

Urban green infrastructure to reduce heat stress

Organization:	Sweco
Location:	De Bilt
Starting date:	February 2025
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Organization

Sweco designs and develops sustainable societies and cities of the future. Together with clients and the knowledge of 22,000 architects, engineers and consultants, we create smart solutions for urban areas. With an eye for the accelerating power of digitalization and the perspective of a green and more resilient society, Sweco is Europe's largest architecture and engineering consultancy. The company holds a turnover of approximately 2.5 billion euros and is listed on the Nasdaq Stockholm. www.swecogroup.com.

Context

The Netherlands is facing many challenges and policy goals regarding a transformation towards resilient cities. Cities that are safe, healthy, livable and productive. Within this context, urban greening is one of the most effective solutions regarding the topics of climate adaptation, improvement of health conditions and the enhancement of biodiversity in urban areas. Achieving these topics remains challenging for municipalities and urban developers. These parties would thus like to know how to best 'green' their cities for optimal results.

Assignment in brief

Which design measures are most effective for urban green infrastructure to help reducing heat stress in urban areas? This is the core research question of this assignment. You are free to unfold this question into sub-research questions you deem important. You will develop the assignment within an ongoing case at a municipality, which Sweco will provide you with. This case is either for entirely new urban green infrastructure, or for the evaluation of existing measures to suggest improvements for future designs. Regarding methodology, you are free to choose the best suitable method(s) to answer your hypotheses. You will have access to sensors to measure the performance of green infrastructure in terms of heat stress, water and energy resources; as well as modeling tools.

Other

- The internship will have a duration of 10 weeks and will follow a weekly 40 hours workload.
- You will have full access to Sweco facilities.
- It is an advantage if you are familiar and/or have a background on urban resilience, climate-responsive design, urban greening and green infrastructure or related fields.
- Language is not a barrier for Sweco, but requirements depend on the case study. For cases in the Netherlands, it is preferred that you can speak Dutch due to the necessary interactions with the municipality (client). The team climate adaptation has international assignments suitable for English-speaking students (French can also be an asset).