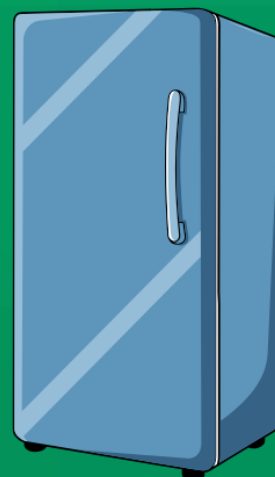


Layman's Report

JAHARP2022-01

Washing Machines & Professional
Refrigerated Storage Cabinets



"Every day across the EU, invisible guardians work behind the scenes to keep non-compliant products off the shelves and fairness on the playing field.

Because compliance is not just a label— it's a process that never stops."

PROSAFE – The Product Safety Forum of Europe

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List of abbreviations

ADCO	Administrative Cooperation Group
CE	European Conformity (Conformité Européenne)
DG GROW	Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs
DoC	Declaration of Conformity
EEA	European Economic Area
EEI	Energy Efficiency Index
EISMEA	European Innovation Council and SMEs Executive Agency
EN	European Standards
EO	Economic Operator
EPREL	European Product Registry for Energy Labelling
EU	European Union
GA	Grant Agreement
ICSMS	Information and Communication System for Market Surveillance
ISO	International Organization for Standardization
MS	Member State
MSA	Market Surveillance Authority
OJ	Official Journal of the European Union
WP	Work Package

Executive Summary

The [Joint Action on Harmonised Products 2022-01](#) (JAHARP2022-01) started in April 2023 and ended in March 2025.

The project focused on verifying the compliance of two product categories:

- **Household washing machines** against the EU Ecodesign Regulation (EU) 2019/2023¹ and Energy Labelling Regulation (EU) 2019/2014²
- **Professional refrigerated storage cabinets** against the Ecodesign Regulation (EU) 2015/1095³ and the Energy Labelling Regulation (EU) 2015/1094⁴.

¹ [Commission Regulation \(EU\) 2019/2023 of 1 October 2019 laying down ecodesign requirements for household washing machines and household washer-dryers pursuant to Directive 2009/125/EC of the European Parliament and of the Council, amending Commission Regulation \(EC\) No 1275/2008 and repealing Commission Regulation \(EU\) No 1015/2010](#)

² [Commission Delegated Regulation \(EU\) 2019/2014 of 11 March 2019 supplementing Regulation \(EU\) 2017/1369 of the European Parliament and of the Council with regard to energy labelling of household washing machines and household washer-dryers and repealing Commission Delegated Regulation \(EU\) No 1061/2010 and Commission Directive 96/60/EC](#)

³ [Commission Regulation \(EU\) 2015/1095 of 5 May 2015 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for professional refrigerated storage cabinets, blast cabinets, condensing units and process chillers](#)

⁴ [Commission Delegated Regulation \(EU\) 2015/1094 of 5 May 2015 supplementing Directive 2010/30/EU of the European Parliament](#)

The participating Market Surveillance Authorities (MSAs) conducted document inspections on **46 washing machines** and **60 professional refrigerators**.

Out of the products inspected, the authorities selected **8 washing machines** and **14 professional refrigerated cabinets** for laboratory testing.

Initial results revealed that:

- **74% of washing machines and 76% of professional refrigerators were non-compliant** with documentation and administrative requirements.
- **63% of washing machines and 86% of professional refrigerators were non-compliant** against technical requirements (testing).

For both product categories, the MSAs found that EU Economic Operators, particularly Small and Medium Enterprises (SMEs), **lack awareness of the responsibilities falling on them when they rebrand a product under their own label.**

[and of the Council with regard to the energy labelling of professional refrigerated storage cabinets](#)



Highlights and key results

Caution! The results are based on products that were sampled from the markets in the participating countries by experienced market surveillance inspectors. As in any routine market surveillance activity, the results represent the targeted efforts that authorities undertake to identify non-compliant products. They do not give a statistically valid picture of the market situation.

WASHING MACHINES

46

Inspected

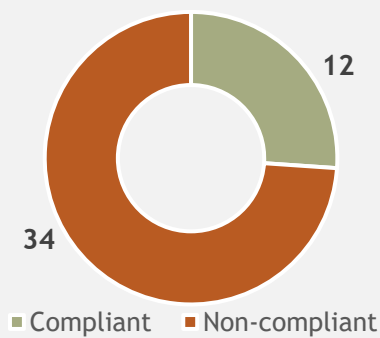
8

Tested

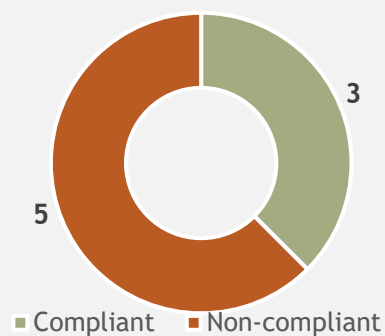
1

Triple
tested

Document inspection



Single tests results



2 sale bans



2 withdrawals

PROFESSIONAL REFRIGERATED STORAGE CABINETS

60

Inspected

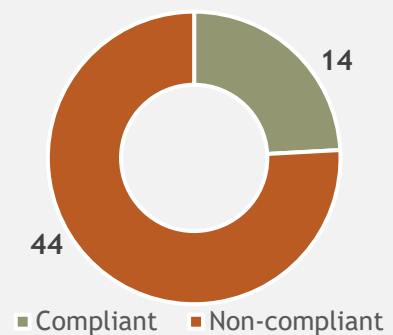
14

Tested

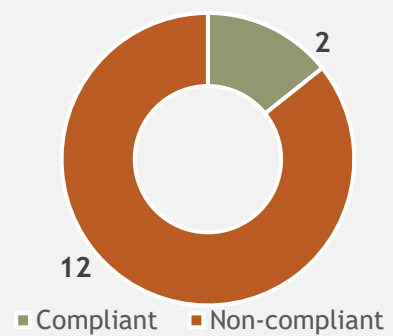
1

Triple
tested

Document inspection



Single tests results



2 withdrawals

20 products
brought into
compliance

JAHARP2022 Omnibus

The **Joint Market Surveillance Action on HARmonised Products 2022 (JAHARP2022)** is a portfolio of projects co-funded by the European Union, comprising seven product areas and two horizontal/capacity building activities, implemented in synergy.

The shared strategic objective of JAHARP2022 is twofold:

- ✚ Remove non-compliant products from the Single Market
- ✚ Support the implementation of Regulation (EU) 2019/1020⁵ on Market Surveillance

Market surveillance on products entering the Single Market is the responsibility of national authorities, which have to adhere at the same time to European and national legislation, in some cases causing differences in the implementation.

For this reason, and because of the emerging challenges that market surveillance authorities (MSAs) face in their daily work, joint actions are an essential tool to promote the coordination and harmonisation of practices and methodologies among European authorities, by conducting transnational campaigns focused on specific products and legislations and favouring the exchange of information and best practices.

An overview JAHARP2022 portfolio of projects is provided in the figure below.



Caution! The results are based on products that were sampled from the markets in the participating countries by experienced market surveillance inspectors. As in any routine market surveillance activity, the results represent the targeted efforts that authorities undertake to identify non-compliant products. They do not give a statistically valid picture of the market situation.

⁵ Regulation (EU) 2019/1020 of the European Parliament and of the Council of 20 June 2019 on market surveillance and compliance of products and amending Directive 2004/42/EC and Regulations (EC) No 765/2008 and (EU) No 305/2011

Introduction to JAHARP2022-01

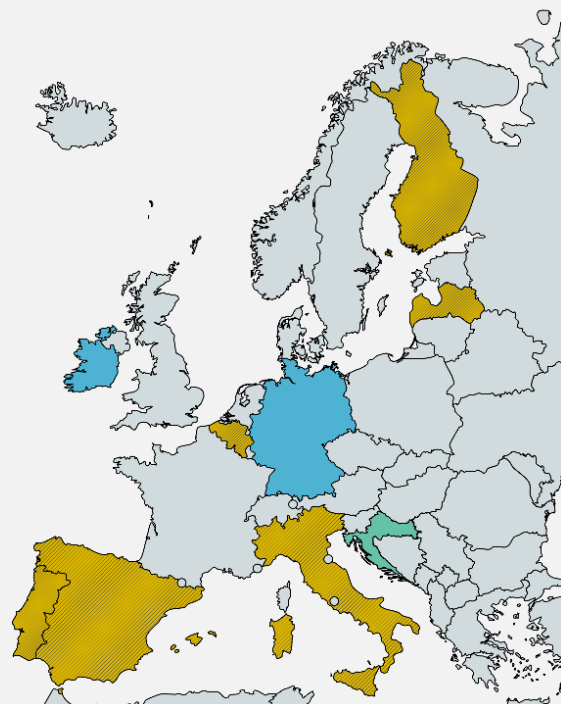
Participating authorities

The Joint Action was undertaken by nine (9) Market Surveillance Authorities from 9 EU countries:

Belgium, Croatia, Germany, Finland, Ireland, Italy, Latvia, Portugal, and Spain.

Seven (7) authorities participated in Work Package 2 on Washing Machines and eight (8) authorities participated in Work Package 3 on Professional Refrigerated Storage Cabinets.

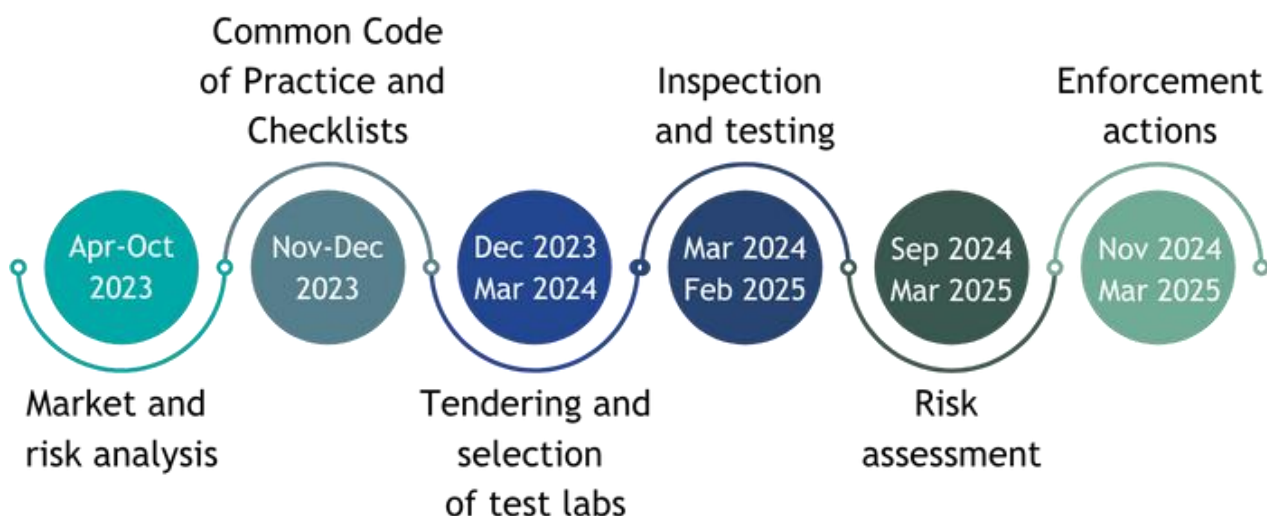
Both WPs
WP2 - Washing
Machines
WP3 - Professional
Refrigerated
Storage Cabinets



Timeline of the Joint Action

The Joint Action followed the methodology of the typical market surveillance cycle, starting with market and risk analysis which informed the decisions on the products to be selected for document inspections and for laboratory testing. Two laboratories were selected through a tender procedure aimed at identifying the test body offering high expertise at the best value for money. Based on the results, the national authorities assessed the risks posed by non-compliant products to people and the environment and took appropriate enforcement actions.

The timeline of the project activities is shown in the graph below.



Washing Machines

The work group on washing machines decided to focus on front-load machines, excluding washer-dryers and top-loading machines because of their low market share.

This was the **first time the MSAs had tested washing machines against the new requirements** inserted in the revised the Ecodesign Regulation (EU) 2019/2023 and the Energy Labelling Regulation (EU) 2019/2014 which took effect in March 2021.

Document inspections

After conducting an initial market screening and risk analysis, the market surveillance authorities identified 69 products, out of which they selected 46 products for document inspections. Models which were considered of higher risk of non-compliance were selected.

A checklist was developed to support the MSAs in their documentation checks and to ensure that consistent data was collected for all products. This had the form of an excel spreadsheet which also contained information to guide the officers in their assessments.

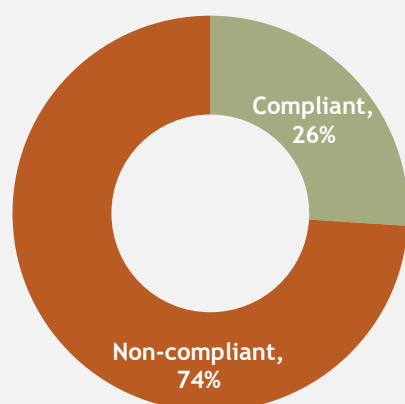
Among the documents inspected for 46 models, 12 (26%) were fully compliant, while 34 (74%) were initially non-compliant.

As shown below, the most common non-conformities related to the technical documentation for ecodesign and energy labelling being incomplete or incorrect, which demonstrates the need for further education and guidance for economic operators.

In addition, **the MSAs found that five of the machines inspected did not have a clearly identified '20°C' washing cycle which could be selected directly**, as specified in Annex II, Article 1 of Ecodesign Regulation (EU) 2019/2023. On this point, there seems to be disagreement with some manufacturers, as they believe that the washing machines which allow the consumer to select the temperature and therefore run a 20°C cycle are compliant with the requirement.

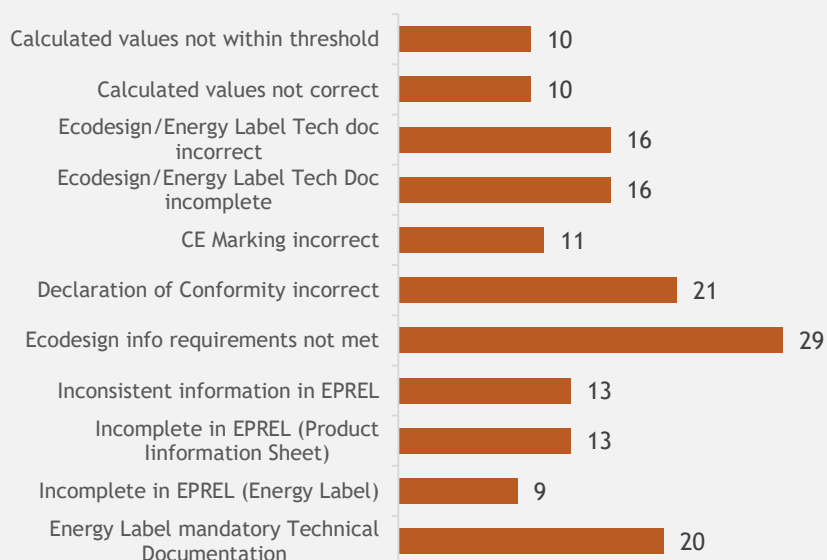
The graphs below show the presumed non-compliance levels, and the main non-conformities observed.

Document checks
initial assessment



Caution: the results represent the targeted efforts that authorities undertake to identify non-compliant products. They do not give a statistically valid picture of the market situation.

Number of samples with non-conformities in
each area



Laboratory tests

Eight (8) washing machines from the ones which underwent documentation checks were sent for testing to the selected accredited laboratory.

The products were sampled both from brick-and-mortar shops and online sellers.

All samples were tested against a minimum test programme, in order to verify compliance against the following parameters:

- ✚ energy consumption,
- ✚ water consumption,
- ✚ energy efficiency index,
- ✚ washing efficiency index,
- ✚ duration of the eco 40-60 programme,
- ✚ remaining moisture content,
- ✚ maximum temperature inside the laundry,
- ✚ spin speed
- ✚ rinsing effectiveness.

In addition, *noise emissions* were tested for three samples and *low power modes* for the other five samples.

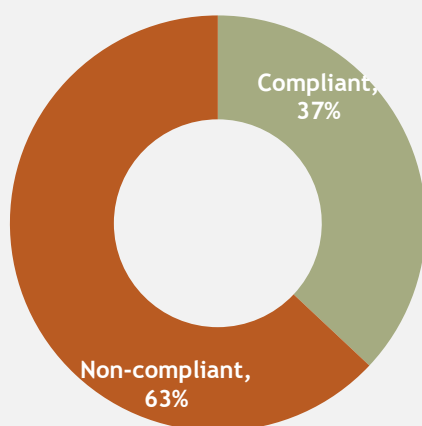
Three samples were found to be compliant, while five presented non-conformities.

All samples were compliant with the noise emissions and rinsing effectiveness requirements stated in the regulations.

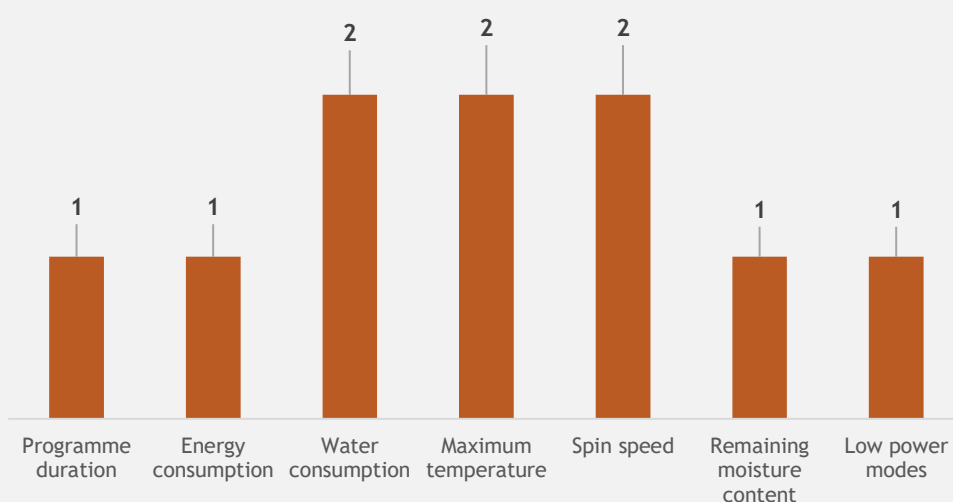
An overview of the parameters with non-conformities observed is provided in the graph below.

One non-compliant product was selected for triple testing. As a result, the model was evaluated as non-compliant.

Test results



Number of products failing against the parameters



Caution: the results represent the targeted efforts that authorities undertake to identify non-compliant products. They do not give a statistically valid picture of the market situation.

Risk assessment and follow-up measures

The risks posed by the non-conformities were assessed by the MSAs using the methodology agreed by the Ecodesign and Energy Labelling ADCOs.

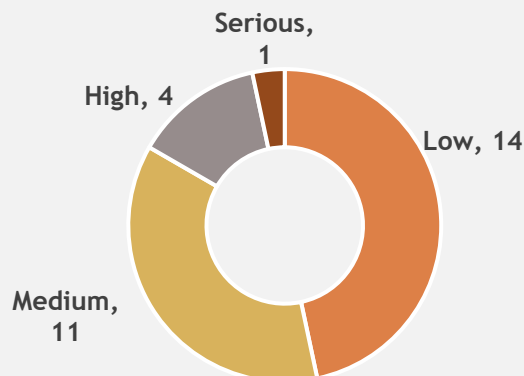
Most of the administrative non-conformities encountered during document checks (25 of which were still outstanding after follow-up measures taken by the MSAs) were evaluated as presenting low or medium risks. **One of the non-compliant tested products was evaluated as presenting a serious risk.**

As a first step, all MSAs had informal contact with Economic Operators responsible for models with presumed non compliances.

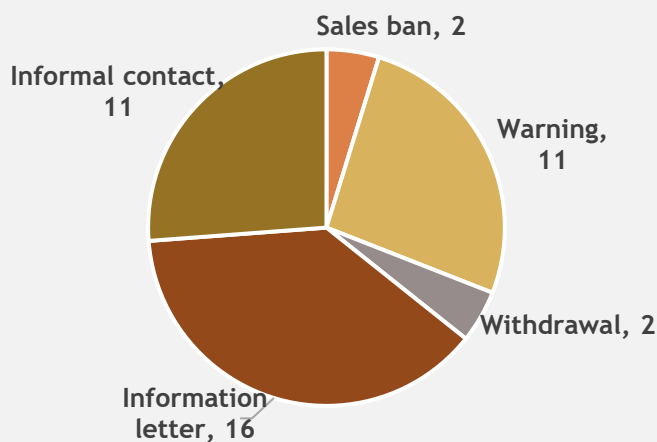
Many Economic Operators took voluntary measures to bring their products into compliance, in particular in relation to administrative non-conformities. The graphs below give an overview of the risk assessment results (after documentation checks and testing), follow-up actions taken by MSAs and voluntary measures taken by EOs. As a result, **11 products were brought into compliance.**

In relation to models which remained non-compliant, **two were withdrawn** and the MSAs issued **two sale bans.**

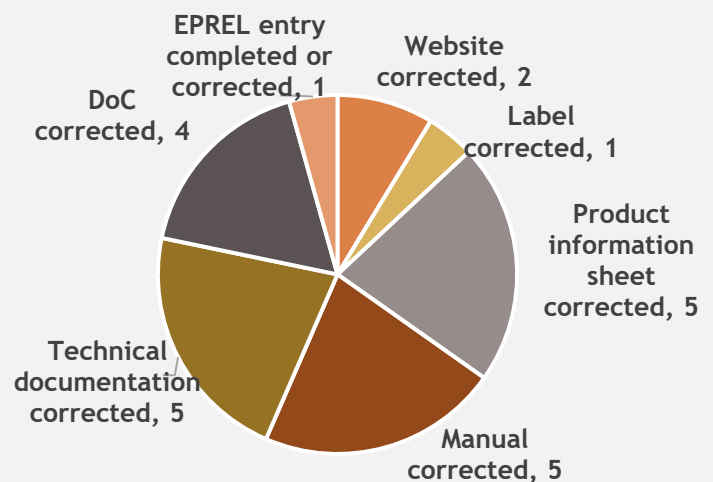
Risk assessment results



Follow-up & enforcement measures



Voluntary measures from EOs



Professional Refrigerated Storage Cabinets

Previous projects, such as the [EEPLIANT2](#) Joint Action, had observed a high level of non-compliance in the sector of professional refrigerators.

This Joint Action therefore aimed to reassess the situation on the market and provide MSAs with further data, while bringing forth useful insight to the European Commission and support it in the revision of the Ecodesign Regulation (EU) 2015/1095, which has been under review throughout the duration of the project.

Professional Refrigerated Storage Cabinets on the market are of three duty types:

- ✚ *Light duty (for use 'front of house' in restaurants, ambient temperatures around 25 °C)*
- ✚ *Standard duty (operating temperature up to 30 °C)*
- ✚ *Heavy duty (operating temperature up to 40 °C)*

In addition, in terms of their configuration and function, the cabinets can be categorised in four configurations:

- ✚ *Vertical frozen*
- ✚ *Vertical chilled*
- ✚ *Counter frozen*
- ✚ *Counter chilled*

The MSAs conducted document inspections on all different types of cabinets but focused on standard and heavy-duty cabinets for testing, because of their larger market presence, higher food safety risks posed by these duty types and greater difficulties in reaching the needed temperatures while complying with energy efficiency requirements.

Participants identified a total of 79 cabinet models for screening, out of which they selected 60 products to undergo document inspections.



Document inspections

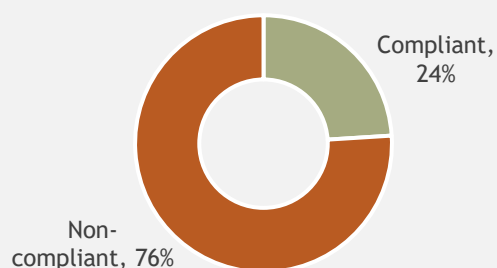
In relation to the 60 models selected for documentation checks, the MSAs used a checklist developed for this purpose and verified the products' compliance with the ecodesign and energy labelling administrative and information requirements. Inspectors also verified if the products were listed on the [European Product Registry for Energy Labelling \(EPREL\)](#), as mandated by the Union legislation.

Less than one third of the inspected models were compliant with the ecodesign requirements, while less than half of the Declarations of Conformities (DoC) examined were correct and complete.

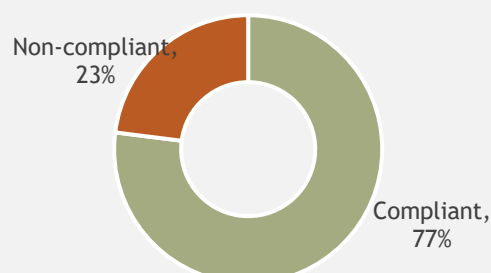
Based on the MSAs' initial assessment, only 24% of the inspected models were considered compliant with the Regulations.

Follow-up actions by the participating market surveillance authorities helped ensure that **Economic Operators took voluntary measures** to address non-conformities across 33 of the products, which together brought at least 20 initially non-compliant products into compliance. After enforcement action, 77% of the products were compliant.

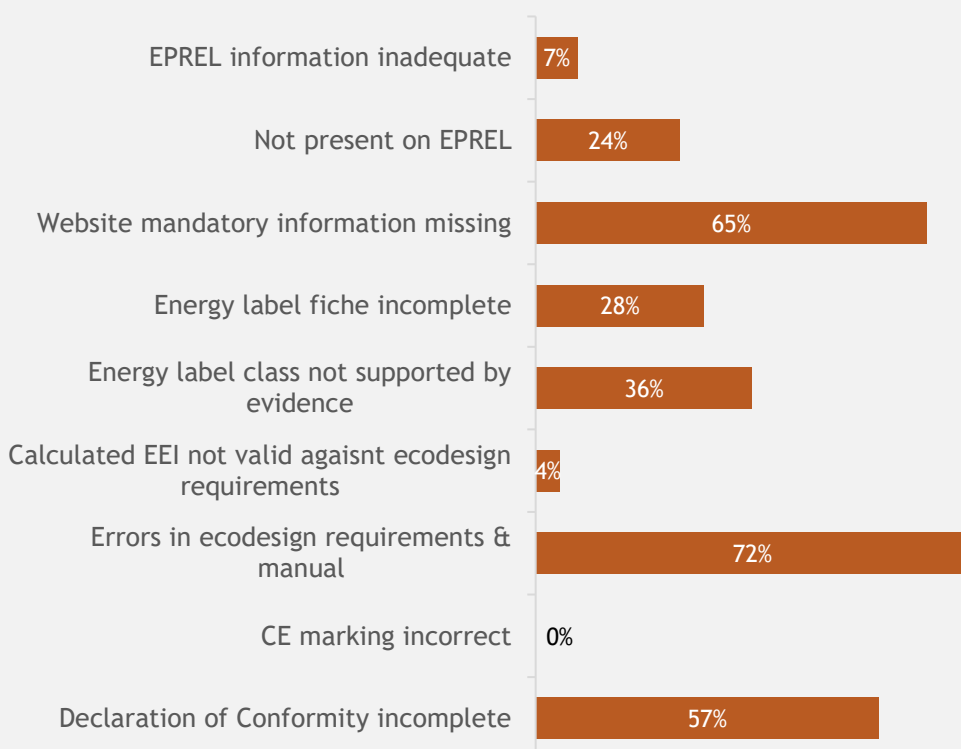
Document checks initial assessment



Document checks final assessment (after voluntary measures)



Percentage of samples with non-conformities in each area



Caution: the results represent the targeted efforts that authorities undertake to identify non-compliant products. They do not give a statistically valid picture of the market situation.

Laboratory tests

Fourteen cabinets were sampled for single testing, seven being standard duty and seven heavy-duty.

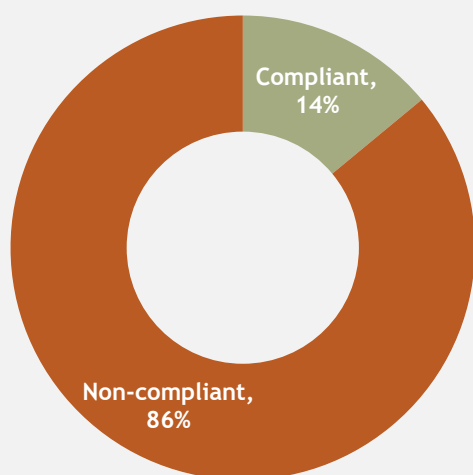
Only two models were assessed as compliant after single testing, but all models tested met the minimum ecodesign efficiency requirement (Energy Efficiency Index < 80).

The main non-conformities observed related to:

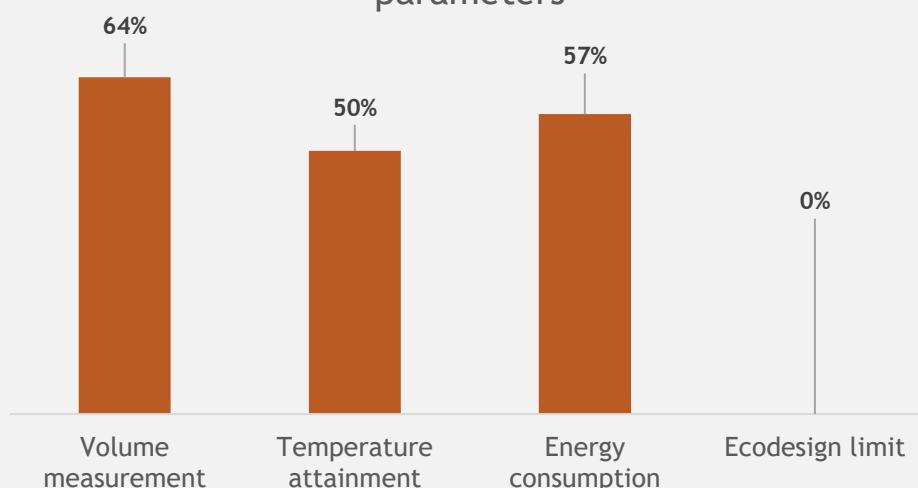
- ✚ **Temperature requirements** - half of the tested products failed, **with potential food safety implications** for the ones where the measured temperature was at least 1°C higher than the maximum allowed.
- ✚ **Net volume** - 64% of the samples' net volume was measured outside of the allowed verification tolerance, with errors ranging from 6% to 35%, **with the implication that customers cannot store the amount of produce they would expect from the declared value and that energy efficiency calculations are inaccurate.**
- ✚ **Energy consumption** - For 57% of the tested models, energy consumption was measured as more than 10% higher than the one declared (and so exceeded the verification tolerance) with excess ranging generally from 11% to 30%, and over 80% in one case. For these products, **users spend more on energy and energy savings from the policy are undermined.**

One of the non-compliant models was selected for triple testing, which confirmed the model's failures, particularly on energy consumption requirements. This model was consequently removed from the EU market.

Test results



Level of non-compliance for different parameters



Caution: the results represent the targeted efforts that authorities undertake to identify non-compliant products. They do not give a statistically valid picture of the market situation.

Risk assessment and follow-up measures

Similarly to the workgroup on washing machines, the participating market surveillance authorities applied the Ecodesign and Energy Labelling ADCO recommended approach to risk assessment to the products presenting non-conformities.

In order to establish the risk class for each product, participants firstly identified the non-conformity class and secondly the damage class. The combination of both then determined the risk class.

There are four different non-conformity classes, based on the type and gravity of the non-conformity observed, as presented below:

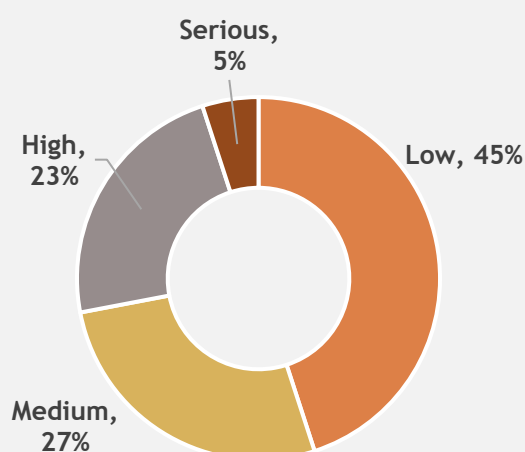
- 1 - minor formal changes required
- 2 - essential formal changes required
- 3 - technical changes to the properties of the product required or modification of the specific values required
- 4 - conformity of the product not possible.

There are four damage classes (1: low, 2: medium, 3: high, 4: serious), which are determined based on the possible harm the product could cause to consumers, the environment, internal market and competition.

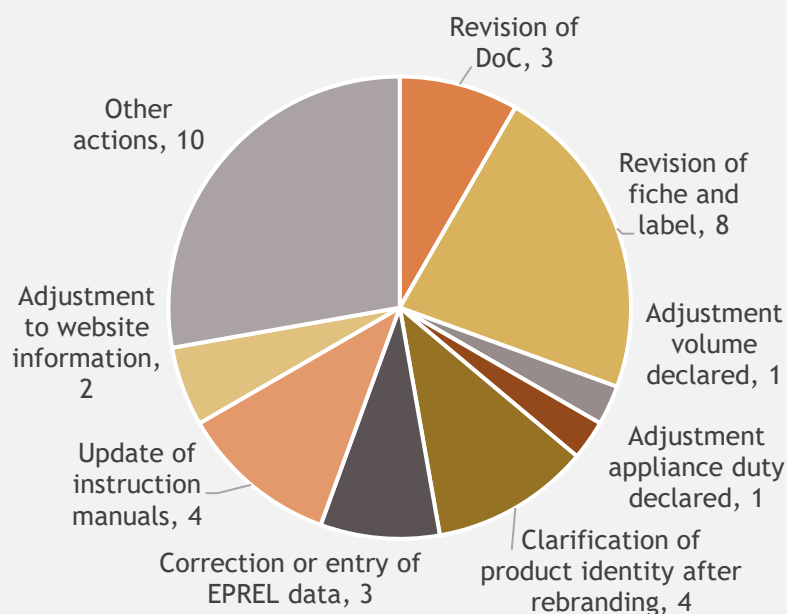
Typically, administrative non-conformities encountered during document checks are assigned the damage class 1 or 2, while technical non-conformities encountered during tests usually result in a higher damage class.

After assessing the risk, the officers followed up with the responsible Economic Operators and took appropriate enforcement actions. As a result of these measures, **two models were withdrawn from the EU market**, corrective action was taken to address over 50 specific areas of non-conformity, through which **at least 20 models were brought into compliance by the EOs**.

Risk assessment results



Voluntary measures from EOs



Recommendations

Based on the non-conformities observed on the market in relation to the two products, the market surveillance authorities drafted some recommendations for Economic Operators and for consumers, together with some policy recommendations for the European legislative bodies. These are presented below:

Recommendations for Economic Operators

Declaration of Identity: When rebranding a product, Economic Operators acquire the responsibilities of the manufacturer. Rebranding issues are most easily resolved by Economic Operators drawing up a Declaration of Identity, signed by the original manufacturer, which should clearly identify the equivalent products on the market.

EPREL: Economic Operators should enter the product information on EPREL and ensure this is correct.

Energy Label: Consumers should pay attention to the Energy Label of the products they purchase, and make sure to choose the most energy efficient models.

Recommendations for Consumers

EPREL: Consumers should verify that the product is present on the EPREL website and consult the information provided.

Policy recommendations:

20° cycle: Clarifications are needed in Annex II of Regulation (EU) 2019/2023 on washing machines, concerning the requirement for a 20° cycle.

Temperature verification: The workgroup recommends the inclusion of tolerances for temperature verification in a future amendment of Regulation (EU) 2015/1095 on professional refrigerators. As it stands, as decimal points are not included in the Regulation, even small deviations have to be considered as non-conformities by the MSAs.

Guidance: Economic Operators and, in particular, Small and Medium Enterprises, are not fully aware of all Ecodesign requirements and of their responsibilities when rebranding a product. Further awareness raising would be useful.

Conclusions and lessons learned

The JAHARP2022-01 joint action provided useful information on the level of compliance on the market of washing machines and professional refrigerated storage cabinets. The inspectors' interactions with the economic operators **increased compliance** with the regulations, removed non-compliant models from the market and **increased Economic Operators awareness and understanding** of the regulations.

In addition, the project **provided valuable insight for the ongoing revision of the Ecodesign Regulation (EU) 2015/1095** on professional refrigerators and tested washing machines against new parameters in the Ecodesign Regulation (EU) 2019/2023 and the Energy Labelling Regulation (EU) 2019/2014 for the first time in a Joint Action.

One of the most significant lessons learnt during the project is the need to educate Economic Operators on the **responsibilities deriving from rebranding a product** manufactured by a different firm. MSAs found that economic operators were often not aware of having to register the product on EPREL under its different name, and in this case having to draw up and provide to the MSAs a Declaration of Identity, essential to create a formal and clear connection with the original product as certified by the original manufacturer.

In addition, specifically in relation to professional refrigerators, economic operators do not always seem to be aware of exactly how the net volume must be measured and the need to deduct the volume below the lowest shelf.

Furthermore, **one quarter of the inspected cabinets were not present on EPREL**, which highlights the need for additional awareness raising. At the same time, the observed level of compliance of professional refrigerators on the market was higher than under previous projects (EEPLIANT2), showing an **optimistic trend**.

The Joint Action had a **positive impact on the industry sector**, by engaging with stakeholders throughout its deployment. Representatives of European Trade Associations were invited to the Final Conference during which the results of the action were presented, where they contributed to a fruitful discussion.

Non-participating MSAs were also informed of the project developments and observations through the Ecodesign and Energy Labelling AdCo groups, in order to ensure that the outcomes and lessons learnt will support the work of market surveillance authorities in future campaigns.

JAHARP2022-01 was part of the **JAHARP2022** portfolio of joint actions, involving 25 MSAs from 16 Countries and coordinated by **PROSAFE**. The Joint Actions were on seven product categories falling under different Safety and Energy Efficiency legislations and on the harmonisation of market surveillance methodologies across member States.



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