

**CLIMAVENETA**

# PROJECT FOCUS

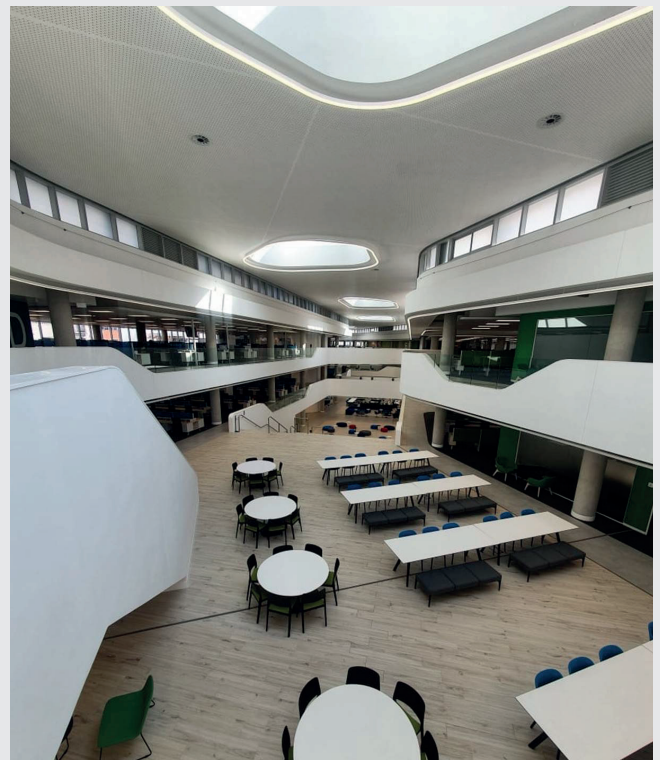


## CAPITEC BANK HEADQUARTERS

**Capitec Bank, one of the largest banks in Africa, is investing in its new headquarters, in Technopark, Stellenbosch.**

The office building will serve to consolidate the existing staff contingent, spread across several facilities, and make provisions for future expansion. The innovative development, designed by **dhk Architects** and multi-disciplinary engineering consultants **AECOM**, is comprised of a central office building, called the Campus Building and an adjacent parking facility, both of them including a single basement level, ground floor, and two upper levels.

**An innovative shape for an innovative concept**  
The Campus Building is a singular structure with a **jellybean-type shape** and a distinctive atrium that runs the full height of the building, covered with a lightweight roof. The building form optimizes the shape and size of the site while referencing the brand's distinctive curved logo. It is mostly an open-plan throughout, connecting the space to the atrium, with a canteen, back-of-house kitchens,



## AN INNOVATIVE HVAC SYSTEM FOR AN INNOVATIVE DEVELOPMENT



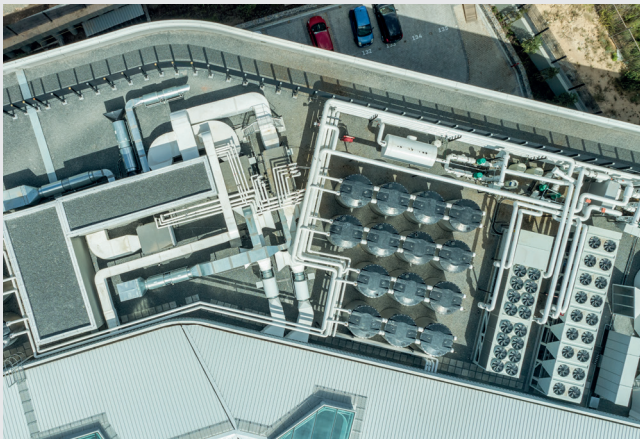
meeting rooms, break out areas, and an open-air courtyard. The architectural approach has considered both the exterior and interior to optimize corporate expenditure, internal flow, and sustainability, thus demonstrating that **commercial offices can be innovative and cost-effective** while driving operational efficiencies. Embracing the **innovative concept** of agile working, the raised access floor throughout the building facilitates maintenance and future upgrades to services.

### Energy efficiency first

To enhance the energy efficiency of the building while maintaining internal comfort all year round, the plant designer planned an innovative HVAC system based on a **thermal energy storage**, to **offset the chiller electrical demand during peak tariff periods**.

The glycol chiller's pumps circulate a glycol solution through numerous rooftop ice tanks at sub-zero temperatures during the night when tariffs are comparatively low; the ice generated is used during the morning and evening peaks to provide adequate cooling **without electrical demand from the units**. This primary chilled water circuit will make use of a plate heat exchanger to ensure that secondary chilled water supply / return is available at the correct temperatures (i.e. 8° / 14°C). The hot water loop will operate between 40° and 45°C and connect directly to the downstream air-handling and fan coil units.

**Frans Jooste**, director at Intramech, says: *"It has been a pleasure to contribute to such an innovative project. Having energy efficiency and well-being as drivers helped us to find the best HVAC solution for this challenging development."*



### Combining well-being and sustainability

Capitec has championed **environmental sustainability** and **employee well-being** throughout the building. Even the air conditioning system is based on these values. As a matter of fact the Campus Building is equipped with two **Climaveneta branded air-cooled glycol units** on the roof: **1 FX/CA/S 5412 chiller** and **1 ERACS2-Q/CA/S 3222 multi-purpose unit** capable of producing both heating and cooling, even simultaneously, for a total cooling capacity of 1,700kW.



FOR FURTHER INFORMATION  
ABOUT THE PROJECT:

<https://www.melcohit.com/EN/Projects/6478/Capitec-HQ.html>