

<https://www.australia.com/de-de/places/brisbane-and-surrounds/suburb-guide.html>



What is a sustainable city?



A blurred background image of a futuristic city. In the foreground, a person is walking on a curved path. To the right, there is a modern building with a curved, metallic structure. In the background, there are tall, blue skyscrapers and a large, circular structure resembling a Ferris wheel or a large clock face. The overall scene is a mix of greenery and advanced architecture.

Sustainable cities and communities

Structure

- Urbanization
- Advantages and disadvantages
- Characteristics of a green city
- SDG 11
- How to make cities greener
- Different solutions
- The world's greenest city
- Measures for school
- Individual solutions
- Futurium Berlin
- Conclusion



Urbanization

General

- Process of people moving to urban areas
- Started with Industrial Revolution

Reasons for urbanization

- More opportunities for work and education
- Healthcare



Urban

> 2000 residents



City

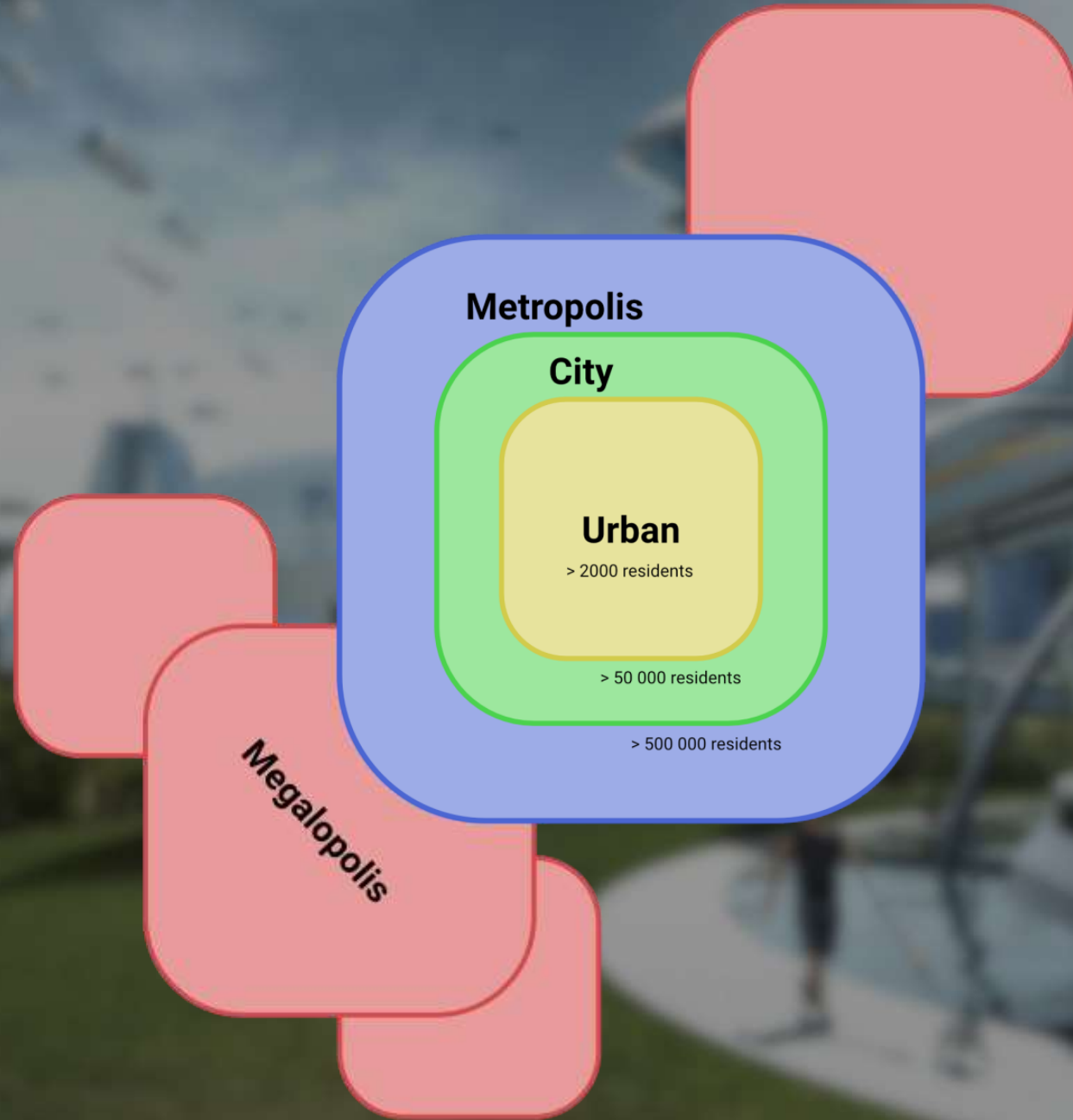
The diagram consists of two nested rounded squares. The outer square is light green with a thick green border and is labeled 'City' at the top. The inner square is yellow with a thick yellow border and is labeled 'Urban' at the top, with '> 2000 residents' below it. Below the inner square, but still within the green square, is the text '> 50 000 residents'. The background is a blurred cityscape with modern buildings and a park area.

Urban

> 2000 residents

> 50 000 residents





Advantages of big cities	Disadvantages of big cities
New employment opportunities	Housing problems
Development of technology, infrastructure, communication	Overcrowding
Improvement of educational and medical services	Unemployment
Better standard of living	Poverty (Slums)
GDP growth	Traffic
Inclusion of different cultures and ethnicities	Crime

Characteristics of a green city

- dedicated to achieving green, social and economic sustainability
- consideration for social, economic, environmental impact
- resilient habitat for existing populations
- design focused on inclusivity
- maintaining a sustainable economic growth
- minimizing required inputs of energy, water, and food
- reducing waste, output of heat, air pollution



SDG 11

- The SDG 11 has 10 targets to be achieved
 - safe and affordable housing
 - affordable and sustainable transport systems
 - inclusive and sustainable urbanization
 - protect the worlds cultural and natural heritage
- strong national and regional development planning
- implementing policies for inclusion, resource efficiency and disaster risk reduction
- support least developed countries in sustainable and resilient building



Creating mini-forests

- mini-forests can thrive in lots as small as a parking lot or tennis courts
- adds natural beauty to cities
- improves health and well-being
- reduces smog and air pollution
- retains rainwater and traps CO₂
- small forests can grow in 1/10th of the time of a diverse forest
- they provide habitat for other organisms
- people connect with nature without leaving the city



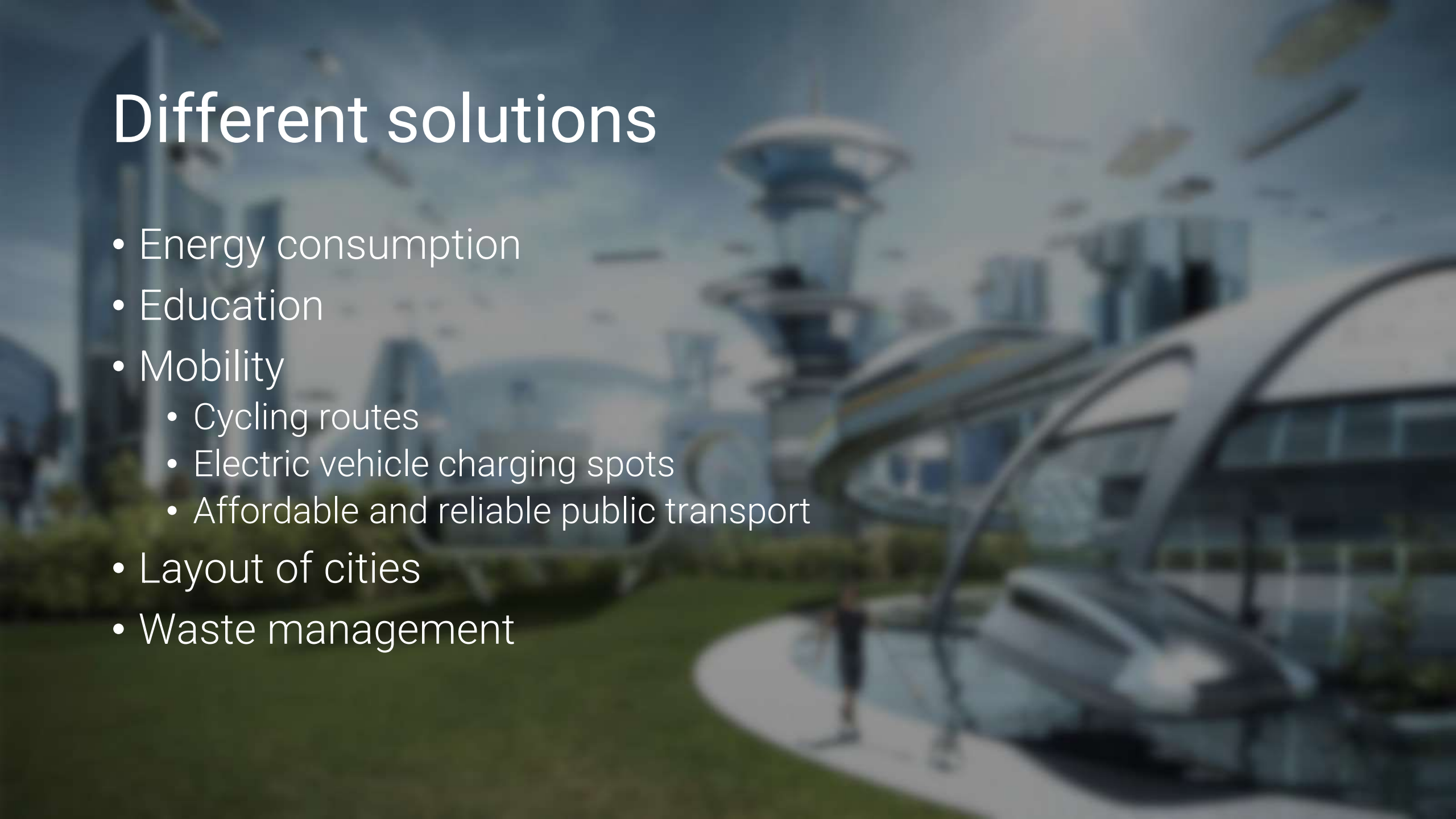


Urban food forests

- strips and pockets of land are underutilized everywhere
- in 2010 Ron Finley came up with an idea
- He planted fruits and vegetables between his house and the street
- in early 2013 he gave a TED talk on “guerrilla gardening”
- Initially he wanted to fight foot apartheid and encourage healthy eating habits

Different solutions

- Energy consumption
- Education
- Mobility
 - Cycling routes
 - Electric vehicle charging spots
 - Affordable and reliable public transport
- Layout of cities
- Waste management



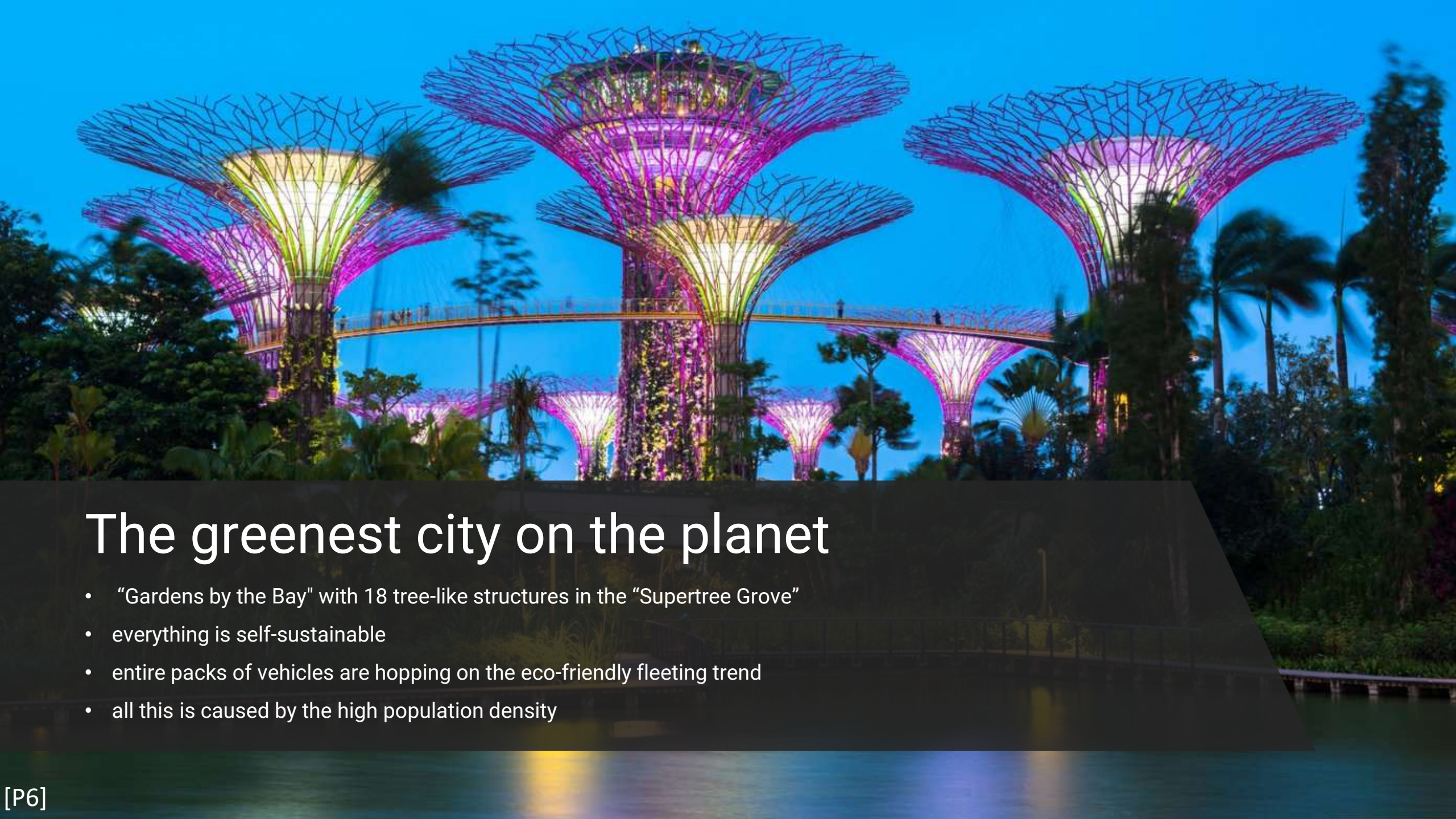
An aerial night photograph of Singapore. The background features a dense skyline of illuminated skyscrapers along the waterfront. In the foreground, the Esplanade - Theatres on the Bay is prominent, with its two large, dome-shaped buildings covered in a pattern of blue and white lights. The surrounding area includes greenery, a circular plaza, and other urban structures. The water of the bay is visible on the left side of the image.

What first comes to your
mind when you think of
Singapore?

A photograph of the Singapore skyline at sunset. The sky is filled with dark, dramatic clouds tinged with orange and red from the setting sun. In the foreground, the water of a bay reflects the city lights and the colorful sky. Several prominent skyscrapers are visible, including the Marina Bay Sands hotel with its distinctive three towers. The overall mood is serene yet vibrant.

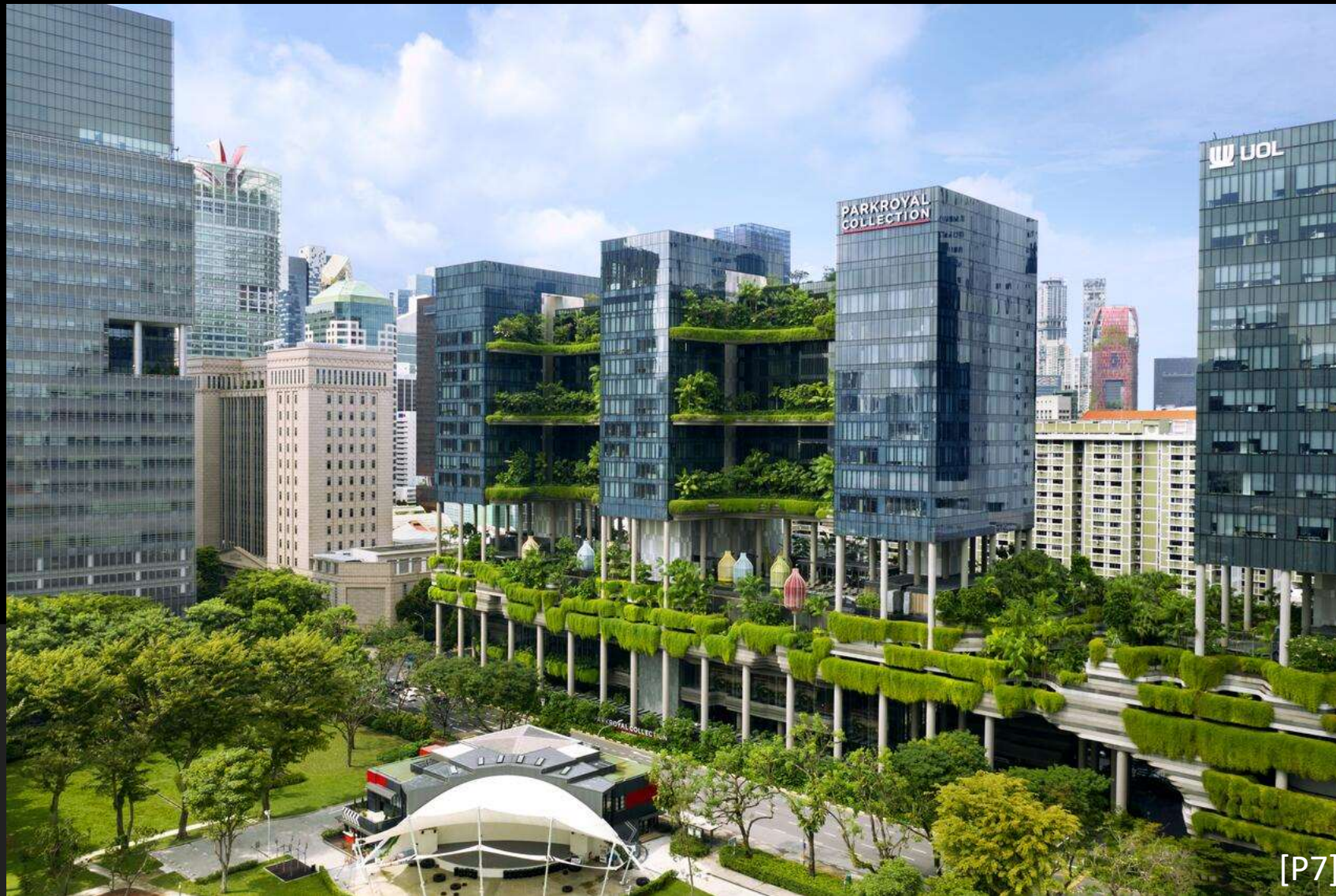
The greenest city on the planet

- Singapore positions top on the world for urban tree density
- Asia's greenest city in 2016
- They call themselves the "Garden City"
- New developments must include plant life
- Was already envisioned this way in 1968
- Goal of integrating the environment with urban development



The greenest city on the planet

- “Gardens by the Bay” with 18 tree-like structures in the “Supertree Grove”
- everything is self-sustainable
- entire packs of vehicles are hopping on the eco-friendly fleeting trend
- all this is caused by the high population density



[P7]

the PARKROYAL on Pickering Inn



Stacked Homes

[P8]

the Tree House apartment suite



the CapitaGreen office tower

Measures for our school

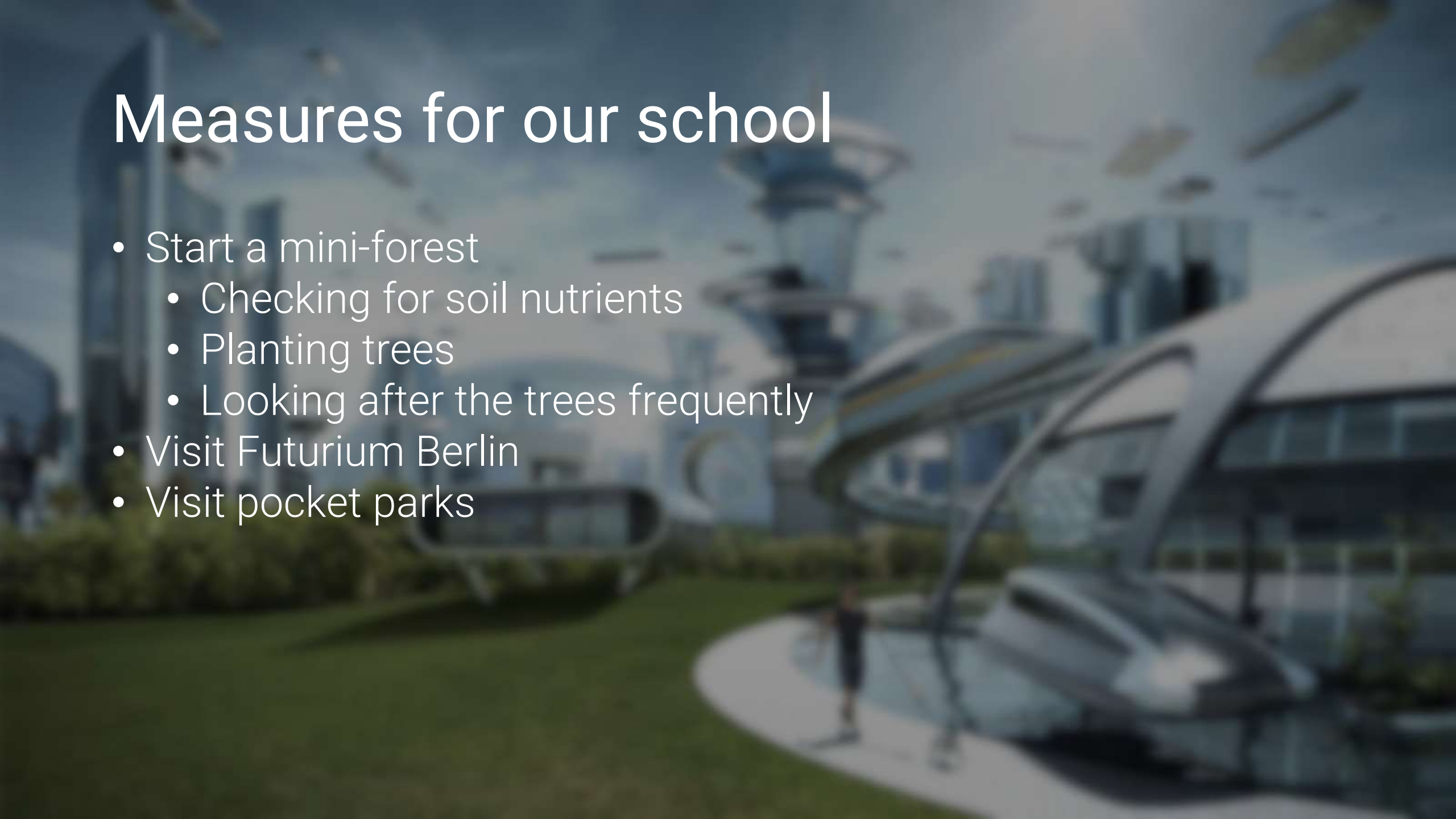
- Plant the roof
- Use own renewable energies
- Start a mini-forest
 - Checking for soil nutrients
 - Planting trees
 - Looking after the trees frequently
- Visit Futurium Berlin
- Visit pocket parks

Measures for our school

- ~~Plant the roof~~
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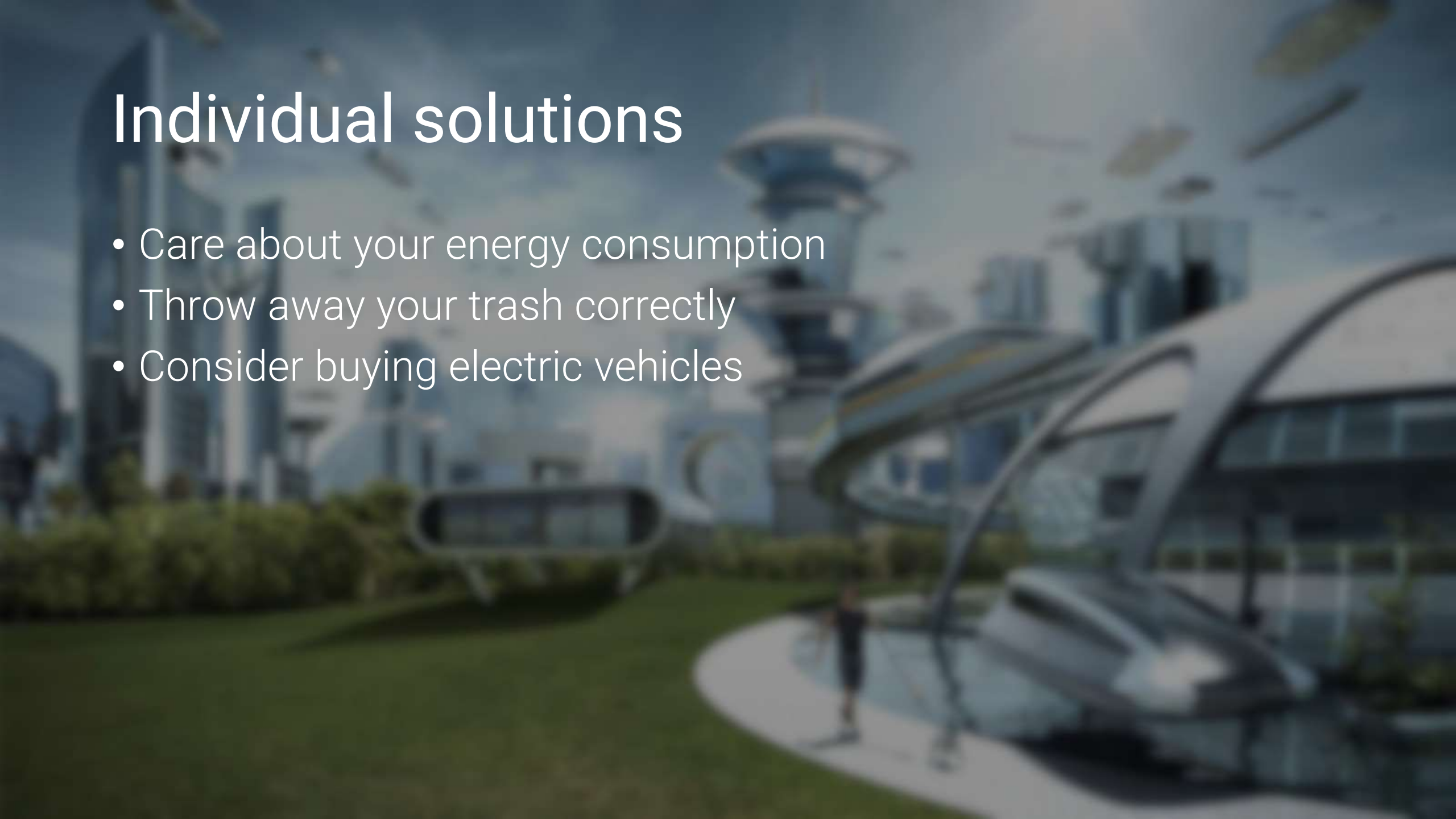
Measures for our school

- Start a mini-forest
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Individual solutions

- Care about your energy consumption
- Throw away your trash correctly
- Consider buying electric vehicles



Futurium Berlin

- Exhibition of futuristic concepts
 - Living
 - Transportation
 - Energy production
- Futurium Lab



Conclusion

- Urbanization has driven climate change immensely
- Cities need to become greener
- Everyone can help
- Systemic change needed



Sources

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- <https://marketbusinessnews.com/financial-glossary/urbanization/> (10/04/2021 12:31)
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Image sources

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- [P1]: https://www.australia.com/content/australia/de_de/places/brisbane-and-surrounds/suburb-guide/jcr:content/hero/desktop.adapt.1920.high.jpg
- [G1]: Friedrich Maagk
- [P2]: <https://wallpaperaccess.com/vancouver-island-4k>
- [P3]: <https://www.wallpapertip.com/de/Twwwwhh/>
- [P4]: <https://www.edibleboston.com/blog/2020/9/24/good-things-grow-in-forests-boston-food-forest-coalition-nourishes-neighborhoods-as-well-as-bellies>

Image sources

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- [P10]: <https://www.baulinks.de/webplugin/2018/i/1398-futurium1.jpg>

Kahoot!

- <https://create.kahoot.it/share/green-and-sustainable-cities/c76878a7-16c8-49d4-884c-0af999b51248>

