Balkan workshop on Forest Products Markets and Forest Sector Workforce
8-10 December 2015, Podgorica, Montenegro

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Contents

1. Why a focus on the forest sectors of the Eastern European Neighborhood?
2. Introduction to the RERAM project (overall goals and objectives).
3. Project's main achievements.
The Eastern Partnership (EaP) is a joint initiative of the EU and its Eastern European partners: Armenia, Azerbaijan, Belarus, Georgia, the Republic of Moldova and Ukraine.

Launched in 2009 at the EU Prague Summit, it brings Eastern European partners closer to the EU.

The Eastern Partnership supports and encourages reforms in the EaP countries for the benefit of their citizens.
Forestry and woodworking sector

Major structural changes

- Technological transformation
- Economics of scale
- Regional clustering
- Employment losses
- International supply chains
- Offshoring to Central and Eastern Europe
- Key factors: labour, raw material

Employment shifts of furniture clusters in the EU, 2002-2007
Kies, Osses, Schulte 2013 (under review)
Why a focus on the Eastern European Neighborhood?

ENP region = emerging raw material supplier
EU ‘wood gap’: lack of 55 million truckloads in 2030!

→ Unsustainable forest use
  • Exploitative harvesting, forest clear-cuts,
  • Illegal logging/trade, corruption

→ Inefficient wood industries
  • Huge amounts are wasted
  • Lacking knowhow
  • Outdated equipment
  • Savings potential est. > 20%!

→ Major opportunity to increase efficiency and technology levels!
Project Objectives

Main goal

→ Improve resource efficiency and raw material consumption of the forest and woodworking sector in ENP eastern countries by bridging the gaps between research and innovation among SMEs, science and authorities

General Objectives (GOs)

1. *Raise awareness on resource efficiency potentials of value chain* forestry → primary wood processing → secondary wood manufacturing

2. *Optimize raw wood conversion pathways in SMEs* by introducing innovative technologies, processes and planning methods

3. *Promote competitive innovation clusters* through new business models, cleaner production and collaborative processes

4. *Enhance international collaboration in knowledge value chains* by joint action, knowledge transfer and outreach among R2I actors
Regions and partners
Framework
• FP7-INCO CSA no. 609573, 1st June 2014 – 31st May 2015 (2 years)
• Total budget 1.3 million €, EC contribution 990,250 €

Consortium
• 11 partners in total, 9 countries
• EU countries: Germany, Austria, Poland, Belgium
• ENP Eastern countries: Ukraine, Moldova, Georgia, Azerbaijan, Armenia
• 4 research institutions, 3 SMEs/clusters, 2 NGOs, 1 European RTD network
→ Main purpose: stronger twinning of compatible R2I regions and actors

Coordinator
• IWW – International Institute of Forestry and Wood-based Industries NRW e.V., Prof. Dr. Andreas Schulte, University of Münster, Germany
RERAM’s IDEA

ENP countries and economical problems → Importance of the forest sectors development in the ENP countries → Two options of the forest sector development: intensive or extensive development

EU countries have some experience and some knowledge in regard to intensive development of their forest sectors → 2020 strategy and importance of the response on the main challenges

RERAM responds to the societal challenge of “CLIMATE CHANGE, RESOURCE EFFICIENCY AND RAW MATERIALS”
Forest sector offers a simple way to reduce the CO$_2$ emissions that are the main cause of Climate Change, through:

- the carbon sink effect of the forests;
- the carbon storage effect of wood products;
- substitution for carbon-intensive materials.

Is there some relation between these two definitions?

1. Intensive usage of wood resources
2. Societal challenge “CLIMATE CHANGE”
It is very difficult to drink water from a sieve. We should at least try to close those holes or maybe to decrease their number.
RESOURCE EFFICIENCY

DEFINITION

RESOURCE = Raw Material, Processing Energy, Operating funds..etc.

EFFICIENCY = \frac{RETURNS}{EFFORTS}
Project's main achievements

Analysis of the forest sectors

Forest sectors structure in number of employees terms (2012; %/subindustry)

- Ukraine: 43.6% Forestry, 28.4% Woodworking, 10.8% Furniture, 2.6% Carpentry
- Moldova: 42.6% Forestry, 15.9% Woodworking, 30.7% Furniture, 1.6% Carpentry
- Georgia: 9.8% Forestry, 37.3% Woodworking, 52.9% Furniture
- Poland: 11.5% Forestry, 37.4% Woodworking, 51.1% Furniture
- Austria: 4.2% Forestry, 51.5% Woodworking, 44.3% Furniture
Project's main achievements

Analysis of the forest sectors

Number of enterprises in the forest sector
(2012; ths per 1 mil inhabitants)

- Ukraine: 137
- Moldova: 222
- Georgia: 159
- Poland: 2149
- Austria: 18600
Project's main achievements

Analysis of the forest sectors

Average turnover per employee in forest sector (2012; ths. EUR/person)

- Ukraine
- Moldova
- Georgia
- Poland
- Austria
Project's main achievements

Questionnaire survey of regional companies

Labor productivity (th.€/person)
Project's main achievements

Questionnaire survey of regional companies

Raw material productivity, €/m³

Complexity of processing of 1 m³ of raw materials, p-h/ m³
Training of Efficiency Managers

→ 50-hours Training Course in Resource and Energy Efficiency Management
  o ‘Classroom lectures’ on Cleaner Production, Material Flow Analyses, Waste Management, Green Procurement, Environmental Controlling, among other topics
  o All material in English + Russian

→ 15 wood industry experts successfully accomplished the course
  o Practical teamwork exercises incl. presentation skills
  o Hands-on training during actual checks
Enterprise Efficiency Checks

→ Practical approach to raise awareness for Cleaner Production among Company owners/Managers
  - Company visits for quick assessment
  - Proposed list of potentials and no/low investment solutions (1st report)
  - Follow-up coaching during implementation

→ 16 Checks in forest sectors
  - 3 checks in Ukraine under way
  - 4 in Moldova, 5 in Georgia planned
  - 4 in Austria under way (benchmarks)
Main target groups:
1. Company managers, production managers, workshop managers – benefit: basic information on why and how to deal with cleaner production issues. Should allow a self estimate on the current situation and on the saving potentials.
2. Local consultants – handbook creates a common understanding/shared database between group 1 and local consultants. Based on the handbook the local consultants can continue to work on selected issues with the companies.

General concept:
- Chapters structured by main Cleaner Production topics (according to our ToTs), based on findings from enterprise checks (what are the main issues in companies)
- Per each topic: a few pages with good explanation of the problem, proper solutions and steps/tools for implementation
- Short, concise, easy readable text (directly to the point)
- Good visualization with before & after pictures, graphics, key values
Main outcomes

A. Outcomes for SMEs

**Handbook ‘Resource Efficiency Management in Woodworking SMEs’**
Technological guidance in 5 national languages

B. Outcomes for Intermediaries

**Train-the-Trainers’ Programme for Efficiency Managers**
Capacity building in resource and energy efficiency assessment

C. Increased International Cooperation

**Regional R2I Strategies and Exploitation Plan**
Actions and new joint pilot projects for a resource efficient forest-based sector
Approach of the resource efficiency increasing which foresees sequence carrying out of the following seven steps:

I. Self-assessment of wood-working enterprises on saving potentials for wood raw material use and energy consumption through the questionnaire.

II. Analysis of the current state and future outlook on the regional forest-wood sector’s resource potential (global sectorial analysis of the forestry-woodworking-chain in the ENP eastern regions).

III. “Training the trainers” program (10 days) for intermediaries on raw material efficiency management.

IV. Reality check and benchmarking of raw material flows and performance.

V. Study trip to the premises of existing cluster organizations in the consortium countries.

VI. Regional Research to Innovation Dialogues on Resource Efficiency.

VII. Developing of the Portfolio of services and toolkits for resource efficiency management.
Resource Efficiency

More info: www.reram.eu

RERAM = Resource Efficiency and RAW Material use of woodworking industries in Eastern Europe (ENP)

State of play
The growing demand for raw wood material in the EU increases pressure on forest resources...

Vision & Objectives
RERAM improves Resource Efficiency and Raw Material consumption of the forest-based sector...

Outcomes & Impacts
RERAM raises awareness on the benefits of resource efficiency and demonstrates technical and...

Consortium
11 organisations represent the 4 EU member states Germany, Austria,

Latest News and Articles

Training Week in Lviv, Ukraine, 13-18 Oct 2014
A train-the-trainers programme in resource and energy efficiency management was held in the beautiful city of Lviv, Western Ukraine, hosted by the Ukrainian National Forestry University (UNFU) and FORZA NGO. The training programme was provided by the...

RERAM Videoclip
Resource efficiency is a major opportunity to improve raw material use and clean production in wood industries of Eastern Europe. This short video introduces RERAM's main objectives and the project partners.

RERAM Georgian TV feature
Agency PIA, Tbilisi, 14 Sep 2014 Prof. Teimuraz Kandelaki of the Agricultural University of Georgia, Tbilisi, introduces the European FP7 project RERAM and discusses the societal challenges of Georgia's forest sector. TV interview
Thank you for your attention!

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