

a bright light on Amsterdam Bicycle Traffic Lights

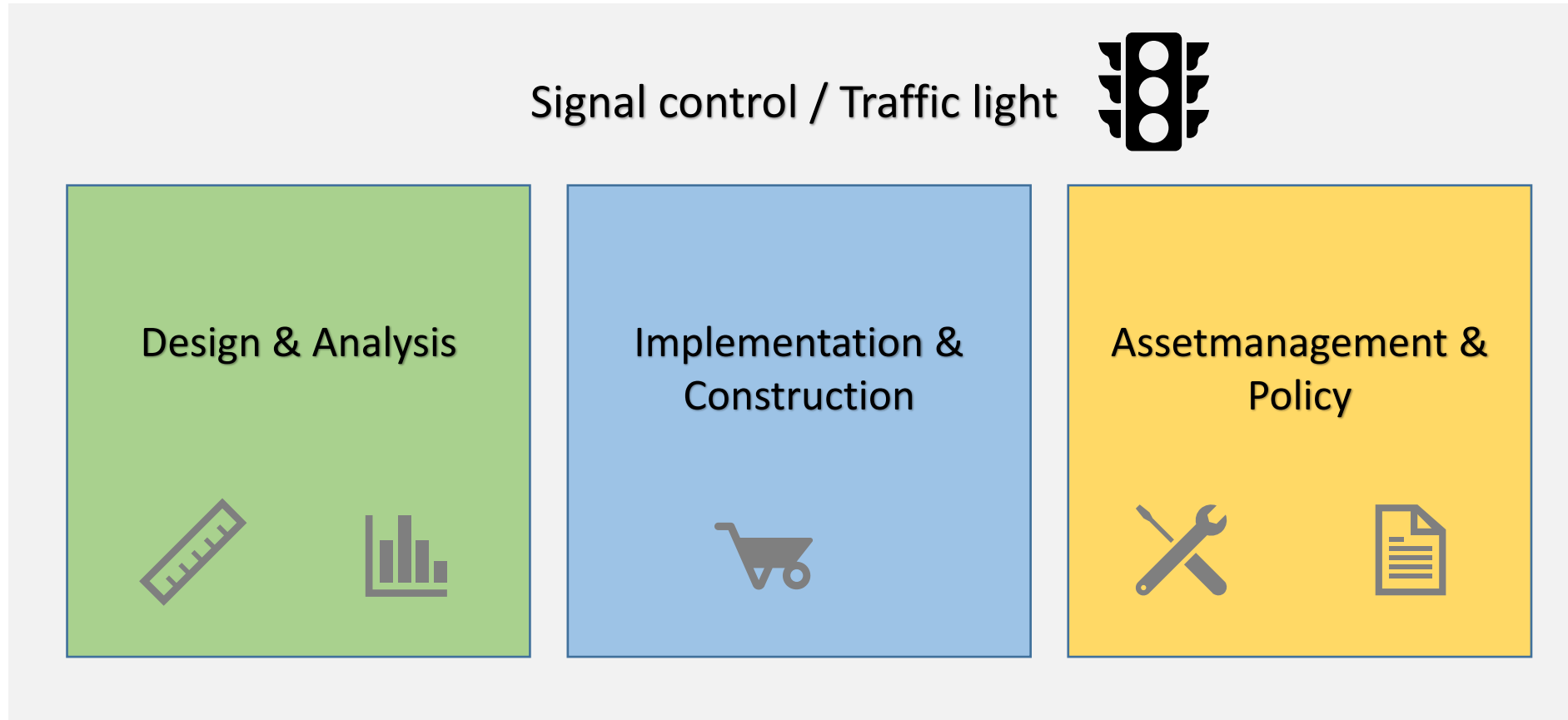


a bright light on Amsterdam Bicycle Traffic Lights

1. Organisation (what to expect)
2. Dutch approach
3. Amsterdam situation
4. Recent measures at junctions
5. (dis)Advantages
6. Connection with junction design >>> next presentation



1. Organisation Amsterdam



2. Dutch approach

- **Traffic lights in front of the conflict area**
- **Stoplines**
- **Detection (loop, push buttons)**
- **Seperate lights = individual approach**



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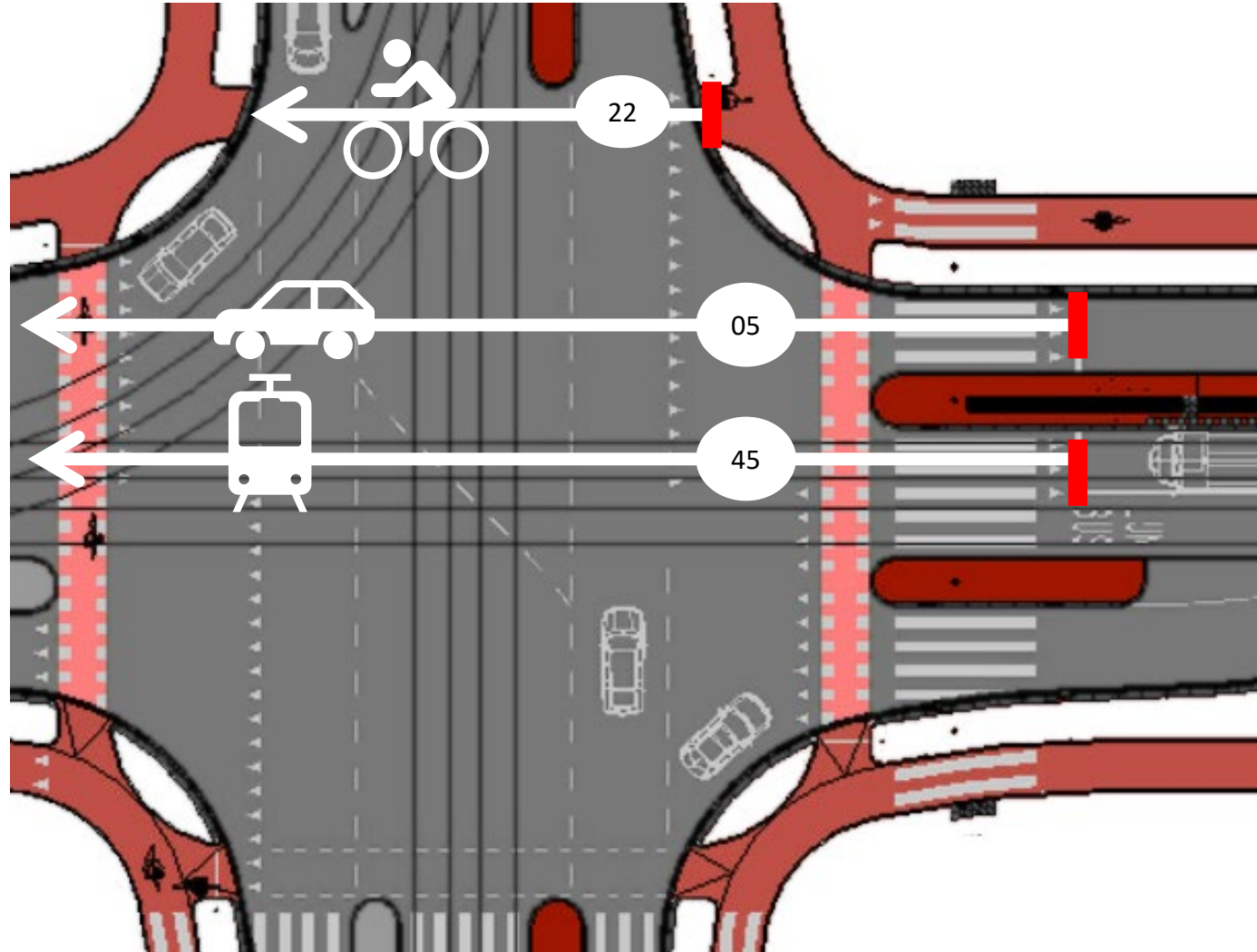
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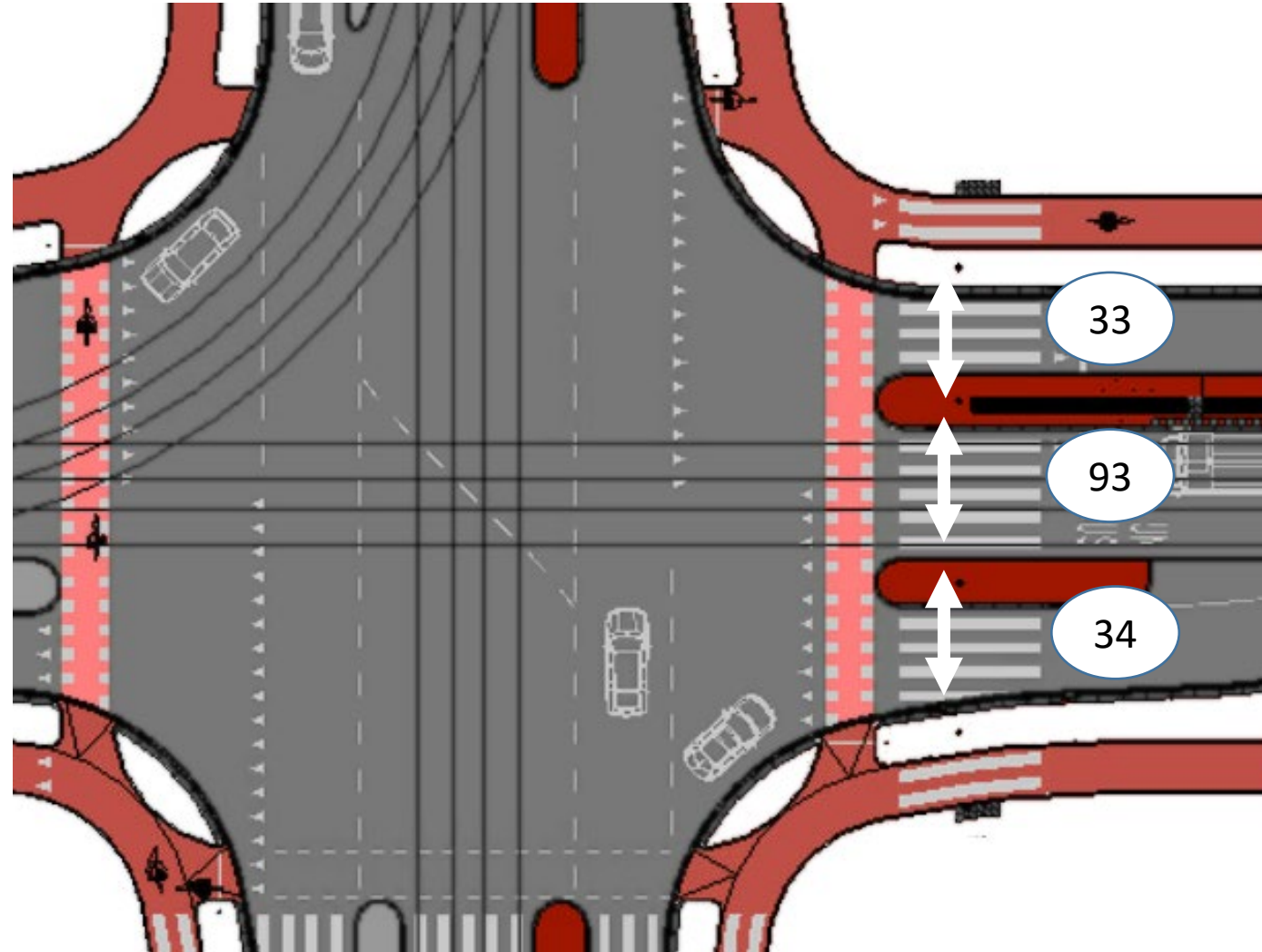


2. Dutch approach

- Traffic lights in front of the conflict area
- Stoplines
- Detection (loop, push buttons)
- Separate lights = **individual approach**
minimize conflicts

Why the Dutch Wait Less at Traffic Lights

<https://youtu.be/knbVWXzL4-4>

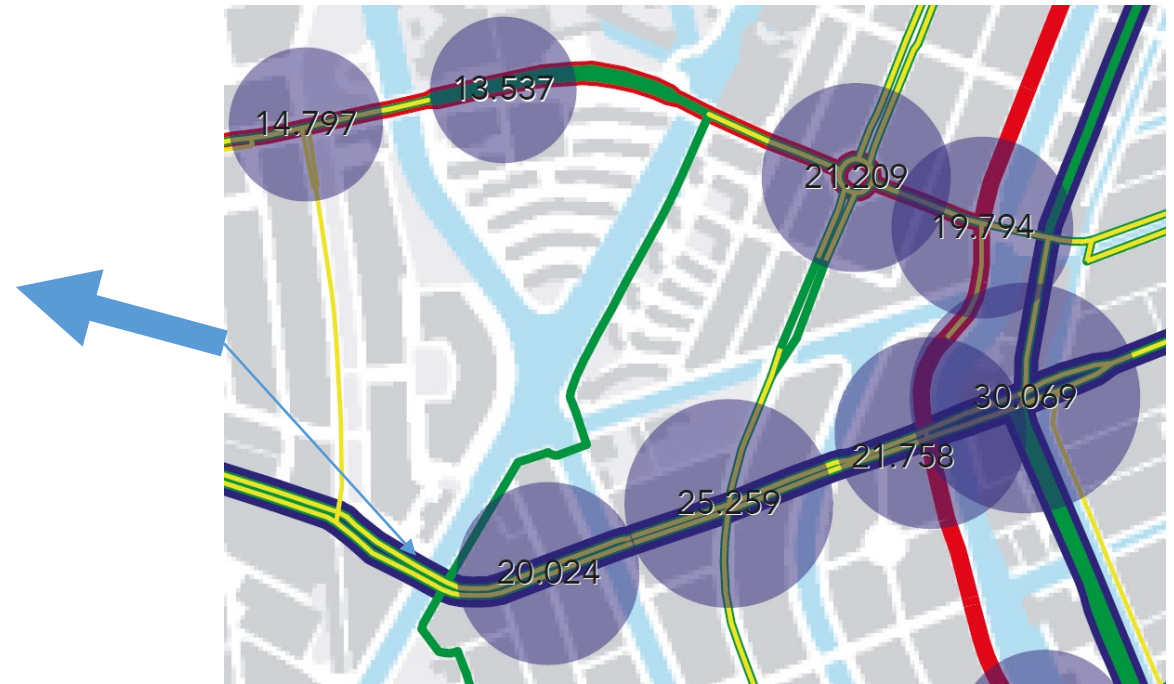
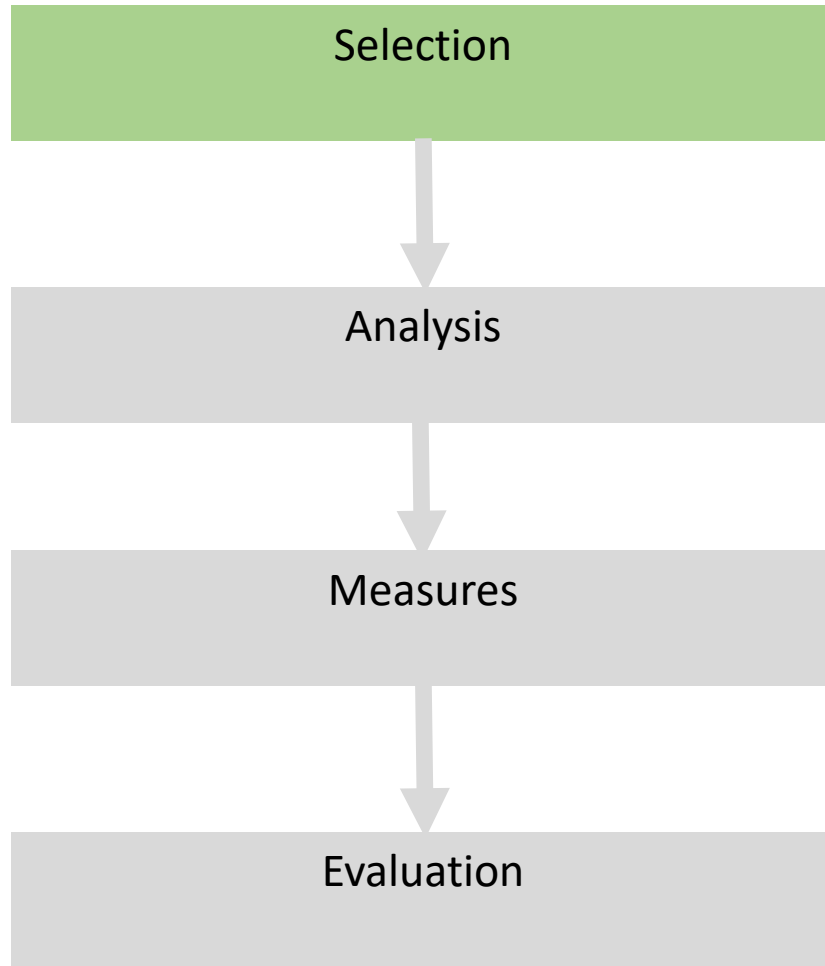


3. Amsterdam situation

- Large amount of bicycles
- Lack of space
- Focus on efficiency and optimisation (by analysis) on all traffic
- Strong connection between the design of the traffic control system and design of the junction

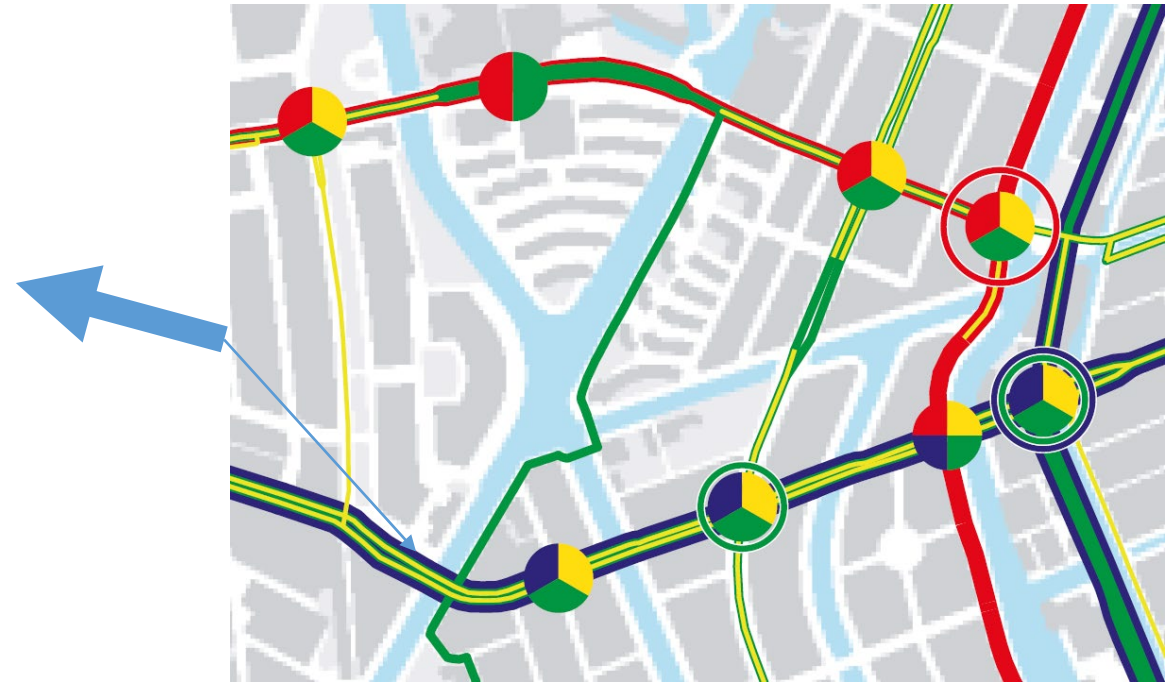
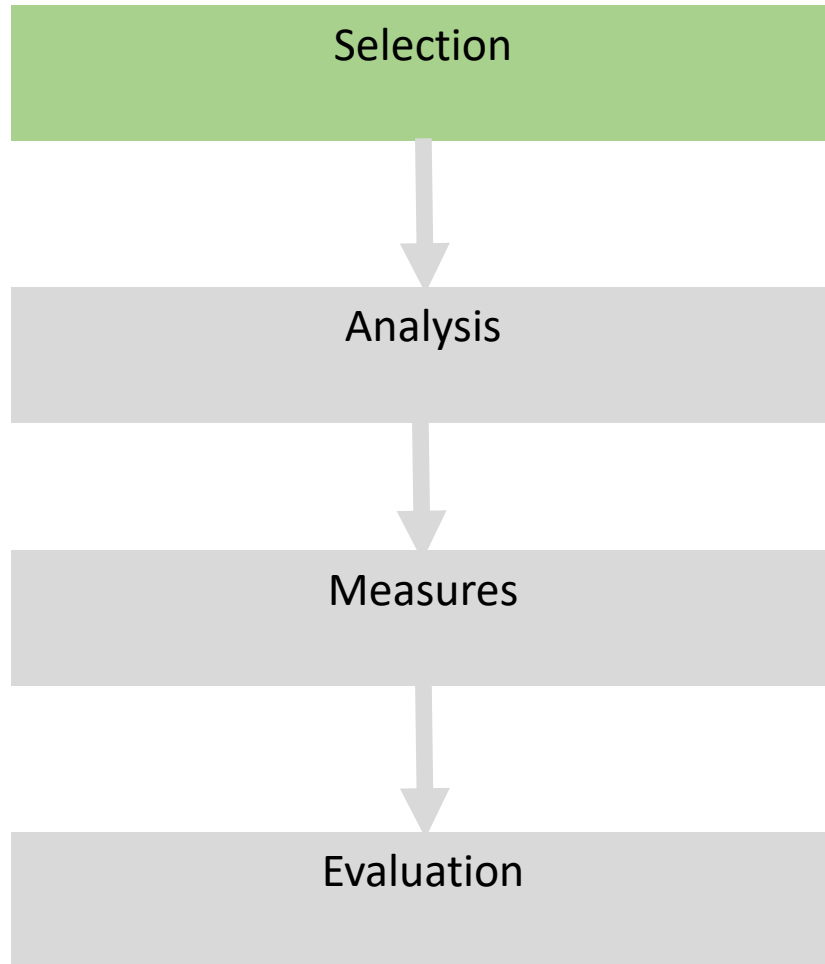


4. Recent measures, junction approach



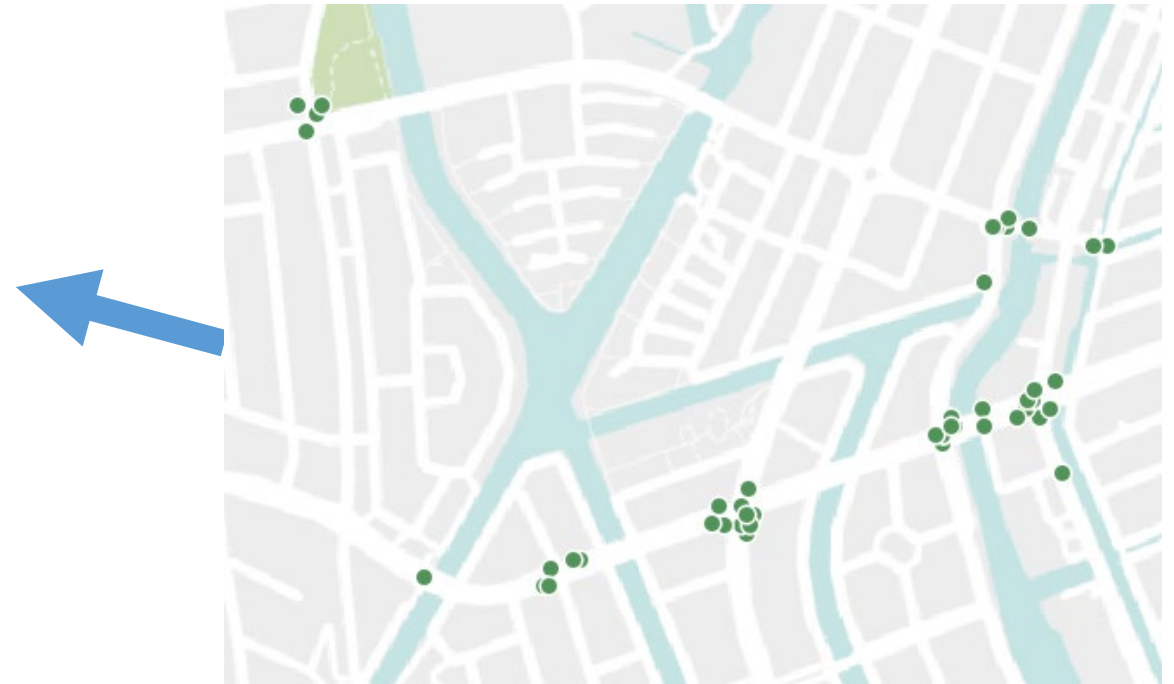
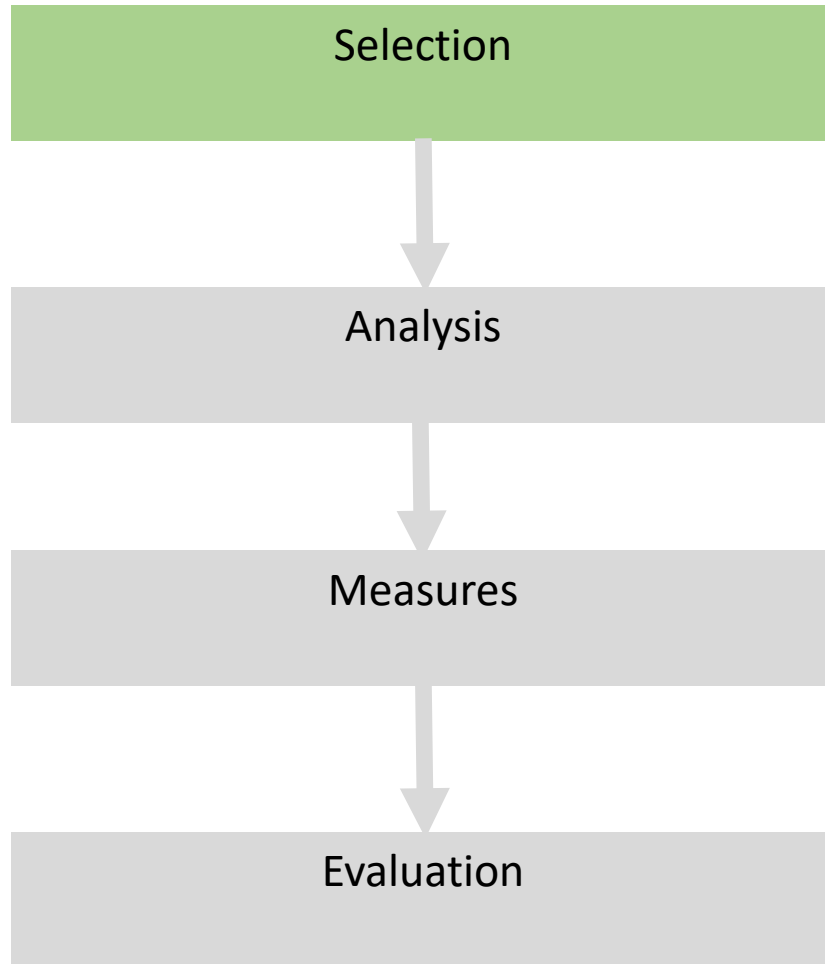
- **Amount of cyclists**
- Policy
- Complaints

4. Recent measures, junction approach



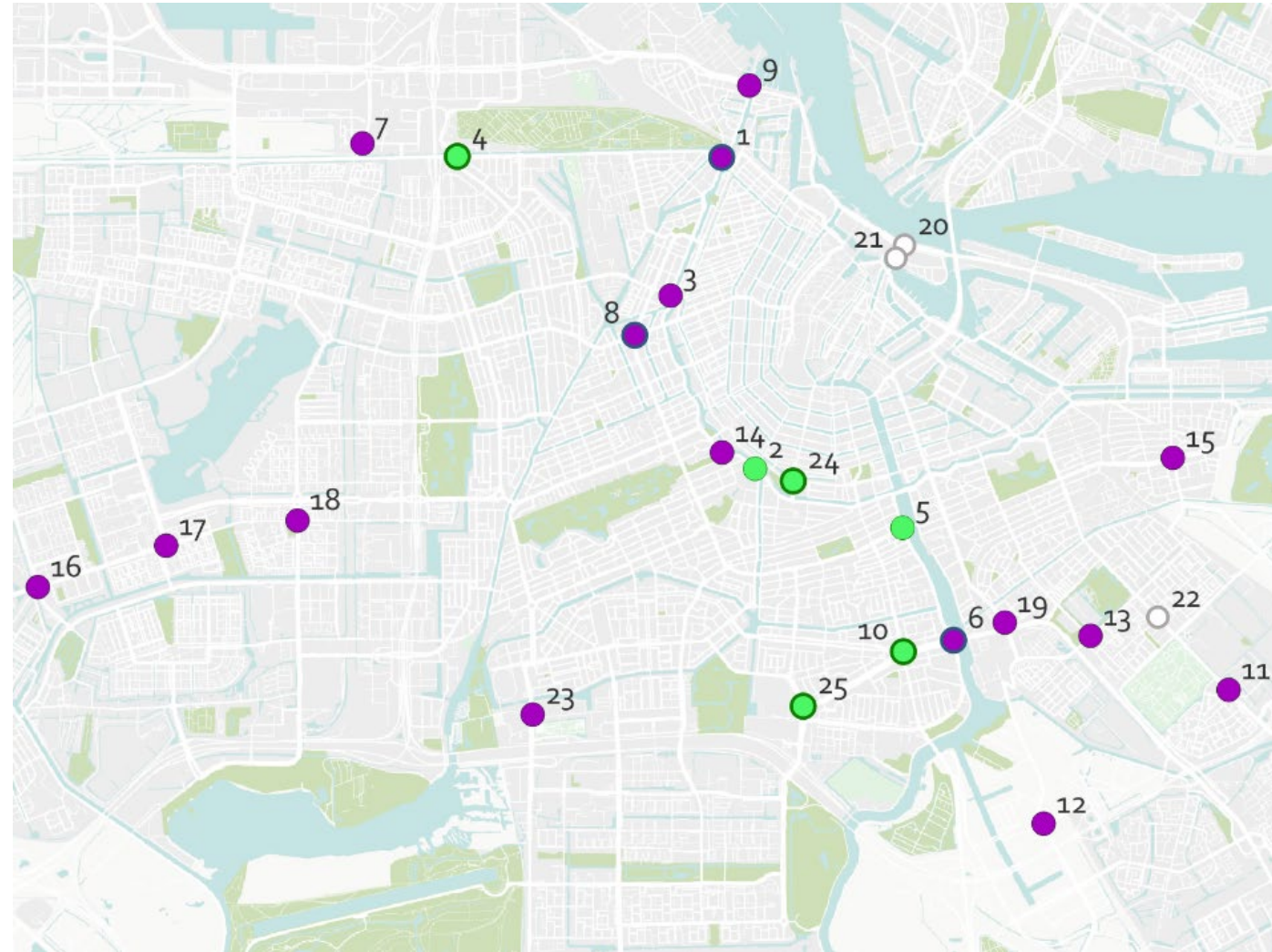
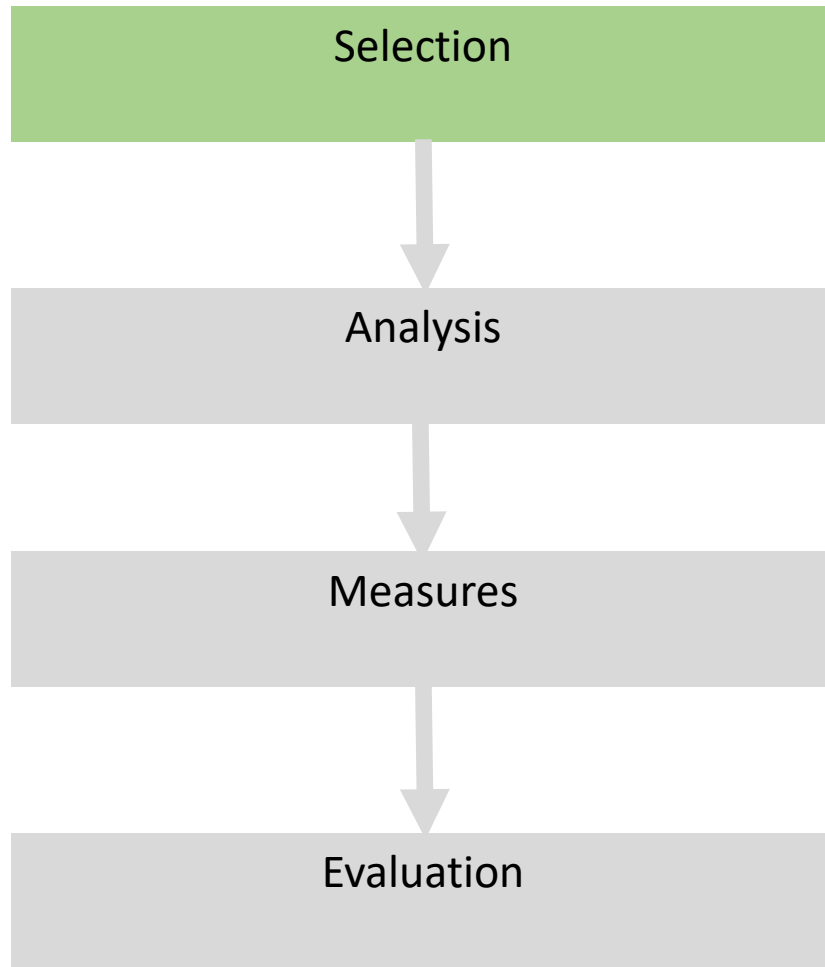
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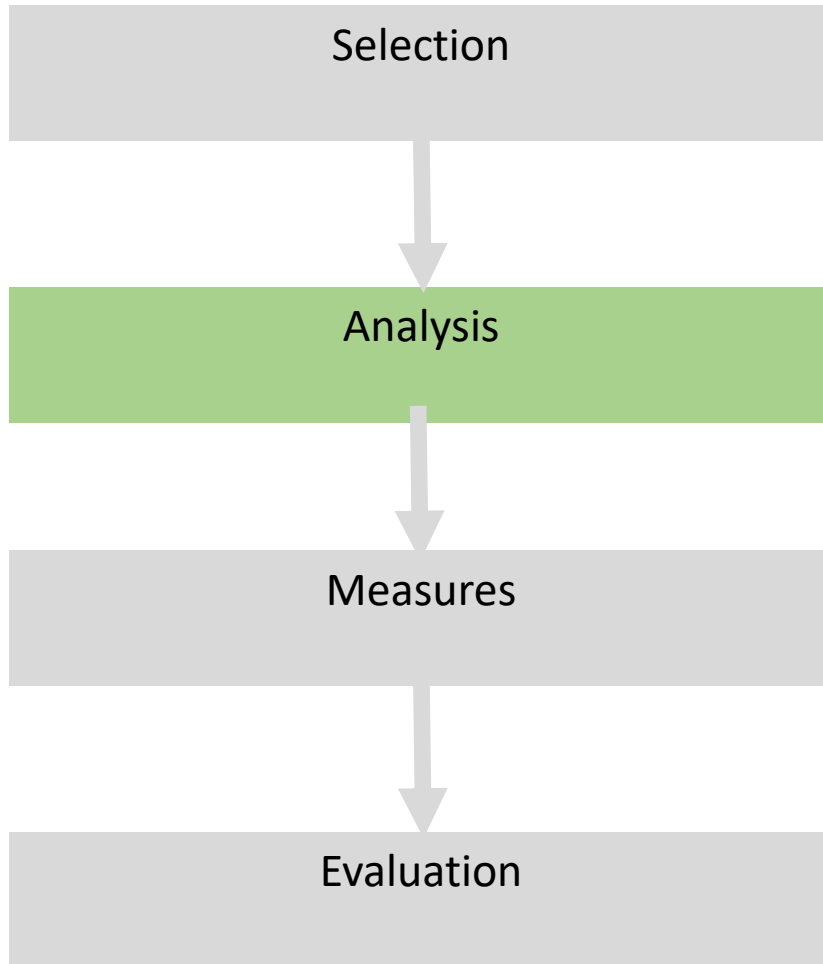


- Amount of cyclists
- Policy
- **Complaints**

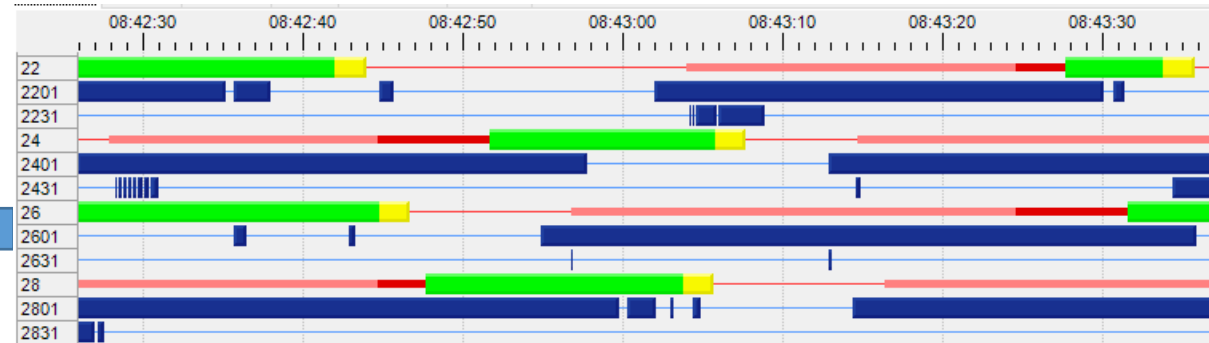
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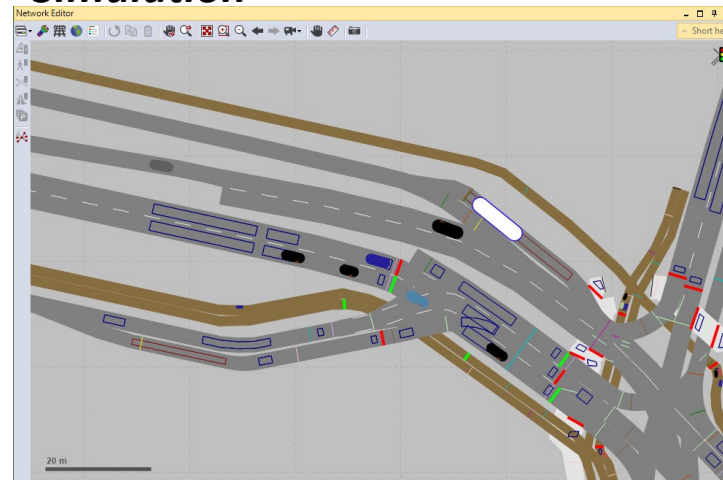
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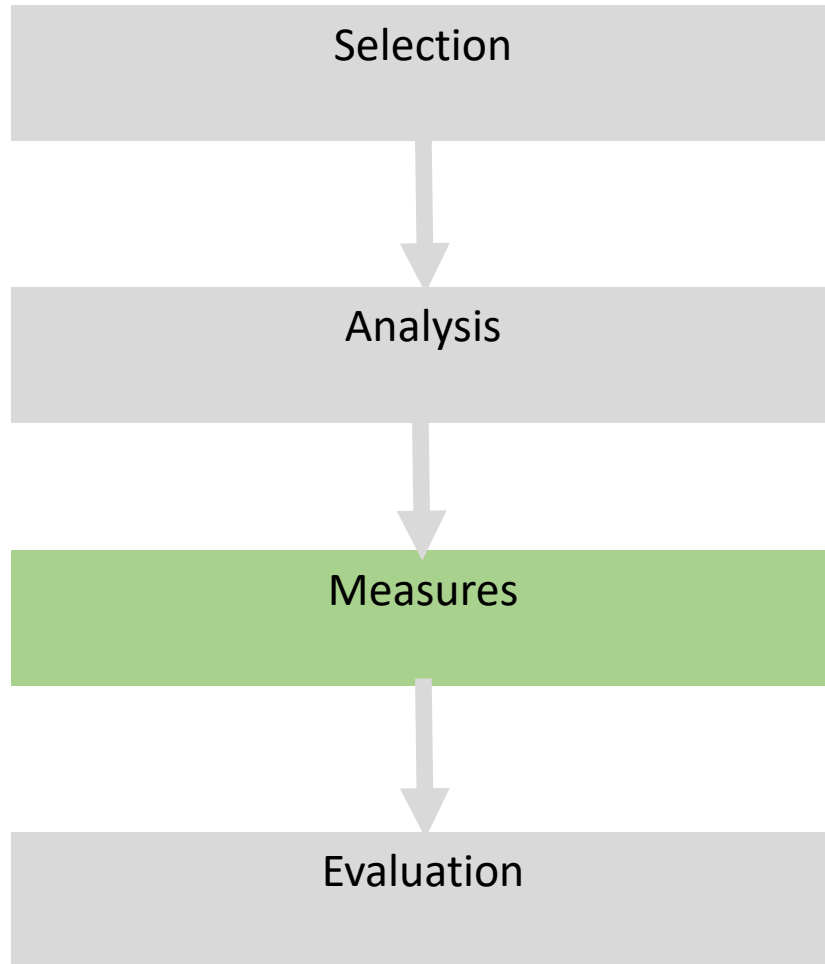
Traffic light data



Simulation



4. Recent measures, junction approach



Decrease waiting times

optimise green times of conflicts

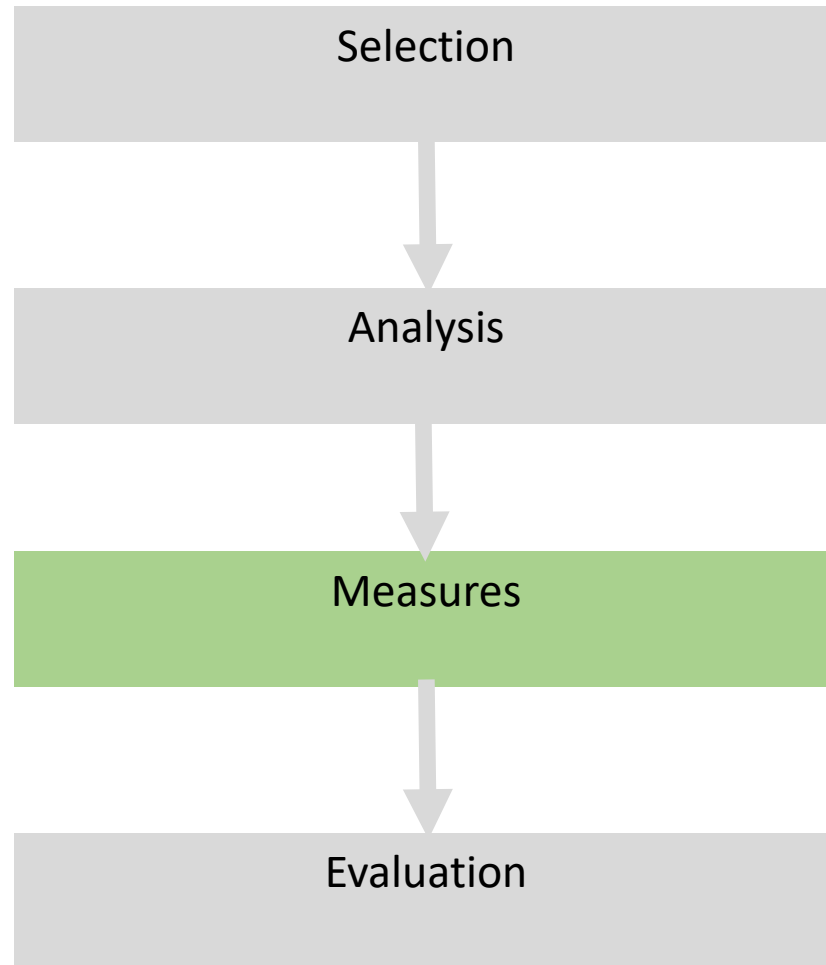
extra realisation

left turn 'green wave'

Enlarge green times

improve extention proces (detection/software)

4. Recent measures, junction approach



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optimise green times of conflicts

extra realisation

left turn 'green wave'

Enlarge green times

improve extention proces (detection/software)

Methodes

Policy check at junction

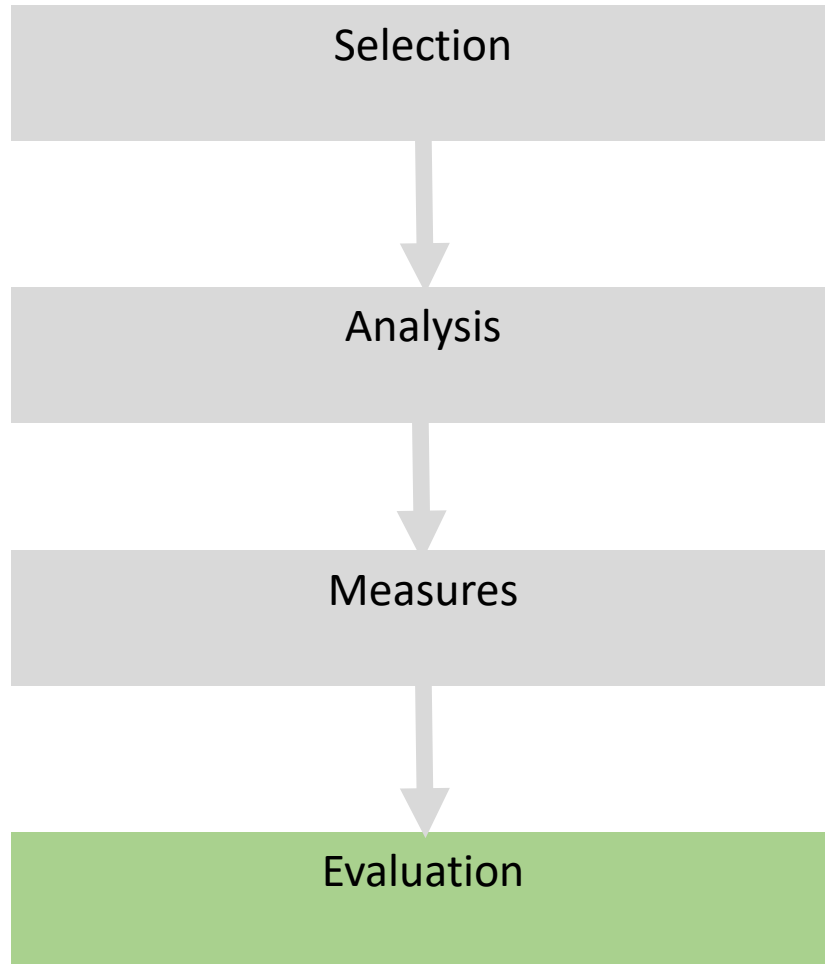
Maintenance (functional/technical)

Extra detection

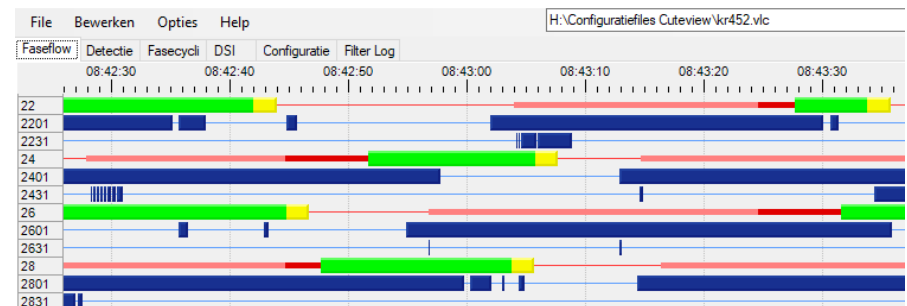
Junction redesign

Tailor made effort

4. Recent measures, junction approach

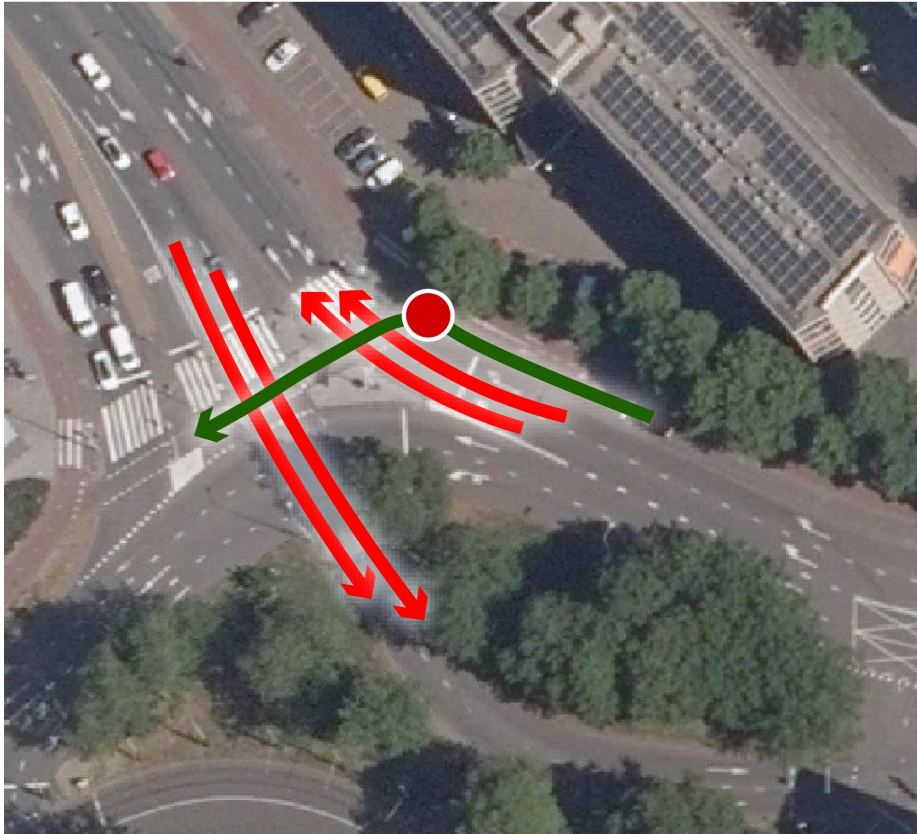


measurable?
visible?



4. Recent measures, junction approach

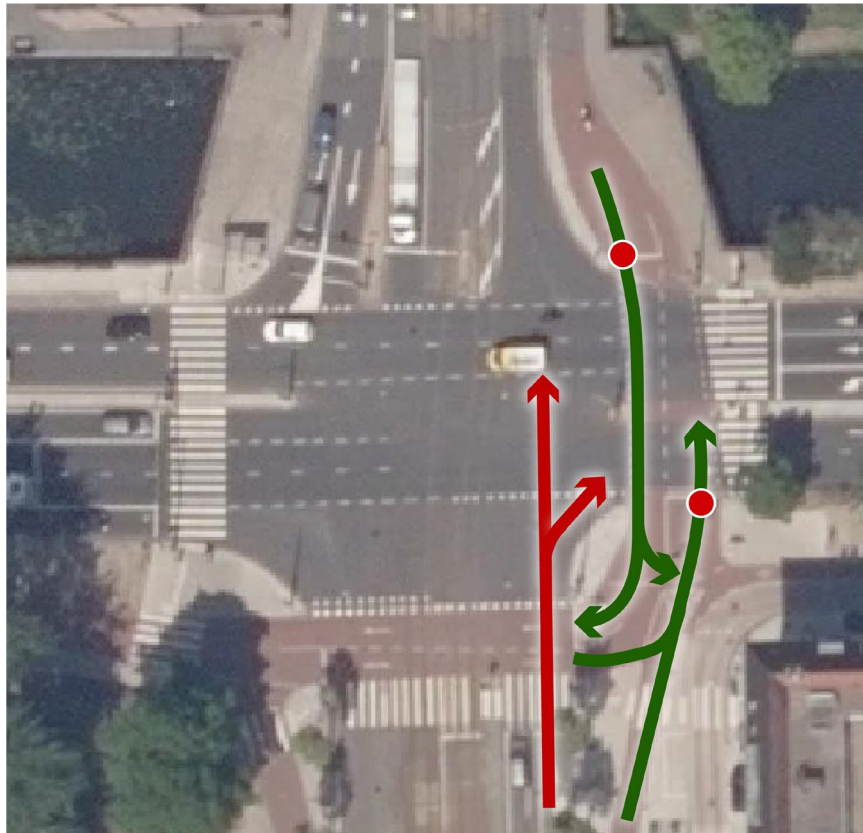
#Prins Bernhardplein, **enlarged green time between 7:40 and 8:30 (tailormade approach) combined with an infrastructure solution (make the crossing more wide at the stopline)**
Policy at this intersection is focussed on car. Crossing is very busy with cyclists in a very short timewindow. The solution is to fix this problem in a short time window to make it safe.



4. Recent measures, junction approach

#Adm.de Ruyterweg/Haarlemmerweg
Decrease waiting times

Measure 1 = partial conflict (policy+redesign)
Measure 2 = Finetuning by data/film (maintenance)



4. Recent measures, junction approach

Innovations

- A. Improving **data-analysis**
- B. Detectionmethodes: **heathcamera**
- C. Optimise green times without detection (**'Reverse engineering'**)

5. (dis)Advantages

Dutch (individual) approach on traffic lights:

Disadvantages

- road users can get distracted by traffic lights of other users (influence on behavior)
- more technical features means more assetmanagement and more analyses and backup system

Advantages

- flexible, a lot of options for optimisation. This has an effect on:
 - waiting times
 - the junction design

6. Connection with junction design >> next presentation

