

THE ROOF WINDOW OF THE FUTURE

A MEAN TO ACHIEVE DAY-LIT NEARLY ZERO ENERGY BUILDINGS WITH A COMFORTABLE INDOOR ENVIRONMENT

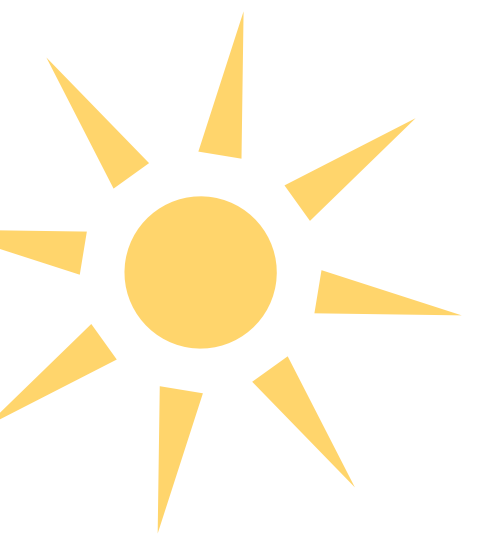
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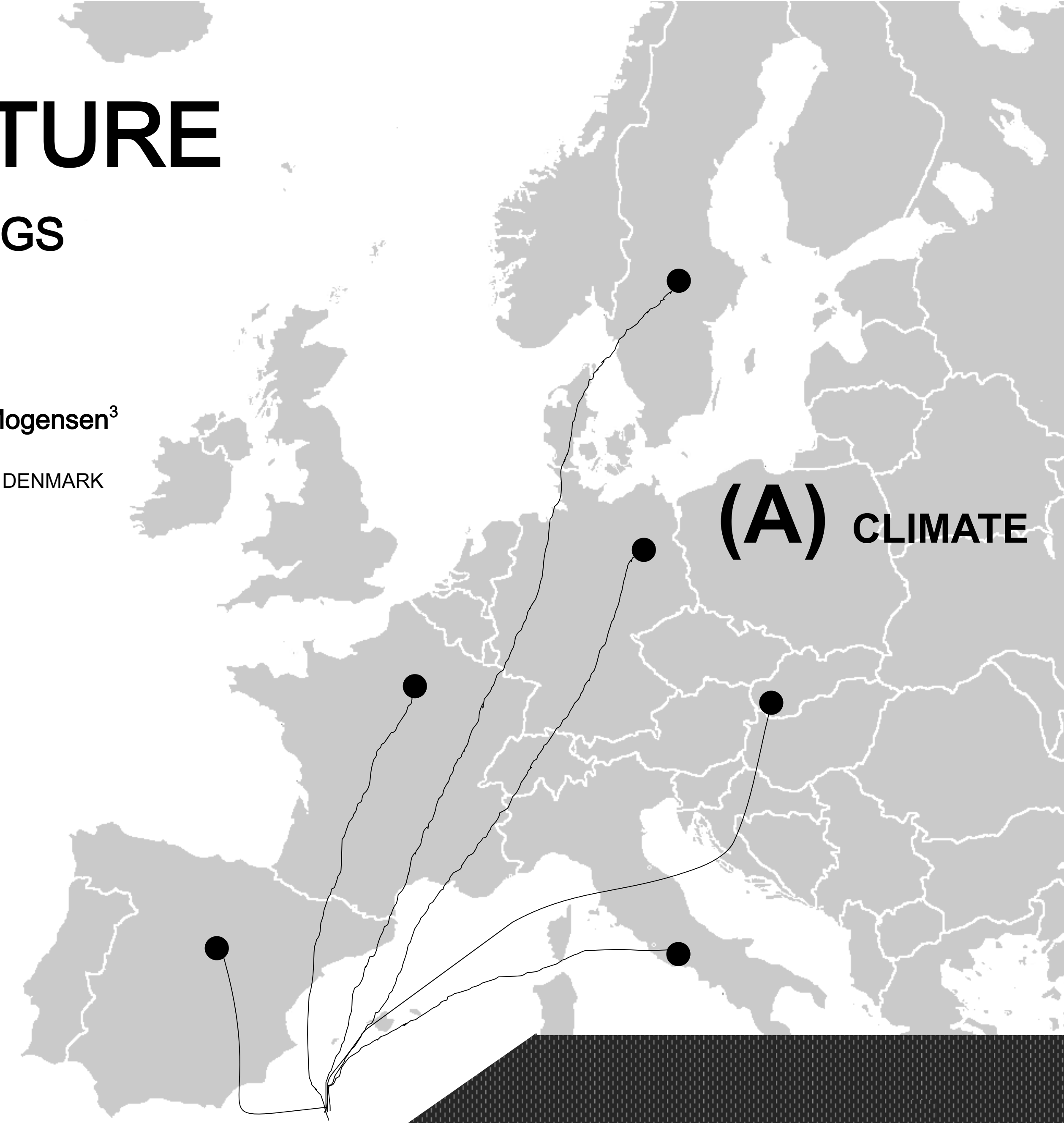
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LIGHT ENERGY

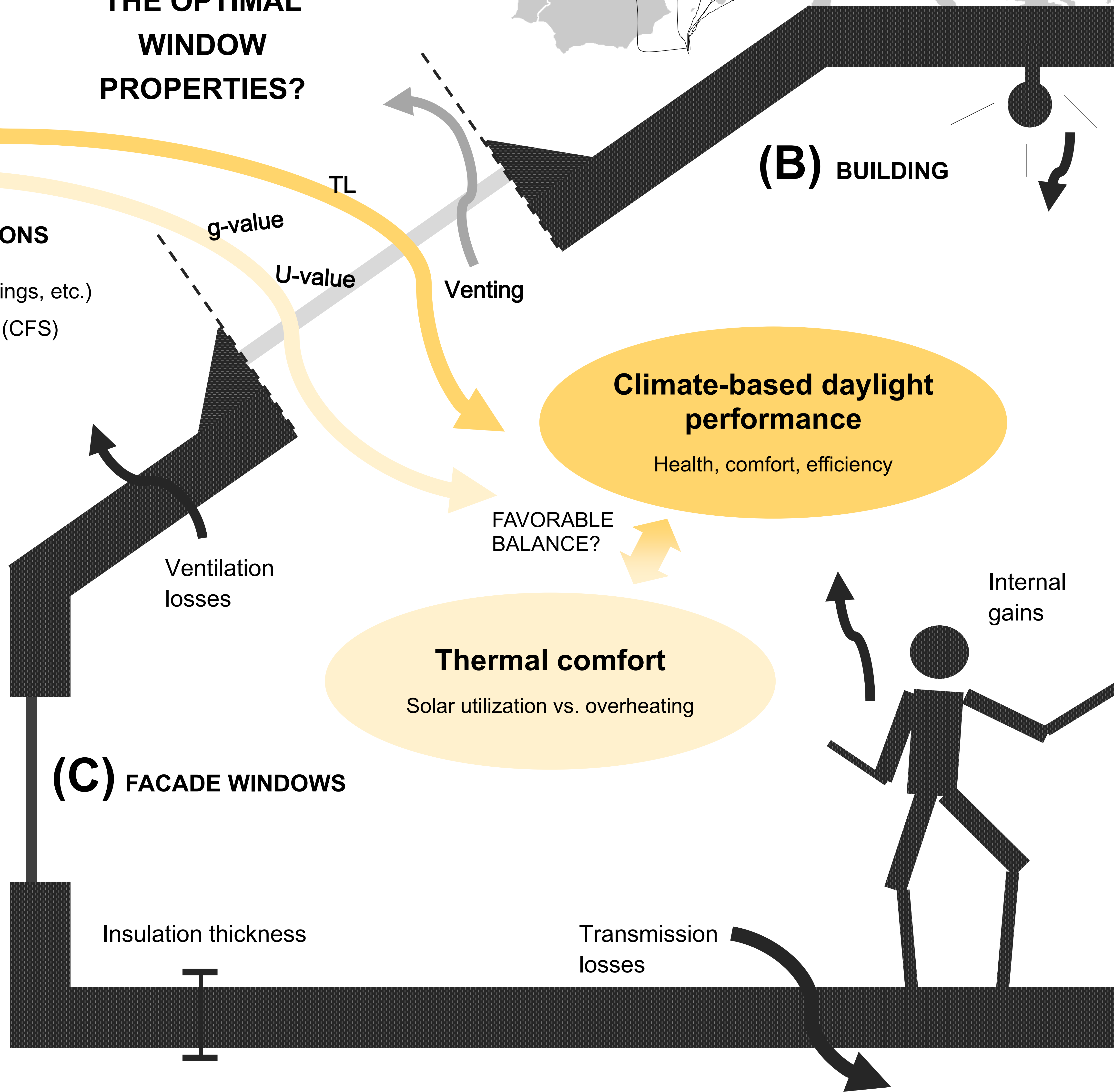
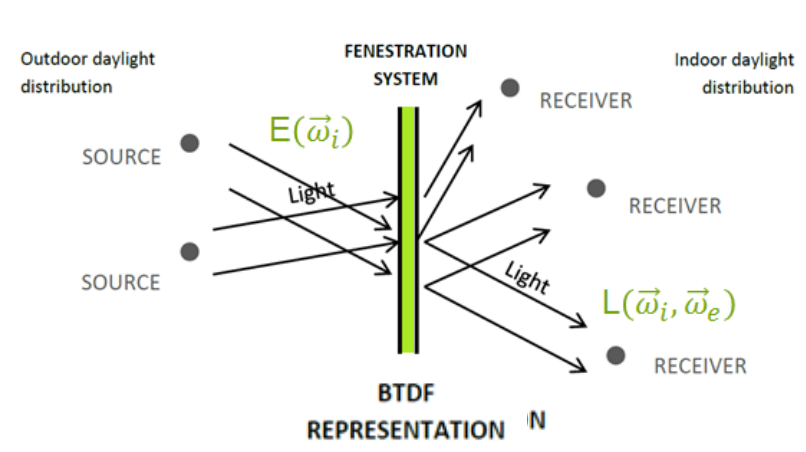
- New demands and possibilities related to the behaviour of European (A) “nearly zero” energy buildings (B) of the future.
- Need for robust and cost-effective solutions enabling a minimum energy use.
- The challenge of balancing desirable daylight conditions and thermal comfort.



THE OPTIMAL WINDOW PROPERTIES?

(D) SOLAR SHADING SOLUTIONS

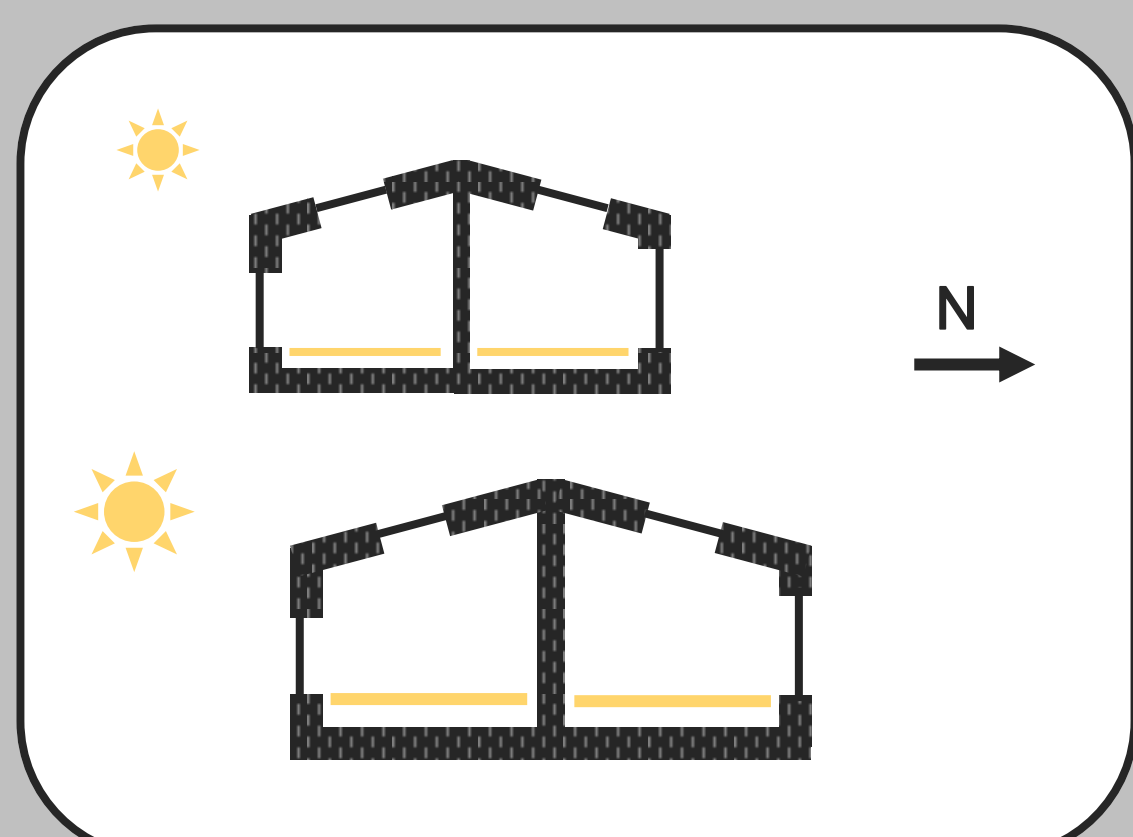
- Simple means (geometry, coatings, etc.)
- Complex fenestration systems (CFS)



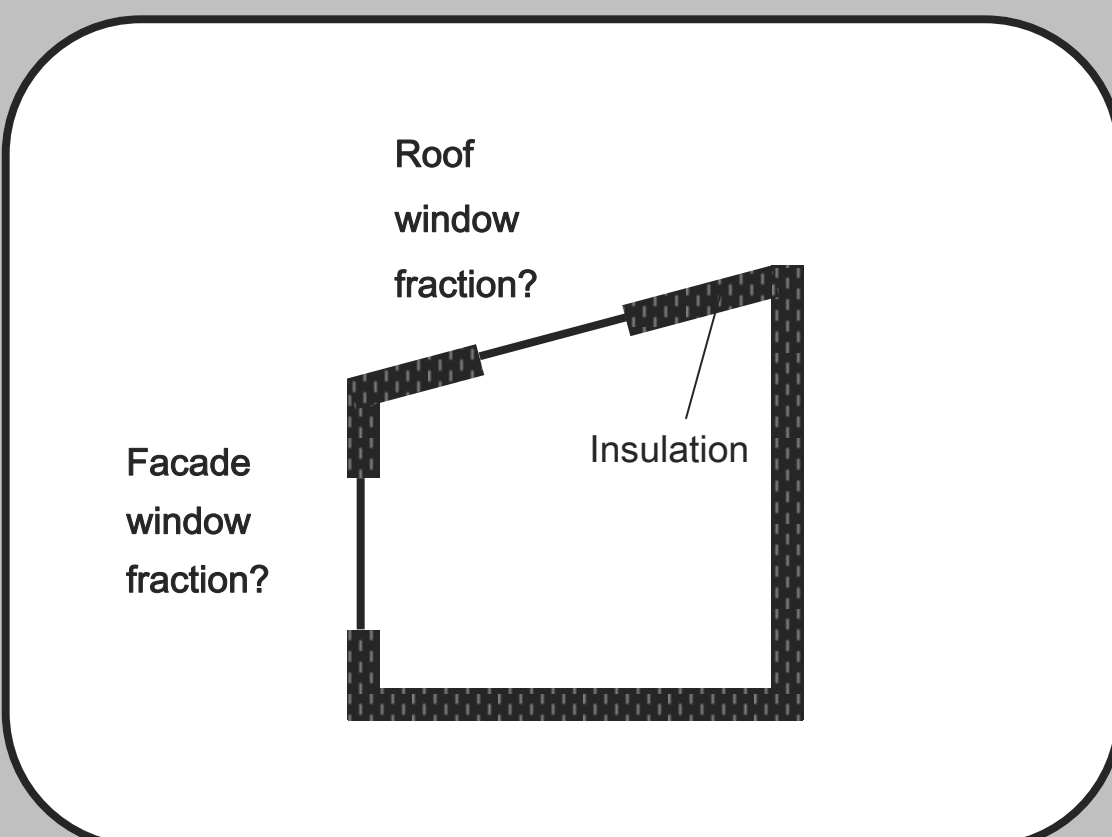
Nearly zero energy use

What characterizes the optimal roof window under the boundary conditions of the “nearly zero” energy buildings in future Europe?

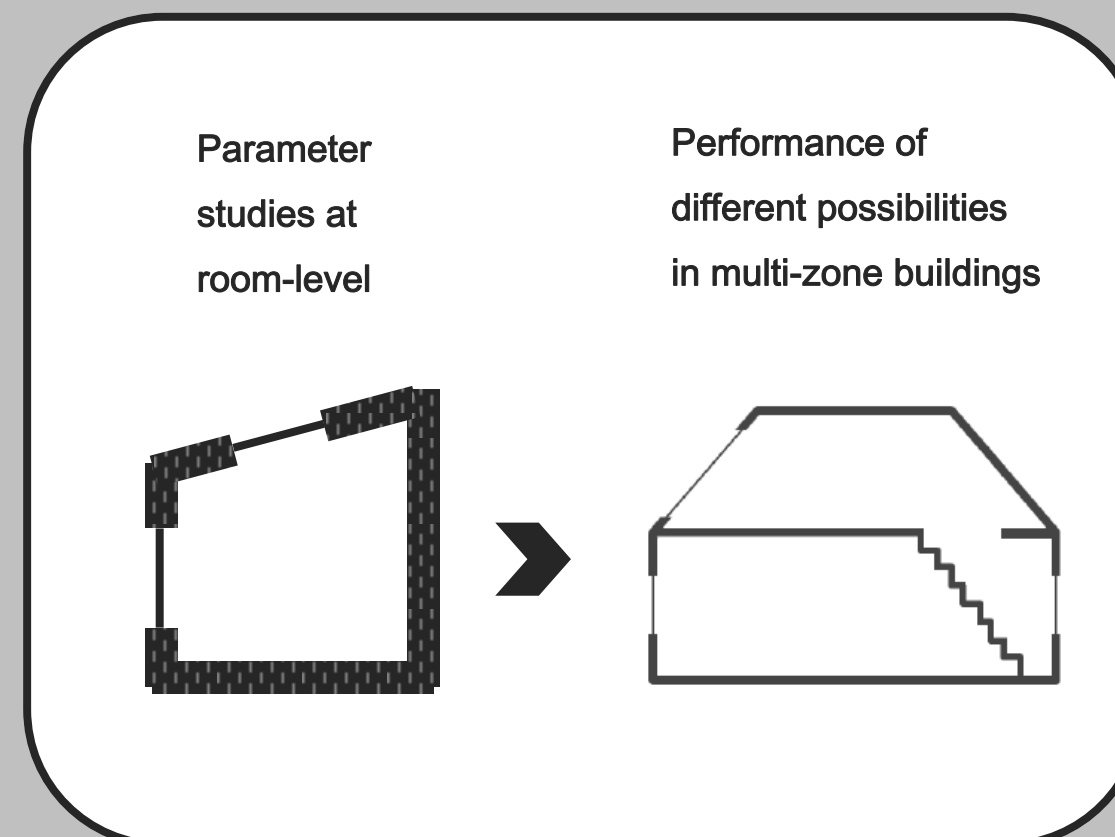
DIMENSION FOR DIFFERENT FIXED CLIMATE-BASED DAYLIGHT TARGETS



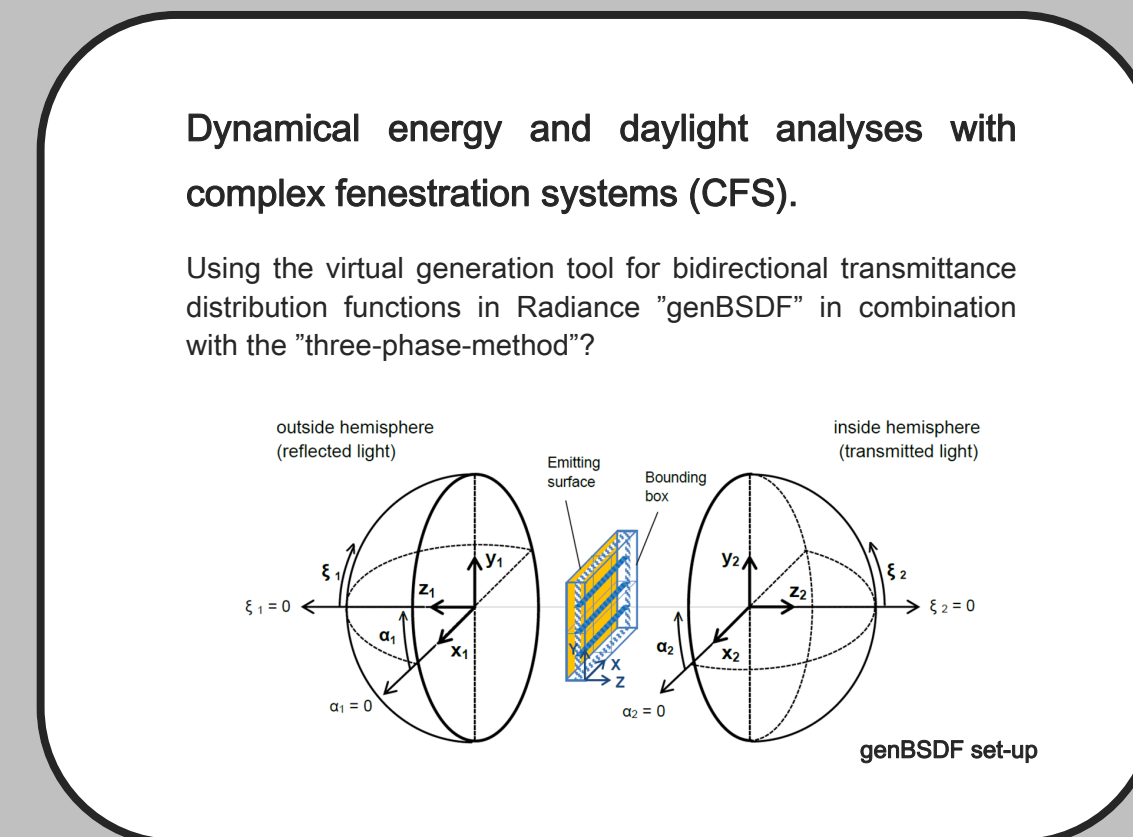
ESTABLISH RELATIONS TO FACADE WINDOWS (C) AND BUILDING (B)



PARAMETER STUDIES INCLUDING THE EFFECT OF A ZONES' ORIENTATION



POTENTIALS IN DIFFERENT FIXED OR DYNAMICAL ADVANCED SHADINGS (D)?



Further information:

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