

Now it is clear:  
against climate change  
all of us have to do  
something !!

# What Europe does?

press the right arrow

Kyoto Protocol

EFFORT SHARING  
COVENANT OF MAYORS

SEAP - Sustainable Energy Action Plan  
Adaptability Plan

Invariance Plan

RESILIENT CITY  
L'Instrument Financier Pour l'Environnement

TRANSITION CITY  
LIFE Programme

SMART CITY & SMART GRID  
ELENA - European Local Energy Assistance

European Energy Efficiency Fund EEF  
M2RES "From Marginal to Renewable Energy Sources Sites"

HORIZON 202020

Kids 4 climate

Net-zero energy building (NZEB)

2020

Kids 4 climate

and EEEF  
Energy Sources Sites”

Net-zero energy building (NZEB)

**What are the nearly zero energy buildings?  
What features should have them?**



press the right arrow

According to the definition supplied from the directive, the net zero energy building is a “building to highest energetic performance with an energy requirement much low or almost null, covered in meaningful measure from energy from renewable sources, inside produced of the border of the system (in situ)”  
= enough vague definition



Could it work?





RAMOS

FOLLOW ME!

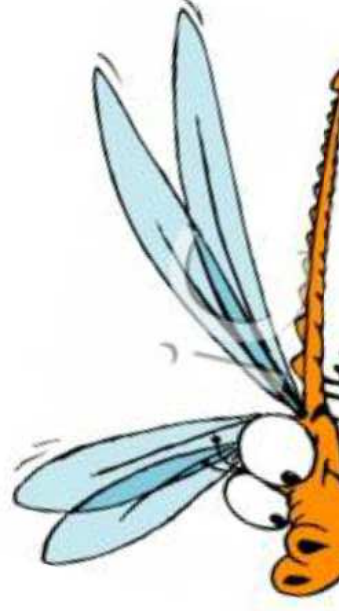


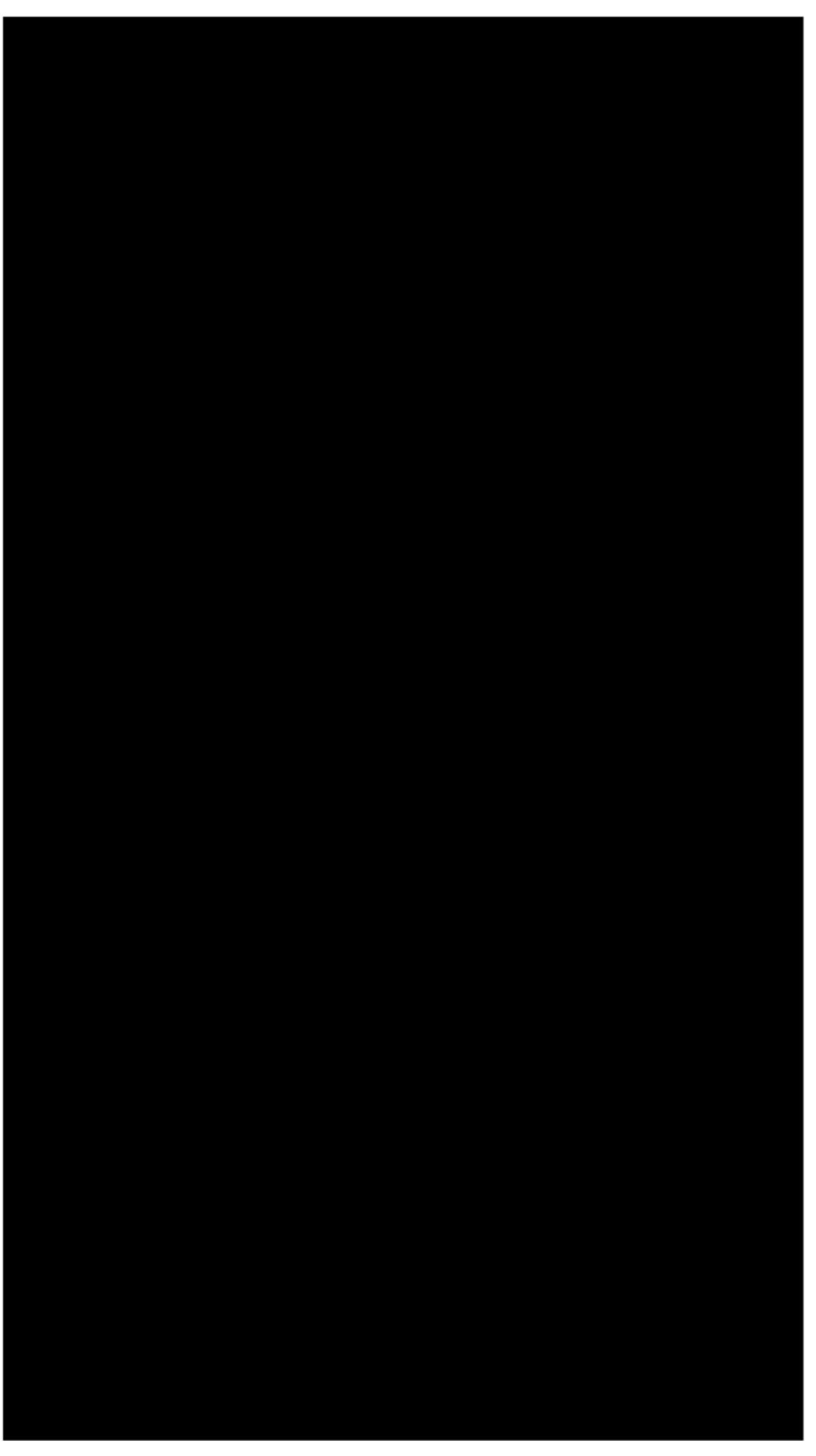
Press play to start video



# It could work!!

Yes, it's difficult ... but we can change!





Press play to start video



The building must be seen  
in its complexity



# VISION SYSTEM



Some  
examples



# ENERGY



# WASTE



refillable glass bottles



cloth napkins



re-usable  
cotton diapers

home composting  
of organic waste



wine in "bag in box"  
(wine stored in no glass boxes)



and so on ...



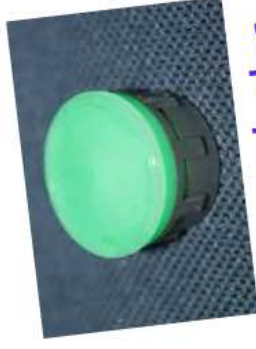
# WATER



dual flushing system for the WC



energy "Class A"  
domestic appliances



flow reducer



garden, car wash, etc... with not drinking water

and so on...

# MOBILITY

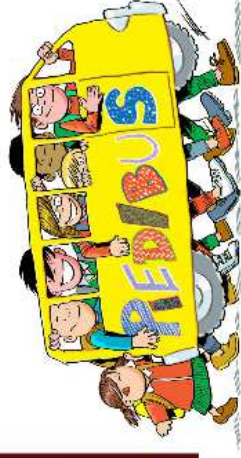
Press play to start video



bicycle



electric bicycle



PIEDIBUS



# Home energy retrofit



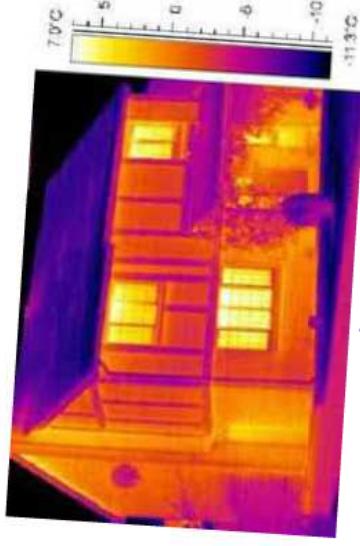
heating system fuelled by pellet  
to reach all three floors



PVC frames  
(windows)

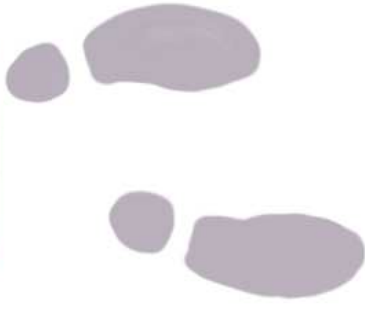


thermal and acoustic  
insulation of walls and roof



energy valuation with  
thermal imaging camera

energy valuation with  
thermal imaging camera

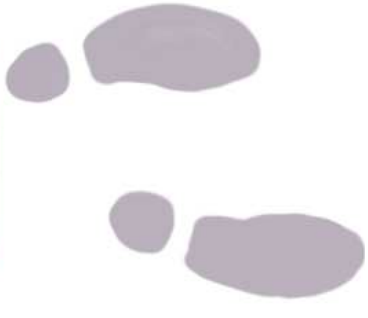


- + Energy production from RES
- + Reducing consumption



photovoltaic system

energy valuation with  
thermal imaging camera



- + Energy production from RES
- + Reducing consumption

OMNI<sup>®</sup>



intelligent

d control



Wireless Electricity Monitor

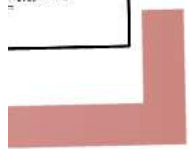


energy valuation with  
thermal imaging camera



- + Energy production from RES
- + Reducing consumption

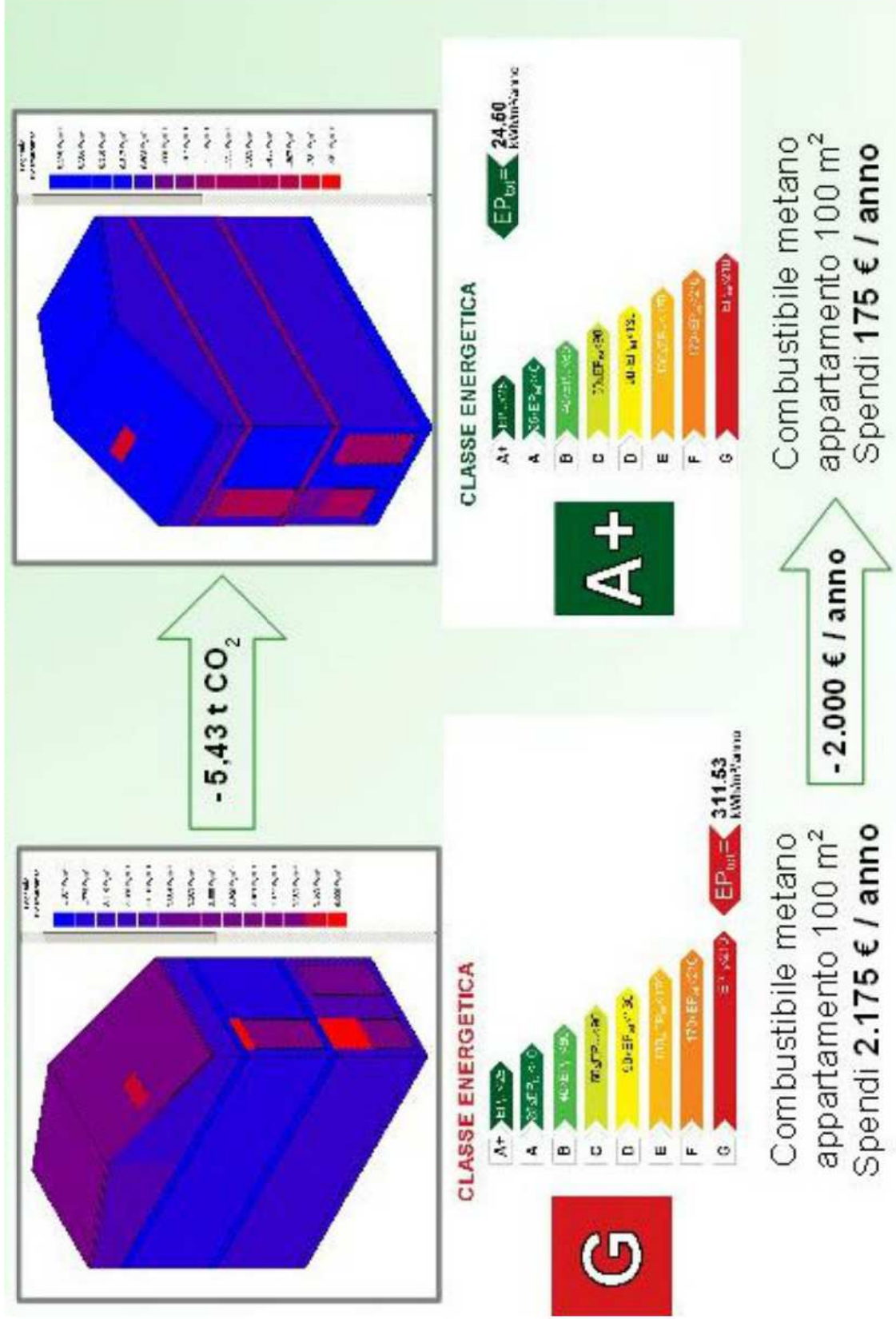




# + GOOD PRACTICES



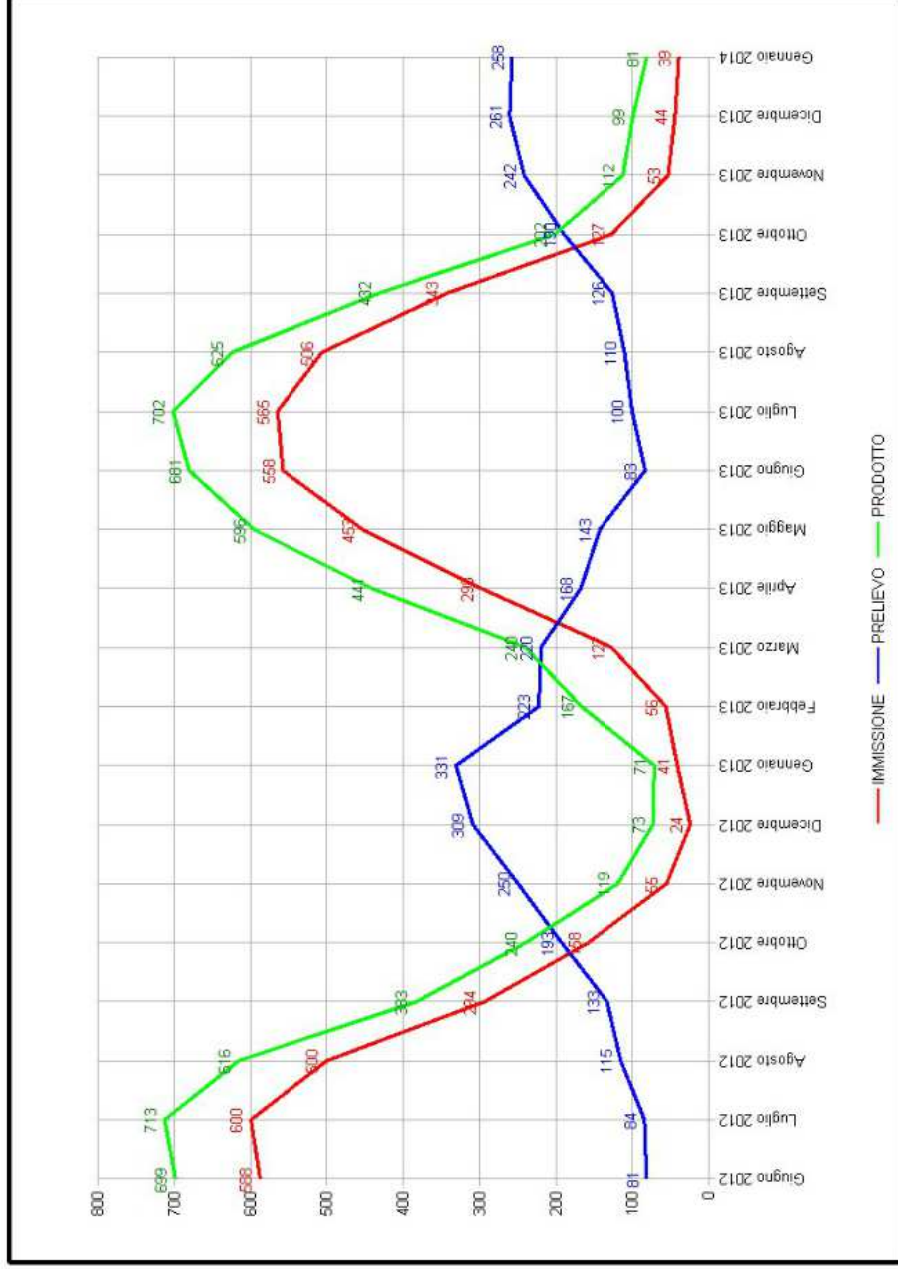
# Net-zero energy building (NZEB) or "active building"



### A real case (Modena - Italy)

4.25 kWp PV system in operation for three years:

- electric energy produced = 13.959 kWh
- energy fed into the grid = 10.633 kWh
- energy drawn from the grid = 6.317 kWh



A house that produces energy more than it consumes is now a reality for everybody.

It's a real possibility, which not only frees us from having high bills but makes us self sufficient.

We can significantly improve our quality of life and protect the environment in which we live.

Seizing this opportunity means to invest for a more peaceful and better future.



