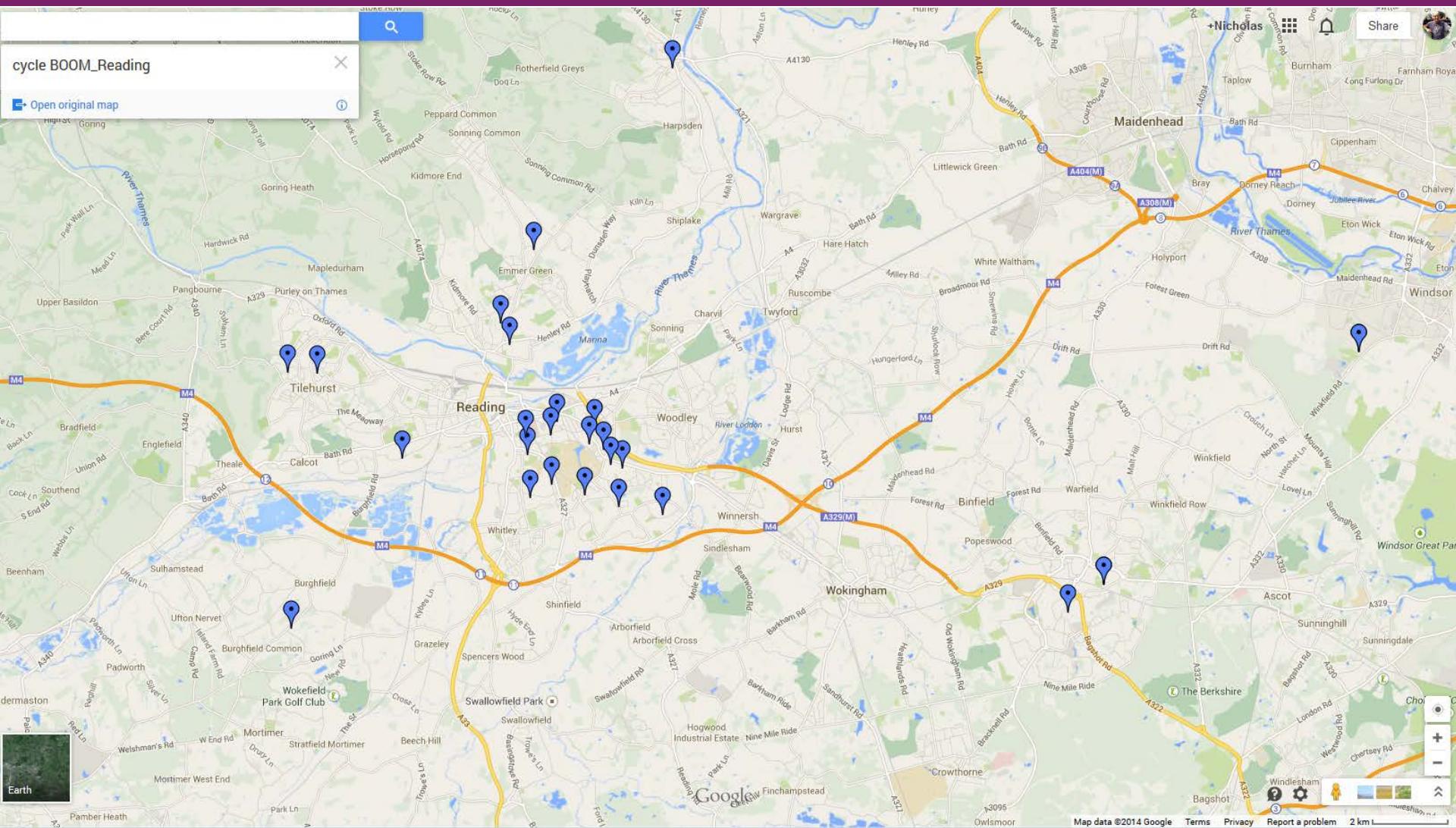
- Caversham - *North Reading*
- Tilehurst - *West Reading*
- Town / University - *Central Reading*
- Earley / Lower Earley - *South Reading*

# Reading Case Study



# Reading: Recruitment

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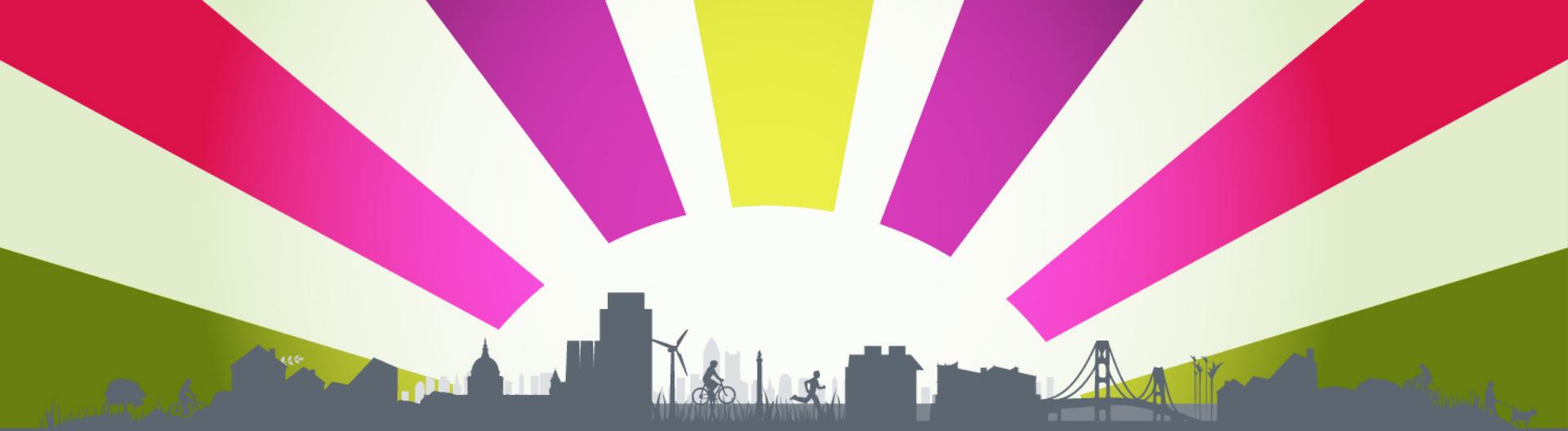
# Approach to sampling: Cardiff



# Roundtable 2



1. Do you have any comments on the overall approach to recruitment?
2. Do you have any comments on the places we are targeting within the four case study areas?
3. Do you have any ideas on generating impact for the study?



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# First Stakeholder Advisory Group Meeting

12 March 2014