

CONCERTED ACTION EEPLIANT3 NEWSLETTER FOURTH EDITION

BRUSSELS, MARCH 2024

Energy efficient products:

An EU-funded
reality check

What do the EEPLIANT3 results tell us?

In this final edition of our newsletter, we reflect on the successful conclusion of the [EEPLIANT3 Concerted Action](#) and its results. Funded by the European Union (EU), EEPLIANT3 has been yet another testament to the EU's dedication to a sustainable, greener future.

The Concerted Action aimed to help deliver the intended economic and environmental benefits of the Ecodesign and Energy Labelling framework legislation by verifying the energy performance and compliance of six product categories: **air-conditioners and comfort fans, tumble dryers, water heaters and storage tanks, ventilation units, lighting sources, and local space heaters**, alongside a small number of televisions, washing machines, and wine coolers.

While not statistically representative due to the risk-based approach to product selection, EEPLIANT3's inspections revealed distressing levels of non-compliance with energy label and information requirements across the product groups. Likewise, compliance verification testing performed by accredited laboratories has also detected significant levels of suspected non-compliance.

The findings demonstrate the ability of the European market surveillance authorities (MSAs) to identify products with a high probability of non-compliance. But they also call for a paradigm shift in how economic operators, MSAs, and regulatory bodies should cooperate to address the shortcomings and improve the market situation.

Yet, EEPLIANT3's impact stretches beyond mere product testing and inspections. The project's capacity-building activities and their outcomes, including new digital tools, collaborative methods, guidelines, and training materials, have helped market surveillance officials build knowledge and experience, enhance their collaboration, and thus improve the effectiveness and efficiency of market surveillance.

The journey does not end here. Efforts continue domestically by the national MSAs as well as under the new EEPLIANT4 EU co-funded Concerted Action, starting this May.

► Watch the EEPLIANT3 movie: https://www.youtube.com/watch?v=I_4EJ4-ZOW8



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CAUTION!

The results of this Action are based on samples of products collected from the markets in the participating countries. As in most market surveillance activities, the results represent, for the most part, the targeted efforts that authorities undertake to identify suspicious/non-compliant products. Because of that, **the results do not present a statistically valid picture of the entire market situation** for each inspected product category.

RESULTS ARE OUT! - We conducted document and online inspections, including checks on the [European Product Registry for Energy Labelling - EPREL](#), in addition to physical compliance verification testing on nearly 290 product models across six product groups covered by the EU's Ecodesign and Energy Labelling requirements. Here are the results.

1. Air-Conditioners and Comfort Fans

96% (110 of 113) of the models checked failed the document inspections – i.e., checks on the EU Declaration of Conformity (DoC), CE marking, energy label, technical documentation related to the energy label, Product Information Sheet (PIS), ecodesign information requirements.

Almost all (99%, 271 of 274) products checked on 95 retailer web shops across Europe had non-conformities. More than half of them took appropriate corrective measures after being notified by the MSAs.

Laboratory tests of 47 split and ducted air conditioners revealed a **suspected non-compliance rate of 28% (13)** of those samples. These tests revealed some notable differences in the way the units performed during testing against the relevant test standards versus real-world use cases. These differences need to be further evaluated.

In response to these findings, the participating MSAs initiated over 100 enforcement actions, including the resolution of 85 conformity defects, 2 sales bans, 12 product withdrawals, and 13 fines.

2. Household Tumble Dryers

The results of the document inspections of tumble dryers are equally discouraging. **97% (101 of 104)** of the models examined did not meet the requirements. Checks involved the verification of the EU DoC, CE marking, the energy label, technical documentation related to the label, PIS, as well as ecodesign information requirements.

The inspection of 94 web shops in the markets of the participating MSAs revealed that **91% (249) of the 279** products (i.e., product pages, list pages and basket pages/shopping carts) examined on these websites were not compliant. In 94 cases (34%), the energy label was entirely missing.

All 30 tumble dryer models tested met the energy efficiency requirements. However, **12 (40%)** of these models failed the single compliance verification test related to other product parameters, e.g., the final moisture content, power consumption in on/off modes. Laboratory testing and follow-up actions revealed that the verification of the mandatory final moisture content of the dried textiles was not completely addressed in Regulation (EU) 932/2012. This has now been rectified in the new [Regulation \(EU\) 2023/2533](#) – a positive outcome of the project.

Follow-up measures led to the correction of 29 conformity defects. Sales of one model were prohibited and 15 models were withdrawn from the market. Furthermore, the involved MSAs issued 9 fines.

3. Water Heaters (electric, including 'smart', and heat pump) and Storage Tanks

Document checks for this product category showed that **about half (46 out of 96)** of the models under investigation had errors or omissions regarding the EU DoC, CE marking, Ecodesign information and technical requirements, energy label, or technical documentation related to the label. It was found that in many cases the manufacturer or authorised representative was found to have issued the DoC *after* the product was placed on the EU market.

The participating MSAs also inspected 81 web shops and a total of 243 listed products. **All 81 e-shops failed** the initial assessment, of which 51 were still non-compliant after the second examination. Most of the issues found related to missing energy labels or PIS, or problems with the nested display of the energy label.

When it comes to laboratory testing, **12 of 26 models (46%)** did not pass the tests. This includes 8 triple tested models.

These controls resulted in more than 100 compulsory and voluntary corrective measures.

Conformity defects were fixed in 39 cases. A manufacturer discontinued the production of one model, while in one case, the supply of this model was cut off voluntarily.

4. Residential Ventilation Units (RVUs)

There had been little market surveillance on ventilation units before EEPLIANT3. The project results indicate that this market will require ongoing monitoring in the years to come.

Regarding document checks, **43% (61) of the 143 models** sampled failed the examination of manufacturers' obligations related to the PIS, the Specific Energy Consumption class, or the presence of disassembly instructions.

The inspection of 101 product models on 51 retailer websites revealed a staggering **non-compliance rate of 88%**. Remarkably, a number of dealers who had made corrections as a consequence of these controls, stopped complying following the initial correction. This is based on the outcome of a small number of non-systematic follow-up checks.

A sample of 30 suspicious models was sent for laboratory testing. **17 (57%)** of these models failed testing, including two triple tested ducted bidirectional regenerative alternating units with heat recovery. Three of the responsible economic operators could, with reasonable argumentation, show that their RVUs would have been compliant with different test settings, and this was accepted. All non-compliant units were either withdrawn from the market or brought into compliance.

5. Light Sources

The compliance checks of light sources with and without cap (that is, the base of a light bulb, acting as the interface between the light source and the power supply) revealed some rather distressing findings.

187 of the 199 (94%) models failed the document inspection, comprising checks of the CE marking, energy label, PIS, ecodesign information requirements, or mandatory product information on the manufacturer's website. Nonconformities

¹ [Regulation \(EU\) 2021/340](#) defines 'containing products' as products containing one or more light sources, or separate control gears, or both, including, but not limited to, luminaires that can be taken apart to allow separate verification of the contained light source(s), household appliances containing light source(s), furniture (shelves, mirrors, display cabinets) containing light source(s).

involved missing, incorrect, or inconsistent information or values.

The findings from the assessment of 83 e-shops were equally disappointing. **96% (239) of the 249 models** checked on these websites did not comply with the EU requirements on display of the energy label and/or the PIS. Besides missing labels or the PIS, issues were identified in relation to the size or colours of the nested display of the label, and the correctness or completeness of the information on the PIS.

The level of non-compliance in lab testing was very high. **71 out 80 (89%)** lighting sources failed the verification testing.

While more analysis is needed on the root causes of these results, part of the problem appears to relate to ambiguities in the product regulation, that give rise to differing interpretations, and complexities such as those pertaining to the definition of containing products¹ and the correct classification of LED strips.

Enforcement led to 19 sales bans, 26 model withdrawals, and 16 fines. Additionally, 20 identified conformity defects have been resolved.

6. Local Space Heaters

The activity focused on electric (conventional and radiant), gas and biomass local space heaters.

MSAs checked a total of 135 models to verify compliance with the ecodesign, energy labelling, and technical documentation requirements. **77% (104)** of these models had one or more errors or missing information in the EU DoC, CE marking, energy label, PIS, and/or the technical documentation. Of the 67 products checked in EPREL only 8 (12%) were fully correct and complete.

The assessment of 44 retailer websites showed that **all (100%)** had compliance issues. The main nonconformities involved missing labels or PIS, energy labels placed far from the price, incorrect nested display colour, or illegible information.

The results of the laboratory tests were more positive. Only **8 (15%) of the 52 tested models** were

If the containing product is placed on the market with an included light source, the energy label class of the included light source must be referenced in the technical documentation accompanying the product, <https://www.seai.ie/home-energy/energy-labelling-and-ecodesign/energy-labelling/Understanding-the-label-on-lightbulbs-and-luminaires.pdf> (accessed 19/03/2024).

found to be non-compliant after testing one unit – i.e., indicating suspected non-compliance. One of the primary findings of the testing was that the absence of verification tolerances for some declared parameters (e.g., output heat) in the regulation makes it difficult for MSAs to enforce certain disparities between declared and determined values.

The activity also revealed a gap in the definitions of ‘permanent pilot flame’ and open and closed fronted biomass heaters that should be addressed and several issues with the test methods for closed fronted gas heaters.

Over 140 corrective measures were taken by the MSAs and economic operators concerned. These included more than 50 informal contacts, 29 warnings, 19 resolutions of conformity defects, 13 sales bans, 18 withdrawals, and 7 fines.

7. Mini testing pilot on TV monitors, Washing Machines, and Wine Storage Appliances

As part of the work under EEPLIANT3's work on new and emerging challenges for market surveillance, the participating MSAs looked at 71 models of various appliances: TV Monitors, Washing Machines, Wine Storage Appliances, Washer Dryers, Ice Cream Freezers, Dishwashers, Household and Commercial Refrigerators. The participating MSAs developed and used a pilot semi-random methodology to screen and select model samples.

The results of the document inspections and checks on EPREL were mixed. Over half of the product models (39 of 71, 55%) had non-conformities in their technical documentation, but only 8 (11%) had errors or were not registered in EPREL.

Lab tests were performed on five televisions, six washing machines, and five wine storage appliances. All five wine storage appliances, two washing machines, and three televisions failed the single test. No triple testing was required for the non-compliant wine storage appliances due to voluntary remedy actions taken by the concerned manufacturers.

CONCLUSIONS

The results of the EEPLIANT3 document and online checks are dismal overall. Most of the identified issues are common across the six focus product categories (e.g., errors in the EU DoC, missing or wrong energy label or PIS, missing signatures, values, calculation formulas, test reports,

references to standards or regulation, products not registered in EPREL or registered with errors).

Some of these issues appear to have been caused by a knowledge gap among the economic operators concerned. At the same time, many problems continue to persist despite all previous EU-funded and national market surveillance efforts.

Regardless of the cause, non-compliance brings on many negative effects on consumers, businesses, and the environment. Unmet energy efficiency promises result in increased energy costs, loss of consumer trust, unfair competition, and unnecessary release of CO₂, while accelerating the depletion of natural resource.

The EEPLIANT3 results call for action. Strengthened enforcement, improved regulation, closer cooperation among legislators, MSAs, and economic operators, and greater awareness of the existing requirements are essential to increasing compliance with the ecodesign and energy labelling rules.

To this end, the project's concerted efforts to build capacity and enhance collaboration and knowledge sharing among European MSAs, EU Customs, and the industry have yielded significant results and lessons learned.

Innovation meets Regulation: Five IT tools for market surveillance and a Proof-of-Concept

With the ever-growing volume of energy-related products being placed on the EU market, leveraging IT tools is essential for offsetting the resource constraints many MSAs are facing. Optimising market surveillance workflows is part of the solution.

EEPLIANT3 developed three IT solutions. The flagship of the project's IT portfolio is the *eepliantCrawler*. The web crawler is a Minimum Viable Product (MVP) for crawling retailer websites and e-commerce platforms that sell TV monitors in two EU markets, Germany and Ireland. The tool extracts data and information such as product descriptions, specifications, prices, energy labels, PIS, and helps MSAs detect non-compliant products more quickly by flagging, for example, items with incorrect or missing information, energy labels, or the PIS. The software also highlights mismatches in data between the websites and entries in EPREL.

CybPort 3.0 is another software application developed by EEPLIANT3 to help MSAs automate the upload of case investigations to the [Information](#)

[and Communication System for Market Surveillance \(ICSMS\)](#).

[ClickAway](#) is EEPLIANT3's new web hub, giving EU market surveillance officials access to a collection of (for the most part) sources of tools, databases, and other useful assets for ecodesign and energy labelling market surveillance.

In addition to the development of these tools, EEPLIANT3 contributed to the productization of two IT solutions of the Sustainable Energy Authority of Ireland: ELS, an energy labelling inspection and reporting system, and MSA-CMS, a case management system configured to Ecodesign, Energy Labelling, and Tyre Labelling market surveillance. Both systems are now available for distribution and reproduction by interested MSAs (email info@prosafe.org for more information).

A proof-of-concept (PoC) of the automated assessment of lab test reports as part of the compliance verification process was the cherry on top. The PoC tested the fitness of two pay-as-you-go Artificial Intelligence (AI) frameworks: Amazon's Web Services (AWS), and the Google Document AI. Both platforms were deemed fit, with some distinctions, nonetheless, in terms of features and technological advantages.

Time for a Retrospect: The EEPLIANT3 Final Event

EEPLIANT3 concluded its works with a hybrid Final Event on 06 and 07 March 2024 in Brussels. The event was attended by representatives of MSAs, the European Commission, industry associations, consumer organisations and test bodies, hosted by [PROSAFE](#).

In addition to the presentation of the inspection and testing results, the event featured live demos of many new tools, methods, and training materials. The participants also engaged in workshops to identify gaps and challenges in the existing market surveillance framework and explore practical solutions.

The EEPLIANT4 Concerted Action starts this May.

EEPLIANT4, the new EU co-funded Concerted Action on Ecodesign and Energy Labelling market surveillance, starts in May 2024. The Action will build on the learnings and carry on the work of EEPLIANT3. 27 European organisations will work together for 60 months on 8 product compliance

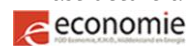
verification and 4 capacity-building activities, including training, joint actions with EU Customs, and development of IT tools.

The product categories in scope are: **refrigerating appliances, tyres, electronic displays, cooking appliances, vacuum cleaners, off-mode/networked standby devices, air heating and cooling products, and solid fuel space heaters.** The kick-off event will take place in June.

Spread the word and stay tuned for updates on the progress and findings.

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About EEPLIANT3

This information is provided by [PROSAFE](#) and the 29 organisations representing 21 EU/EEA countries in EEPLIANT3: Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, France, Germany, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, The Netherlands, Portugal, Slovenia, Spain, Sweden, and Turkey. EEPLIANT3 is coordinated by PROSAFE, supported by the Austrian Energy Agency (AEA) and vores bureau (vb).

PROSAFE brings together market surveillance officers from across Europe since 2006. For more information about this initiative and other market surveillance projects coordinated by PROSAFE, visit www.eepliant.eu and www.prosafe.org, and follow us on X: [@EEPLIANT](#), and [@PROSAFE_ORG](#).

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