



# RWANDA DREAM HOMES

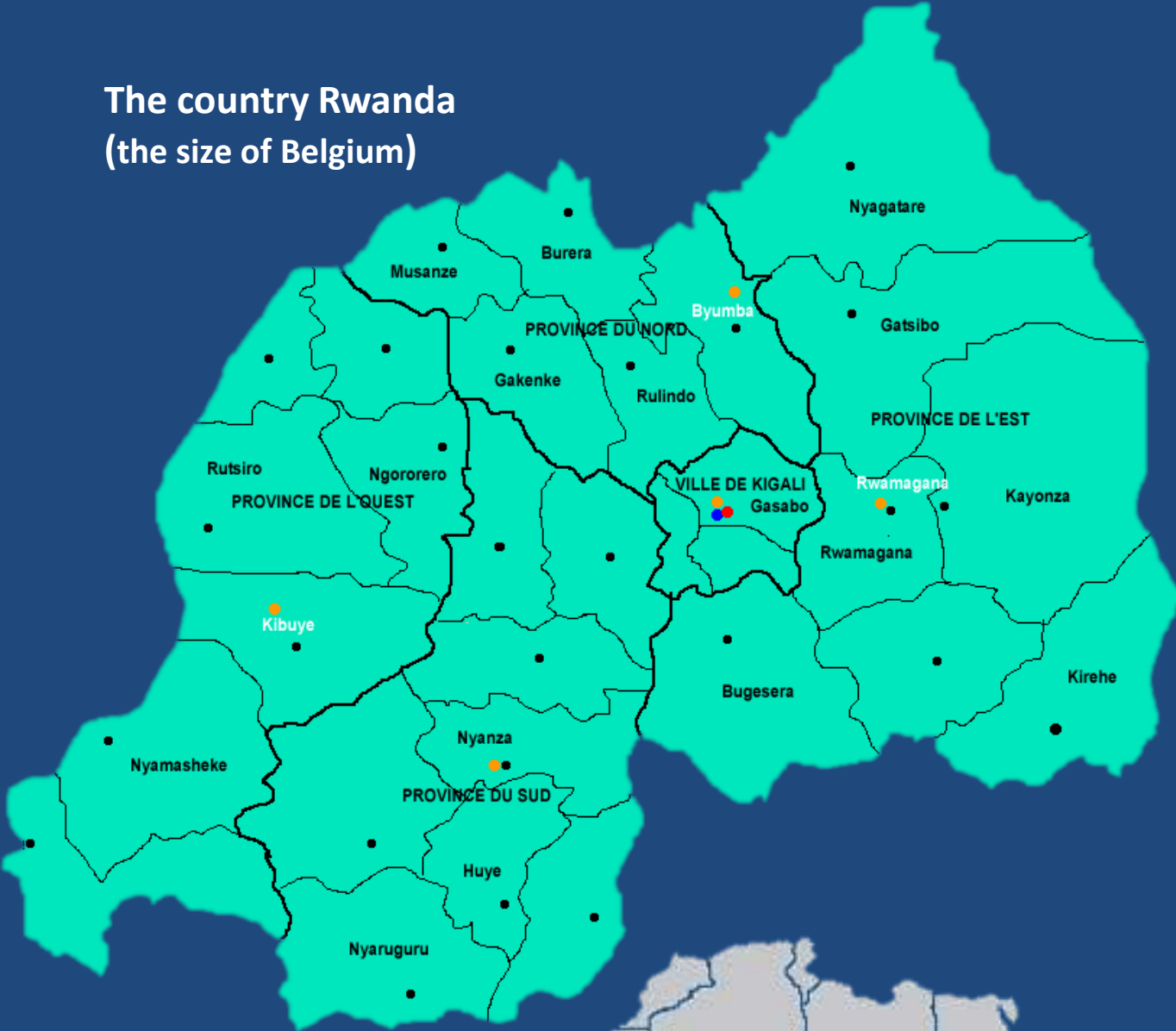
AFFORDABLE HOUSING FOR RWANDAN PEOPLE



INVESTORS BROCHURE



# The country Rwanda (the size of Belgium)



An investment in Rwanda Dream Homes is a solid and safe investment in the Real Estate sector in Rwanda, under the responsibility of Dutch constructors: Rwanda Dream Homes, and Comfort Home.



The required investment is € 250,000.- which will be returned within maximum three years and with a 12% interest if the investment is made as a loan or a 20% profit share if the investment is done in a profit share agreement.

Rwanda Dream Homes will start constructing Economic houses in Rwanda. After two years of preparation with its local (Dutch) partner Comfort Home, a Dutch Engineering company and a Dutch architect, Rwanda Dream Homes will build affordable high quality houses based on innovative technology and construction materials. The technology will be delivered by Sustainable Economic Bricks Ltd. Sustainable Economic Bricks Ltd will import a specialized factory from the Netherlands to produce the bricks for the construction of the houses and is owner of all the equipment for constructing.





## Innovative for Rwanda

Most houses in Rwanda are built in a classic way with a foundation of stones and cement, pillars from concrete, in between blocks from sand and cement, roofs with wooden construction, and many imported materials from Asia. Even the over \$150,000 bungalows are of low quality.

Find an example below, a \$175,000 local bungalow under construction.



And also



**Rwanda Dream Homes has a different approach and quality standard.**

We construct foundations in a classic solid way with concrete and steel. The roofs are constructed in steel-frame with steel or aluminum tiles, anchored to the foundation.

The walls of the houses are heavy (30 cm and 14 cm) and self-supporting from High Pressure Earth Blocks (HPEB's) from local material <sup>1)</sup> attachment 1. We will produce the bricks ourselves with the imported specialized factory from the Netherlands . The inside walls and doors are made of Eco-Boards <sup>2)</sup> attachment 2. All other materials like taps, tiles, windows, pipes are quality imported from Europe only.



With this technology we can build houses like this (Rwanda, Kigali)



And this (Portugal), and Rwanda, Kigali



## Why is it interesting to invest in Rwanda?!

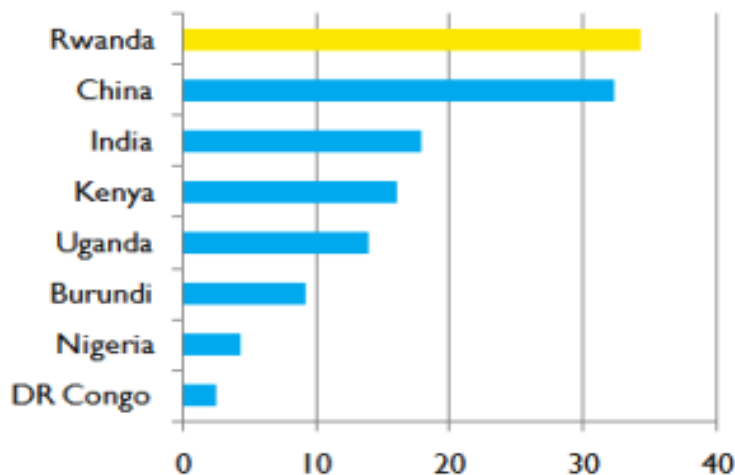
Rwanda is a safe and stable country with solid legal institutions (based on UK law). The currency (the Rwandan Franc) is linked to the US Dollar. The inflation is rather low (5-6%), The international banking institutions are good and the country is clean with good infrastructure (roads, wireless internet). The country is safe and the corruption is very low.



Worldbank figures (out of 183 countries):

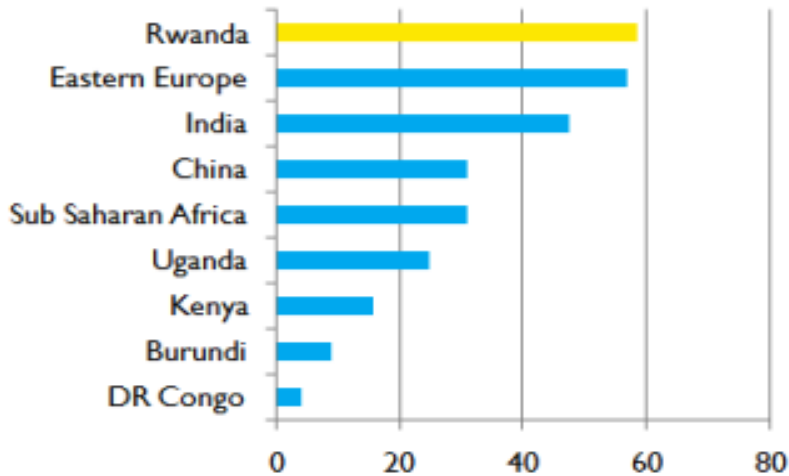
### More stable than most emerging markets

**World Bank Governance Indicator:**  
**Political stability** (Higher is better)



## A bastion of near zero corruption

### World Bank Governance Indicator: Control of Corruption (Higher is better)



REGION	Sub-Saharan Africa	DOING BUSINESS 2012 RANK	DOING BUSINESS 2011 RANK	CHANGE IN RANK
INCOME CATEGORY	Low income	45	50	↑ 5
POPULATION	10,277,212			
GNI PER CAPITA (US\$)	540.00			

### ARBITRATING COMMERCIAL DISPUTES

Strength of laws index (0 = min, 100 = max)	93.1	82.4	68.7
Ease of process index (0 = min, 100 = max)	80.1	73.8	65.4
Extent of judicial assistance index (0 = min, 100 = max)	73.3	55.9	59.3

Rwanda is the 2nd global reformer 2006-2012 (World Bank) with a well-developed financial sector, a trustworthy land registration (Dutch Kadaster), good standards for construction and a well-developed architecture.





The demand for affordable houses is huge. (source: Kigali City Center)

Overall Demand in Kigali 2022			Overall Supply (Current and Pipeline)			Supply Demand Gap	Housing Challenge
New	Backlog	Total	Formal	Informal	Total		
235.274	108.807	344.081	37.594	250.000	287.594	56.487	306.487

In total the estimate is over 400.000 DU's (Dwelling Units & apartments). At least 80 % of the houses should cost between \$ 6,000 - \$ 50,000.

Related to incomes:

- Social housing 43,436 (12.6%) for incomes less than \$ 60 / month.
- Affordable housing 186,163 (54.1%) for incomes up to \$330 / month.
- Mid-range housing 112,867 (32.8%) for incomes up to \$4,000 / month.



With our technology we can construct low cost houses starting at \$ 6,000 but also luxury bungalows for \$ 75,000 (exclusive the plot).

## Start pilot houses

We have created two companies in Rwanda and contracted a solid local (Dutch) partner, named Comfort Home. Comfort Home has a long track-record in constructing in Europe and two years of experiences in Rwanda.

Rwanda Dream Homes has an import license and a tax agreements with the Government of Rwanda. We have negotiated with two local project developers to construct 200 houses on their land to start our business. One of them, named Royalco, has a plot on a top location in Kigali and we will construct about 50 terraced luxury houses in the size of 150m<sup>2</sup> to 200 m<sup>2</sup>. With the second, named Akagera Global Services, we agreed to build approximately 150 houses on 4 ha. in Bugasera, near the new to build airport. These houses will be built in different sizes, from luxury to low cost.



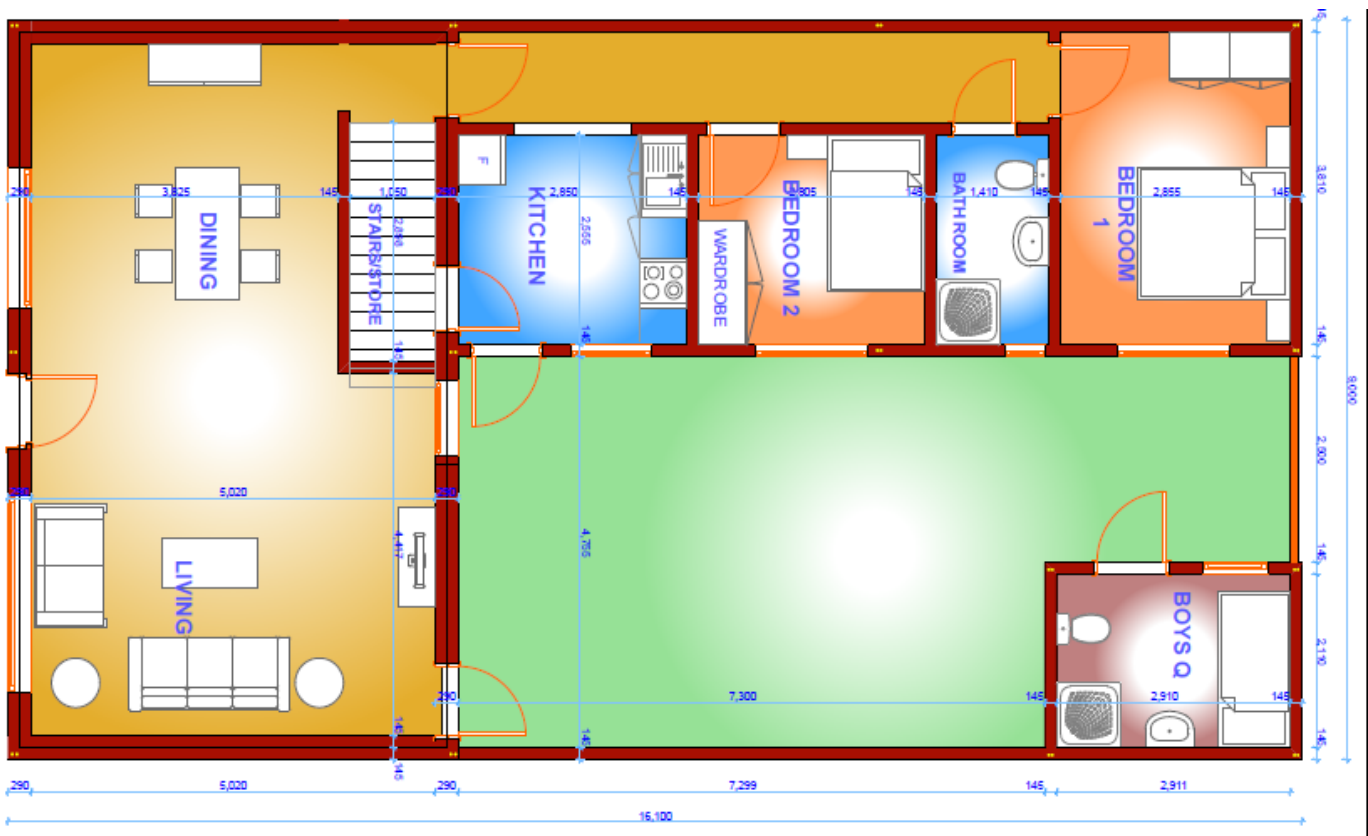
On both locations we will start with a pilot house, so potential buyers can see the new and inventive quality of the houses built by Rwanda Dream Homes Ltd.



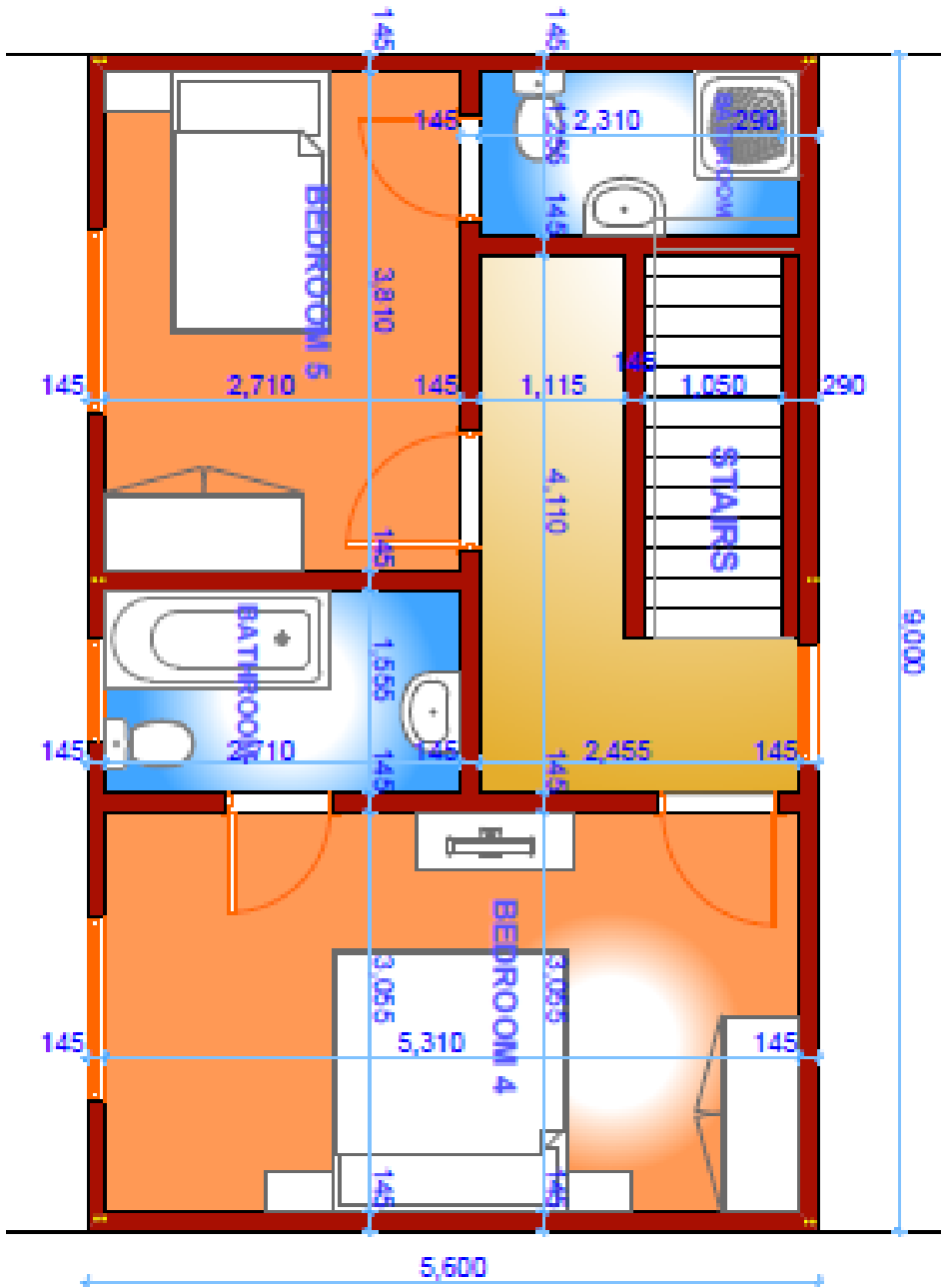
Besides this we can construct houses for several private parties, from 60 m2 up to 200 m2.

The first type we will construct is our type 6 house (out of 7 types):

### Groundfloor



# Firstfloor





We are flexible with type 1, 75 m<sup>2</sup> just ground floor up to type 7, like type 6 (see picture) but with an extra bedroom and bathroom. All designs are from Comfort Home.

Because the outside walls do not have windows in the original design, we can terrace them in several ways. Cost of construction for the type 6 house luxury is about \$45,000 (excl. land and plot-infrastructure)

An other series of designs are from our Dutch architect, [www.archipelontwerpers.nl](http://www.archipelontwerpers.nl) and is based on standard elements for construction of 3.90m x 3.90m. You can enlarge every house with one or more of these elements, or 3.90m x 1.95m or 7.80m x 3.90m or 7.80m x 1.95m and more combinations.

We will work with standards for sizes of windows and doors. The first designs are 137 m<sup>2</sup>, 2-levels, 5 bedrooms, 3 bathrooms, 4 toilets. Or ground floor 76 m<sup>2</sup> plus terrace (15.20 m<sup>2</sup>), first floor 61 m<sup>2</sup>. plus balcony (15.20 m<sup>2</sup> or 10 m<sup>2</sup>). Standard size: 11.70 m x 7.80 m. Construction costs between \$ 6,000 and \$ 35,000.

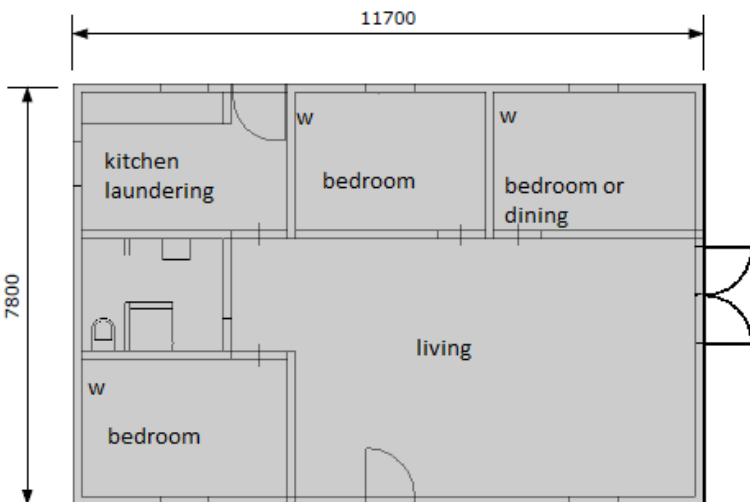
Picture: a special low cost 61 m2 house at the left and a 91 m2 house at the right.



Economic Housing

Rwanda Dream Homes Limited / An Archi / Archipelontwerpers  
17-09-2012 Impression 2 www.archipelontwerpers.nl

The 91 m2 house in luxury, sales price about \$23,000, turn-key



Ground level

Options:  
solar panel \$600.- biogas \$300.  
watertank-up plus pump \$650.-  
wardrobes \$400.-

w = sink

kitchen 10 m2  
bedrooms 9.5 m2  
bathroom 5.5 m2  
Option: extra toilet



Another low cost villa, in 10 different designs and sizes, between \$10,000 - \$20,000, in specific for rural areas. Just ground floor, single and terraced.



GRONDPLAN



Achtergevel



Voorgevel



Rechterzijgevel



## The business case.

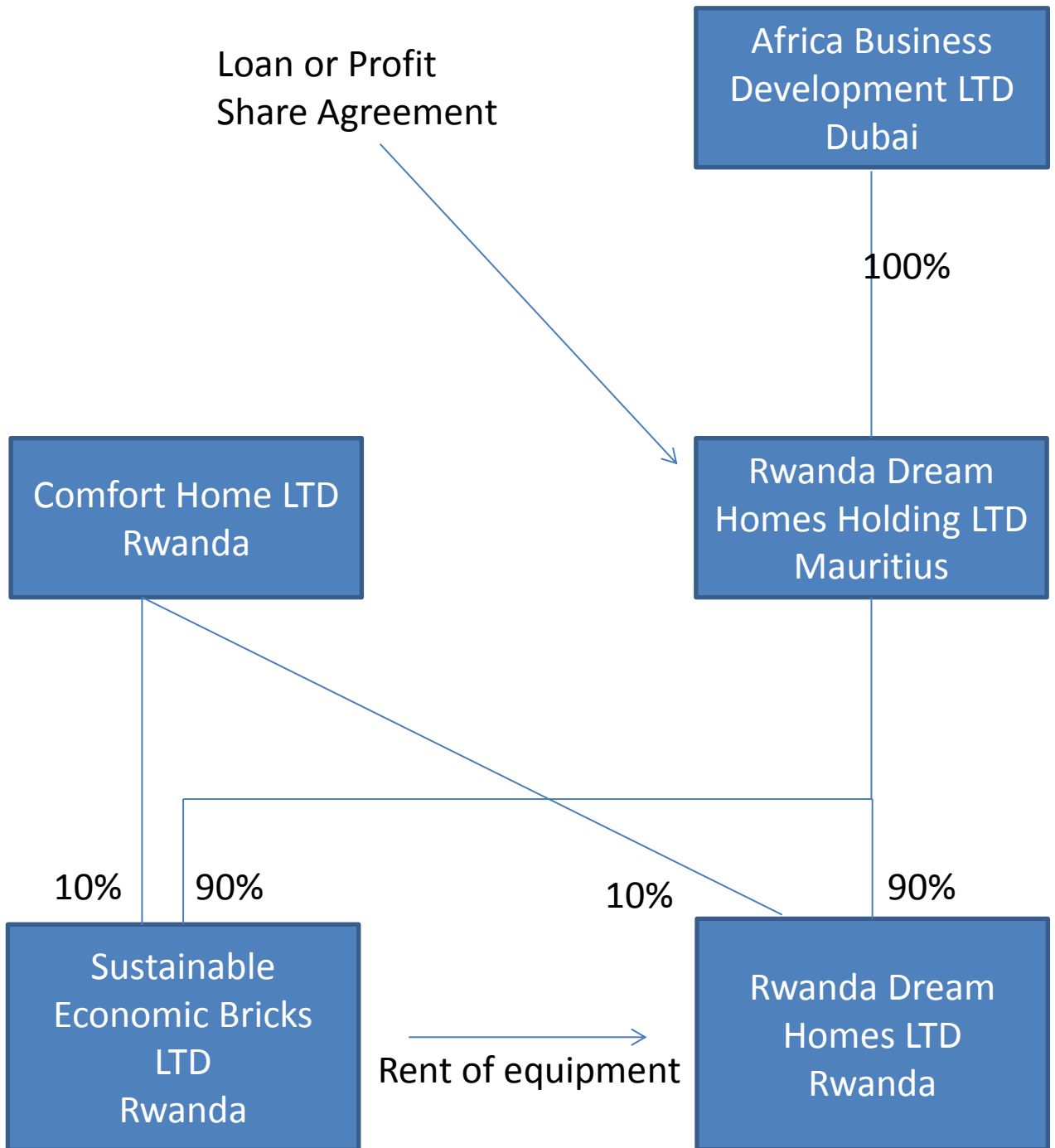
See the corporate overview on the next page.

Rwanda Dream Homes will work with the resources from Comfort Home, the local (Dutch) partner and with the bricks and equipment from Sustainable Economic Bricks Ltd. (SEB). RDH / SEB has acquired the exclusive rights for Oskam v/f Netherlands ([www.oskam-vf.com](http://www.oskam-vf.com)) for HPEB technology in Rwanda.

Your investment will be in Rwanda Dream Homes Holding LTD, the shareholder of both Sustainable Economic Bricks LTD en Rwanda Dream Homes LTD. That gives you the best guarantee. When you make a full investment of € 250,000 in a loan, you will have, as a security, the a pledge on the shares of the subsidiaries.









## The Costs of Sustainable Economic Bricks LTD:

- Small factory plus equipment, including a digger. Depreciation in 5 years;
- Production 40,000 HPEB / month x 7.5 kg = 300 ton raw material / month;
- (Max. production 300 / hour; 50,000 HPEB / month);
- Total fixed assets \$130,000;
- Transport \$25,000;
- Working capital \$25,000;
- Expenditure first year \$ 180,000
- With an interest rate of 12% and costs of operation & depreciation / year \$12,000;
- The production costs / HPEB = \$ 0.32

**Sales price HPEB = \$0.50 Earning Back Period is 2.1 year on the HPEB's only.**



## Constructing

To be able to start the construction and sales of houses we need to import additional equipment and we need working capital for the first pilot houses in total **\$100,000**.

In specific:

- Tipper (15 ton);
- 4WD car;
- Trailer (is also an office);
- Vertical & horizontal saw table;
- Welder;
- Electric handtools
- Electronic equipment for measurement;
- Other construction equipment
- Transport costs.

**Total investment needed is \$300,000 (€232,000 - €250,000).**

With one small factory we can build about 80 houses / year. Conservative estimated net profit is \$10,000 / house.



## Prognosis

Year one SEB: Gross Margin 36%.  
Earnings before tax \$ 90,000

RDH: Earnings before tax \$ 500,000

In total \$590,000.

Investment in second and bigger HPEB factory \$ 200,000,  
with double capacity.

Investment is additional equipment \$ 100,000

Purchase land for second factory \$ 50,000

Income before tax \$240,000

Year two SEB: Earnings before tax \$250,000

RDH: Earnings before tax \$ 1,300,000

In total \$ 1,550,000

Year Three: depending the market we will invest in steel-frame profile factory or / and in pre-stressed concrete factory or / and in eco-boards factory.



## Attachment 1



*Table below with the characteristics of HPEB's for walls.*

Facteur de résistance à la vapeur d'eau	6	
Perméabilité à l'air	0,75 m <sup>3</sup> /(h.m <sup>2</sup> )	
Absorption	en cours	
Désorption	en cours	
Capacité thermique	2000 Kj/m <sup>3</sup> .°C	
Conductivité thermique	0,65 W/m.°C	
Effusivité (ép.5 cm)	1200 (kJ/K/m <sup>3</sup> ) x (m <sup>2</sup> /s)	
Diffusivité (ép.5 cm)	3,00 x 10exp.-4 m <sup>2</sup> /h	
Réduction phonique Rw selon NBS S 01-400-1:		
bloc de terre HPEB 100 mm mur simple sans enduit	44 dB	
bloc de terre HPEB 100 mm mur simple avec enduit pelliculaire 3mm	46 dB	
bloc de terre HPEB 100 mm mur simple avec enduit traditionnel 10mm	49 dB	
bloc de terre HPEB 100 mm mur double sans enduit	58 dB	
Low embodied energy		
Grande capacité d'hygrorégulation		
Grande capacité thermique avec déphasage		
Confort phonique inégalé		
Hypoallergénique		
Résistance à la compression sèche du bloc selon NBN ...	≥10	N/mm <sup>2</sup>
Résistance à la compression humide du bloc selon NBN ...	≥5	N/mm <sup>2</sup>

Factor of resistance to water vapor

Air permeability

heat capacity

thermal conductivity

Effusivity (Ep.5 cm)

Diffusivity (cm Ep.5)

Sound reduction Rw according to NBS S 01-400-1:

100 mm single wall without plaster

100 mm single wall coated 3mm skin

100 mm single wall coated with traditional 10mm HPEB 100 mm double wall without plaster

Reduces the effects of radio-sensitivity

Large capacity hygrorégulation

Phase with high thermal capacity

Unrivaled acoustic comfort

hypoallergenic

Dry compressive strength of the block according to NBN

Compressive strength of wet block according to NBN

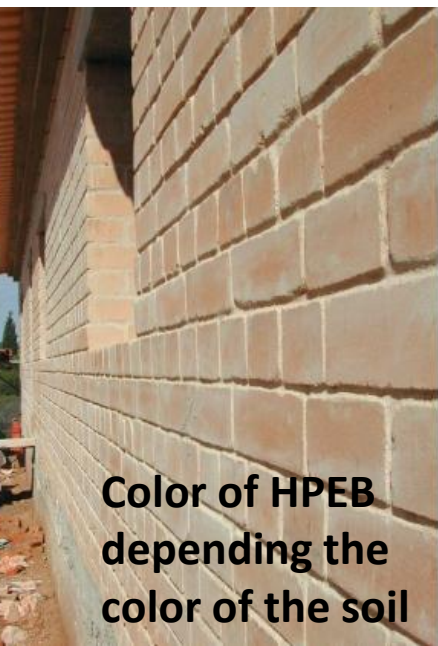
HPEB's are innovative high tech Compressed Earth Blocks (CEB's) from local clay, sand, grit, slaked-lime or cement. A HPEB is 29.5 x 14 x 9 cm, 7.5 kg. Each HPEB is compressed with over 30 ton at two sides of the 9 cm.



They are tested by Dutch University TNO Delft NL, Belgium and in other countries, and certificated as very solid for a century under the right conditions. If the HPEB is dry, a block withstands a pressure of 40,000 kg (10 N/mm<sup>2</sup>)



CEB's: walls 14 cm or 30 cm or combinations. Our factory also makes the mortar and plaster. In between floor, inside walls, doors from waterproof Eco-Boards.



**Color of HPEB depending the color of the soil**





## Attachment 2

**ECO-Board** panels are high quality industrial grade panels, manufactured from agrifibre (agricultural residue) that is milled to form flakes. The flakes are then mixed with a specially designed formaldehyde-free resin and compressed under high temperature to form a stable homogeneous panel. Panels can be custom made to specifications and can be made waterproof.

**ECO-Board** panels are widely used within the building/construction industry. ECOBoard panels have a moisture/fire resistance better than standard MDF and particleboard. It is highly suited for usage in the most strenuous humid domestic interior conditions, where dimensional stability and retained strength are of great importance and have an excellent strength to weight ratio. ( [www.eco-boards.eu](http://www.eco-boards.eu) )



*1 piece of ECOBoard (1220 x 2440 x 18 mm)*

*Can reduce the harmful effects of **4 kg** formaldehyde.*

*Can store and avoid the emission of **150 kg** Carbon Dioxide.*

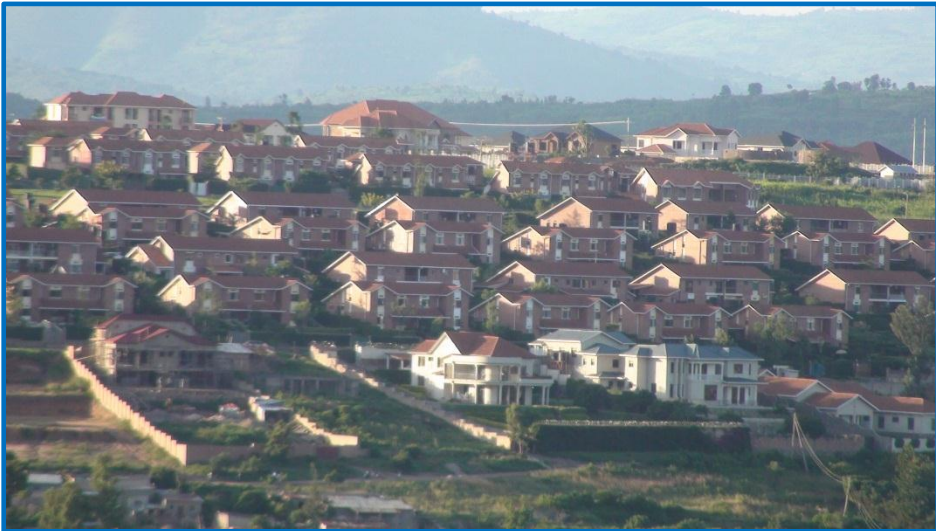
*One tree with a diameter of **25 cm** and a height of **2 m** will therefore NOT be cut*

*while the emission quantity is equal to the release of **100 kg** Oxygen,*

*or the total amount of absorbed oxygen by **1 man** a year.*

*Can change the waste straw to **50 kg** of treasure.*





**For further information, you can  
contact Mr. Folkert Castelein  
CEO of Rwanda Dream Homes LTD**



**Telephone: 0031 6 29 07 52 00**

**Hazenboslaan 65  
2343 SX  
Oegstgeest  
Netherlands**

Dit project wordt ondersteund door de  
**Rwanda Chamber Foundation**  
[www.rwandachamber.org](http://www.rwandachamber.org)

