

GREEHILL

Digitalisation of the Urban Environment

greehill provides insights which revolutionise green space management and city planning through digital transformation. The company develops digital tools to evaluate the impact of urban trees on urban life and monitor changes in urban forests over time to inform environmental management decisions. greehill's mission is to enable cities to enhance urban sustainability, biodiversity, climate resilience, and citizen well-being through nature-based solutions.

SMART TREE INVENTORIES AT THE HEART OF STRATEGY

greehill was built around the implementation and execution of digital transformation. The digitalisation of the urban environment is a very active area of digital transformation, but before greehill, no company adequately focused on the digitalisation, analysis, monitoring and management of urban greenery. greehill's ultimate goal is to protect and preserve urban greenery. In turn, greenery will protect from the negative effects of ongoing climate change. In the pursuit of this goal, greehill also aims to save cities time and money, improve the quality of their work, and generate a huge amount of data relevant to climate change. As such, the company's strategy is to complement existing digital transformation initiatives with the digitalisation of urban greenery to enable well founded, substantiated climate resilience actions.

REVOLUTIONISING SINGAPORE'S NATIONAL PARKS THROUGH TECHNOLOGY

greehill's primary digital transformation and sustainability initiative in Singapore has been to digitise urban tree management to increase operational efficiency and inform strategic planning. The company was founded out of a research and development project for the National Parks Board of Singapore (NParks) in 2017. In 2019, NParks became greehill's flagship customer. The two work together in close partnership to digitise and manage Singapore's urban forests. For NParks, greehill collects data about the urban environment through a combination of remote sensing and high-resolution imagery. The company's key innovation comes from their machine learning-based 3D Digital Twin Technology. greehill's algorithms have been trained to automatically recognise and segment urban trees from the surrounding environment and extract relevant metric information.

By adopting greehill's platform, NParks has been able proactively manage more urban trees while maintaining the same number of staff. The data on tree condition and diversity is being used to conduct risk assessments and inform tree planting initiatives. Now that greehill's technology has been embraced by NParks, the company is scaling their activities to other organisations in Singapore, other cities in the Asia-Pacific region, most of Europe, and even the North American region.

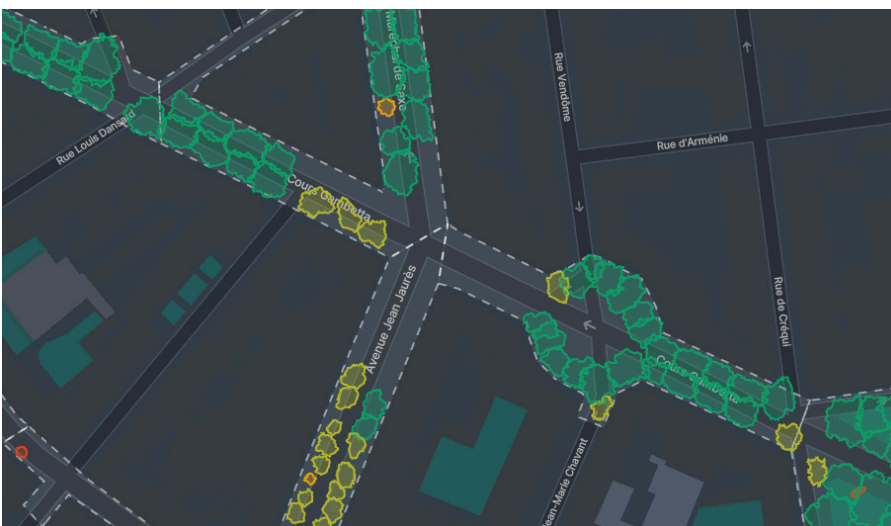
SUPPORTING SINGAPORE'S GREEN INITIATIVES

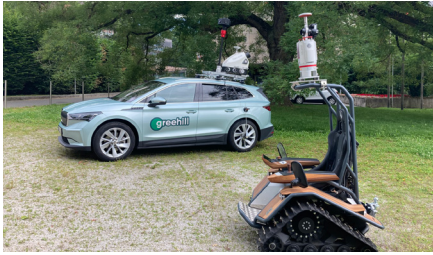
greehill's strategy and initiatives are aligned with the City in Nature and Resilient Future pillars of the Singapore Green Plan 2030. By mapping and monitoring green spaces in Singapore, the company provides the data and tools to quantify the extent of urban green spaces, identify open spaces for new tree planting or green space development, and objectively track progress towards the 2030 targets. The company also supports the Keeping Singapore Cool initiative of the Resilient Future agenda by providing tools to map urban heat islands, quantify the impact of urban trees on temperature, and identify areas for green development.

CONTINUOUS INNOVATION IN THE WORKPLACE

Digital transformation is part of the daily routine of almost all of greehill's employees: not only do they routinely apply the latest AI, ML, IoT and I4.0 technologies in their work, but greehill also pushes their employees to keep innovating and find even more advanced solutions in the vast problem space of urban green management.

greehill also has current and future initiatives to supplement: Big Data, cloud computing, cross-border data flows, cross border digital connectivity, digital infrastructure and the "internet of things." This indicates that





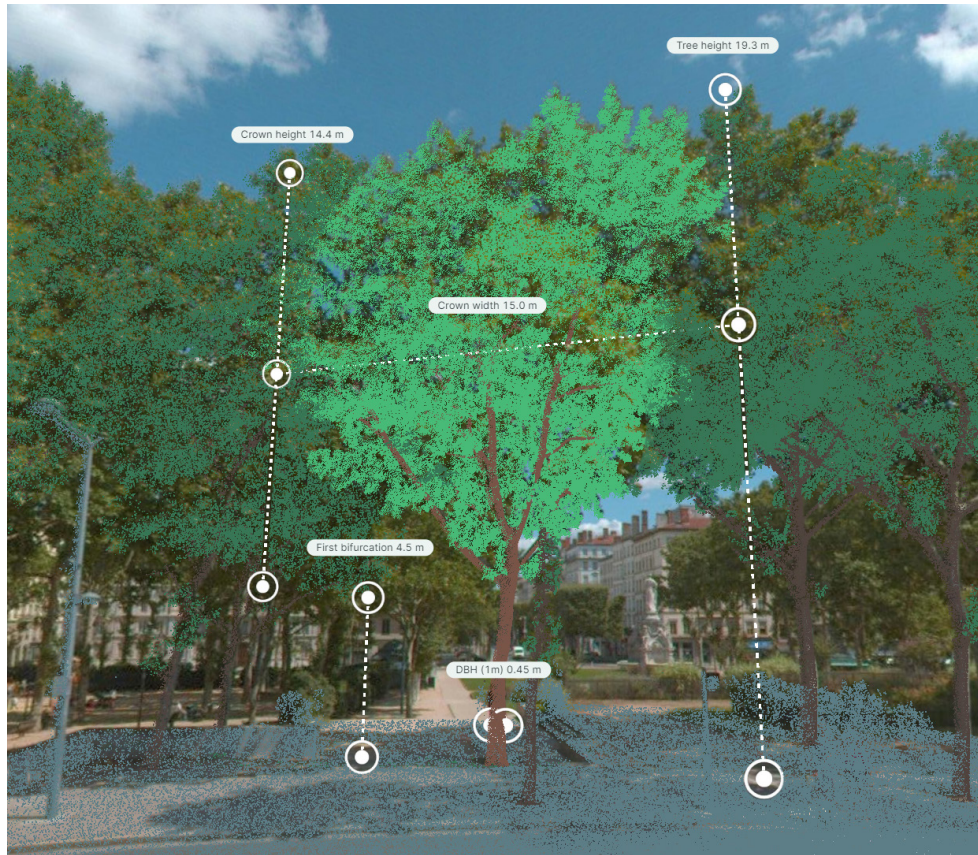
digital innovation and digitalisation are the norm at greehill.

greehill is a fast-paced organisation, constantly adapting and improving their methods and processes to meet new challenges. In addition to their internal innovation, greehill’s extensive network of partners facilitates overcoming obstacles. Their partner network spans the fields of Greenery Management, Smart Cities, Academia and the GOs and NGOs active in the climate resilience field.

DEPLOYING DIGITAL TRANSFORMATION FOR URBAN RESILIENCE

greehill’s mission is to empower cities to improve urban life through urban trees. The company strongly believes urban nature is key to combating global social, environmental, and economic problems. By bringing urban nature online, greehill strives to meet the following three internally identified targets:

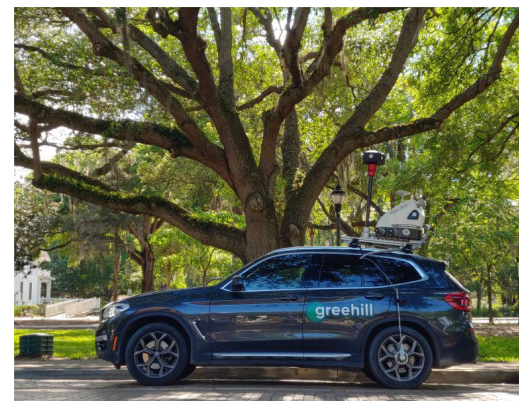
1. Decrease the risk and increase the positive impact of urban trees on their surroundings through proactive maintenance.
2. Quantify and raise awareness about the services and benefits that vegetation provides to urban areas through precise data collection.
3. Enhance the resilience of cities to climate change through nature-based solutions.



Ultimately, their priorities are to equip cities with more and more accurate information about their trees and green spaces so that these cities can make well informed decisions about future development projects and tree planting campaigns.

Internally, the company has specific sustainability targets. These targets include:

1. Bringing nature-based smart city solutions to the majority of cities.
2. Raising awareness about the value of urban trees across stakeholder groups.
3. Continuing to develop service offerings to execute their mission on a broader scale. greehill tracks the effectiveness of their digital tools through stakeholder interviews and reporting.



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