



**ENERGY EFFICIENCY WATCH**

## **Energy Efficiency Policies in Europe**



### **Case Study**

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*The Nordic Market Surveillance on Ecodesign and Energy Labelling Directive - Nordsyn*



Co-funded by the Intelligent Energy Europe Programme of the European Union

## Key facts and figures

<b>Country</b>	Nordic countries (Denmark, Finland, Sweden, Norway, Iceland)
<b>Name of policy</b>	Nordsyn – surveillance cooperation for green products
<b>Type of policy</b>	Regional cooperation on market surveillance
<b>Target sector</b>	Nordic consumers and producers and the Nordic market surveillance authorities
<b>Actions targeted</b>	Cooperation on market control and surveillance between national market surveillance authorities (MSAs), improved consumer information on all appliances and goods covered by the Ecodesign and the Energy Labelling Directives
<b>Duration</b>	Nordsyn has started in 2013 for an initial two years period. After completion of this first phase, it is now selecting new projects for the next period (2016-2017).
<b>Overall achievements</b>	Nordsyn has calculated that its implementation of the EU Ecodesign Directive has prevented energy loss worth of 28 million Euro. The market surveillance costs were 2.1 million Euro in the Nordic countries corresponding to a return on investment (ROI) of 13.
<b>Overall aim of the policy</b>	Improve the efficiency of market surveillance of Ecodesign and energy labelling.
<b>Innovativeness</b>	Bringing together the Market Surveillance Authorities of several countries and coordinating their activity to give it maximum impact. It has been of great importance to build a platform for cooperation and also to focus on certain tasks, such as product testing and market analysis.

## Policy objectives

Nordsyn surveillance cooperation for green products intends to improve the efficiency of market surveillance of Ecodesign and energy labelling. Nordsyn ensures a fair and level playing field for the industry and protects consumers from inefficient products and misleading information. To do so, it follows several goals (Green Growth the Nordic Way 2015a):

- Develop and establish working methods to secure continued cooperation, for example by sharing market control plans, test results and results of document control;
- Develop hands-on material, such as information sheets and guidelines, for better and more preventive market surveillance;
- Investigate and analyse in greater depth important issues such as the effects of market surveillance, how to handle strategic Nordic products and how to perform market surveillance on products integrated in systems, and aspects such as recyclability and resource efficiency;
- Support Nordic consumers and producers and the Nordic market surveillance authorities (MSAs) in the implementation of the Ecodesign and Energy Labelling Directives;
- Contribute to the development and improvement of market surveillance in the Nordic region, and by extension in the European Union (EU);
- Present a Nordic view and Nordic practices to the EU;
- Strengthen Nordic products and services in the market through good market surveillance in order to enable producers and retailers to adapt and develop their products, and be forerunners in green growth.

By promoting green growth and energy efficiency in a cost efficient manner, Nordsyn aims to generate significant benefits to Nordic MSAs, producers and consumers, and to increase Nordic influence in the EU (Blomquist 2014).

## Beneficiaries and actions targeted

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### Market Surveillance authorities and consumers

The main objective of the Nordsyn cooperation is to more efficiently share market surveillance plans and results of product testing ensuring improved compliance at lower costs. Market Surveillance Authorities and consumers do, therefore, benefit substantially through the Nordsyn cooperation. Product testing and document control may be costly, especially for smaller countries, as products under Ecodesign such as motors, boilers, transformers and professional refrigeration systems are getting more complex, and thus more difficult to monitor. Many of these products are practically impossible or very expensive to take to a laboratory and must therefore be tested at the producer's site or even after installation at the end-user's site (Green Growth the Nordic Way 2015b). As Nordic countries are often dealing with the same products, sharing test results and other information in the Nordic countries and in Europe save, therefore, substantial costs (Blomquist 2014).

### Manufacturers

In addition, the cooperation between MSAs allows for improved information to manufacturers, eventually simplifying their activities and improving their competitiveness. Nordsyn has issued a series of fact sheets to help manufacturers and importers of appliances prepare for the new requirements under Ecodesign, with a particular focus on products of strategic interest for Nordic countries (Nordic Council of Ministers 2015). The fact sheets summarise the contents of the Regulations and are addressed to manufacturers, importers and other interested parties. Together, these fact sheets cover the most common space and water heating appliances available on the Nordic market. Heating products have been prominent in the group's activities, as new EU rules on ecodesign and energy labelling for boilers, heat pumps and water heaters came into effect on September 26, 2015 (Green Growth the Nordic Way 2015b). In addition, 26 guidelines for producers on technical documentation for products like air conditioning, TVs, circulators, lamps, washing machines, motors etc. have been developed (Blomquist 2014). These guidelines can be used by manufacturers for the technical documentation they have to provide if the market surveillance authorities ask for it.

Another Nordsyn initiative is called the Strategic Nordic Products, which aims at identifying energy-related products of particular interest to the Nordic region. The MSAs work in this initiative together to create conditions that help these industries develop and promote their products through the removal of potential trade barriers linked to regulation (Blomquist 2015).

### Positive impact on EU regulation

A further main objective of Nordsyn is to create a positive impact on European regulation and policies. The Nordsyn-group has been part of the European dialogue on market surveillance and interpretation of the Ecodesign and Energy Labelling legislation (Green Growth the Nordic Way 2015b). The group has put forward recommendations to the European Commission regarding improved data sharing and market surveillance of more complex energy-related products. This has for instance led to a change in European energy labelling of heating products – a product group of considerable strategic importance to the Nordic countries. The label now shows a map with three different climate zones, which allows Nordic consumers to see clearly how a certain heat pump will perform in the Nordic climate (Blomquist 2014). In addition, Nordsyn also conducts smaller projects to

- identify further barriers to efficient cooperation on market surveillance,
- assess how cooperation with customs can be improved (in the case of Iceland),
- assess the costs and benefits of Nordic cooperation on market surveillance and
- explore how small countries deal with Ecodesign and Energy Labelling and how they can learn from each other.

## Design and implementation

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Nordsyn involves the MSAs in the Nordic countries, the Swedish Energy Agency, the Danish Energy Agency, the Finnish 'Tukes' Safety and Chemicals Agency, the Norwegian Water Resources and Energy Directorate, and the Icelandic Consumer Agency (Green Growth the Nordic Way 2015c). Since 2013, all of these Nordic market surveillance authorities have participated actively in the project, in order to ensure consistent implementation of the legislations. The initiative started as a three-year-program (2013-2015) with 3,6 million DKK (€482,000) for 10 projects and sub-projects (Blomquist 2014). A continuation of Nordsyn for the years 2016-2017 is planned with new projects. It is part of the Nordic Prime Minister' shared green growth initiative "The Nordic Region – leading in green growth" under the auspices of the Nordic Council of Ministers (Blomquist 2015).

In 2011, first efforts to establish a system for coordination and communication of market surveillance plans, test results and experiences were undertaken, and first common market tests were conducted. In the following year, 11 barriers to coordination were identified, laying the ground for effective cooperation. A secretariat was established to handle administrative tasks, budget and prepare meetings and workshops. It manages the day-to-day coordination in information exchanges, organises the efficient sharing of market control plans and test results, and prepares the coordination strategy including drafting working methods, commissioning studies on effect of coordinated monitoring (Blomquist 2014).

## Policy impacts

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The Ecodesign and Energy labelling directives are estimated to provide a 5% reduction in energy consumption in Europe by 2020 (Troels Fjordbak 2015). A condition for achieving this result is that all products put on the market will comply with the requirements for the actual product group. A study undertaken in 2015 by Nordsyn obtained an overall rate of 6.3% of non-compliance, with most cases of non-compliance being related to the energy label. The study calculated the level of non-compliance for concerned products in kWh per year. The calculation principle includes both, distances to ecodesign requirements and labeling differences. Using the national electricity prices for each participating country, and an average life span of the appliances, the study concluded that

- Approximately EUR 28 million can be saved in the Nordic countries through collaborative market surveillance, through an investment of around EUR 2.1 million corresponding to a ROI of 13;
- The overall non-compliance rate was 6.3% of all tested products. Non-compliant products were consuming, on average, 35 kWh per year more than the minimum requirement or the label presented;
- Individual Nordic countries can save a lot of market surveillance expenses when results from other Nordic countries are shared,
- 168 GWh of lifetime electricity savings can be achieved by Nordsyn (Troels Fjordbak 2015).

While more difficult to quantify, Nordsyn's impact on manufacturers' competitiveness is also significant. Manufacturers benefit from clear guidance and from harmonised requirements of Ecodesign and Energy labelling in all Nordic countries. This simplified regulatory landscape should also simplify compliance with the requirements. Detection of non-compliance increases incentives to actually achieve the efficiency gains, which may result in competitive advantages for manufacturers (Nordsyn 2015).

Another impact relates to the increased influence that Nordic countries gain at EU-level on Ecodesign and Energy Labelling related policy developments. Nordsyn facilitates an understanding of topics at stakes when they are very technical. It also provides a well coordinated position from the Nordic countries, giving more weight in discussions at EU level (Blomquist 2015).

## Policy innovation

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Nordsyn is an innovative policy instrument due to the structured and systematised cooperation between MSAs of several countries. They coordinate their product testing plans and results, effectively trusting and supporting each other with conducting product testing. This allows for an improved, wider-ranging, more effective and less costly compliance of Ecodesign and Energy Labelling requirements (Nordsyn 2015). It provides a blueprint for further regional cooperation within Europe on ensuring implementation of EU legislation. Furthermore, in times of fiscal consolidation, and while agencies are faced with more technical products from even more diverse origins, it is an easily replicable good practice initiative that could especially help smaller countries to ensure that legislation is properly implemented (Nordic Council of Ministers 2015). It may also be a way for detecting anomalies or non-compliance in products: exchange of information provide surveillance agencies with a better overall understanding of the performance of products on the market and allows them to focus testing of product types with higher non-compliance rates (Troels Fjordbak 2015). Cost-sharing allows MSAs to conduct more thorough testing with more precise instruments.

## Lessons learnt 1: Success factors

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Nordsyn shows that for such a cooperation to succeed, a strong institutional basis, strong political will and long-standing experience of administrations of working together are needed. Nordic countries already cooperate very closely on a number of EU-related issues and their administrations have no concern about sharing information with each other that is at the core of their activity. Furthermore, the Nordsyn initiative is embedded in a broader cooperation framework, the Nordic Prime Minister' shared green growth initiative under the auspices of the Nordic Council of Ministers (Blomquist 2014). This provides Nordsyn with the necessary political backing to undertake its mission. The financial support from the Nordic Council of Ministers has also been helpful for Nordsyn, as it allows to organise physical meetings and workshops and set up the structure for participating countries to share material etc.

## Lessons learnt 2: factors to avoid and possible further improvements

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Several hands on suggestions for a well working cooperation on Ecodesign and Energy Labelling market surveillance and possible other market surveillance on products can be drawn from the Nordsyn experience (Nordsyn 2015). The most relevant of them are the following:

- Share market surveillance plans in the beginning of each year,
- Share results of market surveillance activities like tests, document controls etc.
- Make sure that test reports are available in English (at least a summary),
- When performing market surveillance, always ask for a list of equivalent products to share with colleagues,
- If possible, use accredited labs and robust standards,
- If possible, try to choose products that are present in all/many of the cooperating countries (depending on the aim of the test),
- If possible, share responsibility for products, kind of tests, information material etc.

Lessons learned from organising the project are as follows:

- Fewer bigger projects are more succesful than many sub-projects. Otherwise administration, agreements and economical issues take too much time.
- Make sure that all cooperating partners have a role in the project and have a chance to share their opinion in all larger issues.

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## Disclaimer

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## The Project

In 2006, the European Union adopted the Directive on energy end-use efficiency and energy services ("ESD"). The Directive sets an indicative energy saving target of 9 % by 2016 as well as obligations on national authorities regarding energy savings, energy efficient procurement and the promotion of energy efficiency and energy services. It requires Member States to submit three National Energy Efficiency Action Plans (NEEAPs), scheduled for 2007, 2011 and 2014.

The Energy-Efficiency-Watch Project aims to facilitate the implementation of the Energy Efficiency Directive. This Intelligent Energy Europe project tried to portray the progress made in implementation of energy efficiency policies since the Energy Service Directive via NEEAPs screening and an extensive EU wide expert survey.

[www.energy-efficiency-watch.org](http://www.energy-efficiency-watch.org)

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## List of Abbreviations

**EE** – Energy Efficiency, **EED** – Energy Efficiency Directive, **EPC** – Energy Performance Certificates, **EPDB** – Energy Performance of Buildings Directive, **ES&A Targets** - Energy Savings and Action Targets, **ESCO** – Energy Service Company, **ESD** – Energy Service Directive, **EU** – European Union, **EEW** – Energy-Efficiency-Watch, **MEPS** – Minimum Energy Performance Standards, **MRV** – Monitoring, Reporting and Verification, **MURE** – Mesures d'Utilisation Rationnelle de l'Énergie, **NEEAP** – National Energy Efficiency Action Plan, **R&D** – Research and Development