

PROSAFE

JULY 2023

JAHARP2020-2

# LAYMAN'S REPORT

Joint Market Surveillance Action on Harmonised Products 2020



Co-funded by  
the European Union



JAHARP2020

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Watch the JAHARP2020 movie on YouTube:

[https://www.youtube.com/watch?v=QaBTt\\_hn9AE](https://www.youtube.com/watch?v=QaBTt_hn9AE)

#### **DISCLAIMER**

This report arises from the Joint Market Surveillance Actions on Harmonised Products - JAHARP2020, which receive funding from the European Union in the framework of the Action entitled "EU support to joint market surveillance actions for non-food products".

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## ABBREVIATIONS

ADCO	Administrative Cooperation Group
CE [marking]	European Conformity (Conformité Européenne)
DG GROW	Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs
DoC	Declaration of Conformity
EEA	European Economic Area
EN	European Standards
EU	European Union
ICSMS	Information and Communication System for Market Surveillance
IoT	Internet of Things
ISO	International Organization for Standardization
LVD	EU Low Voltage Directive 2014/35/EU
MSA	Market Surveillance Authority
OJ	Official Journal of the European Union
RAPEX	The Rapid Alert System for Non-Food Products
RED	Radio Equipment Directive
TPED	Transportable Pressure Equipment Directive
WP	Work Package

# EXECUTIVE summary

The JAHARP2020-2 is a 24-month pan-European market surveillance project on harmonised products, co-financed (90% funding rate) by the European Union (EU). The project was part of the [Joint Market Surveillance Action on Harmonised Products 2020 Triplet](#) (JAHARP2020-1, JAHARP2020-2, and JAHARP2020-3) that ran between May 2021 and May 2023.

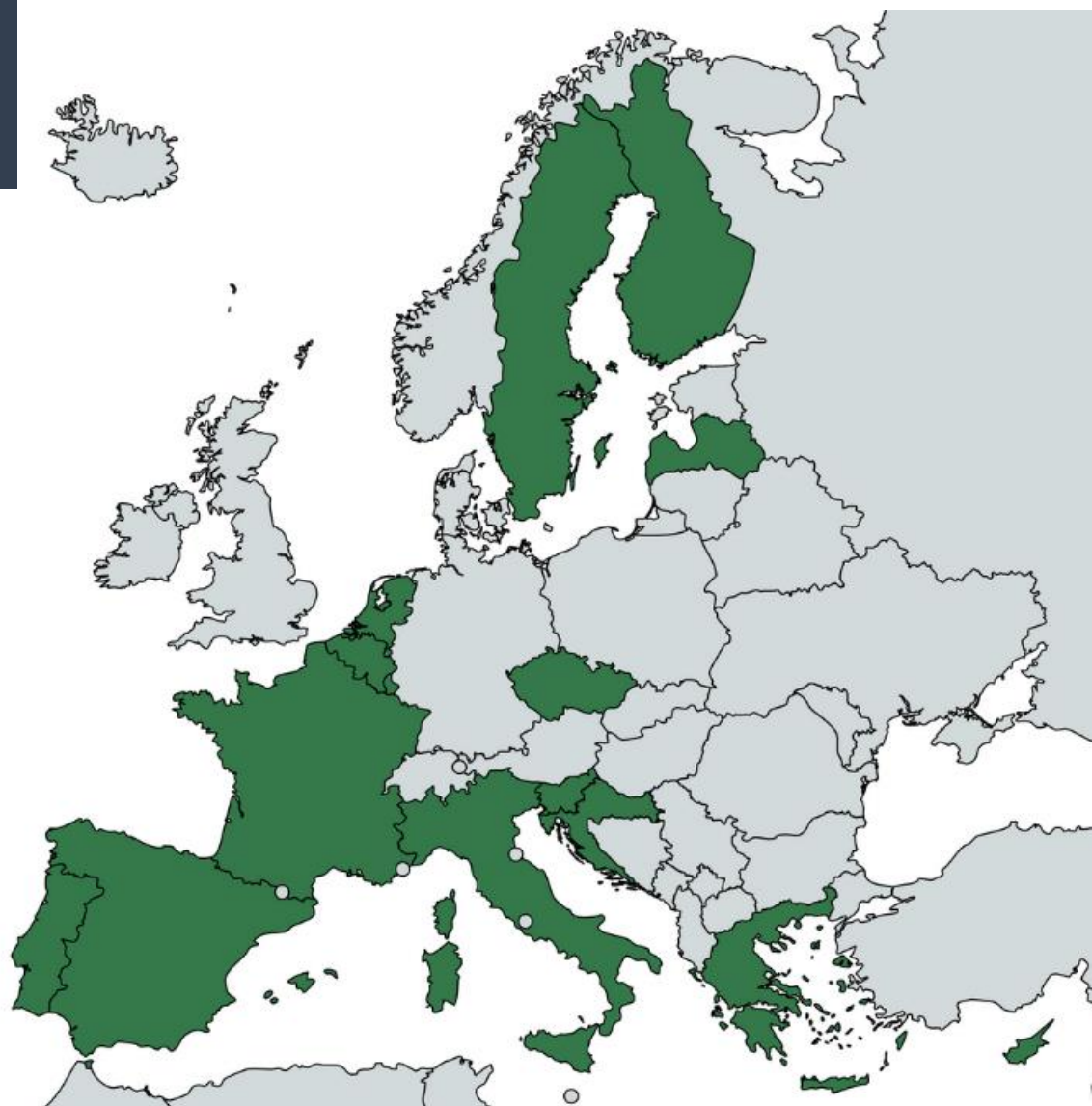
Non-compliant and unsafe products put EU citizens at risk and distort competition with economic operators selling compliant products within the EU. To ensure that all essential health and safety requirements imposed by Union legislation are fulfilled, JAHARP2020-2 carried out three activities:

1. Compliance verification of Tumble dryers (Work Package 1)
2. Compliance verification of Internet of Things (IoT) connected devices in cooperation with customs authorities (Work Package 2)
3. Compliance verification of Non-refillable helium cylinders (Work Package 3)




## COUNTRIES PARTICIPATING IN THE JAHARP2020-2

- BELGIUM
- CROATIA
- CZECH REPUBLIC
- CYPRUS
- FINLAND
- FRANCE
- ITALY
- LATVIA
- LUXEMBURG
- NETHERLANDS
- PORTUGAL
- SPAIN
- SLOVENIA
- SWEDEN

plus SWITZERLAND (as an observer)



The primary objectives and achievements of the project were:

OBJECTIVE	ACHIEVEMENT
<p>1. To keep non-compliant and dangerous products from entering the Single Market through coordinated cross-boundary market surveillance campaigns.</p>	 <ul style="list-style-type: none"> <li>• 230 products screened</li> <li>• 249 products checked</li> <li>• 49 products tested</li> <li>• 15 national markets</li> <li>• 61 corrective measures (up to date) + 15 requests to improve quality control</li> <li>• 13 products removed or banned from the market</li> </ul>
<p>2. To support the application of the new Market Surveillance Regulation (EU) 2019/1020 through the development of common approaches, good practices for market surveillance, and synergies with relevant stakeholders.</p>	 <ul style="list-style-type: none"> <li>• Over 7 recommendations to MSAs, EOs, or standardisation bodies</li> <li>• Regular interactions with ADCO groups</li> <li>• All EU-27 MSAs reached through communication and dissemination activities</li> </ul>
<p>3. To increase the skills and knowledge of the European market surveillance authorities through the development of tools, cross-sectoral capacity-building and knowledge exchange, and the promotion of more harmonised practices and common approaches to market surveillance.</p>	 <ul style="list-style-type: none"> <li>• Over 50 MSA officials involved in one or more activities</li> <li>• Over 6 guidelines, Codes of Practice, and other replicable tools developed</li> <li>• One e-Library/Knowledge Base on PROSAFE's website, containing all tools, guidelines, etc., available to all EU/EEA MSAs beyond the duration of the project. More than 50 documents to be uploaded following the approval of the final periodic report by DG GROW.</li> </ul>

# SNAPSHOT of compliance verification results

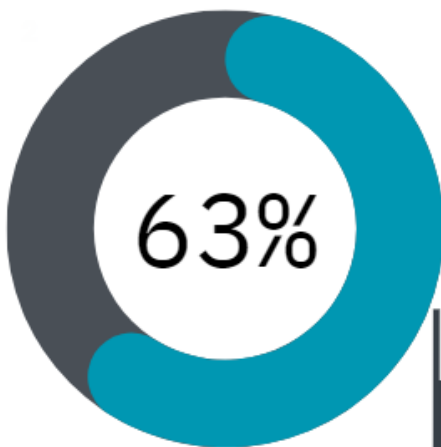
## ATTENTION!

**T**he results presented in this report are based on products that were sampled from the markets in the participating countries by experienced market surveillance inspectors that were looking for noncompliant and potentially unsafe products. As in any routine market surveillance activity, the results represent the targeted efforts that authorities undertake to identify unsafe products. They do not give a statistically valid picture of the market situation. The samples were tested at accredited laboratories. Product testing focussed on those safety requirements that have the largest impact on consumer safety.

JAHARP2020-2 inspected, in total, 249 products. From these, a total of 49 tumble dryer and non-refillable helium cylinder products were tested in selected laboratories.

## JAHARP2020-2 TESTED 30 TUMBLE DRYER PRODUCTS TO CHECK THEIR SAFETY & VERIFY THEIR COMPLIANCE

Two types of tumble dryers were examined:  
**26 conventional freestanding types (condenser, heat pump and vented)**  
**4 connected appliances**



## NON-CONFORMITIES

were identified in 19 of the 30 tumble dryer products tested by the project

NON-COMPLIANCE RATE

## 200 IOT PRODUCTS WERE INSPECTED IN COOPERATION WITH CUSTOMS

The main product types selected for inspection included:

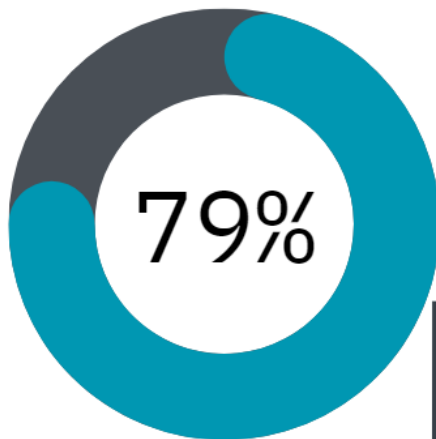
- TVs
- Washing appliances
- Cleaning appliances
- Heating and cooling appliances
- Smart sockets
- Kitchen equipment
- Measuring equipment
- Lighting equipment
- Security equipment



NUMBER OF SAMPLES CHECKED



**ALMOST HALF (49%) OUT OF ALL 200 INSPECTED PRODUCTS HAD ADMINISTRATIVE NON-COMPLIANCES UNDER RED**



**19 MODELS OF NON-REFILLABLE HELIUM CYLINDERS WERE TESTED BY THE PROJECT**

15 of the models tested were found to have one or more technical non-conformities

**NON-COMPLIANCE RATE**

# Consumer ADVICE



- 01** Regularly clean the tumble dryer's filter and follow the manufacturer's instructions to decrease the lint quantity
- 02** Ensure that your devices are provided with the CE conformity mark, information about manufacturer, the device identification, the necessary warnings, and a user manual in your language
- 03** Strictly follow the user manual while installing and using your IoT connected device
- 04** Be aware of the restrictions on the use of your IoT connected devices (this information is in the manual).



**Be safe, check the Safety Gate!**

<https://ec.europa.eu/safety-gate/#/screen/home>



**Safety Gate** is the EU's rapid alert system for dangerous products. Every week, national authorities across the EU send alerts on products found to pose a serious safety or health risk to consumers. Visit the [Safety Gate](https://ec.europa.eu/safety-gate/#/screen/home) to learn more about unsafe products. And remember—if a product is listed in Safety Gate, don't buy it!

We collaborate...



We build together...



We generate impact...



**...to protect the health and safety of EU consumers**



# 1. OVERVIEW of the JAHARP2020-2 activities

Three compliance verification activities on three different product categories, two of which involving laboratory testing, and one focussing on document checks in cooperation with EU Customs.

The activities undertaken by JAHARP2020-2 were selected after an analysis of inspection data in the European Commission's Information and Communication System on Market Surveillance (ICSMS) and of the EU Safety Gate alerts/notifications, combined with an estimation of EU-27 sales and stock volumes and future trends. The results of this analysis indicated a high number of issues and risks relating to tumble dryers, IoT devices, and non-refillable helium cylinders.

In the UK alone, tumble dryers account for almost 20% of over 1,600 fires involving kitchen appliances that have been reported since 2012. Causes of tumble dryer fires include capacitor failure, combustion of items in the drum, insufficient ventilation and the ignition of accumulated lint by heating elements.

Non-refillable helium cylinders are single-use pressure equipment sold ready-filled with compressed helium gas for inflating balloons at parties and social events. Cylinders containing compressed helium are associated with hazards due to the pressure of the gas. The failure of a cylinder can lead to accidental release of gas or bursting of the cylinder with a risk of injuries because of projections of fragments. Furthermore, the inhalation of helium can cause symptoms of hypoxia (dizziness, lethargy, headache) and may displace oxygen leading to suffocation.

Many safety and security risks are associated with the use of IoT devices. It is estimated that 22 billion IoT devices were in use around the world by the end of 2018. In 2023, this number is expected to climb to 50 billion.

1

## TUMBLE DRYERS

Over 20% of the fires caused by kitchen appliances in the UK since 2012 are associated with tumble dryers



2

## IOT DEVICES

22 billion IoT appliances were in use in 2018. By 2030, this number go increase to 50 billion units.



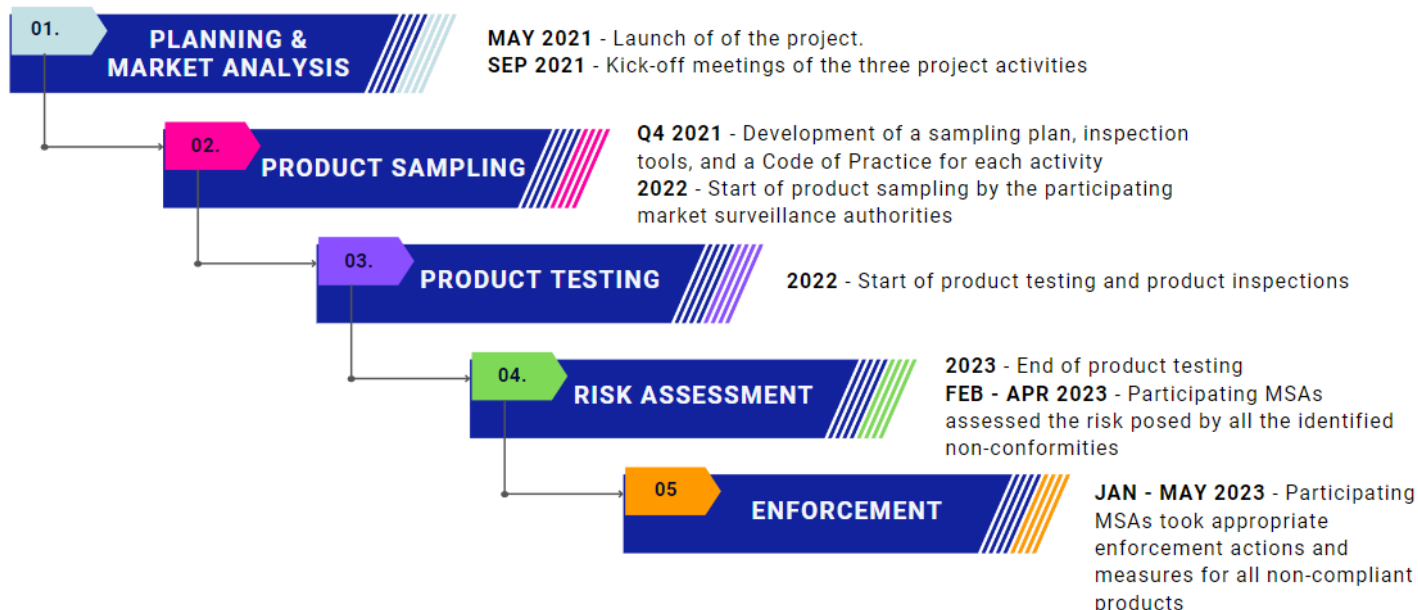
3

## NON-REFILLABLE HELIUM CYLINDERS

The inhalation of helium can cause symptoms of hypoxia and can even lead to suffocation.



## The JAHARP2020 PROCESS



## 2. INSPECTION AND TEST results

### 2.1 Tumble dryers

#### 2.1.1 Overview of findings

19 of the 30 tumble dryer models tested in the project did not fully meet the requirements of the test programme.

After an analysis of risks and market research, the participating authorities decided to sample 30 models of conventional freestanding (condenser, vented and heat pump type) and connected tumble dryers. For most of these models (38%) the country of origin was Turkey, with China coming second with 21%.

The 30 samples collected were sent to a test laboratory in the EU to verify their compliance with the Low Voltage Directive 2014/35/EU (LVD) safety requirements, and the essential requirements in the Radio Equipment Directive 2014/53/EU (RED), Article 3.1(a). Testing was performed according to the relevant harmonised standards EN 60335-1:2012 + A11:2014 + A13:2017 + A1:2019 + A14:2019 + A2:2019 + A15:2021 – Household and similar electrical appliances - Safety - Part 1: General requirements; and EN 60335-2-11:2020 + A11:2012 + A1:2015 + A2:2018 – Household and similar electrical appliances - Safety - Part 2-11: Particular requirements for tumble dryers.

Testing focussed on areas that were likely to reveal a non-conformity and a potential hazard for the user. The results showed that 19 of the 30 products tested did not meet the requirements of the test programme.

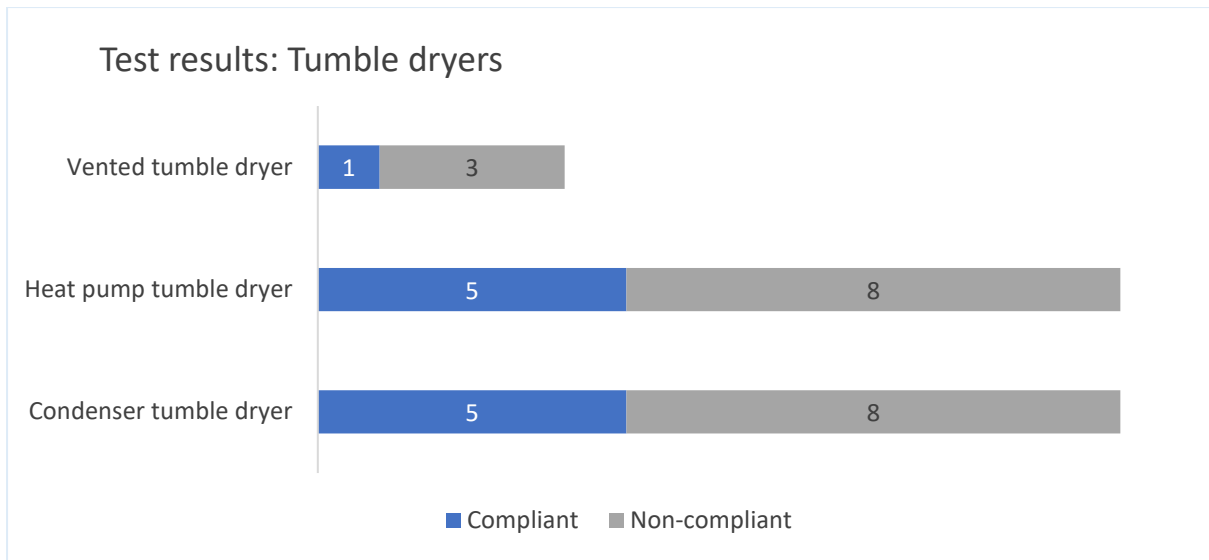


Figure 1: Test results for tumble dryers

The failure rate for each type of tumble dryer products tested by the project, per test parameter, is shown below.

Table 1: % of non-conforming products against the standard clauses

Clause	Title/Criteria	Condenser	Heat pump	Vented
7	Marking and instructions	38%	54%	15%
8	Protection against access to live parts	0%	0%	0%
10	Power input and current	0%	25%	0%
11	Heating	23%	8%	25%
13	Leakage current and electric strength at operating temperature	0%	0%	0%
15	Moisture resistance	0%	8%	50%
16	Leakage current and electric strength	0%	0%	0%
19	Abnormal operation	0%	0%	0%
20	Stability and mechanical hazards	0%	0%	0%
21	Mechanical strength	0%	0%	0%
22	Construction	8%	15%	0%
23	Internal wiring	0%	0%	0%
24	Components	0%	0%	0%
25	Supply connection and external flexible cords	0%	0%	0%
27	Provision for earthing	0%	8%	0%
29	Clearances, creepage distances and solid insulation	15%	0%	0%
30	Resistance to heat and fire	0%	0%	0%

For the purposes of this Joint Action, the participating market surveillance authorities also reviewed a copy of the Declaration of Conformity (DoC) and a copy of the test report obtained from the economic operators, where necessary. Such technical documentation shall make it possible to assess the electrical equipment’s conformity to the relevant requirements. It shall include details on the design and production of the electrical equipment, and of any harmonised standards applied including test reports for demonstrating the conformity of the product to the principal elements of the safety objectives for electrical equipment set out in the LVD.

The outcome of these investigations is shown below.

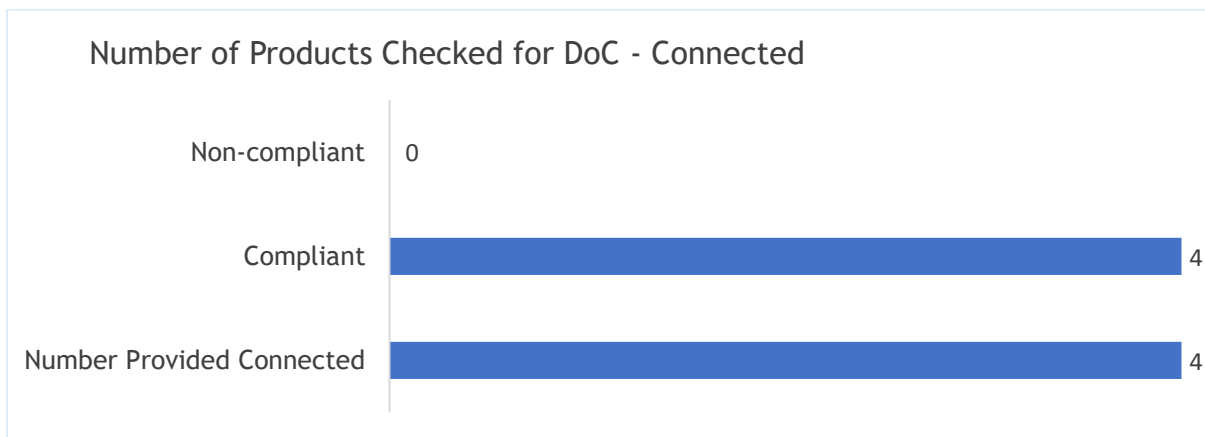
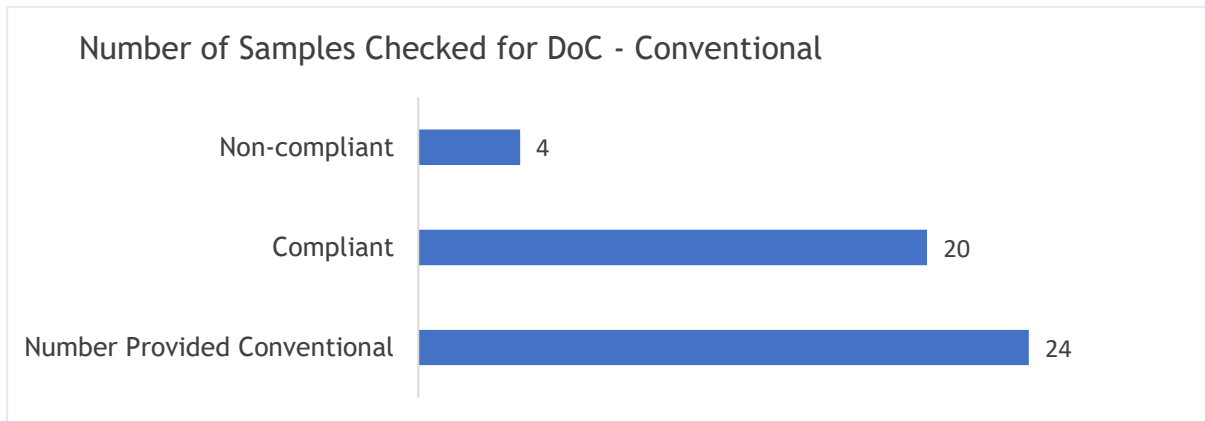


Figure 2: Checks of DoC for tumble dryers (conventional and connected)



Figure 3: Checks of test reports obtained by economic operators

## 2.1.2 Risk assessment results and corrective measures

Products placed on the EU market must comply with the essential safety requirements set out in the applicable EU regulation. To assess the risk level of the identified hazards for products that failed in laboratory tests, market surveillance authorities develop risk assessments based on the Implementing Decision (EU) 2019/417 of the European Commission and the Risk Assessment Guidelines (RAG) tool<sup>1</sup>.

The project developed several injury scenarios involving burns, fire (fatal poisoning), electrocution, and potential property. These were used as the basis for the assessment of the risk posed by the non-conforming products. To improve validity, the market surveillance authorities also applied a sensitivity analysis. Injury scenarios with different probability of injury steps were used to arrive at a plausible overall risk rating.

The results of the risk assessment carried out by the project are shown below.

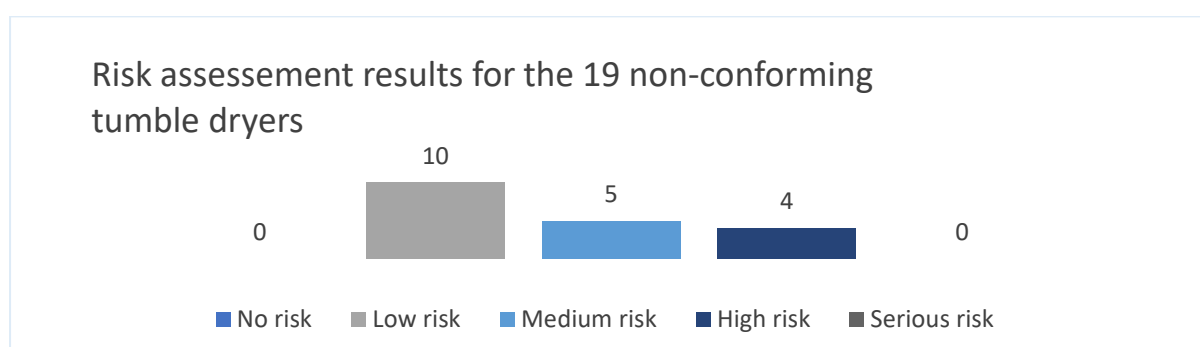


Figure 4: Risk assessment: Tumble dryers

Corrective measures were taken based on the risk assessment results. So far, four advisory notices were issued, and there were two voluntary recalls and one sales ban. In July 2023, twelve cases are still under evaluation.

### Enforcement measures taken for the non-compliant tumble dryers

- No action required
- Minor measures/remark or advising the economic operator
- Sales ban
- Compulsory withdrawal from the market
- Voluntary withdrawal from the market
- Voluntary agreement to modify future deliveries
- EU Safety Gate A11 alerts made
- EU Safety Gate A12 alerts made
- Pending discussions between MSAs and Economic Operators

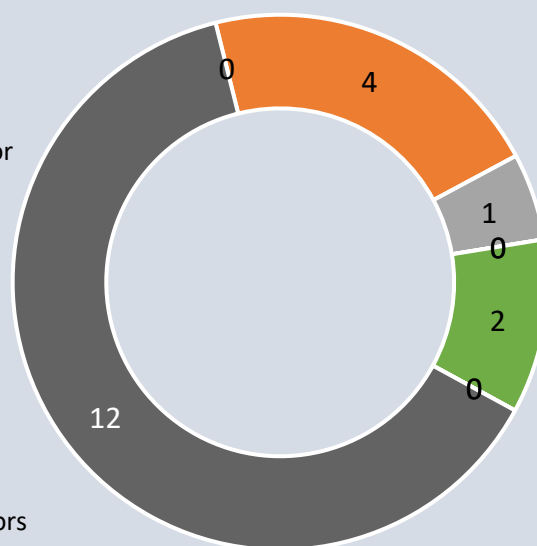


Figure 5: Enforcement actions: Tumble dryers

<sup>1</sup> <https://ec.europa.eu/rag/#/screen/home>

## 2.2 Internet of Things in cooperation with Customs

### 2.2.1 Overview of findings

98 of the 200 (49%) IoT appliances checked by the project did not meet all the administrative requirements of the Radio Equipment Directive (RED).

Five EU market surveillance authorities from France, Greece, Latvia, Portugal and Slovenia took part in this joint campaign. To goal was to verify the compliance of the technical documentation of 200 different IoT products with the RED requirements. The types of products covered included smart televisions, kitchen appliances, heating and lighting equipment, washing and cleaning appliances, entertainment devices, security, wearables (e.g., smartwatches) measurement and sensor equipment.

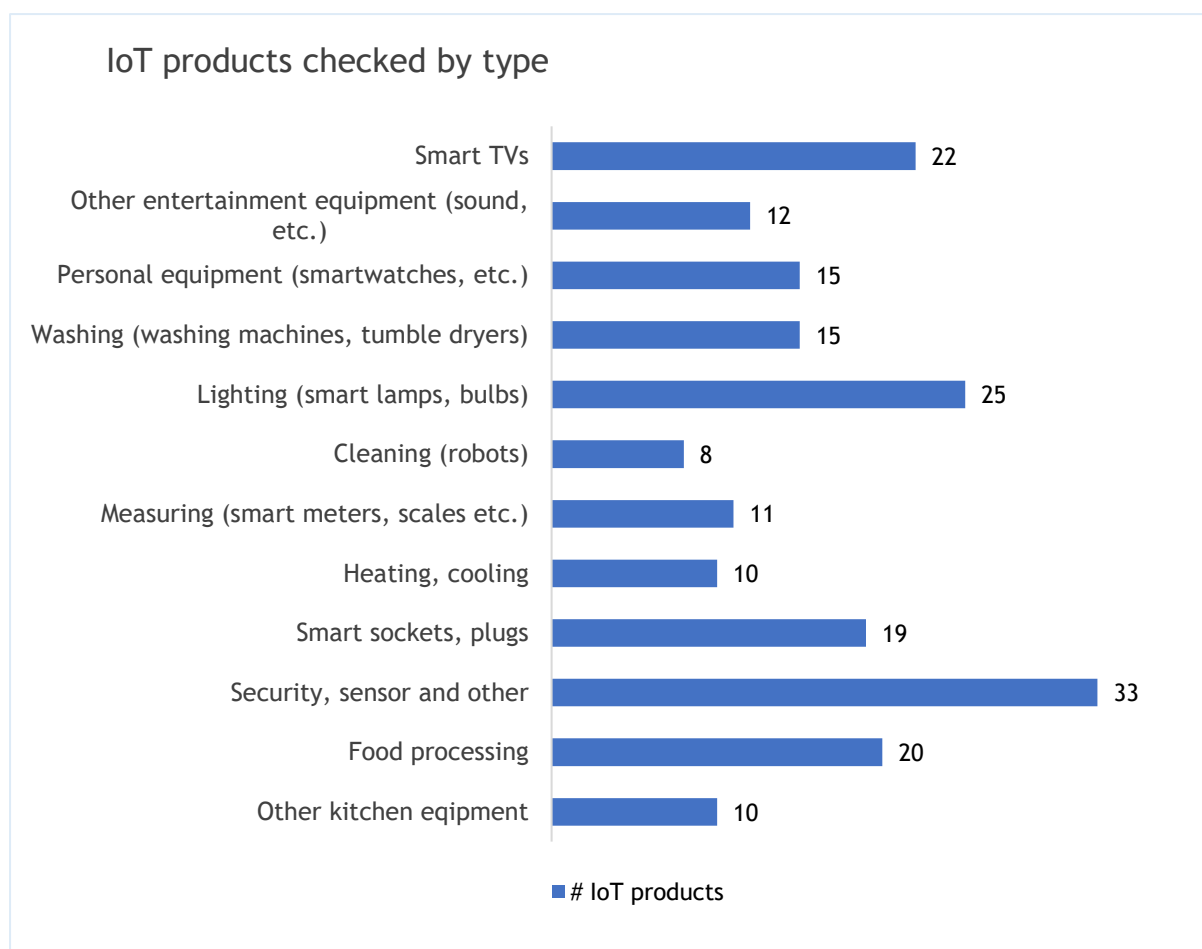


Figure 6: Types of IoT products inspected by the project

The participating authorities examined the EU Declaration of Conformity, user manual, and test reports for 200 IoT products. This examination revealed that almost half (49%) of the inspected products had one or more non-compliance with the RED administrative requirements.

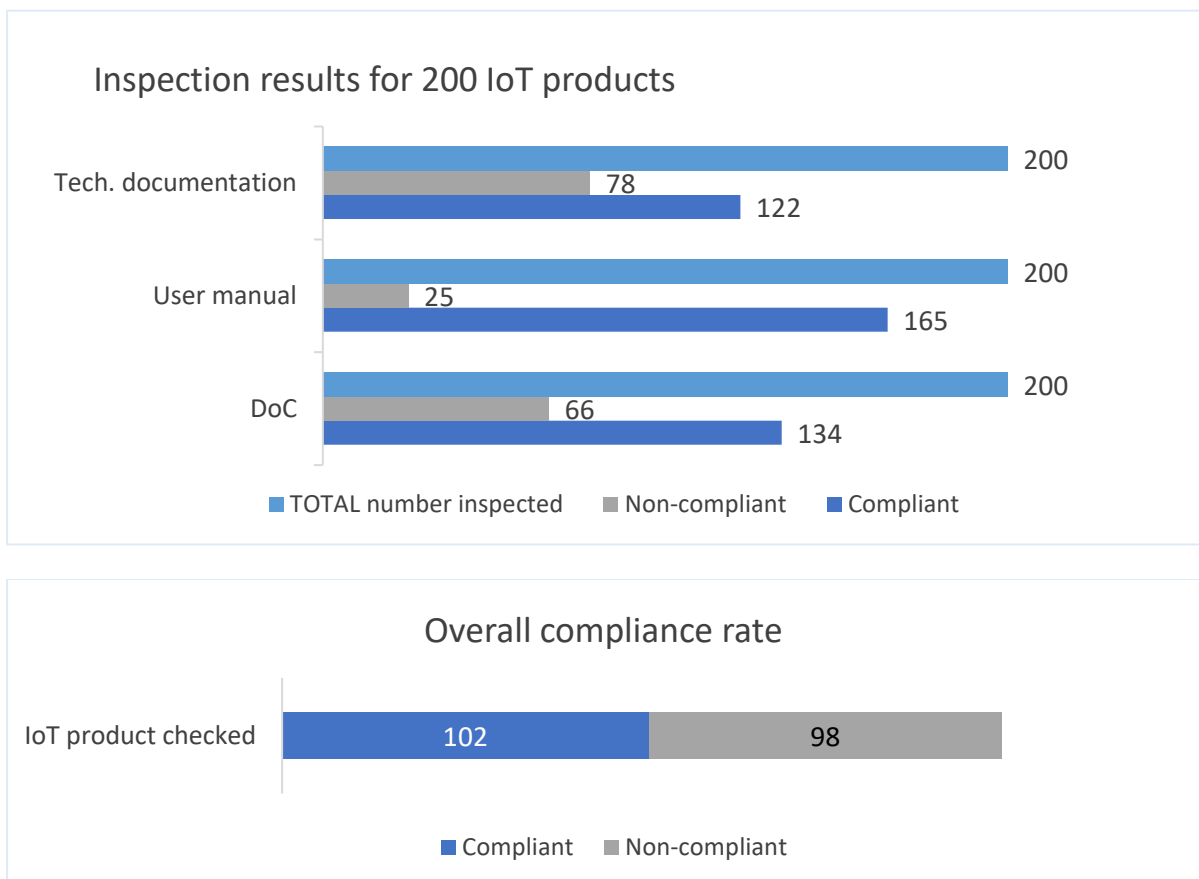


Figure 7: Inspection results for 200 IoT products

Since this activity did not involve laboratory testing, the participating market surveillance authorities did not perform a risk assessment. Nevertheless, missing or faulty technical documentation should still be treated seriously, as it is a signal that the mandatory by law conformity assessment of the product has not been carried out, which could compromise the safety and security of the user, or the correct and efficient operation of other interconnected equipment.

Furthermore, some responsible economic operators were not able to provide market surveillance authorities with the requested elements of the technical documentation, which suggests a common lack amongst economic operators of their obligations under the RED.

Regarding cooperation with EU Customs, the activity showed that there are difficulties in identifying IoT equipment at the borders, particularly for “combined equipment” like smart televisions, kitchen or washing equipment, etc., and proposed specific remedies.

### 2.2.2 Risk assessment results and corrective measures

Market surveillance authorities took corrective actions against 54 non-conforming products. In 44 cases, economic operators took appropriate remedy measures in line with the requests of the responsible national authorities. Also, ten products were voluntarily withdrawn from the market.

## 2.3 Non-refillable helium cylinders

### 2.3.1 Overview of findings

15 of the 19 (79%) tested models were found to have one or more technical non-conformities.

Assessing the compliance of non-refillable helium cylinders is subject to the provisions of Directive 2010/35/EC on Transportable Pressure Equipment (TPED). For the design and construction requirements for transportable pressure equipment and the conformity assessment procedures to which it must be submitted, TPED refers to Directive 2008/68/EC on the inland Transport of Dangerous Goods (TDGD), which in turn refers to the European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR), and the Regulation concerning the International Carriage of Dangerous Goods by Rail (RID).

Four market surveillance authorities sampled a total 19 non-refillable helium cylinder models—initially, 20 models were sampled, however, one of these models had to be excluded from the testing because it was discovered to be an aerosol dispenser that is outside the scope of the TPED. Four samples of each of the 19 selected models were sent for testing to a competent test body in the EU. 11 of the 19 (58%) models sampled were manufactured in China. The rest were manufactured in the EU.

The test programme was based on the specifications of the latest version of the relevant standard EN 11118:2015/A1:2020. Some of the tests prescribed by the standard had to be omitted or limited due to the lower number of test samples available or the fact that some of the tests could only be carried out on partially finished test samples which cannot be taken from the market.

15 of the 19 (79%) models failed to meet one or more of the requirements of the test programme covering the quality of the welding, the functioning of the pressure relief device, and the presence or functioning of the non-refillability device of the valve.

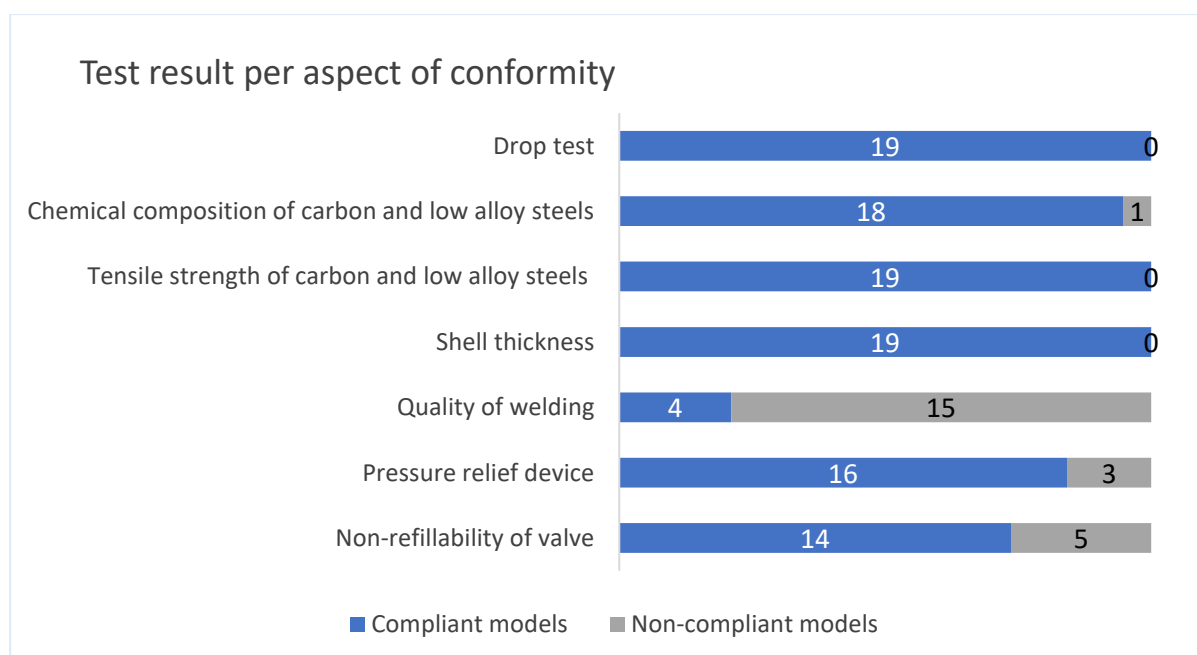


Figure 8: Test results: Non-refillable helium cylinders



7 of the 15 non-compliant models of non-refillable helium cylinders tested had more than one technical non-conformities.

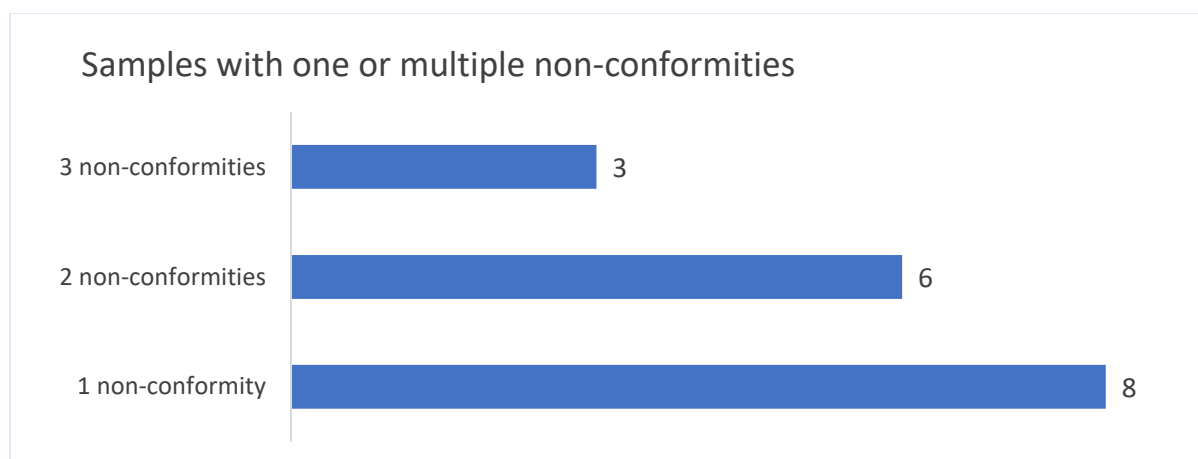


Figure 9: Number of technical non-conformities per model

Furthermore, checks on the markings, and documentation and traceability requirements also revealed a limited number of anomalies/issues.

Requirement	Number of non-conformities	Reason/Nature of non-conformities
<b>Type-approval certificate</b>	2	The type-approval certificate provided does not correspond to the model of cylinder sampled.
<b>Declaration of Conformity</b>	2	The Declaration of Conformity is issued by the distributor instead of by the manufacturer.
<b>Batch number</b>	4	The batch number indicated in the Declaration of Conformity does not correspond to the batch number marked on the cylinder or the batch number is not indicated.
<b>Importer's name and address</b>	5	The importer's name and address are not indicated in the Declaration of Conformity.
<b>Markings</b>	1	The date of the initial inspection was missing.

### 2.3.2 Risk assessment results and corrective measures

The participating market surveillance authorities analysed the results of the checks and tests carried out by the selected test body. While test revealed a large number of technical non-conformities, in particular with respect to the quality of the welded seams and the non-refillability of the outlet

valves, it was concluded that these non-conformities were not liable to affect the safety of users of the non-refillable helium cylinders concerned. Consequently, it was not considered necessary to carry out a detailed risk assessment based on the probability of potential accident scenarios.



*Image 1: Compliant cylinders (without a pressure relief device) after the burst test: the failure was initiated in the cylinder shell, outside the area of the welds*

Nevertheless, the large number of technical conformities detected exposed weaknesses in the manufacturers' quality control systems that call for remedial measures. Particularly, the defects detected in the functioning of the non-refillability devices on the outlet valves require improvements in the quality control of these valves by the valve suppliers and cylinder manufacturers. The responsible market surveillance authorities are in contact with the economic operators concerned to ensure that appropriate remedial measures are taken to this direction.

### 3. CONCLUSIONS and recommendations

JAHARP2020-2 verified the compliance of 249 different products, testing 30 tumble dryer and 19 non-refillable helium cylinder models.

16 of the 30 tested tumble dryers failed the laboratory testing. Likewise, 15 of the 19 non-refillable helium cylinders tested had one or more technical non-conformities. Inspections on the technical documentation of 200 IoT products showed that almost half of the samples checked did not fully comply with the requirements of the RED.

The participating market surveillance authorities took all the appropriate required corrective measures for the non-conforming products including advisory notes to economic operations and sales bans for those products that were found to present a high or serious risk.

The following recommendations are based on the results of the product inspections and testing of this joint action.

# Tips for consumers ✦

01

## Pay attention

to markings and safety warnings. Read the safety instructions/manual before use.

03

## Be aware

of the safety risks for you and your family when using helium cylinders and tumble dryers

02

## Know who you're buying from

Always buy products from trustworthy retailers.

04

## Check before you buy

Visit the EU's Safety Gate website to find all detected dangerous products



# Tips for MSAs ✦

01

## Continue market surveillance

on tumble dryers and IoT appliances, and work towards a more rigorous application of the conformity assessment procedures for non-refillable helium cylinders

02

## Share the JAHARP2020 results

and lessons learned with all EU/EEA MSAs

01

## Place products on the market

with complete and accurate markings and instructions

03

## Improve

your communication and accessibility of information in case of recalls

# Tips for economic operators ✦

02

## Ensure

that your products comply with all applicable EU legislations

04

## Enhance

your cooperation with MSAs and Customs for imported products





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