Results of the validation phase. National products are ready for production and subsequent implementation



Better Building

Certifying VET teachers as energy saving advisers.

A transfer system into three different European societies

EDITORIAL:

New policies and laws concerning energy saving - impulses for the implementation of the Better Building materials

Due to a new law in Slovenia (Jan. 2009) 25% of energy must be provided by renewable energy in every house. Thus it is expected that the materials elaborated for VET will be of added value to the training system in Slovenia in general.

From 1 January 2007, energy certification has been a necessary condition to securing tax incentives for the restructuring of buildings made to improve energy efficiency in Italy. On 20 March 2008 the Italian Government and Regions reached preliminary agreement on a draft national legislative bill dealing with the criteria and the minimum requirements to calculate the energy efficiency of buildings, as well as, on the requirements of the assessors authorized to carry out these tests. Moreover, the Italian Government and Regions agreed on the draft decree by the Ministry of Productive Activities, which would provide for guidelines aiming at regulating the activities between the Italian State and regions on this matter.

Thus the project partners are glad they have been adapting and customising the Better Building products for some months. newsletter will present what has been achieved in this process.

The Better Building project develops the following three products:

- A modular curriculum,
- didactic guidelines,
- an implementation concept.

The curricula provides learning contents and didactic materials in the field of energy consulting, especially for the renovation of existing buildings and heating and insulation rehabilitation in Italy, Turkey and Slovenia.

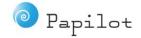
The didactic guidelines give suggestions on how to present these materials, with regards to the specific demands and needs of individual users and to the specific learning cultures as well as to the requirements of vocational training providers in Italy, Turkey and Slovenia.













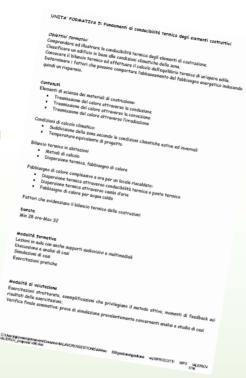


NEWS LETTER N° 2:





Modular Curriculum



Excerpt of Italian draft

As this is a transfer project, the "Modular Curriculum" has to be adapted for each partner country. It has to be adapted in content and duration according to a competence based approach, which especially refers to aims, contents, duration, didactic methods and evaluation methods. It is also necessary to add specific didactic materials.

In Italy e.g. some chapters have been added to the original document and for all of them contents, duration, didactic methods, evaluation methods and designed specific didactic materials have been defined. Thus, teachers, trainers, course designers and educational counsellors can easily use modules of the curriculum in their courses or trainings.

For this product the following items and concepts have been adapted, up-dated, added:

- The interactive effects between construction and environment have been analysed. This refers to the situation of the world energy supply and the primary energy sources.
- Legislation and regulations regarding old and new buildings have been adapted. This refers to Legal regulations regarding the national strategy concerning energy saving measures and energy enhancement efficiency especially in the domain of construction.
- Heat insulation, requirements and aspects have been investigated. The goal is to achieve optimized convenience in living by reaching the right concentration of air humidity.

Energy budgets and the convenience of living in existing buildings have been adapted. This refers to

the thermal balance of human beings.

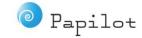
- Discourse of insulation materials regarding the thermo technical reconstruction of buildings has taken place.
- Technologies regarding the thermo technical reconstruction, arranged according to categories of building components have bee adapted.
- The economic advantage of additional heat insulation has been calculated.
- The use of solar energy has been analysed for existing and future buildings.

















Results of the validation phase. National products are ready for production

Building

Teaching Materials

In the area of outdoor thermal insulation of facades, a practical application example in the form of applying a final layer of a thermal insulating material on the exterior of a building has been adapted.

In the field of technical solutions and materials used for the thermal rehabilitation works for buildings, useful examples about the use of energetic and construction material adviser according to the European Union requirements have been created.

As recycling of the waste materials after they have been thermally redeveloped and the interior has been renovated is very important, suggestions to owners that are responsible for reconstruction measures towards recycling have been adapted for the local market.

As examples for new energy sources, possibilities for solar energy, geothermic and biomass energy have been developed and adapted

Boljša gradnja: Učni načrt in gradivo

Starejša stanovanja in stanovanjske zgradbe porabijo preveč toplote za ogrevanje. In ker bo ta zagotovo vedno dražija, je prav, da iččemo možnosti, kako bi prihranili toploto in ustrezno ukrepamo. Najprej moramo pregledati zasnovo zgradbe, poznati pa moramo tudi stroške, ki smo ili poznatili za ogrevanje zadnih nekali let.

Kaj lahko naredimo:

- zaščita stropa v natvišiem nadstropiu oziroma strehe.
- vrata in okna ureditev starih oken ali vgradnja novih,
- zunanje stene saniranje fasade ali ureditev dodatne notranje izolacije
- zaščita tal ali stropa kleti.







Slika 4: toplotno neizolirana hiša

ni načrt in gradivo

klo za razliko od prejšnjih dveh tipov kromatskega stekla omogoča prec izora nad spreminjanjem optičnih lastnosti. Te se spremenijo, ko skozi siste e električni tok. Občajna delovna napetost je 1-3 V, električna energija pa je potrebna le iltav spremenje, na na tudi za obranisanje desplanana stanja premijanje.



Slika 28: Primer stekla s spremenljivimi optičnimi lastnostr

recej je napredovala tudi tehnologija uporabe novih materialov v medizeletehem prosici materio mešanice jimici, nišpoli jedelama je tehnologija seropologi, kiji hrelatelari viri prište: ki ižiri šulpnir prozomih tepičnozicalogijskih materialov. Predvisem so za uporabo zamieria silike, jero sode imanjici od volume oddine vidne velibote. Njehova velibota se gib J.005 in 0.01 II. Imajo manjiči topično predvise kot minu joč znak, ker vedovjejo do silah oddotičav znaka v poznik, kis oprevejičenost kot minu joč znak, ker vedovjejo do silah oddotičav znaka v poznik, kis oprevejičenost od materiala golije med 0.08 in 1. Kerugeli minog je zde naplina golizod, so zde poznani in preced manji tidni od conzoner

umska zasteklitev je zasteklitev, pri kateri se med šipama nahaja brezzračen prostor. Na ta preprečimo kaiziraleski kondukcijske ali konvekcijske topiotne izgube. Poglaviten kolik problem take zasteklitve je v stabilnost istenna. Vakuumska zasteklitev setisji iz po celohem obodu latersko zvarjenih šlp. Dodaten love-e nanos na eni ali obeh šipah tilic utdi sevajne toolotne izuobe. tako da ie celoten toolotni tok skozi vakuumsko.

- 54 -

Boljša gradnja: Učni načrt in gradiv



Slika 8: Kontaktna fasada.

Teláne fasadne sisteme pri nas pomamo pod natificiaris iomercialismis imeni in sicer: DEDMIT,TENORAS, KOMBIPAS, JUSCO, FASATERNI MA Piperocipius y cia pred uyandro preverimo, de ima sistem iontative fisade, si ga nameravamo vyandii, potenhe ateste. Samoneste interviendo pregutamismo tortovnou soposobljemia travisjalecom. Omenjene fisadene oblogo pa nisosobljemia travisjalecom. Omenjene fisadene oblogo pa nisosom primeme za stene iz penjenega betona (siporexa) in podobni materialov zaradi možnosti kondenzasile, za takine izvedebe podrebjemo topotoro dirivijski irazkum.

Zunanje stene zaščitimo z Izolacijo na zunanji strani z lažjimi ali težjimi fasadnimi oblogami. Izvedba takšnih fasad je lahko z nekaj centimetrov široko prezračevano plastjo ali pa je izvedba brez zračne plasti (skica št. 9, 10). V standardu DIN 1033 je izočneje opisano, kako je potrebno načrtovati masivne fasadne zidove, ki morajo biti izdelani iz ustreznih opečnih zidakov debeline 0 sli 12 cm.



Slika 9: Fasada z zračno plastjo



Slika 10: Fasada brez zračne plasti.

Fasadne obloge morajo biti ustrezne kakovosti in primerno sidrane. Obzidava sten iz ope

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Some teaching samples taken from the Slovenian and Turkish versions



















Better

Didactic Guidelines

For the issue of interactive effects between construction and the environment, guidelines for trainees for the implementation of consulting services in the field of slab construction rehabilitation and material consulting have been adapted.



The Italian structure of the didactic guidelines

Implementation Concept

As complementary project product the partnership has developed an implementation concept which is currently being validated. This document wants to address the needs and requirements of policy makers, various stakeholders in construction and education when the Better Building materials are ready for broad implementation into Italian, Slovenian and Turkish teaching or consulting measures.

It will be available in Italian, Slovenian and Turkish. English speaking policy makers will have access to an executive summary in early 2009. English speaking policy makers will have access to an executive summary.

















Building

Current activities

From 24 Oct 2008 till 25 Oct 2008 a meeting of the partners took place in Ljubljana, Slovenia. As part of the meeting the partners were taken on a "Better Building Tour" in Ljubljana, to have a look at buildings that could benefit from the projects goals. Here are a few pictures from the meeting and the "Better Building Tour".







Some partners who got together for the plenary meeting at Papilot.

















Better Building

www.better-building.eu



The project partnership consists of 7 organisations in 6 countries.

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