

Swiss Agency for Development and Cooperation SDC





MADE IN AFRICA: SWISS CUBE

A SCALABLE APPROACH TO INCLUSIVE URBAN TRANSFORMATION

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THE SWISS CUBE

THE "SWISS CUBE" SHOWS THE POTENTIAL OF THE LOCAL INDUSTRY TO SUPPLY AFFORDABLE HOUSING







"A Swiss Cube "as commonly named in Great Lakes Region refers to an architectural concept characterized by its optimized design, featuring a simple yet elegant shape constructed with local and good quality materials.

This modular system is designed to be flexible and interchangeable while adhering to a core principle of providing each family with a house with road access and at least one private garden.

The Swiss Cube demonstrates the potential of the local construction industry to deliver quality urban affordable housing solutions.

Following the Exhibition of the Swiss Cube, the impact of this innovative approach has been significant. More than 5,000 dwelling units have been constructed in the Great Lakes Region utilizing the Row Lock Bond (RLB) technology.

KEY FACTS

- The Swiss Cube is part of a housing block.
- The Swiss Cube system is suitable for most plot and terrain configurations.
- A cost-optimized and incremental brick construction system favors space-optimized designs, that minimize the overall construction costs, especially of urban storied buildings.
- Locally sourced cost-effective housing solutions are possible with Modern Brick Technologies.
- With more brick production facilities in operation, the number of local jobs available in the building material and construction sector increases exponentially.

UNPLANNED SETTLEMENT UPGRADING

WELL-STRUCTURED DENSIFICATION CAN TRIGGER GREEN URBAN DEVELOPMENT

A Catalyst for urban redevelopment. The success and positive impact of the Swiss Cube exhibition in Rwanda (2017) have prompted the City of Kigali to take further steps in piloting urban transformation. Recognizing the potential of the RLB technology, the city has decided to integrate this innovative design into its efforts to revitalize unplanned settlements into modern urban housing. This strategic move aims to address the pressing need for improved living conditions while preserving the existing sense of community.

To effectively implement this transformative vision, the City of Kigali has formed a partnership with PROECCO and UN-HABITAT. Together, they are embarking on the Mpazi Rehousing Project, which has embraced a participatory approach to neighborhood planning and design.

By leveraging the existing land values and ownership rights, the project seeks to facilitate an in-situ upgrading process that avoids the displacement of the resident population.

This approach is a departure from traditional brownfield redevelopment projects, as it minimizes expropriation costs and associated risks.

A Regional Approach. Building upon the momentum generated by the Swiss Cube exhibition and the Mpazi Rehousing Project, the vision for urban transformation also extends beyond Kigali.

The Bukavu City Hall, in collaboration with PROECCO, has also been inspired to replicate the success of these initiatives in the region.

With the Bukavu Model House as a beacon of possibility, they aim to address the challenges of unplanned settlements and uplift them into sustainable urban housing.









THE PROECCO PROGRAM

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PROECCO and Skat Consulting Ltd.

PROECCO (PROmoting Employment through Climate-Responsive Construction) is a project of the Swiss Agency for Development and Cooperation (SDC) implemented by Skat Consulting Ltd. since 2013.

The project has served as an industry facilitator in the transformation of the local construction sector, unlocking urbanization's economic potential through the creation of off-farm jobs in the planning and construction of cost-effective urban buildings.

The main intervention is to establish commercially viable modern brick supply chains for the creation of employment while promoting affordable housing solutions.

PROECCO has supported the initiative of the private sector in the establishment of different sizes of modern brick production units with a strong emphasis on environmental sustainability, innovative technological solutions, and knowledge transfer.

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