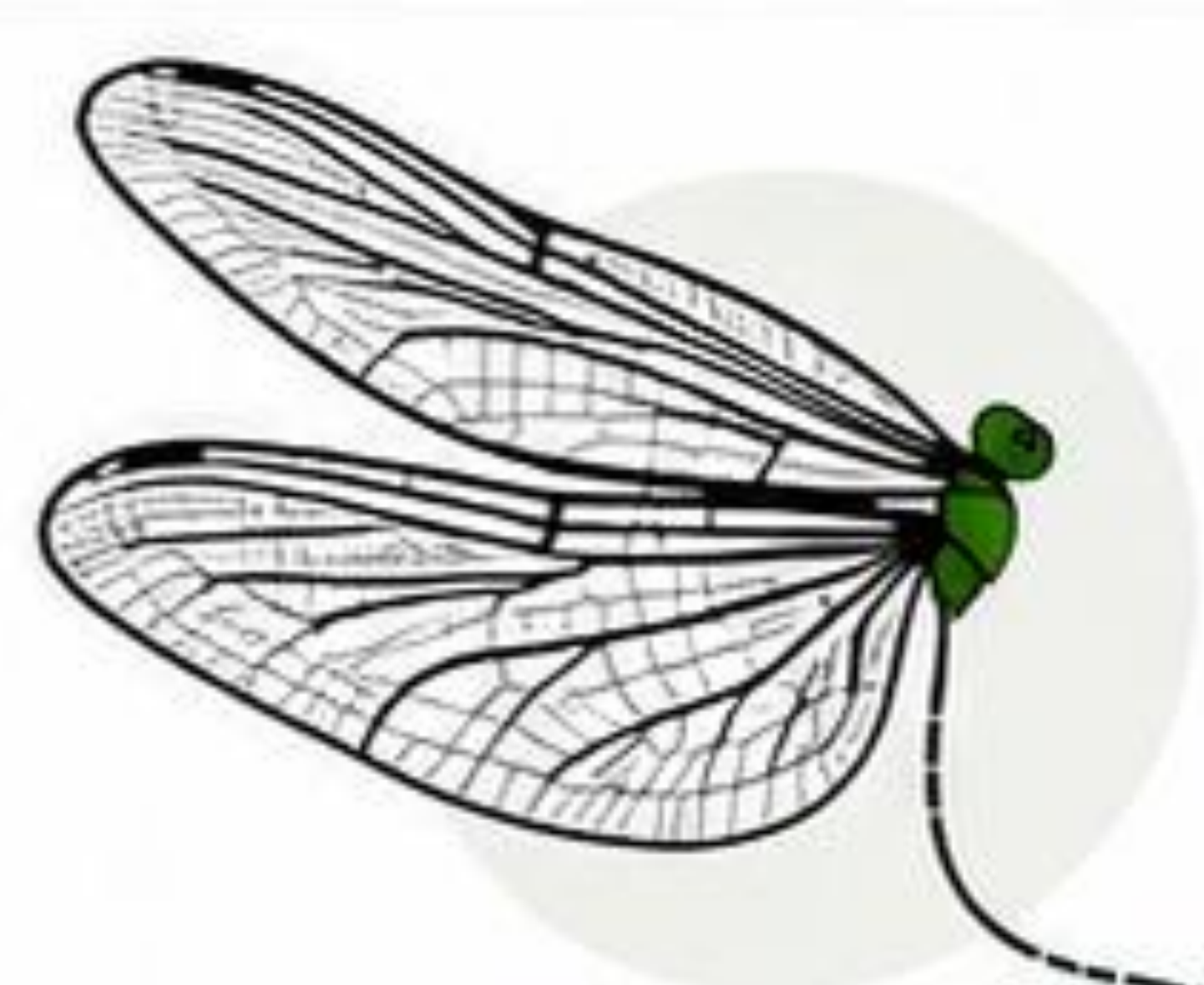
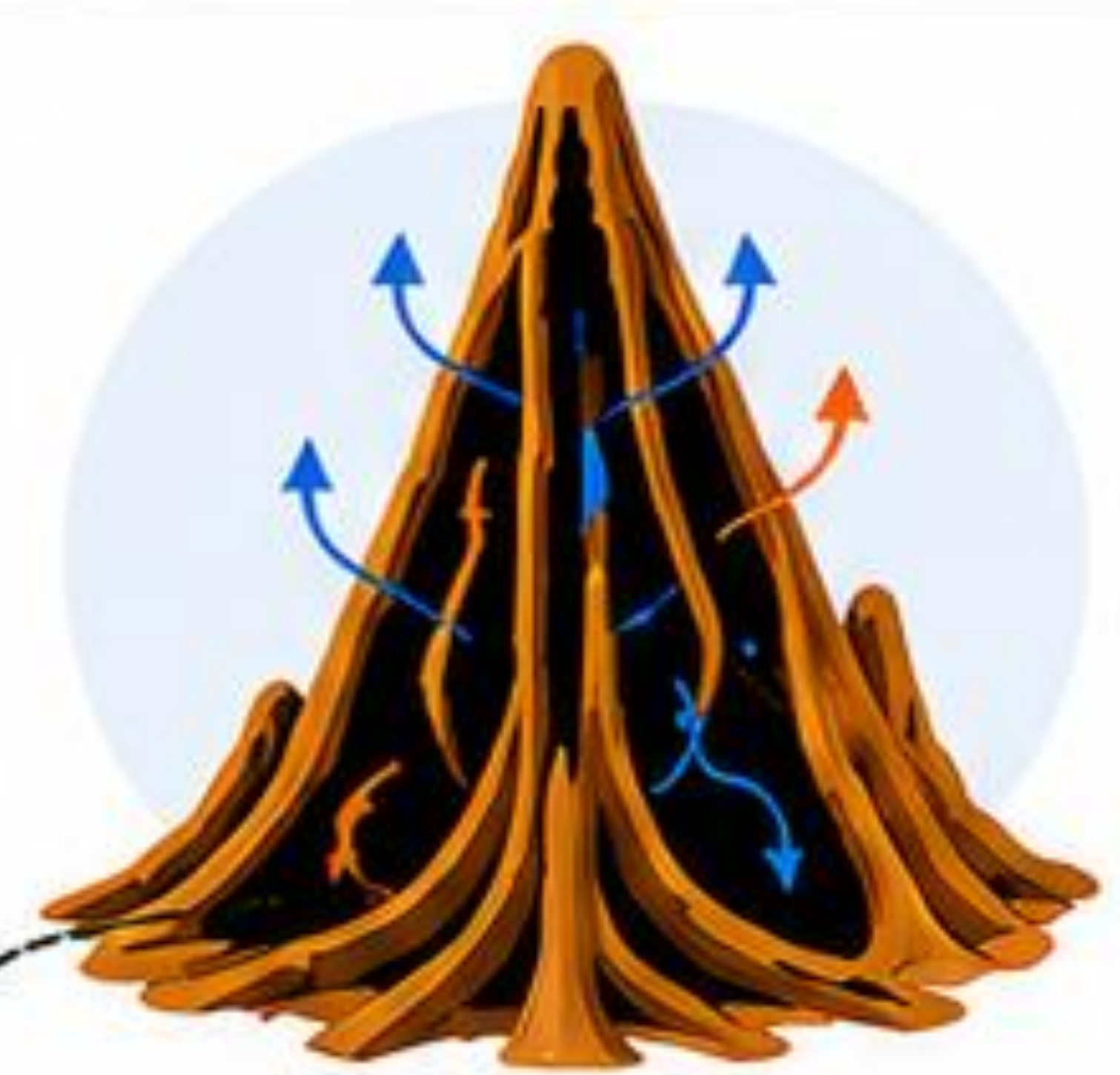




TERMIBELLA

Biomimetic adaptive facade for sustainable and energy-efficient buildings

An innovative facade solution inspired by dragonfly wings and termite mounds to enhance thermal performance and reduce energy consumption.



1 INSPIRATION FROM NATURE



Dragonfly wings:
lightweight, flexible, and dynamic structures



Termite mounds:
thermoregulatory principles and natural air circulation



Biomimetics as the basis for intelligent facade development



2 FACADE CONCEPT



Adaptive, lightweight modules



Passive and active ventilation mechanisms



Responsive adjustment to temperature and sunlight conditions



Metal, timber, and hybrid facades



Sustainable construction with high innovation potential

3 PROTOTYPE & APPLICATION



Demonstration facade as proof-of-concept



Bridges theoretical and experimental findings



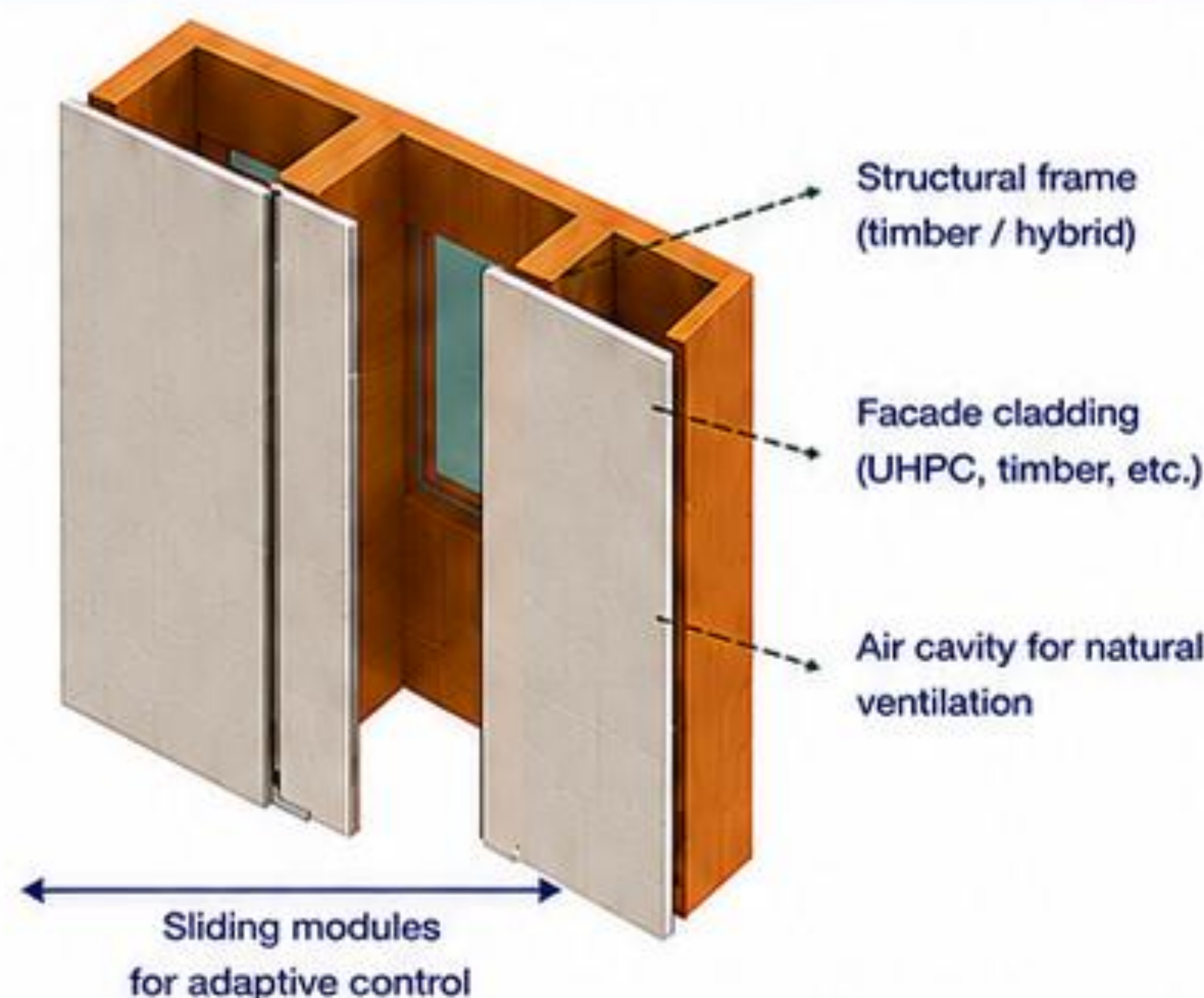
Foundation for integration into real architectural contexts



Use in new construction and renovation of existing buildings



Transferable to various building typologies



4 GOALS & IMPACT



Significantly improve the energy performance of buildings



Reduce energy consumption



Lower the ecological footprint



Contribute to decarbonization

5 CONTRIBUTION TO SUSTAINABLE CITIES



Supports energy-efficient and sustainable solutions for the construction industry



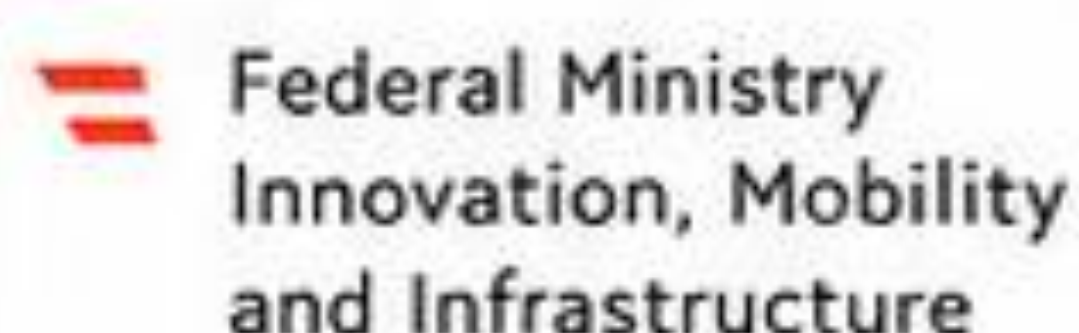
Promotes innovative technologies for climate-resilient cities



Combines technological excellence, ecological responsibility, and social engagement



TERMIBELLA combines biomimetics, material innovation, and intelligent facade technology to create future-oriented solutions for the climate transition in the built environment.



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Image created with generative AI.