

CASE STUDY

KAVANGO BLOCK BRICK



Agenda

I. WHO IS HEINRICH SCHROEDER

II. THE PROBLEM

III. THE SOLUTION

IV. THE JOURNEY

V. KEY ISSUES IN THE HOUSING ENVIRONMENT

“THE PEOPLE WHO ARE CRAZY ENOUGH
TO THINK THEY CAN CHANGE
THE WORLD ARE THE ONES WHO DO”

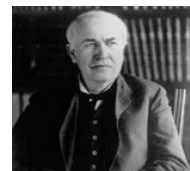
- Apple’s “Think Different” commercial, 1997 -

WHO IS HEINRICH SCHROEDER

Henry Ford, poor and uneducated, dreamed of a horseless carriage. He went to work with the tools he possessed, without waiting for opportunity to favour him, and now evidence of his dream belts the entire earth. He has put more wheels into operation than any man who ever lived because he was not afraid to back his dreams.



Thomas Edison dreamed of a lamp that could be operated by electricity. Despite more than 10,000 failures, he stood by that dream until he made it a physical reality. Today by the switch of a button the world has light, which is taken as a given.



Heinrich Schroeder, born with dyslexia, who finds it difficult to read and write, when he speaks he must not be interrupted otherwise he loses his train of thought, a high school drop out, but, a gifted man with a brilliant mind.

Heinrich dreamed about providing affordable, quality, dignified houses to people with limited means in a kit form. A house that can be transferred from one generation to the next. Through perseverance, determination, and hard work he proved to the world that it can be done, through the design of the Kavango Block Brick.



THE PROBLEM

THE PROBLEM



Cape Town South Africa



Windhoek Namibia

SA youth unemployment 3rd highest in world
Jan 20 2014 11:42 Fin24

Youth subsidy won't stop unemployment - experts
How to qualify for youth employment incentive
Gordhan: Youth unemployment far too high

Cape Town - South Africa has the third highest unemployment rate in the world for people between the ages of 15 to 24, according to the World Economic Forum (WEF) Global Risk 2014 report.

THE SOLUTION

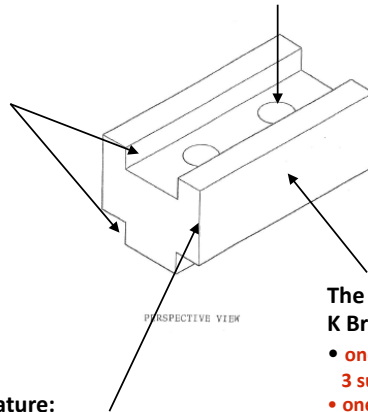
KAVANGO BLOCK BRICK – THE MAGIC - Isometric Brick Wall System

The holes in the K Brick:

- pipes are channelled thru holes
- no chasing is required
- structure of house no disturbed
- no cracks
- plumber and electrician cost reduce

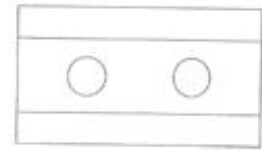
The interlocking Feature of the K Brick:

- no artisan abilities required to build a straight wall
- no mortar is required for setting
- Block Grip is used instead of monoco
- dip and pack
- flexible



The size of the K Brick:

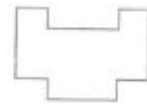
- one K-Brick equals 3 super bricks
- one square meter equals 15 K-Bricks
- equals 45 super bricks



TOP PLAN VIEW



SIDE ELEVATION



END VIEW

Isometric feature:

- smooth wall
- no plastering is needed
- exact calculation of amount of bricks needed
- minimise waste
- low carbon footprint

Patent number: F2006/0966

KAVANGO BLOCK BRICK – Super Structure (Innovative Turnkey System)



KAVANGO BLOCK BRICK – The End Product

Otjimuisse 10 de Laan - Windhoek



Form work for floated foundation 18th of October 2012



Raft Foundation as per Engineers Specification 25MPa - 20th of October 2012



140 Thick Wall Super structure 27th of October 2012



16th of November 2012



Windhoek Namibia on the 22nd of November 2012.



40mm Thick Isolite Ceiling boards

KBB – PRODUCT ACCEPTANCE (100 RESPONDENTS)

11517: Kavango

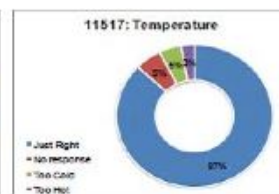
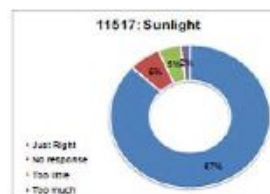
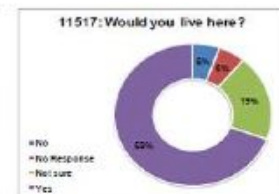
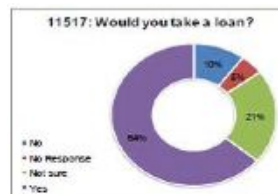


Respondents perception about the unit, in general:

- What the respondents liked: bathroom, floor, ceiling, tiles, bedrooms, double stoney, beautiful family house, windows, the structure and construction. The feature that stood out: bathrooms, floor, bedrooms, beautiful family house, structure and ceiling
- What the respondents disliked: kitchen is too small.

OVERALL_RATING(A-E) (Specific to product constructed at Wellington)

ENGINEERING	ARCHITECTURE	ENERGY	Q/SURVEYOR	SOCIAL	BANKING
A	A	C	B	C	B



KAVANGO BLOCK BRICK – Job Creation

ENTIRE COMMUNITIES CAN BE INVOLVED

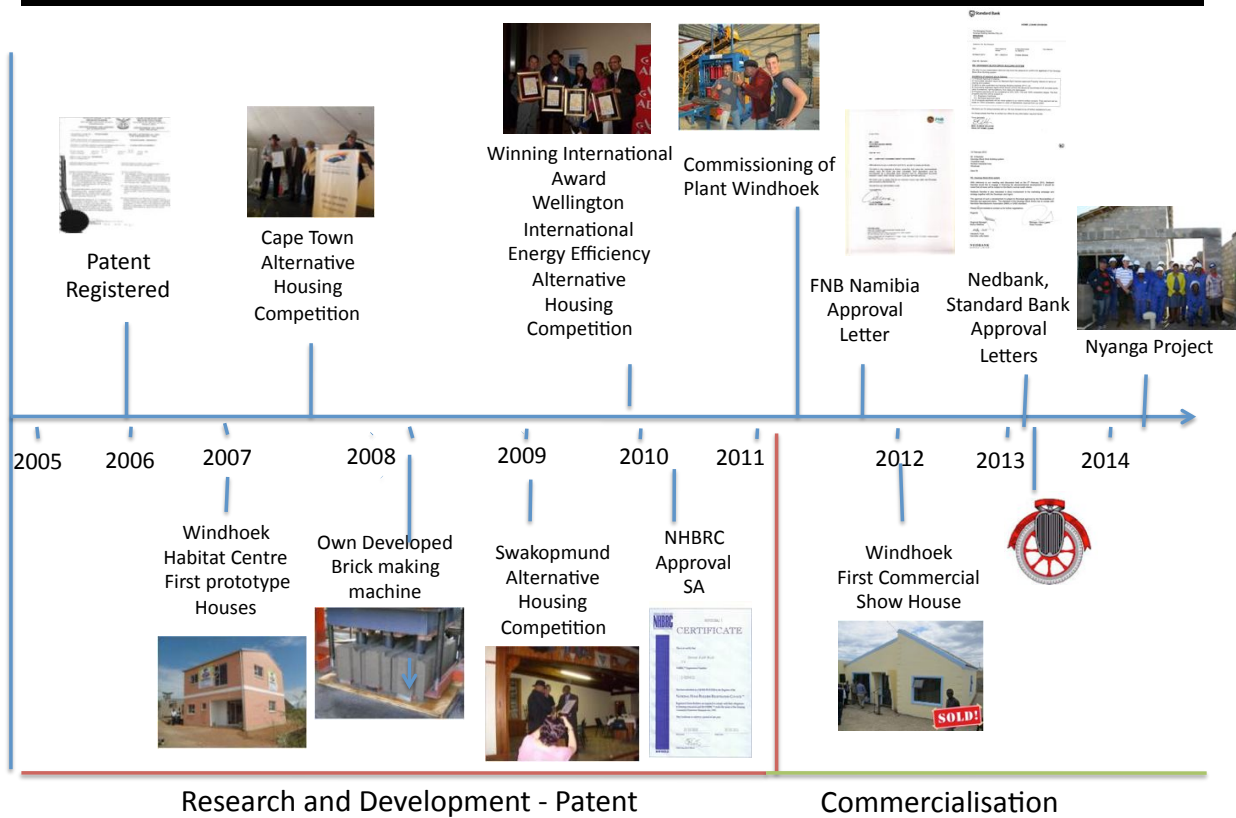


KAVANGO BLOCK BRICK – What KBB Offers

- Dignified durable housing – It can be transferred from one generation another
- The design of the Kavango Block Brick allows the for following:
 - 40% time saving on mass housing projects – labour is one of the biggest cost items – the time used to build a house is critical
 - 15% saving in building materials due to minimal waste
 - No damage to the structure of the house due to chasing required electrical pipes and fittings – ensure durability
- Affordable
- Bondable
- Proven Social Acceptance
- Job Creation

THE JOURNEY

KAVANGO BLOCK BRICK - Deep History of Innovation and Growth



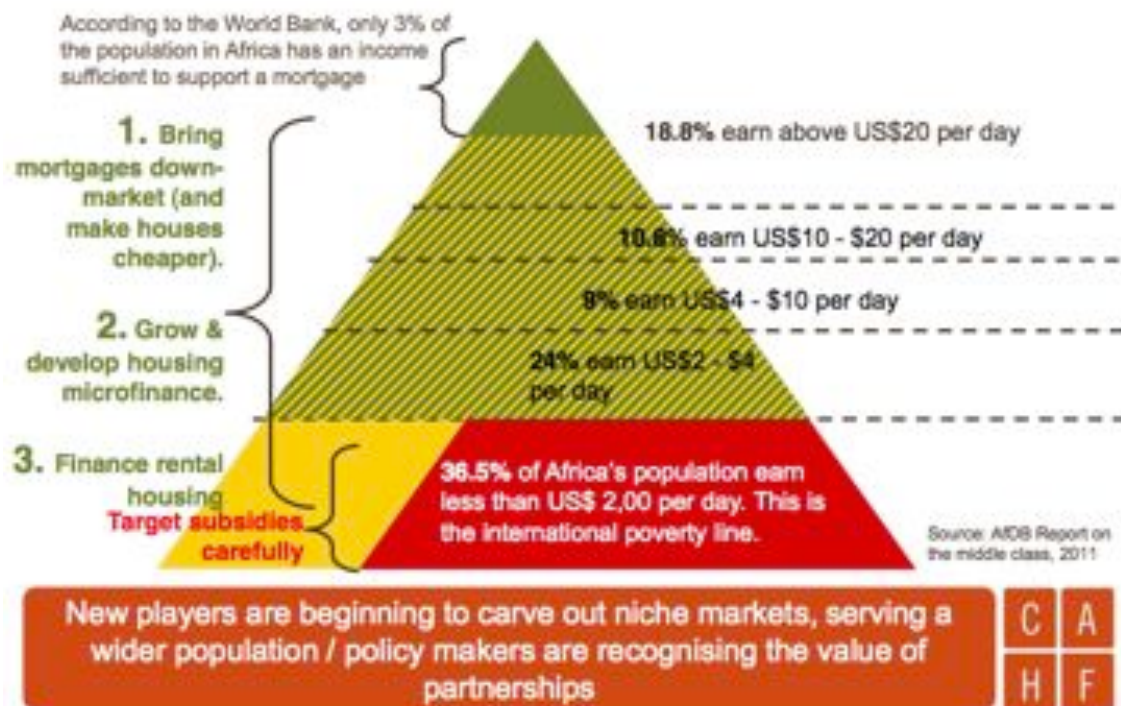
KAVANGO BLOCK BRICK - Challenges

1. Inadequate/ incorrect funding
2. Debt orientated funding structure
3. Shareholders with shallow pockets
4. Market expectation
5. Country specifics

KEY ISSUES

KEY ISSUES IN THE HOUSING ENVIRONMENT THAT NEED ATTENTION

A more nuanced approach opens up opportunities



THE END