COOL ROOFS

A cool roof is a roofing system that is characterised by high solar reflectance and high infrared emittance and delivers cooling energy and financial savings, improved thermal comfort conditions, mitigates heat islands and reduces air pollution. The proposed action aims to create and implement an Action Plan to promote cool roofs technology in EU. The specific objectives are: to support policy development by transferring experience and improving understanding of the actual and potential contributions by cool roofs to heating and cooling consumption in the EU; to remove market barriers and simplify the procedures for cool roofs integration in construction and building’s stock; to change the behaviour of decision-makers and stakeholders so to improve acceptability of the cool roofs; to disseminate and promote the development of innovative legislation, codes, permits and standards, including application procedures, construction and planning permits concerning cool roofs. The work will be developed in four axes, technical, market, policy and end-users.

Results

- Creation of the EU Cool Roofs Council (EU CRC) and compilation of EU CRC’s Action and Strategic Plan
- Five cool roofs pilot studies to serve as examples of cool roofs benefits, a database of cool roofing materials and manufacturers, a handbook and a toolkit to assist the better understanding of the technical aspects of cool roofs technology
- Market promotion plan for the market aspect of cool roofs that will be based on the mapping of key players in the field and the analysis of the existing market situation in EU
- Proposal for a successful strategy to overcome possible policy barriers and engage with key stakeholders who could support and accelerate the creation of an EU policy and regulatory friendly environment to Cool roofs
- Organisation of workshops and seminars and participation to an EU Conference and an exhibition to disseminate the results of the project. Creation of a web portal providing visitors with information about the project and EU-CRC

Lesson learned

- Results indicate -40% cooling and +10% heating. Overall 30% energy reduction. • Thermal comfort is improved in buildings without cooling. • There is a common perception that cool roof means simple white paint, the actual enhanced thermal performance or the variety of colours available are generally unknown. • There is confusion with the term "Green Roofs".
- Dissemination needs to emphasize the protection of the roof lifetime and the ease to apply cool roofing material as a retrofit.
Partners and coordinator

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Budget

Overall budget: 998.264,00 € (EU contribution: 75,00 %)

In brief

Sector: Buildings  
Duration: 01/09/2008 to 28/02/2011  
Contract number: IEE/07/475/SI2.499428  
Website: http://www.coolroofs-eu.eu/
Related projects

- **[EPLABEL]** A programme to deliver energy certificates for display in public buildings...
- **[AVASH]** Advanced Ventilation Approaches for Social Housing
- **[ENPER EXIST]** Applying the EPBD to improve the ENergy PErformance Requirements to...
- **[ASIEPI]** Assessment and improvement of the EPBD Impact (for new buildings and...
- **[BESTFACADE]** Best Practice for Double Skin Facades
- **[BUILDING ADVENT]** Building Advanced Ventilation Technological examples to demonstrate...
- **[CEPH]** Certified European Passive House Designer
- **[CHECK IT OUT!]** Check and improve the energy performance of schools and disseminate best...
- **[DATAMINE]** Collecting data from energy certification to monitor performance...
- **[COMMONCENSE]** Comfort monitoring for CEN Standard EN15251 linked to EPBD
- **[CYBER DISPLAY]** Communicate Your Buildings Energy Rating
- **[CA EPBD II]** Concerted Action supporting transposition and implementation of Directive...
- **[CONSTRUCTION21]** CONSTRUCTION21- A EUROPEAN GREEN BUILDING EXCHANGE
- **[CERtuS]** Cost Efficient Options and Financing Mechanisms for nearly Zero Energy...
- **[AFTER]** Cost Optimum and Standard Solutions for Maintenance and Management of the...
- **[ROSH]** Development and marketing of integrated concepts for energy efficient and...
- **[EEBD]** Development of an interactive vocational Web training tool for the take-...
- **[VENT DISCOURSE]** Development of Distance Learning Vocational Training Material for the...
- **[EDUCA RUE]** Energy Efficiency Paths in Educational Buildings
- **[COOLREGION]** Energy efficient Cooling in regions of North and Central Europe
- **[ECOLISH]** Energy Exploitation and Performance Contracting for Low Income and Social...
- **[EI-EDUCATION]** Energy Intelligent Education for Retrofitting of Social Houses
- **[EPI-CREM]** Energy Performance Integration in Corporate Public Real Estate Management
- **[EPI-SOHO]** Energy Performance Integration in Social Housing, a strategic approach for...
- **[ENSLIC BUILDING]** Energy Saving through promotion of Life Cycle analysis in Building
- **[INTELLIGENT METERING]** Energy Savings from Intelligent Metering and Behavioural Change
- **[ESAM]** Energy Strategic Asset Management in Social Housing Operators in Europe
- **[E-TOOL]** Energy-toolset for improving the energy performance of existing buildings
- **[EDUCATE]** Environmental Design in University Curricula and Architectural Training in...
- **[EPEE]** European fuel Poverty and Energy Efficiency
- **[EULEB]** European High Quality and Low Energy Architecture
- **[ENFORCE]** European Network for the Energy Performance Certification of Buildings
- **[E-SEAP]** European Sustainable Energy Award for Prisons
- **[AUDITAC]** Field benchmarking and Market development for Audit methods in Air...
- **[GREENBUILDING]** GREENBUILDING
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