

KERBSIDE CONFLICTS AND THEIR IMPACTS ON FREIGHT DELIVERY OPERATIONS

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OUTLINE

➔ 1. Workshop design

2. Workshop results

Task 1: Conflicts' framework validation

Task 2: Value implications of kerbside conflicts – a freight perspective

Task 3: Prioritizing value dimensions on selected streets

3. Future steps



WORKSHOP – KERBSIDE CONFLICTS AND THEIR IMPACTS ON FREIGHT OPERATIONS



DATE AND PLACE

November 13th, 2023 at 9 am. University of Westminster.

DURATION

3 hours.

AIMS:

- 1) To validate the conflicts' assessment framework,
- 2) To identify value implications of kerbside conflicts on freight operations.

MODERATOR:

Ian Wainwright, Future city logistics / CILT

PARTICIPANTS (11)

- CLFQP Kerbside working group
 - Ian Wainwright, Future city logistics / CILT
 - John Crook, Brewery logistics group / CLFPQ
 - Jolyon Drury, CILT
 - David Kaner, Zero emissions group / West end partnership
- Marzena Piotrowska, University of Westminster
- Andy Oakey, University of Southampton
- Nige Symonds, Islington City Council
- Joseph Duggan, TfL
- Fiona Coull, Cross River Partnership
- Andy Smith, British Security Association
- Laura Jacklin, GRID

WORKSHOP – KERBSIDE CONFLICTS AND THEIR IMPACTS ON FREIGHT OPERATIONS

STREETS SELECTION



Charlotte St

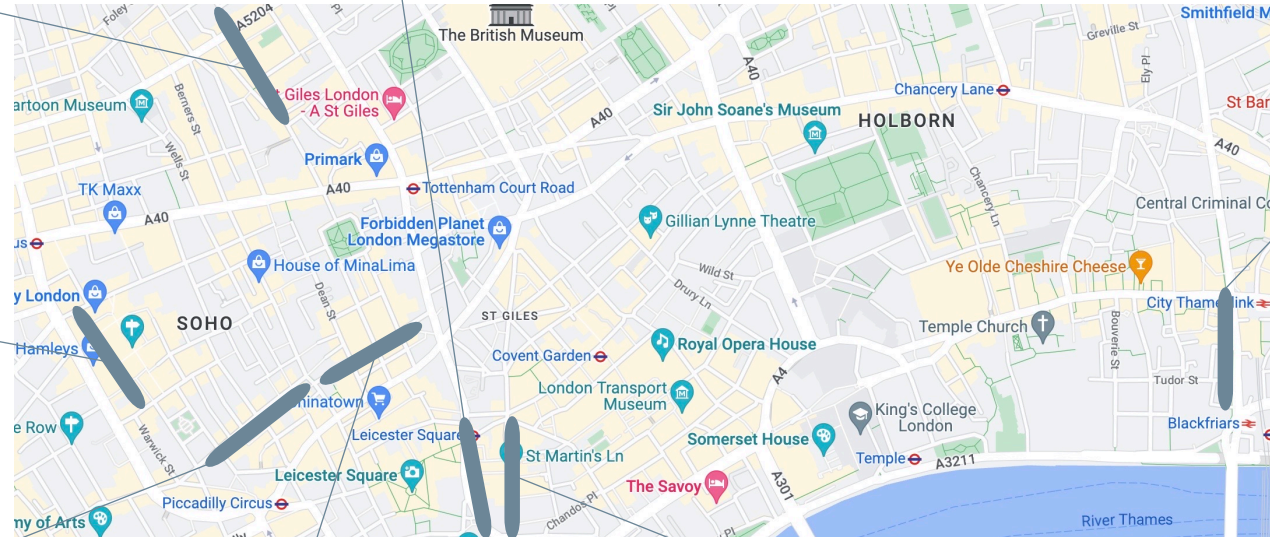


Charing Cross Rd

New Bridge St



Kingly St



St Martin's Ln



Old Compton St

Brewer St



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Task 1: Conflicts' framework validation

Based on multiple street cases, we conducted group discussions about:

- Conflict sources
- Freight operators' reaction to conflict sources
- Consequences



In total **106 comments** were collected for the seven streets under study.

Conflict sources	Consequences
	
Freight operation reactions to conflict sources	
	

Task 2: Value implications of kerbside conflicts – a freight perspective

What is the value we are talking about?

Value refers to the importance, worth, or usefulness of the street in achieving health, social, economic and environmental goals (Carmona, 2019)

Value dimensions – freight perspective

Health

HSEQ aspects related to loading and unloading, e.g., drivers' stress, safety.

Society

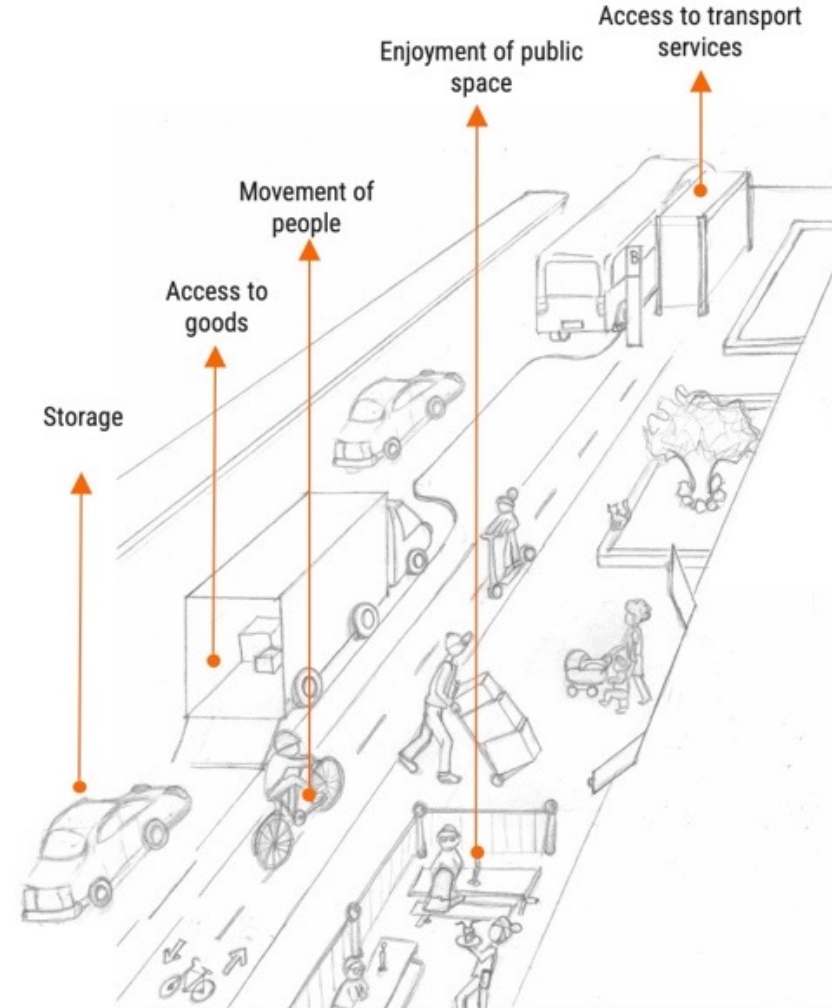
Traffic violations, city congestion.

Economy

Efficiency of last-mile operations, local economic activity.

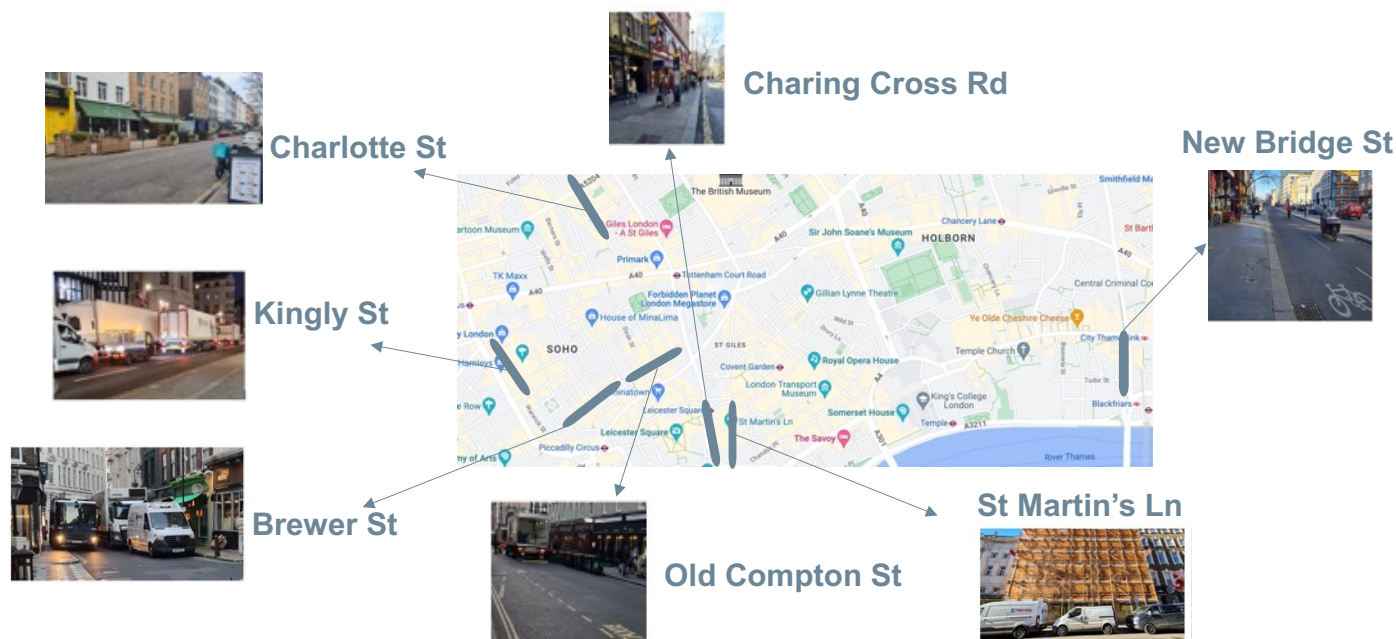
Environment

Air quality.



Task 3: Prioritizing value dimensions on selected streets

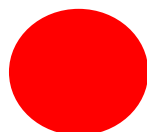
Based on the current design and regulations, participants discussed about the value dimension that required more attention at the selected streets.



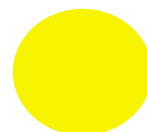
DOT VOTING



Health



Society



Economy



Environment

Results: Kinlgy St

[example]

CONFLICT SOURCES

1. Reduced time to deliver
2. Pedestrian's high footfall risk
3. Parked vehicles causing reduced access
4. Other streets with event deliveries take up space on loading bays
5. Construction closes street
6. Multiple deliveries in narrow area.
7. Often full sized with extra long tail lifts
8. Security

Conflict sources

Reduced time to deliver
07:00 - 11:00 Only

Pedestrian's High footfall Risk

Parked vehicles causing reduced access

② Multiple Deliveries in narrow area. + Building works!

② Pedestrians, Other streets with event deliveries take up space on loading bays

Construction closes street

Freight operators to conflict sources

② Stopping anywhere, blocking (potential) through traffic

A Deliveries queue to get in at 7 AM in order to have a space to stop

Consequences

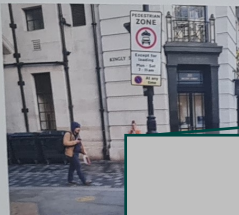
CONSEQUENCES

1. Lots of activity in a reduced time window leading to:
 - Collisions
 - Stress
 - Failed deliveries
2. Landlord tries to marshal vehicles on the street
3. Re-work

FREIGHT OPERATORS' REACTIONS

1. Stopping anywhere
2. Blocking potential through traffic
3. Deliveries queue to get in at 7 am in order to have space to stop

Traffic restriction signs



Delivery operations



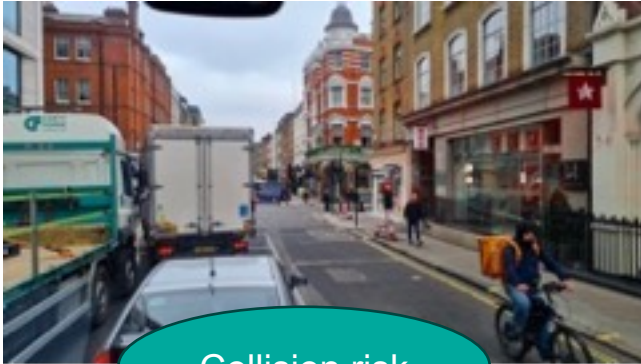
Health

Society

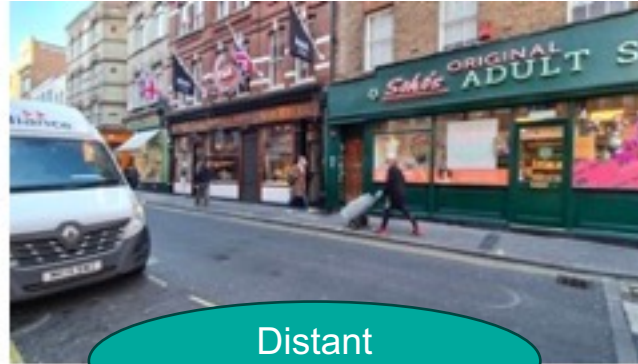
Economy

Environment

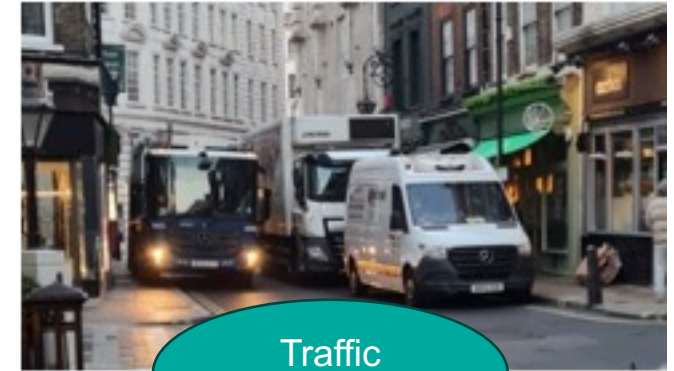
Value implications of kerbside conflicts – a freight perspective



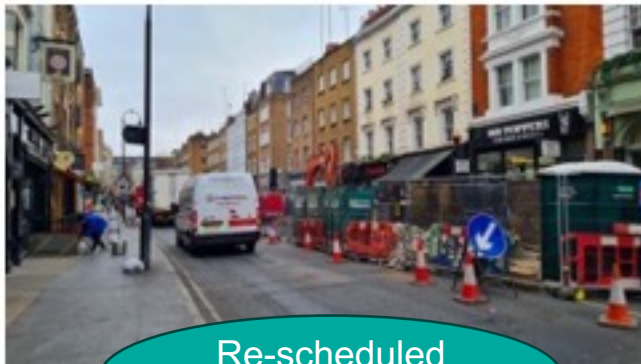
Collision risk



Distant deliveries



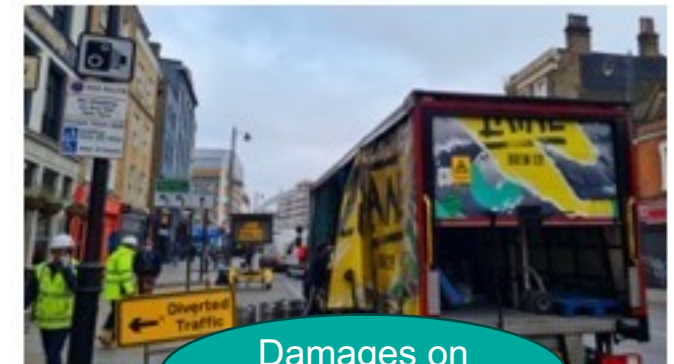
Traffic obstruction



Re-scheduled deliveries



Stress



Damages on the pavement

Results: Value implications of kerbside conflicts – a freight perspective

[example]



Stress

Users involved - freight and...

- Drivers – spider web of fleet managers, depots.
- Recipients (clients/businesses) - deliveries
- Drivers
 - Sole traders
 - Contractors
 - Fully employed

- Traffic enforcement officers
- Other drivers
- Pedestrians, cyclists + everyone

Health, social, economic and environmental consequences from the freight operator perspective

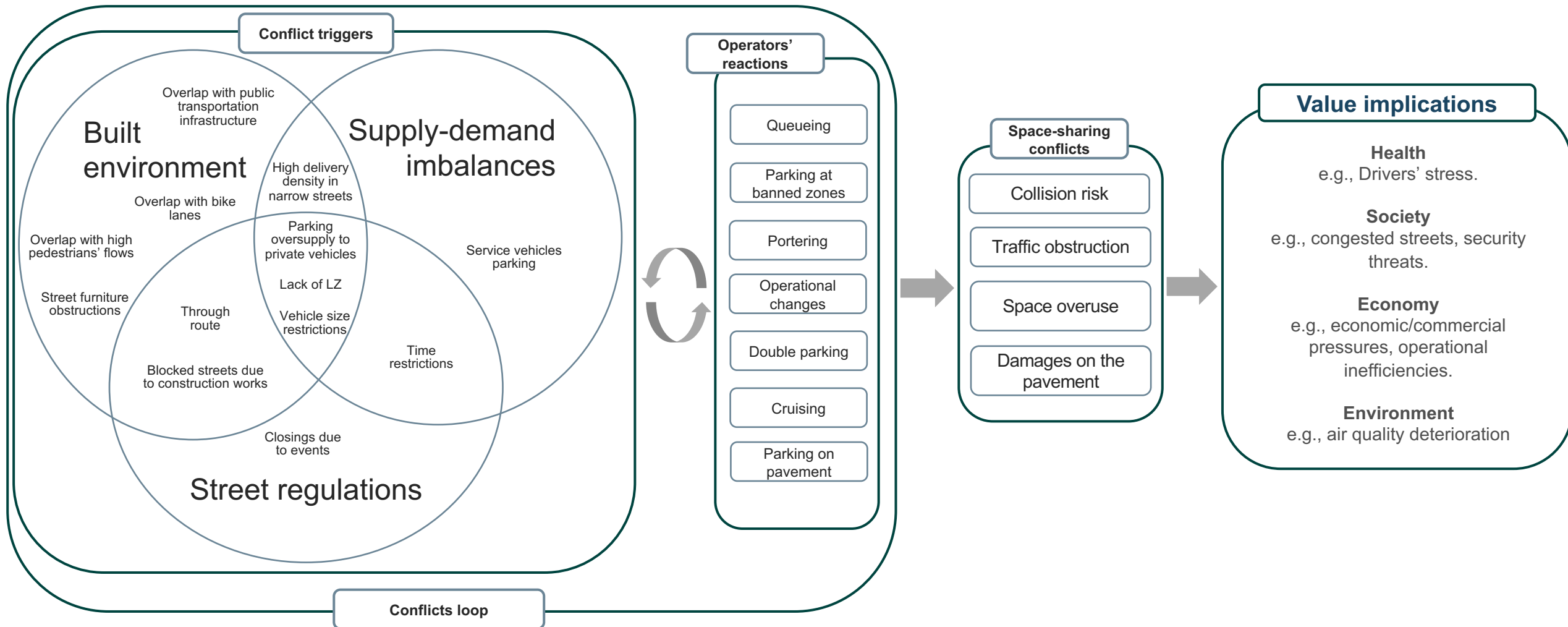
- Health – mental wellbeing + physical wellbeing: has an impact on direct users (drivers) indirect users family
- Anti social behaviour in already tense environment
- Collisions, road rage, traffic incident
- Environment – idling vehicles

- Economic – lower productivity, poor performance, staff retention – hiring costs / sickness costs
 - Lowering value of an area (desirability)
- Lack of welfare facilities
- Economic – loss of income from PCN's for drivers who are responsible for paying – seeing as a PCN

Potential KPIs to estimate value impacts of freight-related conflicts.

- Sickness rates
- Feedback from drivers to councils
- Staff retention
- Traffic incidents stats
- Complaints from residents / business
- PCN infringements stats

RESULT: CONFLICTS FRAMEWORK



MAIN TAKEAWAYS



- Tensions between transport modes, space uses, and freight delivery operations in the access to public space, lead to street value consequences to the freight sector that go beyond the economic dimension of value and include health, social, and environmental implications.
- Findings highlighted the unintended pressures the identified conflict categories create on freight operators, exposing them to high-stress levels and endangering both their own and other's health and safety.
- Limiting access to kerbside space for freight deliveries, aimed at enhancing liveability conditions, paradoxically generates adverse outcomes. These decisions fail to address the persisting demand for goods, resulting in operational choices that worsen mobility and environmental conditions, e.g., augmenting the number of required trips, cruising, higher public space occupation by low-capacity vehicles, etc.
- Research outcomes assist decision-makers in recognising conflicts in kerbside use and determining space allocation actions for efficient last-mile deliveries while minimising negative impacts on street liveability.
- Findings contribute to urban planning, providing insights for right-of-way allocation decisions that include the freight perspective—often overlooked in urban studies and decision-making.

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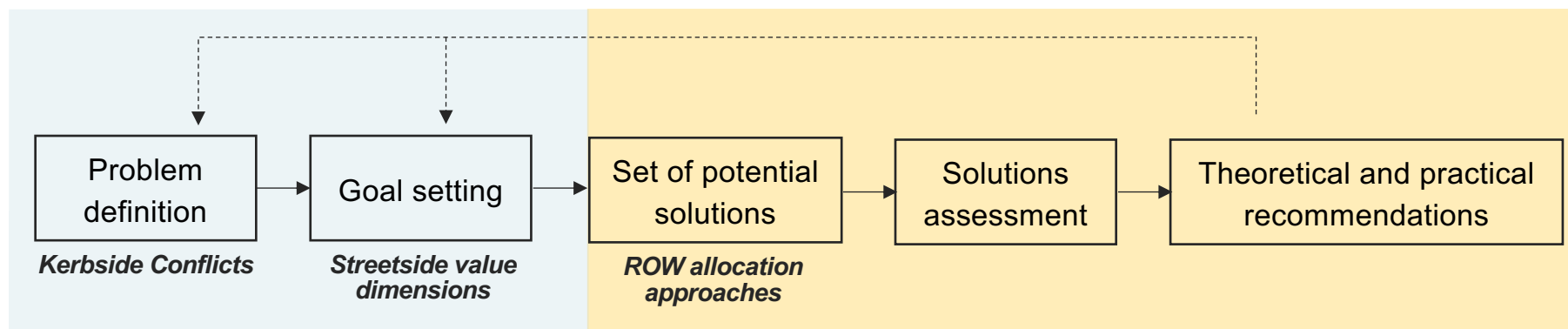
➔ 3. Future steps



Future steps

This research aim is twofold.

- Firstly, it aims at understanding freight-related streetside conflicts by observing and classifying problematic conditions in the interaction between freight deliveries and other kerbside users. *[Addressed via interviews and the workshop].*
- Secondly, it proposes analytical tools to conduct ROW decisions involving conflict categories and their impact on streetside value from the freight users' perspective. *[To be developed].*





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