



# ECOINFLOW

## An example on how InnovaWood can support your EU-project

WWW.ECOINFLOW.COM

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# ECOINFLOW – what does it mean?

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ECOINFLOW stands for  
**E**nergy **C**ontrol by **I**nformation **F**low

The project was funded within the  
**„Intelligent Energy – Europe“ Programme**

by **eaci**

(Executive Agency for  
Competitiveness & Innovation)



# ECOINFLOW Project



**Partners:** Research organisations, sawmills, kiln manufacturer, sawmill associations

**Countries:** Norway (coordinator), Austria, Belgium, France, Germany, Great Britain, Latvia, Sweden



**Project time:** 3 years – (2012-2015)

**Objective:** To facilitate implementation of the tailor-made Energy Management System (EnMS) in SAWMILLING industry

**Goal:** Save energy, save money,  
contribute to 2020 EU CO<sub>2</sub> reduction targets

## Work packages



- WP 1 Management
- WP 2 Energy management systems
- WP 3 Best industry practice
- WP 4 Energy saving strategies
- WP 5 Communication

# ECOINFLOW Project



## Organisation:



- 5 core partners doing > 80% of the work
- Each WP was coordinated by a core partner
- All core partners contributed to all WPs
- Main outputs were elaborated jointly, but under the leadership of one of the core partners
- Regular meetings and Skype conferences secured monitoring of work plan and keeping deadlines

## Main outputs:



- Ecoinflow handbook,
- On-line benchmark tool,
- Multi-lingual set of Best Practices descriptions,
- Sawmills network in energy saving,
- Change of behaviour and raising the awareness on energy saving.

# INTRODUCTION

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- Wasted energy is inefficient use of resources.
- Saved energy (energy which is not used at all) is the best of all forms of energy.
- There is a great potential to save energy in sawmilling.
- EcoInFlow wants to support sawmillers to take action!



# INTRODUCTION



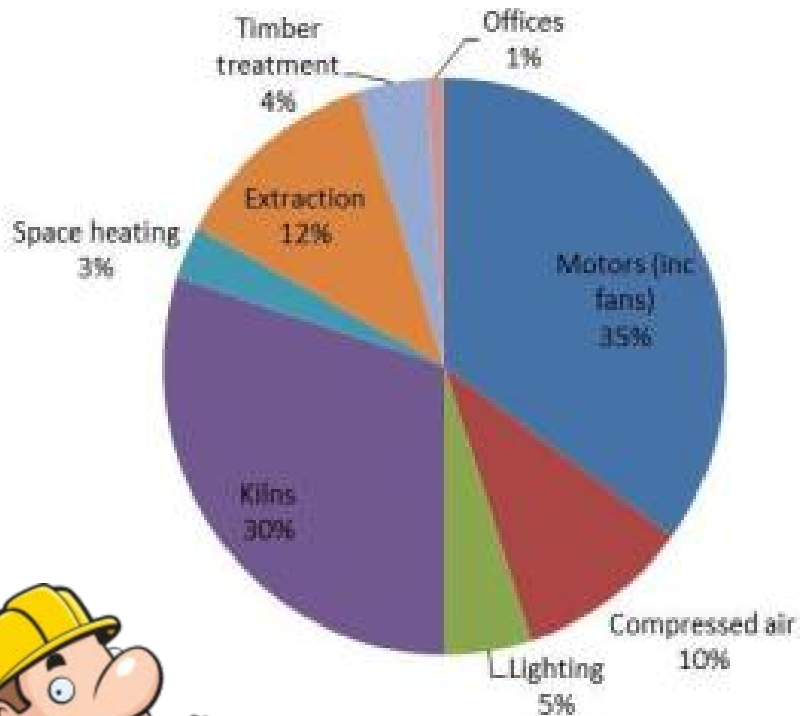
## What are key areas of energy use in sawmills?



- ☐ Kilns
- ☐ Motors (including fans)
- ☐ Extraction of saw dust
- ☐ Compressed Air
  
- ☐ In the log yard
  - ☐ Timber trucks
  - ☐ Forklift trucks
  
- ☐ Lighting
- ☐ Cooling/heating

# INTRODUCTION

## Estimated split of energy use in production...



Source BSW

- ❑ Kilns have the biggest energy use on site (up to 90% of heat and 30% of electricity)
- ❑ Green Mill use approx. 50% of electricity
- ❑ Planing and Grading utilises approx. 20% of electricity
- ❑ Offices approx use only 1% of energy but still can significantly increase our utility bill (in some case for €10.000!)





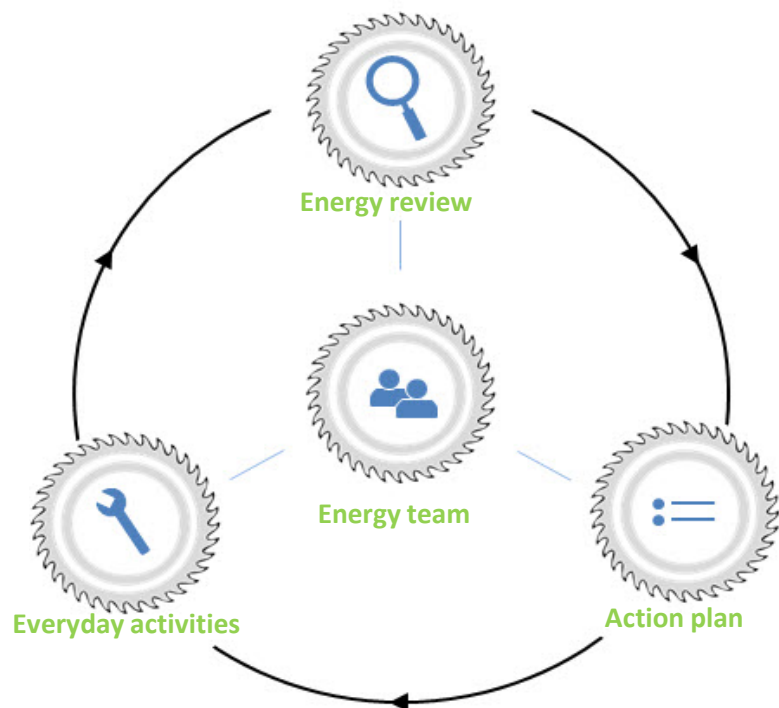
A cartoon illustration of a man wearing a yellow hard hat, a red long-sleeved shirt, and blue overalls. He is looking up with a thoughtful expression, and a thought bubble is above his head. The thought bubble contains the text "Why do you need EnMS?".

Why do you  
need EnMS?

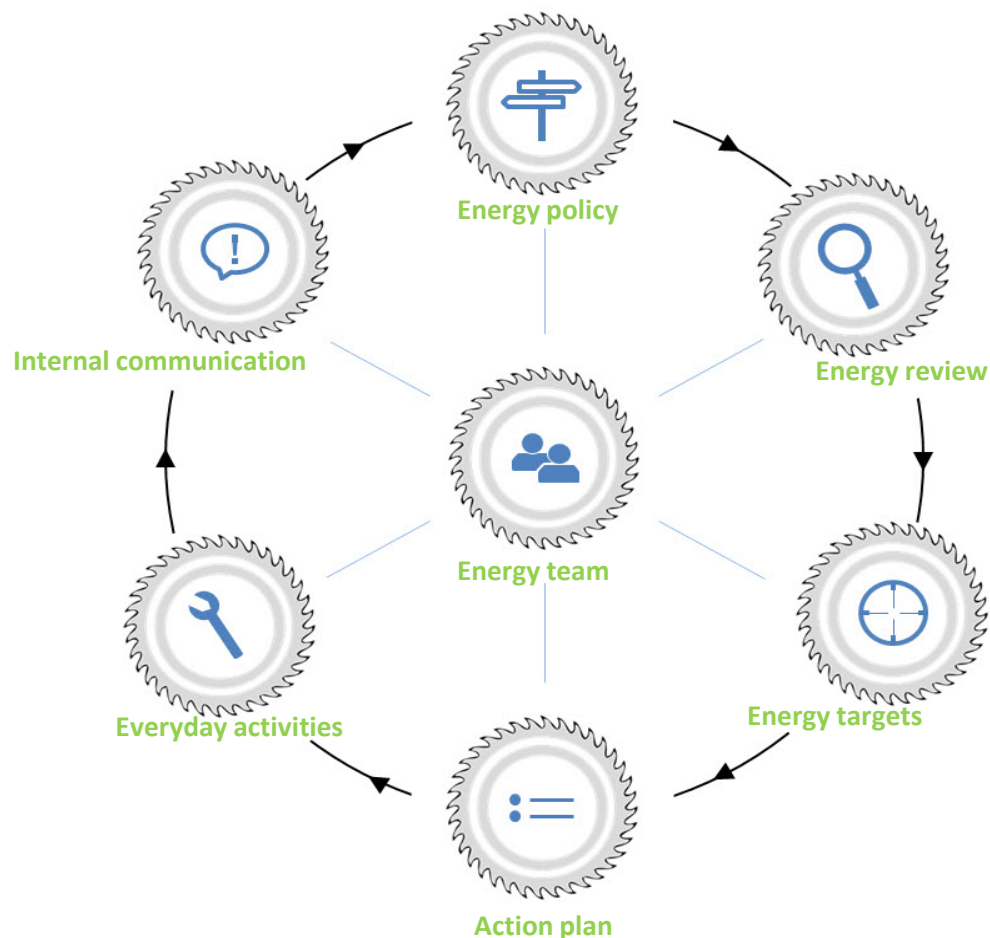
**By implementing EnMs you can:**

- ☐ Save a lot of money
- ☐ Reduce environmental impact
- ☐ Identify areas for energy saving improvement in production processes and make well-founded decisions
- ☐ Speed up the process of energy use reduction
- ☐ Share knowledge and experiences, change behavior
- ☐ Raise the acceptance and status of energy efficiency work
- ☐ Raise the interest for your products with those clients that care on energy saving

# OUR APPROACH



**Quick-start approach of a  
SawEnMS implementation**



**Full version of a SawEnMS implementation**

# STEP 1: Appoint Energy team

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***What to do:*** Let the top management appoint a management representative for your EnMS and install an Energy management team with the required competence, authority and resources.



**Expected outcome:** Your company has a team of skilled and engaged people that leads the work towards increased energy efficiency.

# STEP 2: Energy policy

What is the  
energy  
policy?



**What to do:** Develop an Energy policy and have it approved by the top management.



***Expected outcome:*** Your company has a policy that clearly states your commitment to work on energy efficiency.

A short document, with a statement of your company's commitment to work systematically to increase your energy efficiency.

# STEP 3: Energy review

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## Suggested procedure

- ☐ **Define and structure the plant you are studying.**

What system boundaries will you use and what sub-parts does your company or plant consist of?

Will you include the entire plant/company?

Will you make separate Energy reviews for different units?

- ☐ **Collect data on your *total* energy use and corresponding costs.**

- ☐ **If possible, compare the data you collected to previous years' results.**

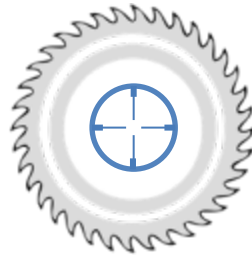


# STEP 4: Energy targets



What will be  
your energy  
targets?

**What to do:** Set targets for your energy efficiency work that are quantified, measurable and achievable.



**Expected outcome:** Clearly expressed goals to aim your efforts at. Without targets you will never know if you have succeed or failed.

# STEP 5: Action plan



How to make  
a good  
Energy action  
plan?



**What to do:** List all your ideas for improving your energy efficiency, prioritize them and make a plan for their implementing.



**Expected outcome:** A road map with planned actions that will make you reach your Energy Targets.

# STEP 6: Everyday activities



What will be  
my energy  
efficiency  
routines?



**What to do:** Include energy efficiency in your daily routines (start-up, breakes, maintenance, procurement, etc.).



**Expected outcome:** Everyday energy savings without thinking.



# STEP 7: Internal communication



Why is the  
internal  
communication  
important?



**What to do:** Involve all employees by communicating the energy policy, the energy targets and the efficiency efforts.



**Expected outcome:** A staff working together towards the specified energy targets.

# Benchmark



## Benchmark tool

**SawBenchmark:** your statistical comparison tool

[www.sawbenchmark.com](http://www.sawbenchmark.com)

This website was developed in the Ecoinflow project.

**Aim:** Comparison tool for industrial practices regarding Energy Management in the European sawmill industry

# Why was InnovaWood part of the team ?



Illustration by Chris Gash

## Scientists / Research Institutes:

- All core partners were recruited from the IW network. This was not a „must“, but partners knew each other very well before and IW is one of the reasons why they knew each other.
- New scientists came in because they were members of well known IW member organisations.
- IW supported in the proposal stage by addressing communication and dissemination activities in the Commission's language.
- In the project IW was responsible for communication and dissemination activities with the support of the scientific core partners.

# Why was InnovaWood part of the team ?



Illustration by Chris Gash

## Sawmillers / industrial project partners:

- Presenting information in a clear, well structured and good visual appearance is a „must“ in communicating with practitioners and industry people. IW has special staff at hand that can provide support on short notice.
- In Europe language barriers still exist. Even though English is the standard language in EU-projects, a multi-lingual partner in a project is of great advantage. IW can provide this.

# Why was InnovaWood part of the team ?



Let's think  
about the  
benefits for  
these guys.



Illustration by Chris Gash

## Project administrator in funding organisation:

- IW knows what project admin people in the funding organisations want to hear and read.
- IW has gained a lot of experience in the past in preparing project proposals, in negotiating them after general approval, in structuring and layouting of deliverables and reports.
- IW can provide templates and standardised text blocks which can easily be modified to suit the individual project.
- IW knows about how to report about costs and how to fill cost statements correctly.
- IW can provide a well managed internet platform for hosting the project webpage.

**You should consider  
making IW part of your team  
when you start designing  
your next project proposal  
applying for EU-funding!**

**Thank you for your attention**

Visit us at [www.ecoinflow.com](http://www.ecoinflow.com)

and for beanchmark tool at  
[www.sawbenchmark.com](http://www.sawbenchmark.com)

Treteknisk The Treteknisk logo consists of the word "Treteknisk" in a blue sans-serif font, followed by a circular icon made of concentric blue lines.



Treindustrien The Treindustrien logo features the word "Treindustrien" in a yellow sans-serif font, followed by a circular icon made of concentric yellow lines.



The BSW Timber Group logo features a green tree icon to the left of the words "BSW Timber Group" in a bold, black, sans-serif font.

**MÜHLBOCK**  
TROCKNUNGSTECHNIK

The Bergkvist Insjön logo features a red and white stylized "B" icon to the left of the words "Bergkvist Insjön" in a black sans-serif font.

**AMBERWOOD**  
DESIGNED HARDWOOD FLOORING