

WORKING TOGETHER TO BUILD A HOME FOR HUMAN POTENTIAL THAT DOESN'T COST THE EARTH

Reall and UN-Habitat Cities Investment facility (CIF) are collaborating to unlock investment in green affordable housing, drawing on 30 years of experience Reall has with partners in emerging markets and a growing pipeline of project investment opportunities between each organisation.

We believe that working together gives us the opportunity to increase our impact and crowd in strategic players who can disrupt the housing market for people living on low incomes.

About Reall

Green, resilient homes are at the nexus of climate challenge, affordability and inclusion they are a critical opportunity to deliver on mitigation and resilience, while stimulating economic growth. Reall finds sustainable housing ecosystem pioneers, and works with them to kick-start markets through innovation and investment in affordable housing and end-user finance in urban Africa and Asia, exclusively targeting people in the bottom 40% of the income pyramid – where the need is greatest and the housing deficit is most acute.

About CIF

The Cities Investment Facility unlocks significant capital flows to inclusive sustainable urbanisation projects, which align investors' requirements around finance and impact with developments proposed by municipalities. By intervening at this upstream stage, CIF will make its greatest impact in developing bankable sustainable infrastructure projects in low- and middle-income cities.

PARTNER PROFILE:



1.6 billion people are without a home. Construction is responsible for nearly 40% of global carbon emissions. In Pakistan, 140 million people face severe drinking water shortages. When ModulusTech examined this three-part problem, they recognised an urgent need for an **affordable, scalable, carbon-neutral housing design**, which can work **off-grid**.

Among Pakistan's first net-zero homes

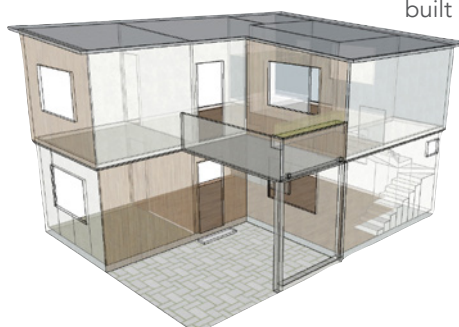
ModulusTech are working with Reall to deliver an **innovative carbon-neutral modular system** in Karachi, Pakistan, using their unique #InterMesh housing technology.

This pioneering design harnesses multiple benefits:

- **Cost-effective and time-efficient**
- **Environmentally friendly:** self-sustaining, low embodied-carbon release, energy-efficient
- **Flexible:** re-locatable, modular, off-grid
- **Accessible:** simple construction methodology, plug & play mechanism for utilities
- **Sustainable:** climate resilient, fire & earthquake safe, international building code-compliant



Prefabricated components can be assembled on site **ten times faster** than using conventional construction techniques: manufactured and delivered within a week. Their compact design means transportation costs are lower too – both financially and in carbon emissions. 2000ft² of built space fits in a single 40-foot container.



MODULUSTECH'S HOUSING TECHNOLOGY IS A POWERFUL ANTIDOTE TO THE IMMINENT THREAT OF CLIMATE CHANGE – REDUCING CO₂ EMISSIONS TO A FRACTION OF CONVENTIONAL HOUSING

A concrete house comparable in size produces 45,000kg CO₂ emissions – **52 times as much as a ModulusTech home.**

ModulusTech have designed homes with access to both essential services such as safe water and sanitation, and more advanced infrastructure. The designs aim to be completely self-sustaining, able to operate **solar electricity** and **water purifiers**, creating resilience against power blackouts, water shortages and rising energy prices, and designed for **maximum thermal comfort** and resilience against heatwaves: through insulation, window placement, and wind catchers facilitating a natural ventilation system, providing a 10-12°F drop in temperature indoors on a sunny day.

Natural lighting and cooling **reduce the electricity load** for lighting and air conditioning. Smart solar microgrids provide **internet connectivity**, empowering people in even the most remote and disconnected areas.

EDGE-Advanced certified

EDGE, an innovation of the International Finance Corporation, is a tool and certification system that helps developers and construction professionals to deliver greener buildings. Using the EDGE energy efficiency calculator, ModulusTech houses are **96% more efficient** than local alternatives, and have recently received final EDGE-Advanced accreditation.



Efficiency savings in producing mass prefabricated modular components create a cost reduction in manufacturing, and a 900ft² ModulusTech home is \$16K, an affordable option for families on low or middle income in Karachi. In building self-sustaining communities for the most underserved segments of society, ModulusTech are providing not just homes, but better health and stability, and economic opportunities. They create resilience to climate shocks through an accessible route out of informal settlements.

Smart, innovative engineering – coupled with a frank assessment of the climate, infrastructure, and economic challenges – has led ModulusTech to build a solution for the triple bottom line: people-planet-profit.

Reall's partner network provides the opportunity to share solutions like ModulusTech's innovative engineering design across the sector, driving wider market change, and unlocking climate-smart infrastructure assets at scale, catalysing investment by demonstrating the commercial viability of low-carbon affordable homes.

Working with pioneering partners like ModulusTech, Reall's climate-smart, affordable homes strategy is a low-carbon, high-resilience solution to the climate crisis, the housing gap, and economic prosperity.

WITH OUR SHARED VISION, THE PARTNERSHIP IS IMPERATIVE FOR CREATING LARGE SCALE IMPACT IN THE REGION, AS WELL AS ADDRESSING CLIMATE CHANGE.

Nabeel Siddiqui, ModulusTech CEO

