



# Green legacy of the 'third Golden Age'

Using the multiple benefits of green while densifying the city

Geertje Wijten  
Department of Planning and Sustainability  
City of Amsterdam

# Green legacy of the 'third Golden Age'

**Context:** facts and challenges

**History:** the 1st and 2nd Golden Age and recent years

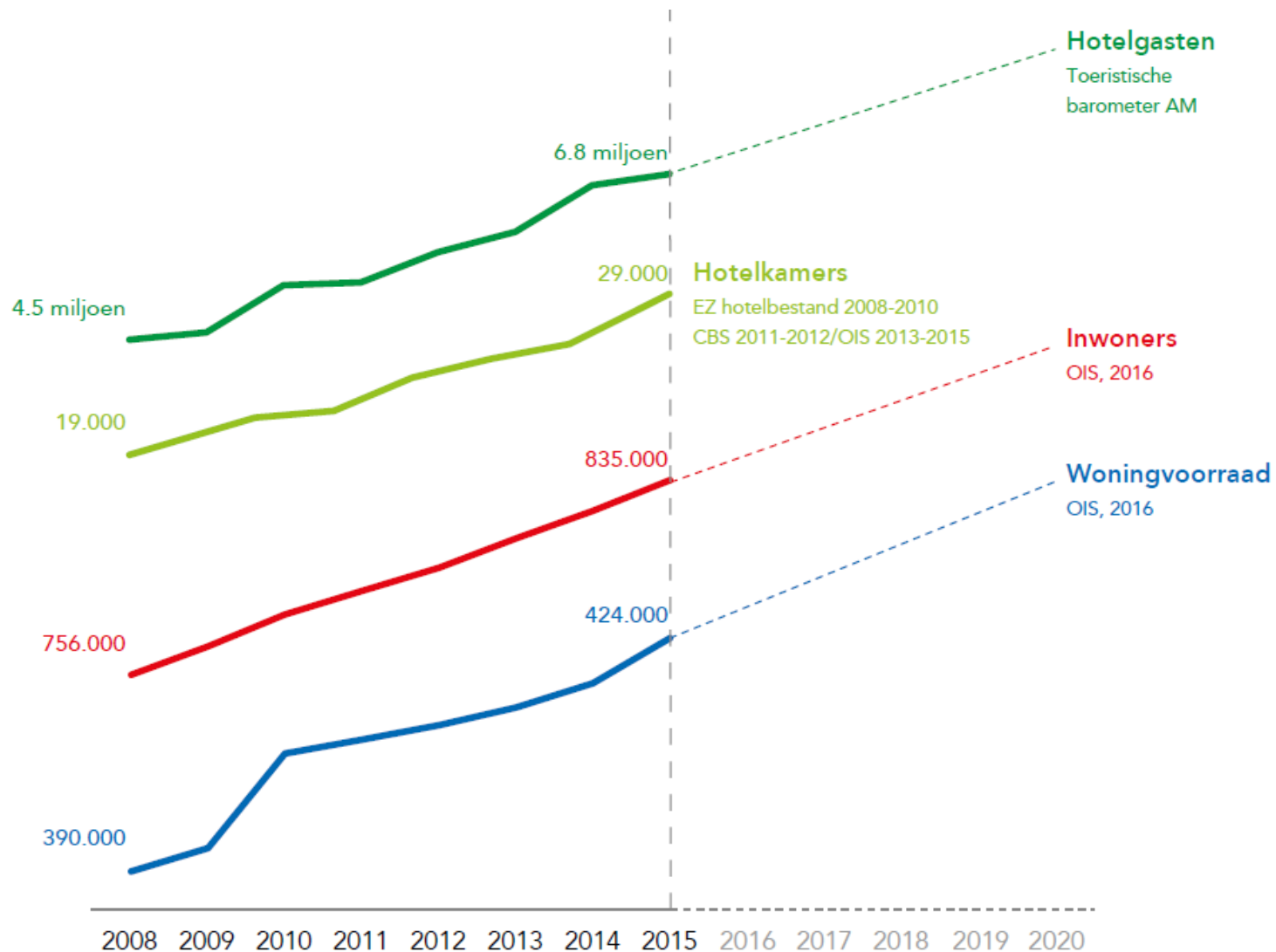
**Future:** the green strategy for the 3rd Golden Age?

# Context: Amsterdam facts





# Context: Amsterdam is growing rapidly ...



**Context:** Several publications define this period as the 3rd Golden Age...



**Bajes Kwartier,  
Amsterdam**

## **Context:** New targets have been set for green infrastructure in developing areas in January 2018

	Central living areas	Mixed living areas	Green-blue living areas
Public green space	8 m2 per dwelling	16 m2 per dwelling	24 m2 per dwelling
Ecosystem green space	8 m2 per dwelling	6 m2 per dwelling	4 m2 per dwelling



# Context: Evidence of the multiple benefits and value of green infrastructure is growing



## THE POWER OF PARKS

Do you know the power of your local parks and recreation? Yes, they provide beautiful green spaces and fun programs, but they do so much more and the benefits are immense. Learn more at [www.nrp.org/power-of-parks](http://www.nrp.org/power-of-parks) and watch the video.

### PARKS HAVE ENVIRONMENTAL POWER

1 ACRE OF TREES absorbs the carbon dioxide produced by DRIVING A CAR 11,000 MILES.

### PARKS HAVE SAFETY POWER

In Macon, GA, a revitalized park that included new programming and beautification efforts, **reduced incidents of crime and violence by 50%.**

### PARKS HAVE COMMUNITY POWER

Parks strengthen community ties and bring diverse populations together.

Parks have the power to strengthen communities, transform lives, and protect the future.

### PARKS HAVE HEALTH POWER

Increased access to places for physical activity leads to a **25% increase** in people exercising 3 or more days a week.

**#PowerOfParks**

National Recreation and Park Association

## Human Health Benefits of Natural Grass & Greenspace

**30 min.**  
Mowing a lawn for 30 minutes once weekly with a non-motorized push mower provides the recommended daily exercise for an 18 to 65 year old person.

- RELIEVES STRESS
- ENCOURAGES PHYSICAL ACTIVITY
- LAWN CARE HELPS REDUCE OBESITY
- BOOSTS IMMUNITY
- ENHANCES PRODUCTIVITY
- PROMOTES HEALING
- FOSTERS PSYCHOLOGICAL WELL-BEING
- INCREASES TRANQUILITY
- IMPROVES MENTAL FUNCTIONING

### REDUCED ALLERGIES

Exposure to greenery aids in lowering blood pressure, reducing muscle tension, related to stress, and improving attention.

Most turfgrasses that are mowed regularly at a low height tend to remain vegetative with minimal floral development, thus reducing allergy-related pollen production. (Geard, 1994)

### RELAXATION

**75%**  
A survey of parkgoers in the Netherlands' most popular park, Vondelpark, showed that nearly 75% valued the park for relaxing in large part because of its vegetation. (Chiesura, 2004).

### NOISE BUSTER

Healthy turf absorbs sound, reducing noise levels by 30 to 40 percent.

### FASTER RECOVERY

Studies have shown that hospital patients with a view of natural green space recover faster.

### OXYGEN

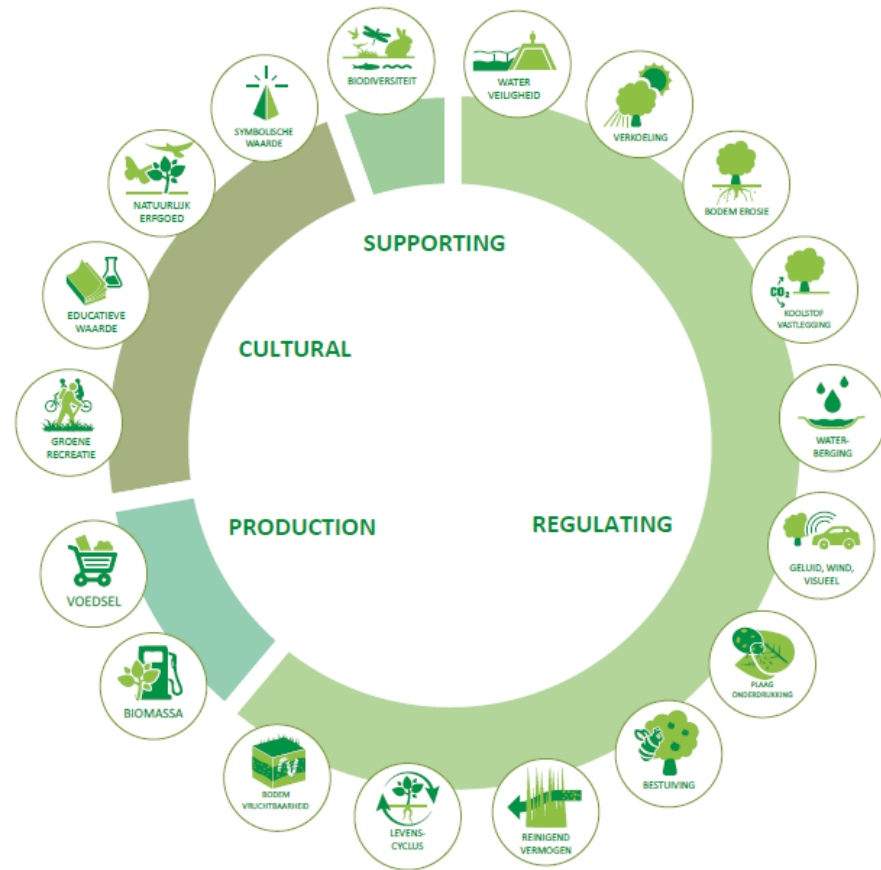
Grass and trees along the US Interstate system produce enough oxygen to support 22 million people.

**3X**  
Three times as likely to be physically active.

**40%**  
40 percent less likely to be overweight or obese compared to those living in less green space.

**ADDITIONAL SOURCES:**  
HORTICULTURE AUSTRALIA LTD. Project No. T407034 - 31 July, 2008 - The Environmental, Social, Economic and Health Benefits of Green Space.  
Muller, C. et al. (2003). According to Muller et al. (2002: 2006), "Parks are a fundamental health resource, particularly in terms of disease prevention. The initial evidence demonstrates the positive effects of green space on blood pressure, cholesterol, reduced risk of disease, and cardiovascular disease."  
Wahl, R.L. (2010). Active Living: A Literature Review. In: Green Cities: Good Health. College of the Environment, University of Washington.  
Bent, J.D., and R.L. Owen. 1994. The role of turfgrass in environmental protection and their benefits to humans. J. Turfgrass. 23:432-440.  
For more information about lawn care and the benefits of natural grass visit: [www.TheLawnInstitute.org](http://www.TheLawnInstitute.org)

**Context:** a survey on services and values of GI is conducted for Amsterdam at this moment



Ecosystem services

+



User values



**Context:** Do we have enough attractive green space for more than 1 mio people living in Amsterdam in 2034?



**Context:** Do we have enough green space to be a healthy and climate-resilient city?





# History

the 1st and 2nd Golden Age and recent years



**History:** Amsterdam has a human scale and high standard of living



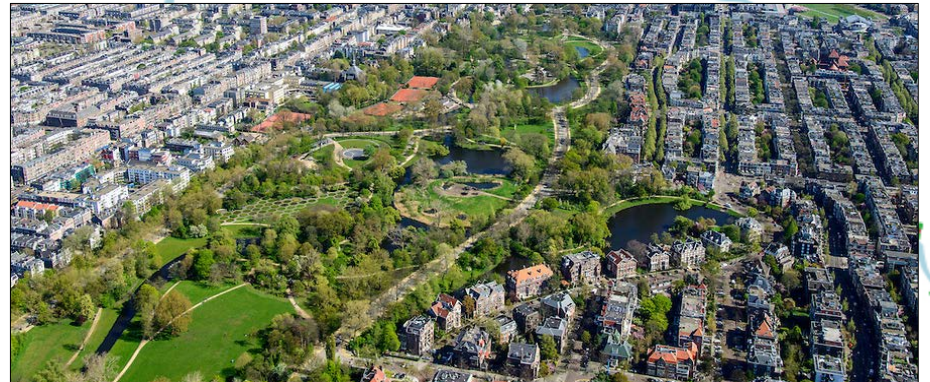


# History: 1588-1700: Treelined streets and canals in the 1st Golden Age





# **History:** 1870 - 1930: Development of city parks in the 2nd Golden Age





**History:** in recent years the city started growing and we invested in green infrastructure with our **Green Agenda**



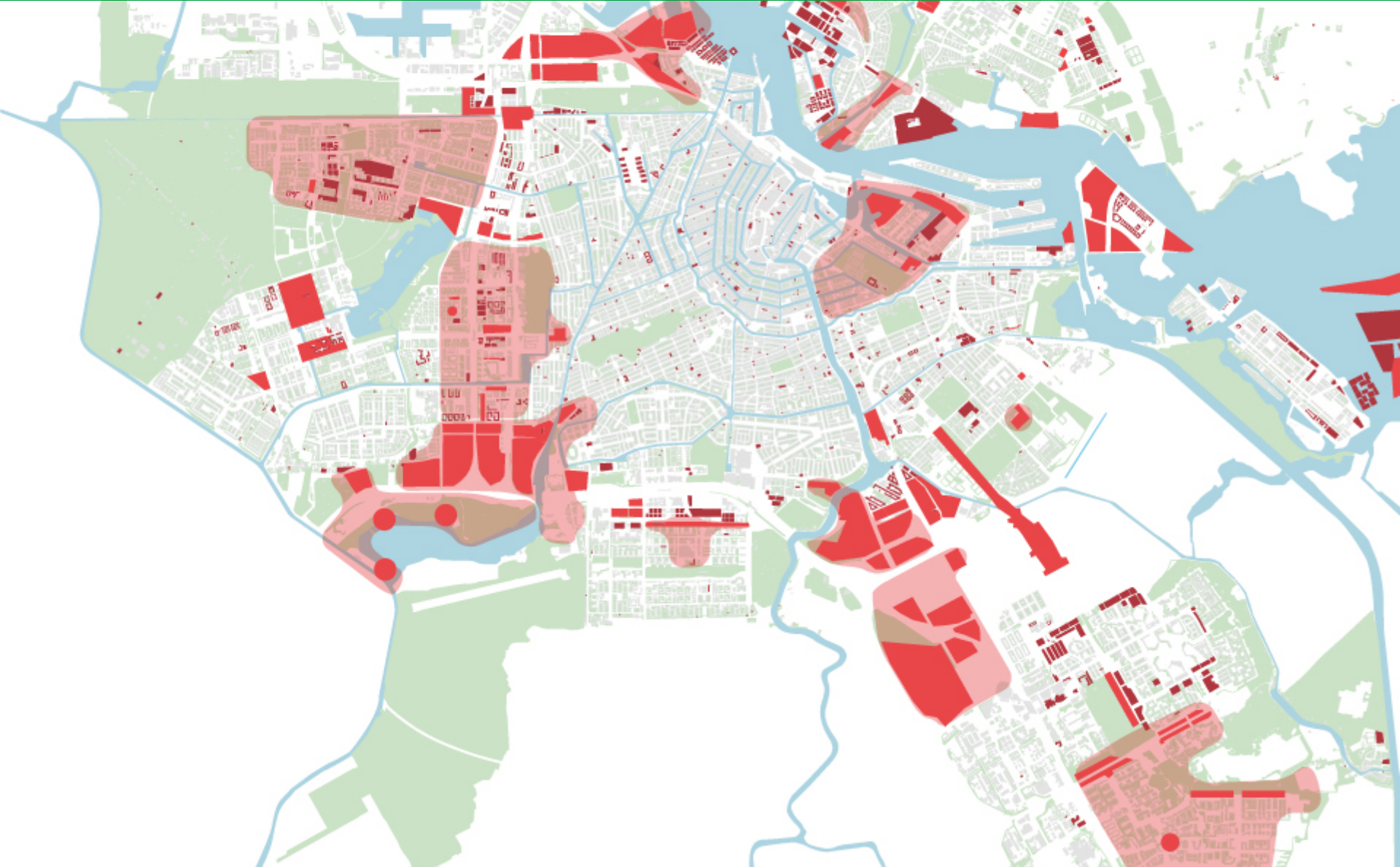




# Future

the green strategy for the 3rd Golden Age?

**Future:** Once again we face the challenge to build a large number of houses in a short period of time





# **Future:** Successful cities across the globe invest substantially in greening their densified urban centers



Seoul: from highway to park

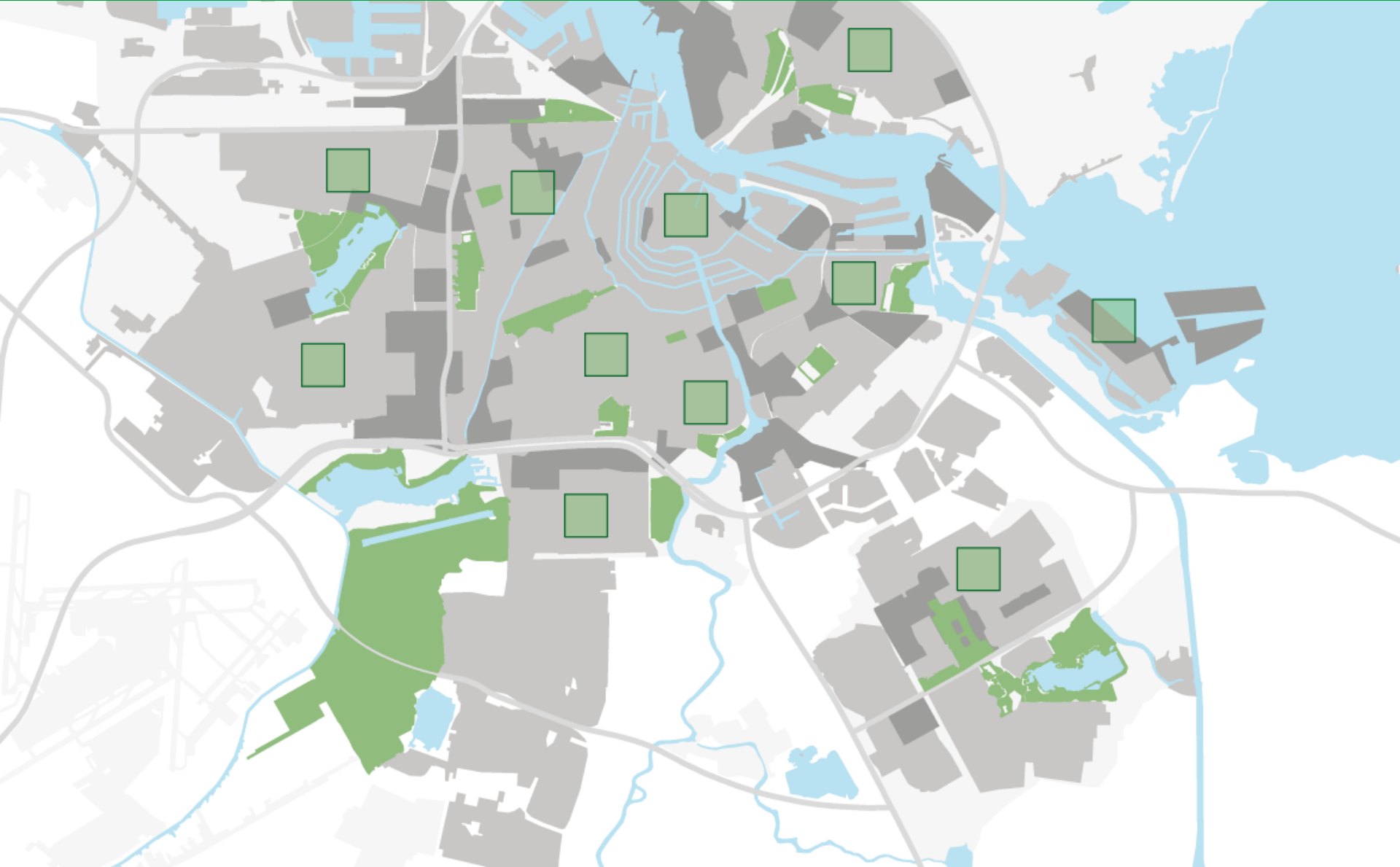


Singapore: Park connectors



San Francisco: rooftop park

**Future:** Not enough space for new green proportional to the growth of inhabitants.



**Future:** the green strategy will focus on quality: adding value to the existing green infrastructure

1. More attractive
2. Diverse
3. More public
4. Improving the network
5. Designing metropolitan parks

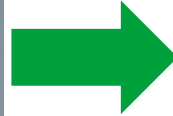


# **Future:** with a large diversity in green spaces for all Amsterdam people



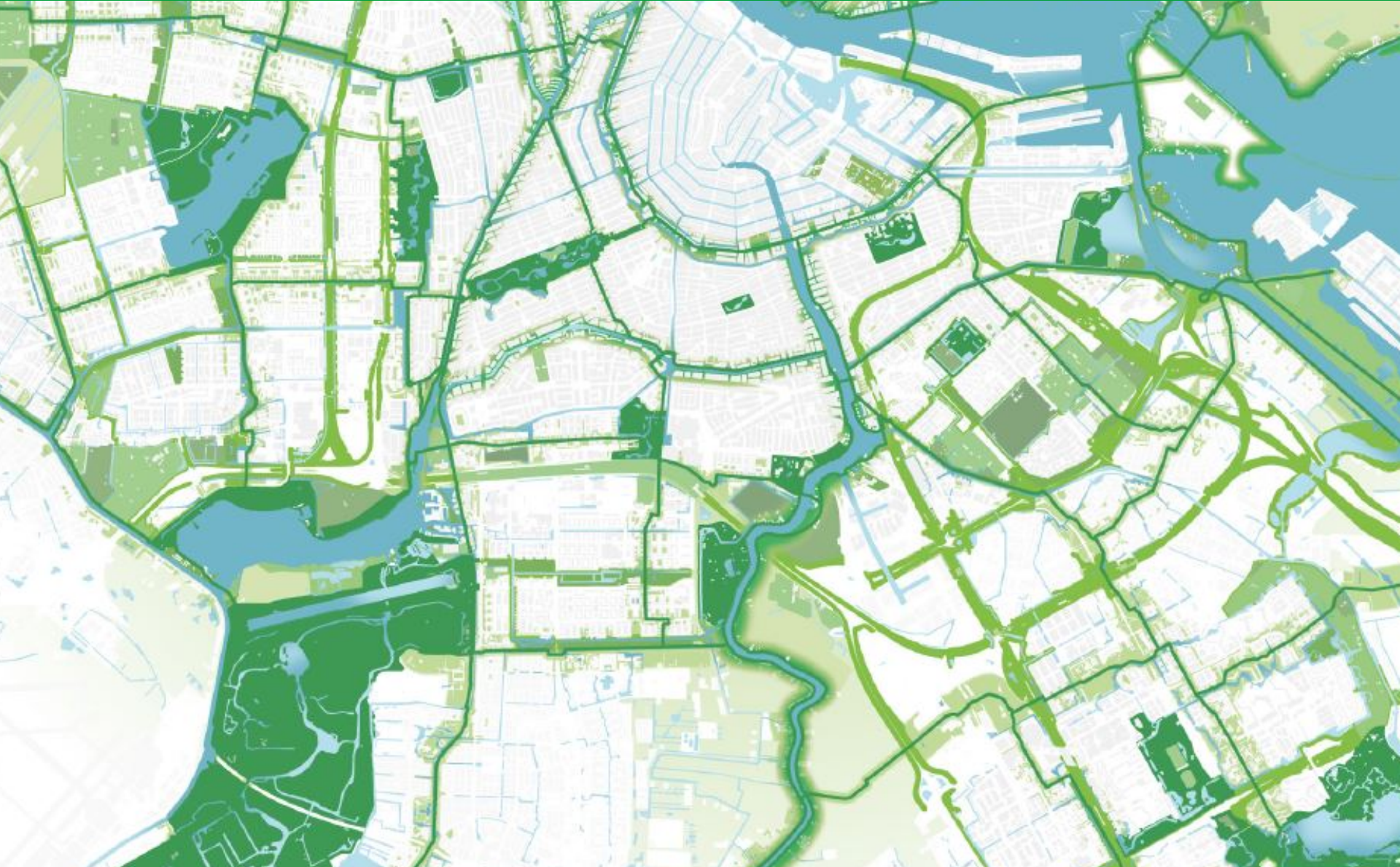


**Future:** Shifting away from private ownership towards a more public way of urban gardening



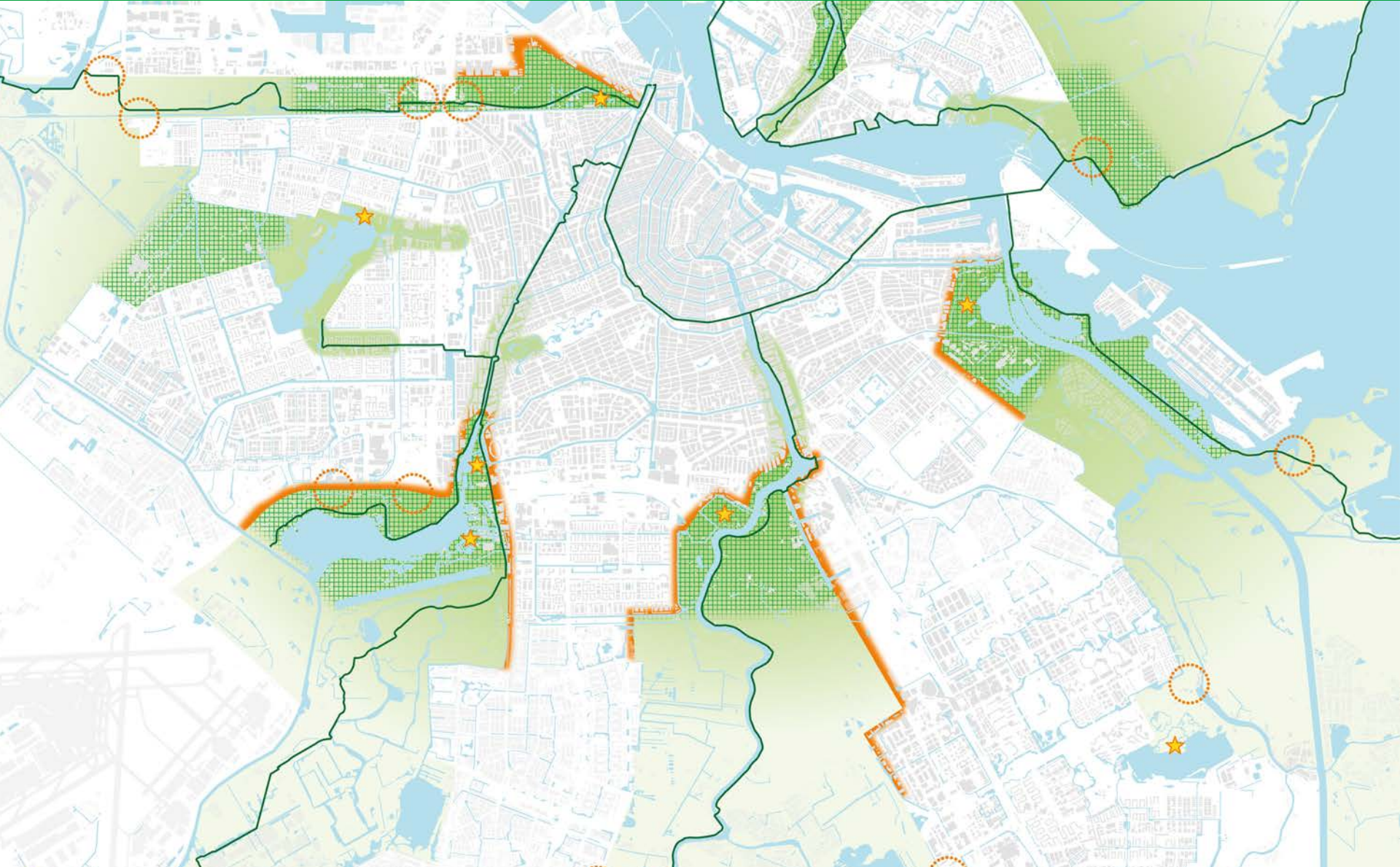


**Future:** Creating a continuous green-blue network for urban growth, biodiversity and active recreation





# **Future:** Development of a new type of park in Amsterdam: metropolitan parks





# **Future:** Development of a new type of park in Amsterdam: metropolitan parks





**Future:** Looking at innovation to also add new parks of the 21st century...





# **Future:** Optimal greening of existing and new neighbourhoods on all levels





**Future:** building a green and livable city together with  
NGO's, citizens and entrepreneurs





**Thank you!**