Critical Tensions in Planning for Cycling

Cycling and Society Research Group Annual Symposium 2023

Hosted by the Centre for Transport Research, Department of Civil, Structural and Environmental Engineering, Trinity College Dublin

7th – 8th September, 2023

Thursday, 7th September

Session 1: Cycling in Older Age

Chair: Damien Ó Tuama

Cycling as mobility for older and disabled people in Active Neighbourhoods
Graeme Sherriff & Ian Cookson (University of Salford, UK) (IP)

In previous research into Active Neighbourhoods (Larrington-Spencer et al., 2021), the needs of older and disabled people were found to be neglected in Active Neighbourhood planning. Therefore, we explored how Low Traffic and Active Neighbourhoods might be more effectively formulated to meet the needs of older and disabled people within our communities and reduce social exclusion. In a first phase, we interviewed experts and advocates of older and disabled people, with their interviews qualitatively analysed for prominent themes. In a second phase, we held neighbourhood workshops and conducted walking interviews in an area of Greater Manchester. Our findings indicate that in order to enable older and disabled people to participate in active travel, we should focus on the walkability of neighbourhoods and employ measures such as motor traffic reduction and enforcement of poor parking, while improving the basic condition of pavements. While Active Neighbourhoods seek to reduce car dependency to enable both walking and cycling, for older and disabled people their focus in terms of mobility is more on walking and potential barriers to walking than it is on cycling. Cycling is nevertheless seen as a potential mobility aid by some older and disabled people, as levels of car ownership are often lower than the general population, particularly as age and impairments intersect. However, the lack of emphasis that participants place on cycling can be seen to reflect the lack of access to non-standard bicycles and support, in addition to a lack of awareness of the opportunities for cycling.

Planning for longevity: cycling cessation and later life mobility
Wilbert den Hoed (Universitat Rovira i Virgili)*, Carol Kachadoorian* (dblTilde CORE, Inc.) (IP)

Large segments of urban populations do currently not cycle because of environmental or personal barriers. Whereas many cities create or expand their cycling networks, much of the literature on cycling inclusiveness continues to find that, among other groups, older adults are less likely to cycle. Infrastructural planning processes often look to those already cycling or the general population, thus possibly overlooking older cyclists, to anticipate the needs for future cycling uptake. However, as worldwide populations are ageing, the access to cycling (starting, restarting) or its continuation will also have to consider the cycling patterns and design needs of middle-aged and older generations. To show the requirements for the further mainstreaming of access to cycling, this paper focuses on lifelong cycling trajectories and

introduces the concept of cycling cessation. It illustrates this process using recent data from a North America-based survey that explores the characteristics of people over 50 who stopped and restarted cycling in different periods of life. Analysing over 5,100 surveys, we consider the reasons for stopping, pausing, and restarting cycling, risk perceptions, motivations for lifelong cycling, age and gender effects. Together, the analysis sheds light on the individual features behind cycling behaviour in later life and shows the sustainable mobility practices of a population group with growing academic and societal relevance. The paper concludes with an appraisal of how cycling planning may support ageing in place and as a broader foundation on which to create healthy, active, and functional mobilities.

Cycling and other Active Mobility Infrastructure for Older Adult Communities: How Common and Complete Are They?
Carol Kachadoorian (dblTilde CORE, Inc.), *Yongping Zhang* (California State Polytechnic University, Pomona) (IP)

Cycling and other active mobility infrastructure (AMI) serves people of all ages living in different contexts. As some people age, they move from an intergenerational neighbourhood to an intentional community with similarly aged neighbours and support for ADLs (activities of daily living). These older adult communities (OAC) may be off the radar of city AMI investments. While new urbanist communities and TOD developments typically include cycling infrastructure and may include OACs, older communities or those built on available land tend to be left out. We studied the presence of cycling and walking infrastructure (AMI) at and around 10 OACs and the AMI planning processes of the eight California cities in which the OACs were located. Through a mixed methods approach, we assessed how well AMI serves residents, especially those who bicycle. We found that cycling propensity is affected by an OACs location, size, household income, and type. Onsite trails in wealthier, larger OACs dissuade residents from venturing to neighbouring areas, which in turn, allowed city investments to focus on cycling infrastructure elsewhere. Lower income, smaller OACs lack cycling infrastructure and have limited nearby AMI, even for cities committed to AMI planning that address equity and inclusion. OAC resident advocacy for cycling and walking infrastructure had mixed results, highlighting the need for sustained efforts, awareness of the need, and AMI planning process changes – all of which we recommended in the project report. The study was funded by the State of California and published by the Mineta Transportation Institute, San Jose, CA.

Cycling Without Age – Planning for inclusive, slow social cycling for all ages and abilities.
Clara Clark (Cycling Without Age, Ireland) (IP)

Cycling Without Age (www.cyclingwithoutage.ie), a registered Irish Charity, was created to address the needs of those who cannot cycle for themselves. CWA trishaws are designed, and hand built to carry one or two people and are piloted by volunteer pilots. It is the ultimate slow cycling experience, as our speed with passengers is max. 9km/h. It offers a sustainable, fun, outdoor cycling experience to people in care homes or in the community. With over 60 trishaws operating around Ireland, the key obstacle to their use is poor cycling infrastructure. Lack of, or poorly designed or maintained cycle paths, barriers and kissing gates at parks, housing estates and greenways all militate against ease of access. The need for CWA to be consulted at design and planning stage by local authorities is becoming more obvious as we grow. To be socially inclusive, CWA must be accepted as a normal form of transport and our planners need to take its dimensions (1.2m wide x 2m long, with very wide turning circle) and purpose into account. Its purpose is to make cycling a practical and visible mode for all ages and abilities. Volunteer pilots make the experience socially inclusive. More local authorities are now purchasing CWA trishaws for community use. It must follow that LA planning needs to provide for this. As its Ireland founder, Clara Clark is willing to engage with engineers & planners to ensure that CWA trishaw access and safety are taken into consideration.

Session 2: Histories

Chair: Peter Cox

Cycling past and present: an oral histories approach in Sheffield

Stephen Parkes, Mia Rafalowicz-Campbell (Sheffield Hallam University, UK) (IP)

Despite recognition of the individual and societal benefits of cycling, and increased policy attention and funding, limited progress has been made in increasing cycling levels. Consequently, efforts to research determinants of travel mode choice remain important. This research adopts a historical perspective on the role of longer-term trajectories and ingrained cultural attitudes in shaping these choices. With the view that policy intervention must be based on locally specific mobility cultures and given that as an everyday practice, travel choice is rarely documented in traditional historical sources, this paper makes a contribution through an oral history approach in Sheffield, UK. Building on the understanding that such choices are largely a matter of habit but are actively reconsidered at key life moments [1] , interviews will be employed to develop a set of 'mobility biographies', highlighting how participants' early experiences may shape attitudes and behaviours around cycling in later life. This will draw on a sample of 15-20 Sheffield residents aged 50+ and provide insights into the under-researched area of active travel amongst those in mid or later life, who are less likely to cycle [2]. A deeper, place-specific understanding of how these biographies shape people's everyday travel experiences and choices in the present will form a key part of the paper's results, which will be reported on at the symposium in September. These will seek to demonstrate how local active travel policy and practice, notably behaviour change initiatives, may be designed with more cognisance of how behaviours are shaped by past experiences.

[1] Chatterjee, K., Sherwin, H. and Jain, J. (2013) Triggers for changes in cycling: the role of life events and modifications to the external environment, Journal of Transport Geography, 30, 183–193. Available at: https://doi.org/10.1016/j.jtrangeo.2013.02.007.
[2] DfT (2022) Walking and cycling statistics 2015-2021 (CW0305), Department for Transport. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1100945/cw0305.ods

(Re)discovering the past, imagining the future: a History Lab for Lisbon's cycling policies

Diego Cavalcanti, M Luísa Sousa (University of Lisbon, Portugal) (RE)

Hi-BicLab (History Lab for Sustainable Urban Mobilities: Lisbon's cycling policies) is an interdisciplinary exploratory research project focused on history and the present of Lisbon's urban mobility, whose team includes experts in history of technology and mobility, geography, transport economics, public policies, and societal engagement. We built on History Labs that have been applied elsewhere, e.g. for regional transport infrastructural planning in the Netherlands (Toussaint, 2016) and in the UK (Divall, 2016), making historical knowledge "usable" and accessible to policymakers, bringing the novelty of applying it to a "low cycling maturity" city (Félix, 2019), Lisbon, with great potential to change. In this paper we explore particularly urban planning and traffic policy concepts applied in twentieth-century Lisbon, namely who and which mobility modes were marginalised, or favoured by actors such as policy makers and experts. We explore these factors (amongst others) proposed in the rationale of the Cycling Cities' book series (Oldenziel, 2016) to historicise urban mobilities, and particularly cycling, and make connections with present day challenges. We analyse it together with other data (such as a modal-split series) in co-construction workshops with the stakeholders (policymakers, activists, and citizens) to answer in practice why history matters for imagining, more sustainable and fairer (Banister, 2007), future urban mobilities.

Cycling boom 2.0 - How grassroots movements triggered new local cycling policies –
Martin Lanzendorf, Simon Werschmöller (Goethe-University Frankfurt, Germany) (IP)

Many countries and cities witnessed a sharp increase in urban cycling over the last two decades. In Germany, these increases in the number of cyclists essentially were not the result of improved cycling infrastructures or increased budgets for the promotion of cycling. Quite the contrary, in many cities the local citizens become dissatisfied with the missing quality and quantity of good cycling infrastructures. Thus, local grassroots initiatives, the "Radentscheide", emerged who campaigned successfully for more ambitious cycling policies in their respective cities by collecting thousands of signatures for a local referendum. This paper analyses the development of cycling policies and use in four major German cities (Berlin, Frankfurt, Munich, and Hamburg) over the last two decades. A particular focus is on the relevance of the local cycling-related grassroots movements for institutionalising cycling policymaking. A three-step mixed method approach is applied. First, an exploratory document analysis will be conducted, focusing on cycling policies. Second, expert interviews with public authorities complement the document analysis. Third, data on the development of cycling use and satisfaction is collected. The results show that the development of cycling in the case study cities can be divided into three stages: (i) commitment, when cycling is put on the political agenda, (ii) imbalanced growth, characterised by little progress in cycling policies, a strong increase in cycling use and a decrease in cycling satisfaction, and, ultimately, (iii) institutional adaptation when cycling becomes a key issue for local governments due to pressure from the grassroots movements "Radentscheid". The paper concludes by discussing policy implications.

Formulations, frames, and precedents: Unmaking history in public meetings
Karly Coleman (University of Alberta, Canada) (RE)

Using an audio corpus documenting ten years of public discussions, I investigated how people engage socially with changes to the material infrastructure of the urban environment. Specifically, I examined how public meeting participants disputed municipal decisions about bike lanes. These decisions had been previously decided and, in some cases, enacted (i.e., the bike lanes were built). However, in the meetings I studied, participants formulated their arguments for or against the bike lanes in their neighbourhoods by framing the municipal decisions as contrary to a longstanding precedent. I used a methodological approach called Conversation Analysis, based on naturally occurring, institutional talk (i.e., archived recordings of committee meetings). In my study, I considered communicative information, such as pauses or overlapped speech, to attend to what it might indicate about participants' commonsensical understandings of municipal decisions to build bike lanes. My work demonstrates how public disputes in committee meetings reveal issues related to a wider institutional history. It also demonstrates how we might consider participants' understanding of issues related to space and the urban built environment. This understanding may directly point to their perceptions of citizenship as well as how they connect their current actions to past decisions, even though they may not have been present when the initial decisions were made.

Session 3: (Bi)cycles
Chair: Graeme Sherriff

Dublin Bike Library: shared mobility for families
Francesco Pilla, Pavlos Tafidis (University College Dublin) (IP)

The Idea behind a Bike Library is to provide parents with the opportunity to test and trial a range of eBikes, eCargo Bikes, long tail ebikes and Folding Bikes as well as different options around transporting children i.e., trailers, child seats etc. This allows them to see the benefits of active eMobility and encourage a modal shift without the upfront costs of purchasing their own eBike immediately. The bike library will also include the option of adding an adapted bike

fleet to the offering for children with additional needs. The Bike Library proof of concept was launched in Harold Cross Educate Together primary school in September 2022 with a replication in 20 more schools kicked off in March 2023. The pilot will be integrated with an extensive series of educational and engagement activities for Children and Parents taking part in the Project, such as assisting with setting up of Cycle Buses, offering Adult Cycling Lessons for Parents who are interested in cycling but lack the skills to get involved and prioritising these schools for Cycle Right Training, citizen science activities for pupils to monitor traffic volumes, composition and speed, along with air quality, etc. Qualitative and quantitative data is collected to assess the impacts and potential long term legacy of the intervention in terms of uptake of active eMobility. This paper presents the preliminary results of the impact assessment of this intervention.

Evidence from E-Cargo Bike Demonstration Limerick
Anne Cronin & Conor Buckely (Limerick Cycle Campaign) (RE)

In collaboration with the Limerick +CityXchange programme and funded by Limerick City and County Council through the Open Innovation Call: Social Innovation and Energy Consumption, Limerick Cycling Campaign launched an ambitious shared e-cargo bike demonstration in December 2022 to challenge and positively counter the cultural belief that commuting by car is the preferred mode of commuting for households in the city. The project aims to provide an opportunity for low-income households, families with a disability and small businesses to trail the bike for a three-week period, free of charge. Limerick Cycling Campaign are collecting data from all those that take part in the project (24 families / business / community groups have been booked in to-date) and participants are submitting a case study detailing their own unique experience of using the bike. Our presentation will present an overview of the project and provide some insight on its take up, journeys covered, utility challenges (parking, storage), behaviour change, as well as narratives from families / small businesses on the viability of purchasing an ebike / e-cargo bike in the future. We will present (time dependent) a specific case study where the bike made a significant impact, i.e., family member with a disability, lone parent family (are two so far). The project runs to September 2023 and has received huge support locally, mostly through its presence on social media where trips are documented and pictures loaded on twitter @lmkecargobike

Exploring cycles as governable objects (DISCUSSION)
Daniel Valentini (Swedish University of Agricultural Sciences) (IP)

Ultimately, cycling planning seeks to improve the quality and/or quantity of cycling practices. The planning toolbox offers an array of tools to meet objectives of, for example, more frequent, diverse and safe cycling. Some projects, such as cycling streets, can be considered to directly intervene in cycling practices, while many popular pro-cycling interventions leverage at the built infrastructure, such as the construction of cycleways or more generally the reallocation of road space. Other examples include ‘soft approaches’ to change peoples’ attitudes and behaviour towards mobility and transport. With a plethora of possible measures, this session builds on the idea that the material entity of the cycle itself is seldomly considered as an object of and for planning and governance. This despite an understanding that cycles (including their maintenance, repair and mooring) are indeed essential elements of cycling. Local authorities can provide cycle parking, public pumps, or the occasional cycle service station. Conceiving of governance broadly, public and private actor groups offer a host of different cycles to purchase or hire, while repair and maintenance is provided from the LBS to assisted DIY-repair in Bike Kitchens. In this open brainstorm session, we invite you to explore the materiality of cycles as objects of and for governing cycling practices. Guiding questions include: What is the value (or not) of a ‘cycle-material’ perspective for planning and governance? What are examples of measures or interventions that leverage at the material entity of the cycle in

different contexts? How do different measures affect cycling practices? Who is (or could be) involved in their implementation and how?

Dublin Bike Library: shared mobility for families (DISCUSSION)
Francesco Pilla, Pavlos Tafidis (University College Dublin) (IP)

The Idea behind a Bike Library is to provide parents with the opportunity to test and trial a range of eBikes, eCargo Bikes, long tail ebikes and Folding Bikes as well as different options around transporting children i.e., trailers, child seats etc. This allows them to see the benefits of active eMobility and encourage a modal shift without the upfront costs of purchasing their own eBike immediately. The bike library will also include the option of adding an adapted bike fleet to the offering for children with additional needs. The Bike Library proof of concept was launched in Harold Cross Educate Together primary school in September 2022 with a replication in 20 more schools kicked off in March 2023. The pilot will be integrated with an extensive series of educational and engagement activities for Children and Parents taking part in the Project, such as assisting with setting up of Cycle Buses, offering Adult Cycling Lessons for Parents who are interested in cycling but lack the skills to get involved and prioritising these schools for Cycle Right Training, citizen science activities for pupils to monitor traffic volumes, composition and speed, along with air quality, etc. The brainstorm session will focus on discussing suitable new governance models to ensure the legacy of the bike library in a wide range of socio economically diverse areas in Dublin and in the rest of Ireland.

Session 4: Cycling in Younger Age

Chair: Jane Hackett

Safe Routes to School: A collaborative approach to advancing active travel for students
Tracey Lydon (An Taisce EEU - Safe Routes to Schools Programme, Ireland) (IP)

Safe Routes to School (SRTS) is a national programme, launched in March 2021 and designed to encourage school students to walk and cycle to school. It has three aims:

1. To accelerate the delivery of walking/scooting and cycling infrastructure on key access routes to schools.
2. To provide “front of school” treatments that will enhance access to school grounds.
3. To expand the amount of bike parking available at schools.

SRTS has committed engagement from all 31 local authorities, nationally, and works to facilitate early interactions between schools and local authorities to plan the roll-out of suitable infrastructure, in line with the SRTS Design Guide, at the front of schools, and along routes school. We will illustrate examples and experiences from work with the 278 schools already actively engaged in Round 1 and Round 2 SRTS on:

- How SRTS plans have been able to be developed along with existing local authority plans for the greater areas, and individual school plans for extension or adjustment.
- How the STRS has supported schools in becoming champions of the works as they proceed through the planning process.

“Planning should be all encompassing. It shouldn’t exclude children.” To what extent are children participating within planning policy and practice in Galway City."
Alistair Menary (TU Dublin) (IP)

The number of children, and young people, residing in our cities is growing and yet they fare the worst in conditions associated with urban living and car-centric planning. Children and young people are often overlooked when it comes to decisions being made with regards to planning policy and practice. This might be due to the notion of the child as a becoming, rather than a being, citizen. Delivering child-friendly planning outcomes can be viewed as a rights-based approach embedded in the United Nations Convention on the Rights of the Child (UNCRC). However, despite being legislated for the participation of children within Irish planning matters is limited. Participation of children can be viewed as a process in which to engage the longest term stakeholder in society within matters affecting them. Using the Lundy Voice Model of Participation this research examines the extent of children’s participation within planning policy and practice in Galway City. Further, it examines the viewpoints of the actors, within planning practice, on the perceptions of child-friendly planning and whether power relations might be a factor in the exclusion of children’s participation.

Gears or brakes? Active travel policy for children and young people in Scotland
Caroline Brown (Heriot-Watt University, Edinburgh) (IP)

Over the last few years, Scottish policy on planning and place has begun to recognize the rights of children to be included in policy making processes, and to make policies which address children’s needs. The new National Planning Framework 4 (Scottish Government, 2023) brings with it a responsibility for local authorities to assess and provide for play, and other changes to the planning system have embedded requirements to include children and young people in the making of local plans and other place-based strategies. In this paper, I explore Scottish policy on active travel to see what it does (or doesn’t do), for children and young people. The review builds on previous work published (Colley, Brown, Nicholson, Hinder & Conniff, 2022) which examined sustainable travel behaviours in children, young people and their families, but which excluded travel to school. This paper extends that work by exploring both national and local policy on active travel to provide a wide-angle view of the provisions made for children. Documentary analysis is undertaken using digital search tools to find references to child/ren and young people, and results are coded using three main themes: the purpose of the journey; age of child; and, independent vs accompanied travel. Supplementary themes emerge from the data during the coding process. The final part of the paper compares Scotland with Wales and Denmark, drawing out some wider conclusions about children and young people in cycling policy.

Bicycle Heroes: Engaging Youth Voices in Promoting Active Mobility and Safe City Design – *Donna Cooney* (Project Manager: BYCS Bicycle Heroes Dublin), *Martina Mullin* (Trinity College Dublin), *Niamh Ni Cholmain* (Dublin City Council) (IP)

Research in the urban mobility field has documented the importance of incorporating children’s perspectives for city making. Additionally, children’s needs, when met, make cities safe for other vulnerable groups in addition to the general population. In 2022, with support from EIT Urban Mobility, BYCS, an Amsterdam-based NGO, was able to test these concepts in 3 cities (Dublin, Lisbon, and Rome) through Bicycles Heroes, an engagement program for children to raise their voices for active mobility. During the course of a year, the project partners in Dublin, Trinity College and Dublin City Council engaged with key stakeholders, the general public, and children to communicate the need for active mobility. In this presentation we will discuss the Bicycle Heroes programme in Dublin. We worked with 120 students aged eleven to fifteen in schools engaged with the Trinity Access Program. Surveys were conducted by the youths around their schools. They travelled into Trinity College to participate in workshops and were asked within teams for ways to make their cycle into Trinity College a safe and enjoyable

experience. Using a process of ideation, selection and modelling prototypes, mapping routes from their homes, or train station to Trinity college. The Bicycle Heroes then presented their team ideas in Trinity College during Engineers week and then in October 2022 to the Lord Mayor of Dublin Caroline Conroy, Minister Roderic O'Gorman, NTA, Dublin City Officials, Councillors, Healthy Ireland and others in Dublin City Hall.

Session 5: Discourses

Chair: Gordon Waitt

The "cycling city of Stockholm": Productive, convenient, and connected mobility for all?

Karin Edberg (Linköping University, Sweden) (IP)

Cities worldwide develop plans to facilitate and increase cycling and walking, often aiming for more sustainable, space-efficient, and healthier travel patterns. In parallel, shared micromobility solutions are becoming increasingly common. Previous research (e.g. Spinney 2021) shows that cycling to a large extent follow the development of automobility by placing productive and efficient travels to the fore – resulting in that groups and practices not fitting into that picture are marginalised. Taking the Swedish capital of Stockholm, and especially its newly launched shared cycle scheme, as an example, this article discusses what impacts the current trend of increased, diversified, and electrified micromobility has on the ideal type of "the productive cycling practice", and, more generally, its connection to the neo-liberal planning ideal. Municipal records and plans, documents from commercial actors and the practices of everyday cyclists, collected through interviews and diaries, are analysed. In the article, it is argued that even though a large variety of users and usages are highlighted and seemingly included, it is still the productive practice that takes centre stage. In addition, it is shown that the transition to "smart" and electric mobility generates global connections, but also local socio-economical and geographical disparities. Unwanted users and practices are portrayed as "dirt", using the concept of Mary Douglas, and placed in the margins.

Cycleway Opposition in Dún Laoghaire-Rathdown - Exploring the Role of Discourse

Robert Egan & Brian Caulfield (Trinity College Dublin) (IP)

Despite its extensive energy and land requirements, car-based automobility continues to be a dominant mobility regime across Europe. This regime has come under increasing political scrutiny. In response to the neglected position of cycling as an object of planning compared to driving, efforts to create the basis for everyday cycling that could substitute car use often involve the aspired development of redistributive cycleways and associated interventions that can help to relatively advantage cycling and regulate driving. These significant efforts to reconfigure public space can be thwarted by political opposition. Through a critical discourse analysis of 150 public consultation submissions in opposition to a major redistributive active travel scheme in Dún Laoghaire-Rathdown, Ireland, this study explores how automobility is politically maintained in this unique context. It was found that a discourse of everyday mobility that centres the car is integral to delegitimising measures that challenge the continued privileging of car use. In oppositional submissions, this discourse was drawn upon to depict car use as the essential form of mobility for everyday activities. Cycling, on the other hand, was represented as a primarily recreational and conditional form of mobility, of marginal significance for daily mobility routines. The ways in which this discourse has been historically influenced by mundane mobility practices, transport planning, advertising, and national policy, are explored, in addition to how this discourse may affect mobility and planning. To conclude, construals of cycling and driving are proposed that may feature as part of a counter-discourse of everyday mobility that privileges active travel.

Blame Games: The Assignation of Blame in Everyday Traffic Situations Involving Cyclists
Nadia Williams (Technological University Dublin, Ireland) (IP)

In my PhD project Pedals to the People I applied a Social Dominance theory lens to the problem of excessive negativity directed at cyclists both on and off the road. After conducting a Barthesian discourse analysis I concluded that patterns and trends in the media examined were consistent with Social Dominance. I then conducted semi-structured interviews with 16 respondents to evaluate whether trends in the assignation of positive and negative social value were consistent with what one would expect to see in a Social Dominance dynamic. This submission reports on the interview segment that focused on the assignation of blame. Respondents were each shown 14 different video clips of everyday traffic situations involving cyclists. They could decide they saw nothing wrong and move on, or decide the situation was unacceptable and discuss who was most to blame. The results suggest blindness to a sub-par cyclist road user experience. There is a simultaneous blindness to driver wrongdoing, and a tendency to find offences by other road users more egregious than those of drivers. Cyclists were sometimes blamed in situations where they did nothing wrong, or were the ones wronged. Both the Social Dominance culture identified in the overall study and the specific trends of blame in this segment of the interviews affect planning. In investigations of fatalities a tendency to place blame internally would divert attention from infrastructure flaws. Allocation of space and priority, and prioritisation of need, will trend towards the dominant group – drivers – in infrastructure design.

Contesting the fifteen-minute city: Dispatches from the "cycling city" of Oxford, UK
Tim Jones (Oxford Brookes University, UK) (IP)

The 15-minute city principle has gained currency around the world since its development by Professor Carlos Moreno at the Sorbonne in Paris. In simple terms, it means maximising accessibility on foot to everyday goods and services within 15 minutes of the home. This presentation will highlight the critical tensions of planning for cycling within the context of the 15-minute city. The focus will be the "cycling city" of Oxford, UK, which is currently developing the most ambitious plans for 15-minute neighbourhoods [sic]. Schemes and proposals will be highlighted as well as insight into how the projects were conceived and implemented using interview material with the municipality and community organisations. Turning to the socio-political dimensions of planning and implementing Low Traffic Neighbourhoods, the talk will highlight how Oxford became the rallying point, in February 2023, for anti-LTN, and "pro-freedom" sentiment and the propagation of the myth that 15-minute cities will restrict people to their local areas. The presentation will conclude with a reflection on what this might mean for other cities embarking on developing plans for the 15-minute city and the implications for promoting cycling (and walking and wheeling) more generally.

Session 6: Systems
Chair: Brian Caulfield

In a society which is resistant to change, what is the best way to deliver active travel infrastructure in a climate emergency?
Michèle Costello & Róisín Ni Dhubhda (Dún Laoghaire-Rathdown County Council) (IP)

Bringing a public infrastructure project in Ireland from ideation through to construction requires a maze of legislative and administrative procedures to be navigated. In addition, there is often public or political resistance that further delays the progression of schemes. Focusing on an Irish context, this paper explains what it takes to bring a local authority active travel infrastructure project through the legislative maze and assess where time savings or efficiencies could be made. It will explain the complexities of the planning process where

different legislation is involved, depending on the nature of the active travel project, such as Section 38 of the Road Traffic Acts for projects classified as traffic calming and also Part 8 projects considered under planning legislation, where parts of the project are located outside of areas covered by the definition of a road in Irish legislation. In addition, it will explore existing structures within Irish Local Authorities. Many infrastructure teams in Local Authorities are traditionally led by engineers with technical teams comprising solely of engineers. The challenges in delivering large capital projects requires a multidisciplinary approach with technical expertise in engineering, spatial planning, landscape design, urban design, biodiversity, public engagement, road design, construction and contractual management. As the focus on active travel continues to grow, this paper will reflect on how Local Authorities can pivot to respond to these needs in an Irish context.

Cyclist.ie's Experiences of Engaging with the Planning System on Cycling Schemes
Damien Ó Tuama & Colm Ryder (Cyclist.ie) (IP)

Cyclist.ie is the federation of 35 cycle campaigning groups, cycling festivals and grassroots greenway organisations in Ireland. It was formed in 2008, with its oldest member groups (Dublin, Galway and Cork Cycling Campaigns) founded in the 1990s. It is the member for Ireland of the European Cyclists' Federation. It has six strategic aims, one of which is to "seek to secure high quality routes and infrastructure" (https://cyclist.ie/strategy/). It has nine Action Groups, with three focused on engaging with politicians, engaging with officials, and dealing with public consultations respectively (https://cyclist.ie/action-groups/). Much of its work centres on making submissions on non-statutory and statutory plans. In 2021, Cyclist.ie made approx 40 submissions to local and national bodies, while in 2022 the figure was close to 100. Submissions were prepared in respect to "Section 38" schemes, "Part 8" applications, and in regard to schemes lodged directly with An Bord Pleanála (ABP). This presentation will reflect on experiences of a near completely voluntary organisation in engaging with 31 Local Authorities and ABP, in addition to the main government departments and its relevant agencies, all with a role in advancing the planning, design and construction of cycling infrastructure. It will highlight the inconsistencies of experiences of engaging with a multiplicity of authorities and comment on the outcomes of the processes.

The Socio-Political Processes of Cycling Planning in Tehran as a Car-Centric Environment
Mohammad Nazarpoor (Tarbiat Modares University, Iran) (RE)

Tehran, a car-dominated city suffering from severe environmental problems, has experienced ups and downs in urban cycling development over the past two decades and faces many challenges in being on the right track with a long-term planning process due to a variety of factors. Technically, we may know how to redesign our cities for cycling, but what we need to better understand is the power of a complex network of stakeholders and forces that can influence urban policy and mobility planning approaches and make cycling development a contentious issue. If we do not understand and address these key factors, existing procedures will continue. Our presentation will discuss several socio-political processes that have contributed to critical tensions in cycling planning in this context. Failure to take cycling seriously as a reliable mode of transportation, dominance of the car-oriented planning paradigm, contradictions in planning discourses, short-term project-driven approaches, insufficient attention to human infrastructure and community engagement, poor hard infrastructure with "build it and they will come" logic, lack of awareness and education, top-down bureaucratic leadership, lack of institutional collaboration in cross-cutting areas, gender gap in bicycle planning, political trends in policymaking, and lack of project monitoring and evaluation will be among the key issues we will discuss. The purpose of our presentation is to provide an overview of the complex network of socio- political processes involved in planning for cycling in a car-centric environment, with an emphasis on considering bottom-up practices,

strengthening human infrastructure, and supporting grassroots movements as drivers of change.

Cycle propensity modelling: An extreme cycling uptake study - *Billy Brazil, Karen Whitaker, Barry Colleary* (National Transport Authority) *Robert Egan, Brian Caulfield* (Trinity College Dublin) (IP)

The NTA Regional Modelling System (RMS) is a strategic transport model used for climate action planning, large scale transport infrastructure planning and appraisal, and the formation of transport strategies. Within this model, the mode and destination choice step is governed by the mode specific generalised cost between origin and destination pairs, and the alternative specific constants terms (ASCs). The ASCs in the model represent the unquantified elements of utility associated with each mode, such as comfort, safety, exposure to weather etc. ASCs therefore account for much of the perceived disutility associated with cycling. For this study, the ASC values estimated for walking were also applied to cycling in a future year 2028 test case. This test accounted for the impact of access to electric bikes, with the speed of all cycling network links increased by 4 kph. This creates a scenario wherein cycling is viewed as favourably as walking by trip makers, while retaining the speed, travel time advantage, and increased range of destinations that cycling provides. Results show a very large shift to cycling measured by mode share; however, this shift is not universal across the region and varies by factors such as trip length, competing modes, and user class. In addition, results show that such a mode shift is not reflected in a proportional shift in trip kilometres between modes. The study also examines the impact of such an extreme cycling scenario on greenhouse gas emissions and air quality from the resulting switch to cycling.

Friday, 8th September

Session 7: Solidarities

Chair: Nadia Williams

"My reason to leave the bed", a mixed methods evaluation of Muslim women's cycle rides

Esther Anaya-Boig (Independent)*, Sarah Javaid & Emma Pajarillaga* (Cycle Sisters) (RE)

The charity Cycle Sisters offers Muslim women supportive, inclusive, sociable rides since 2016. In 2021, Cycle Sisters was awarded a capacity building grant by the London Marathon Trust with a duration of two years, up until April 2023. With this paper, we would like to share the results of a mixed methods evaluation of the impact of Cycle Sisters rides in the well-being of participants and volunteers. Inspired in previous approaches (van der Kloof, Bastiaanssen & Martens, 2014; Hamidi, 2021, Anaya-Boig et al., 2022) , the evaluation was co-designed with the representatives of the organisation and validated through a steering committee which included the grant donor and related charities. Using the motility framework and combining elements from behavioural science and public health, methods include: a longitudinal questionnaire (a baseline questionnaire, n=490, to any participants registering to the rides and an optional follow-up questionnaire, n=90), interviews to ride leaders and organisers (11 in total) and three focus groups. Results indicate how participants increase their access to cycles, perception of competence, frequency of cycling, level of physical activity, self-efficacy, life satisfaction, and feel less isolated. After joining the cycle rides, participants report feeling much safer when cycling, have inspired members of family and/or friends to start cycling or cycle more and be able to reach new or further away places when they cycle. The qualitative modules of the evaluation provide an in-depth exploration of the many benefits to the wider well-being of the participants and volunteers, also providing insights in the mechanisms and cultural contexts of these impacts.

Cycling against all odds: families everyday struggles for cycling in socially vulnerable and transport disadvantaged areas
Dag Balkmar (Örebro Universit, Sweden) (RE)

This presentation identifies what triggers and hinders behavioural change towards cycling in socially vulnerable and transport disadvantaged areas. The aim is to show there are transformative agency in areas where infrastructures for cycling and walking are generally underdeveloped or missing. The sample consists of 60 narrative interviews with 47 women and 13 men (representing different intersections of geographic location, socioeconomic status, age, gender+, ethnicity, disability, and family constellations), from six research sites situated in Belgium, Greece, Italy, Portugal, Romania, and Sweden, respectively. Each study focuses on socially disadvantaged and isolated urban areas of a specific city, and/or isolated rural areas. Despite poor planning for cycling and the odds against them (living remotely, in isolated areas, facing poor socioeconomic situations, with poor cycling infrastructure), change is to large extent ideologically driven – the perception that there is a need to act. Change is achieved by emphasizing a solution-oriented approach to realize cycling in car-dominant contexts. The findings suggest that families improve their capacity to cycle by making sustainable transport into a *family project*, which in turn demands high flexibility and sacrifices. Cycling communities and wider social movements in turn enable change through providing cyclists with a sense of belonging, a joint platform for promoting cycling as a car alternative, and as a political platform for cycling promotion. The turn to the bike reflects how cyclists feel empowered by the autonomy and wellbeing bicycling provides, while simultaneously being able to save money and contribute to a better environment.

Whose streets? Our streets! Bicibús movement for cycling child-friendly cities
Gemma Simón i Más, Anna Aretha Sach (Universitat Autònoma de Barcelona) (IP)

Increasing cycling modal split would contribute to mitigate transport greenhouse gas emissions. Yet cities are still hostile environments for children to cycle. Fear of unsafe interactions with motor vehicles has kept children out of city streets. But BiciBús initiatives allow them to cycle safely to their schools. A BiciBús – also called Bike Bus or Bike Train – is a group of children and adults that cycle together following a given itinerary with a schedule and stops. Participation in BiciBus may bring health benefits, improve attitudes about cycling, and generate social cohesion and community. Nevertheless, there is limited research explaining how BiciBus initiatives have expanded worldwide and how its benefits are distributed to the population. We aim to identify the diversity of BiciBús initiatives that exist today with an intersectional justice lens. For this, an online survey to BiciBús organizers and 25 semi-structured interviews in the city of Barcelona address the processes of inclusion/exclusion and identify barriers to participation. Preliminary results show that a program is an exciting form of cycling activism that occurs mainly in European countries and in medium to high-income neighbourhoods. The mechanism through which children and families feel safer is via the group and community, rather than the physical infrastructure. This underscores the importance of human infrastructure in building more bikeable cities, especially for children. The research contributes to a better understanding of children's cycling and how the BiciBús affects families and communities. It has implications for planning and organizing toward sustainable, just, and inclusive school transport.

Cycle Space Invaders - Gamification of social media as a tool to protect cycle infrastructure
Keith Phelan (vool.ie) (IP)

The last decade has seen the humble Hashtag become a key tool in the arsenal of social and political activists throughout the world. Movements which consolidated organically across online social media (OSM) platforms around hashtags such as #OccupyWallStreet, #ArabSpring, #BlackLivesMatter and #MeToo have manifested huge changes in the real

world. In 2015 cyclists throughout Ireland took to OSM using #FreeTheCycleLanes to highlight the issue of parking in cycle-lanes. While Hashtag Activism has been criticised for encouraging armchair activism, unlike other campaigns #FreeTheCycleLanes was mainly used to document infractions while also highlighting the issue and encouraging followers to do likewise. One of the drivers of Hashtag Activism campaigns is that the hashtag trends or goes viral. Due to the nature of the #FreeTheCycleLanes campaign and the size of the interest group this was never going to happen, also due to the temporal nature of OSM and the speed at which the timeline is updated older posts are no longer visible unless specifically searched for. These issues inspired the creation of CycleSpaceInvaders.com a website powered by #FreeTheCycleLanes Tweets, which makes use of gamification techniques to encourage users to document obstructions to cycle-lanes. Points are awarded for each post and a leaderboard was created, a gamification tactic which aims to encourage users to compete which in turn generates more activity. The site not only gives visibility to historic posts but it also serves to break them out of Twitter making them accessible and highlighting these issues outside of the walled garden.

Session 8: Spaces

Chair: Sarah Rock

Build it and they will come? The multiple effects of a new infrastructure on cycling practice and experience

Patrick Rérat & Aurélie Schmassmann (University of Lausanne, Switzerland) (RE)

Developing cycling involves rethinking streetscape and reallocating space from fossil-fuel vehicles. The effect of cycling infrastructure has long been summarized by the slogan “Build it and they will come!”. Is their role overestimated as argued by scholars who highlight the importance of demand? Who cycle more on a new infrastructure? Are there some sensitive (or phenomenological) effects in terms of experience and legitimacy? This paper assesses the effects of a 1-km cycle lane in Fribourg, Switzerland. It was strongly contested notably by retailers in this low-cycling town. The study is based on an innovative approach that mixes quantitative and qualitative methods. We spent 3 days in September 2021 (one month before the implementation of the cycle lane) and 3 days in September 2022 and used (1) counting, (2) observation, and (3) interviews (more than 500 intercept surveys each year). The paper analyses the evolution of (1) the number of cyclists, (2) their characteristics (age, gender, type of bike) and their experience, which refers to the five dimensions of a cycling infrastructure defined by CROW: directness, coherence, comfort, safety, attractiveness(Groot 2016). We conceptualize cycling infrastructure as affordances (Davis and Chouinard 2016; Davis 2020; Rérat 2021), which derives from the verb to afford, and connotes both provision or supply and ability to do something. By doing so, we identify the main effects of the new infrastructure and link them with groups of cyclists. Overall, the paper participates in the debate of the politics of cycling infrastructure and their effects on cycling practice. It has also practical applications for planning as it identifies the success factors and limits of such infrastructure, the extent to which it meets the requirement of a wide range of cyclists and the methodological challenges to monitor its effects.

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Proactive safety assessments for cycling infrastructure in Ireland: The potential role of the traffic conflict technique and surrogate measures of safety
Kevin Gildea (Lund University, Sweden) (RE)

Cycling has gained prominence as a sustainable transportation mode, with increased demand for safe cycling infrastructure. The Safe System approach takes a proactive stance on targeting and treating road safety risks, i.e., to target and treat collision risk before any occur[1]. However, while proactivity is ideally preferred, road safety analysts are often constrained to performing reactive analyses of historical collision data, and justifying infrastructural interventions based on collision hot-spots. While this can be effective in some cases, its application for cyclist safety is limited by several factors. One primary challenge is that cyclist collisions often go unreported[2,3], which results in fewer instances of significant concentrations of collisions, an underestimation of road safety risks[2], and a biasing of safety priorities[4]. Taking inspiration from well-established concepts from Sweden, the home of Vision Zero, this talk will explore the potential of the Traffic Conflict Technique (TCT) and Surrogate Measures of Safety (SMoS) as tools for proactive safety assessment. These methods are theoretically underpinned by the fact that incidents of non-collision conflict events happen much more frequently than collisions. Hyden's safety pyramid illustrates this, and emphasises the potential of making use of details from these cases to prevent the future occurrence of more serious road traffic collisions[5]. In this talk, the potential of TCT and SMoS for cyclist safety will be demonstrated drawing on international examples, and national examples from a recently completed RSA-funded PhD project[6]. These methods may provide decision-makers in Ireland a proactive mechanism for prioritisation of cyclist safety interventions.

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Cycling infrastructures in the North American metropolis: the emerging geographies and differential strategies of infrastructural reconfiguration for cycling in Mexico City and Toronto
Thomas van Laake (University of Manchester, UK) (IP)

The cycling promotion trajectories of the North American metropolises of Mexico City and Toronto highlight many of the challenges cities face in expanding and improving cycling infrastructure. Despite sustained efforts to provide safe riding conditions and encourage modal shift, cycling rates remain relatively low in both cities, and infrastructural change has largely been limited to specific corridors and central zones. Intervening in complex and sprawling metropolitan areas, cycling plans and projects must negotiate contested politics and fragmented governance systems, the constraining legacies of the splintering development of

transport infrastructures, and the ongoing divergence of urban development processes within heterogeneous territories. Developing a comparative analysis of Mexico City and Toronto's shifting geographies of cycling infrastructure provision, this paper suggests that a relational approach that considers infrastructure as a socio-material process with heterogeneous forms and outcomes is critical to understanding the implementation and operation of cycling infrastructure in diverse socio-material contexts. Contrasting the embedding of configurations of cycling infrastructure in the metropolitan core and periphery highlights how cycling planners deploy particular 'spatial strategies' that differentiate between territories and condition dynamics of contestation, implementation, and operation. Building on the empirical cases, the paper argues that closer attention to contextual differences both within and between urban areas is critical to cycling infrastructure research in the contemporary moment of the global proliferation of cycling promotion through infrastructural reconfiguration.

Developing Ireland's Cycle Network – Lessons Learned
Hugh McCarthy (AECOM, Ireland) (IP)

In this talk, Hugh McCarthy from AECOM will discuss the development of the CycleConnects project which involved developing a cycle network of over 20,000km for the NTA across Ireland. This included a network for every county and major town including the GDA cycle network and the remaining 22 counties and major urban areas outside the GDA. Central to this was developing a GIS file documenting key destinations such as schools, villages, businesses, shops and tourist attractions amongst others. Thus, a dense urban network of cycle routes was developed where many of these destinations could be reached quickly. In rural areas, this concept was tested with some key locations such as primary schools located in more remote areas and extra effort and attention had to be done to connect these to the network also. Through a review of international cycling standards, potential shorter permeability routes were identified along with junction upgrades that would encourage more people to cycle in the future if these upgrades were applied and complemented with other cycling policies. Documentation on the health benefits of cycling was also produced to underline that there are many benefits to delivering a network such as this.

Discussion Session 1

Chair: Kristina Moody (Dublin City Council)

Dublin City Council's Active Travel Network: An exploratory discussion on maximising societal benefit
*Christopher Manzira (*Dublin City Council*), Sabrina Dekker (*Dublin City Council*), John Legge (*Consultant in Emergency Medicine*), Naomi Oldenburg (*National Disability Authority*), Mary MacSweeney (*Dublin City Council*)* (IP)

The Active Travel Programme Office (AcTPrO) in Dublin City Council (DCC) launched proposals for an Active Travel Network in Oct 2022. The network was developed using the National Transport Authority's Greater Dublin Area Cycle Network Plan and a GIS study completed by AcTPrO to maximise accessibility and inclusivity. When complete 95% of residents will be within 400m of the network, including 97% of LUAS and railway stations, educational facilities, and workplaces. Dublin City's Active Travel Network will transform how people move around the city. Ongoing engagement with citizens, stakeholders, and industry experts is crucial to its success, especially with rising construction costs. Managing critical tensions throughout the 10-year delivery timeframe is essential to ensuring timely completion. DCC is dedicated to making the Active Travel Network accessible and inclusive, incorporating principles of universal design to cater for all users. The network development considers the walking, wheeling and cycling needs of all user groups, such as people with disabilities, the older generation and families with young children. This exploratory session will assess key aspects of the proposed network, such as the methods of network delivery and

the role of stakeholder engagement in maintaining a positive public perception throughout the delivery programme. Furthermore, the session will aim to evaluate the network's likely challenges, in particular the impact of increased construction cost on delivering a high-quality, accessible and inclusive network that satisfies the needs of different stakeholders.

Discussion Session 2

Chair: Karen Lee (Solidaria, Australia)

Steady Pedal or Wild Ride? Including girls and women in everyday bike riding and cycle infrastructure planning: participatory methods and pathways to their wider adoption - *Gemma Simón i Mas* (Universitat Autònoma de Barcelona*), Ciara Norton* (An Taisce EEU - Green-Schools Travel)*, Stephanie Stotz Simons* (City of Berne*)* (Hybrid)

Gender mainstreaming in planning for cyclable cities requires novel processes for including girls and women. There are relevant projects, toolkits and frameworks but their application is not yet commonplace, despite statutory insistence on equality of opportunity in some jurisdictions. While investment accelerates in infrastructure which suits only some cyclists, decision-makers continue to regard design changes which would make women welcome and safe as 'nice to have' rather than essential. Collecting varied, real-life experiences of mobility and the views of girls and women who don't currently ride is critical and often neglected in community engagement processes. At the current rate of change, cities have little chance of producing mobility networks which are fair to women and meet the needs of future girls, greatly diminishing active transport's potential to mitigate climate change impacts. I propose an exploratory discussion, touching on examples of successful participatory processes, focussed on how to achieve widespread adoption of gender-inclusive methods. We could also consider how radical rejection of incremental reform through creative provocation, art and activism might bring an end to the era of ignoring women's experiences and enable us to get on with planning better cycling cities for everyone. I am a practitioner and creative producer in Perth, Australia. My company employs co-creation and story-gathering to amplify the voices of girls and women and push forward their ideas to make moving around cities healthier, safer, fairer, more social, and more joyful. There are many examples of similar work worldwide. I can curate, facilitate or participate.

Session 9: Engagement

Chair: Robert Egan

Meaningful public engagement?
Conor Geraghty (Dún Laoghaire-Rathdown County Council) (IP)

The term meaningful engagement is often used when debating active travel infrastructure across Ireland. Unfortunately, it is often used in a negative sense suggesting those delivering projects are ignoring or not taking into account the views of the public. This paper outlines what is required by Irish law in terms of engagement and contrasts it against the engagement that is typically carried out by local authorities (in particular Dún Laoghaire-Rathdown County Council). It will reflect on what has resulted in positive and negative engagement on schemes at a local level. It will draw on examples from projects that were delivered in Dún Laoghaire Rathdown County Council using different engagement methods e.g. the Coastal Mobility Route, Summer Streets Dun Laoghaire, DLR Central and Deansgrange Road, comparing and contrasting the different methods their benefits and disbenefits. It will suggest what might be the most efficient way to deliver active travel projects in an Irish context in terms of engagement and in the midst of a climate emergency what it would take if we are to achieve our climate targets.

Rocking the boat on still waters: experiences of activism within the Portuguese national strategy for cycling mobility
Vera Lúcia Alves Pereira Diogo (Polytechnic Institute of Porto, Portugal)*, Rui Igreja & Mário Alves* (MUBi - Associação pela Mobilidade Urbana em Bicicleta) (TBC)

The purpose of this paper is to discuss resilience in cycling activism in Portugal, as well as the inefficacy and weak political leadership behind the Portuguese cycling strategy, which is the least financed in Europe. In August 2019, the Portuguese government published an unprecedented piece of policy, the National Strategy for Active Cycling Mobility 1 , with targets to achieve by 2030: 10 000 km of bicycle paths; increasing cycling modal share to 7,5% at national level and 10% in the urban areas. In 2021, cycling accounted for 0,6% of trips in Portugal, while the use of cars increased from 61,6% in 2011 to 66%. MUBi - Associação pela Mobilidade Urbana em Bicicleta is a national association focused on supporting the improvement of conditions, not only for cycling, but of the liveability that more active mobility brings, in terms of public health, environmental sustainability and social inclusion 2. It was with great expectation that we received the news about this Strategy. MUBi was included in its Consultative Council. Since then, MUBi has published 33 articles referring to ENMAC and brought this subject to the public attention through the media. In 2020, we met with political parties, generating a Parliament Resolution demanding the execution of ENMAC, which had been motionless for a year. One year later, waters remained still and MUBi's efforts influenced another Parliament Resolution demanding for the scheduling and budgeting of ENMAC's measures. In 2022, ENMAC was assigned 1 million euros. Where do we go now?

Strand Road Trial Cycle Track: The perspective of the Engineer, the Campaigner*, the Councillor and the Residents Association
David Timoney (Dublin Cycling Campaign) (IP)

In summer 2020, a six month trial of a 2-way separated cycle track from Merrion Gates to Sean Moore Rd in South Dublin was proposed. The inbound traffic lane would be removed on Strand Road to allow space for the cycle track. 2.5 years later, no work has started on the trial as the matter is before the courts. In 2021, a group of locals plus a local councillor took a Judicial Review case against the Council which was successful. The Council challenged this and the Court of Appeal decision is due shortly. The 2k section would have created an almost continuous dedicated cycle track from Sandycove to Ringsend, completing a key missing piece of the long proposed Sandycove to Seapoint segregated coastal cycle track. The issue created a lot of tension locally, mistrust among the stakeholders and plenty of media coverage. With the pressures of 1. Carbon reduction targets in transport, 2. The need to better manage people flows in an old but growing city & 3. The growing realisation that we need to live more active lives, these projects where road space is re-allocated to public transport, cycling and walking, will only grow in frequency. This paper looks at the timeline of events, gets the perspective of the main stakeholders; the Engineer/Council, the Campaigners, the Councillors and the Residents Association and asks what we have learnt to make future proposals run more smoothly.

A pedal powered approach to designing a strategic cycle network in smaller cities and towns
Caitriona Corr (South East Technological University and Kilkenny County Council) (IP)

Smaller cities and towns face specific challenges with designing strategic cycle networks. Low density and dispersed population patterns result in high car-dependency. Longer commutes reduce the potential for modal shift to active modes. Demographic profiles differ from larger

cities, with population peaks reflecting a more family orientated structure. These factors result in differing journey patterns and purposes and distinctive challenges. The aim of this qualitative study was to evaluate a participatory approach to designing strategic cycle network for smaller cities and towns, specifically Kilkenny City, in the south east of Ireland. A series of engagements; workshops and cycle trips, were held with cycling advocates over a 12 month period to identify the needs of local cyclists and the existing barriers and severance points to cycling. The routes emerging from the process were reviewed and refined by the local authority Active Travel team using existing data sets; commuter data, local trip generators, car ownership and household size. Other key considerations for route analysis were land ownership, environmental constraints, potential for space reallocation and desire lines. The proposed network was mapped using geographic information systems (GIS). The routes were classified as greenway (off-road), segregated cycle paths, quiet streets and shared streets. Mapping the proposed network using GIS, will enable further analysis, including the identification of priority areas for investment using commuter and demographic census data. It will also facilitate full integration with other planning processes and future public participatory GIS to ensure an ongoing community led development.

Session 10: Integration

Chair: Keyvan Hosseini

Exploring cycling accessibility and bicycle parking in older buildings in Vancouver, Canada

Jeanette Steinmann, Donna Cumming, Brian Wilson (University of British Columbia, Canada), *Tim Welsh, Chelsea Krahn, Tim Davidson, Gavin Davidson, Emily Bardutz* (HUB Cycling) (IP)

Cycling is an important part of long-term climate and transportation strategies in Vancouver, Canada. Aligning with these strategies, most new buildings being constructed in the region contain excellent bike parking facilities (i.e., long-term indoor bicycle parking and short-term visitor bicycle parking, as well as related end-of-trip facilities like showers and lockers). However, cycling facilities in older buildings are varied and often insufficient. Relatedly, bicycle storage and parking are important topics that have not been explored in cycling literature to the same extent as on-street cycling infrastructure. This qualitative study focuses in particular on bicycle parking facilities in older buildings by investigating the experiences of people who live or work in older buildings and ride bicycles, as well as the perspectives of building managers and owners. Based on interviews and focus groups conducted with 29 people from five municipalities across Metro Vancouver, we explored issues related to bicycling accessibility, bicycle parking and amenities, building policies, and bicycle security in older buildings. Through a thematic analysis of interview transcripts, a range of barriers to cycling were identified, based on experiences and perspectives of people who live and work in older buildings. These barriers included a lack of bicycle parking spaces, theft, and bike-unfriendly building policies. We explore explanations for and implications of these barriers, and make recommendations based on improving access to equitable cycling facilities in older buildings for a range of stakeholders. This research adds to the growing body of literature on cycling equity and accessibility, contributes theoretically to perspectives on cycling and motility, and offers practical suggestions for improving access to cycling when infrastructure limitations exist.

Co-creating Future Bicycle Urbanism with User Data from Living Labs with Autonomous Vehicles

Alex Gaio (Trinity College Dublin) (IP)

Living labs are places where novel technology and experimental urbanism are deployed on a

small scale with human subjects in their everyday lives. These labs are a key tool for co-creating the future of urban cycling and vulnerable road users with novel transport technologies. One area of living lab experimentation is with autonomous vehicles (AVs). Given the anticipated uptake of AV technologies over the coming decades, it is important to understand their impacts. For example, understanding the impact of AVs on sustainable urbanism objectives through active transportation and bicycle mode share targets. Sustainable mobility targets remain largely oblivious to how AVs will affect non-occupant travel behaviour. I will outline implications for bicycle urbanism by employing a proposed acceptance model. I will share findings from a study titled 'Ride the Autonomous City'. In the study, I employed surveys, focus groups, and interviews with everyday stakeholders of living labs that include AVs in North America and Scandinavia. The findings are intended to inform policymakers, elected officials, and transportation planners to make iterative, responsive, and rapidly deployed bicycle infrastructure solutions for all ages and abilities. Results from the study include behavioural, observational, and attitudinal data from five living labs. These findings outline how bicycle user confidence, lived-experience, and infrastructure design impact the bicycle user experience in a variety of different bicycle infrastructure configurations. I will conclude with dos and don'ts for facilitating the amicable coexistence of AVs and active transportation in the future city based on the study's findings.

The policy implications of long-distance rail commuting experiences with a bike in Greater Sydney, Australia
Gordon Waitt & Anna Lewis (University of Wollongong, Australia) (IP)

Across the Sydney rail network, cycling rail infrastructure provision is being made through the installation of lifts and parking facilities at some stations. That said, on the Sydney rail network there is no designated space for bikes in railway carriages. This paper explores the experiences and practices of existing railway infrastructure that relates to long distance ride-and-public transit commuting in Sydney, Australia. We collected data from 19 people in Greater Sydney who combined biking and public transit before the pandemic and focus on two events they described – crowded trains during rush hour and climbing station stairs. We draw on Deleuze and Guattari's idea of molar and molecular 'lines' to understand how emotions generated by the interplay of existing railway infrastructure and discourses impacts on judgments about commuting with a bike on Sydney trains. Conceptualising long distance rail commuting with a bike through the entanglement of molar lines, that are structuring along taken-for-granted social norms, and molecular lines, that denote agency, helps to account for the multiplicity and contradictions of rail commuters' lived experiences. In car dominated societies like Australia, molar forces position long distance rail commuting with a bike as an illegitimate and non-normative practice. We discuss the significant harms and risks associated with rail community with a bike. We are interested in the possibility for transformative change in practices and policies that shift rail commuting with a bike outside the molar and molecular lines. We call for policy and public advocacy that challenge long distance rail commuting with a bike illegitimacy and potentially transform social norms.

Potential benefits of the integrated planning of infrastructure maintenance and development: a bike infrastructure example
David Zani (Swiss Federal Institute of Technology in Zurich) (RE)

The planning of maintenance interventions on existing infrastructure and the development of new infrastructure are often done separately and/or sequentially. By planning in this way, potential opportunities and synergies between maintenance and development are missed. This leads to sub-optimal investment of scarce resources, especially in urban contexts where spatial, financial, and environmental interests increasingly conflict, and avoidable disruptions to service may result. Planning maintenance and development interventions together may allow more efficient investment of resources to better meet diverse stakeholder needs. To test this hypothesis, a case study in Switzerland was selected, where the maintenance of a road

section and its underground pipelines was considered together with the development of a new bike path. A single objective function was developed to capture the net benefit of maintenance and of development to stakeholders. Optimising the single objective function reduced the overall investment and service-related costs to stakeholders, relative to the case where the maintenance and development were planned separately. This implies that an integrative view of infrastructure maintenance and development can better achieve stakeholder goals, providing higher overall benefits to society. More efficient and effective infrastructure investments would thus be possible. Further non-quantifiable benefits are postulated, including more transparent communication of investment alternatives, and a design-oriented view of infrastructure.

Session 11: Data

Chair: Caitriona Corr

Using Focus Groups for Public Engagement of Active Travel Schemes: The Deansgrange Road Cycle Route Example

Giulia Grigoli (Dún Laoghaire-Rathdown County Council) (IP)

The Deansgrange Road Cycle Route is an active travel project in Dún Laoghaire-Rathdown, Ireland. It is the last remaining link in a scheme (Active School Travel routes) that connects 65 schools across the County. As part of the Part 8 Consultation process (which is the statutory Planning process for public sector developments) for Deansgrange Road Cycle Route, the Active Travel Team of DLR County Council (DLRCC) decided to trial a mixed public engagement and research exercise to better understand people's perceptions of the new proposal of a cycle route going through the Deansgrange Cemetery. A total of 4 focus groups were organised, 2 mixed and 2 targeted at women only to scope out any potential safety concerns with the proposed route and any other issue that could have been perceived as gendered. The focus groups highlighted that the most contentious part of the proposed route was the section which passed through Deansgrange Cemetery and in particular the Garden area as well as the lowering of the wall. Other recurrent points of discussion were about the Cemetery's entrances and opening hours, the fear of antisocial behaviour and the overall upset from grave owners for not having been consulted earlier. Despite the challenges encountered, the focus groups presented a major learning opportunity for the Active Travel Team of DLRCC. Working with feedback gathered from the public, we aim to replicate this format and apply the focus groups' methodology to more projects with areas of sensitivity, recognising the value of qualitative research tools in the context of Public engagement.

Walking and Cycling Index Report 2021

Finola O'Driscoll, Sarah McDonagh (National Transport Authority, Ireland) (IP)

The National Transport Authority will present on the 'Walking and Cycling Index' report. The 'Walking and Cycling Index' (WaCI) is a report prepared by the National Transport Authority and Sustrans. The latest iteration of the report was published in May 2022. The presentation will cover the results from the report which predominantly come from 2021 and includes local walking and cycling data, modelling, and an independent survey of residents in the Dublin Metropolitan Area. The presentation will also cover the case studies that were put together on people that walk and cycle and how these modes have helped improve their lives and complement their lifestyles. The presentation will also briefly cover children's mobility as the report recognises that our neighbourhoods should be a place for children to thrive.

How can the public sector join forces with the academic institutions to achieve our common goals
Paul Kennedy (Dún Laoghaire-Rathdown County Council) (IP)

Local authority personnel in Ireland dedicate much of their career implementing policies and referring to research that has been delivered through academic institutions. When it comes to active travel delivery in Ireland there is very little local relevant research that assists in the delivery of projects. Referring to UK or European research is often disregarded by those opposed to projects. Dún Laoghaire-Rathdown County Council has been working with TU Dublin and Trinity College Dublin to generate research in the area of active travel and this paper will present some of the benefits that have emerged from these partnerships. It will also outline the types of data that local authorities maintain. A joining of forces could be mutually beneficial for both local authorities, who have data and access to information and academic institutions who have the researching expertise to generate beneficial local research. This paper will also outline some of the challenges facing DLR and some of the 'questions' that could be answered by a useful partnership.

Equitable Cycle Investment
Irene McAleese (See.Sense) (IP)

This paper presents the results of an innovative project aimed at addressing transport poverty and promoting equitable cycle investment in UK cities. Despite the increasing investment in cycling infrastructure, affordability remains a significant barrier to creating truly equitable environments. To address this issue, some UK cities have started providing bike loan schemes and free bikes, but evidence of the impact is needed. The See.Sense SUMMIT GPS trackers have been used to enable hands-free data capture for equitable bike projects. The technology, powered by dynamo wheels, provides a range of data directly to the cloud, including up to 800 data points per second on riders' speed, dwell, braking, swerving, and road surface roughness. The data collected is supporting behaviour change interventions and informing transport planning to create more equitable and safer infrastructure. This study reports on a collaboration between See.Sense and Essex Pedal Power, who provided thousands of free bikes, fitted with See.Sense Summit technology. User-friendly dashboards were designed to support operational delivery, evaluation, and infrastructure insights. The results demonstrate how the data is supporting behaviour change, evidencing investment, and providing insights on routes and patterns from an equitable demographic. The Essex authorities are using this data to address safety, comfort, and demand in order to build an inclusive cycle network. Overall, this study highlights the potential of the See.Sense SUMMIT GPS trackers to improve the equity of cycling infrastructure and inform transport planning, as well as potential application for bike loan schemes and cycle share schemes.

Session 12: Connections
Chair: Caroline Brown

A paper on walking at a cycling conference? Analysing 'all-inclusive' Active Travel policy
Nick Davies (Glasgow Caledonian University)*, Graeme Sherriff, Ian Cookson, & David Young* (University of Salford, UK) (IP)

Walking and cycling, as two non-motorised, low-carbon, healthy, sustainable modes of transport, are often grouped together across a range of policies relating to sustainable urban living, using the umbrella term 'active travel'. Given that 33% of people walk or cycle as their main mode of transport in the UK according to the National Travel Survey (Department for Transport, 2022), this is relevant in understanding how cities may replace car-journeys of

smaller distances. However the term is not without criticism surrounding its' usefulness. While the Active Travel Hierarchy recognises the vulnerability of both modes, placing walking and wheeling, followed by cycling, at the top of the inverted pyramid (with the private car at the bottom), 'active travel' has often been synonymous with cycling when strategies and interventions are discussed (Transport Scotland, 2022). When considering short trips, there are differences between capabilities to travel in given times, distances, locations, and based on individual ability and confidence. So on a behavioural level, asking people to walk or cycle more has different implications. In terms of infrastructure, whilst motorised cars, vans and lorries are priorities and central in urban planning, it is important that the diversity of active travel modes and their needs are reflected in the reclamation of spaces. This extends to dialogues and the language used in characterising capabilities, identities and habits. This theoretical paper will focus on an emergent piece of work to frame walking and cycling in a way which address differences and relevances in shared policy.

References

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Transport Scotland (2022) 'Active Travel is walking, wheeling and cycling' available @ https://www.transport.gov.scot/publication/active-travel-strategies-guidance-for-completion/active-travel-is-walking-wheeling-and-cycling/ accessed, 21/03/2023

Nature and cycling experiences: a literature review

Mel Cairns (University of the West of England,UK) (IP)

Both cycling and nature offer a range of benefits to human and planetary wellbeing. Little extant literature has directly asked how nature is experienced as part of cycling practices or how far this may motivate cycling. Nonetheless, several studies concerned with more general cycling experiences have reported relevant findings. This paper outlines preliminary findings of a literature review that forms the initial stage of a larger, ongoing, doctoral research project seeking to explore 'nature cycling' practices from a sustainable wellbeing perspective. The review brings together findings from literatures in multiple disciplines to identify the ways in which nature influences, or forms part of, cycling experiences. Searches were conducted for international literature about adult cycling experiences that included findings about nature. The reviewed literature covered cycling experiences from multiple continents and included mountain biking, active transport, leisure and cycle tourism. Green environments and natural features were consistently found to contribute positively to cycling experiences through increased enjoyment, feelings of wellbeing, challenge and reward, opportunities for nature connection and in several other ways. Many of these findings related to multiple types of cycling experience, including urban utility rides. Some aspects also contributed negatively to experiences. Nature also influenced some cyclists' decisions to cycle and choices of route. The reported preferences for, and appeal of, 'nature cycling' could have implications for cycle promotion, infrastructure design and cycle tourism.

E-bike to the future: eco-efficiency and decision-making Implications of Dublin's e-bike-sharing system

Keyvan Hosseini, Tushar Pramod Choudhari, Margaret O'Mahony, Brian Caulfield (Trinity College Dublin) (IP)

In an era grappling with car-dominant urban landscapes and forced car ownership, the burgeoning global interest in e-bike-sharing offers a sustainable alternative, reshaping urban mobility paradigms. This study examines Dublin's eHUB network to explore the eco-efficiency and decision-making implications of e-bike-sharing systems. To gauge its impact on climate change, actual CO2 savings were quantified across the study period. Three scenarios were considered to assess the decarbonisation potential of eHUBs, ranging from full replacement

of car journeys with e-bikes to a more conservative estimate based on user surveys. Utilising daily GPS usage data from March to July 2023, the study employs data wrangling, inferential analysis, and Data Envelopment Analysis to assess the eco-efficiency of eHUB stations. Factors such as proximity to bike lanes, the city centre, and public transport were considered. A cluster analysis was performed based on their obtained performance scores. A spatial analysis further elucidated the factors contributing to the performance of these stations, revealing the positive influence of population density, bikes lanes, number of bus stops, and distance to city centre on the eHUB usage. Meteorological indicators such as windy and rainy conditions had a mildly negative effect on usage, whereas higher temperatures and sunny hours significantly boosted it. Overall, eHUBs have demonstrated significant potential for CO2 emission savings, requiring coordinated efforts across governmental, industrial, and individual levels to promote sustainable travel behaviours.

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