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Source : PCA - STREAM

Åh ... Champs Élysées

06/12/2023

Vejforum 2023 - Nyborg

« REENCHANTER LES CHAMPS-ELYSEES »

ARTELIA
Passion & Solutions

PROJECT TEAM

CLIENT

COMITÉ CHAMPS-ELYSÉES

MANAGEMENT TEAM

PCA-STREAM
Philippe Chiambaretta Architecte

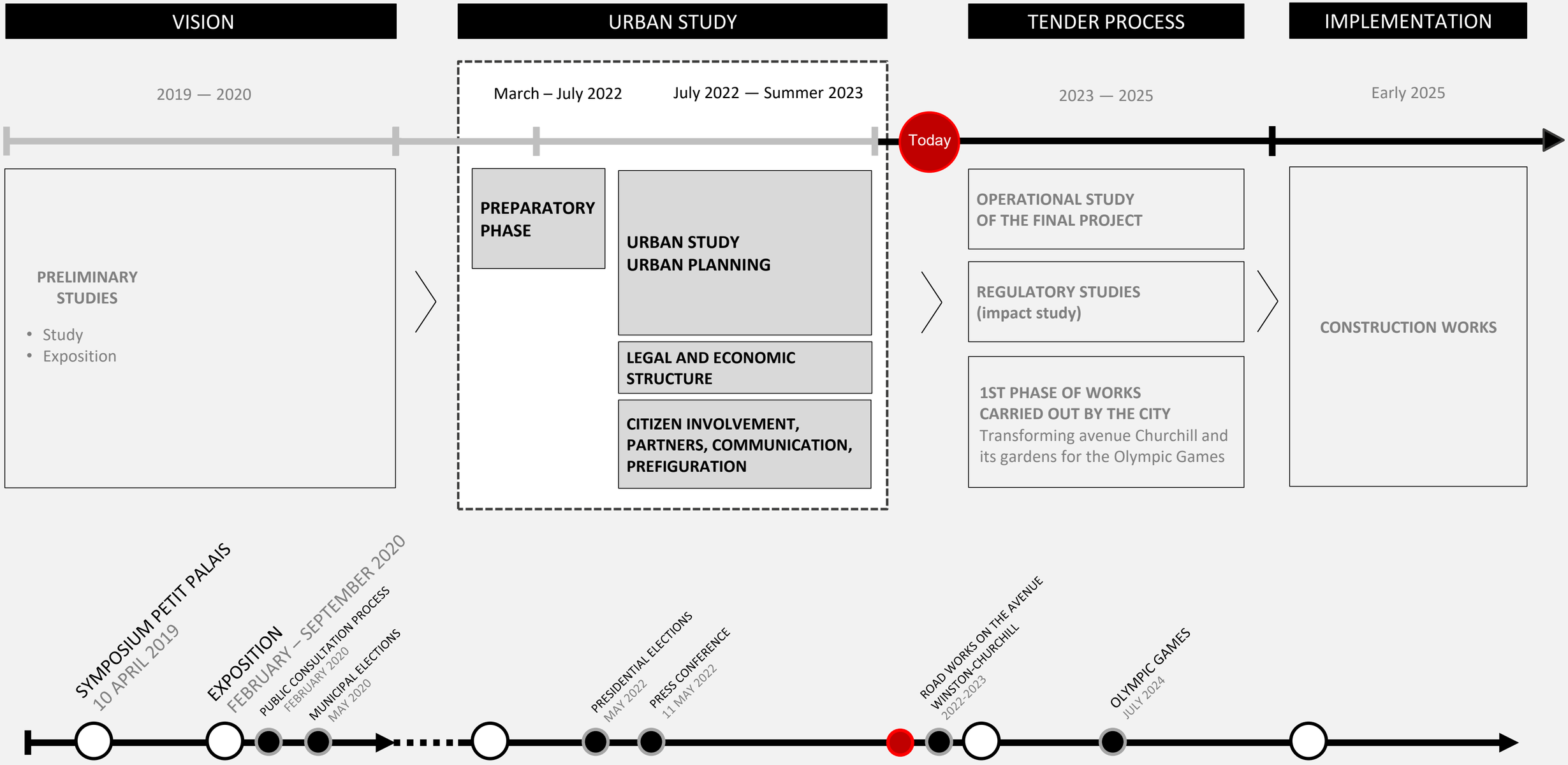
MOBILITY TEAM

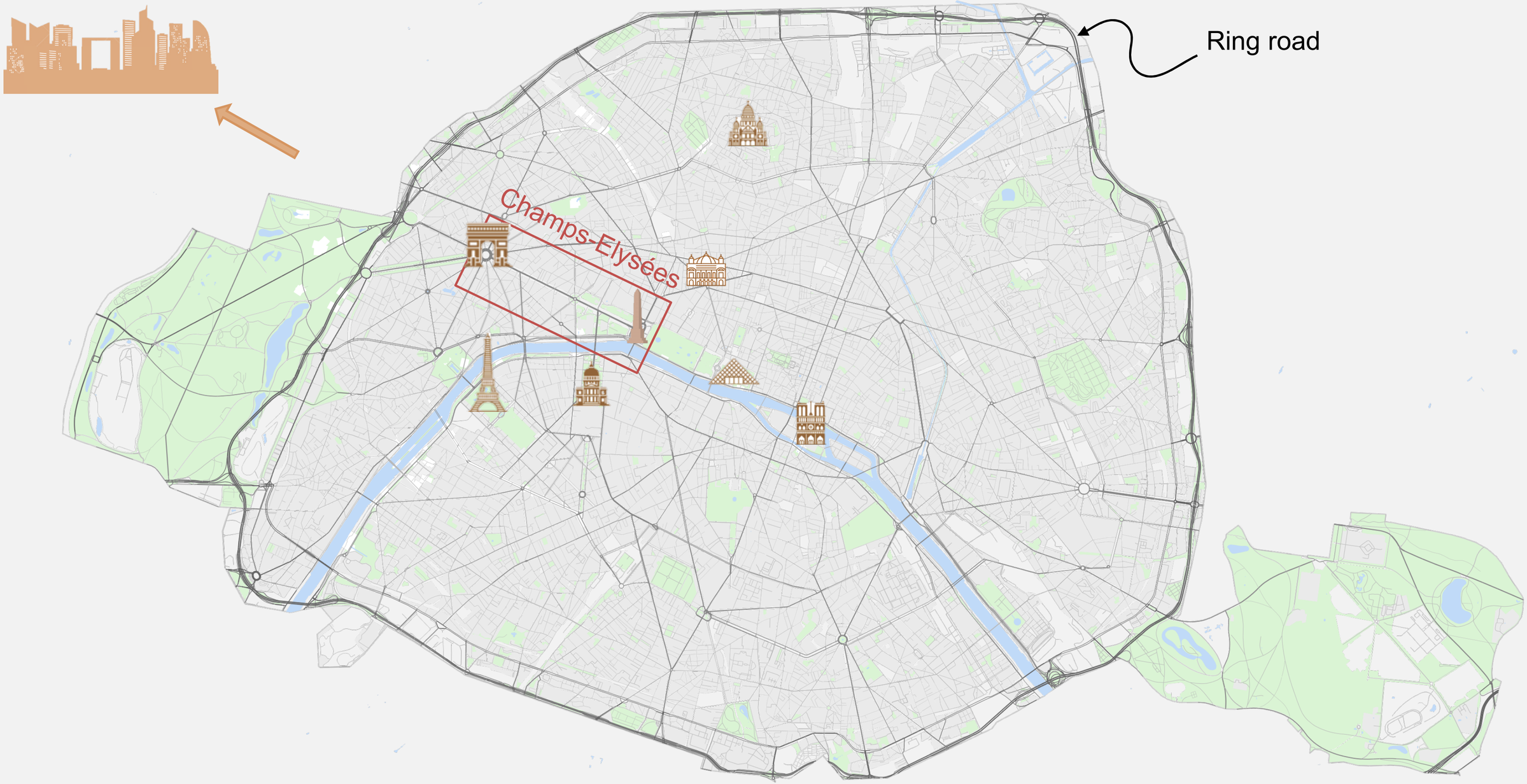
ARTELIA

SIMULATION TEAM

aimsun.

MISSION SCHEDULE




Ring road
Champs-Elysées

Arc de Triomphe

Ring road

Champs-Elysées

Historic architectural heritage

Grand Palais

Luxor Obelisks

Louis Vuitton

Cartier

Ring road

Champs-Elysées

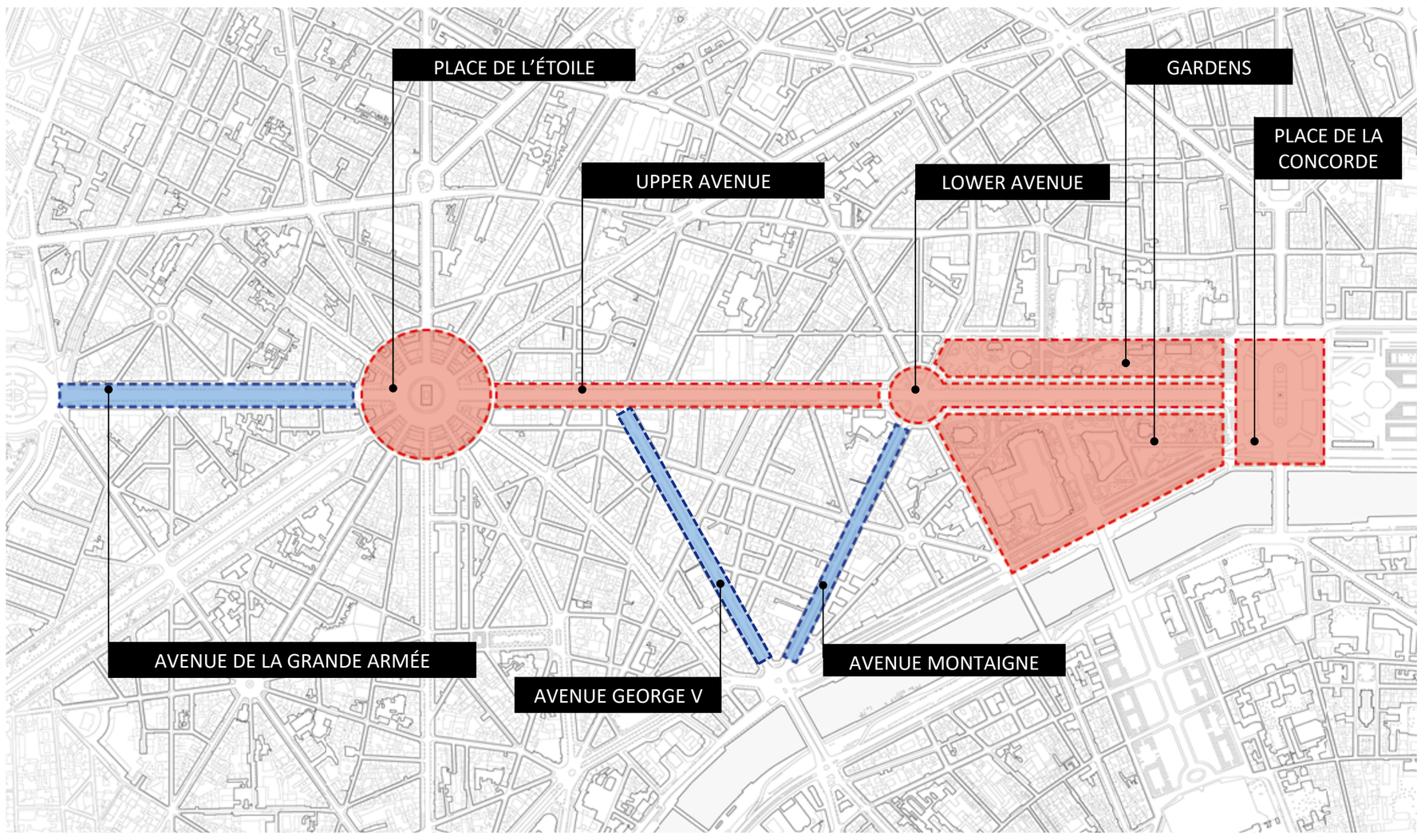
Dior

Saint-Laurent

Lined with luxury boutiques

Bulgari

OPERATING PERIMETERS



OPERATING PERIMETER
56,2 ha

Project by zone (main perimeter)

- Place de l'Etoile
- Upper avenue / Lower avenue
- Gardens between the avenue Gabriel and Cours la Reine
- Place de la Concorde

EXPANDED PERIMETER
4,4 ha

Vision by zone (enlarged perimeter)

- Avenue Montaigne
- Avenue George V
- Avenue de la Grande Armée

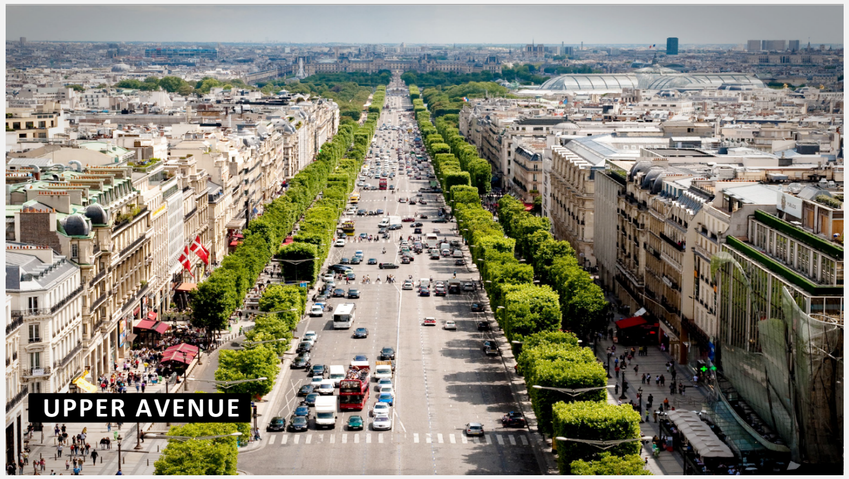
OBJECTIVES OF THE PROJECT

MAKE CHAMPS-ELYSEES A DESTINATION FOR ALL

- Comfort
- Accessibility
- Promenade
- Bring Parisians back

REMAKE CHAMPS-ELYSEES AS A PLACE OF INNOVATION

- Showcase for excellence in urban engineering
- Augmented experience for walkers



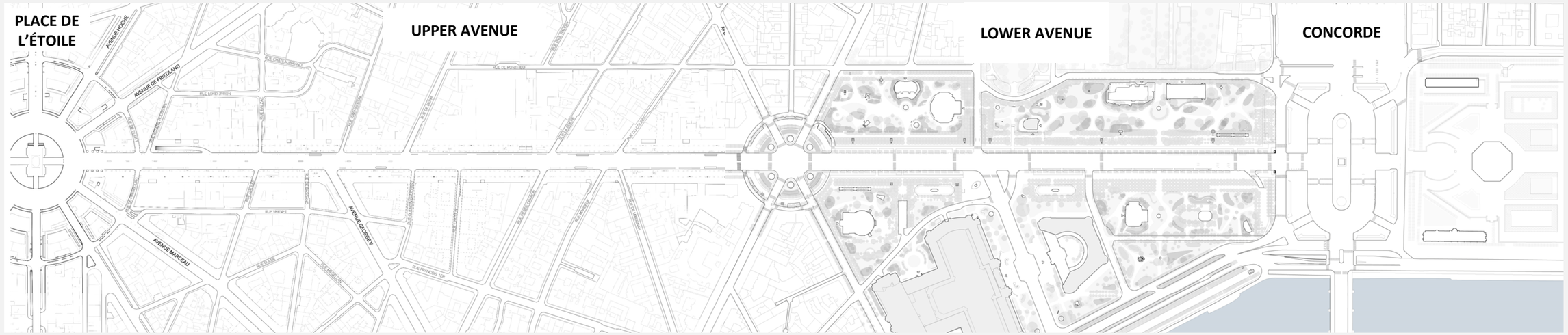
MEETING ENVIRONMENTAL CHALLENGES

- Adapt to and mitigate global warming
- Reinforce green and blue belts
- Greenery

RESTORE OVERALL AESTHETIC QUALITY

- Enhance perspectives and heritage qualities

PHASES OF THE MISSION



PHASE 1:
ANALYSIS OF THE CURRENT SITUATION

Objective:

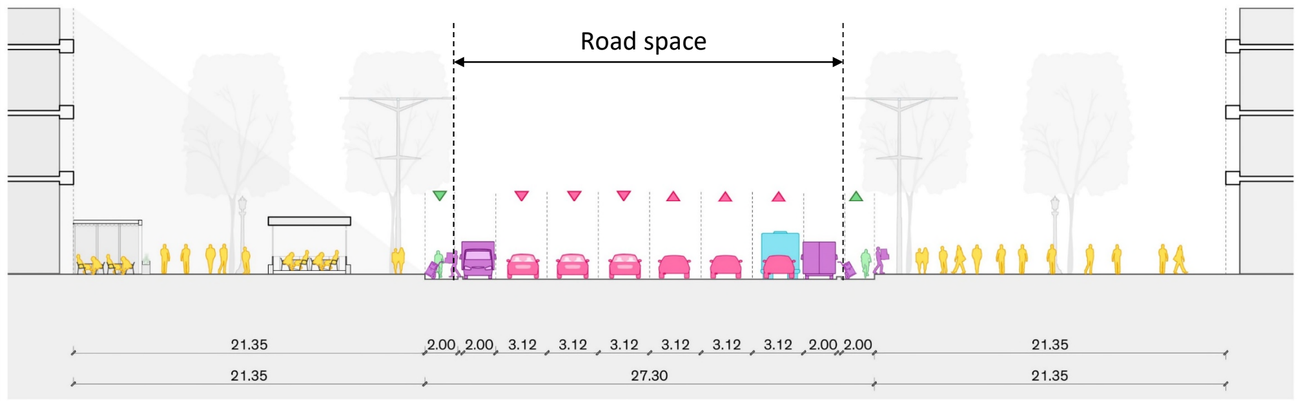
- **Analyse the current situation**
- **Understand the urban functions**
- **Define user needs**

PHASE 2 :
TESTING DIFFERENT SCENARIOS

Objective :

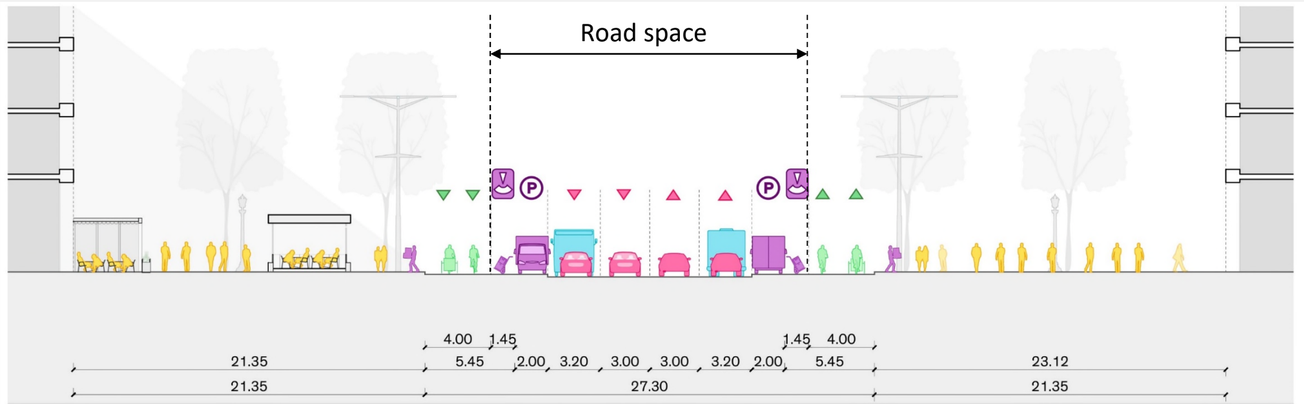
- **Diagnose existing "hard spots"**
- **Simulate traffic conditions**

WHAT IS THE FUTURE OF THE CHAMPS-ELYSÉES?



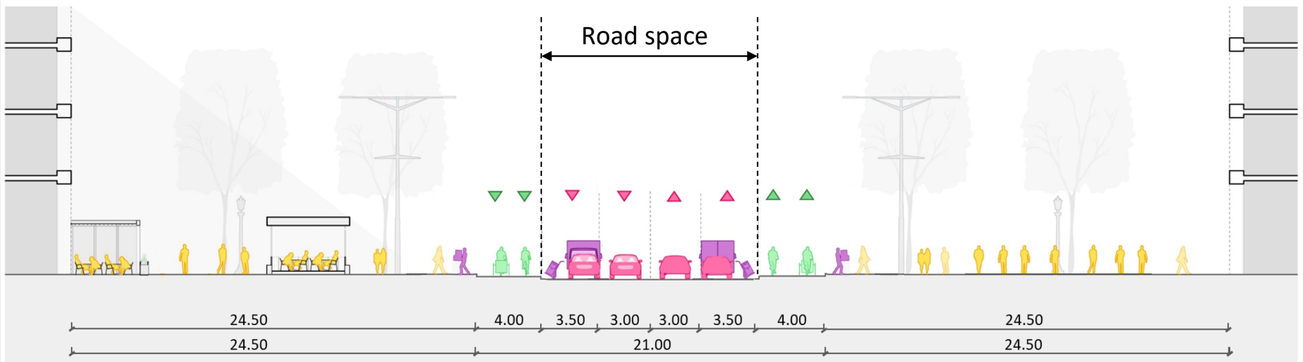
The avenue today

- 2m bike path width
- Logistics deliveries unloading on the bike paths



Project scenario at the beginning of the mission

- - 1 car traffic lane in each direction
- + 2 m for bike paths
- + 1 lane for deliveries on each side of the street

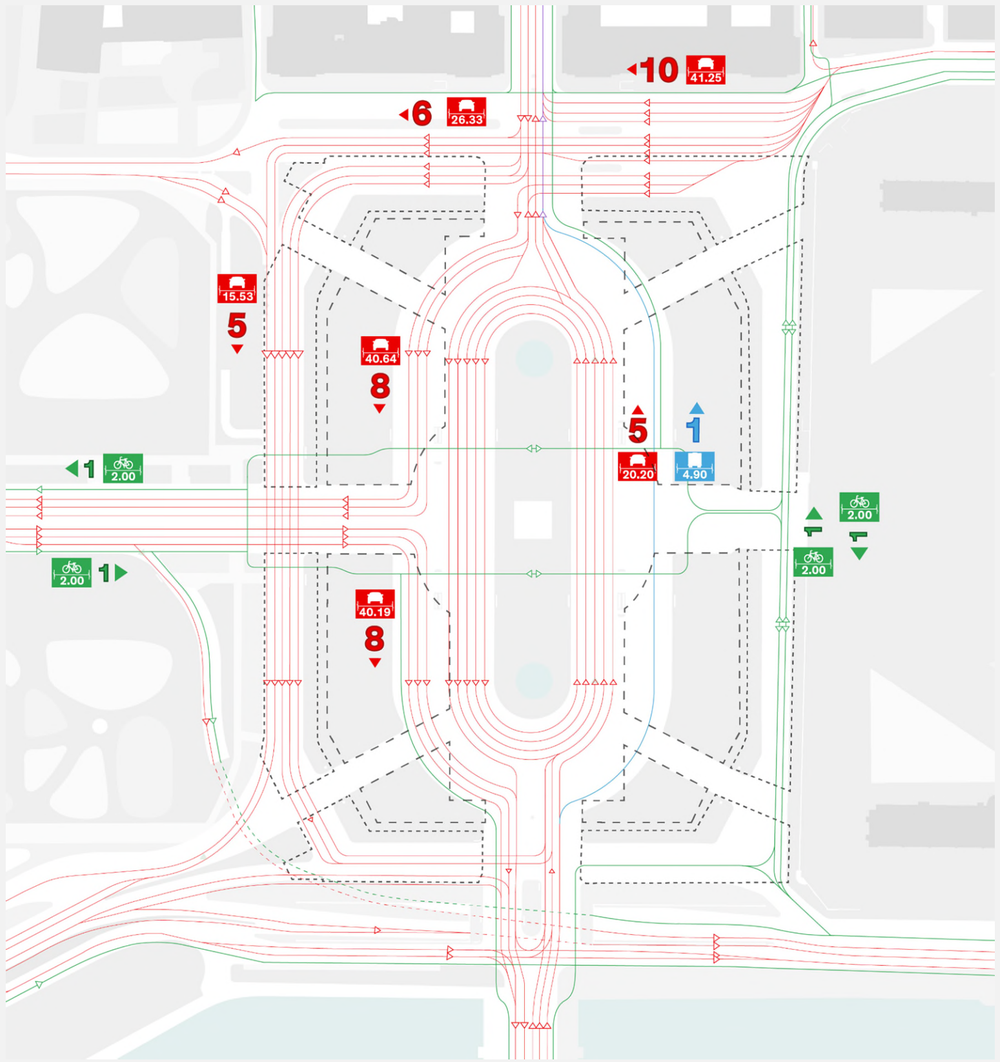


Project scenario 2x2 lanes

- + 3,15 m for sidewalks

WHAT IS THE FUTURE OF THE PLACE DE LA CONCORDE?

Today

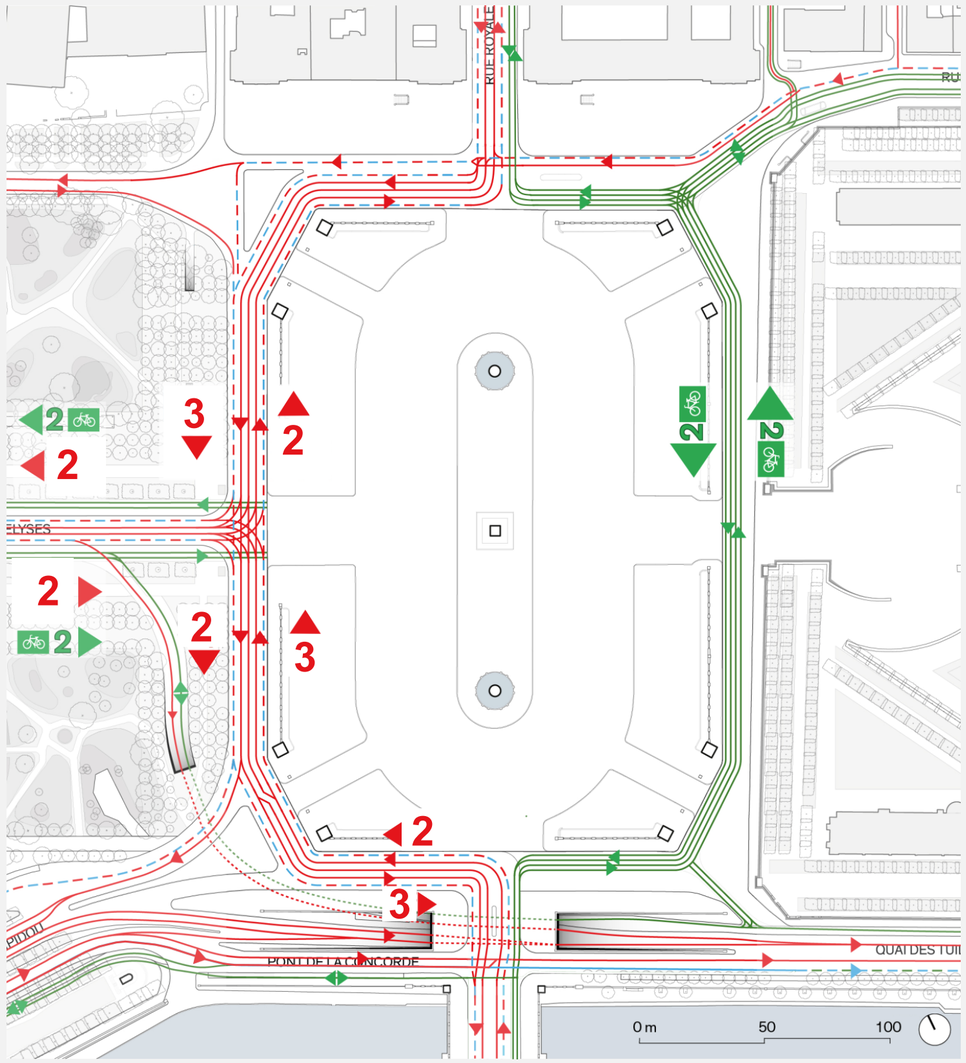


Vehicles

Bus

Bicycles

Project scenario



- Large space left for cars
- Unattractive place for active modes

- Cars only one side of the square
- Almost all the space for active modes of transport

Champs-Elysées

62%
proportion of pedestrians

No refuge islands
→ tourists at risk in the middle of the street

Street furniture obstructing crosswalks

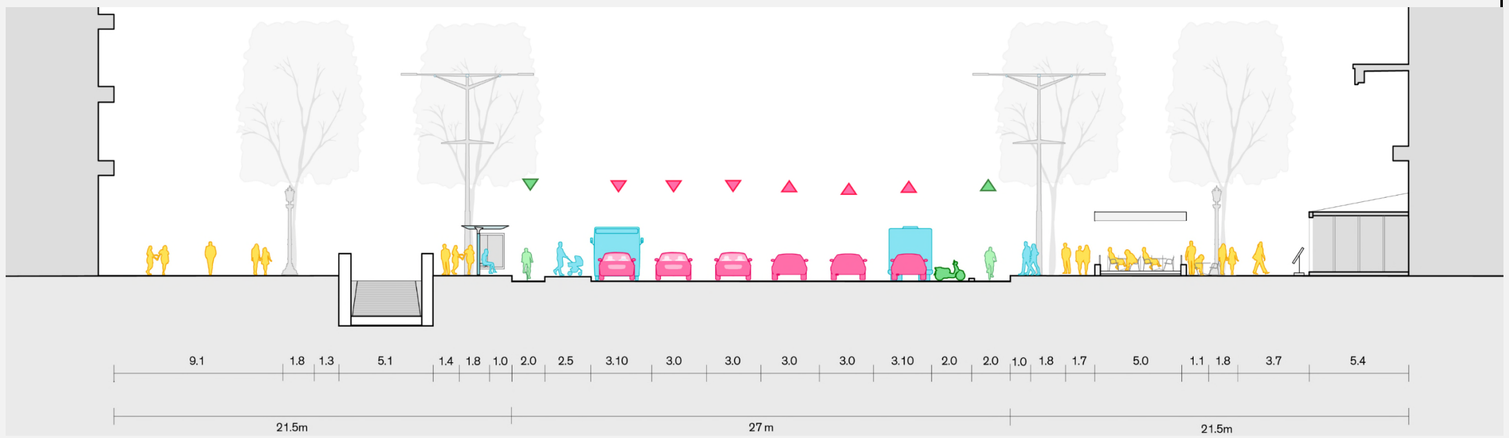
Space constrained by restaurant terraces

Very long and unsafe crossings

Flow problems

→ Reduce road width

- Reduce the length of the crossing
- Increase sidewalks

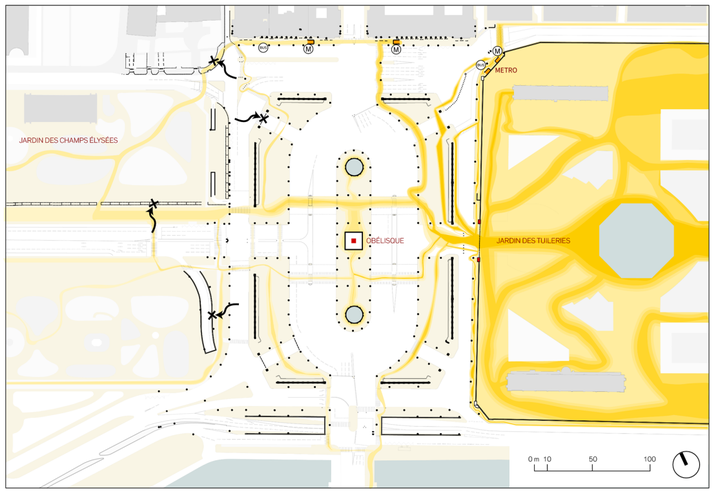


Place de la Concorde

Problems of comfort, space and legibility

Recommendation:
→ Refuge island for crossings over 12 metres

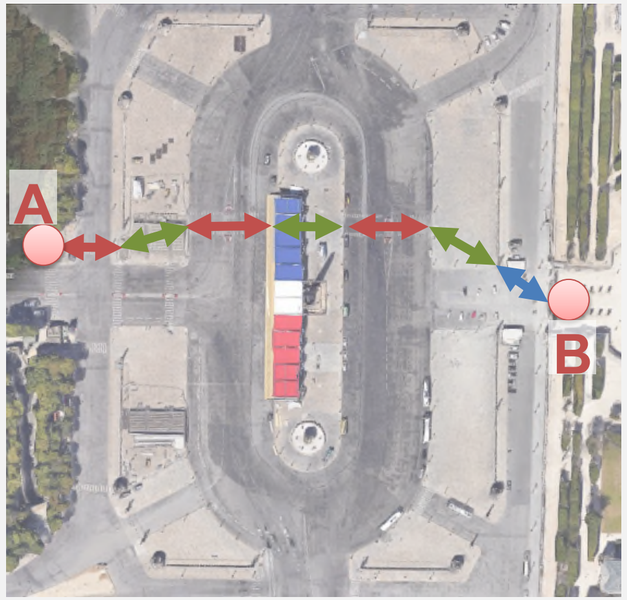
The Place de la Concorde acts as an urban barrier.



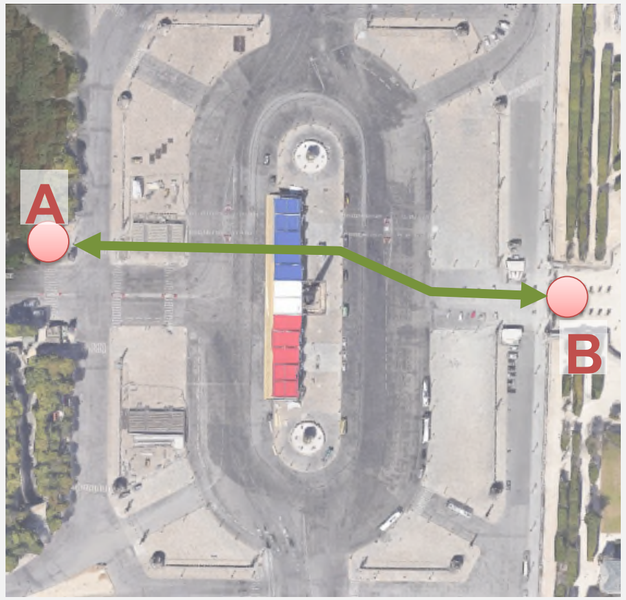
Intensity of pedestrian flow

JOURNEY TIME BETWEEN A AND B

Today	From A to B without mode conflicts



5 minutes and 42 seconds



3 minutes and 33 seconds

→ Improve markings on crossings

→ Reduce the length of crossings

→ Improve pedestrian continuity between the Jardin des Tuileries and the Avenue des Champs-Elysées.

→ Improve the crossing of the area by reducing pedestrian travel time

Crossing in conflict with motorised vehicles

Crossing in conflict with bicycles

Sidewalk

Pedestrian speed used: 1m/s

Champs-Elysées

Widening pavements to improve pedestrian flow

+

Place de la Concorde

Reducing conflicts between pedestrians and other modes of transport

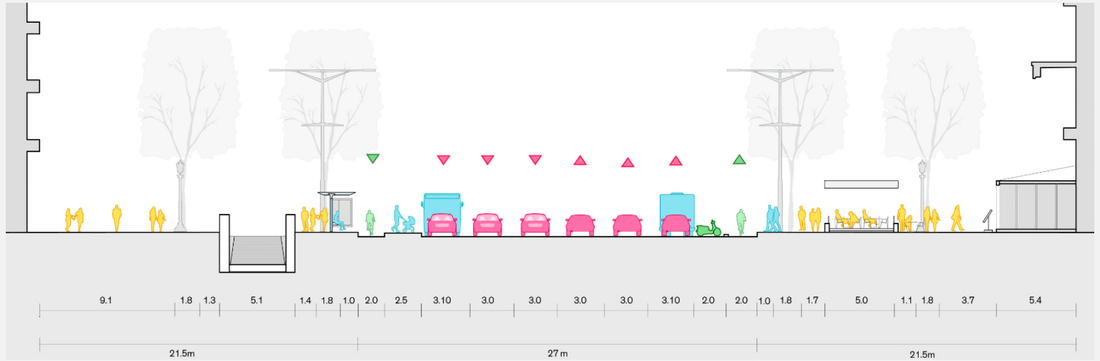
+

Reducing road crossing widths

Champs-Elysées

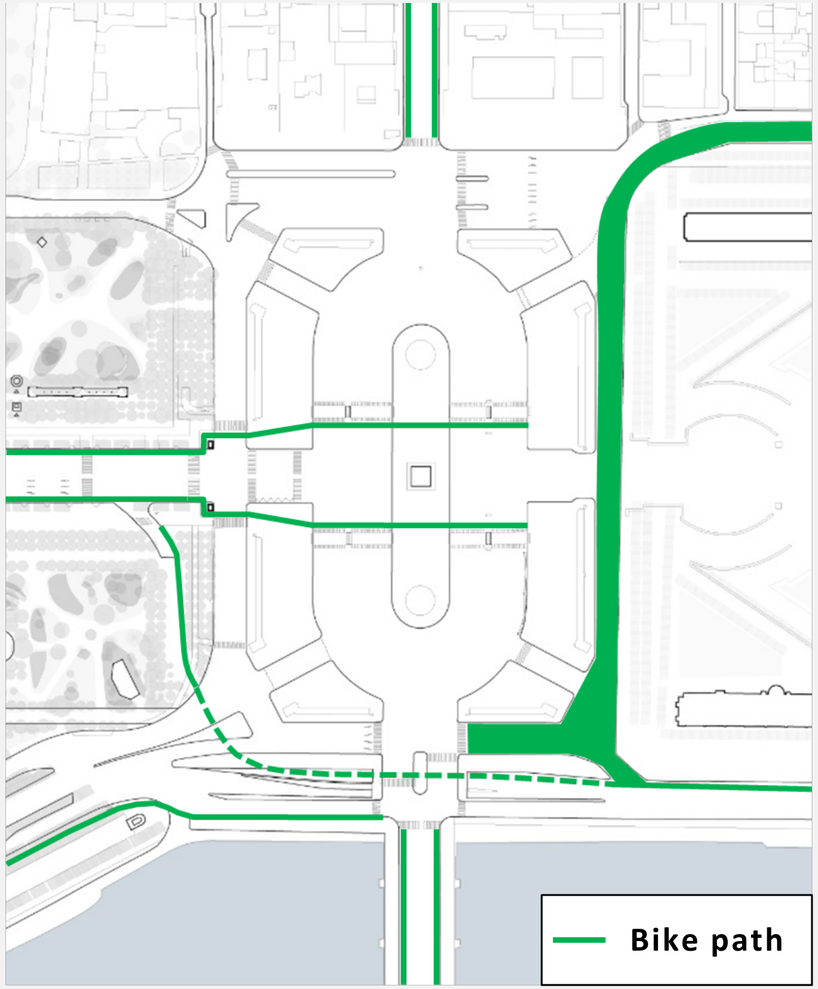
5%
proportion of cyclists

Narrow bike path near parking lane



Place de la Concorde

Lack of legibility and continuity of facilities



Champs-Elysées

Place de la Concorde

Widening bike paths to improve bicycle traffic comfort

+

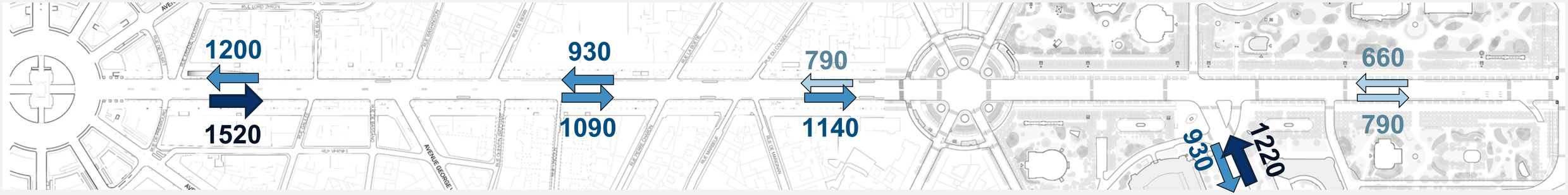
Provide continuous bike paths

Champs-Elysées

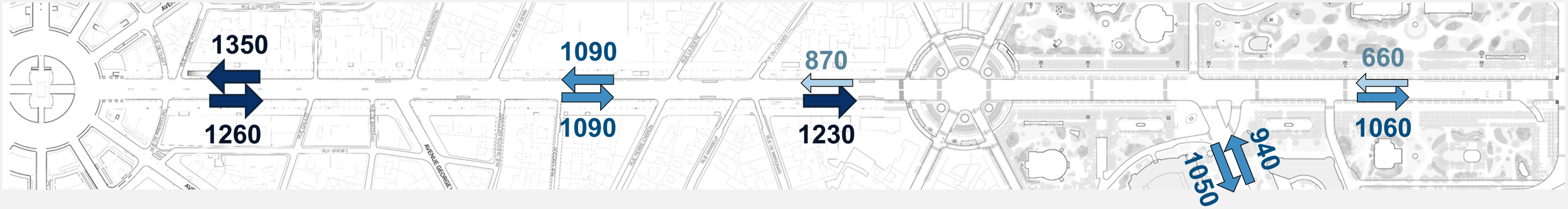
33%
proportion of vehicles

15 500 vehicles/day
(17 200 travellers)

Paris city counts from 02/11/21 to 01/12/21
Average hourly working day between 8 and 10 a.m.



Average hourly working day between 5 and 7 p.m.



➔ 2 traffic lanes in each direction

Importance of shops on the avenue → need to manage logistics and deliveries

Changing the use of a street to accommodate deliveries: example of rue Grenette, Lyon

BEFORE

AFTER

Rue Grenette, Lyon
2 lanes lined with shops

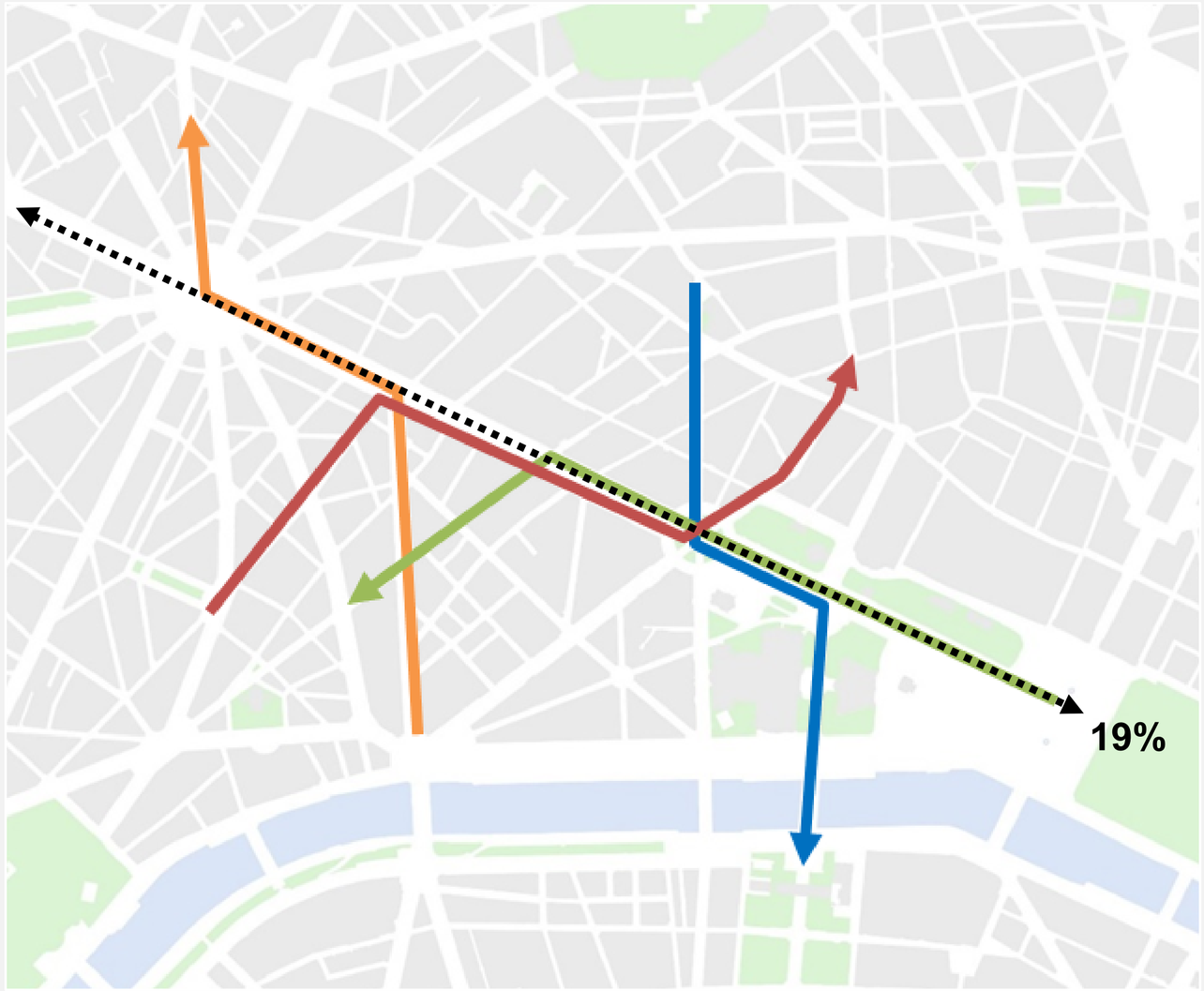
Since 2015
→ Right lane only for deliveries between 9:30am and 4pm

➔ Manage logistics on the Champs-Elysées depending on the time of the day

- ***Day time: 2x2 lanes for all vehicles***
- ***Night time: 2x1 lane + 1 lane for logistics***

Champs-Elysées

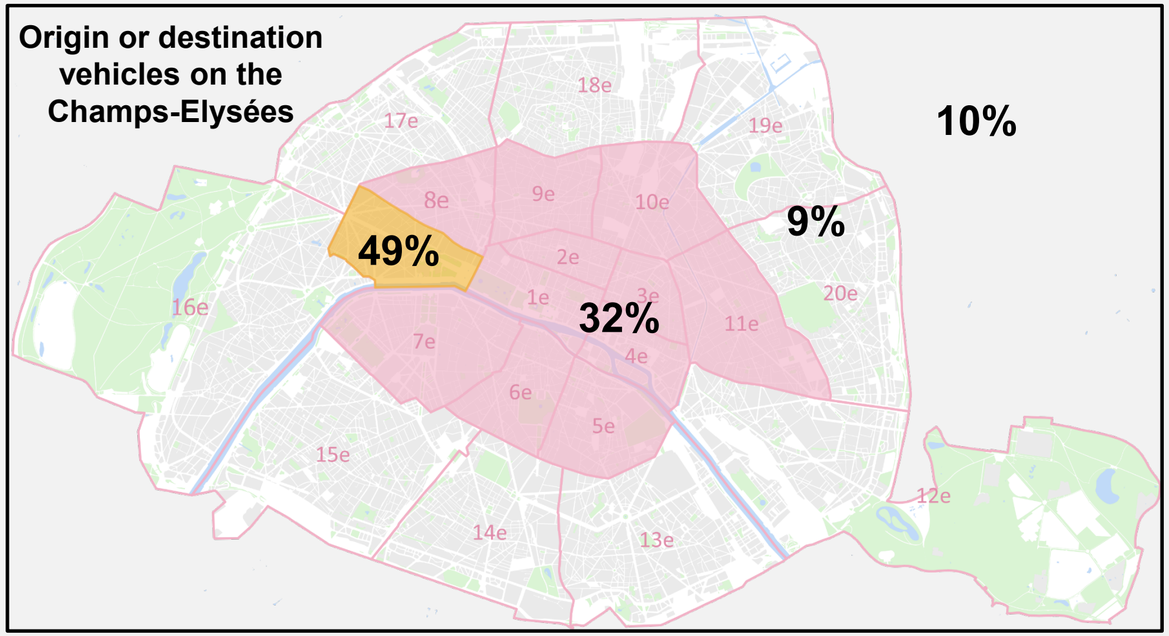
Examples of routes via the Champs-Elysées



Little car traffic on the entire Avenue des Champs-Elysées (19%)
→ This route is not recommended by GPS.

Majority of vehicles exchanging with Champs-Elysées → Bayonet traffic

In the 49% linked to the area of the Champs-Elysées: 55% of trips < 3km

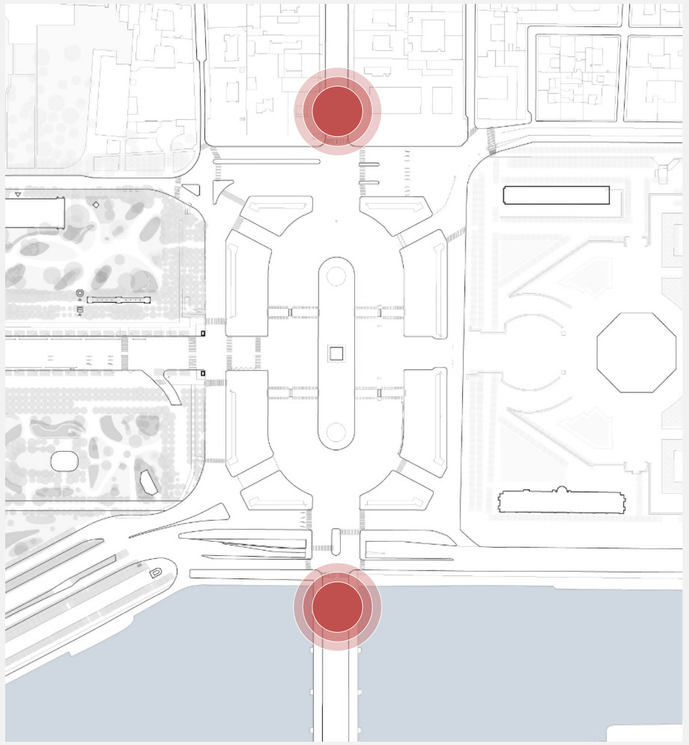


→ Maintain turning movements

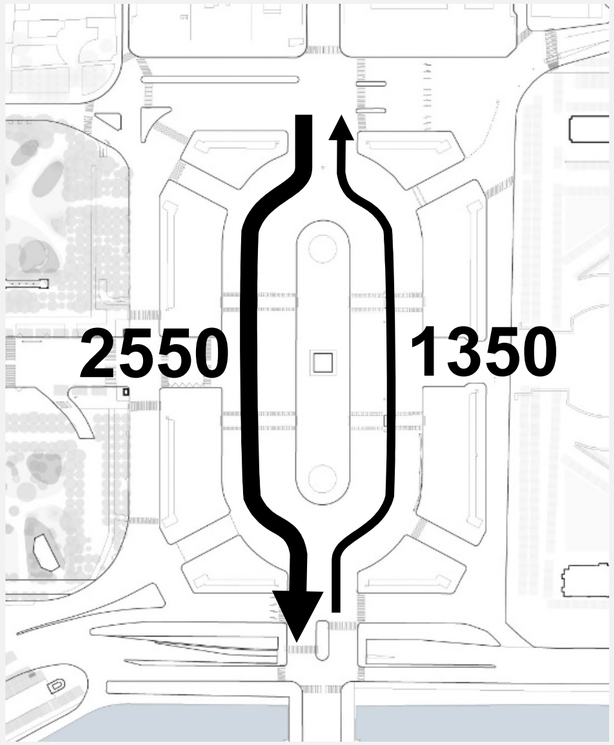
→ Reduce transit flows through shifting traffic to the quays of the Seine, the ring road and public transport

Place de la Concorde

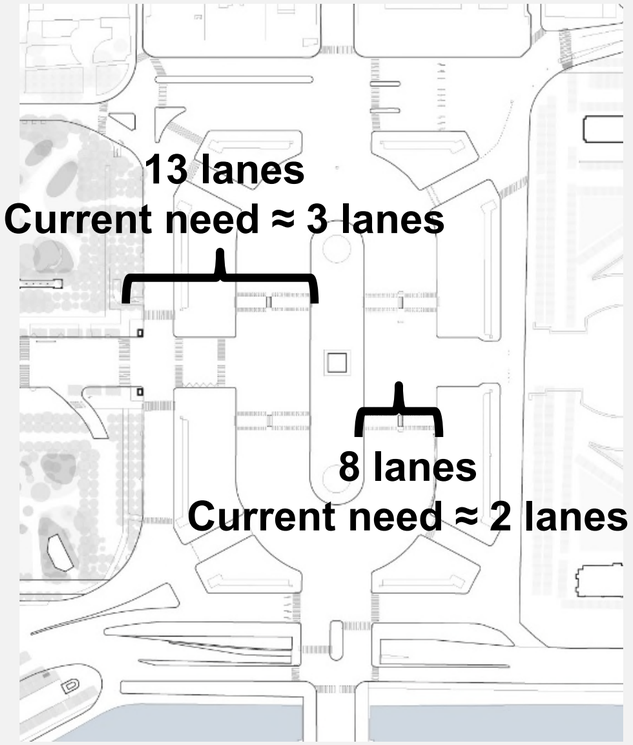
High demand from the south on the bridge and the north



Dissymmetry of upward and downward flows



Oversized space dedicated to cars in relation to current traffic levels



Data from the city of Paris

Thursay 16/12/2021 counts – average between 5pm and 7pm

Champs-Elysées

Take into account delivery services to businesses

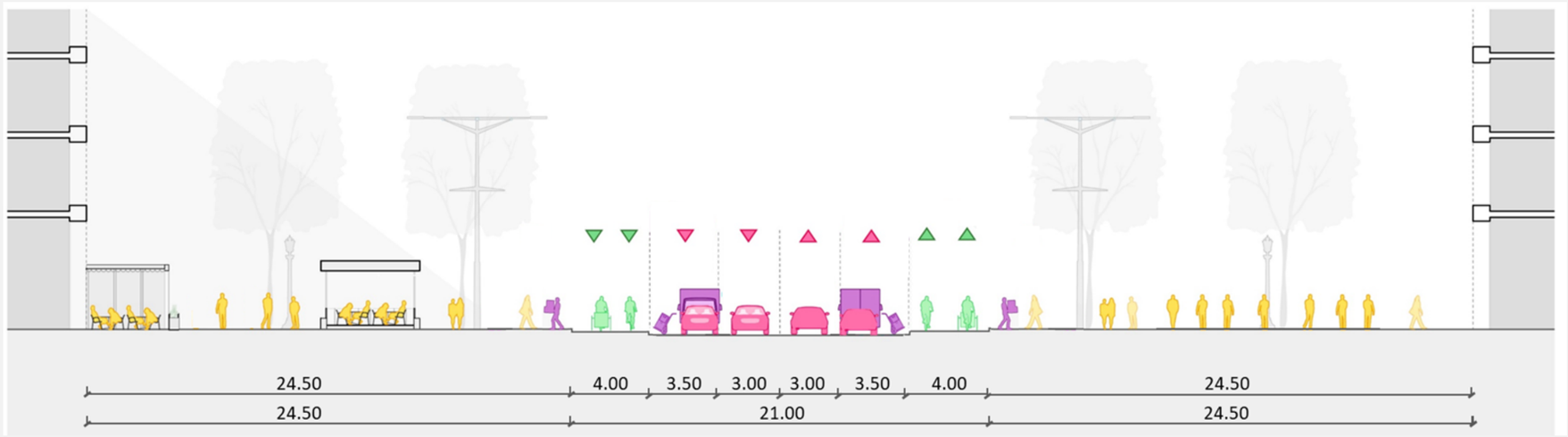
+

Importance of managing turning movements

+

Place de la Concorde

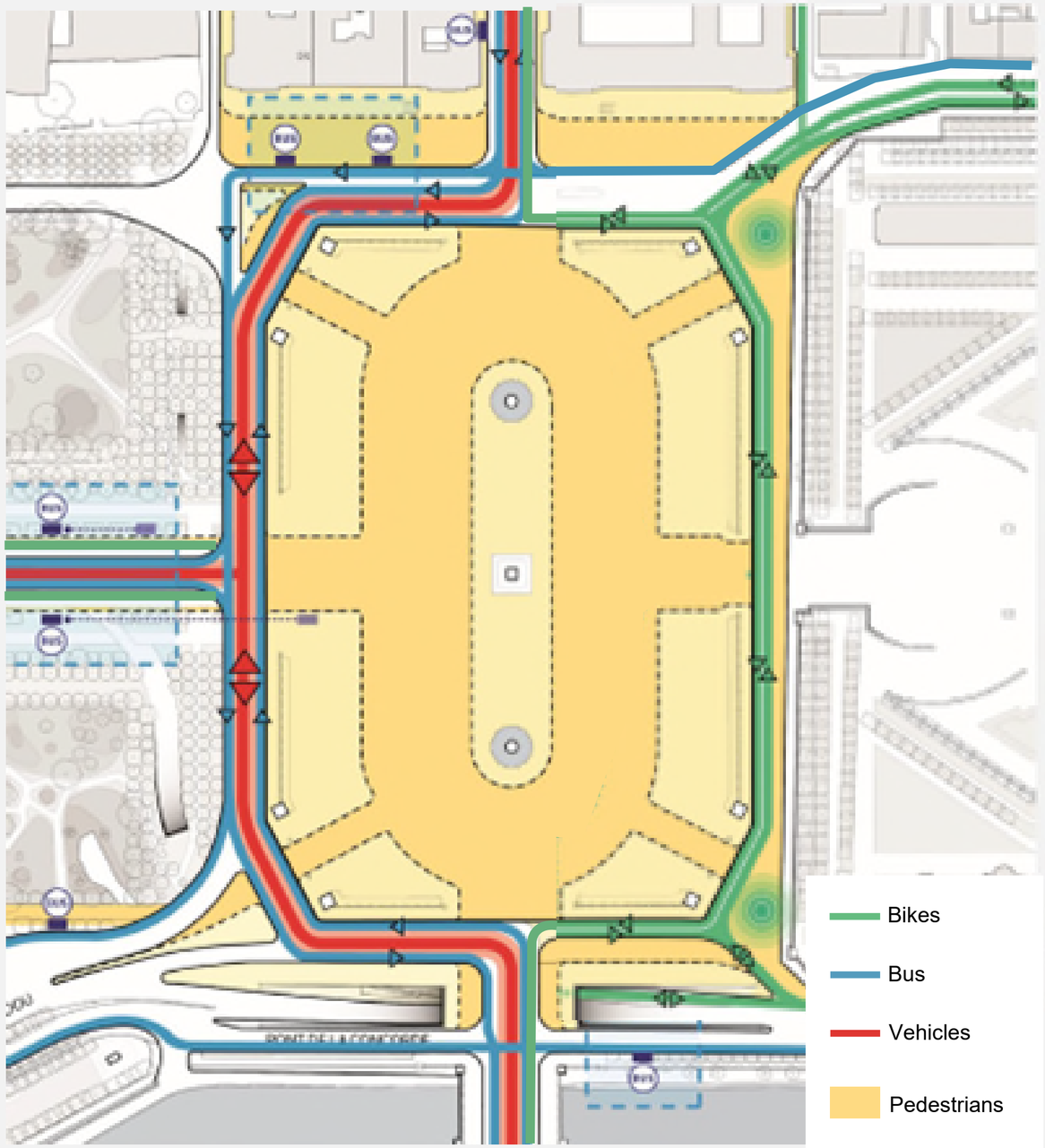
Managing traffic bottlenecks: bridge and north access



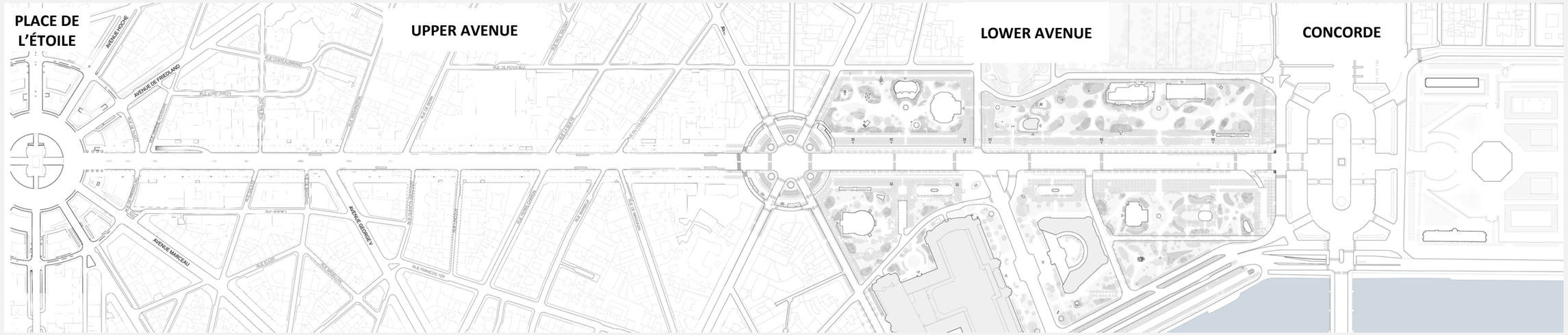
Needs	Actions
Widening pavements to improve pedestrian flow	+ 3.15 meters of sidewalks
Widening bike paths to improve bicycle traffic comfort	4-metres wide cycle path
Take into account delivery services to businesses	A delivery lane for use at night
Importance of managing turning movements	Two traffic lanes to manage turning flows during daylight hours

Vehicles on the west side
Bicycles on the east side
Most of the space for pedestrians

Needs		Actions
Reduce the space dedicated to vehicles	→	Car traffic on one side
Provide continuous bike paths	→	Continuous bike path around the square



PHASES OF THE MISSION



PHASE 1:
ANALYSIS OF THE CURRENT SITUATION

Objective:

- Analyse the current situation
- Understand the urban functions
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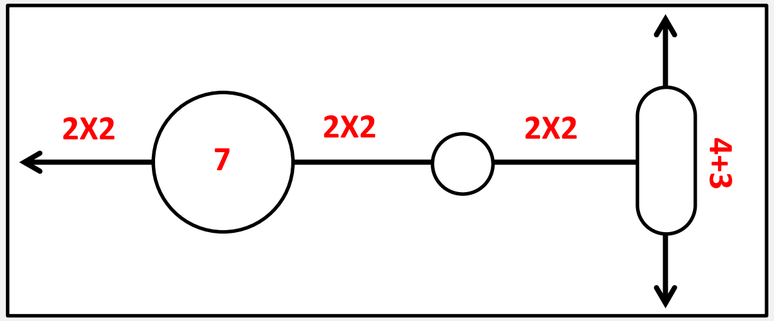
PHASE 2 :
TESTING DIFFERENT SCENARIOS

Objective :

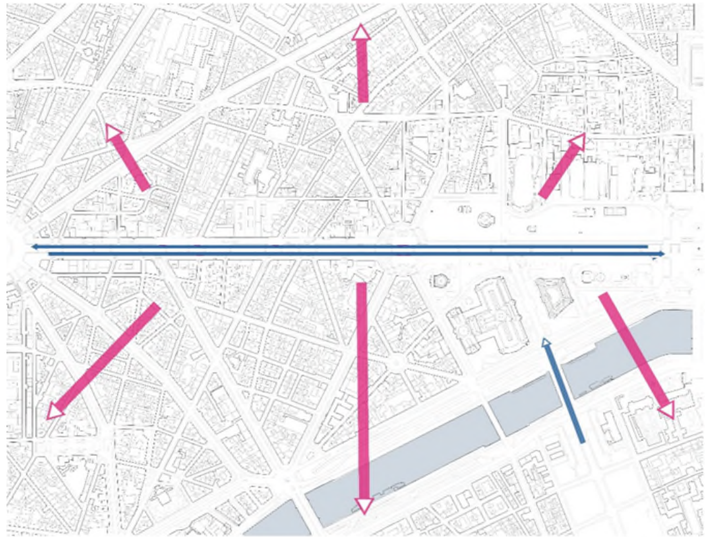
- **Diagnose existing "hard spots"**
- **Simulate traffic conditions**

SCENARIO **1**

Scenario proposed at the beginning of the study

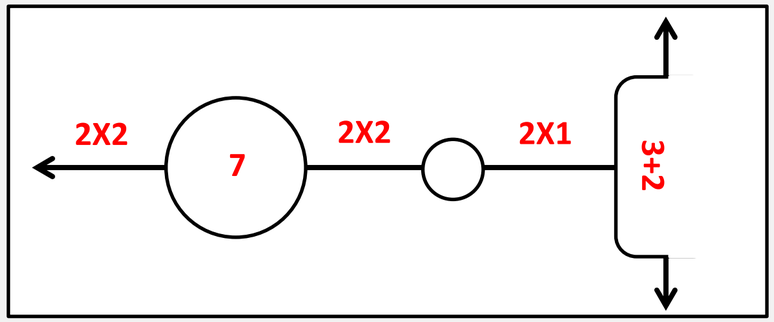


19% reduction in traffic

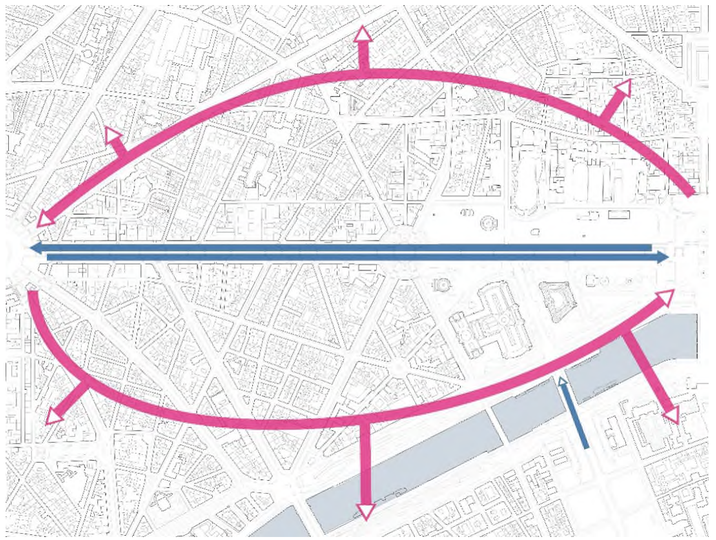


SCENARIO **2**

Scenario consistent with identified needs for both the avenue and the square

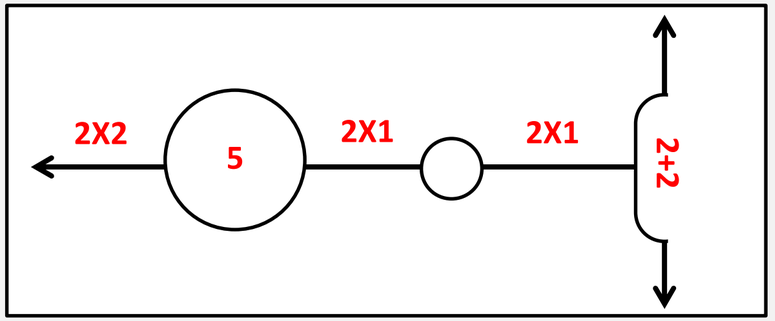


23% reduction in traffic

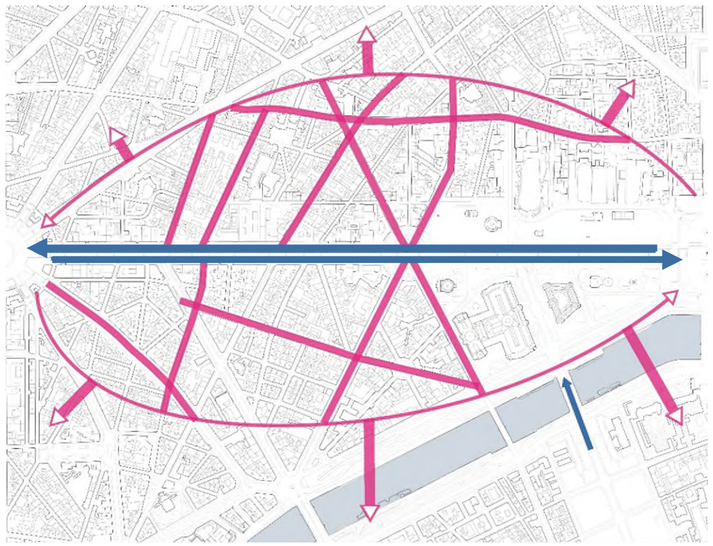


SCENARIO **3**

Optimistic scenario with a sharp reduction in the space dedicated for vehicles on the avenue

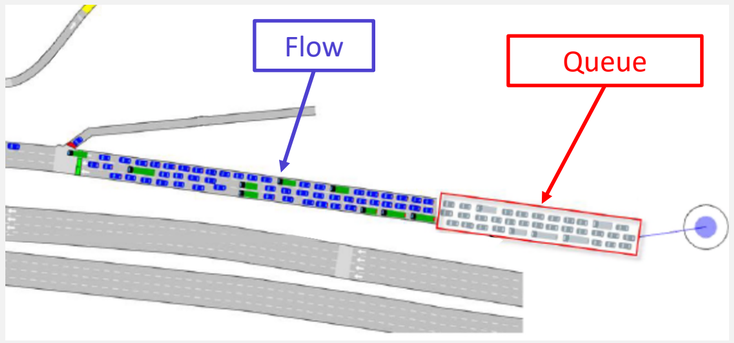


37% reduction in traffic



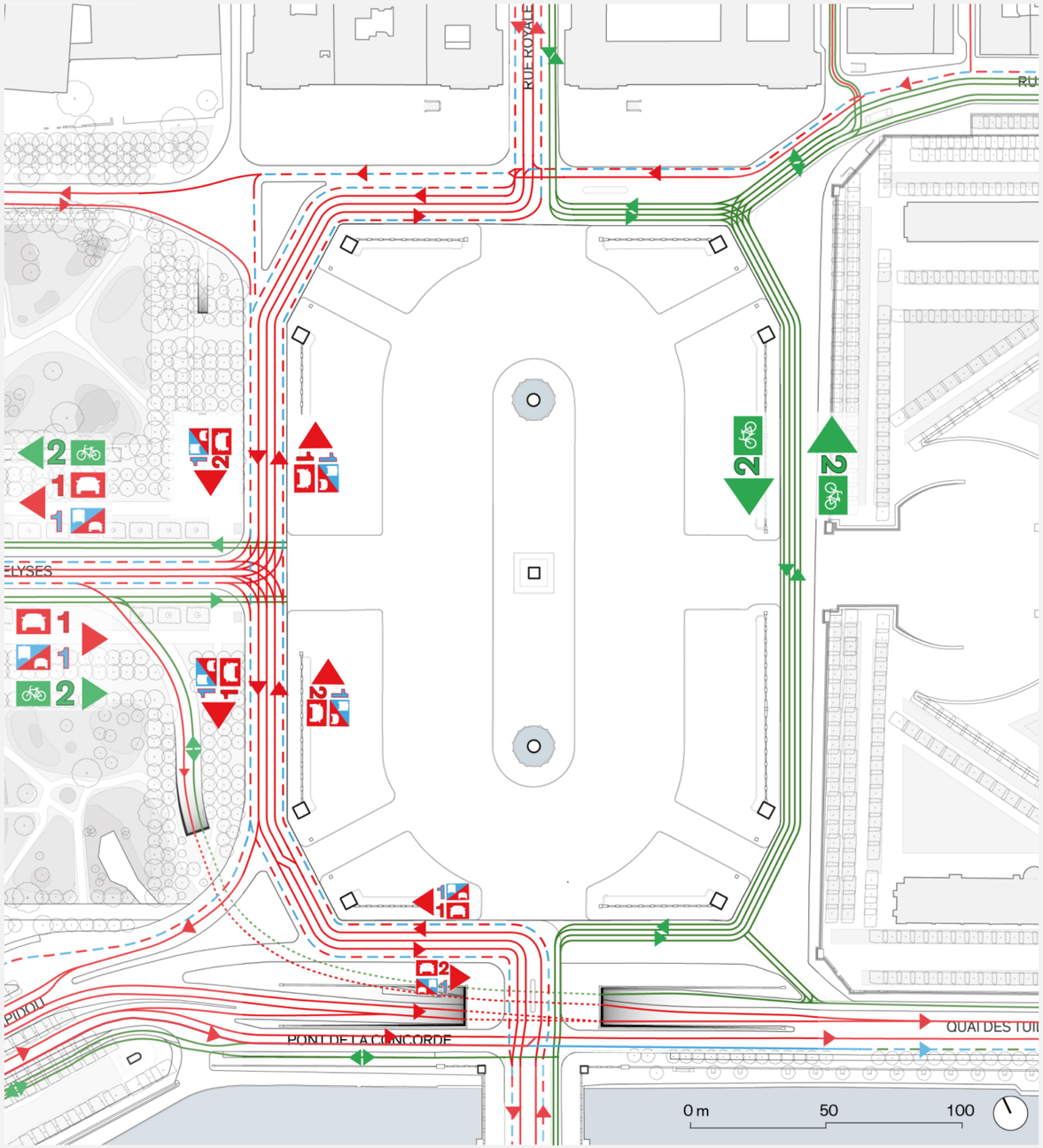
Microscopic simulation only on the Place de la Concorde

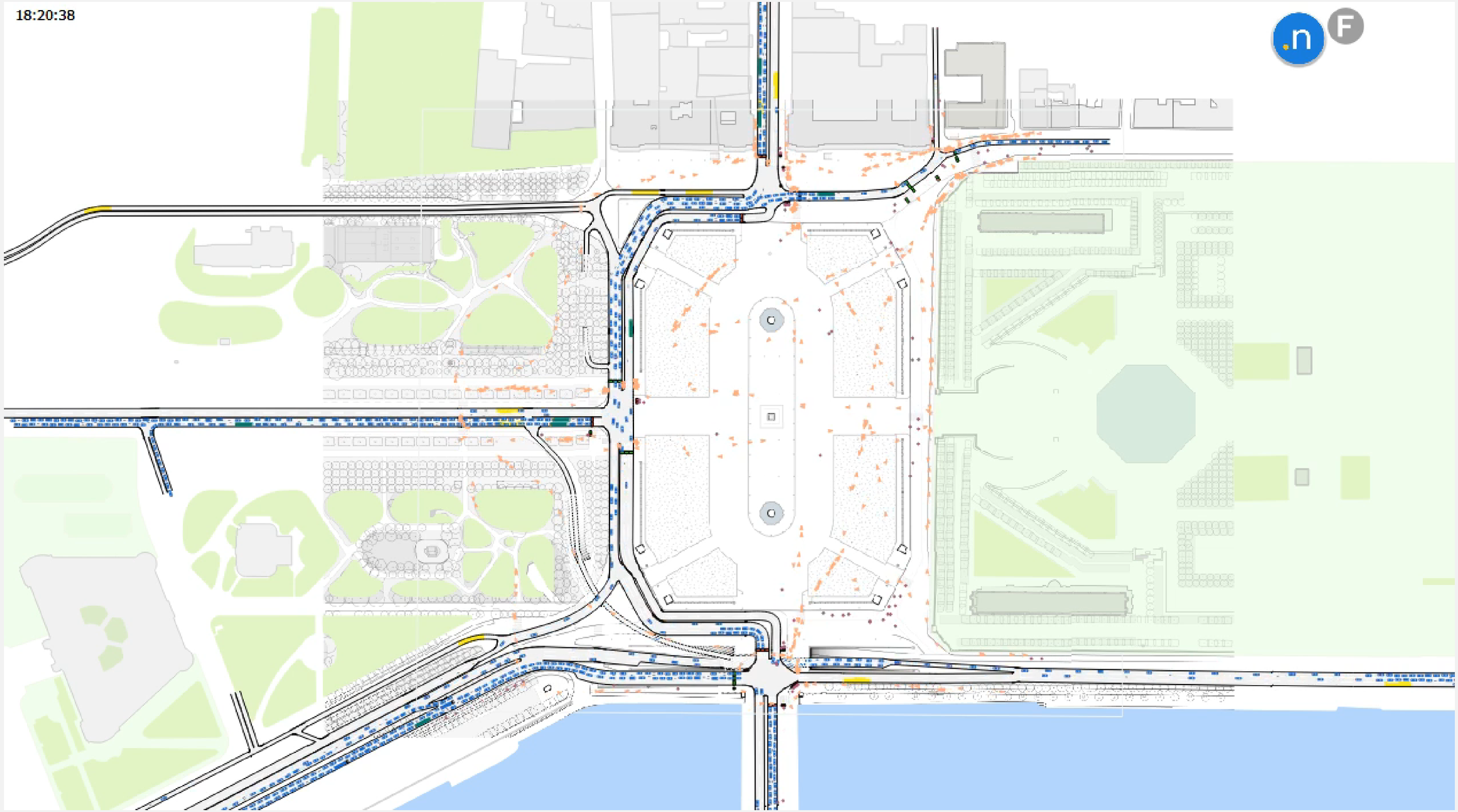
Morning Peak Hour			Evening Peak Hour		
Demand	Queue	% of vehicles unable to enter the model	Demand	Queue	% of vehicles unable to enter the model
20 417	3 019	**14,8%**	22 378	7 185	**32,1%**



With the traffic forecasts, the configuration does not allow traffic to flow.

Need to think about related projects and their impacts




18:20:38

UPPER AVENUE

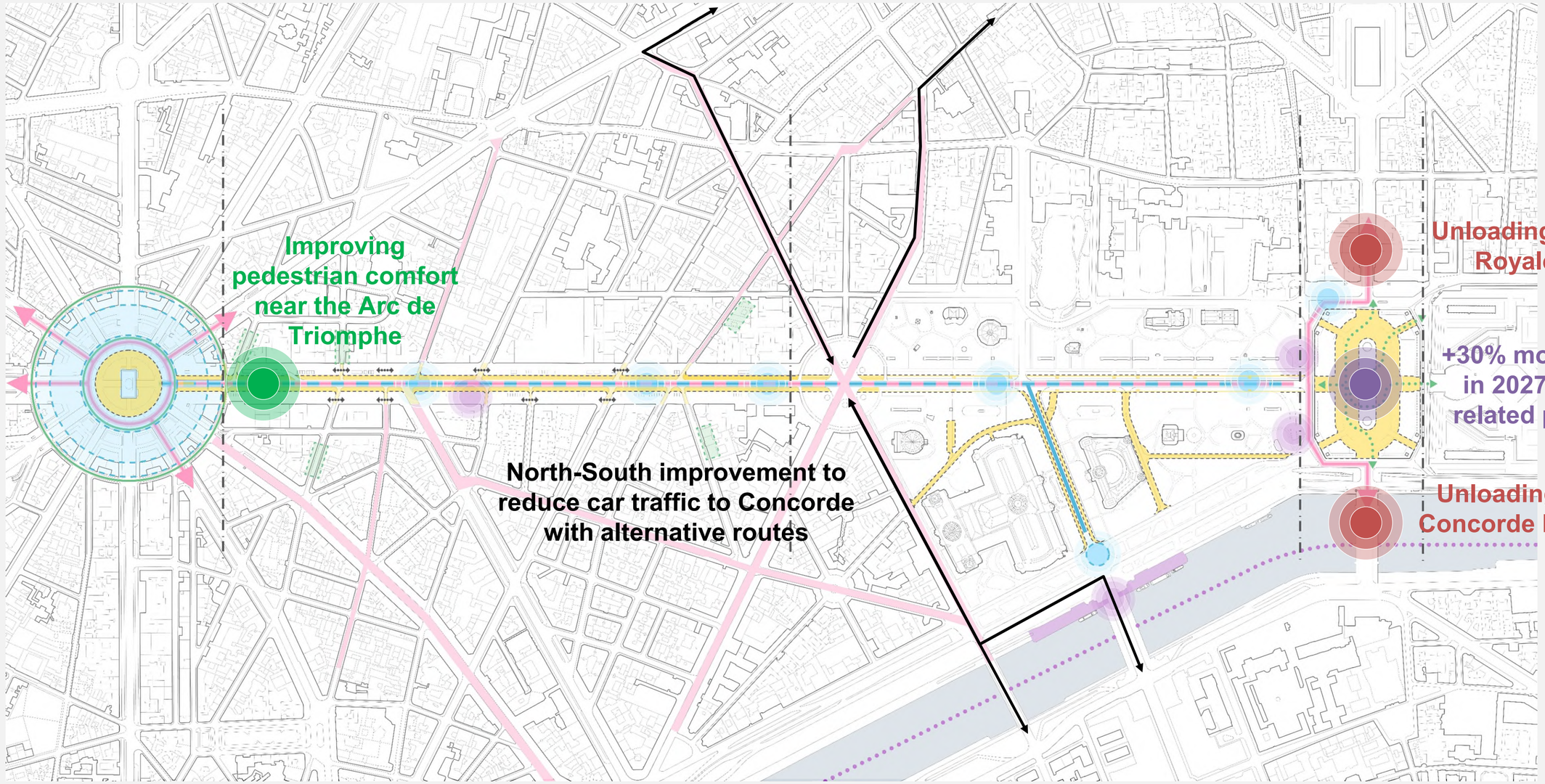
2x2 lanes to manage turning flows
Temporal management of logistics
Widening of sidewalks

LOWER AVENUE

2x2 lanes to reduce car traffic to Concorde
Widening of sidewalks

CONCORDE

Respecting the objective of improving soft mobility



Test in reality of Place de la Concorde configuration with the rugby world cup fan zone 2023

TOMORROW | AVENUE DES CHAMPS-ELYSÉES

Source : PCA - STREAM

Thank you for your attention

www.arteliagroup.com