



NATURAL - ENERGY EFFICIENT - SUSTAINABLE

# NEES Natural Energy Efficiency and Sustainability

Cork Centre for Architectural Education

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José Ospina,

Project Manager



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UCC

Coláiste na hOllscoile Corcaigh, Éire  
University College Cork, Ireland

# Synopsis

- Identify and promote products and services that improve **energy efficiency** in existing domestic buildings, that make use primarily of renewable or recycled materials and of services based on natural processes, which originate and are normally accessible in the Northern Periphery Programme (NPP) region, and have the potential for being mainstreamed and commercially disseminated inside and outside the region.

# Overall objectives

NEES will develop a model for the identification and validation of innovative products and services for achieving natural energy efficiency, aiming to help providers to develop and diversify their products to reach a larger market. The model will be based primarily on application of a criteria based on a “triple bottom line” of environmental, social and economic sustainability to identify best practice products and services in the Region and provide them with an framework for networking, exchange, technical improvements and business development, on an on-going basis. The framework developed will be fully implemented and replicated as a consultancy support service or equivalent, and linked to national and European Energy Efficiency programmes.

# Activities

## **1- Identifying, benchmarking natural products and processes that enhance energy efficiency in buildings**

### *-Renewable products*

Sheep's wool, hemp, hemp & lime, straw bale, timber, etc.

### *-Recycled natural products*

Paper, wood shavings, denim, etc.

## **2- Identifying and benchmarking natural processes and services that save energy in buildings;**

### *-Bioclimatic Design approaches*

Solar and bioclimatic architecture, green roofs, living walls, etc.

### *-Natural installations:*

Natural ventilation, plant-based air filtering, organic waste water treatment, etc.

## **3- Developing, promoting & implementing strategies to promote these products and services:**

*- Through networking, exchange, consultancy, training, follow-on projects.*

–Research, Demonstration, Validation, Accreditation, Preparation for Market

# Actions (1)

- Develop comprehensive sustainability criteria (triple bottom line), profiling and documenting best practice on a LCA basis
- Review current state-of-the-art in the regions, identify barriers and bottlenecks, gauge potential for widespread marketing
- Identify @ 15 best practice products and services in the region (around 3 per region)
- Investigate transferability of these products and services to other Partner regions
- Develop monitor and evaluate 5 practical demonstration projects which demonstrate transferability.

## Actions(2)

- Identify and promote appropriate supports in terms of professional, advisory and training services, consultancy, etc.
- Generate a quantifiable increase in awareness and uptake of these products in partner regions.
- Generate and document tangible social and economic benefits.
- Identify funding streams and support and business models that allow continuation of work after end of project.

# Main Products

- Comprehensive sustainability indicators (starting from NaturePlus label) and incorporating “triple bottom line” of environmental, social and financial criteria.
- Process for evaluating best practices on the basis of these indicators
- 5 surveys of natural products and services, covering all regions.
- Central data base and on-line catalogue of best practice products and services
- 15 detailed profiles (3 per region) of selected best practice
- 5 feasibility studies of demonstrations project that apply best practices
- 5 demonstration projects that illustrate best practices
- 5 study visits to selected best practice

# Benchmarking Best Practice

- Best Practise Criteria – GCU have drawn up and agreed NEES sustainability criteria
- Selection of best practice to be carried out by Expert Panel (7 experts) nominated by Partners
- Transparent selection on basis of thorough evaluation process on submissions made at every Call (5 to be held)
- 1<sup>st</sup> Call ran from 31.07.12 to 05.08.12
- Expert Panel has evaluated and assessed 15 producers and service providers (on basis of NEES criteria), and will give view on Best Practices
- NEES will revert to producer and service providers with results and recommendations

# Main Products

- 5 national surveys of natural products and services
- Central data base and on-line catalogue of products and services
- Package of sustainability indicators (starting from Natureplus label) and incorporating “triple bottom line”
- 15 detailed profiles (@3 per region) of selected best practice
- 5 @feasibility studies of pilots project for local application
- 5 @ study visits to selected best practice

# Main Products (2)

- 5 @ demonstration projects (one in each partner area) which illustrate the different products or services
- 5 @ demonstration projects monitored and evaluated, photo and video records
- 5 @ local workshops and seminars linked to demonstration projects covering range of products and services
- Final Project Conference which is first gathering of full NEES Network
- Operating transnational network of stakeholders with an interest in promoting the theme & sector

# NEES Contact

José Ospina

Project Manager,

Cork Centre for Architectural Education,

9/10 Copley Street, Cork.

Tel - 028 21890

Mobile - 086 8224429

[www.neesonline.org](http://www.neesonline.org)