



ICLEI

CitiesSHIFT WEBINAR

29 AUGUST 2019

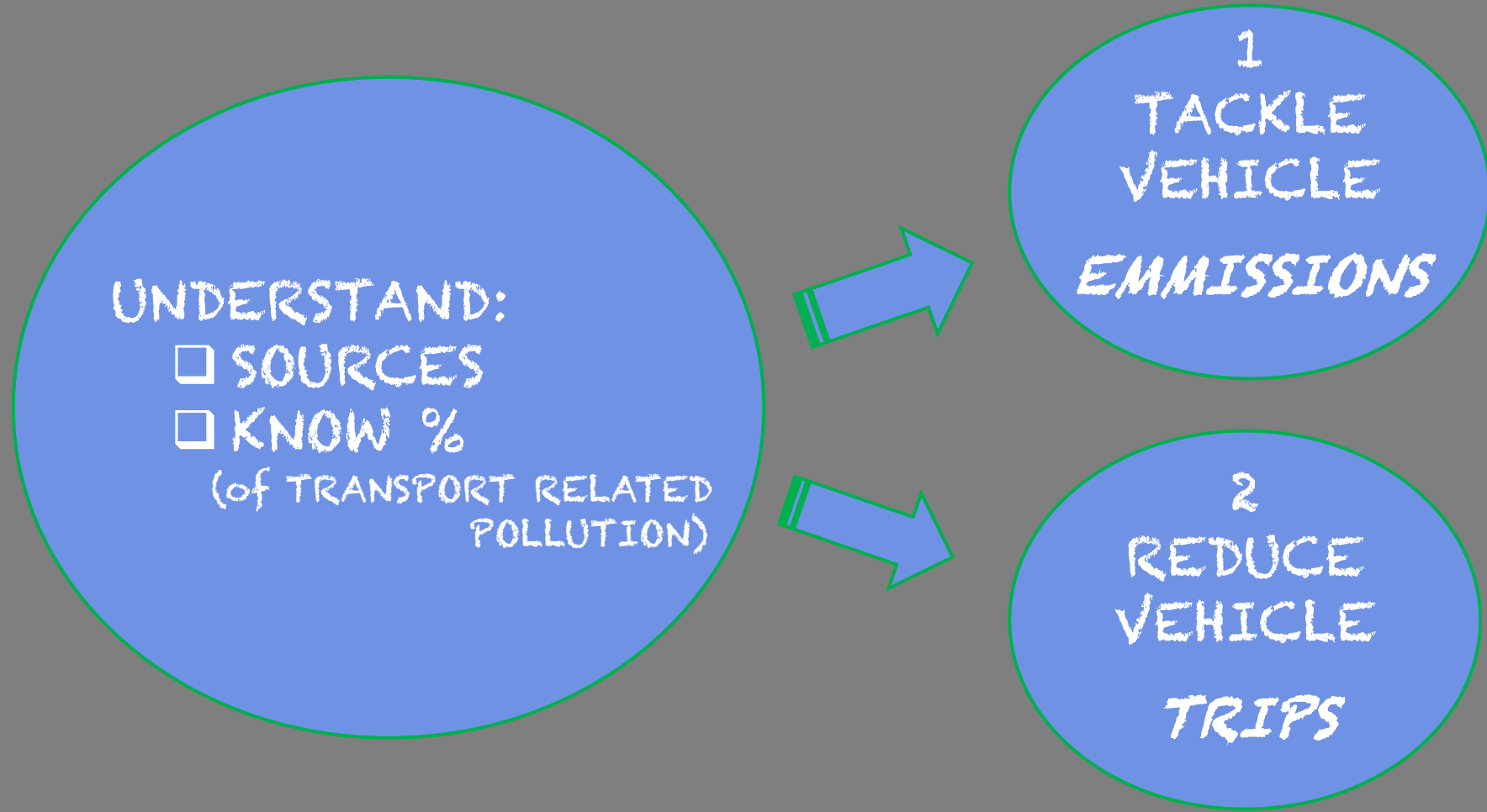
*Improving Air Quality
through Ecomobility*

CAMILLA WEEN

GOLDSTEIN WEEN ARCHITECTS

*Shifting Travel Behaviour
to Improve Air Quality
Some examples from UK and Europe*

LONDON EXPERIENCE



LONDON EXPERIENCE

TACKLE VEHICLE EMISSIONS

1. ENFORCE CLEANER VEHICLES - LEZ / ULEZ
2. REDUCE VEHICLE NUMBERS (ESPECIALLY NON-ESSENTIAL JOURNEYS)



LONDON EXPERIENCE

TACKLE VEHICLE EMISSIONS

LONDON ULTRALOW EMISSIONS ZONE - ULEZ



LONDON EXPERIENCE

TACKLE VEHICLE EMISSIONS

LONDON ULTRALOW EMISSIONS ZONE - ULEZ



LONDON EXPERIENCE

TACKLE VEHICLE EMISSIONS

LONDON ULTRALOW EMISSIONS ZONE - ULEZ

(Part of Low Emission Zone / More stringent for central London)

- Since April 2019
- 24 Hours - 7/7
- Cost (If non-compliant):
 - £12.50 most vehicles
 - £100 HGVs
- (Same area as the Congestion Charge Zone)*
- Proposal to expand zone Oct 2021

LONDON EXPERIENCE

TACKLE VEHICLE EMISSIONS

LONDON ULTRALOW EMISSIONS ZONE - ULEZ

Expectation: Reduce polluting emissions by 45%

In the lead-up to the ULEZ's introduction:

- 37% actually swapped usual mode of transport
- 46% thinking of changing preferred transport
82% have changed / considered changing way they travel
- 31%: ULEZ made driving in centre unaffordable
- 32% : would drive in the area less often
Only 8% viewed it negatively

Moped / scooter riders keen to switch to low-emissions versions

LONDON EXPERIENCE

REDUCE VEHICLE NUMBERS

1. Congestion Charge Scheme
2. Mode shift - away from cars
3. Promote Walking, Cycling, Public Transport
4. Travel Demand Management

LONDON EXPERIENCE

REDUCE VEHICLE NUMBERS

1. Congestion Charge Scheme (2003)

- 07.00 - 18.00
- Monday - Friday
- £11.50 / day
- Number plate recognition



LONDON EXPERIENCE

REDUCE VEHICLE NUMBERS

1. Congestion Charge Scheme (2003)

IMPACT (*TFL report post implementation*)

- Traffic fell 15%
- 30% improvement in journey time
- **Improved air quality**
- Reduction in accidents
- Tripling in survival rates from cardiac arrests

(London Ambulance Service report)

- Fears re displacement of traffic not realised

LONDON EXPERIENCE

REDUCE VEHICLE NUMBERS

2. Mode shift - away from cars

HEART / HEAD / PURSE

- Psychology – (heart) change culture
- Information – (head) help people make choices
- Efficient – (purse) create fast seamless transport network

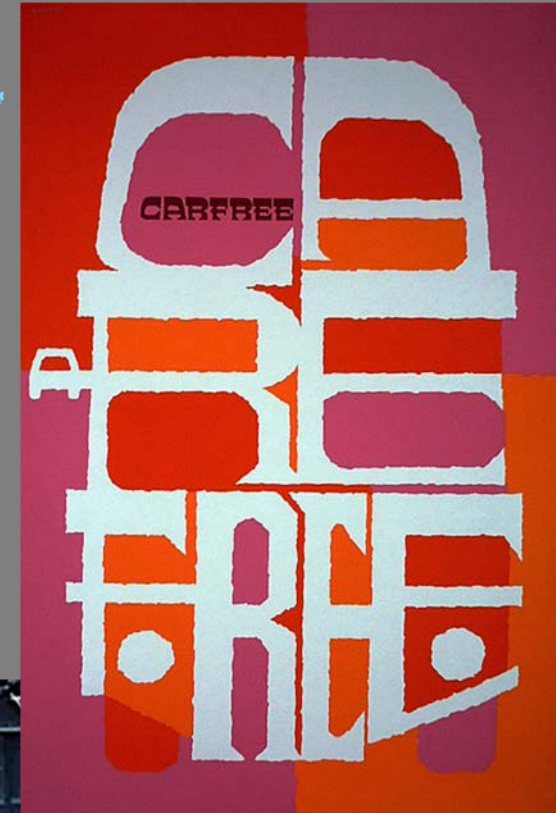
LONDON EXPERIENCE

REDUCE VEHICLE NUMBERS

2. Mode shift - away from cars

HEART – Psychology and Change of culture

- Awareness of impact of car use
- Environmental concerns
- Get People to want to leave cars behind!
- Make clean alternatives available
- Raise the profile of Ecomobility
- ‘Walk to School’ programmes



LONDON EXPERIENCE

REDUCE VEHICLE NUMBERS

2. Mode shift - away from cars

HEAD - Provide Information to make best choices

- Make public transport easy
- Simple ticketing and transferability
- On-line information (Journey Planner)
- Real-time information

The screenshot displays the Transport for London Journey Planner interface. At the top, it shows the 'TRANSPORT FOR LONDON' logo and navigation links like 'Plan a Journey', 'Status updates', 'Maps', 'Fares', 'Help & contacts', and 'More'. The main heading is 'Journey results'. Below this, it specifies the route: 'From: Oxford Circus Underground Station' and 'To: Victoria', with a departure time of 'Wednesday 28th Aug, 15:45'. It also includes options to 'Edit journey' and 'Add favourites'. A sidebar on the right provides 'Travel preferences & accessibility' settings, such as 'Showing the fastest routes Using all transport modes Max walk time 40 mins'. The main content area is divided into sections: 'Fastest by public transport' (15:44 - 15:47, £2.40 anytime, 3 mins), 'Bus only' (15:45 - 16:13, £1.50 anytime, 28 mins), and 'Cycling and other options' (18 mins for cycle hire, 11 mins for cycling, 33 mins for walking). A right-hand sidebar offers filters like 'Least walking', 'Fewest changes', 'Full step free access', and 'Nearby taxi ranks'.

LONDON EXPERIENCE

REDUCE VEHICLE NUMBERS



2. Mode shift - away from cars

PURSE – Economic benefits – efficient and fast

- Speed and Efficiency - Easy interchange / seamless journeys
- Pricing – Public transport and ecomobility cheaper than car



LONDON EXPERIENCE

REDUCE VEHICLE NUMBERS

3. Promote Walk, Cycling, Public Transport

- Need infrastructure
 - Walking environment and wayfinding
 - Cycle and 'Non-car' facilities
- Good Urban Design - puts people before cars
- Re-allocation of road space



LONDON EXPERIENCE

REDUCE VEHICLE NUMBERS

3. Promote Walk, Cycling, Public Transport

Make walking easy and attractive / put people first

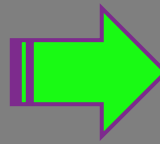


LONDON EXPERIENCE

REDUCE VEHICLE NUMBERS

3. Promote Walk, Cycling, Public Transport

Make walking pleasant



LONDON EXPERIENCE

REDUCE VEHICLE NUMBERS

3. Promote Walk, Cycling, Public Transport

Make walking pleasant

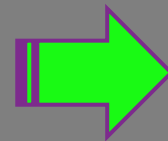


LONDON EXPERIENCE

REDUCE VEHICLE NUMBERS

3. Promote Walk, Cycling, Public Transport

Make walking and dwelling pleasant



LONDON EXPERIENCE

REDUCE VEHICLE NUMBERS

3. Promote Walk, Cycling, Public Transport

Make wayfinding easy



LONDON EXPERIENCE

REDUCE VEHICLE NUMBERS

3. Promote Walk, Cycling, Public Transport

Make cycling easy



LONDON EXPERIENCE

REDUCE VEHICLE NUMBERS

3. Promote Walk, Cycling, Public Transport

Make cycling easy

- Utrecht:
 - 22,000 cycle parking spaces (when complete)
 - Plus further 11,000 near station



LONDON EXPERIENCE

REDUCE VEHICLE NUMBERS

3. Promote Walk, Cycling, Public Transport

Make cycling convenient / clean / safe



UTRECHT

LONDON EXPERIENCE

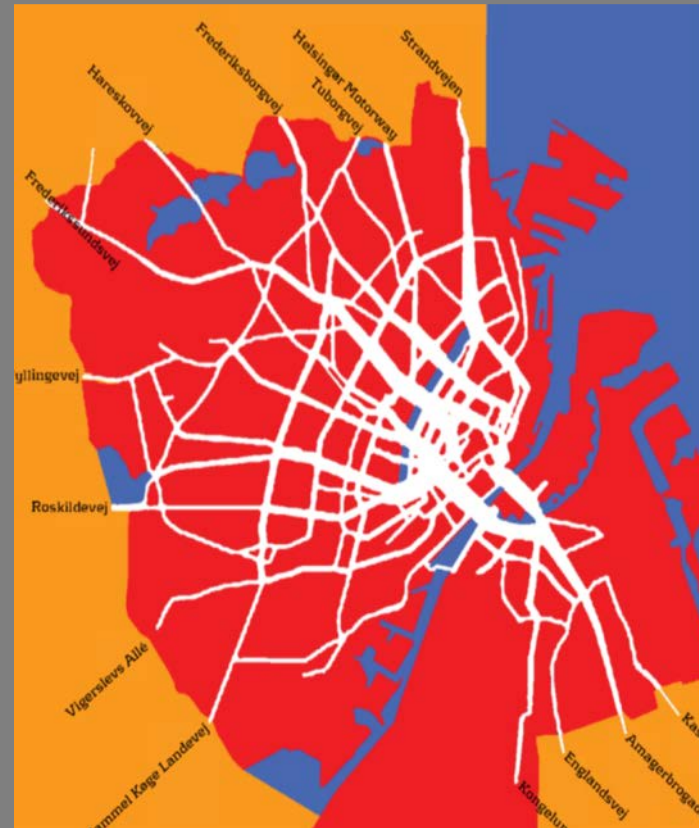
REDUCE VEHICLE NUMBERS

3. Promote Walk, Cycling, Public Transport

Making cycling convenient / overcoming barriers - COPENHAGEN



DISSING+WEITLING Architecture



LONDON EXPERIENCE

REDUCE VEHICLE NUMBERS

3. Promote Walk, Cycling, Public Transport

Make cycling easy - cycle bridge / create direct routes



LONDON EXPERIENCE

REDUCE VEHICLE NUMBERS

3. Promote Walk, Cycling, Public Transport

Enabling cycling possible – parking solutions

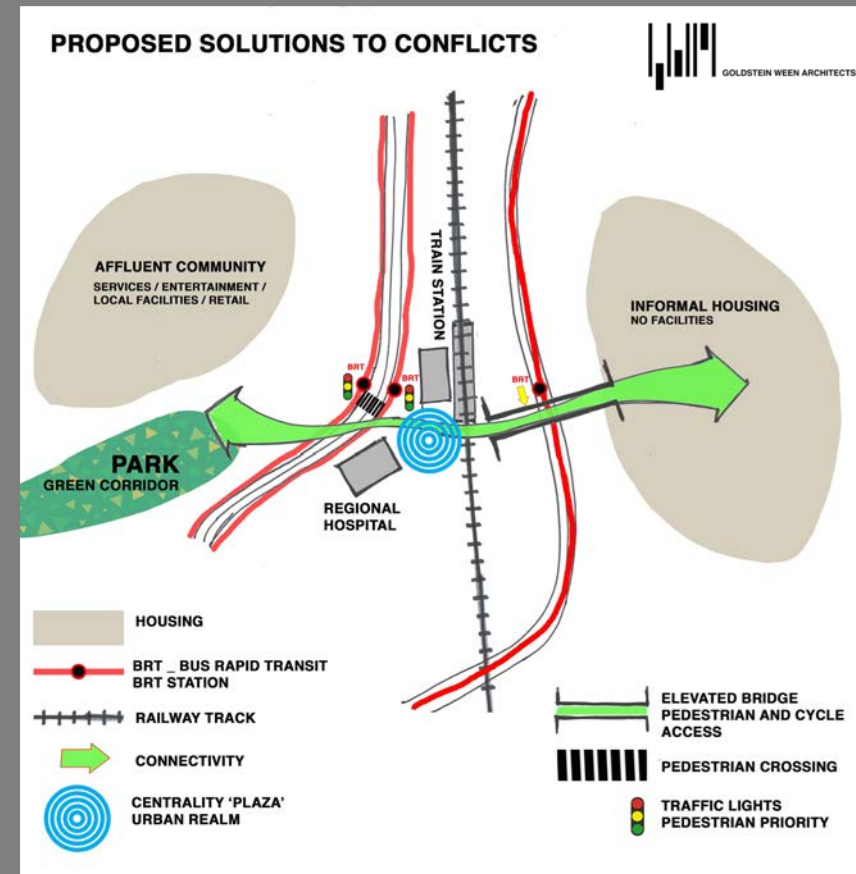
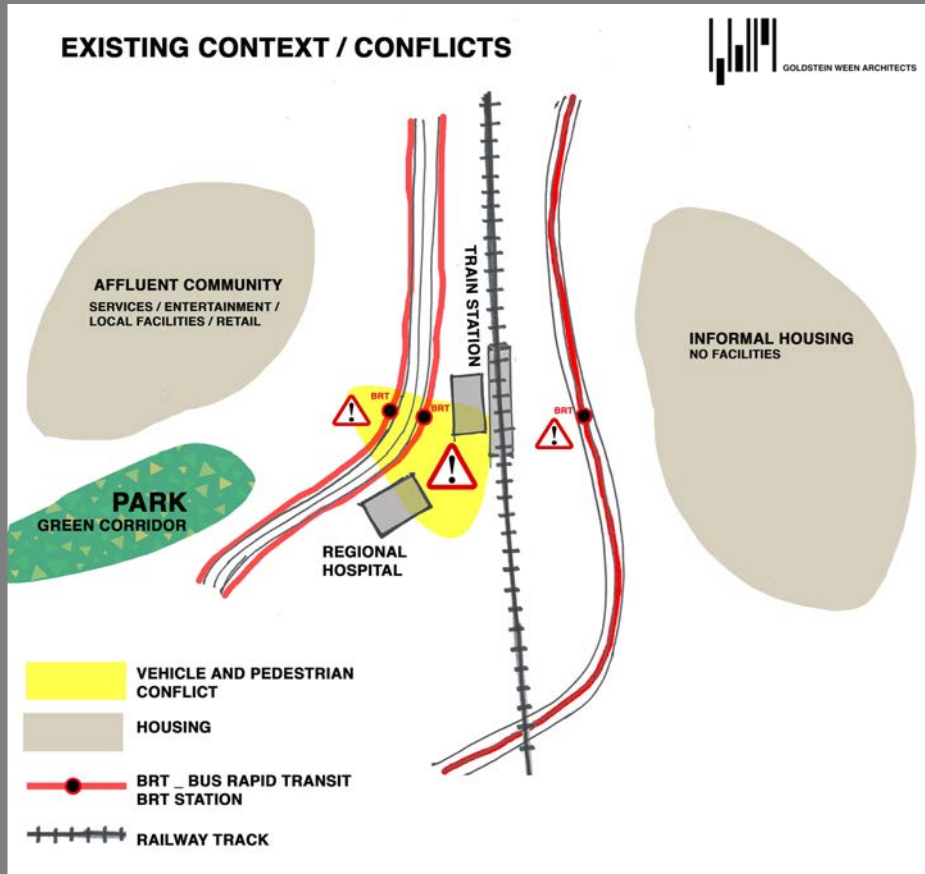


LONDON EXPERIENCE

REDUCE VEHICLE NUMBERS

3. Promote Walk, Cycling, Public Transport

Create accessible neighbourhoods



LONDON EXPERIENCE

REDUCE VEHICLE NUMBERS

3. Promote Walk, Cycling, Public Transport

Attractive public transport



LONDON EXPERIENCE

REDUCE VEHICLE NUMBERS

4. Travel Demand Management

- People will shift transport habits –
 - If it is nice and they understand the need*
 - If they understand the impact of the change*
- It should not feel like punishment
- The benefits must be clear
- Work with local groups and employers to identify options

LONDON EXPERIENCE

REDUCE VEHICLE NUMBERS

4. Travel Demand Management

OSLO Car Free Scheme

Transformation of city infrastructure

- City Centre Car free from 2019
- Focus of Walking, Cycling, Pubic Transport
- Places for people to meet and dwell

View @

<https://vimeo.com/212846367>



SUMMARY

Key actions for cleaner air:

- 1. Cleaner vehicles*
- 2. Reduce vehicles*
- 3. Promote ecomobility*