



IS ENERGY EFFICIENCY IMPORTANT FOR INDUSTRY?

- Reliability is the most important factor in the investment decisions followed by safety, while price and ease of operation are important but not crucial factors.
- Industry respondents believe the government should provide support for companies to invest in energy efficiency, even though they also believe it will save them money in the future.
- Current technical specification about energy consumption of industry machinery is understandable in Slovenia, but not in Norway.
- Potential introduction of the monetary label - quite favourable since information provided in monetary units would be helpful and probably understandable but an issue about trustworthy was raised since it could be easy manipulated.

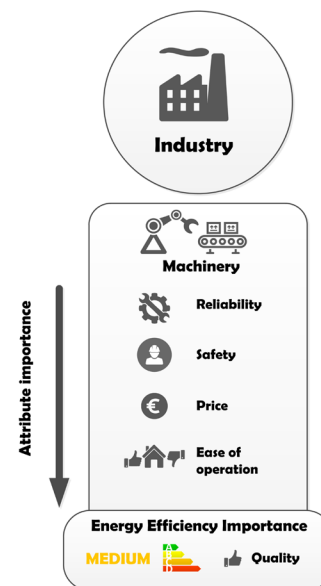
Attitudes toward energy efficiency

Almost 80% of Norwegian and Slovenian respondents agree that the government should provide support for companies to invest in energy efficiency and ¾ of them believe that such investments will save them money in the future.

A majority of respondents in Norway (in Slovenia 75% of the respondents) reject the idea that more energy efficient machines are more likely to break down, or that they perform poorly (not one single respondent agreed strongly with either statement). Furthermore, 87% of the respondents in Slovenia disagree that reducing of their energy consumption will negatively affect profitability or efficiency. It can be concluded that the expectation of government support seems a little at odds with the expectation that such investments will be profitable and similarly as in Norway it does not seem to be explained by non-price factors either.

The CONSEED project

The CONSEED project examines how important energy consumption information is in consumers' decisions. The researchers are running a range of focus groups, surveys, field experiments and discrete choice experiments with households and professional consumers from the services, agricultural and industrial sectors. These will cover five European countries - Greece, Ireland, Norway, Slovenia and Spain.




Importance of the attributes in the purchasing decision of machines.

Would monetary labels be useful?

There is no mandatory EU-wide energy labelling scheme for machinery used in industry. We could therefore not ask questions about current and alternative labels in our survey but we asked questions regarding the technical specifications already provided, and the potential for a cost labelling scheme.

There were no clear majority views regarding the current technical documentation since almost half of the respondents in Norway disagree and half of them in Slovenia agree, that current technical specifications contain all relevant and necessary information needed to understand how much energy the machine use. In both countries respondents were quite favourable to the potential introduction of the label and agreed that information provided in monetary units would help them to understand how much energy the machine use and that info might influence the choice of their purchase. The respondents also pointed out that labels would not be trustworthy since it could be easy manipulated by sellers.



Monetary Label

- **More understandable**
- **Increases understanding of running costs**
- **Open to manipulation**

Evaluation of the potential monetary label for machines

Description of main survey results

For the industry sector, machinery investment in Norway and Slovenia was explored through 169 online surveys in total. The final sample in Norway had an average of 23.6 employees, 42% of the companies had an annual turnover below 10 million NOK (approx. 1 million EUR), and 11% above 100 million NOK (approx. 104 million EUR). This means CICERO succeeded relatively well in targeting small and medium enterprises, but apparently a few substantially larger companies also responded. In Slovenia the final sample had an average of 528 employees (the biggest company had 11,000 employees, 12 companies had more than 1,000 employees and 23 of them less than 20; 8 respondents did not want to answer this question).

Regarding yearly turnover, only 42 respondents answer this question, mostly the big companies, resulting in very high average annual turnover of 42.5 million EUR. To be competitive in the industry sector also outside of the

local community there is a need for high investments and thereof the majority of the industry-oriented companies in Slovenia are relatively big.

The attributes of the purchasing decision

Among wide range of attributes in both countries, the reliability is the most important factor in the investment decisions followed by safety while price and ease of operation are also important but not crucial factors.

On the other hand, time to deliver and energy efficiency are less important factors in both countries. It is problematic to compare these hypothetical decisions for very different types of machinery across respondents, yet it does seem that a general trend for Norwegian and Slovenian respondents is that non-price concerns such as reliability and safety matter the most. Obtained results fit with general picture of Norwegian industry and EU standards where general quality is the most important attribute and companies are ready to pay more in order to have top quality products.

Understanding of potential monetary labels

We introduced the hypothetical label as follows: “It would be possible to provide companies with energy cost labels for machinery. For example, “this machine is expected to cost €2,000 to operate per year”. This new information would be based on typical usage patterns.

Respondents in Norway received this quite favourably. 68% agreed the labels would be easy to understand, and 64% agreed the label might influence which machinery they chose to purchase. Respondents were, however, somewhat less certain that the labels would be trustworthy: only 16% agreed, 21% disagreed and fully 61% could not decide. Similar as in Norway, also in Slovenia 66% of respondents agreed that labels would be easy to understand and 53% agreed the label might influence which machinery they chose to purchase. Moreover, 67% of respondents agreed that information provided would help them to understand how much energy a machine use but also 61% of them believe it could be easy manipulated by sellers.

The CONSUMER Energy Efficiency Decision making project (CONSEED) does research to understand better how European consumers make energy efficiency decisions.

Do households and professional consumers pay attention to energy labels? What information are they looking for? We focus on three products: cars, appliances/machinery and buildings.

This project has received funding from the European Union’s Framework Programme for research and innovation Horizon 2020 under grant agreement number 723741.

CONSEED is led by Trinity College Dublin (Ireland), and includes four other research institutions: CICERO Center for International Climate Research (Norway), Basque Centre for Climate Change BC3 (Spain), University of Ljubljana (Slovenia) and Agricultural University of Athens (Greece).