



Gemeente  
Amsterdam

# The Dutch and the battle against the water

The challenges of climate resilient streets in  
Amsterdam



## Question 1 (Slido)

*What is the difference between Holland and The Netherlands?*

*(Open question)*



# Holland

(North- and South)











# Amsterdam in prehistoric times





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# **Adaptation to circumstances**



**Amsterdam in prehistoric times**

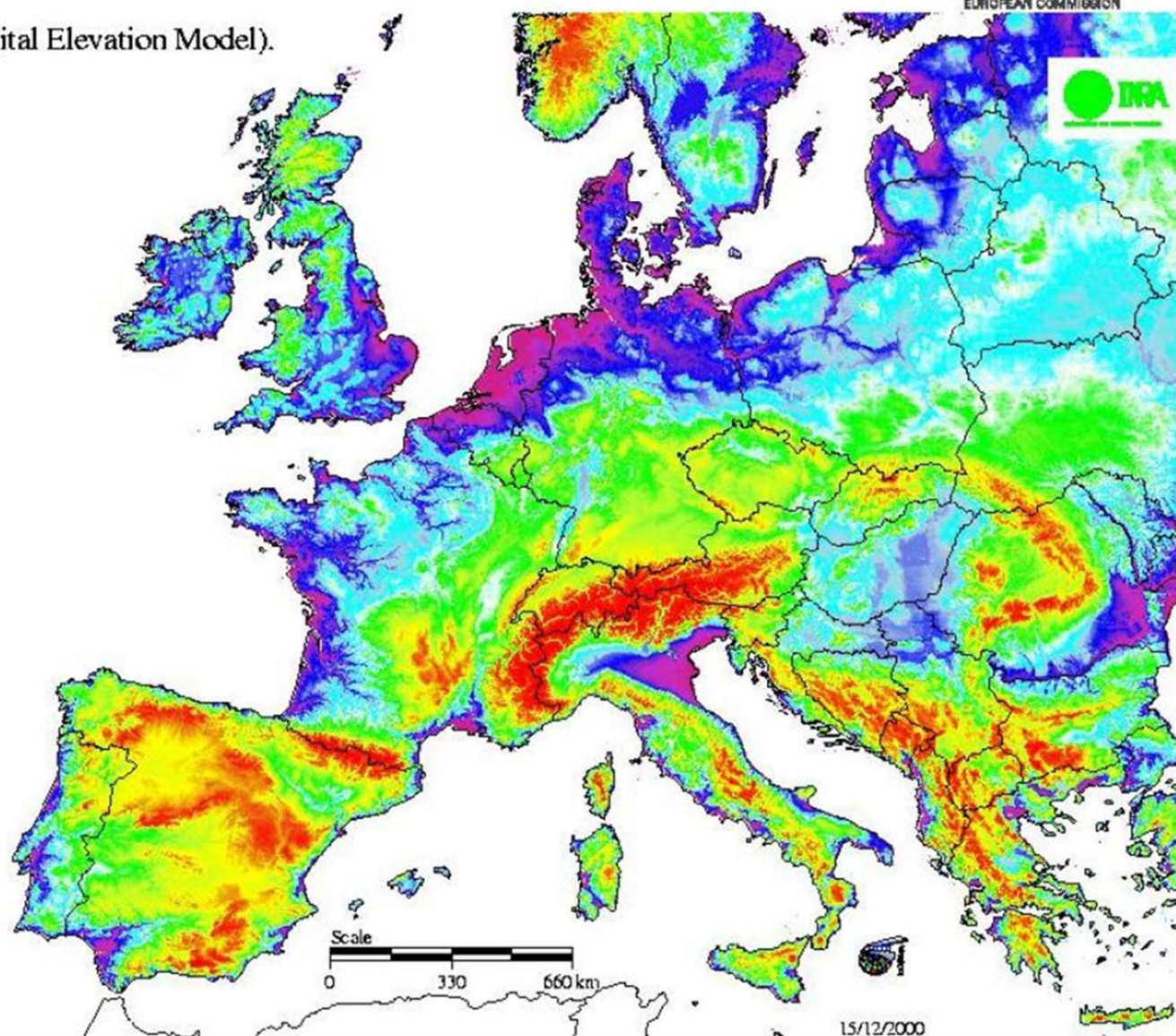
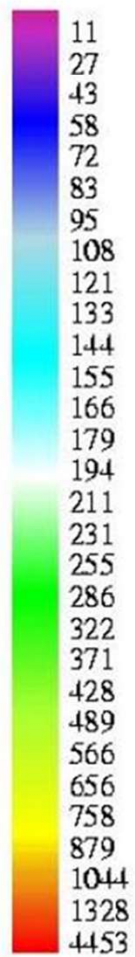


## ALTITUDES.

Source: USGS HYDRO1K

(1 km hydrologically correct Digital Elevation Model).

Meters:







# **‘Netherlands wetlands’**

- Rhinedelta
- 26% of the Netherlands is beyond sea level
- 55% of the country is vulnerable for floods (sea or rivers)



**Vulnerability for floods**



## Question 2 (Slido)

*What is the meaning of Senta's family name: Modder?*

*A: Mother*

*B: Mud*

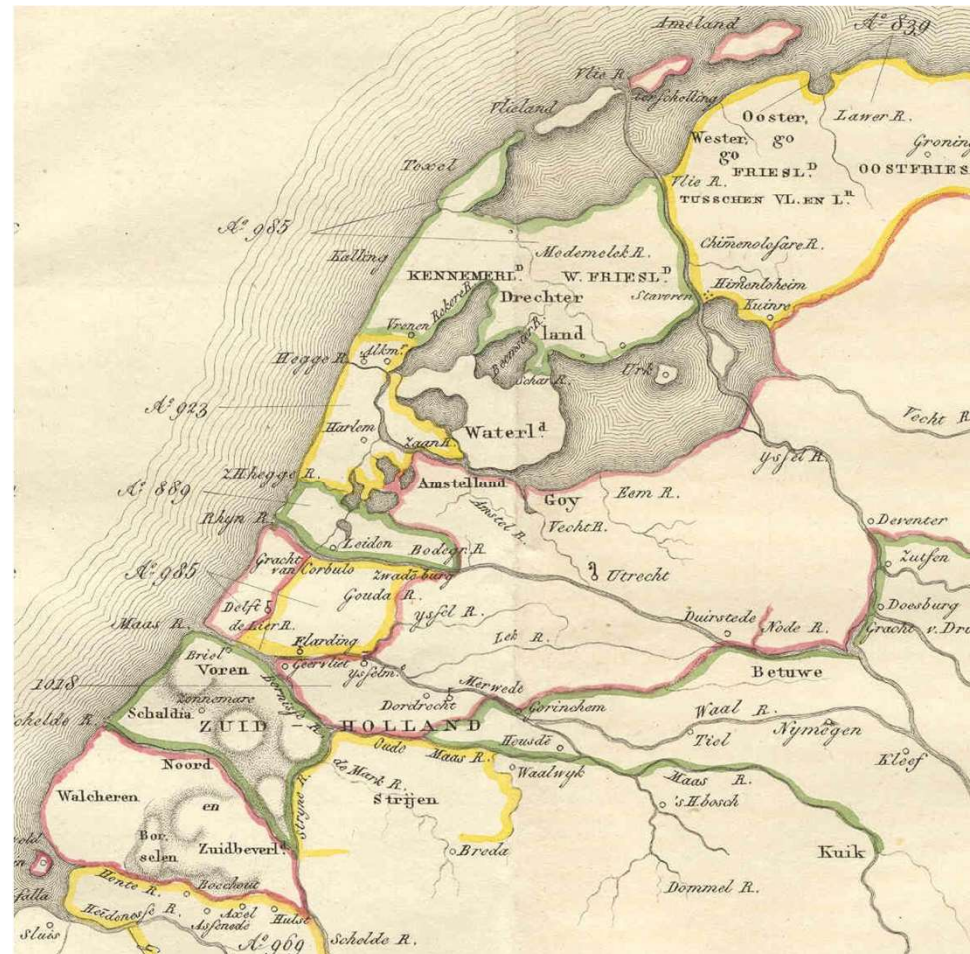


# ✖ ✖ ✖ Amsterdam at the beginning of the era



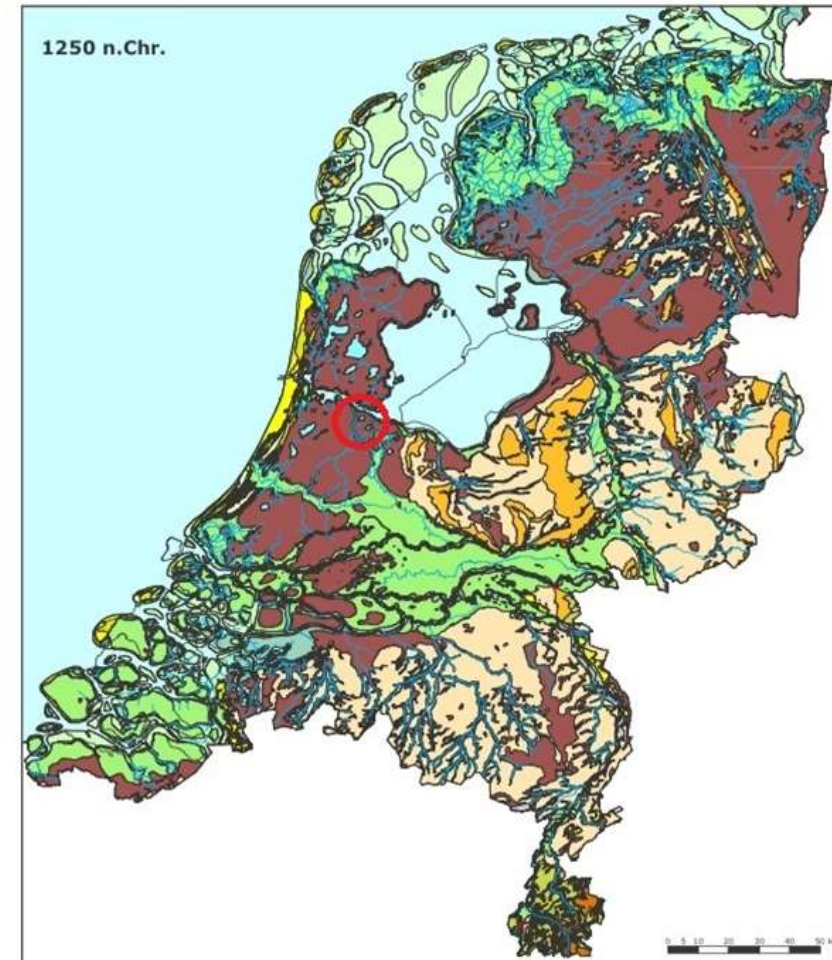


# Amsterdam around the year 1000





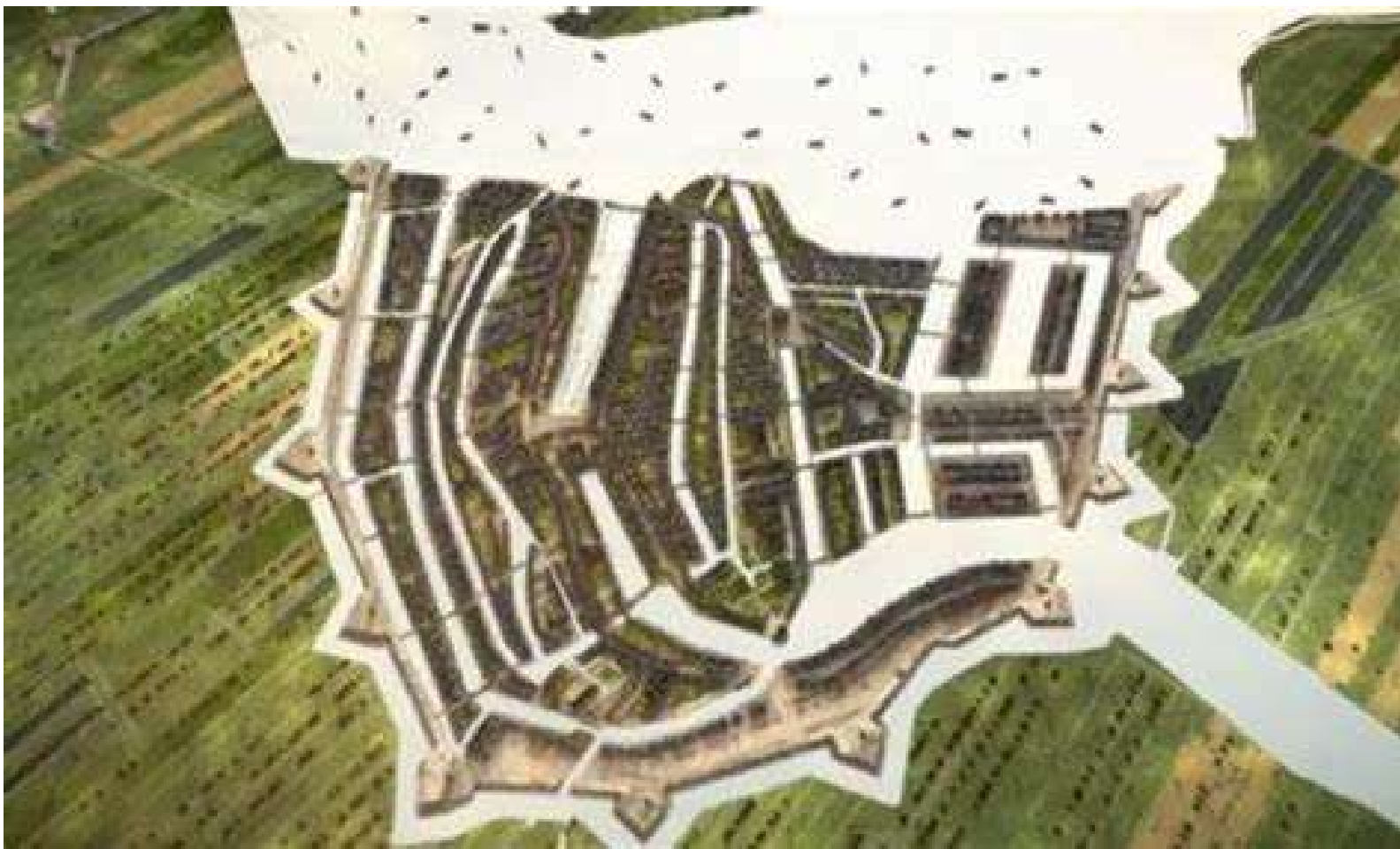
# Amsterdam and it's surroundings after the 'Allsaints flood (1170)







## Dam square (1270)





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# **From adaptation to cultivation**

In the late middle ages untill contemporary time







# Sawing mill









## Questions (Slido)

3. What is the name of this painting?
4. Who is the painter?
5. When was it painted?





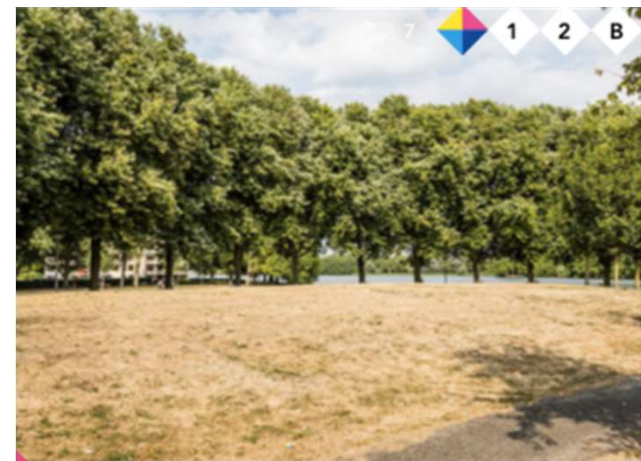
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**New challenges ahead!**



Subsidence



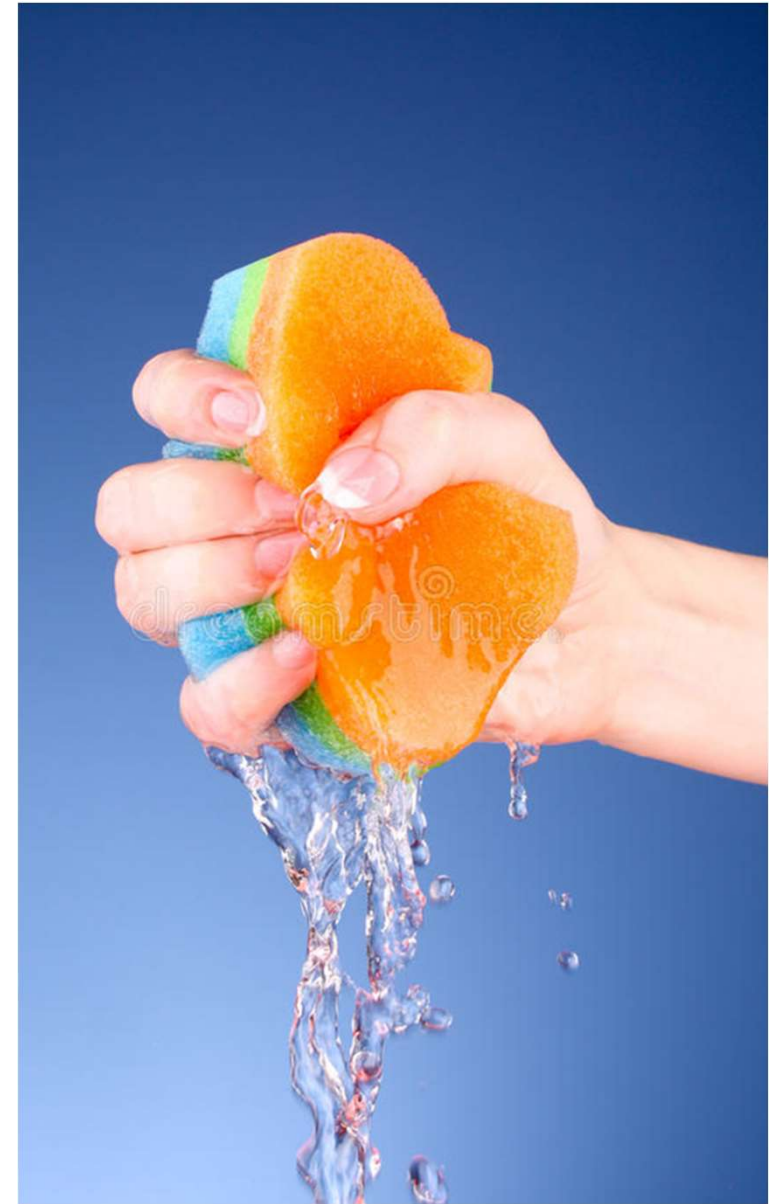






# Sponge-City

- Save
- Contain
- Reuse







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# **From cultivation back to adaptation**



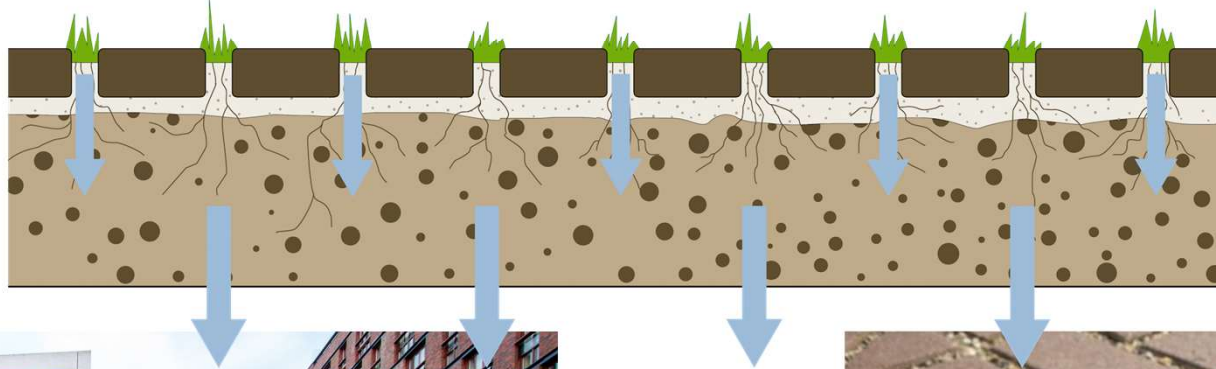
## Water storing street





# Water passing pavements

1. Wider/open/half-open joints between bricks







# Water passing pavements

## 2. Porous/permeable bricks







# Testing testing...





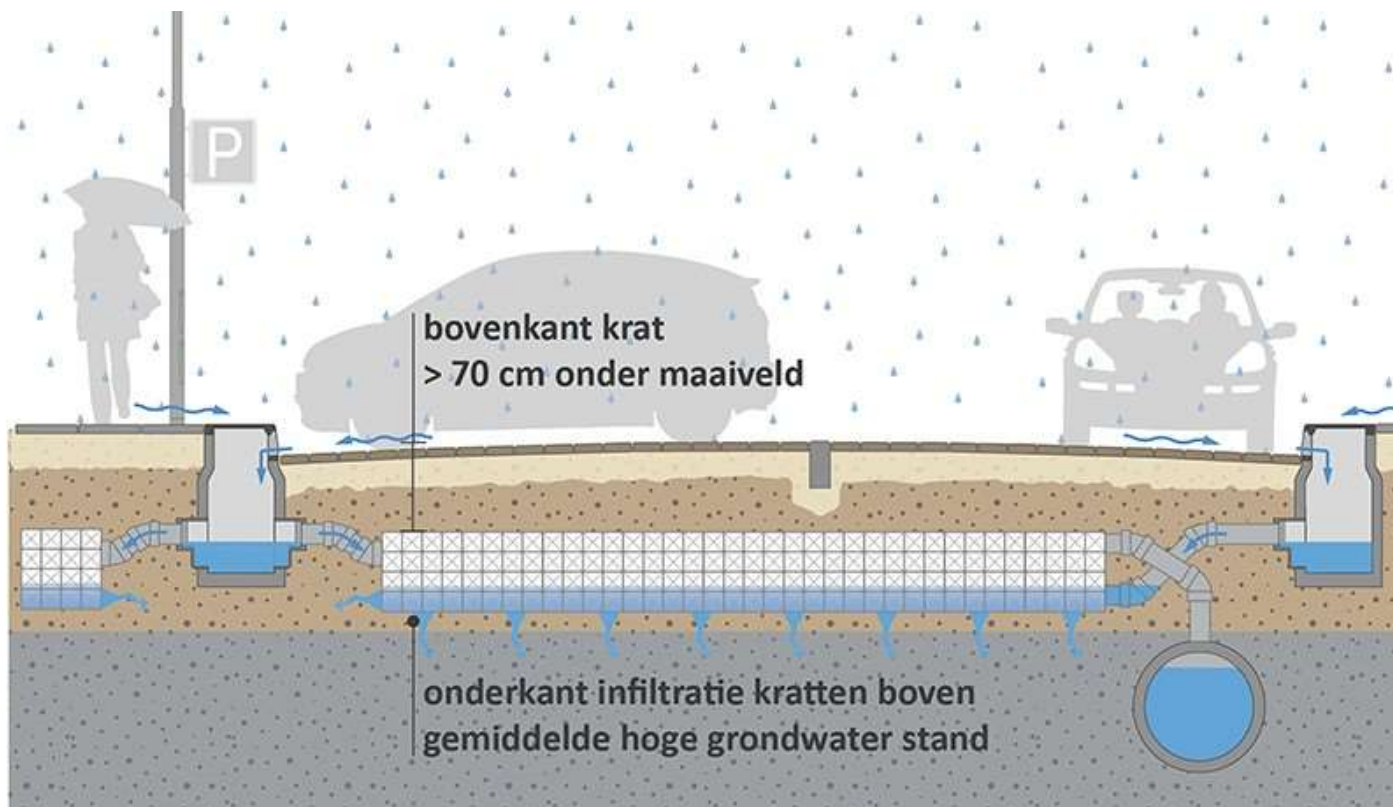


# Infiltration crates





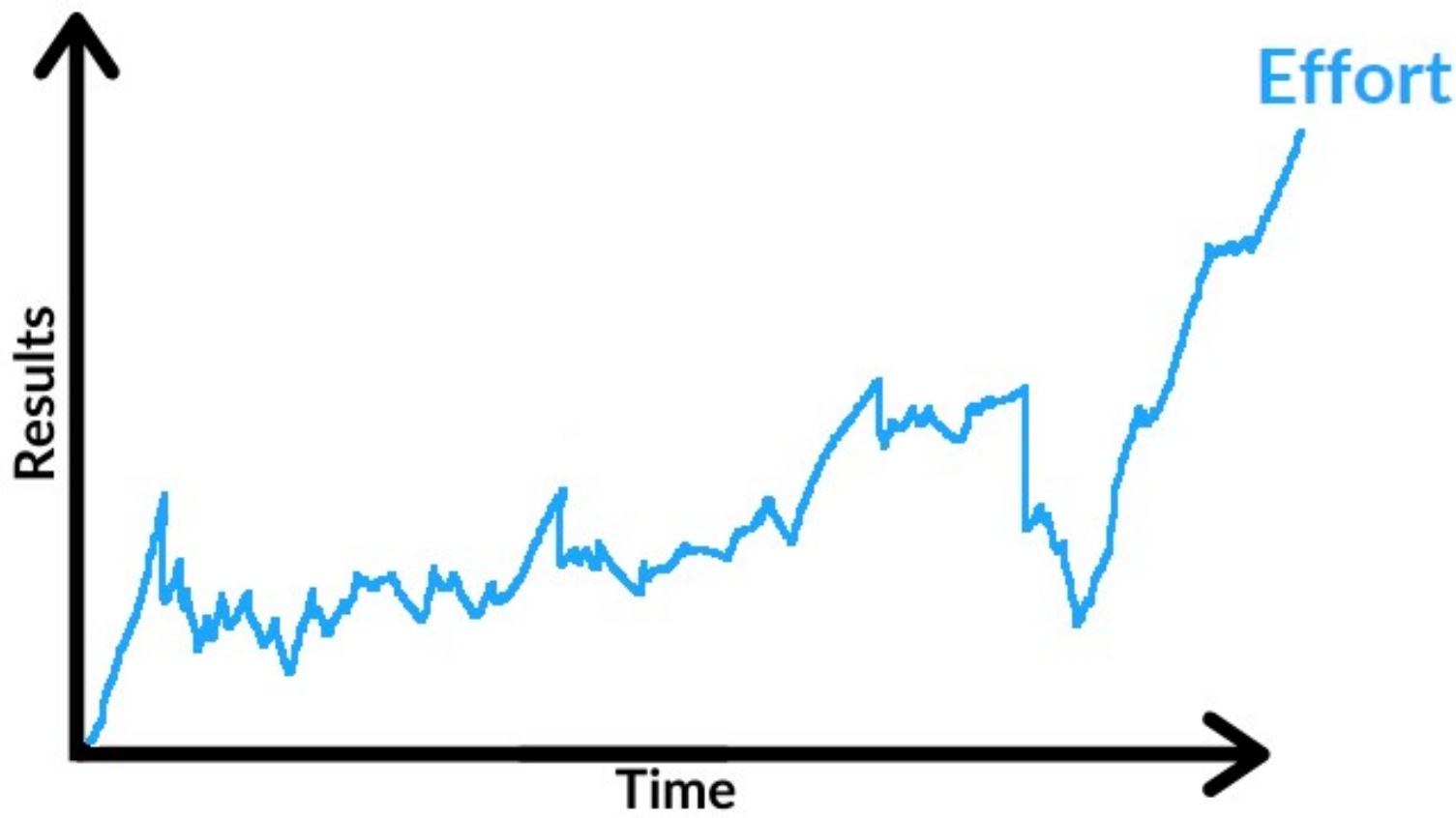
# Underground storage capacity







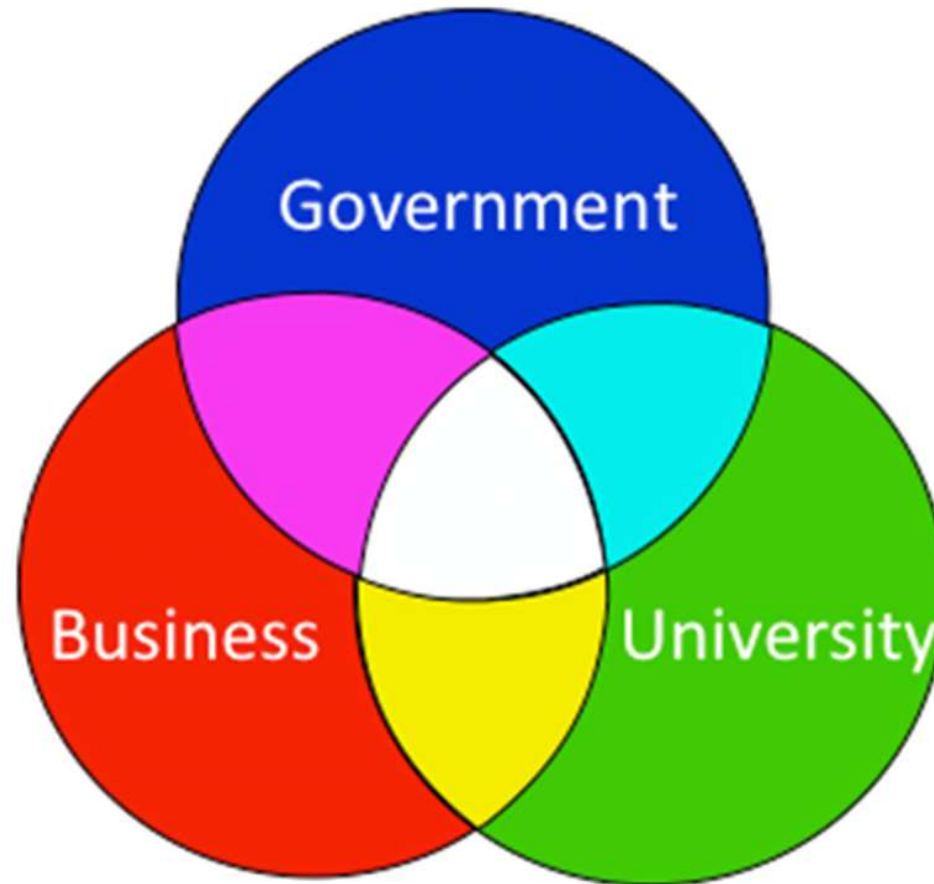
# What Success Looks Like

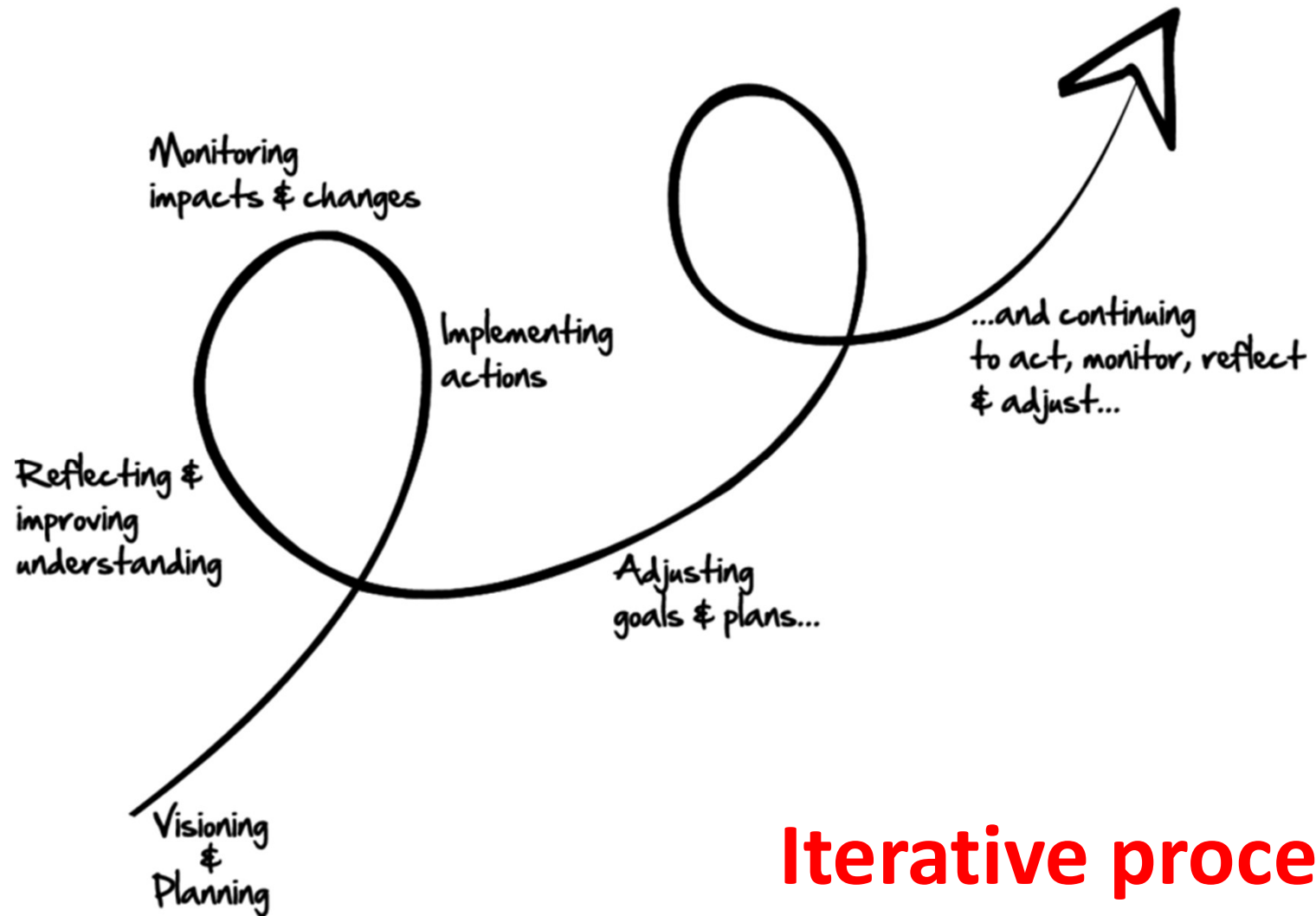






# Triple Helix model





**Iterative process**

XXX





