

MORE Exchange Forum

23rd June 2020

Paulo Ancaiaes

UCL

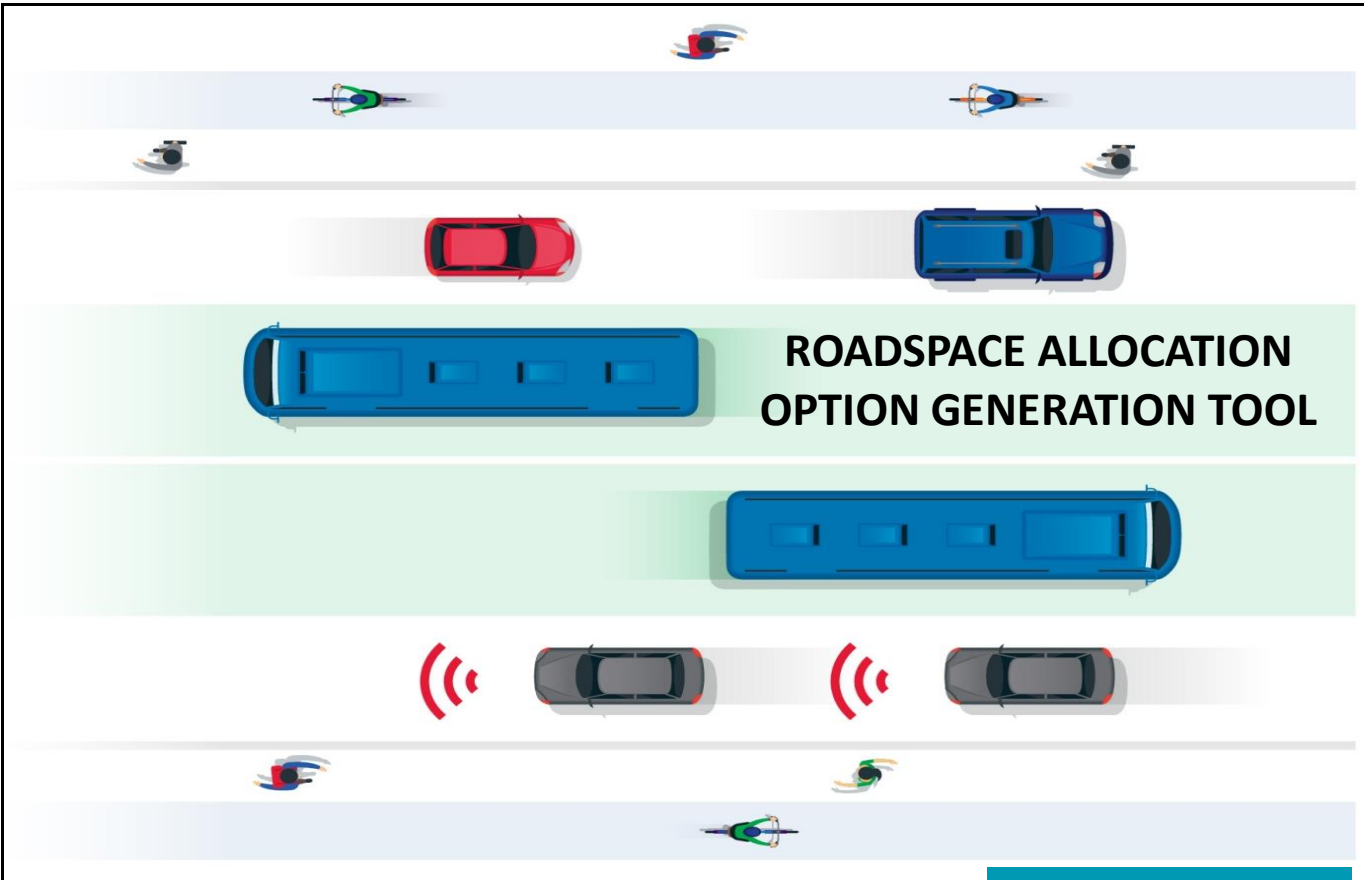
**Online tools to generate road space
allocation design options**



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 769276.

This document reflects only the author's view and that the Agency is not responsible for any use that may be made of the information it contains.





This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 769458



Option generation tools

```
graph LR; A[Option generation tools] --- B[Tool 1: Policy interventions]; A --- C[Tool 2: Road layout designs];
```

Tool 1: Policy interventions

Tool 2: Road layout designs

Option generation tools

```
graph LR; A[Option generation tools] --- B[Tool 1: Policy interventions]; A --- C[Tool 2: Road layout designs];
```

Tool 1: Policy interventions

Tool 2: Road layout designs

Policy interventions tool - Inputs

Priorities

Choose from the green dropdown menus the degree of priority of each type of road user or road use

- Not relevant in this road (should have no space)
- 0 Relevant, but not priority (can have space but not more than now)
- + Relevant and priority (should have more space than now)

BACK **CONTINUE**

Road user		Road use	
Pedestrians	0	Walk	0
		Cross the road	0
		Stroll	0
		Sit (street furniture)	0
		Sit (outdoor café)	0
Pedestrians with restricted mobility	0	Walk	0
		Cross the road	0
Cyclists (not electric)	0	Move	0
		Park	0
		Rent (dock)	0
		Rent (dockless)	0
Micromobility users (scooters, skates, etc.) (not electric)	0	Move	0
		Park	0
		Rent (dock)	0
		Rent (dockless)	0
Cyclists and micromobility users (electric)	0	Move	0
		Park	0
		Rent (dock)	0
		Rent (dockless)	0

Bus drivers	0	Move	0
		Stop	0
Bus passengers	0	Interchange	0
		Wait	0
Tram passengers	0	Interchange	0
		Wait	0
Rail/metro passengers		Interchange	0
Car drivers	0	Move	0
		Park	0
		Stop	0
Car passengers		Move	0
Car club users		Park	0
Motorcyclists	0	Move	0
		Park	0
Taxi drivers (inc. ride-hailing)	0	Move	0
		Wait	0
Taxi passengers (inc. ride-hailing)	0	Move	0
		Wait	0
LGV users	0	Move	0
		Stop	0
HGV users	0	Move	0
		Stop	0

Policy interventions tool - Inputs

Current situation

Fill the checkboxes of the objectives the intervention aims to achieve

*Choose only the main objectives
(Maximum of 5)*

BACK **SEE POLICIES**

Movement		Wider objectives: social	
Increase number of trips	<input type="checkbox"/>	Improve traffic safety	<input type="checkbox"/>
Reduce travel time	<input type="checkbox"/>	Reduce community severance	<input type="checkbox"/>
Increase travel time reliability	<input type="checkbox"/>	Increase personal security	<input type="checkbox"/>
Reduce congestion	<input type="checkbox"/>	Promote physical activity/health	<input type="checkbox"/>
Improve trip quality	<input type="checkbox"/>	Promote social interaction	<input type="checkbox"/>
Achieve a more sustainable modal split	<input type="checkbox"/>	Promote social inclusion	<input type="checkbox"/>
		Increase wellbeing	<input type="checkbox"/>
Place		Wider objectives: environmental	
Facilitate place activities (e.g. people sitting)	<input type="checkbox"/>	Increase green space	<input type="checkbox"/>
Facilitate kerbside activities	<input type="checkbox"/>	Improve air quality	<input type="checkbox"/>
Improve access to local buildings	<input type="checkbox"/>	Reduce noise	<input type="checkbox"/>
Road operation		Improve visual environment	<input type="checkbox"/>
Improve resilience (to weather conditions)	<input type="checkbox"/>		

(...)

Policy interventions tool - Outputs

Possible Interventions

Scroll to see more interventions

Click on intervention for further information

PRINT

CHANGE

RESTART

END



[Pedestrianisation](#)



[Pedestrianisation: time-based](#)



[Improve pedestrian infrastructure](#)

(...)

Policy interventions tool - Outputs

Shared space

[BACK](#)[END](#)

Description

Road Uses

Objectives

Evidence



Shared space is a design approach that aims at a balanced distribution of space by removing formal demarcations between different types of road users.

This includes removing barriers separating pedestrians from vehicles, traffic signs, and most road markings.

This intervention is usually applied in tandem with removal of unnecessary street furniture, a drastic reduction in traffic speeds (to 20-30 km/h) and the improvement of the public realm (including high-quality pavements)

The hypothesis is that road users become more aware of each other while using the road, and will behave more cautiously. It is hoped that car drivers and pedestrians and cyclists make eye contact and negotiate conflicts

Shared space has been criticized because it does not go far enough in reducing the role of motorised vehicles and it does not address the needs of individuals with mobility restrictions or disabilities

Policy interventions tool - Outputs

Shared space

BACK

END

Description

Road Uses

Objectives

Evidence

Likely impact of intervention on road uses

Road user	Road use	Impact	Reason
Pedestrians	Walk	+	Share space with cars may be intimidating for some pedestrians
	Cross the road	+	Less physical barriers, lower traffic speeds
	Stroll	+	Improved public realm, lower traffic speed, less noise and pollution
	Sit (street furniture)	+	Improved public realm, lower traffic speed, less noise and pollution
	Sit (outdoor café)	+	Improved public realm, lower traffic speed, less noise and pollution
Pedestrians with restricted mobility	Walk	+	Lack of formal demarcations from motorised vehicles
	Cross the road	+	Lack of formal demarcations from motorised vehicles
Cyclists (not electric)	Move	0	Less conflicts with cars but need to negotiate with pedestrians
	Park	0	Need to reduce clutter probably limits private cycle parking
	Rent (dock)	0	Depends on the scheme
	Rent (dockless)	0	Need to reduce clutter may lead to restrictions to parking dockless rent cycles
Micromobility users (scooters, skates, etc.)	Move	-	Need to reduce clutter may lead to restrictions to parking dockless rent cycles
	Park	-	Need to reduce clutter may lead to restrictions to parking dockless rent cycles

(...)

Policy interventions tool - Outputs

Shared space

[BACK](#)[END](#)

Description	Road Uses	Objectives	Evidence
<p style="text-align: center;">Examples</p> <p>There are many examples of shared spaces around the world, on both urban and rural areas</p> <p>There are several schemes in The Netherlands, some of them implemented more than 20 years ago</p> <p>One of the most well-known examples is Exhibition Road in London, which was transformed into a shared space in 2012</p> <p style="text-align: center;">Evidence</p> <p>Surveys tend to show that users e generally positive perceptions of shared space schemes, but this is mostly due to the improvement of the public realm and not necessarily the ease of movement or feelings of safety.</p> <p>See: MVA 2009 Appraisal of Shared Space</p> <p>Some groups, especially people with visual, hearing, and mobility impairments tend to dislike these schemes because of fear of collision with cars.</p> <p>See: Guide Dogs for the Blind Association 2009 Shared Surface Street Design Research Project</p> <p>There is some evidence in the Netherlands that shared space schemes with high vehicle flows do tend to have poorer safety records.</p> <p>See: Quemby, A, Castle, C, A Review of Simplified Streetscape Schemes, 2005</p>			

Option generation tools

```
graph LR; A[Option generation tools] --- B[Tool 1: Policy interventions]; A --- C[Tool 2: Road layout designs];
```

Tool 1: Policy interventions

Tool 2: Road layout designs

Road layouts designs tool - Inputs

CURRENT SITUATION

Indicate in the green boxes the road width currently allocated to each design element

- * Leave field as 0 if the road does not have that design element
- * Insert values in metres
- * The total road width should be more than 12m and less than 35m

Space for walking

6

Space for place activities (stalls, benches, outdoor cafés, etc.)

0

Green area

0

Lane for general traffic

12

Bus lane

0

Space for cycling (cycle lane or cycle track)

0

Mixed bus and cycle lane

0

Space for parking and loading

0

Tram lines

0

Total width:

18 metres

Road layouts designs tool - Inputs

PRIORITIES

Enter in the green boxes the degree of priority of each design element

- 0: Not relevant in this road (should have no space)
- 1: Relevant, but not priority (can have space but not more than now)
- 2: Relevant and priority (should have more space than now)

		The tool will show designs with these widths: These values are calculated automatically		
		Minimum	Maximum	
Space for walking	<input type="text" value="1"/>	<input type="text" value="6"/>	<input type="text" value="6"/>	
Space for place activities (stalls, benches, outdoor cafés, etc.)	<input type="text" value="1"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	No road designs will include this element
Green area	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	No road designs will include this element
Lane for general traffic	<input type="text" value="2"/>	<input type="text" value="12"/>	<input type="text" value="12"/>	
Bus lane	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	No road designs will include this element
Space for cycling (cycle lane/cycle track)	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	No road designs will include this element
Space for parking and loading	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	No road designs will include this element
Tram lines	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	No road designs will include this element

Back

See Designs

Road layouts designs tool - Outputs

POSSIBLE ROAD DESIGNS

Restart

Back

Legend



Notes

- All designs include a kerbzone between the pavements and carriageway (0.6m) and a frontage zone between pavements and frontages (0.6m)
- Cycling space includes a 1m buffer, if next to moving traffic or parking/loading space

Left Pavement	Left Carriageway	Median Strip	Right Carriageway	Right Pavement	Total Road Width (m)	Width of Design Elements (m)								Capacity per 75m ² of roadspace		
						Walking	Place Activities	Green Area	General Purpose	Bus Lane	Cycling	Parking/ Loading	Tram Line	Movement (people)	Place Activities (people)	Parking/ Loading (vehicles)
					17.4	6	3	0	6	0	0	0	0	110	30	0
					17.4	6	3	0	6	0	0	0	0	110	30	0
					17.4	6	3	0	6	0	0	0	0	110	30	0

(...)

Thank you for your attention!



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 769276.

This document reflects only the author's view and that the Agency is not responsible for any use that may be made of the information it contains.

MORE
Multimodal Optimisation
of Roadspace in Europe

The logo for MORE (Multimodal Optimisation of Roadspace in Europe) features the word "MORE" in a bold, sans-serif font. To the right of the text is a stylized graphic consisting of three overlapping, upward-pointing triangular shapes in blue, red, and green, which also forms a larger triangular shape pointing upwards.