



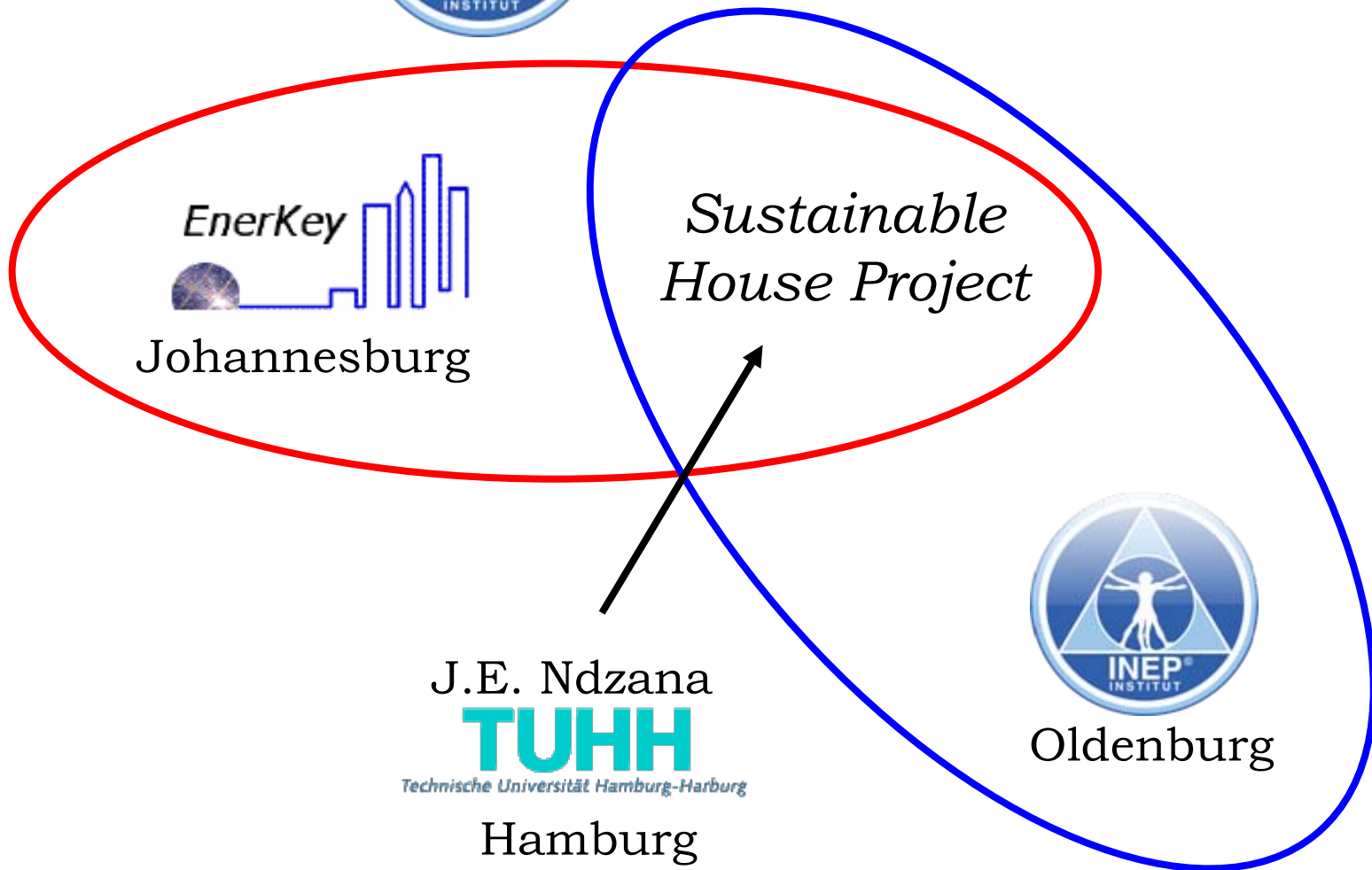
Sustainable House Project

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Fields of competence

INEP-Institut Oldenburg
Gut Ohlendorf / Hainenweg 32
D-27249 Mellinghausen



- Sustainable energy management
- Politics
- Risk
- Social Innovations



House Project

“Roof for quality of life”



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At the end of this lecture, I hope you be familiar with the following:

1 Keep the basic idea of sustainability in mind

2 Why sustainability?

3 The MDGs & Indicators of Sustainable development

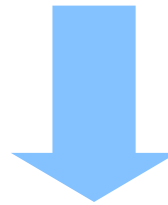
4 The Code – House Project
INEP-Institut



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“Gather the pieces that are left over. Let nothing be wasted.”

[Jesus-Christ, the Bible]



*A view of
Sustainability is to no
longer see things as
waste...*





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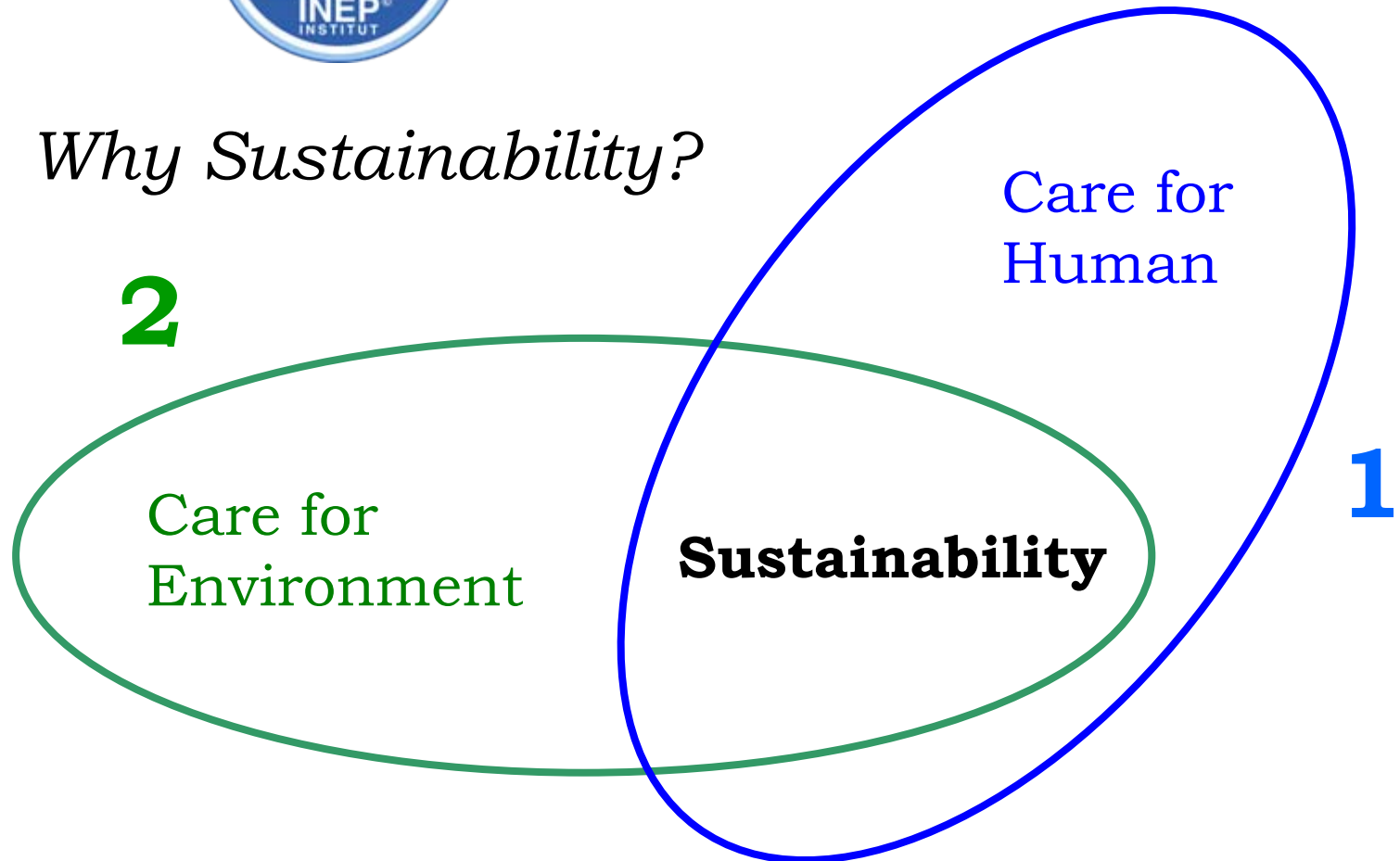
Some “stupid” reflexions

- How many times have we leave food in our dishes at the canteen?
- How many times at home?
- Do we usually switch off the light when we leave a room?
- How much times do we think before throwing something in the dustbin?
- When brushing our teeth how long the tap flows?
- Do we often switch off the heater when we ventilate a room?
- Do we switch off radio, television and computer when we do not use them?
- ...



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Why Sustainability?





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An alarming fact!!!

About 900 million people are estimated to live in slum-like conditions characterized by insecure tenure, inadequate housing, and a lack of access to water or sanitation
[The UN, 2008]

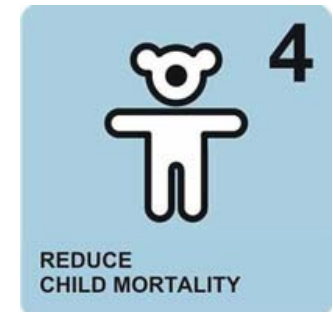


How to overcome?



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The (8) UN MDGs



Source: www.undp.org/mdg/



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What is the Code?

People

A tool in on going development by INEP to take an active part to poverty alleviation through sustainable housing practices

A contribution to climate protection through CO2-emissions reduction



The Globe



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Strengths and basic objectives of the Code

Strengths

- Embedded in sustainable development
- Mixes a number of simple efficient design and building principles
- Integrates technologies ready to apply

- Improvement of Health
- Reduction of water and energy consumption
- Conversion of human waste into valuable resources
- People empowerment

Basic objectives



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Achievements with the Code

Latter public events

- House Fair Bozen, [South Tirol, Italy]
- World Climate Conference, [Bali 2007]
- Exhibition of latter developments, [Bremen 2008]



EnerKey Project, South Africa

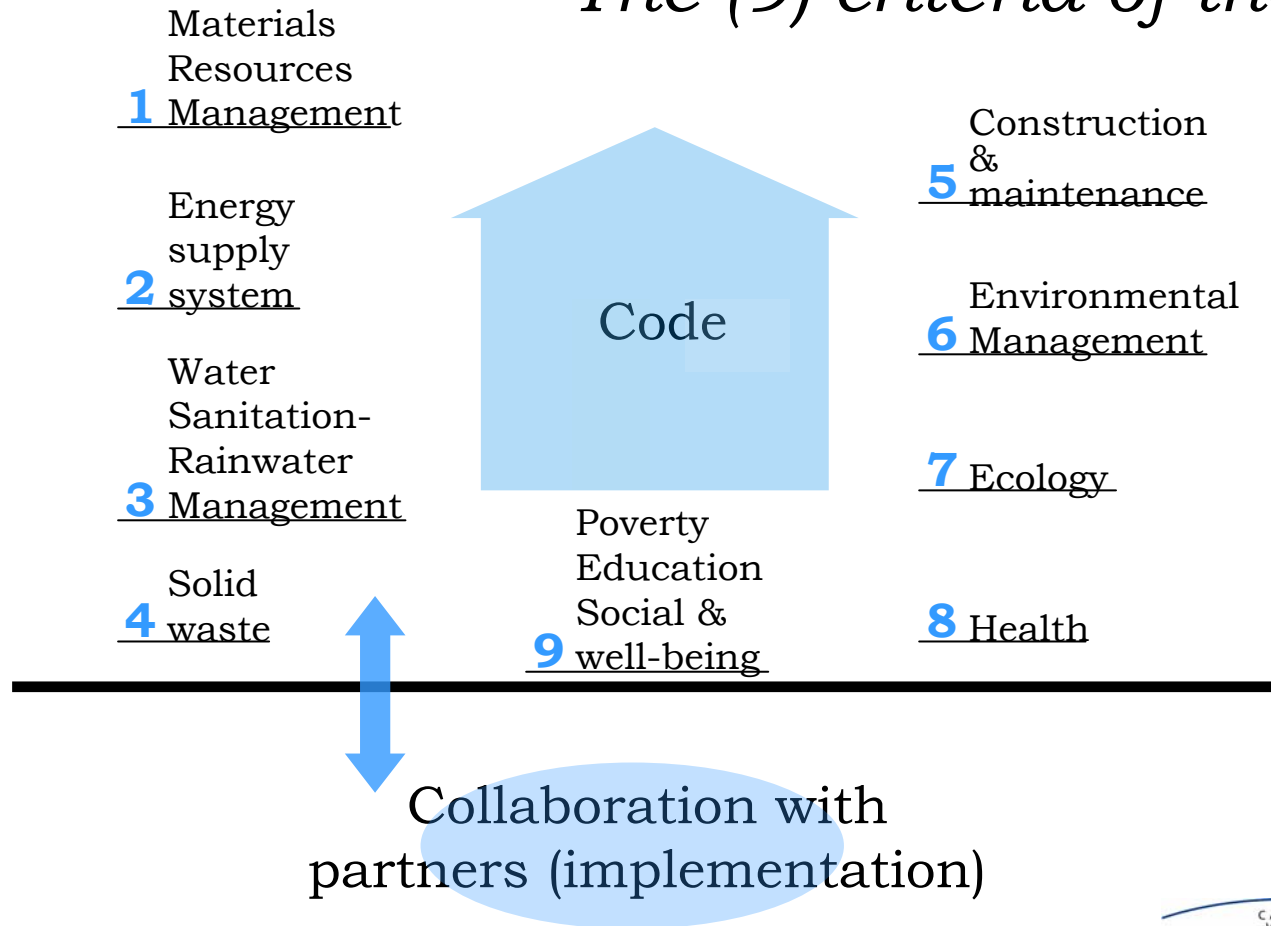
A consortium of (6) German partners and (8) South African partners to solve the energy crisis of the Gauteng Province in South Africa

<http://www.enerkey.info/>



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The (9) criteria of the Code





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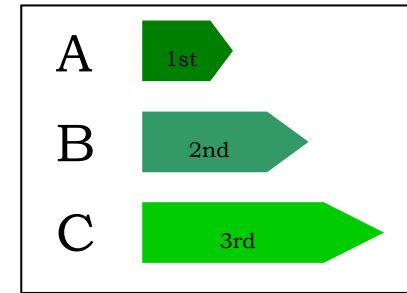
*How does
the Code
work?*

Criteria

Stars



Classes



Energy-ID
[money]

CO₂ -savings

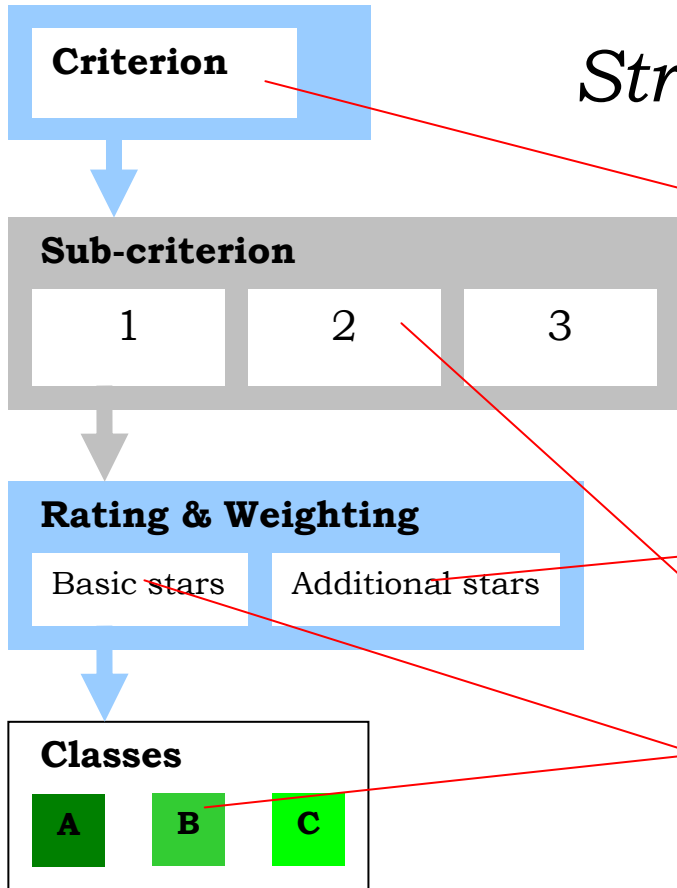


“Roof for quality of life”

*A mark of quality
for climate protection
and social development*



Structure of the rating system



Example for one criterion

1 Materials - Resources Management					
MRM1	4	1 (*)	+1 if the house orientation is a plus, 0 if not. The same for sunshine and wind	[4 - 5]	C
MRM2	4	2 (**)	+1 if the house orientation is a plus, 0 if not. The same for sunshine and wind	[8 - 9]	B
MRM3	4	3 (***)	+1 if the house orientation is a plus, 0 if not. The same for sunshine and wind	[12 - 13]	A



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Home classes

Classes	Range of Points [min – max]	Energy efficiency
C	[18 – 22]	
B	[40 – 45]	
A	[60 – 65]	

Energy ID

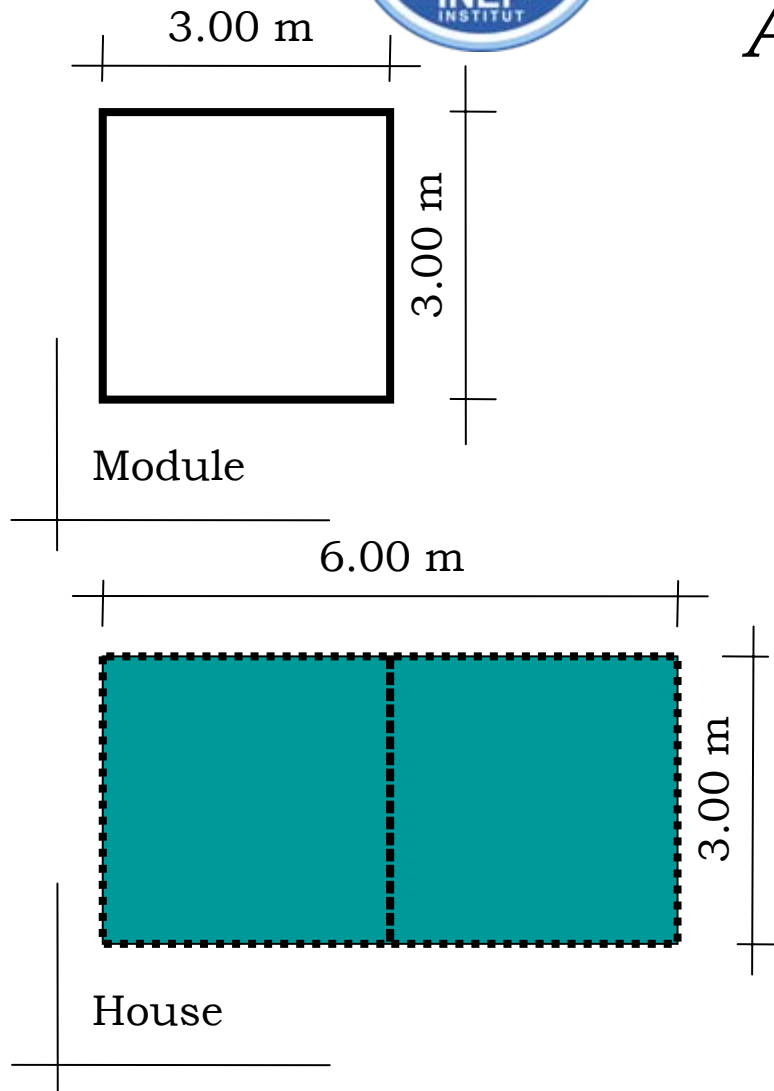
Opens new era and new markets in the field of construction industry

Energy ID	
A	
B	
C	
Examiner Authority	
Date / Place	Institution



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A modular construction



- *cost efficiency*
- *rapidity of assembly*
- *low-energy consumption*
- *easy house extension*
- *standardisation for empowerment*



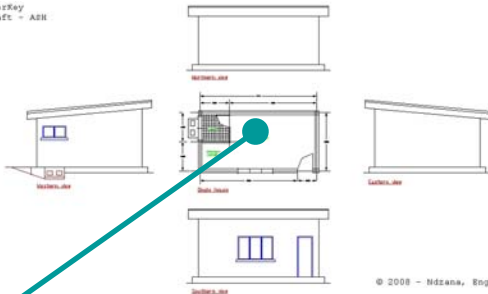
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Examples of social Homes structure

Module 3 x 3 m

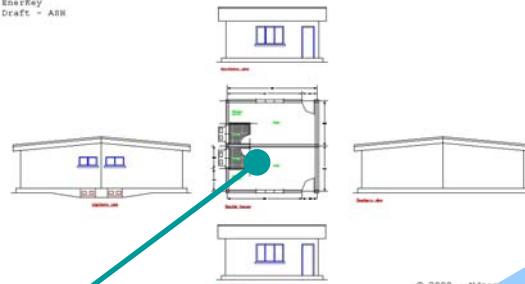


EnerKey
Draft - ASH



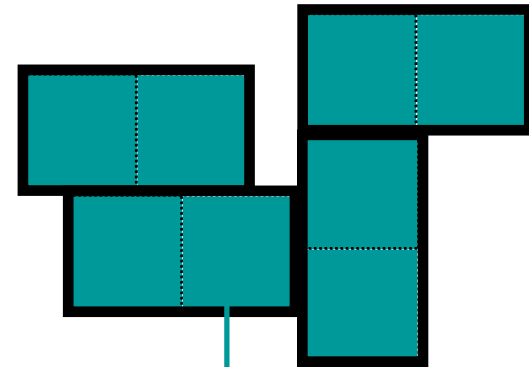
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EnerKey
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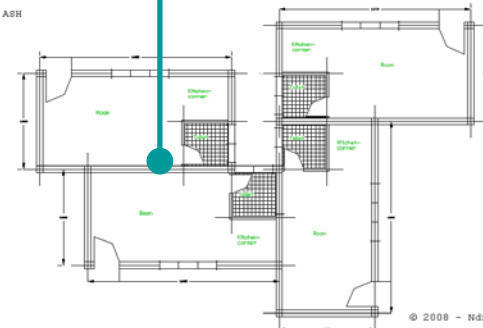


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Community-based house

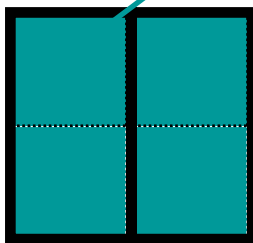


EnerKey
Draft - ASH



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Single house



Double house



Summary

- ➔ *It is urgent not only for the Planet to think “sustainability” but also each person...*
- ➔ *Among the solutions researched vis-à-vis the present environmental treads, for instance the acute housing situation, is the Code from INEP-Institut.*
- ➔ *The Code offers the opportunity to shelter people in ecological and economical way and participates to climate protection as generated homes are energy efficient houses.*



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Thank you !

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Examples of social Homes from the Code



ASH Classic	Bewertung		
ASH-Standard „B“	Merk.	Faktor	Punkte
Energie-Versorgung	E 3	5	15
Material	M 2	4	8
Wasser-Versorgung	W 3	4	12
Abwasser-Management	WW 3	3	9
Wohlbefinden/soziale Integrität	WB 3	2	6



ASH Brick	Bewertung		
ASH-Standard „C“	Merk.	Faktor	Punkte
Energie-Versorgung	E 2	5	10
Material	M 1	4	4
Wasser-Versorgung	W 2	4	8
Abwasser-Management	WW 2	3	6
Wohlbefinden/soziale Integrität	WB 2	2	4
Regenwasser-Management	RW 2	2	4
Müllvermeidung/-Management	SW 1	1	1
Konstruktion/Wartung	CM 1	1	1
Umwelteinfluss	EM 1	1	1
Ökologische Verträglichkeit	EC 2	1	2
Gesamtpunktzahl			41



Indicators of Sustainable Development [CSD indicators]

Theme	Sub-theme	
Poverty	-Income poverty -Income inequality -Sanitation	-Drinking water -Access to energy -Living conditions
Governance	-Corruption	-Crime
Health	-Mortality -Nutritional status	-Health care delivery -Health status and risks
Education	-Education level	-Literacy
Demographics	-Population	-Tourism
Natural hazards	-Vulnerability to natural hazards	-Disaster preparedness and response
Atmosphere	-Climate change -Air quality	-Ozone layer depletion
Land	-Land use and status -Forest	-Desertification -Agriculture
Oceans, seas and coasts	-Coastal zone -Fisheries	-Marine environment
Freshwater	-Water quantity	-Water quality
Biodiversity	-Ecosystem	-Species
Economic development	-macroeconomic performance -Employment -Research and development	-Sustainable public finance -Information and communication -Tourism
Global economic partnership	-Trade	-external financing
Consumption and production patterns	-Material consumption -Energy use	-Waste generation and management -Transportation