

# Objectives and principle

- ▶ **Objective : simplified calculation tool**
- ▶ **Principle : based on EN832**
- ▶ **Application area :**
  - Estimation of fuel consumption,
  - Estimation of operation costs,
  - Comparison of different versions in design phase
  - Evaluation of building energy performance
  - Certification of buildings according to EPBD
  - „Passive house labeling” in Germany, Minergie in Switzerland

# Energy balance of a building

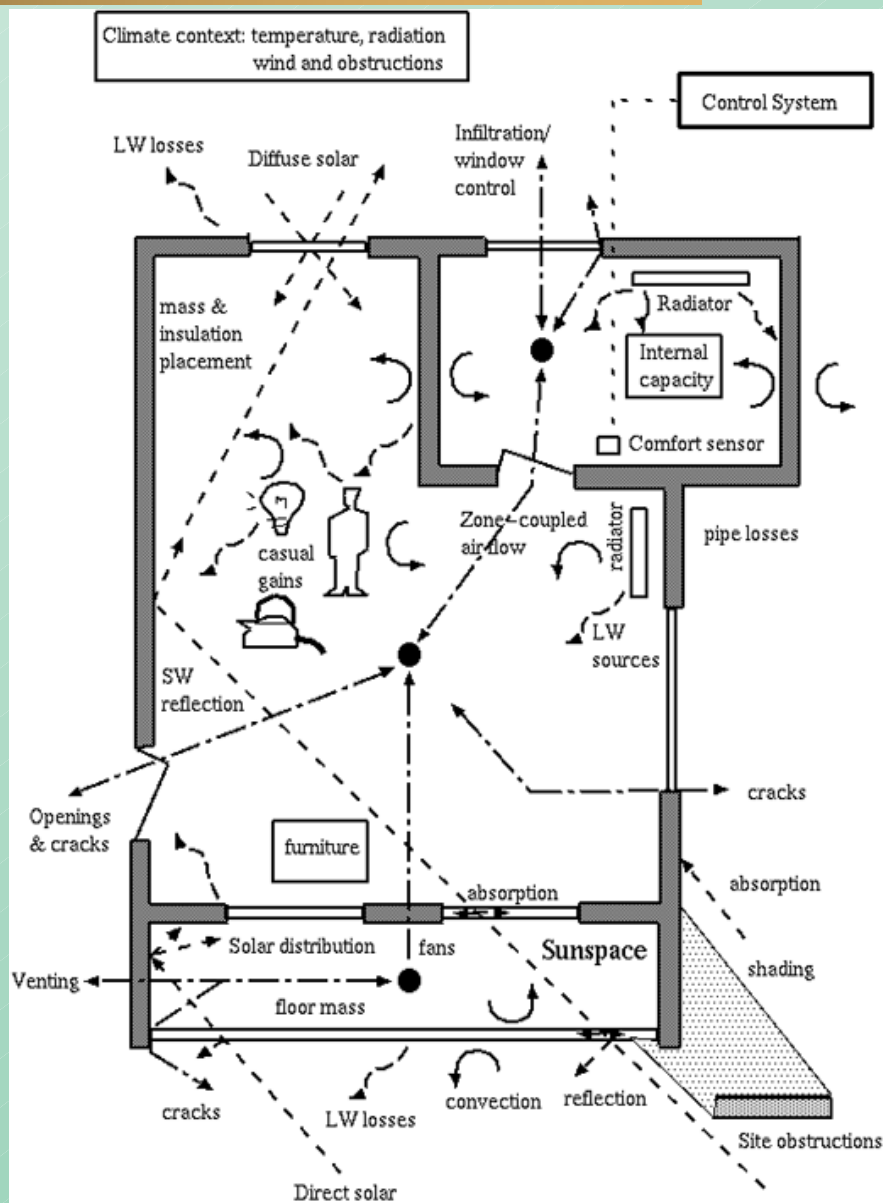
## HEAT LOSSES:

Transmission

► Thermal bridges

► Ventilation and in- or

exfiltration of air  
HEAT GAINS:



# Monthly heating load calculation or simulation?

## ▶ **Advantages compared to simulation:**

- Requires less professional skills to use the tool
- Requires less time and input data
- Less risk of making mistakes

## ▶ **Disadvantages compared to simulation:**

- Preciseness of results is ususally lower, ecause the input data are less deep
- Non applicable for daily, hourly energy demand calculations
- Non applicable for determining comfort parameters, variable indoor air temperature and summer performance of the building