

LOMBOK BAMBOO HOUSING

BAMBOO CIRCULAR COLLABORATION

XAVIER ECHEGARAY
MARCIN DAWYDZIK

2018 EARTHQUAKE

7.0 Richter's scale earthquake

- Deaths: 515
- Damaged houses: 129,000
- Displaced people: 445,000
- Infrastructure loss: \$ 338m
- Lack of hygiene & security



Terrawatch: Lombok
anxious after four big
earthquakes

The Guardian

2 weeks



Indonesia's quake-hit
Lombok declares health
emergency over malaria



Lombok hit by 6.9
magnitude earthquake
hours after first quake

Metro

1 month ago



Indonesia earthquake:
Lombok RATTLED by
strong 5.7 quake

Daily Express

3 weeks ago



EFFECTS OF THE EARTHQUAKE

~80KM AWAY FROM THE EPICENTER









DEATH TRAPS



THIS DOESN'T HAVE TO BE.

ABUNDANCE OF BAMBOO

- Strong, Flexible, Light = earthquake-proof
- Safe mode of collapse
- Sourced locally
- Local skilled labour in bamboo craftsmanship

IMAGINE...

Beautiful

Affordable

Sustainable

Safe

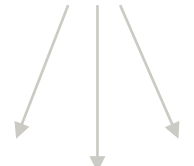


THE PROJECT

*Spread a safe house design throughout rural Lombok by building a set of **template houses**, assisted by **educational workshops** and a **step-by-step construction manual**.*

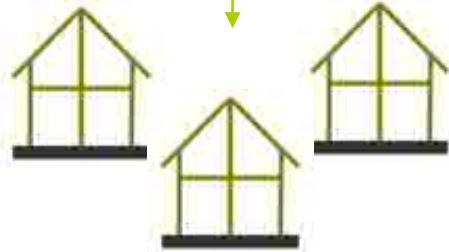
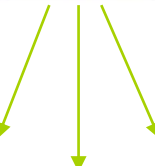
TEMPLATE HOUSES

LOCAL LABOUR

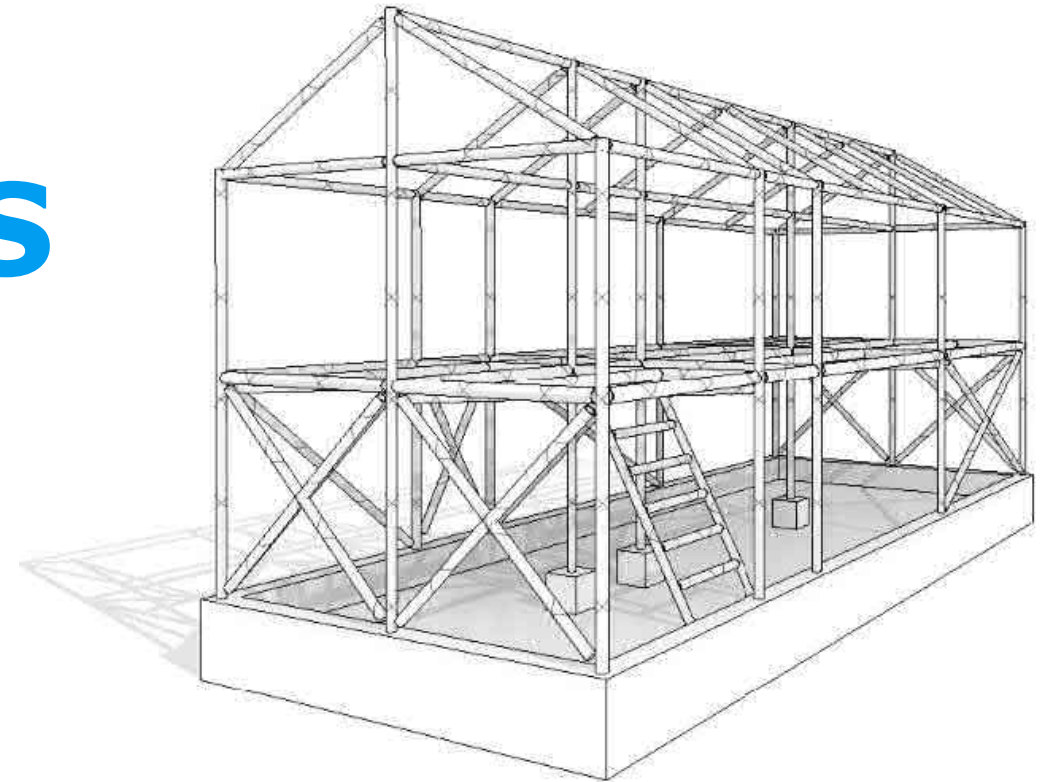


LOCAL FAMILIES

TEMPLATE



FAMILY HOMES



OTHER VILLAGES

EDUCATION



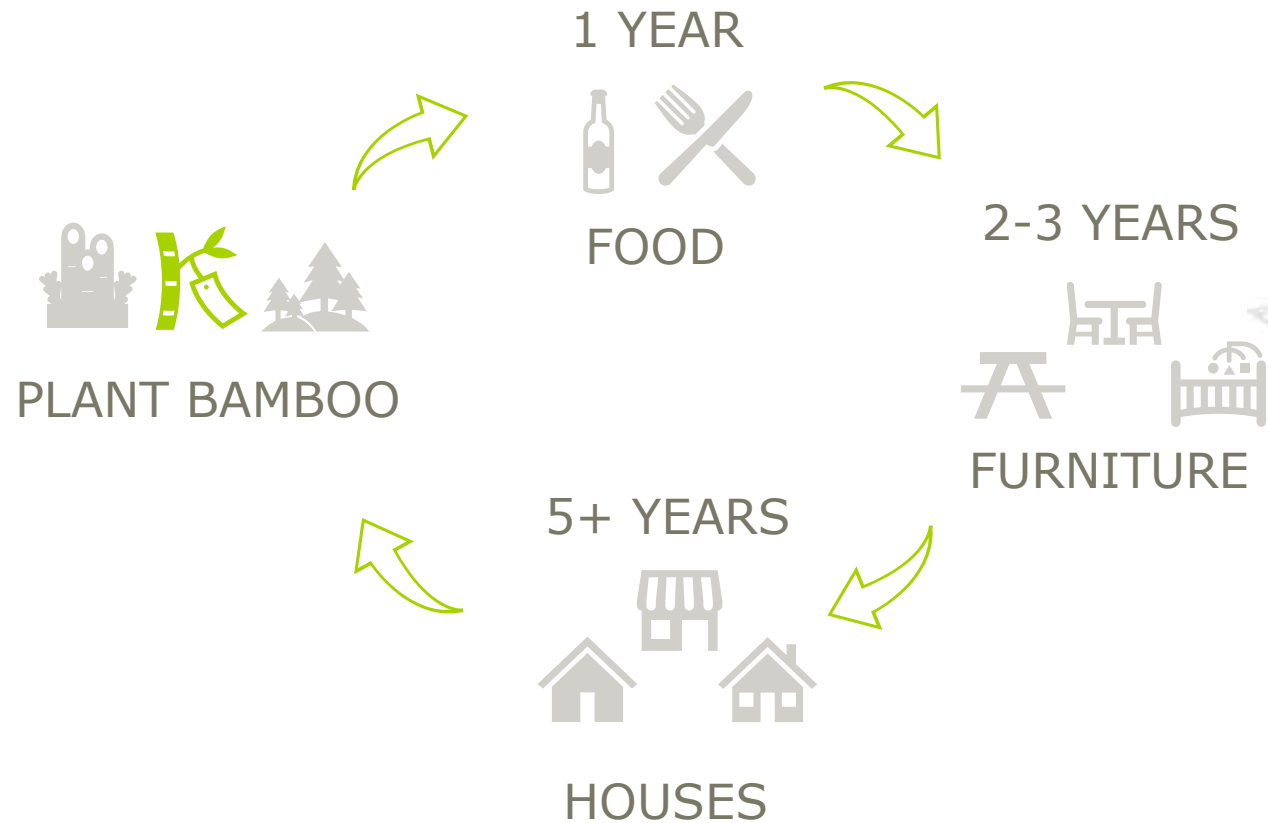


A photograph of a traditional bamboo house. The upper part of the house features a wall made of woven bamboo strips. The roof is made of bamboo poles with a corrugated metal sheet on top. The structure is supported by a complex system of bamboo poles and cross-braces. The house is surrounded by lush green trees and foliage.

BUT IS IT TRULY AFFORDABLE?

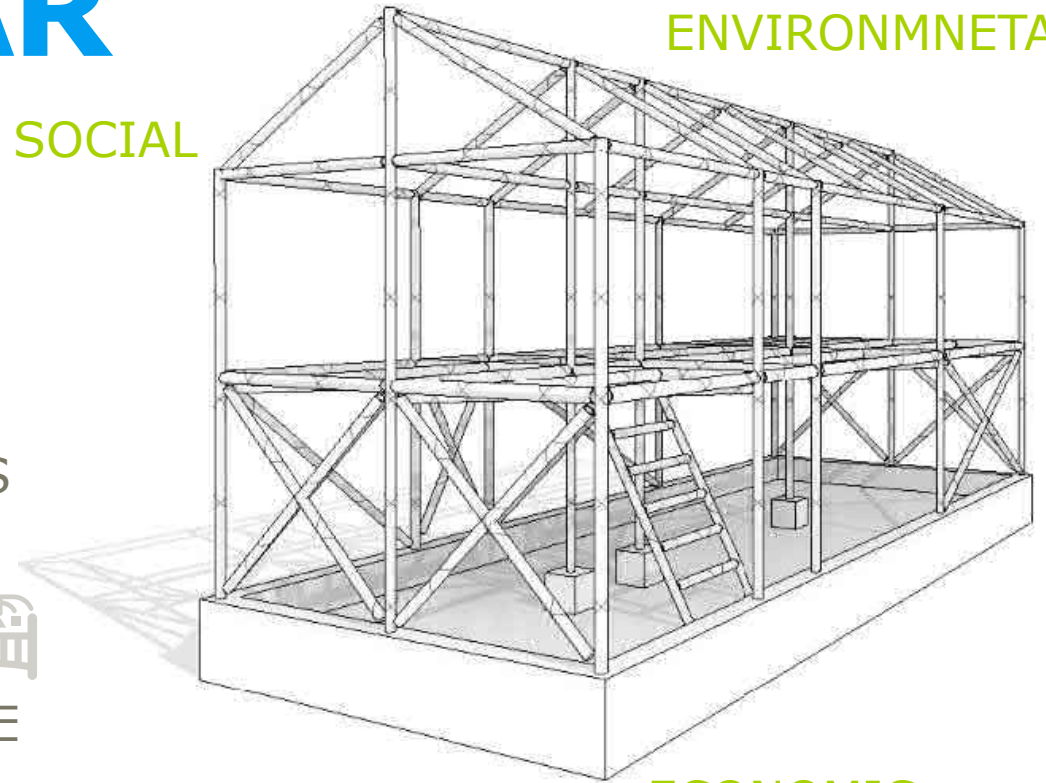


BAMBOO CIRCULAR ECONOMY



SOCIAL

ENVIRONMENTAL



ECONOMIC

**KEY TO SUCCESS
=
SUSTAINABLE COLLABORATION**

LOCAL NGO

GRENZELOOS MILLIEU



Local knowledge

Trust and buy-in from locals

Boots on the ground



Engineering design & Teaching tools

Trust and credibility

Scope → maximising BANG for a buck



ACADEMIA

UCL



Bamboo expertise

Testing the local bamboo specie
→ more refined design

3D scanning and verification of design



RAMBOLL

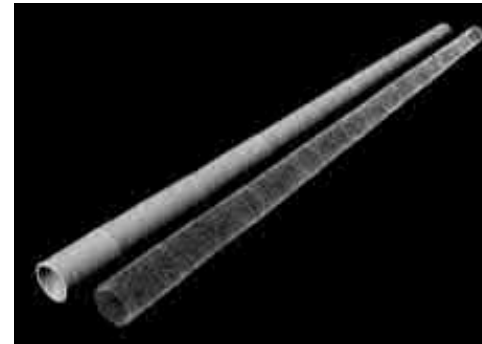
Bright ideas. Sustainable change.



Access to grants

Bringing their ideas to life on a real project

Collaborating with industry



PRIVATE SECTOR

RAMBOLL



Technical expertise

Industry knowledge (H&S, procurement etc.)

Experience in delivering complex projects

Defining and shaping the project

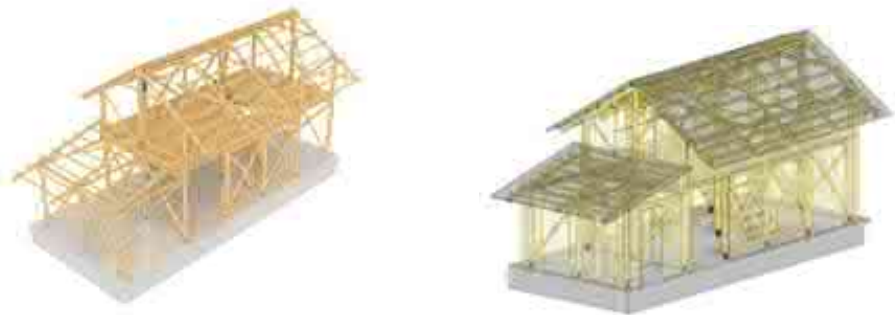


Technical expertise in bamboo design

Bamboo network

Marketing and staff engagement

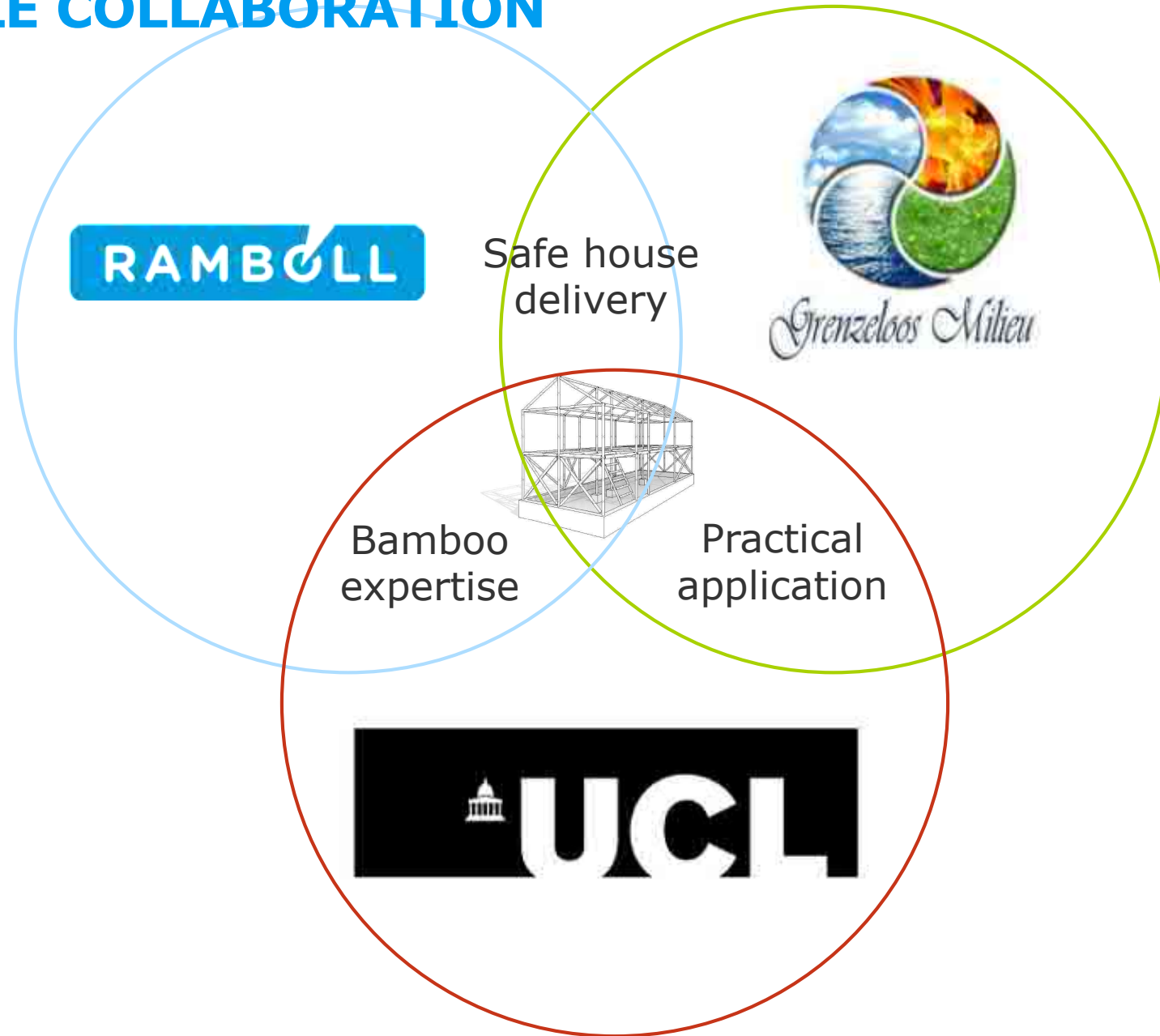
Collaboration with UCL



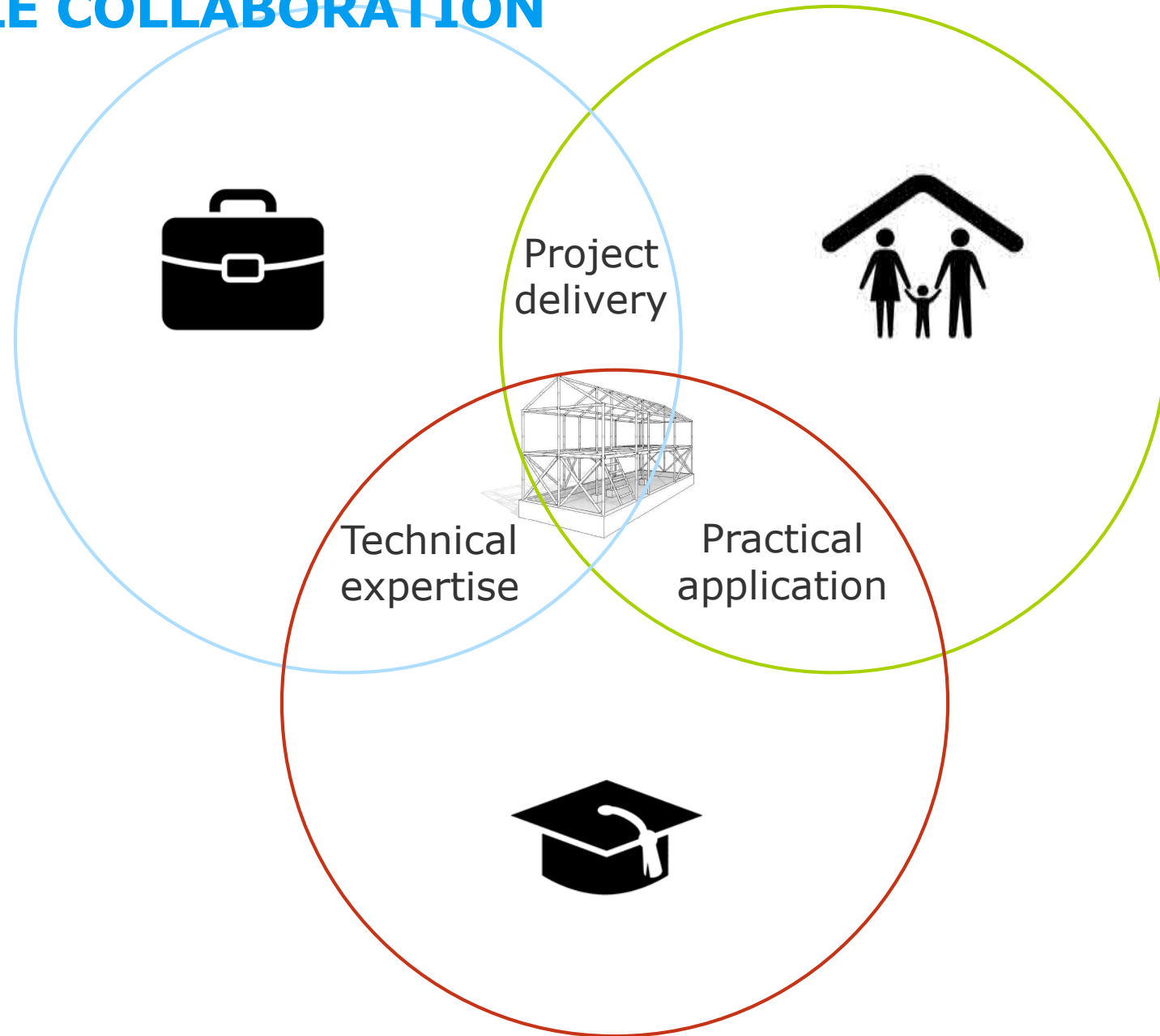
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Bright ideas. Sustainable change.

SUSTAINABLE COLLABORATION



SUSTAINABLE COLLABORATION



<https://blog.ramboll.com/bhfl/>
search: Lombok Bamboo Housing

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