

»» Financing Energy Efficiency

Promoting Energy Transition

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Bank aus Verantwortung

The KfW logo consists of the letters 'KFW' in a bold, blue, sans-serif font. The 'K' and 'F' are connected at the top, and the 'W' is positioned to the right of the 'F'. The logo is set against a light blue background with a faint grid pattern.



»» KfW – Who We Are

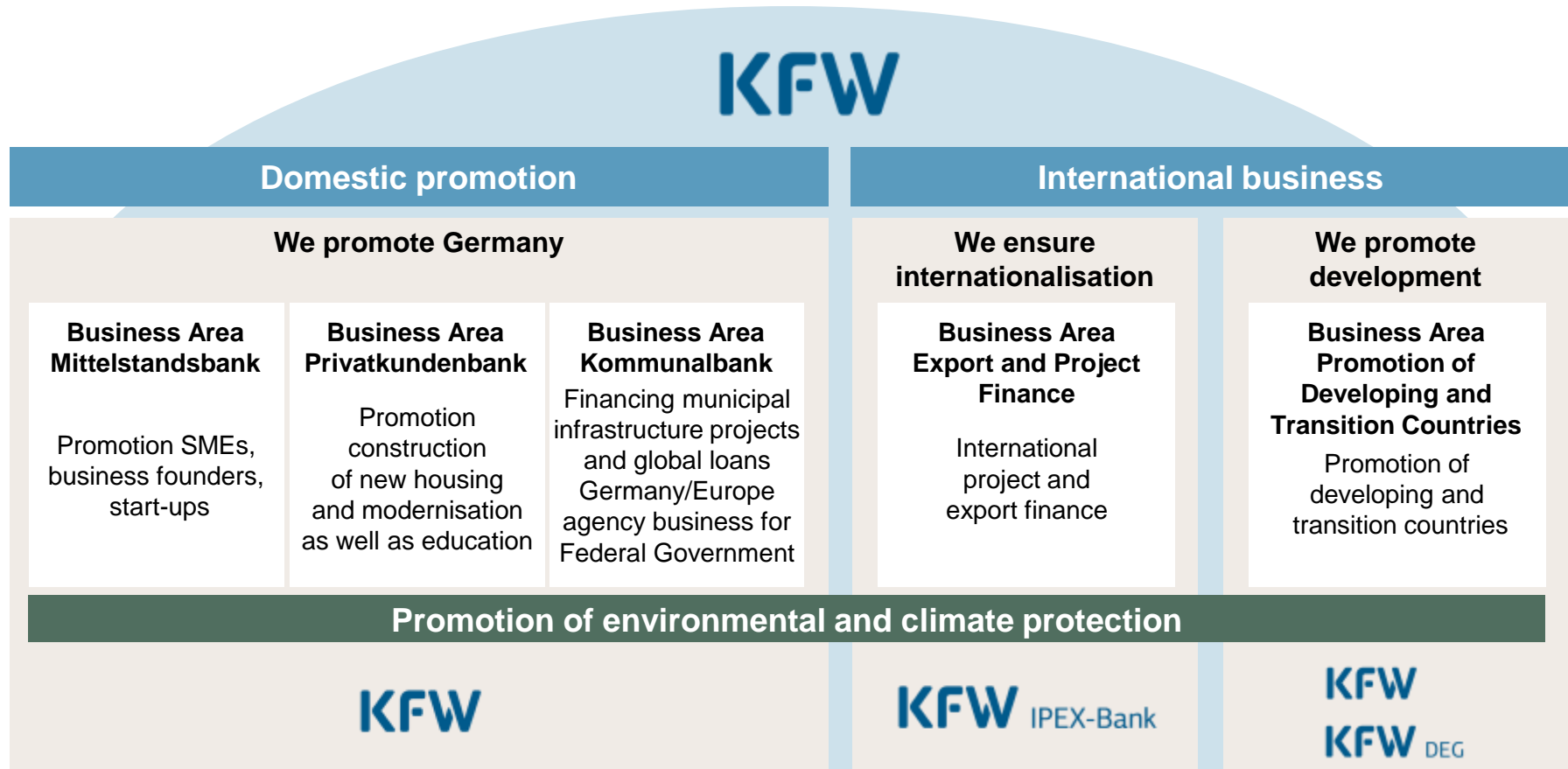
»» More than 65 years of KfW

Financing with a public mission



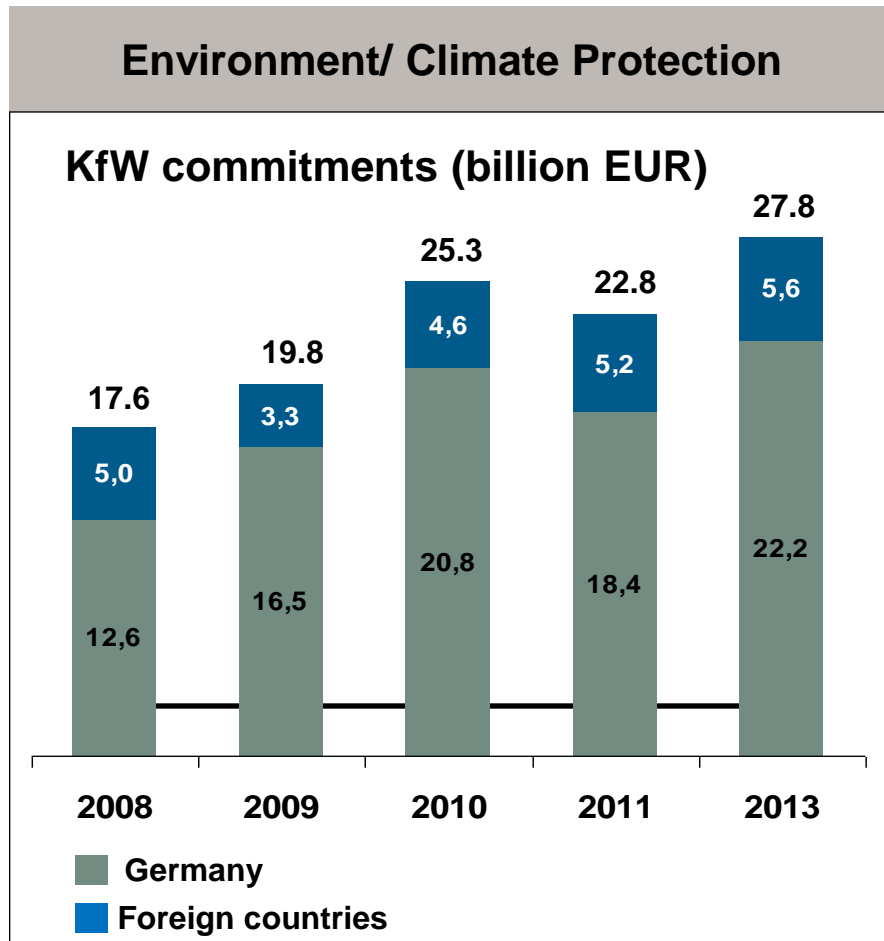
- › Promotional bank of the Federal Republic of Germany
- › Founded in 1948 as Kreditanstalt für Wiederaufbau
- › Shareholders: 80% Federal Republic, 20% federal states
- › Headquarters: Frankfurt am Main
Branches: Berlin, Bonn and Cologne
- › Representative offices: around 70 offices and representations worldwide
- › Balance sheet total as at December 2013: EUR 464.8 billion
- › Financing volume 2013: EUR 72.5 billion
- › 5,375 employees (2013)
- › Best rating: AAA/Aaa/AAA

»» A bank with a wide array of functions



»» Environmental Protection and Climate Protection

KfW is One of the Leading Financiers in the World



Central pillar for KfW's activities.

Decided increase of commitments in recent years.

Main focus on renewable energies and energy efficiency.

Continuance on high level in future:
2/3 of total commitments

»» KfW's contribution in 2013

Total credit commitments for environmental projects and climate protection: 27.8 bn. EUR



Renewables (Germany):
4.8 bn. EUR



Energy efficiency (Germany):
16.7 bn. EUR

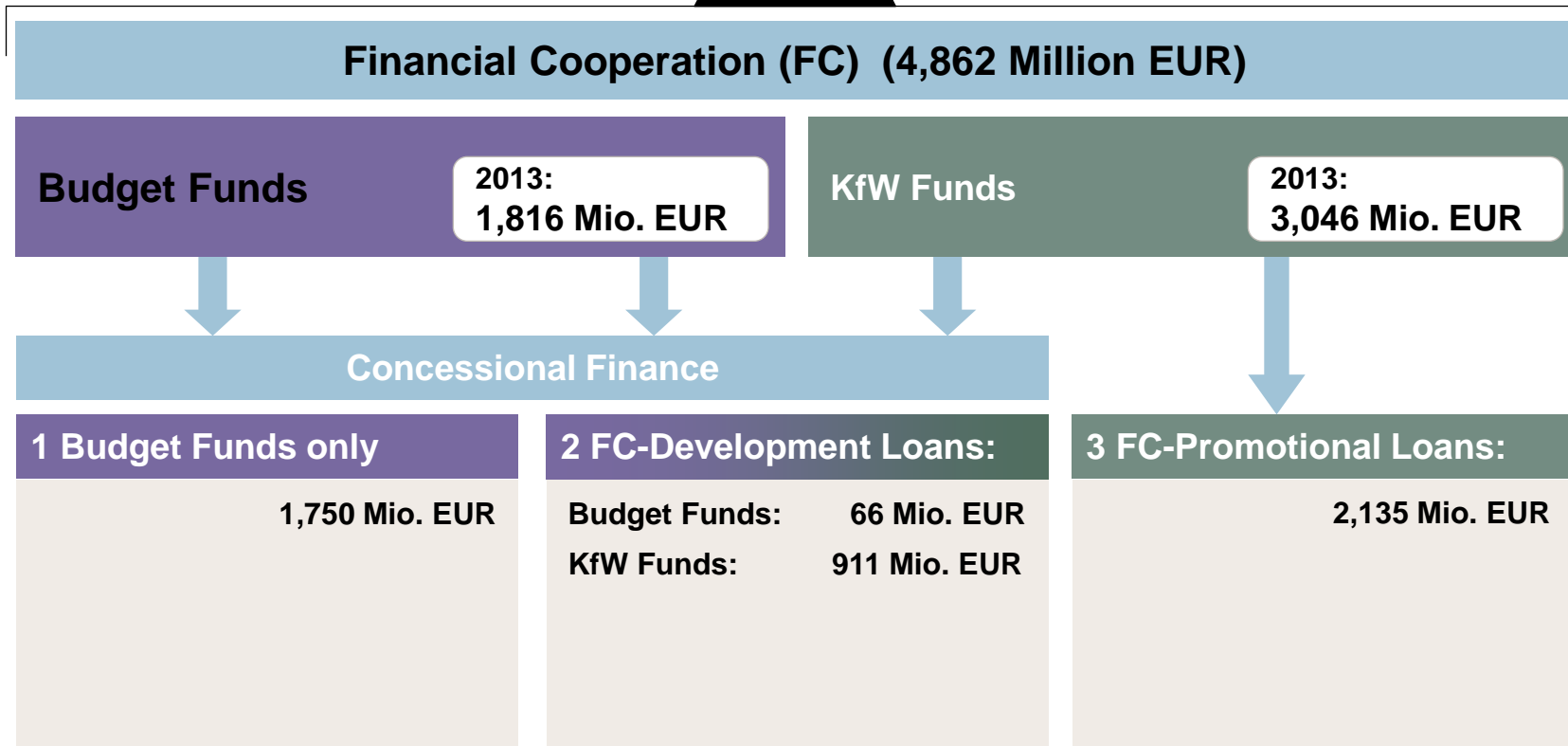
Example: „Energy efficient construction and renovation“

- › Secured or created jobs for one year: 440,900
- › Reduced greenhouse gas emissions by 0.8 million tons
- › High leverage: 1 Euro of public subsidy triggers private investments of 12 EUR (average value over last years)

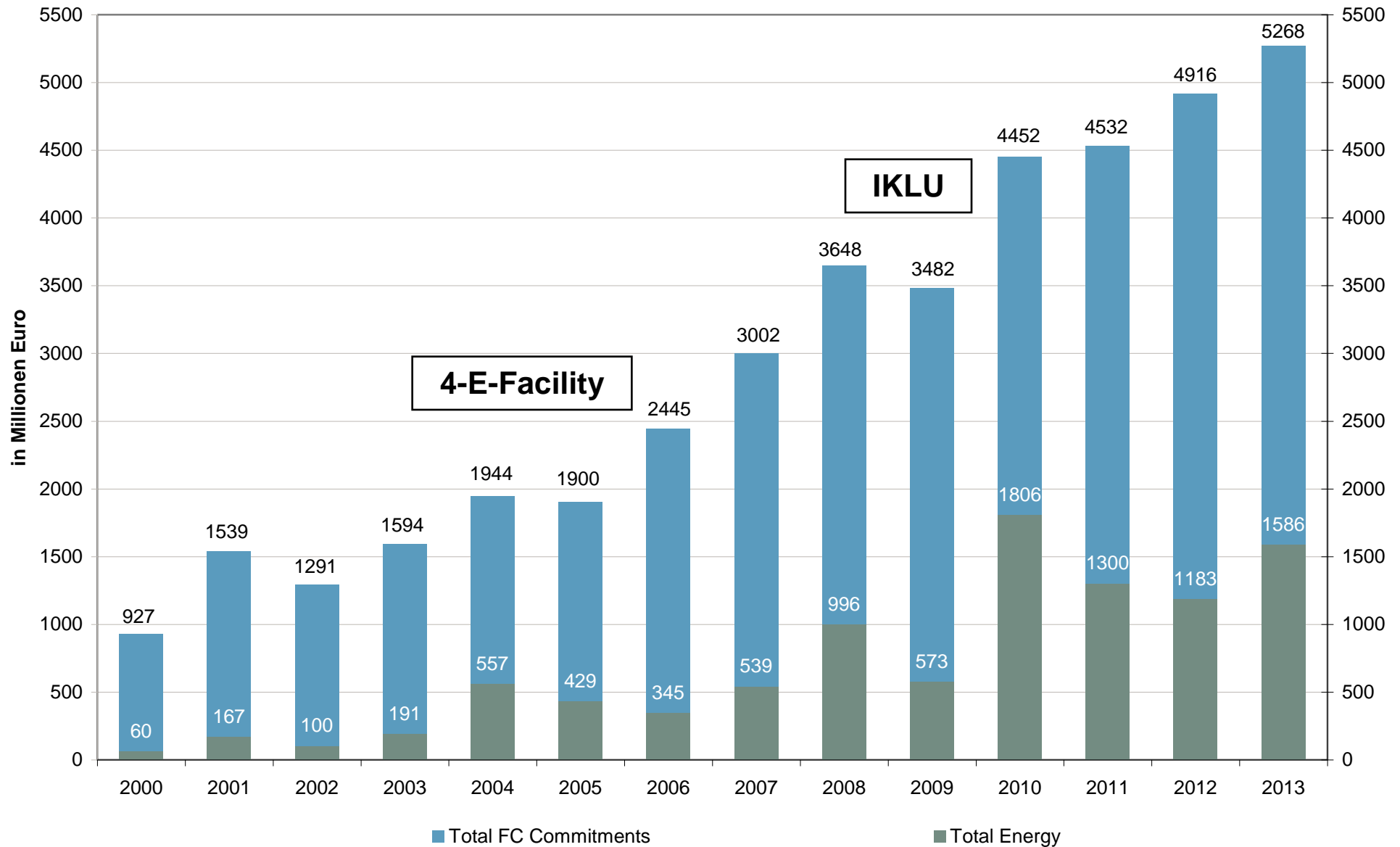
»» Financing instruments of KfW Development Bank 2013

Tailor-made Financings for Every Partner Country

KfW



»» FC commitments 2000-2013 Total Energy/ Total KfW





Energy Efficiency

»» Unlocking the Potential

»» The Dilemma: Some thoughts on the usual fallacies

- › The technical and economic potential is high, but the business case is not always given.

→ Unrealized market potential

- › Cheap money appears to be unlimited available but financial crisis and increased regulation has led to a shortage of long-term + structured finance.

→ Financing has to be tailor-made

»» The Dilemma: Complex decisions – Procrastination – Behavioural Limitations – Market Flaws

› **private households / enterprises**

- › other priorities
- › liquidity problems
- › lack of specific know-how

› **private equity funds / institutional investors**

- › short-term orientation / leverage ratio
- › very high profit expectations

› **municipalities / utilities**

- › lack both: liquidity and long-term orientation

› **commercial banks / insurance companies**

- › missing technical know-how
- › increased regulation + less long-term finance

»» How to Promote Energy Efficiency?

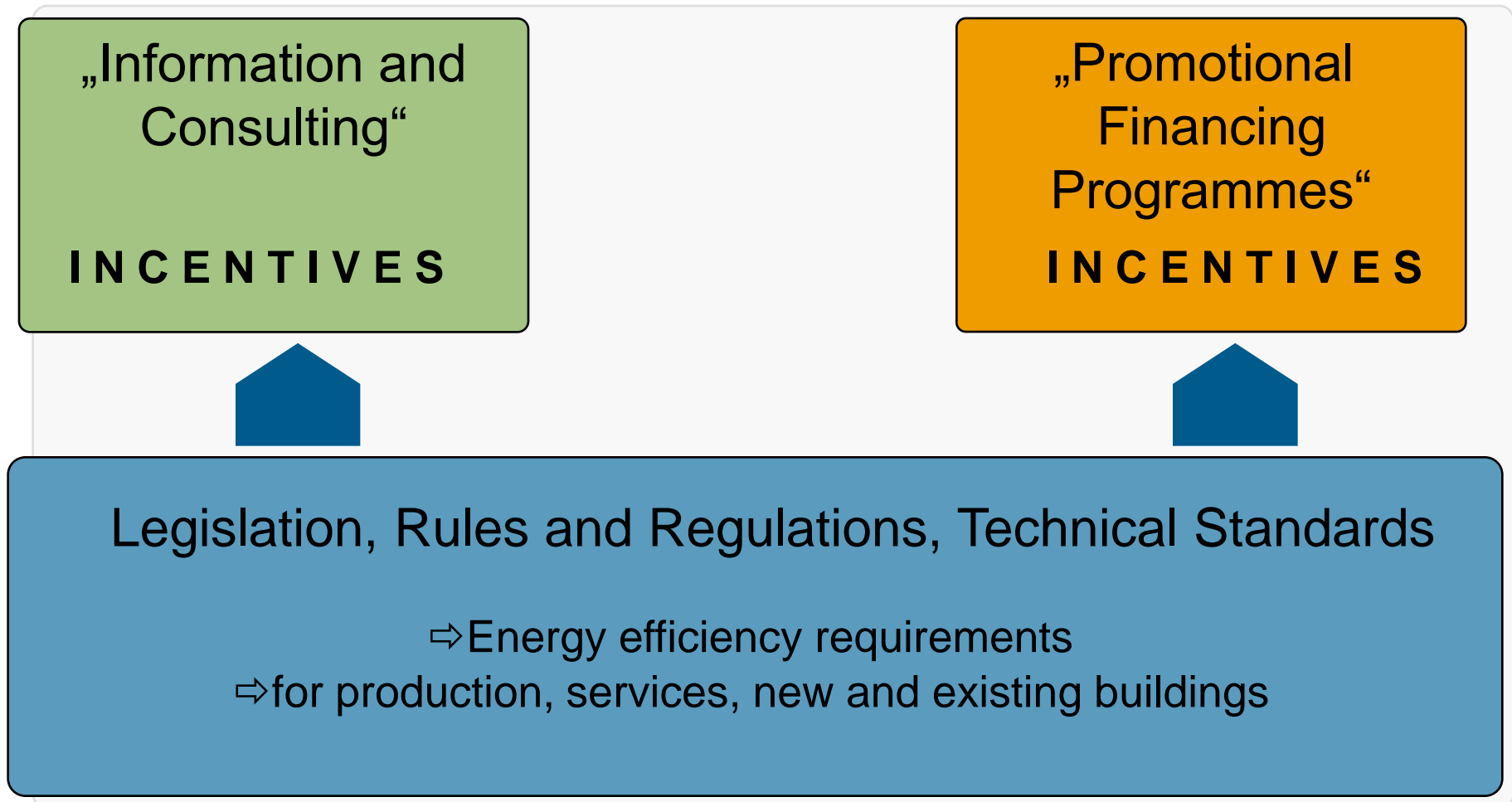
Tambourine



Carrot

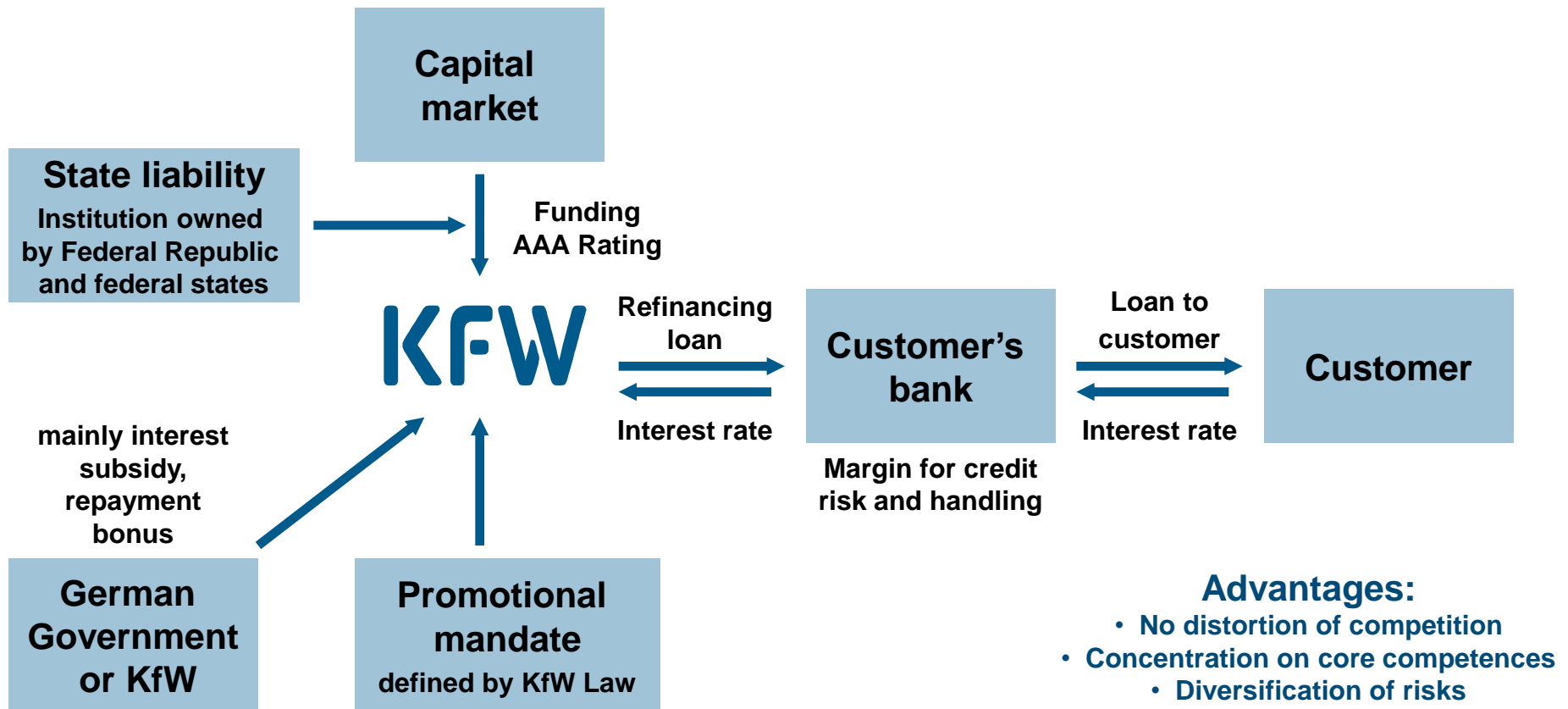
Stick

»» To stimulate the demand for energy-efficiency investments we need a smart combination of...

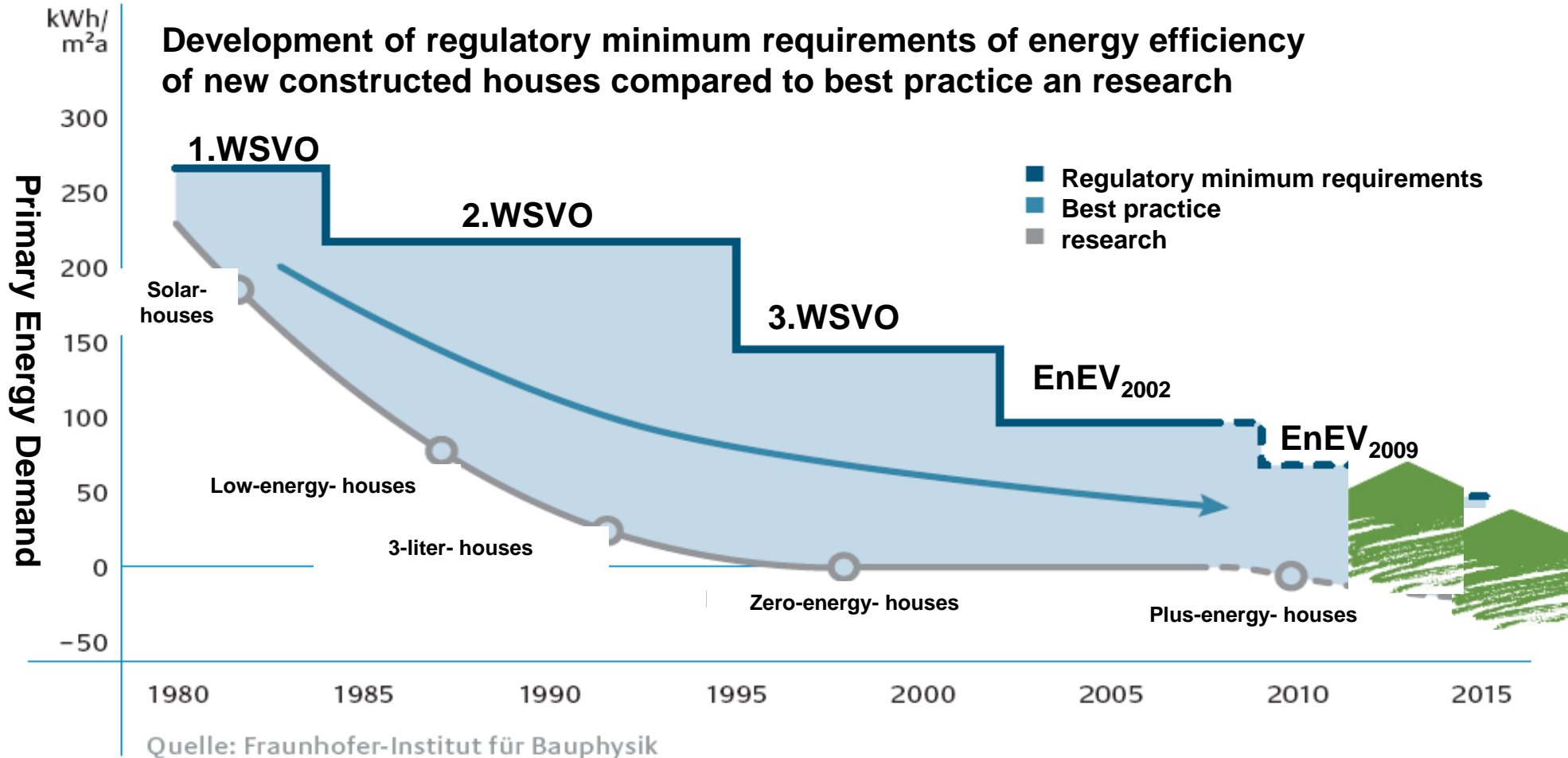


»» Operating Model KfW

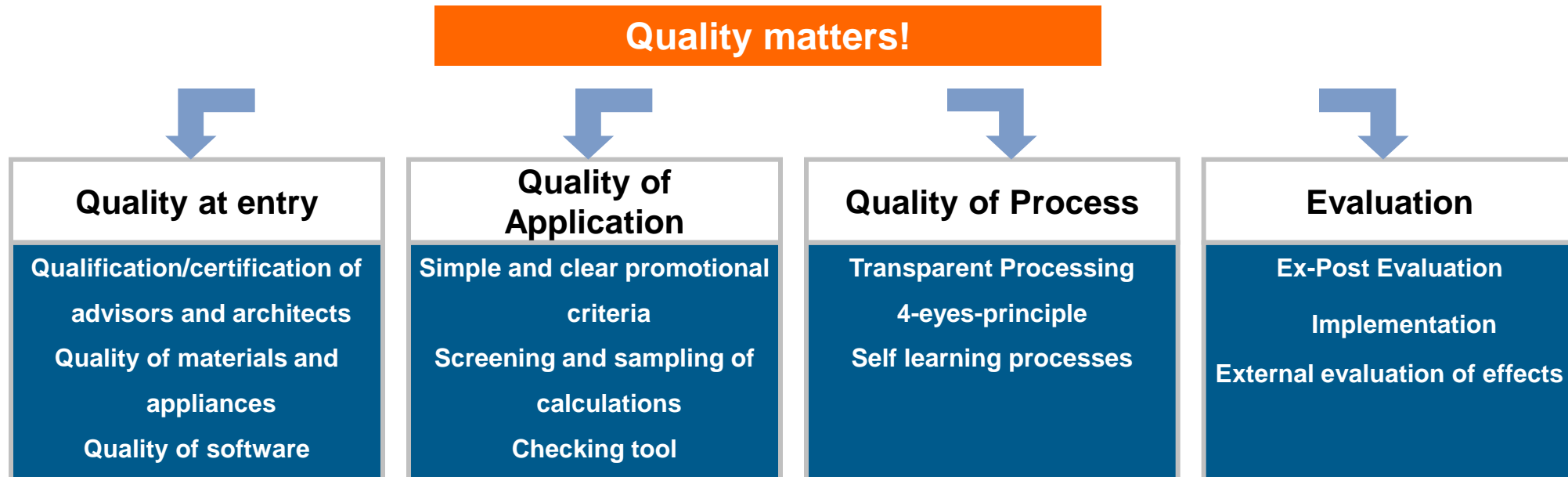
Funding by KfW and on-lending through private banks



»» Development of Energy Efficiency in Buildings (domestic)



»» Quality Assurance (model case)



»» Working in emerging economies What could be different?

- › **Lack of awareness**
- › **Inappropriate institutional landscape**
- › **No legal framework**
 - › **(Codes, standards, regulations, certificates, ...)**
- › **No expertise (auditors, software, craftsmen,...)**
- › **No appropriate materials**
 - › **Insulation, appliances,...**
- › **No (grant) funds for promotional programmes**
- › **financial sector underdeveloped**

»»Working in emerging economies

What do we have in our toolbox?

› Sector Level	› CapDev Level	› Programme Level
<ul style="list-style-type: none">› Policy dialogue› International seminars› Study Tours› Knowledge sharing of our experiences in the domestic promotional programmes› Sector studies	<ul style="list-style-type: none">› TA Measures› Institutional development/Support› Capacity development of Governmental bodies, auditors, builders, auditors› Software development and introduction of tools› Demonstration / pilot schemes	<ul style="list-style-type: none">› Preparatory studies› Interest subsidized loan programmes (private investors)› Conventional FC loans or investment grants (public investors e.g. public buildings)

EnEff:ResBuild India
 Toolkit for energy efficient residential buildings in India

Project: Tower 1, Zed Collective, BCIL

Building

Address of project: Sy 109/4 Avalahalli Village, Next to Towns End Project, Yehanka Hobli, Bangalore North Taluk, Bangalore

Table of results - Electrical energy in kWh/m²/yr:

	This building	Reference building
Internal lighting	4.58	12.97
Common lighting	0.48	1.47
Parking lighting	0.00	0.00
Cooling	28.67	28.09
Heating	0.00	0.00
Hot water	0.00	13.99
Cooling fans	0.00	0.00
Appliances	28.02	28.02

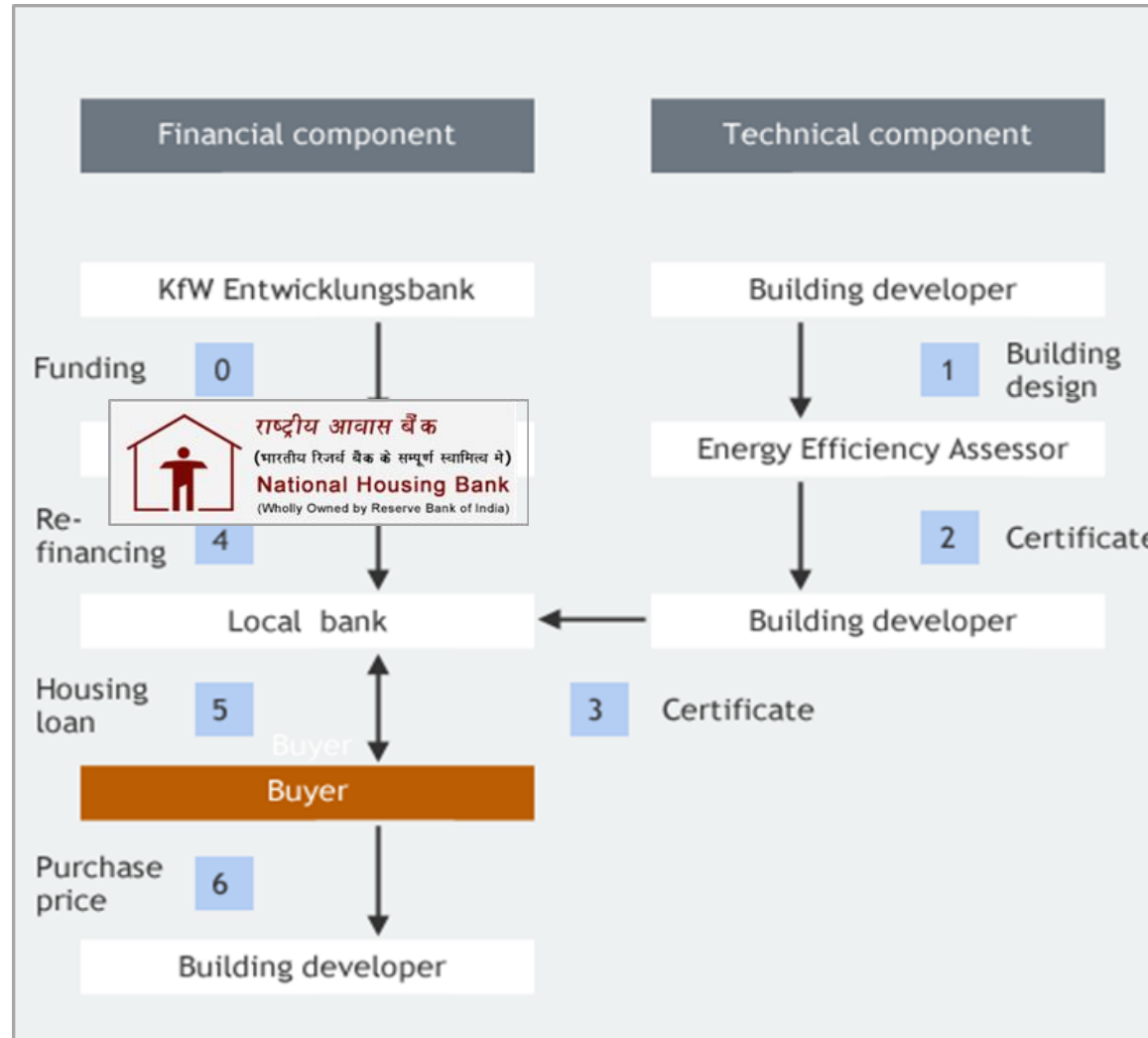
Building parameters:
 Building type: Residential building
 Total building area: 1 897.00 m²
 Climatic zone: Bangalore (Temperate)
 Created with: EnEffResBuild India Version 0.9.6.0

Consumption of electrical energy in kWh/m²/yr:
 This building: 34 kWh/m²/yr
 Reference: 55 kWh/m²/yr
Savings: 38%

Qualitative parameters (0 out of 6 measures are applied in this building):

- Daylit area in the core area is 20% to 40%
- Solar street lights
- Efficient transformers
- Presence detection or photo sensors for outdoor and
- Efficient water pumps
- Tailored user manual

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Annual Report on Cooperation with Developing Countries: http://www.kfw-entwicklungsbank.de/ebank/DE_Home/Download_Center/Jahresberi.jsp

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»» Thank You for Your Attention!

