







# MILD HOME / Eco Green Village characteristics and performance grid









#### **General definition – MILD HOME / Eco Green Village**

#### 1. The MILD HOME general definition

The MILD HOME is the prototype of an affordable housing for the next two decades, discovering the appropriate architectural responses for the continuously changing environmental and social challenges.

MILD HOME represents not only an innovative construction system but, primarily, a new philosophy/ way of life for people aspiring to own their home with dignity and environmental consciousness.

It should be also find a fair balance between the innovative and environmental friendly character of the project and prices.

#### 2. The Eco Green Village general definition

The Eco Green Village is the complementary system to the individual MILD HOMEs, integrating those into an almost autonomous settlement.

A balance between available resources and energy production is given to secure a renewable and sustainable energy supply. The village should consist of different types of MILD HOMES (detached houses, social houses,...) to secure an efficient use of energy. Further a good infrastructure (like small retail units, post office, bar/restaurant...) should be established to keep ways in daily life short and consequently to reduce fuel needs.





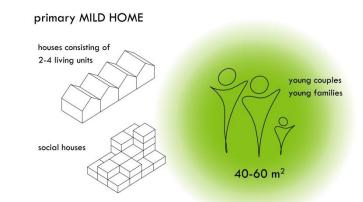




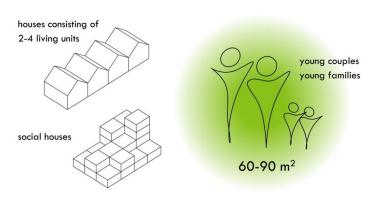


## Types of MILD HOMEs / which is generate the Eco Green Village

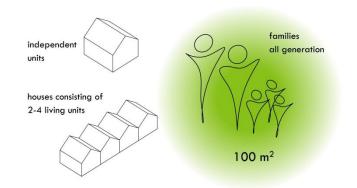
- 3. types of MILD HOMEs add up to the Eco Green Village /to be refined/ 1 type, 2 type and 3 type of MILD HOMEs are possible in the EGV
- 4. target group of the primary MILD HOME young couples, young families
- 5. number of people live in primary MILD HOME 3-4 people
- 6. size of the primary MILD HOME 40-60 m<sup>2</sup>
- 7. types of houses the primary MILD HOME houses consisting of 2-4 living units, social houses
- 8. target group of the secondary MILD HOME young couples, young families
- 9. number of people live in secondary MILD HOME 3-4 people
- 10. size of the secondary MILD HOME 60-90 m<sup>2</sup>
- 11. types of houses the secondary MILD HOME houses consisting of 2-4 living units, social houses
- 12. target group of the tertiary MILD HOME families, all generation
- 13. number of people live in a tertiary MILD HOME 4-5 people
- 14. size of the tertiary MILD HOME 100 m<sup>2</sup>
- 15. types of houses the tertiary MILD HOME independent units, houses consisting of 2-4 living units



#### secondary MILD HOME



#### tertiary MILD HOME









## Way of living

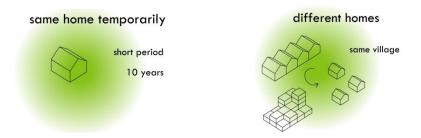
#### 16. way of living in a MILD HOME /to be refined/

rental with mobility or,
rental for lifelong stay, with flexibility or,
own property for lifelong stay, with flexibility



#### 17. way of living in an Eco Green Village /to be refined/

staying in the same home temporarily (for a short period, e. g. up to 10 years) or, staying in different homes, but the same village lifelong (moving around according to the needs of the family model)



#### 18. expected lifespan of a MILD HOME and expected financial return period of a MILD HOME

20-50 years lifespan and 20 years the expected financial

#### **19. expected financial structure for MILD HOME** /to be refined/

the target group rents the estate / house / flat or,

the target group buys the estate / house / flat with bank loans (long term redemption)















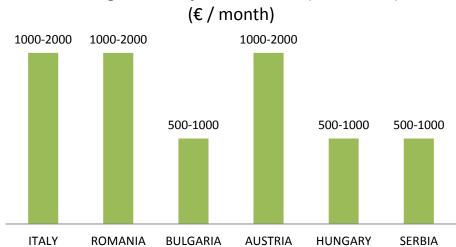


#### **Financial background**

Two directions on the financial background A and B

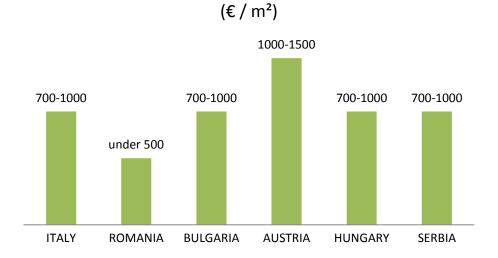
20. average income of the target group per household (after taxes)

#### Average income per household (after taxes)



#### 21. expected construction price of a MILD HOME

#### **Expected construction price of a MILD HOME**





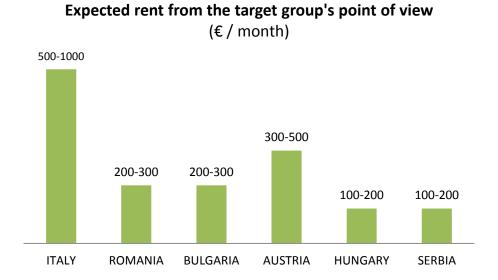




#### **22.** expected per cent of the own fund the target group can contribute to a MH if buying as own property

# Expected per cent of the own fund (%) 50 30-50 15-20 10 O ITALY ROMANIA BULGARIA AUSTRIA HUNGARY SERBIA

#### **23. expected rent / reimbursement from the target group's point of view** /depending on the type of MH/









#### 24. expected rent from the municipality's / building company's point of view

**ROMANIA** 

# Expected rent from the municipality's point of view (€ / month) 300-500 300-500 300-500 200-300 100-300

**AUSTRIA** 

**HUNGARY** 

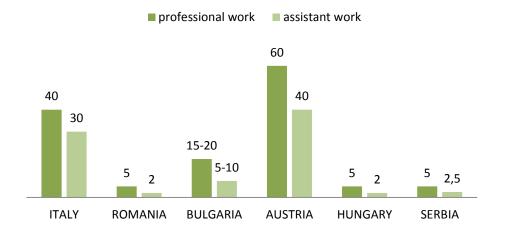
**SERBIA** 

**25.** the hourly rate of man power at construction work

**ITALY** 

# The hourly rate of man power at construction work (€ / hour)

**BULGARIA** 

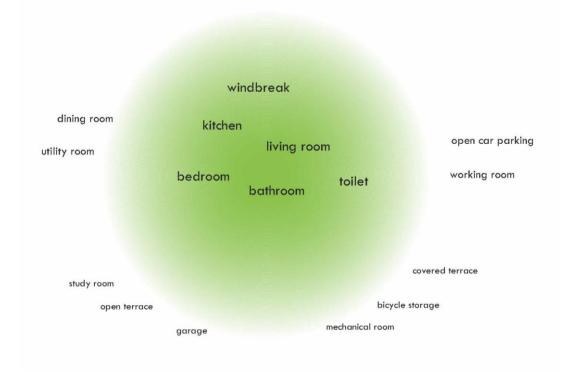




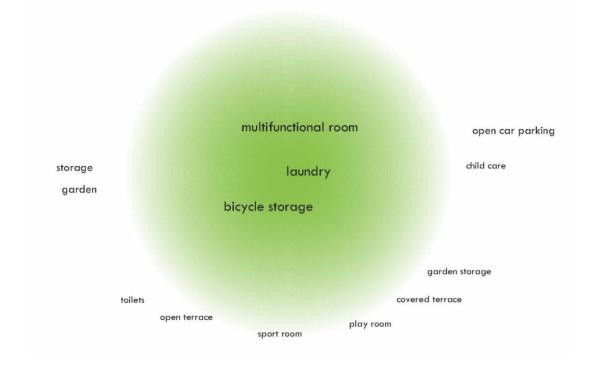


# Parts of MILD HOME / Eco Green Village (functions and services)

#### **26.** the expected functions in a MILD HOME



#### 27. the expected functions amongst the communal spaces of adjusted MILD HOMEs

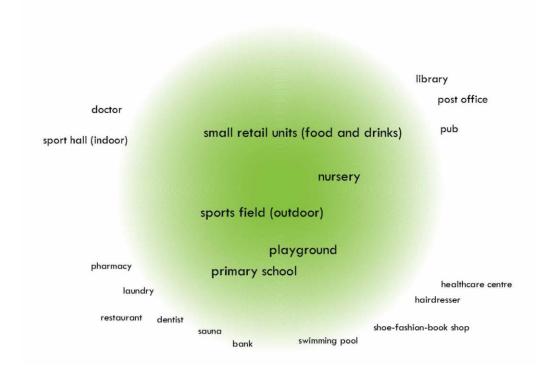








#### 28. the expected services in the Eco Green Village



#### 29. home-based business / work in the Eco Green Village

maybe it would work, but it cannot be determined at present

#### **30.** expected service systems installed in a MILD HOME

electrical network

heating network

domestic heat water network

drinking water network

rainwater collection network

wastewater network

selective waste collection network

telephone

Internet

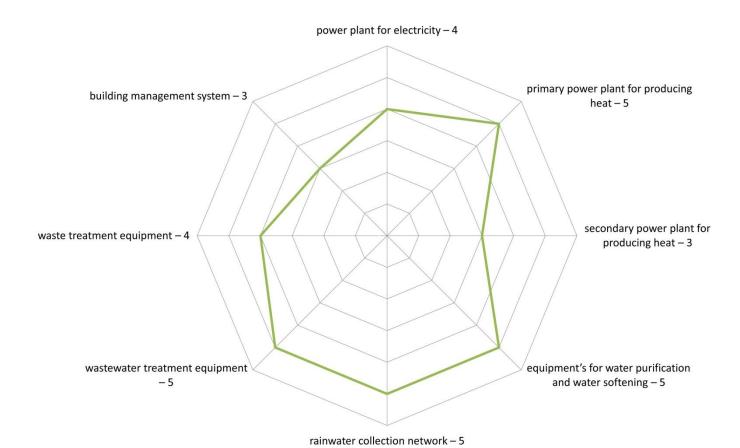
television







**31.** service systems could be installed for a group of MILD HOMEs increasing the energy and cost efficiency of the systems (1- should be individual, 6-could be absolutely common)



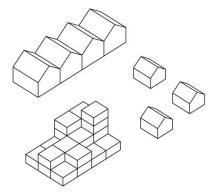






#### Eco Green Village – scale, size, location

#### Eco Green Village be totally or partly autonomous



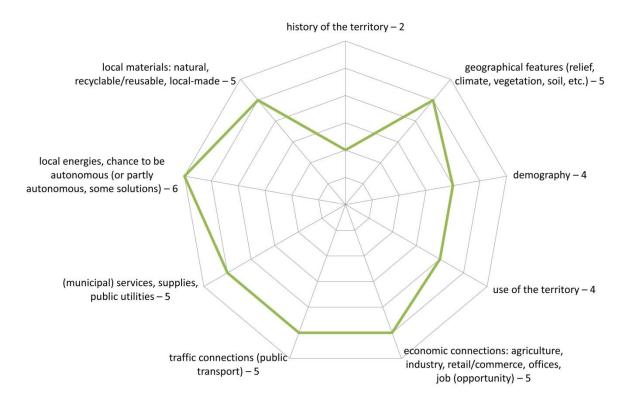
#### 100-500 inhabitants

part of a town 0-5 km

close to town 5-10 km

autonomous in electric energy supply autonomous in heating energy supply autonomous in waste water treatment autonomous in drinking water supply autonomous is solid waste treatment

# **32.** the importance of the next factors by choosing place for Eco Green Village (1-not important at all, 6-absolutely important)









#### **Traffic**

- 33. transport between the village and the town nearby /to be refined/ existing public transport network (because of the location easily connecting to that) new public transport system (because of the location it is difficult to connect to the existing one) using own vehicles - prefer bicycles or going on foot /in terms of local situations/
- 34. traffic in the village /to be refined/ alternatives of public transport only bicycles, or going on foot private vehicles (cars, motorbikes) /in terms of local situations/

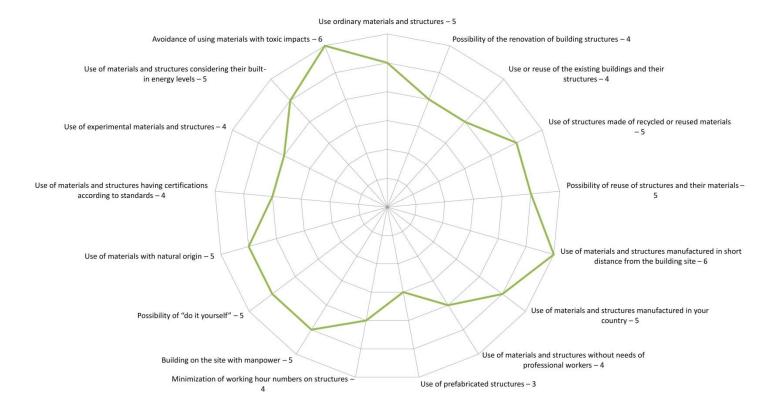






#### **Used materials and structures**

35. the importance of the following aspects in the design concept of MILD HOME concerning to the choice of materials and structures (1- not important, 6- absolutely important)



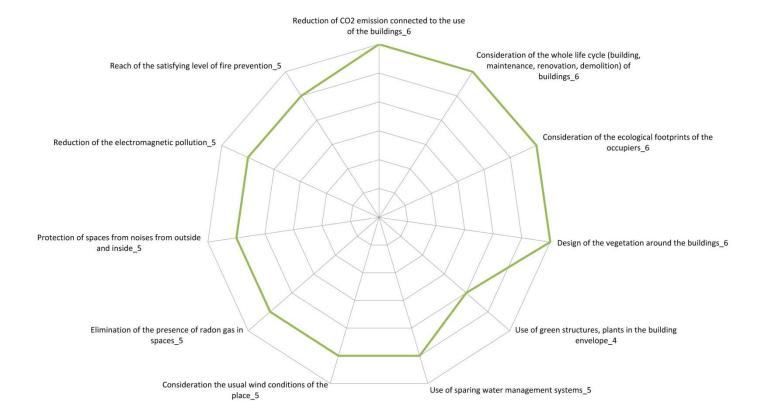






#### **Environmental protection**

**36.** the importance of the following aspects in the design concept of MILD HOME concerning to the environmental protection (1- not important, 6- absolutely important)



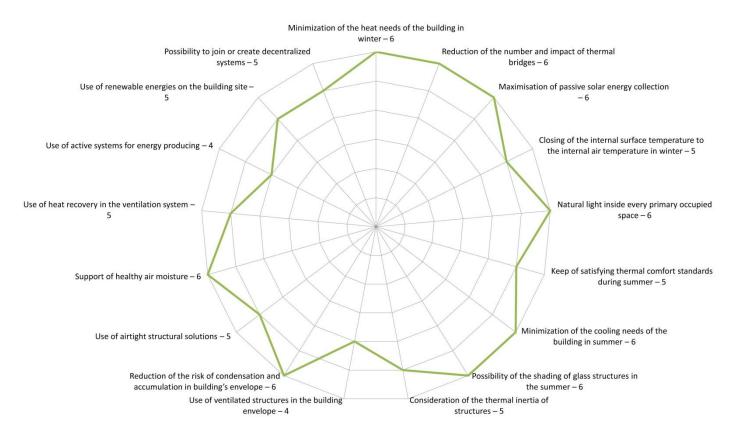






#### **Energy performance**

# **37.** the importance of the following aspects in the design concept of MILD HOME concerning to the energy performance (1- not important, 6- absolutely important)



**38.** energy needs and productions are included in the overall energy performance indicator of residential buildings according to the current legislation /to be refined/

primary energy need for heating
passive solar heat gain
primary energy need for domestic hot water
primary energy need for ventilation
primary energy need for lighting
primary energy produced from renewable sources

39. targeted energetic performance of MILD HOMEs

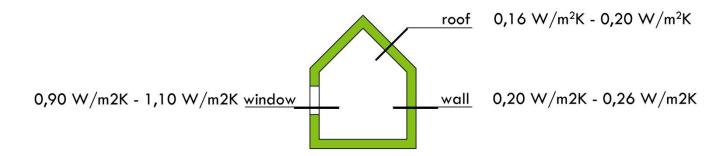








40. values of heat transmission of the following structures in the MILD HOMEs? (  $W/m^2K$  )



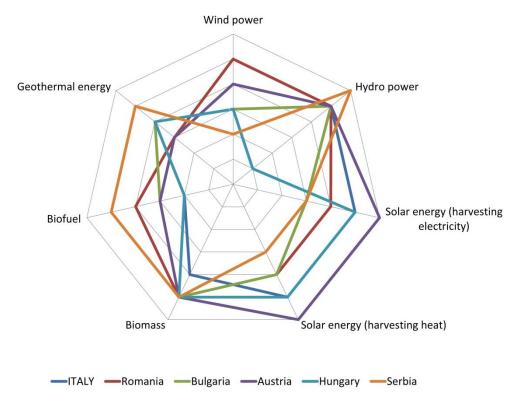




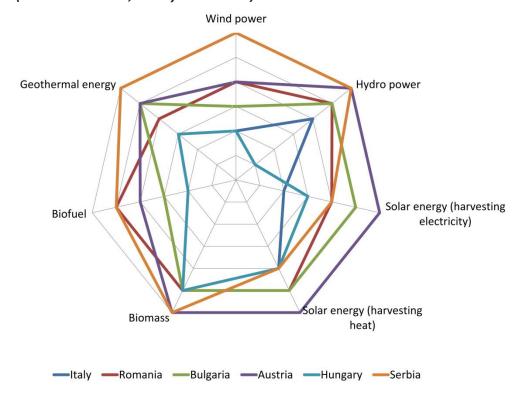


#### **Energy resources**

#### 41. renewable energies available in your country (1- not available, 6- much available)



**42.** renewable energies harvested economically in your country considered the investment cost (1- not economical, 6- very economical)











# **Budget plan of building cost**

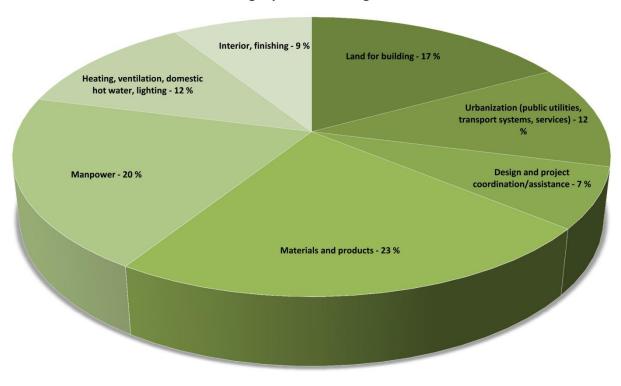
Category of costs	What is the impact of this factor on the final costs of the building? (%)	How can this factor lower the final costs of the building? (in terms of %)	What is the lowered impact of this factor on the final costs of the building? (%)
Land for building	17%	6 %	11%
Urbanization (public utilities, transport systems, services)	12%	4%	8%
Design and project coordination/assistance	7%	2%	5%
Materials and products	23%	5%	18%
Manpower	20%	5%	15%
Heating, ventilation, domestic hot water, lighting	12%	2%	10%
Interior, finishing	9%	2%	7%
Total	100%	26%	74%







#### **Budget plan of building cost**

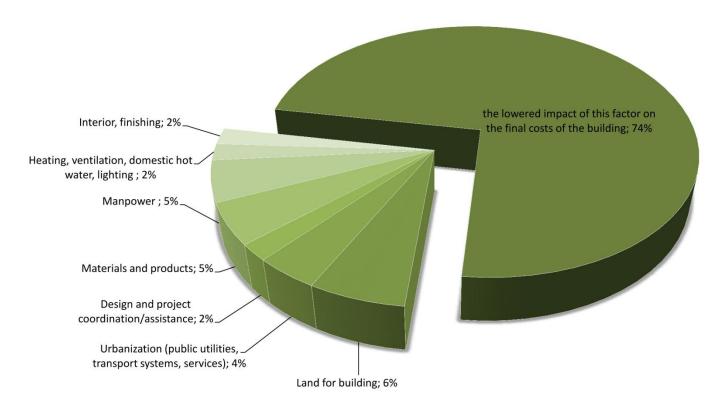








#### this factor lower the final costs of the building





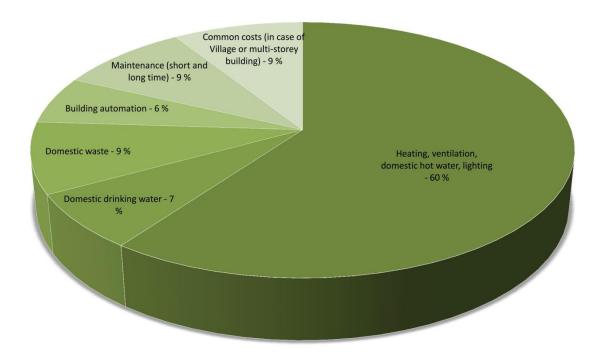




# **Budget plan of operating costs**

Category of cost	What is the impact of this factor on the final costs of the building? (%)	How can this factor lower the final costs of the building? (In terms of %)	What is the lowered impact of this factor on the final costs of the building? (%)
Heating, ventilation, domestic hot water, lighting	60 %	26 %	34 %
Domestic drinking water	7 %	1 %	6 %
Domestic waste	9 %	3 %	6 %
Building automation	6 %	2 %	4 %
Maintenance (short and long time)	9 %	2 %	7 %
Common costs (in case of Village or multi-storey building)	9 %	2 %	7 %
Total	100 %	36 %	64 %

#### **Budget plan of operating costs**









#### this factor lower the final costs of the building

