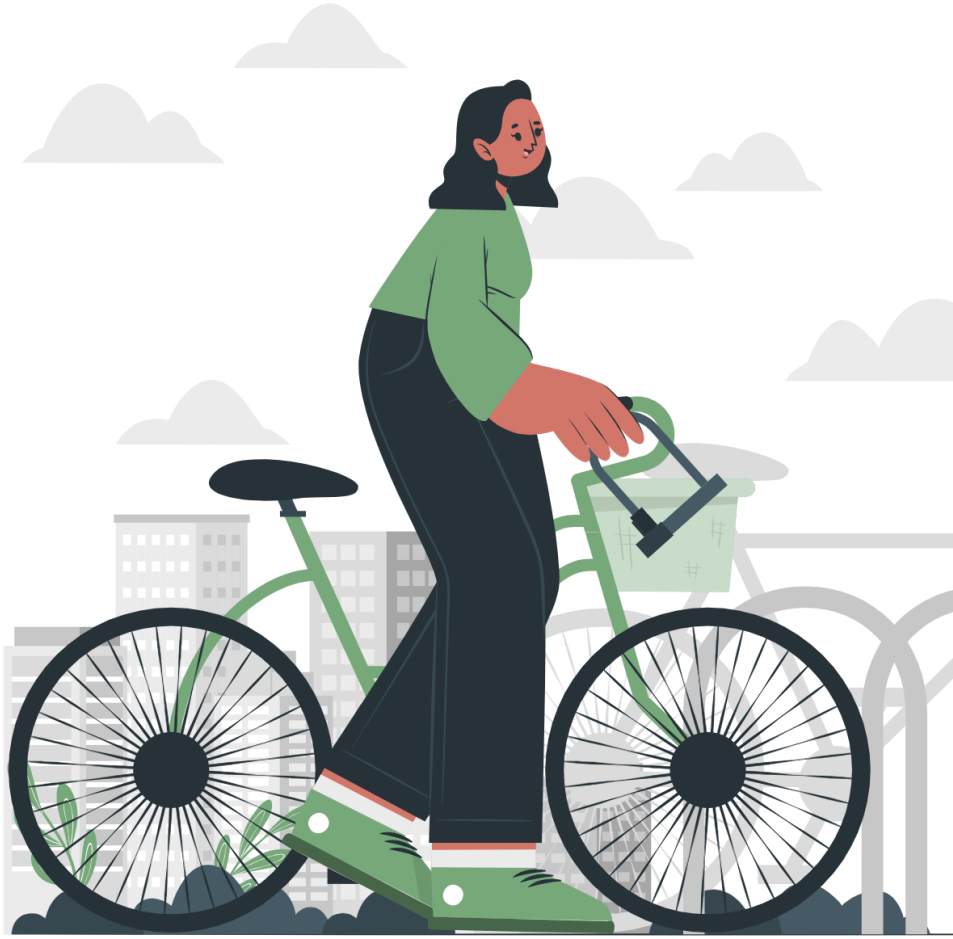
# ISCycle: Examining the effect of an ebike loan intervention on transport behaviour in an urban Irish context

ISCycle



Anna Barrero, James A Green, Louise Foley, Yvonne Ryan-Fogarty, Catherine Woods, Colin Fitzpatrick, Cathal Walsh

CYCLING AND SOCIETY 2025
3 September 2025, GLASGOW

UNIVERSITY OF LIMERICK
OLLSCOIL LUIMNIGH

PAfH
Physical Activity for Health
HRI Research Cluster
University of Limerick

seai SUSTAINABLE ENERGY AUTHORITY OF IRELAND

An Roinn Iompair
Department of Transport

# Inclusive Sustainable Cycling (ISCycle):

## City Ranking List

Search the List: City, Country, and/or Continent

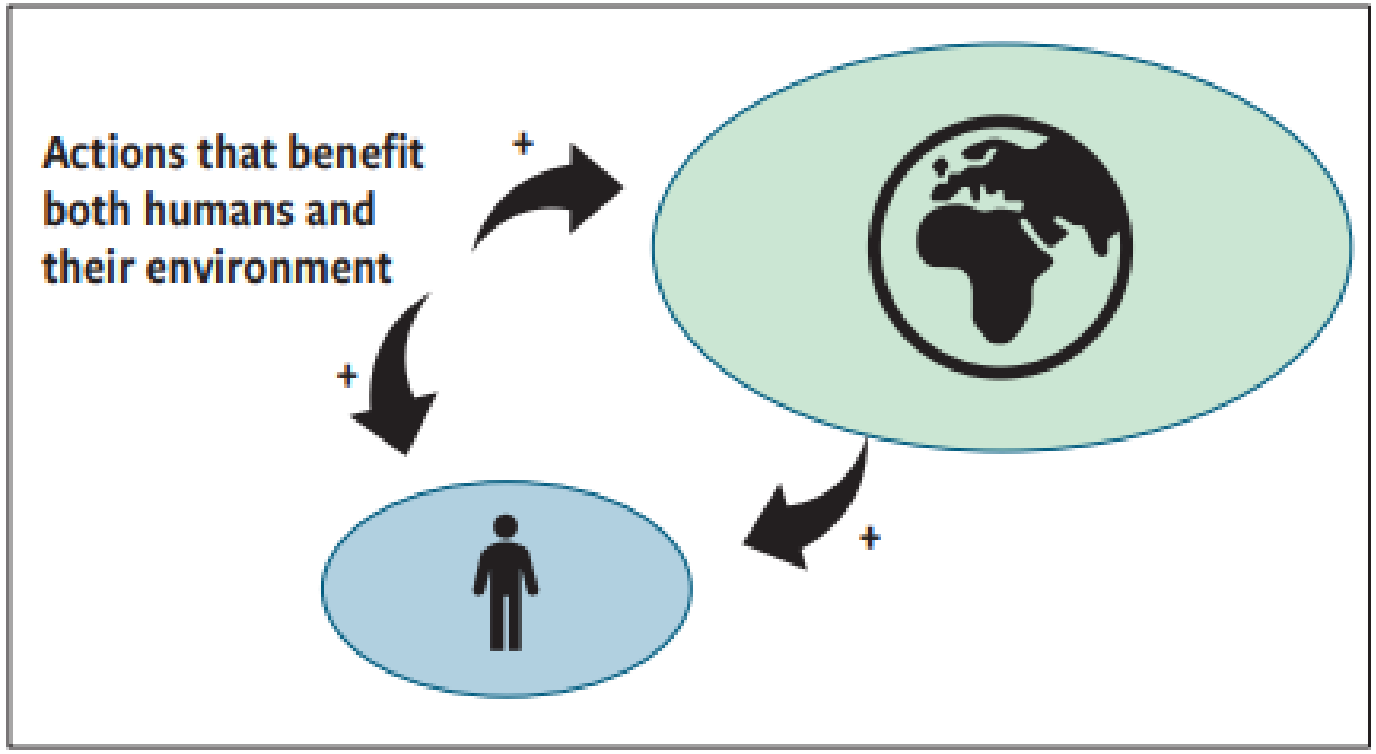
| Impact Rank | Urban Area | Hours Lost | Change from 2023 | Change from 2022 | Last Mile Speed (mph) |
|---|---|---|---|---|---|
| 1 | Istanbul | 105 | 15% | 38% | 13 |
| 2 | New York City NY | 102 | 1% | 12% | 11 |
| 194 | Limerick | 44 | 14 | 5% | 35% |
| 5 | London | 101 | 2% | 5% | 11 |





# Behaviour, environment, health

# Behaviour, environment, health – co-benefits



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Health Psychol



Position Paper

# Health psychology and climate change: a race against time

**Paquito Bernard**
*Université du Québec à Montréal*
**Guillaume Chevance**
*ISGlobal, Spain*

Our daily work, research centers and Universities, our patients, our models or 'outcomes', are or will sooner or later be impacted by climate change with a possible paradigm shift coming for climate impacts (which are mostly observational studies), and mitigation/adaptation actions (mostly interventional studies) were understudied (Berrang-Ford et al., 2021). More research is needed to link climate change with traditional outcomes from the field of health psychology and mostly interventional efforts helping peoples to mitigate or adapt to climate change through psychological

Vera Araújo Soares, *Heidelberg University, Germany*

sustainable behaviors

health psychology at Anthropocene age? What are the best mitigation and adaptation behaviors for health and environment? How to help the environmental migrants and future climate refugees? How to develop a more resilient and adapted health



# Active travel as a co-beneficial behaviour: ISCycle Ebike Loan Study

# Objectives of ISCycle behaviour change intervention



To assess the effectiveness of an e-bike loan intervention in changing transport behaviour in terms of:

- **Distance** travelled per transport mode
- **Number of trips** per transport mode
- Transport mode **habit strength**
- Self-reported **physical activity**
- Long-term **purchase** of an ebike



# Eligibility criteria

1. Attend work on site at least 1 day per week
2. Currently use a private motor vehicle as a mode of transport
3. Interested in using an ebike as a mode of transport



# What is involved for participants?











- 4, 8, or 12 week ebike loan
- Cycling equipment & accessories
- Optional cycle training











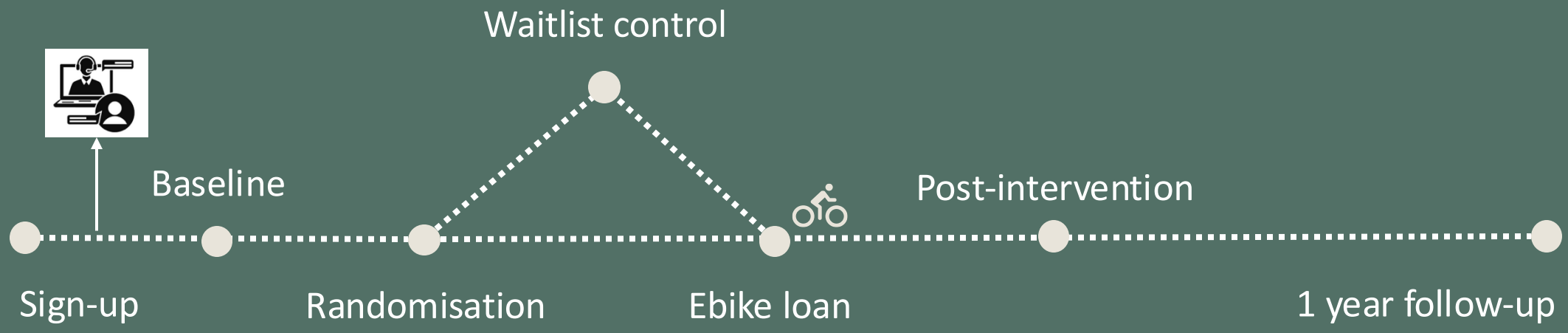






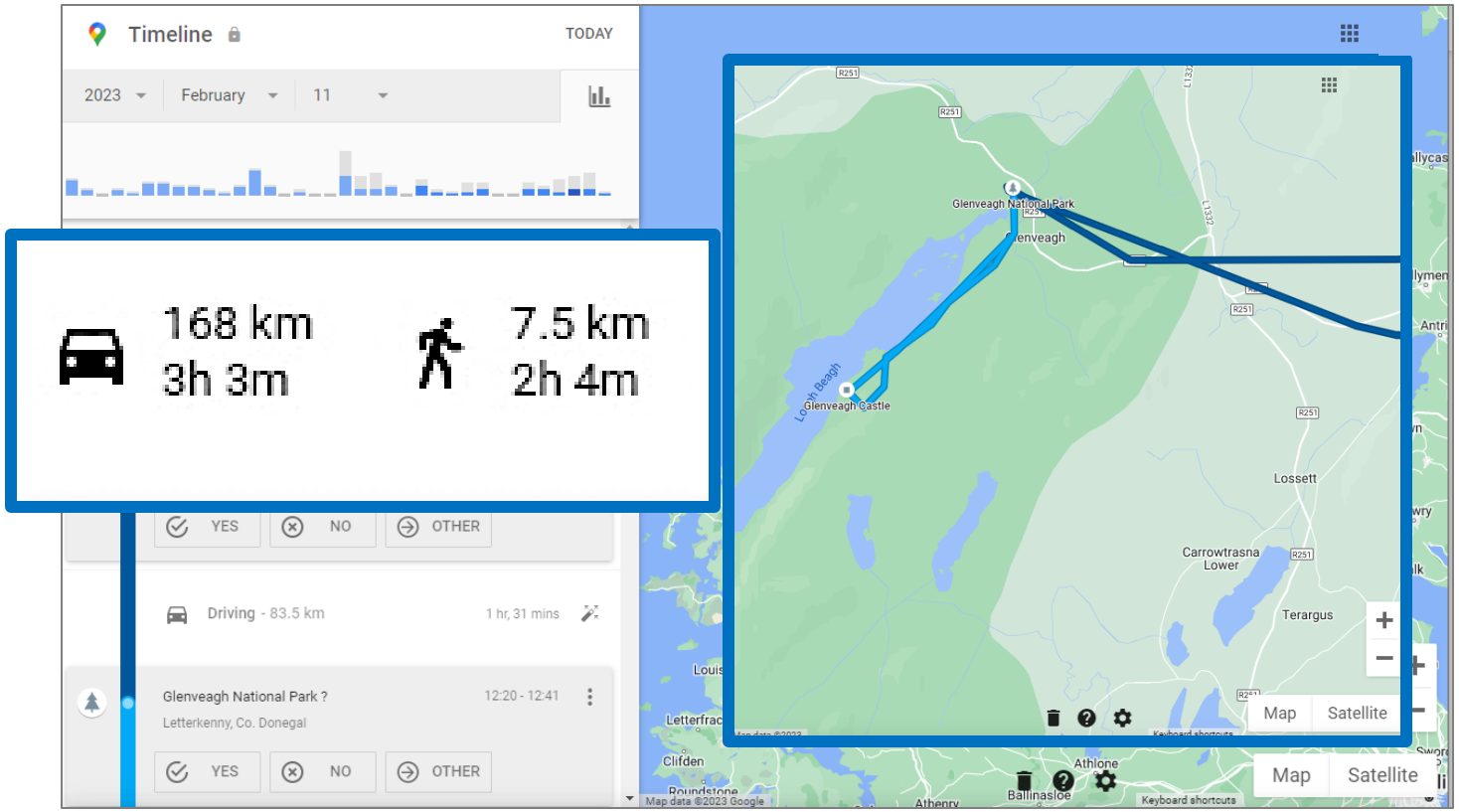
# Methods

## Participant journey



# How are we measuring transport mode use?

Google Maps








# Why 4, 8, or 12 weeks?



# Cycling as a habit

- How long do people need to try cycling for, for it to become habitual?
- Context/activity dependent, but for other habits, range from 20-80+ days
- Most other studies have a fixed length of time, but we hope to work out an optimal ‘dose’



# Leaving the house

## Taking the car

- Grab your keys

## Taking the bike

- Grab your keys
- Consider whether it is going to rain
- Pack your jacket
- Decide whether to take gloves
- Consider whether you can carry everything

- (mostly though, you're just not prepared)

# *Participation (Aug 2025)*

**5 study sites**

- Higher education (staff)
- Health services (staff)
- Industry (staff)
- Local government (staff)
- School (staff + parents)

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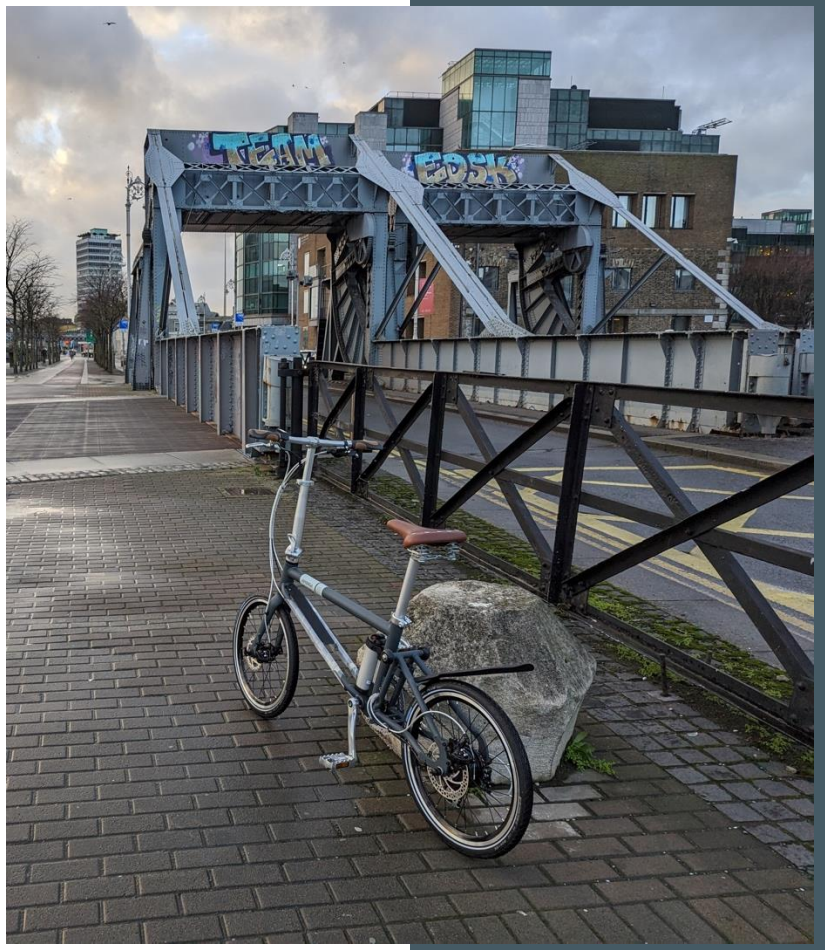
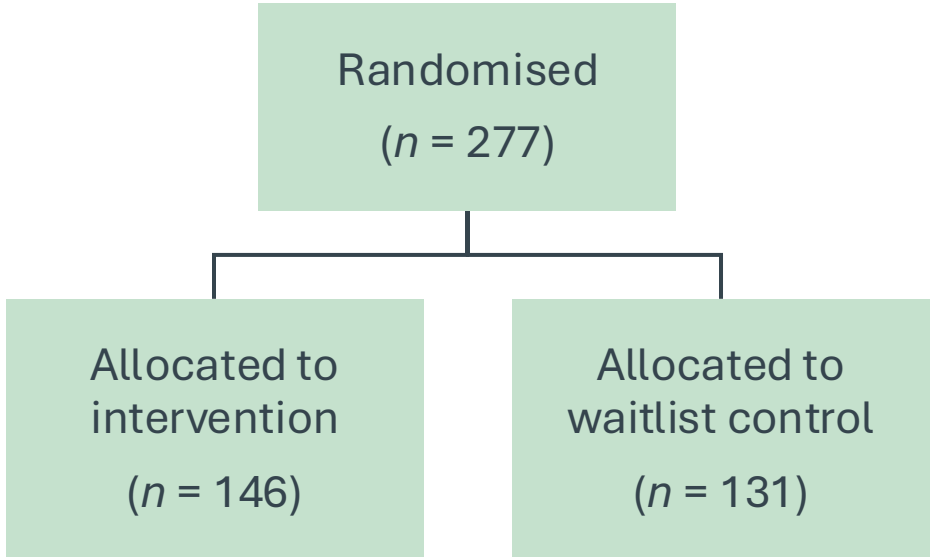
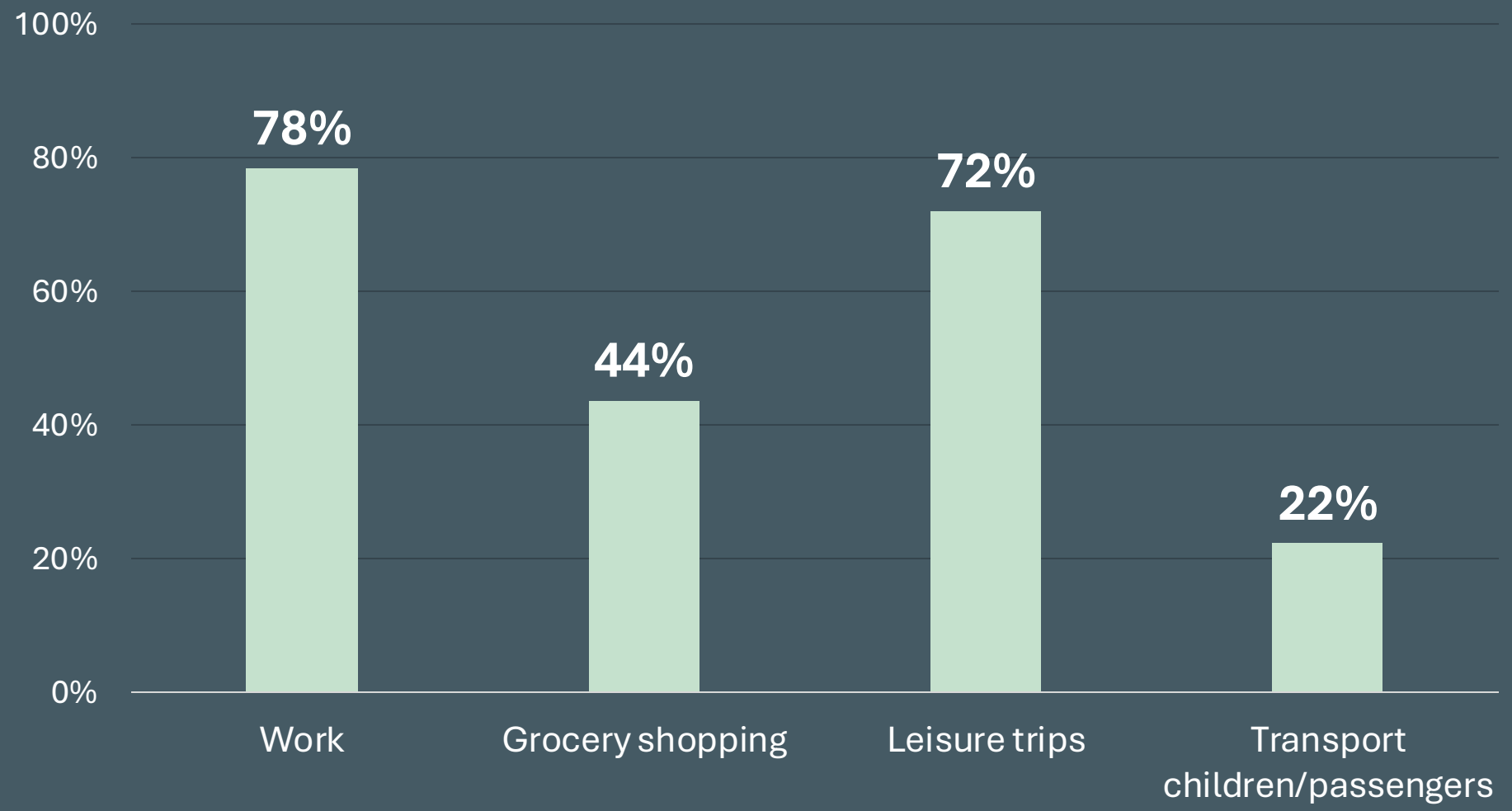
- From **May 2025** open to everyone in Limerick





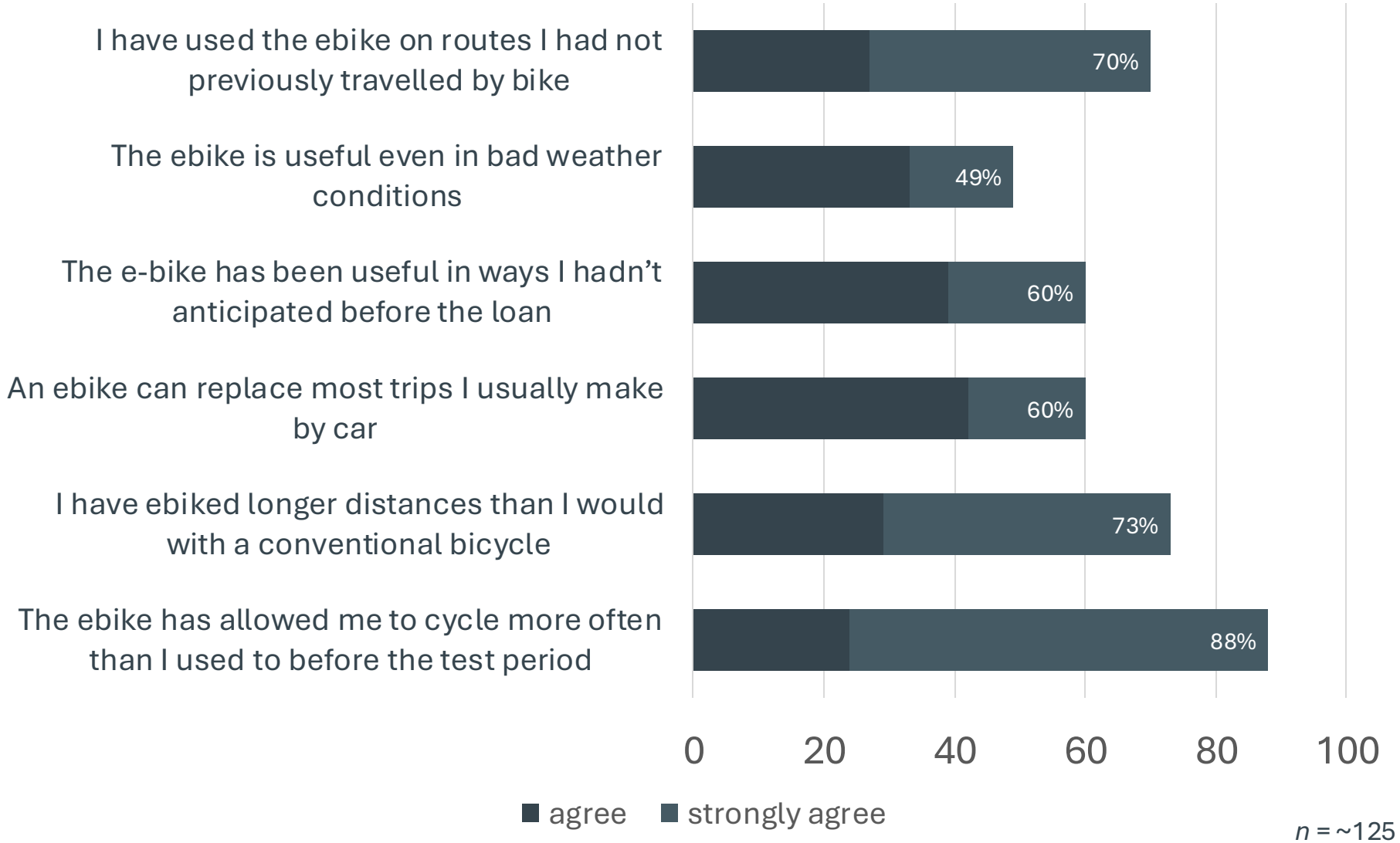
# *Findings to date*

# *Agreement ebikes can replace car journeys for*



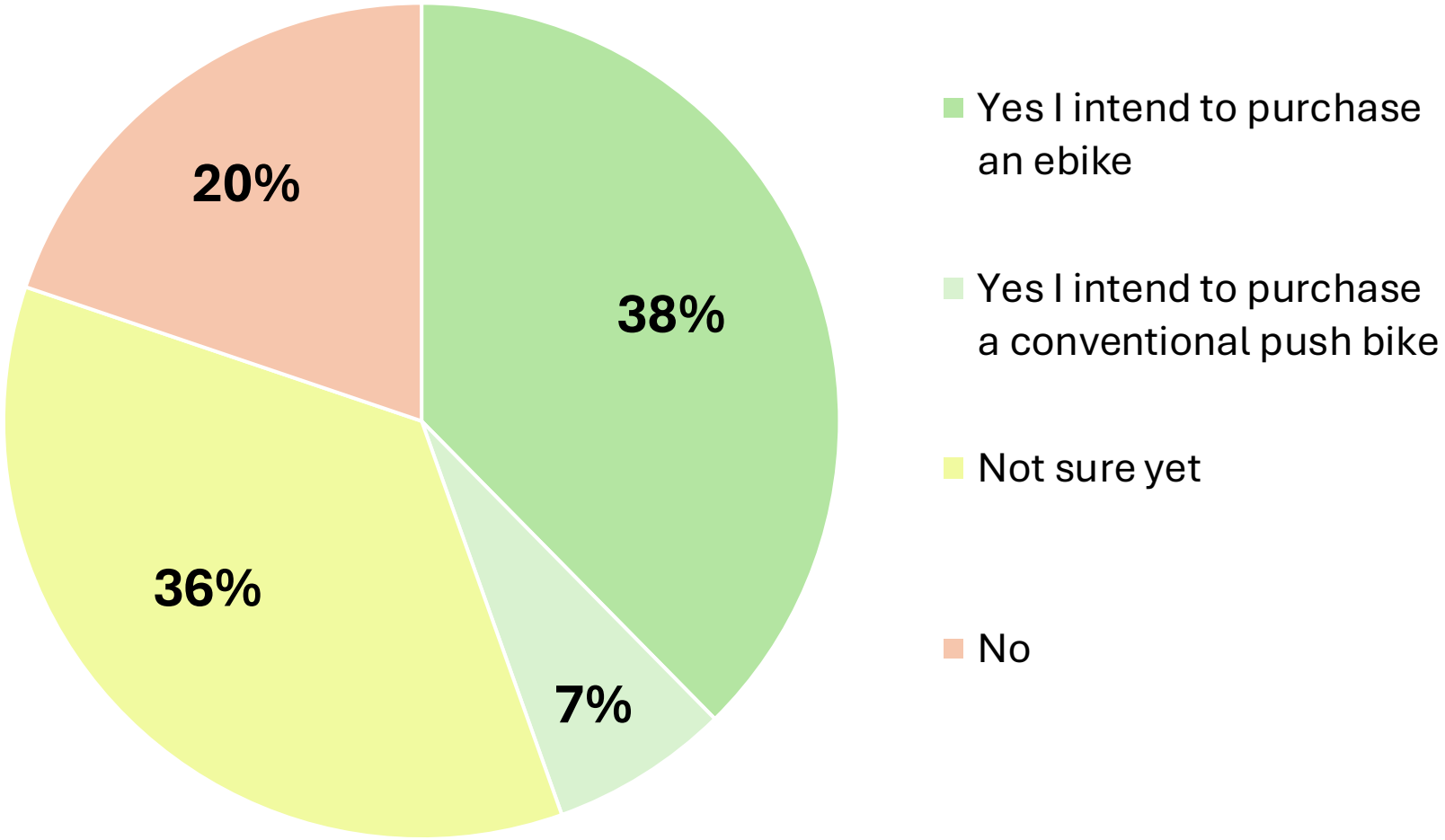

*n* = 125

# *Perceptions of ebikes*



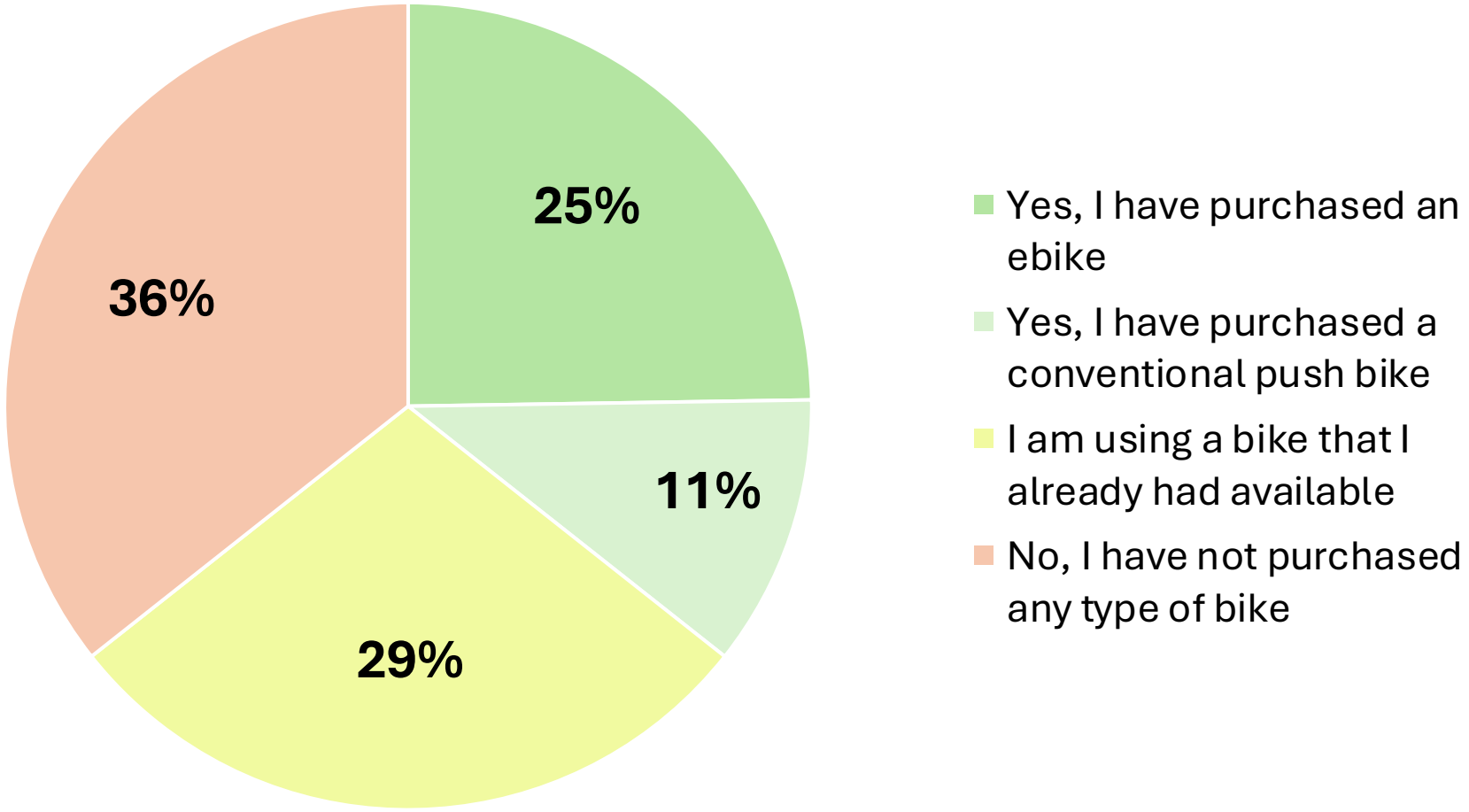

*n* = ~125

# *Intention to purchase an e-bike post-loan*



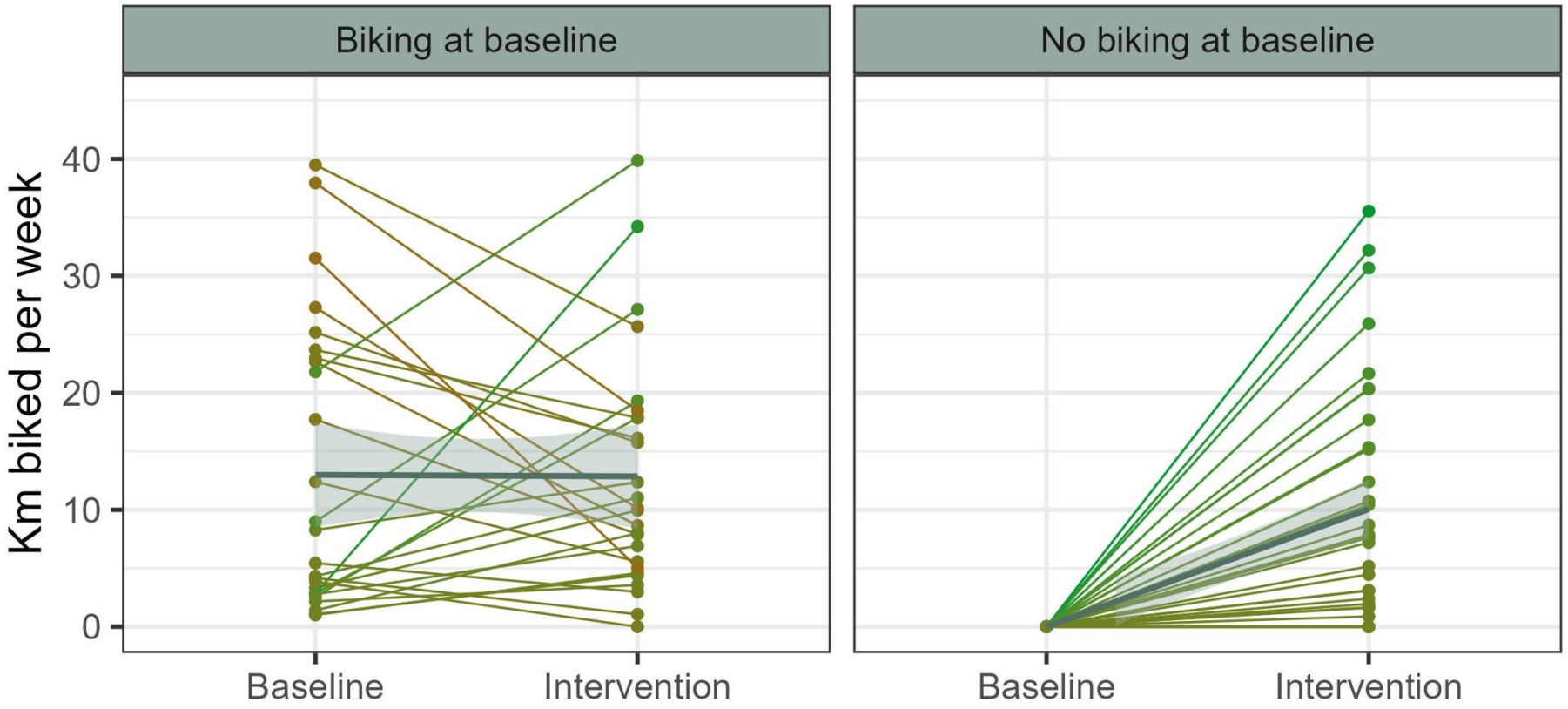

*n* = 135

# *Actual (e)bike purchases at 1-year follow-up*




*n* = 28

# *Preliminary insights from GPS travel data*



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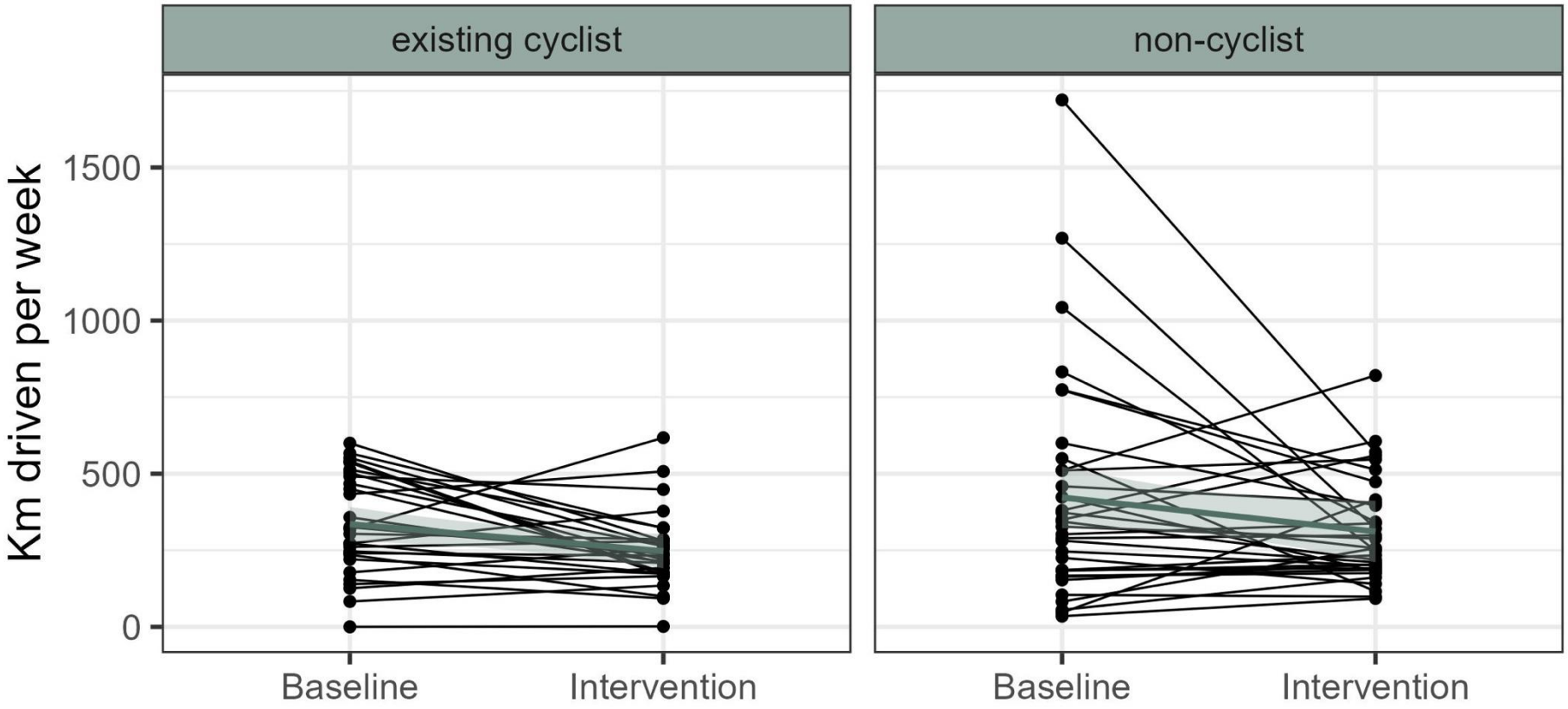


# *Conclusions*

- **Identifying scope for change:**

Preliminary findings suggest targeting people with low/no cycling at baseline could yield most benefits in terms of modal shift

- **Different spokes for different folks:**

Tailoring ebike models and accessories to individual transport needs could widen opportunities for participation in active travel

- **Try before you buy:**

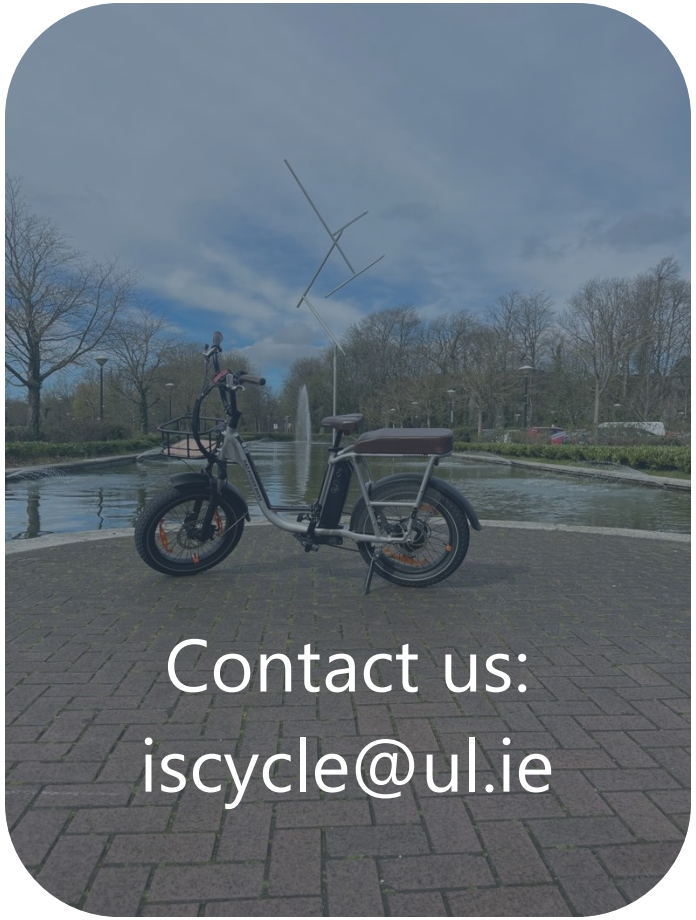
Facilitating a free ebike trial can be transformative for some, based on qualitative evidence collected alongside the intervention

- **E-bikes lower barriers:**

Ebikes can make cycling more accessible by reducing physical, logistical, and confidence-related obstacles, enabling people who might otherwise avoid cycling to engage in active travel.



# Thank you!



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