

Stakeholder Advisory Group • 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.







Expe PriC	rence and Social Synergy through Design BOOM ELESS Design) - EP/K037242/1
1.	Cycling offers the potential to support healthy ageing amongst older people (but 1 per cent of trips of people age 65+ compared to 9 per cent in Germany)
2.	General absence of discourse on designing the built environment to support older people's cycling.
3.	Infrastructural projects continue to be implemented without knowledge of how their design affects older people's mobility.
4.	Need for understanding of how the growing electric bicycle (e-bike) market is shaping older people's willingness and ability to cycle.
22 Oct	ober 2014 cycle BOOM 6



Objectives First, to develop a better understanding of how the design of the built environment and technology shapes older peoples engagement with, and experience of cycling, and how this affects their independent mobility, health and wellbeing. Second, to develop a toolkit that advises policy makers and practitioners on how the built environment and technology could be better designed to support and promote cycling amongst current and future older generations in order to improve independent living, health and wellbeing.



Work Packa	ge Structure	e	Methods even
Project Managem	ent [WP1]] -	Scoping 1 [WP2]: Investigate EU cities promoting more inclusive cycling amongst the older population/compare with activity in the UK.
Scoping	- Field Research	•	Scoping 2 [WP3]: Analysis of UK data to identify trends in older participation in cycling and effects of programmes.
Design and Reverse Listing Data (WF2) Listing Data (WF3) Listing Data (WF3) Listing Data (WF3) Listing Data (WF3) Listing Data	Cycling Life History Interview (WP4) Cycling Mobility Observation in Interview (WP5) isis (WP7)] -] _]	Biographic (cycling life-history) Interviews [WP4] to understand the role of past experiences of cycling and the influence of life events. Mobile Interviews and observation [WP5] with participants as they make a regular journey by cyclie to capture everyday experience of cycling I measure how interaction with the built environment affects mental physical and mental wellbeing.
Development of Toolkit [WP8]	Dissemination / Impact [WP8]		8-week experimental bike trial [WP6] with new and returning cycle users to measure how (re)engagement with both conventional and electric cycling in the built environment affects physical and mental wellbeing (@oxfordbrookes and @ireading)
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Recruitment Summary [as at 20/10/2014]

Wave 1 2014	*Applications	**Invited	***Accepted	****Proportion
Areas	No. (%)	No. (%)	No. (%)	of target
Oxford	129 (45)	42 (33)	33 (78)	110
Reading	63 (22)	36 (57)	21 (58)	70
Bristol	30 (10)	16 <i>(53)</i>	12 (75)	40
Cardiff	65 (23)	31 (48)	27 (87)	90
Total	287 (100)	125 (44)	93 (74)	75

*No. (as a percentage across areas) **No. (as a percentage within area)***No. (as a percentage of invited) ****Based on target n=30 ppts













Mobility Characteristics	Applicant profile per cent (N=287)	Participant profile per cent (n=93)	
Household access to car	nc 02	02	High level of car 8
Personal access to a cycle		72	cycle access
Ye	es 93	90	Laura ana atta
How often cycled in last 1	2		of regular cyclicts
month	15	20	of regular cyclists
Rarely (once or twice	er 10 e) 11	20	selected
Occasionally (once a month	n) 9	15	
Regularly (once a weel	k) 64	56	_
	,		-
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Scoping study aims Review, through thematic analysis, the existing research in the broad fields of transport planning / mobility, gerontology, psychology / wellbeing and urban design; Analyse existing policy guidance (ageing, built out best practice (EU case studies); Build evidence base (thematic bibliography/policy analysis) to inform and support other work packages, such as governance frameworks to support profiling of 4 UK case study cities; Develop urban design audit toolkit/methodology to gauge specied of urban design factors in mediation.



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- 2 x 3 day study visits to MUNICA in Germany and Seville in Spain, May and June 2014 to explore good practice in inclusive cycling
- Interviews with key stakeholders, cycle tours/visits (e.g. testing infrastructure), filming and audio recording
- Decision to focus on 'atypical' cycling cities and also to invite a northern/southern European comparison

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Munich - some key findings

- Well-developed cycle policy based upon a consensual approach
- Recognition of the multiple benefits of cycling (e.g. BMW are 'on board')
- Stable political system with autonomy at the metropolitan level has supported this approach
- Mix of infrastructure including extensive network of segregated lanes but also shared spaces
- Inclusivity supported via targeted training programmes for older people
- Conflicts arising due to 'popularity', e.g. different speeds of cyclists and use spaces shared with pedestrians
- Uncertainties surround the level of 'political
 will' going forward



Seville - some key findings

Seen a 10 fold increase in cycling rates between 2006-10 (from <1%-6% modal share, to around 72,000 daily trips)

Extensive **segregated cycle lanes** credited for much of this + bike hire scheme (Sevici) + traffic management in historic centre

Brave **political decision-making** building upon decades of campaigning + grassroots work to deliver rapid change

Cycling seen as key to wider **political ambition** to 'reclaim the human scale' of the city – 'build a useful cycle network' and 'they [incl. non-cyclists] will come'

Major uncertainties about future political (+financial) support at city-level

Regional picture is more positive



Next steps + documentary 'teaser'

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- Interim report produced and to be revised
- Further mining of secondary data (e.g. documents + existing research data) to inform a revised report
- Further analysis of audio / video data to inform report and create a longer documentary highlighting the lessons learned
- Targeting early 2015 for docu + final report by next SAG

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Here's a taster/teaser! <u>http://vimeo.com/106933009</u>

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Policy review cycle Aims Policy Review • To map the policy environment according to the key thematic areas of the scoping study (ageing, design, cycling and wellbeing); Outputs • To situate older cyclists within this review; • To explore the ways in which older cyclists are represented within the policy literature. Outputs • Archive of policy materials (e.g. documents, plans and references) Policy Review

- Policy '**map**' (Phase 1)
- Written report focussed on policy constructions relevant to issues that link to older cyclists (Phase 2)



How has the UK policy discourse on cycling evolved in the last 30 years?

What are the **predominant narratives** surrounding cycling and design, ageing, wellbeing and design? At what point, and in what ways, did older cyclists begin to feature in policy?

Is the older cyclist perceived as a policy problem or opportunity?



Policy review - phase 2

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 Developing an analytical framework to excavate greater detail about where older cycling 'fits' within wider policy discourses, e.g. on wellbeing, mobility (incl. cycling), ageing and design

Issues:

- Cycling from an ageing perspective is rarely addressed in 'formal' policy discourses and may be 'hidden' in policy sub-fields;
- Activity that does exist is often ad-hoc, localised and therefore hard to capture in a wider review of this kind.

Questions for further discussion:

- How extensive (i.e. at what scale, and in what policy areas) should the review focus?
- How can we capture ad-hoc and localised activities?
- What key terms or policy agendas might form a useful 'entry point'? E.g. 'active ageing', 'age friendly cities', 'inclusive civiling' - other suggestions?



Urban Design - audit tool

- Currently a lack of understanding between urban design and transportation aspects of the built environment (Boarnet & Crane, 2007)
- Urban design has **neglected** the cyclists perspective (Forsyth et al, 2009)
- Cyclists the 'forgotten middle' in urban design discussions and principles (Black & Street, 2014)

Yet...

- Good urban design has the power to aid in the provision of inclusive journey environments (Azmin-Fouladi et al, 2007), and;
- Characteristics of the built environment are seen as key to successful policy interventions (Yen, 2009)



Urban Desig	IN – audit tool BOOM
CYCIE BOOOM DESIGN FOR LIFELONG HEALTH & WELLBEING	Audit Stage: • Urban design audit of pre-selected routes in Cardiff and Reading • Building on Cycling in Reading tool / principles / design guide
inking design, nobility, and ageing ndividual perceptions of BE ntegrating with vider cB study despoke audit tool	 Eye-tracking: Tracking <i>older cyclists</i> engagement with built environment on actual journeys Interviews and discussion Integration with WP5: Ability to cross reference data sets (EEG / Eye- tracking / GPS / Sonar / Sound / Go-Pro / Auto ethogenerably des
nd detailed design guidance	 Auto-etnnography etc.) Building on existing cycle audit tools
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Urban Design - audit tool

The Audit Process:

Building on the work of Ewing et al (2013) - Urban design audit for walking

- Built environment criteria • density; street width; open space; traffic; landmarks etc.
- infrastructure; topography; amenities & facilities etc.
- Urba • legibility; enclosure; complexity; transparency; scale etc.
- Technical Expert-Led Evaluation
 - 'Objective' measurement of urban design features (Moser, 2009)

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- Evaluating and rating UD qualities (video/stills) • 3-4 'experts' -urban design / architecture / planning

Outputs

- Urban Design and Cycling Audit Tool
 - Key quality indicators ranking / rating template Assess current cycle routes audit potential cycle routes
- Design Guidance Publication
 - Part of cycleBOOM practitioners tool-kit .
 - Highlighting best practice examples
 - Template for route categorisation 'quality' ratings of UD principles specific to cycling
 - Reimagined UD principles for practitioners / local authorities / communities

demic / Educational Impact Aca

- Engaging UD discipline with cycling perspectives •
- Rearticulating traditional principles to include cyclists

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Opportunity for further research

Urban Design - audit tool

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Audit aim:

- To design, develop, and conduct a comprehensive urban design audit specific to cycling - resulting in a bespoke audit tool and published design guide for policy makers and practitioners
- Identify the attributes, features and principles that influence or contribute to quality urban environments for cyclists - and how these environments can be achieved both retrospectively and through future development initiatives























11/10/2014











cycle BOOM Emerging themes – avenues for analysis

- Heterogeneity in cycling pathways:
 Discontinued | (re)discovered | continued
- Influences on pathway:
 - Body | gender | environment | social | culture
- Cycling niche: .

 - Enduring: knowledge | skills
 Adapting: bike | kit | timing | skills | company | routes
 - Explorative: mentors
- Later life:
 - Transitions: retirement | residential moves | family roles | motivation
 - Niches established and evolved





Wellbeing and cognition trial

• Participants are asked to cycle for an 8 week period

- 3 times a week for 30 minutes each time

- They complete a diary of the rides they take
- Including other physical activity undertaken • Take GPS device on the rides with them
- recording the route
- Cognition and wellbeing are measured before the trial (pre-trial) and after

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Domains measured • Wellbeing/affect - SF36 - mental health score -PWB Compare pre-- SL trial to post-- PANAS trial score Physical health – SF36 – physical health score – Physical Activity Scale for the Elderly

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Cognitive function





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Analysis											cycle BOOM					
		HJ				_	BS									
	P1	P2	P3		P1		P2		P3							
Stage 1		HJ -> H	۰IJ			В	S -> E	3S								
Stage 2	HJ -> BS			HJ -> BS BS -> HJ												
	HJ /			В	IS - TJ						BS - TJ					
Stage 3	P1	P2	P3		P4		Р5		P6							
Stage 4		CC	DDING F	G FRAMEWORK						Π						
Stage 5		APPLICATION														
Stage 6			ITEF	A	TION	_										
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Outputs Impact: Presentations to							
UK-Ireland Planning Research Conference 10 September 2014 Oxford Brookes University							
Cycling and Society Annual Symposium 2014 8 September 2014 Newcastle							
RGS-IBG Annual International Conference 2014 27 August 2014 London							
• mobil.TUM 2014 19 May 2014 Munich							
• Eco2Mobility: Mobility and Social Inclusion workshop 20 March 2014 Ghent.							
Older People & Ageing Research & Development Network (OPAN Cymru) 11 December 2013 Swansea University.							
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Outputs | Impact: Future Events?

- Cycling and Society Annual Symposium, Sept. 2015 & Sept. 2016
- PTRC 4th Annual Transport Health and Wellbeing Conference, April 2015
- Ageing & Cognition 2015, April 2015
- Velo City 2015, June 2015
- Royal Geographical Society with IBG 2015, August 2015
- BSG Annual Conference 2015, Sept. 2015
- 8th European Public Health Conference, October 2015
- Association of American Geographers Annual Meeting, April 2016
- 14th World Conference on Transport Research, June 2016
 6th International Conference on Traffic and Transport Psychology, August 2016

Outputs | Impact: Future Project

- Special session on '**Design for Wellbeing:** Ageing and Velo-mobility in the Built Environment'. RGS with IBG, August 2016
- Special session on '**Researching with older people**'. 7th ESRC Research Methods Festival, July 2016
- Final Project Conferences | London & Leeds, Sept. 2016
- Two (2) school visits per area (e.g.to give a session as part of Citizenship class on issues around older people's mobility).

Roundtable 2

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Policy Review

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