



ENergy harVesting by Invisible Solar IntegratiON in building skins

ENVISION develops and demonstrates an integrated renovation concept exploiting all the available building surfaces (both vertical and horizontal, transparent and opaque) for thermal and electrical energy harvesting.

The ENVISION solutions focus on absorbing the invisible part of the solar radiation, the near-infrared (NIR), allowing at the same time the visible and esthetical aspects to be retained.

Thanks to ENVISION it will be possible to exploit the currently unused 60 billion square meters of facades existing in the European union, contributing to create a new generation of energy positive buildings.

TECHNOLOGIES

OPAQUE SURFACES



1 - Solar heat collectors based on the usage of NIR absorbing coloured coatings



2 - Covered solar heat collectors using colored NIR transparent glasses

TRANSPARENT SURFACES



3 - Smart ventilated heat harvesting window



4 - PV harvesting glasses

NORTHERN EUROPE DEMO

 Netherlands – Helmond and Eindhoven



Adopted Technology n° 1

PILKINGTON DEMO

 Austria - Bischofshofen



Adopted Technology n° 4

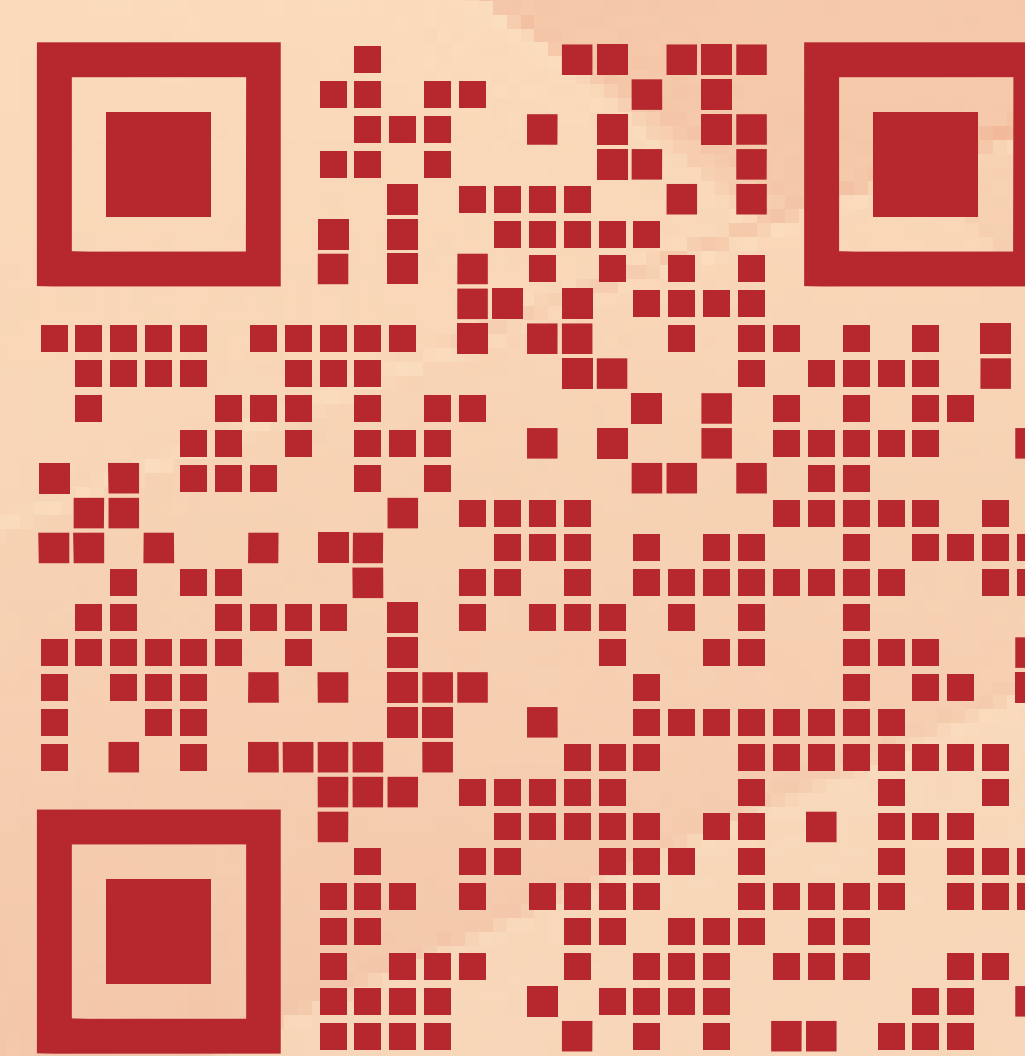
 Netherlands - Enschede

SOUTHERN EUROPE DEMO

 ITALY – Savona



Adopted Technology n° 1-3



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TNO innovation for life

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PILKINGTON
NSG GROUP

RINA

Innovative facade solutions
BGTec Sp. z o.o.
Innowacyjne rozwiązania fasadowe



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