

# evergreen

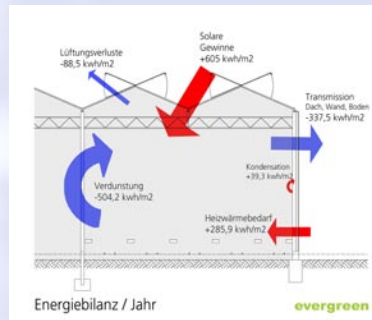
## low energy greenhouse

topic:

basic research and development of a model for an energy-efficient greenhouse in the climate zone Austria East

objectives:

1. cutting of energy consumption p.a. and sqm, cultivation area
2. optimisation and safeguard of conditons of growth



working method:

1. interdisciplinary network: team of 11 institutions and experts in different fields of horticulture, greenhouse technology and sustainable technologies
2. improvement of results step by step, by alternate interdisciplinary workshops and high performance simulation tools as TRNSYS and CFD
3. accompanying evaluation of ratio of investent costs to energy costs

results:

1. various types with heat - energy saving of 22-42%
2. pool of experts for the further development and detailed planning of a greenhouse prototype
3. basic data for large scale tests and further development close to the market

project team:

management and building concept:

pos architekten, DI. Fritz Oettl

static: Dr. Wagner

technic of greenhouses: Dr. Tantau

economics: Dr. Demerci

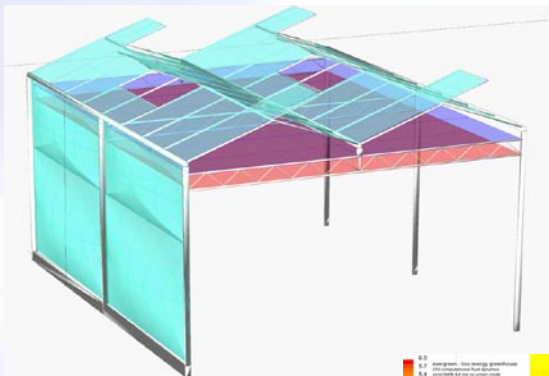
vegetable gardening, control: R. Herret

light engineering: DI. Pokorny

HVAC: Ing. Obermayer, Dr. Käferhaus

CFD, energy resources: arsenal research

TRNSYS energetic simulation: IBO, Dr. Zelger



evaluation:

the submitted project in the call "sustainable usage of energy Vienna 2003" has been awarded by an international jury and recommended to promotion.

promotor: WWFF- Wiener Wirtschaftsförderungsfonds

promotion handling: ZIT-Zentrum für Innovation und Technologie

project location: Vienna, Austria

project duration: 2004 - 2006

