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Pedaling Progress:

Insights into the Acceptance and Consequences of Bicycle-Friendly Side Streets

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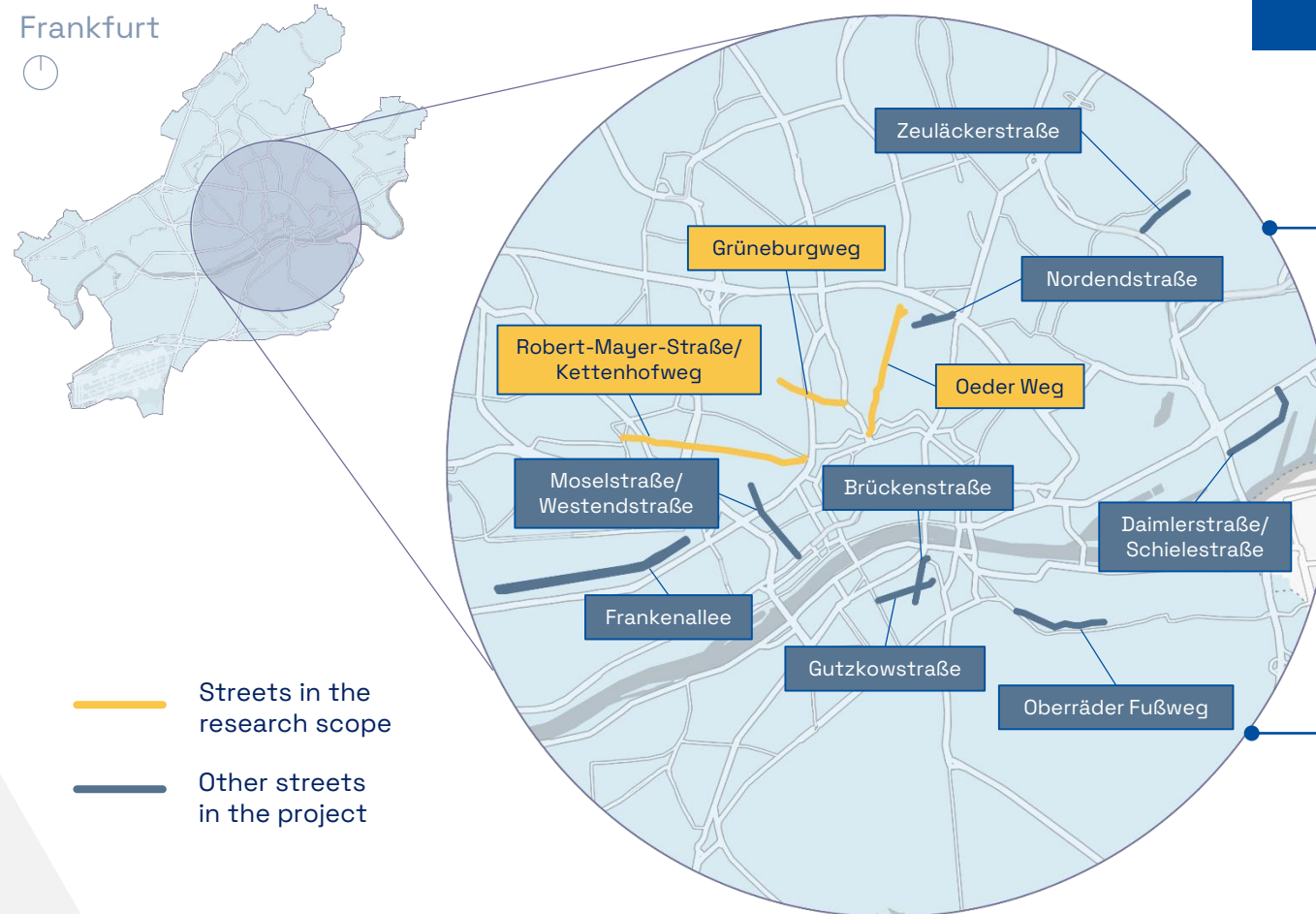
In cooperation with:



WALKABLE AND CYCLABLE SIDE STREETS

Project Background and Goals

Frankfurt
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Part of the resolution „Cycling City Frankfurt“, carried by a citizens referendum with >40,000 signatures

Promoting active mobility in the city

Enhancing safety and the street environment for mobility

Reducing the usage and through traffic of vehicles

THE TRANSFORMATION OF OEDER WEG

Implemented Measures

Introduction of cycling streets



Source: Stadt Frankfurt, 2023

Installation of vehicle access barriers



Source: ReLUT, 2023

Installation of modal filters and diagonal dividers



Source: ReLUT, 2023

THE TRANSFORMATION OF OEDER WEG

Implemented Measures

Painting the junctions in red and narrowing crossings (bulb-outs)



Source: ReLUT, 2024

Delineation of door zones from the traffic



Source: ReLUT, 2021

Introduction of loading zones for deliveries



Source: ReLUT, 2023

THE TRANSFORMATION OF OEDER WEG

Implemented Measures

Partial removal of on-street parking for multi-functional strips (e.g. restaurants)



Source: ReLUT, 2023

Installation of bike racks



Source: ReLUT, 2024

More green space and outdoor seating



Source: ReLUT, 2023

IMPACT ASSESSMENT OF THE MEASURES

Research Concepts and Methodology

Criteria

Changes of traffic volumes and modal shift

Quality of the street environment / living quality

Road safety

Effects on businesses

Target Groups

Residents of Oeder Weg

Residents of the neighbouring streets

Business owners

Customers of the businesses

Private (non-commercial) visitors

Through traffic and road users on Oeder Weg

Methods

Quantitative survey (2x)
($n_1=925$; $n_2=1,944$)

In-depth interviews
($n=60$)

Traffic observations (2x)

Measurement of parking search time

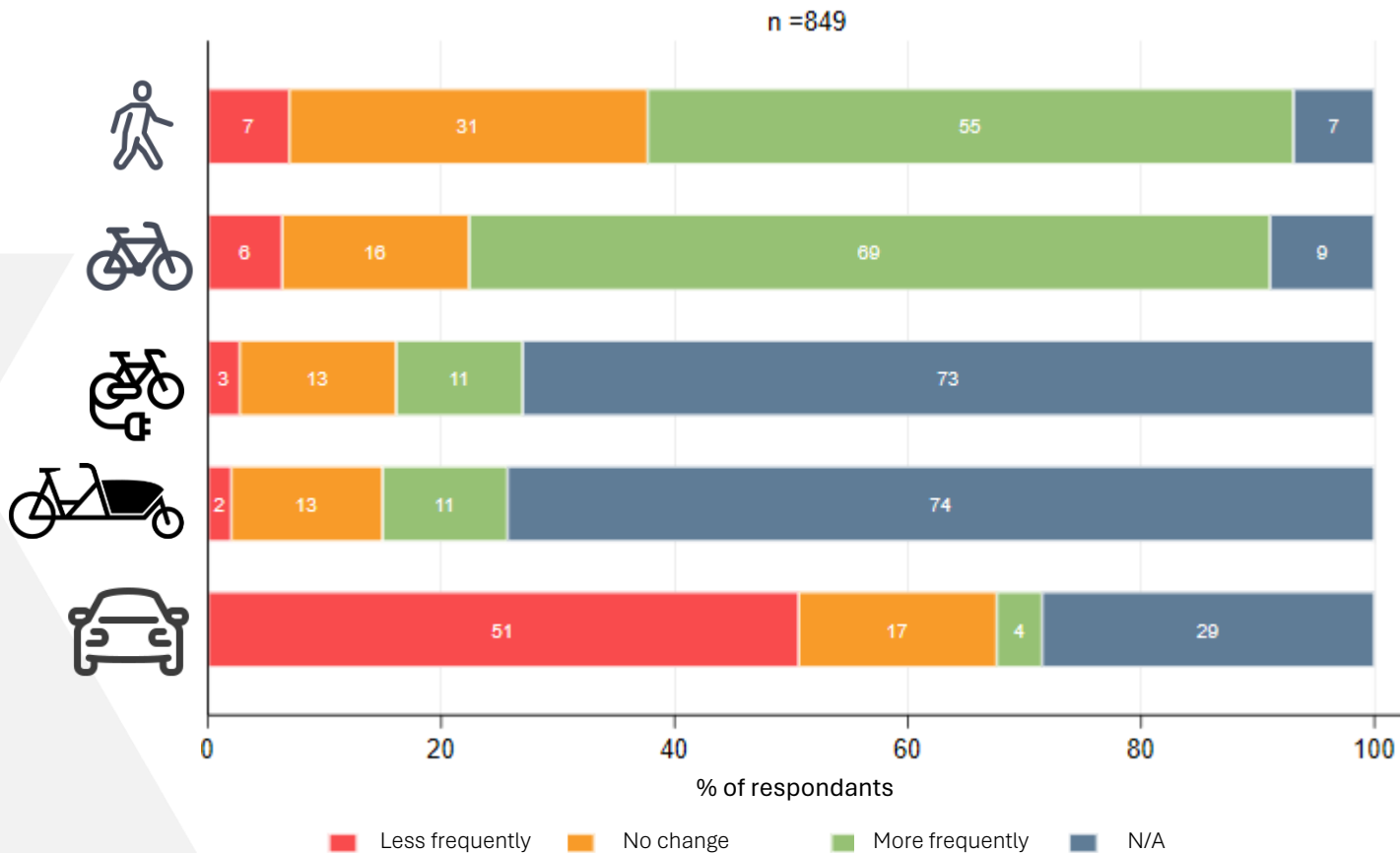
Traffic counts

Analysis of accident data

KEY FINDINGS

Changes of Mobility Behaviour

Modal Shift on Oeder Weg

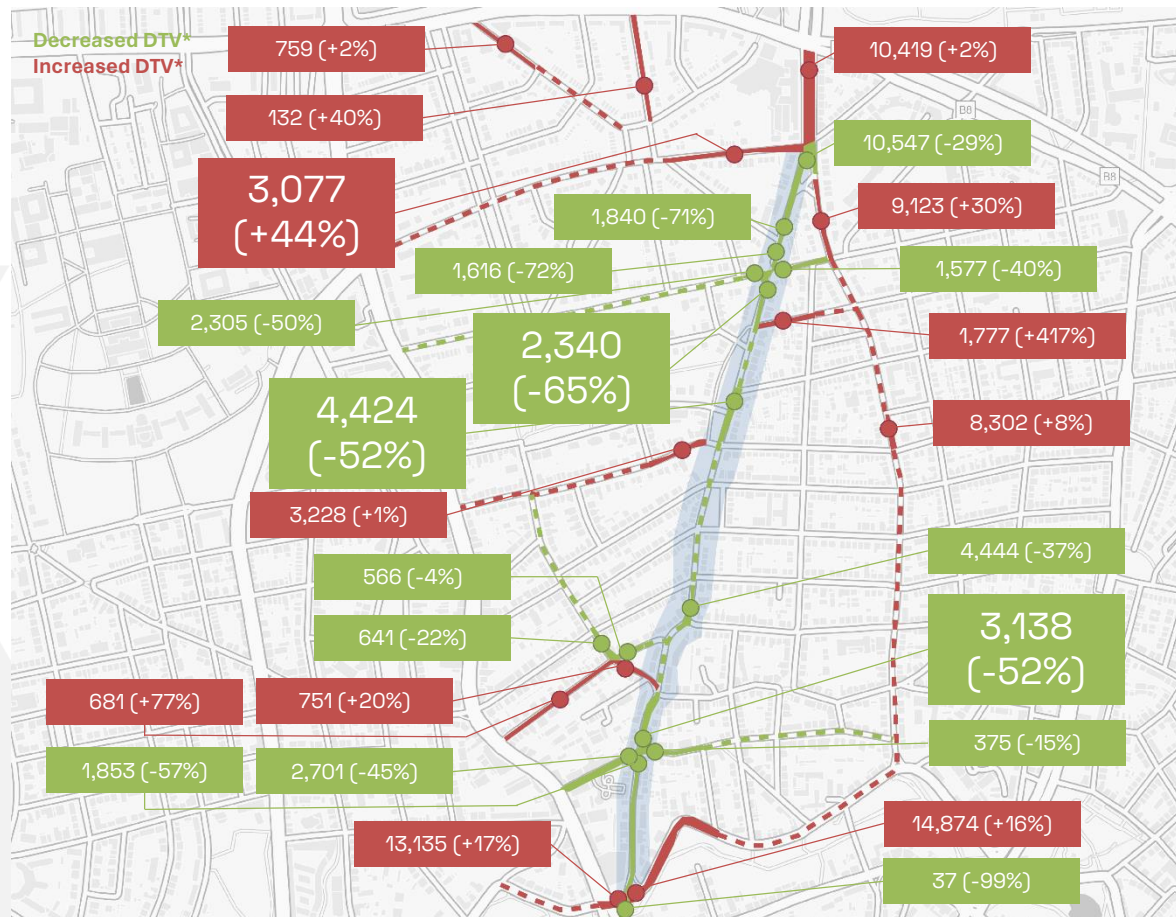


- 44 % of the participants reported changes in their modal choice on Oeder Weg after the transformation
- Participants of both surveys reported improvements in traffic flow and comforts
- Traffic counts demonstrated a doubling of bicycle traffic and a significant reduction in motorised traffic

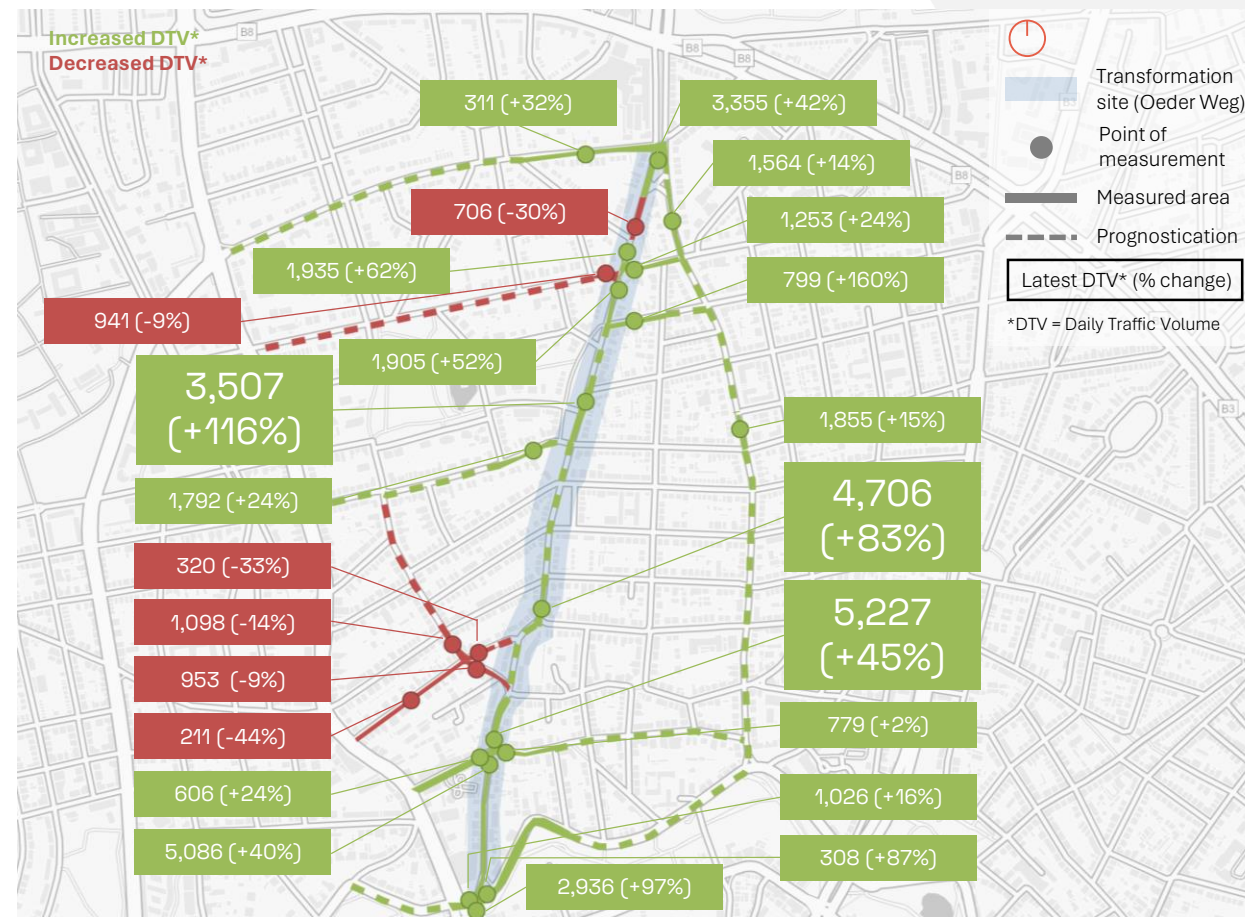
KEY FINDINGS

Changes of Traffic Volume

Vehicular Traffic Volume



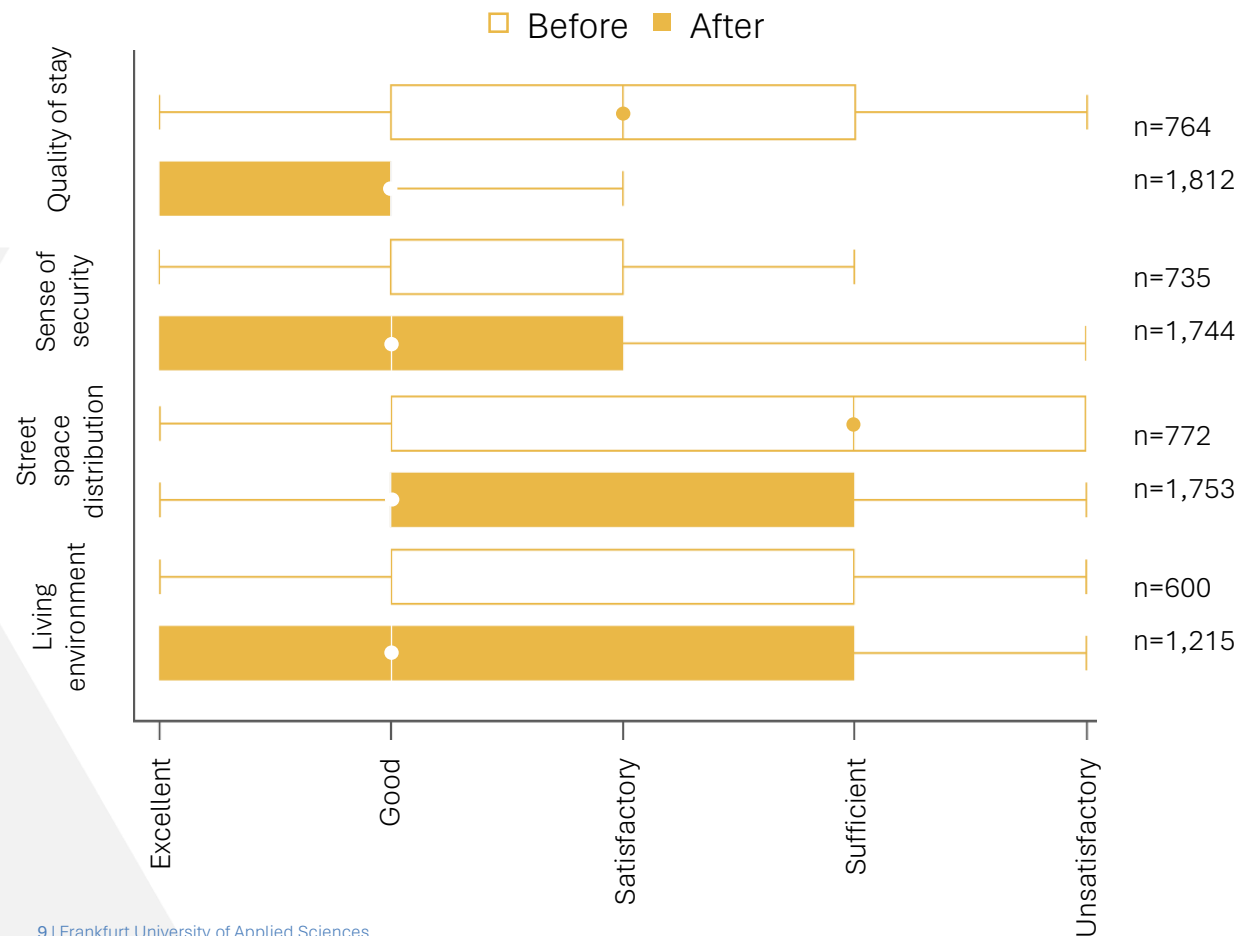
Bicycle Traffic Volume



KEY FINDINGS

Quality of the Street Environment / Living Quality

Users' Perception

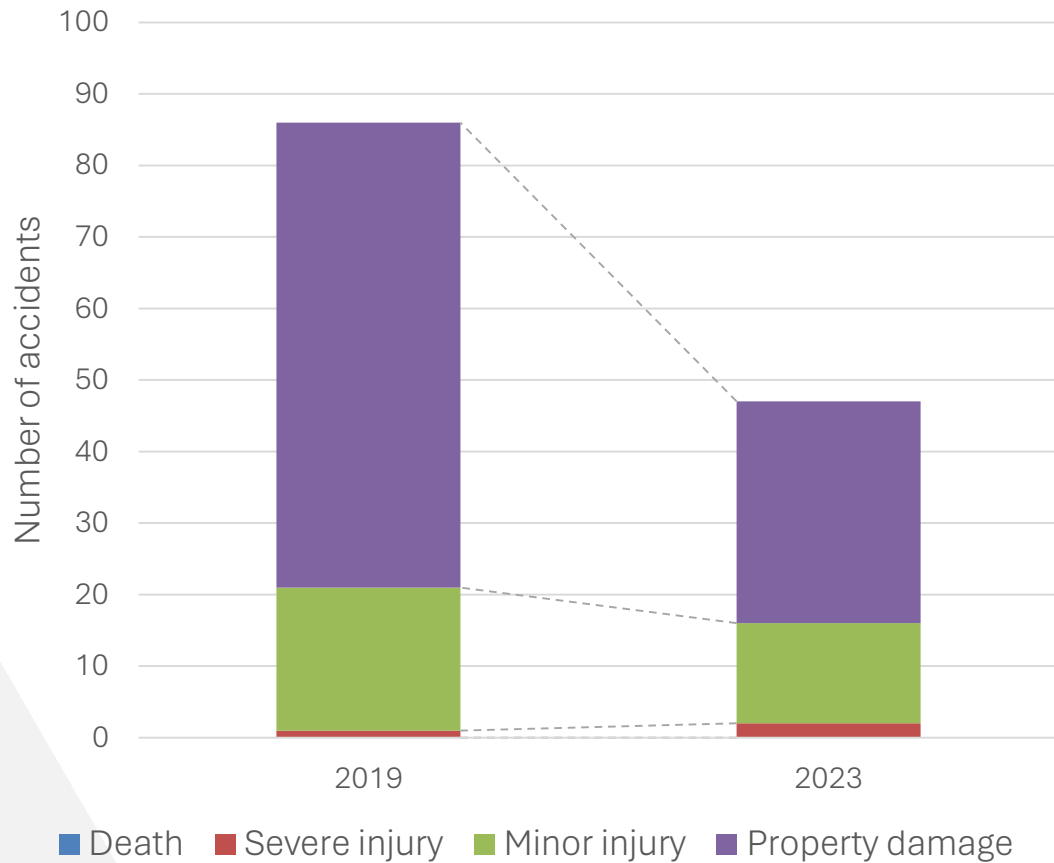


- Participants in both surveys reported general improvements on living quality and quality of street environment / stay (median response shifted from “satisfactory“ to “good“)
- 80 % of the participants agreed that the “multi-functional strips“ have improved the living quality
- 70 % of the participants found that the reduction of parking spaces has improved the quality of the street environment
- Traffic noise on some adjacent streets of the Oeder Weg has slightly increased, but no immediate action is necessary

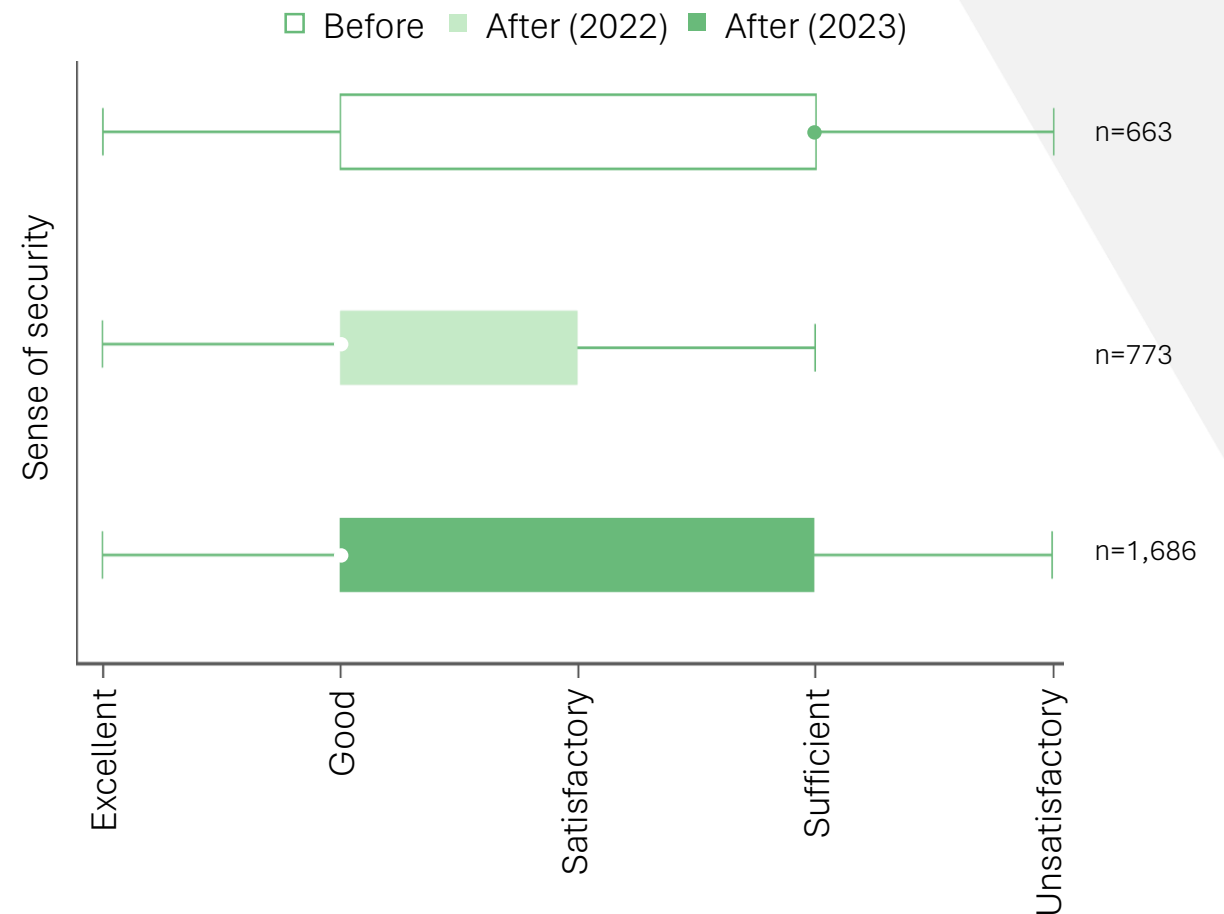
KEY FINDINGS

Road Safety

Number and Severity of Accidents



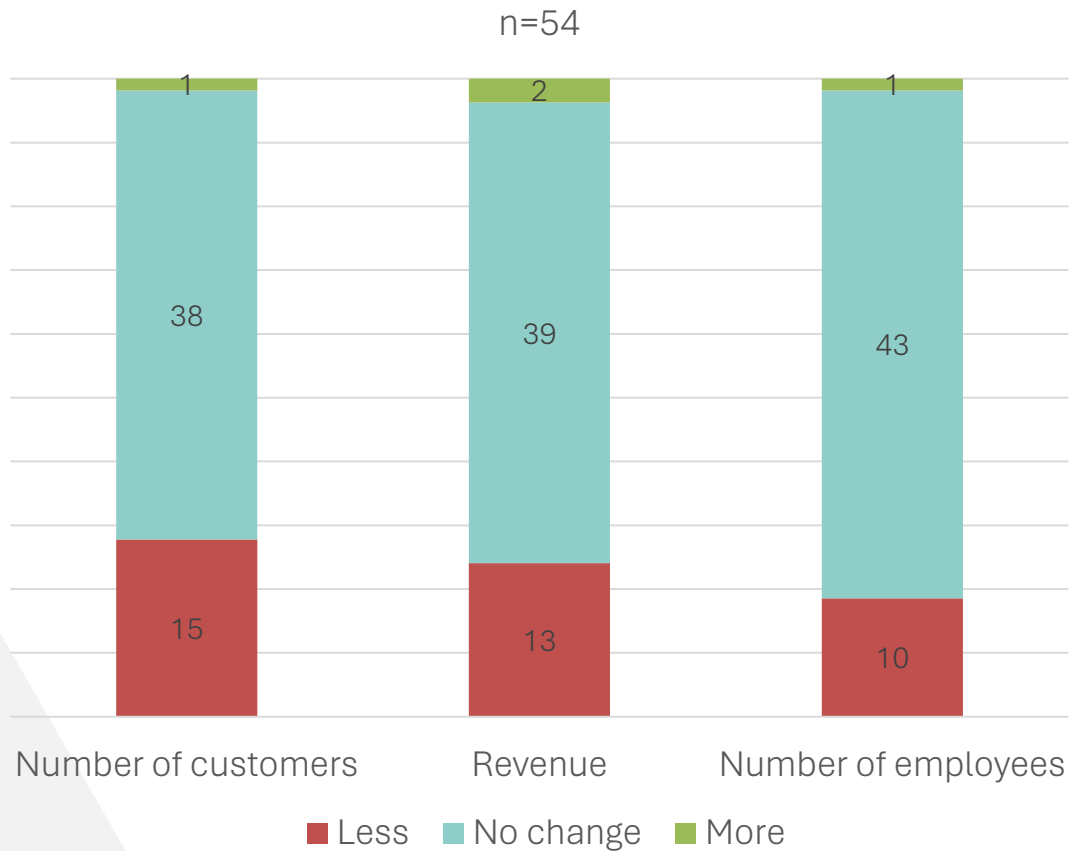
Users' Perception



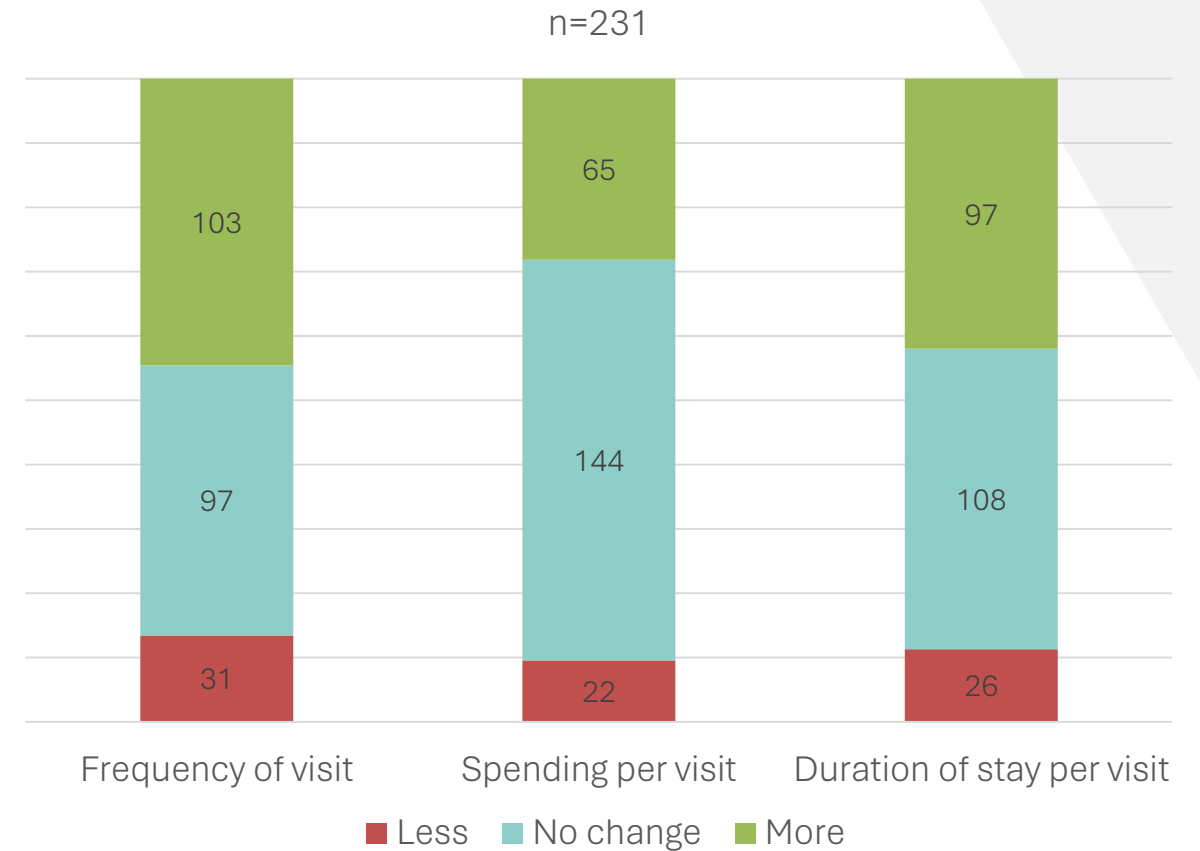
KEY FINDINGS

Effects on Businesses

Business Owners



Customers



TAKEAWAYS AND PROSPECTS

Recommendations for Future Projects

Amplifying the Positives

- After experimenting pilot projects and tactical urbanism, successful **infrastructure** (e.g. cycling streets, bicycle racks, modal filters, door zones, etc.) can be **perpetuated**
- Continuous **enhancement of the street environment** by lighting, greening, street furniture, placemaking, etc.
- Applying the project as a **blueprint to the other streets and cities**, even in streets with a high traffic load



Source: ReLUT, 2023

Minimising the Negatives

- Adopting an integrated neighbourhood approach to reduce adverse effects (traffic load and noise) on the **adjacent streets**
- Ensuring **flexibility and clear planning** for emergency vehicles
- **Transparent and active communication** with the stakeholders to manage expectations
- **Mobilising supporters and advocates**



Source: ReLUT, 2023

THANK YOU!

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