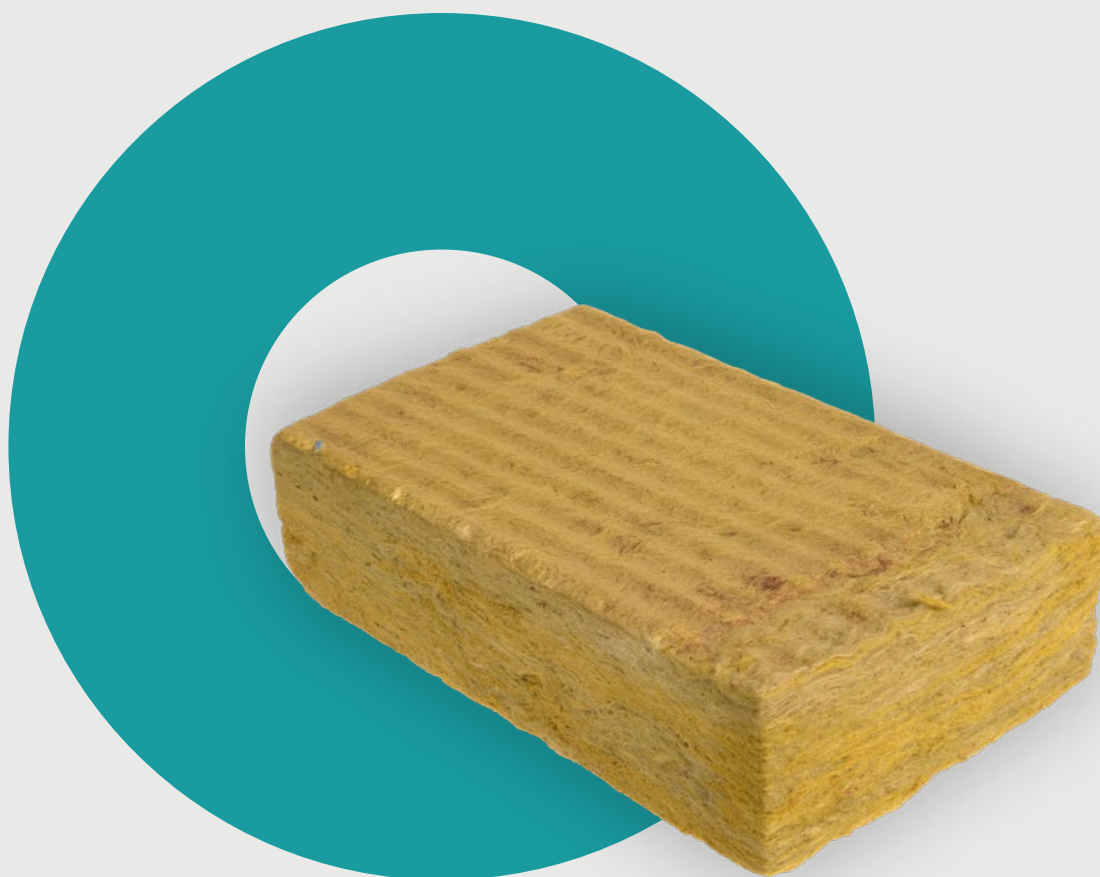




Market Surveillance

Insulating Materials in Construction Products

Final Report

JACOP 2025

TABLE OF CONTENTS

LIST OF ABBREVIATIONS 4

Part 1

TEST RESULTS AND RECOMMENDATIONS 5

EXECUTIVE SUMMARY 6

Objectives of the activity 6

Results and conclusions 6

OVERVIEW OF THE ACTIVITY 7

Participating MSAs 7

Product scope 7

Testing criteria 7

SAMPLING AND TESTING 8

Overview of sampled products and sampling channels 8

Testing process 9

TEST RESULTS 9

Overview of the test results and main findings 9

Results per standard 11

RISK ASSESSMENT AND MEASURES 12

Risk assessment 12

Measures 12

CONCLUSIONS AND RECOMMENDATIONS 13

Conclusions 13

Recommendations and messages to stakeholders 13

Part 2**WHAT IS JACOP? 15****JACOP 2025 INCLUDES 11 PRODUCT-SPECIFIC
ACTIVITIES COVERING 9 SECTORS 16**

Roles and responsibilities 17

Work plan and timeline 18

Project phases 18

Process 19

Communication assets 20

Communication channels 20



LIST OF ABBREVIATIONS

AdCo	Administrative Cooperation Group
CE	Conformité Européenne (European Conformity)
CG	Cellular Glass
CPR	Construction Products Regulation
DoP	Declaration of Performance
EN	European Standard
EPS	Expanded Polystyrene
EU	European Union
ICSMS	Information and Communication System for Market Surveillance
JACOP	Joint Action on the Compliance of Products
λ_d	Declared Thermal Conductivity
MSA	Market Surveillance Authority
MW	Mineral Wool
PSA	Product-Specific Activity
Rd	Declared Thermal Resistance
WF	Wood Fibre
WW	Wood Wool
XPS	Extruded Polystyrene

Part 1

TEST RESULTS AND RECOMMENDATIONS

EXECUTIVE SUMMARY

OBJECTIVES OF THE ACTIVITY

Product-Specific Activity (PSA) 2 on insulating materials in construction products assessed the compliance of thermal insulation products placed on the European Union (EU) market, in accordance with the Construction Products Regulation (CPR) and the relevant harmonised standards. The activity aimed to:

- detect non-compliant insulation products available on the EU market, including imports;
- verify conformity with the declared performance through laboratory testing of thermal resistance and reaction to fire;

- encourage a harmonised approach among market surveillance authorities (MSAs) regarding risk assessment and corrective measures for non-compliant products.

The scope covered six material families and their harmonised standards: mineral wool (MW) (European Standard (EN) 13162), expanded polystyrene (EPS) (EN 13163), extruded polystyrene (XPS) (EN 13164), cellular glass (CG) (EN 13167), wood wool (WW) (EN 13168) and wood fibre (WF) (EN 13171).

RESULTS AND CONCLUSIONS

A total of 106 samples were tested across two essential characteristics, thermal resistance and reaction to fire, complemented by checks of markings and accompanying documentation. When combining laboratory testing and the checks of markings and documentation, 77 samples (73%) showed at least one non-compliance.

The two test categories revealed different patterns. For thermal resistance (thermal conductivity and thickness), 31 of the 97 samples assessed (32%) did not meet the requirements, mainly because of deviations between the declared and measured thermal conductivity (λ_d) or thermal resistance (R_d) and, in some cases, insufficient thickness. For reaction to fire, 11 of the 81 samples assessed (14%) did not meet the requirements. For the checks of markings and documentation, 68 samples

(64%) did not meet the requirements, most often due to incomplete or missing Declarations of Performance (DoPs) and deficient European Conformity (CE) marking.

These findings point to two distinct compliance problems: technical shortfalls in the declared performance of the products and administrative deficiencies in the documentation and marking obligations under the CPR. The test results underline the need for continued, coordinated market surveillance of construction insulation products and closer attention paid by economic operators to the accuracy of declared performance and the completeness of documentation.

OVERVIEW OF THE ACTIVITY

PARTICIPATING MSAs

A total of 14 MSAs from 14 countries participated in PSA 2. **Table 2** provides an overview of the participating MSAs and the number of samples contributed by each authority.

PRODUCT SCOPE

PSA 2 covered factory-made thermal insulation products for buildings, regulated under the CPR and placed on the market with a DoP and CE marking in accordance with a harmonised standard. Six material families were assessed, each against the relevant product standard:

- Mineral wool (MW): EN 13162
- Expanded polystyrene (EPS): EN 13163
- Extruded polystyrene (XPS): EN 13164
- Cellular glass (CG): EN 13167
- Wood wool (WW): EN 13168
- Wood fibre (WF): EN 13171

TESTING CRITERIA

Samples were tested for two essential characteristics. Thermal resistance was verified through thermal conductivity (λ_d) and thermal resistance (Rd) under EN 12667 or EN 12939, with thickness assessed under EN 823, following the four-specimen procedure set out in Annex F to EN 13172. Reaction to fire was classified

under EN 13501-1, using the relevant test methods (EN International Organization for Standardization (ISO) 1182, EN ISO 1716, EN 13823 and EN ISO 11925-2) according to each product's declared class. **Table 1** sets out the standards and the number of samples tested.

Table 1: Key testing criteria under the testing plan

Essential characteristic	Applied standard(s)	Samples tested
Thermal resistance (Rd, λ_d , thickness)	EN 12667 / EN 12939, EN 823, EN 13172	97
Reaction to fire (classification)	EN 13501-1 (EN ISO 1182, EN ISO 1716, EN 13823 and EN ISO 11925-2)	81

SAMPLING AND TESTING

Participating MSAs collected samples between June and September 2025, with laboratory testing carried out from October 2025 to July 2026. A laboratory meeting was held on 16-17 December 2025 in Espoo, Finland, to review procedures and discuss preliminary findings.

OVERVIEW OF SAMPLED PRODUCTS AND SAMPLING CHANNELS

In total, 106 insulation samples were included in the testing campaign. Products were sourced through three main channels:

- 67 samples obtained from physical stores;
- 26 samples obtained online;
- 13 samples obtained directly from manufacturers.

Sampling combined targeted, risk-based and non-targeted selection and is therefore not representative of the overall market. The samples covered six material families: expanded polystyrene (37), extruded polystyrene (26), mineral wool (24), wood wool (9), wood fibre (7) and cellular glass (3). Table 2 provides an overview of the samples collected by each MSA.

Table 2: Distribution of samples by participating MSA (n=106)

Country	Market Surveillance Authority	No of samples
Sweden	Boverket – the Swedish National Board of Housing, Building and Planning	18
Poland	General Office of Building Control (GUNB)	10
Germany	Deutsches Institut für Bautechnik (DIBt)	9
Italy	Direzione Centrale per la Prevenzione e la Sicurezza Tecnica, Antincendio ed Energetica (DCPSTAE)	9
Greece	General Secretariat for Industry – Ministry of Development	8
Belgium	Federal Public Service Economy (FPS Economy)	7
Finland	Finnish Safety and Chemicals Agency (Turvallisuus- ja kemikaalivirasto) (Tukes)	7
Ireland	National Building Control and Market Surveillance Office (NBCO)	7
Austria	Austrian Institute of Construction Engineering (OIB)	6
Latvia	Consumer Rights Protection Centre – Product and service safety department – Construction Products, Electrical Appliances and Energy Efficiency Surveillance Division (PTAC)	6
Norway	Norwegian Building Authority (DiBK)	6
Portugal	Economic and Food Safety Authority (ASAE)	5
Denmark	Danish Business Authority (Erhvervsstyrelsen (ERST))	4
Malta	Malta Competition and Consumer Affairs Authority (MCCAA)	4

TESTING PROCESS

The laboratory assessed thermal resistance under EN 12667 or EN 12939, determining thermal conductivity (λ_d) and thermal resistance (R_d), with thickness verified under EN 823. Testing was carried out using the required number of specimens per sample in accordance with Annex F to EN 13172. Reaction to fire was classified under EN 13501-1 using the

applicable test methods according to each product's declared class. In total, 97 samples underwent thermal resistance testing, and 81 samples underwent reaction-to-fire testing. In addition, MSAs carried out checks of markings using a commonly agreed checklist, verifying the presence and correctness of the CE marking, DoP and declared essential characteristics.

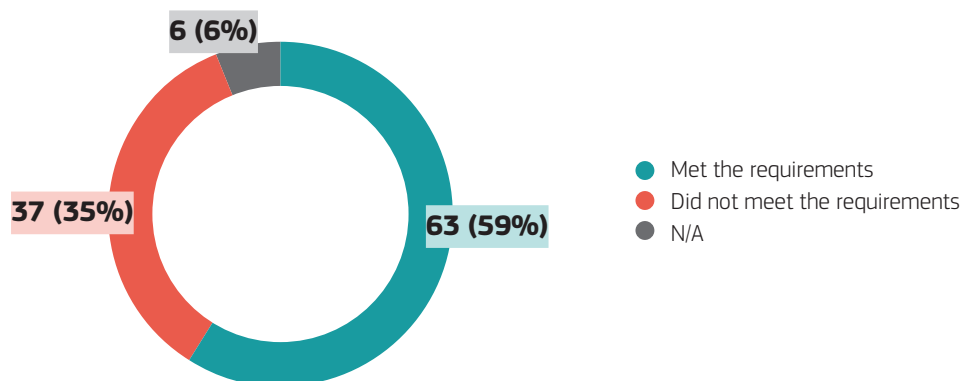
TEST RESULTS

OVERVIEW OF THE TEST RESULTS AND MAIN FINDINGS

Of the 106 samples tested, 37 did not meet the requirements during laboratory testing, resulting in an overall non-compliance rate of 35%. The results differed by test category: for thermal resistance, 31 of the 97 samples assessed (32%) did not meet the requirements, mainly because of deviations between the declared and measured thermal conductivity (λ_d) or thermal resistance (R_d) and, in some cases, insufficient

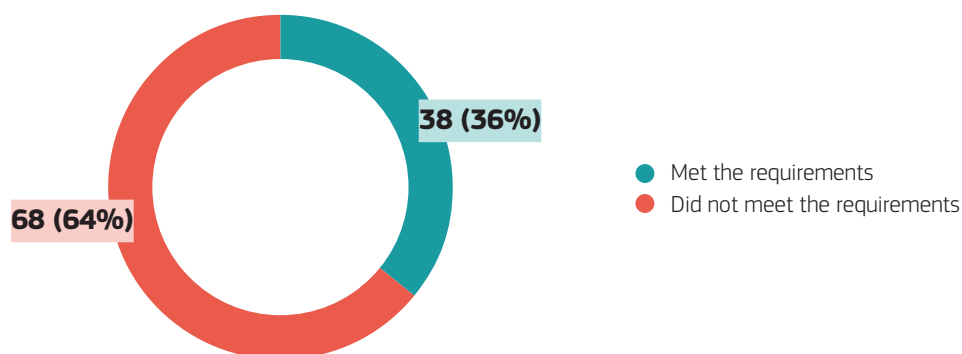
thickness; for reaction to fire, 11 of the 81 samples assessed (14%) did not meet the requirements. A number of thermal resistance results were recorded as not applicable (N/A). These arose where the performance was not declared or was wrongly declared by the manufacturer. This meant that the sample could not be assessed against a valid declared value. The summary of the laboratory test results is presented in **Figure 1**.

Figure 1: Laboratory test results (n=106)



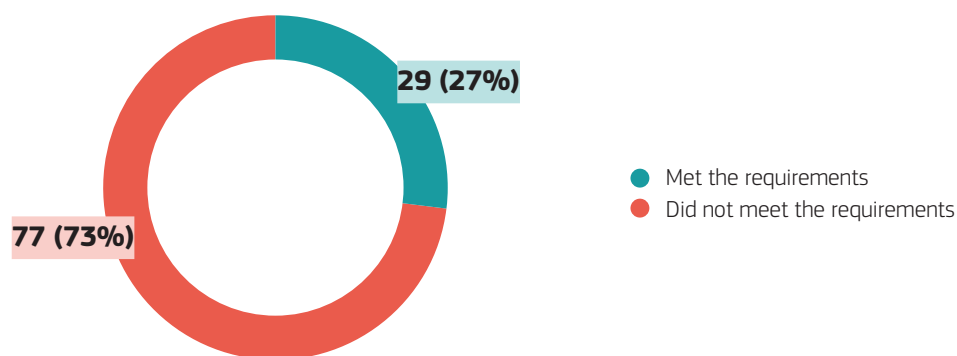
With regard to the checks of markings and documentation (**Figure 2**), 68 samples (64%) showed deficiencies. The main shortcomings concerned incomplete or missing DoPs and CE marking that was either not affixed to the product or was not visible or legible.

Figure 2: Checks of markings and documentation (n=106)



Aggregating all results, 77 samples (73%) were found to be non-compliant based on laboratory testing, checks of markings and documentation, or both. A summary of the aggregated results is presented in **Figure 3**.

Figure 3: Overall results: laboratory testing and checks of markings and documentation (n=106)



RESULTS PER STANDARD

For thermal resistance, non-compliance was concentrated in the thermal conductivity (λ_d) and thermal resistance (R_d) determinations under EN 12667 or EN 12939, while thickness assessed under EN 823 showed a high level of conformity (**Table 3**). For reaction

to fire, results are presented by declared class, since the applicable test methods depend on the class declared for each product (**Table 4**). Failures were concentrated among class A2 products and in the ignitability test (EN ISO 11925-2) for classes E–F products.

Table 3: Thermal resistance results by standard

Standard	Met	Did not meet	N/A ¹	Tests performed
EN 12667 / EN 12939 – Thermal resistance (R_d)	64	19	14	97
EN 12667 / EN 12939 – Thermal conductivity (λ_d)	70	23	4	97
EN 823 – Thickness class	90	7	0	97

Table 4: Reaction-to-fire results by declared class

Declared class	Test method(s)	Met	Did not meet	Tests performed
A1	EN ISO 1182 / EN ISO 1716	20 / 21	1 / 0	21
A2	EN ISO 1182; EN ISO 1716; EN 13823	0	2	2
B–D	EN 13823; EN ISO 11925-2	6	0	6
E–F	EN ISO 11925-2	44	8	52

¹ N/A indicates cases where the parameter could not be meaningfully assessed or where testing conditions did not allow a representative determination of the product's performance as placed on the market.

RISK ASSESSMENT AND MEASURES

RISK ASSESSMENT

For each non-compliant sample, the responsible MSA carried out a risk assessment in line with the methodology developed by the CPR Administrative Cooperation Group (AdCo) group. The assessment was based on the deviation between the declared and tested performance under a realistic worst-case scenario rather than on national building requirements. The assessment considered the nature of the non-compliance and the essential characteristic affected.

Of the 77 samples that failed laboratory testing, the checks of markings and documentation, or both, the majority presented a limited safety risk. No risk was identified for 31 samples, while 24 were assessed as presenting low risk, 10 as medium risk, 2 as high risk and 4 as serious risk. The risk level had not yet been reported for 6 samples at the time of writing. The serious- and high-risk cases related mainly to reaction-to-fire deviations, where a product's actual fire performance fell short of its declared class.

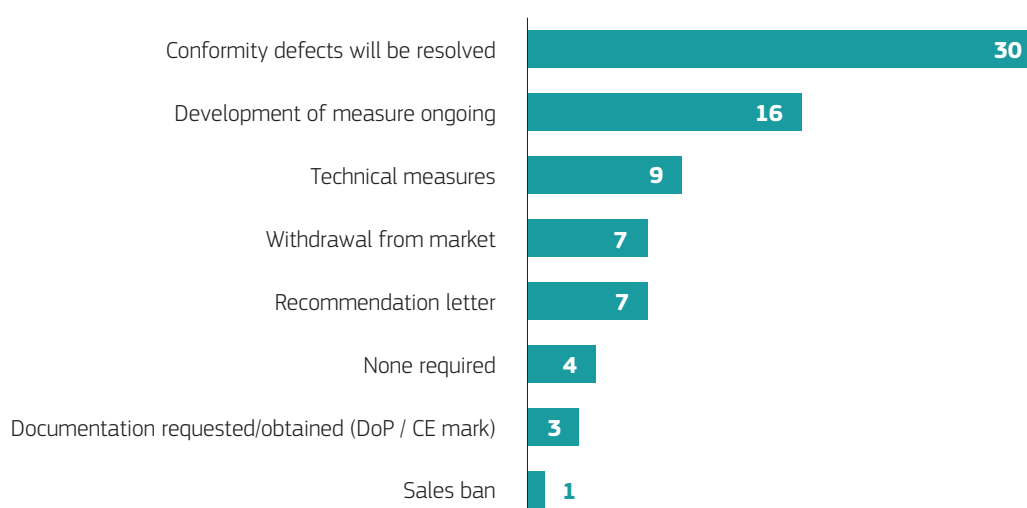
MEASURES

Measures taken or envisaged for the 77 non-compliant samples are shown in **Figure 4**. At the time of writing this final activity report, 77 main measures had been recorded. In line with the MSAs' working methodology, action typically begins with engagement with the economic operator on a voluntary basis, allowing the economic operator to remedy the non-compliance before formal measures are applied. Measures included the

resolution of conformity defects, withdrawals from the market, recommendation letters, technical measures and sales bans, among others.²

Regarding registration and notification, 77 products had been registered in the Information and Communication System for Market Surveillance (ICSMS ³).

Figure 4: Main measures taken for non-compliant samples (n=77)



² The corrective measures are those provided by the MSAs by the deadline of 4 September 2026. While measures are continuing beyond this date as part of an ongoing process performed by the MSAs, a cut-off date was established for the purposes of reporting.

³ ICSMS is the EU's secure platform where MSAs share product test results and non-compliance findings to coordinate enforcement and keep unsafe non-food products off the market.

CONCLUSIONS AND RECOMMENDATIONS

CONCLUSIONS

PSA 2 assessed 106 insulation samples across six material families against the CPR and the applicable harmonised standards. Combining laboratory testing and the checks of markings and documentation, 77 samples (73%) showed at least one non-compliance, revealing two distinct problems: technical shortfalls in declared thermal resistance and administrative deficiencies in documentation and marking.

The technical failures were concentrated in the thermal conductivity (λ_d) and thermal resistance (R_d) determinations, where declared values were not met,

while thickness and reaction to fire showed higher conformity. The administrative failures were more widespread, driven mainly by incomplete or missing DoPs and deficient CE marking. Most non-compliances presented a limited safety risk, and MSAs addressed them primarily through voluntary corrective measures directed at manufacturers, escalating to compulsory measures in the more serious cases. The findings reinforce the case for continued, coordinated market surveillance of construction insulation products and for closer alignment among MSAs on risk assessment and follow-up.

RECOMMENDATIONS AND MESSAGES TO STAKEHOLDERS

Recommendations for economic operators

- Check the national regulations and requirements to understand the range of declared performance necessary for the intended use in the relevant country.
- Ensure that all technical documentation is complete, up to date and consistent with the product's declared performance and intended use.
- Ensure that Declarations of Performance, instructions and safety information are available in the required language(s) of the market where the product is placed.
- Provide clear and detailed installation instructions so that consumers and professionals can install the product correctly and know when not to use it.
- Maintain robust factory production control processes and perform new testing whenever there are changes in raw materials, density, composition, production process or suppliers.
- Investigate any variations in production and retest where needed to confirm continued compliance with the declared performance.

- Ensure that the products placed on the market carry the necessary elements, such as batch number and date of production, to guarantee product traceability throughout the supply chain.

Recommendations for consumers⁴

- When buying insulation products:
 - verify that the product carries the CE marking;
 - consult the information provided in the DoP;
 - pay attention to the declared performance values;
 - ensure the product is suitable for the intended use.
- Check the national building and product requirements to determine which insulation products are appropriate for particular uses, especially where energy performance and fire safety requirements apply.
- Follow the installation instructions provided by the manufacturer, and ensure that you understand the instructions, manuals and DoPs.

⁴ For the purpose of this PSA, consumers refer to professionals and end users.

Recommendations for the European Commission

- Consider providing further guidance to MSAs and economic operators regarding the interpretation of certain product standard provisions, especially where composite products or ambiguous mounting information are involved.
- Review and, where necessary, request the revision or creation of product standards to better address the characteristics of composite insulation products.

Recommendations for MSAs

- Share test results and follow up measures in ICSMS with other MSAs to support coordinated enforcement and avoid duplication of testing.
- Coordinate on a common approach to risk assessment and follow-up measures.

Recommendations for standardisation organisations

- Take into account the practical needs and feedback of MSAs when revising existing standards.
- Consider clarifying the rules on grouping products for product-type assessments.
- Consider clarifying how statistically evaluated values, such as $\lambda_{90/90}(\lambda_{90/90})^5$, can be verified for market surveillance purposes.

Recommendations for Notified Bodies

- Test every product in accordance with the applicable assessment and verification procedures under the CPR.
- Provide detailed identification of the product assessed in the product-type assessment.
- Consider advising the manufacturer on the grouping of products and on documenting these groups clearly.

5 Statistical lambda value ensuring with 90% confidence that 90% of production meets the declared performance.

Part 2

WHAT IS JACOP?

The JACOP initiative aims to organise Joint Actions on Compliance of Products in the EU and EFTA countries, fostering collaboration among Market Surveillance Authorities (MSAs). The primary objectives include conducting joint product testing, assessing risks and harmonising operational methodologies. Through open dialogues, knowledge-sharing, and engaging external stakeholders, the project contributes to a secure Single Market. Key focuses involve evaluating product risks, implementing timely measures and ensuring regulatory alignment.

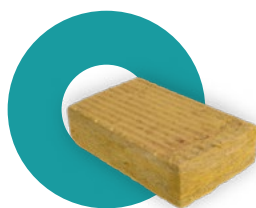
JACOP 2025 INCLUDES 11 PRODUCT-SPECIFIC ACTIVITIES COVERING 9 SECTORS

PSAs test different types of products to assess their compliance with existing legislation and regulations and take appropriate actions. The products are selected and

collected by the market surveillance authorities involved and are examined using an agreed testing plan.



PSA 1
FERTILISERS



PSA 2
**INSULATING MATERIALS
IN CONSTRUCTION
PRODUCTS**



PSA 3
**HAZARDOUS
SUBSTANCES
IN GADGETS**



PSA 4
COSMETICS



PSA 5
RADIO TOYS



PSA 6
**CONSUMER
TEXTILE CLOTHING**



PSA 7
**LIFTS AND SAFETY
COMPONENTS OF LIFTS**



PSA 8
**GAS
APPLIANCES**



PSA 9
**PPE HELMETS
(PROFESSIONAL)**

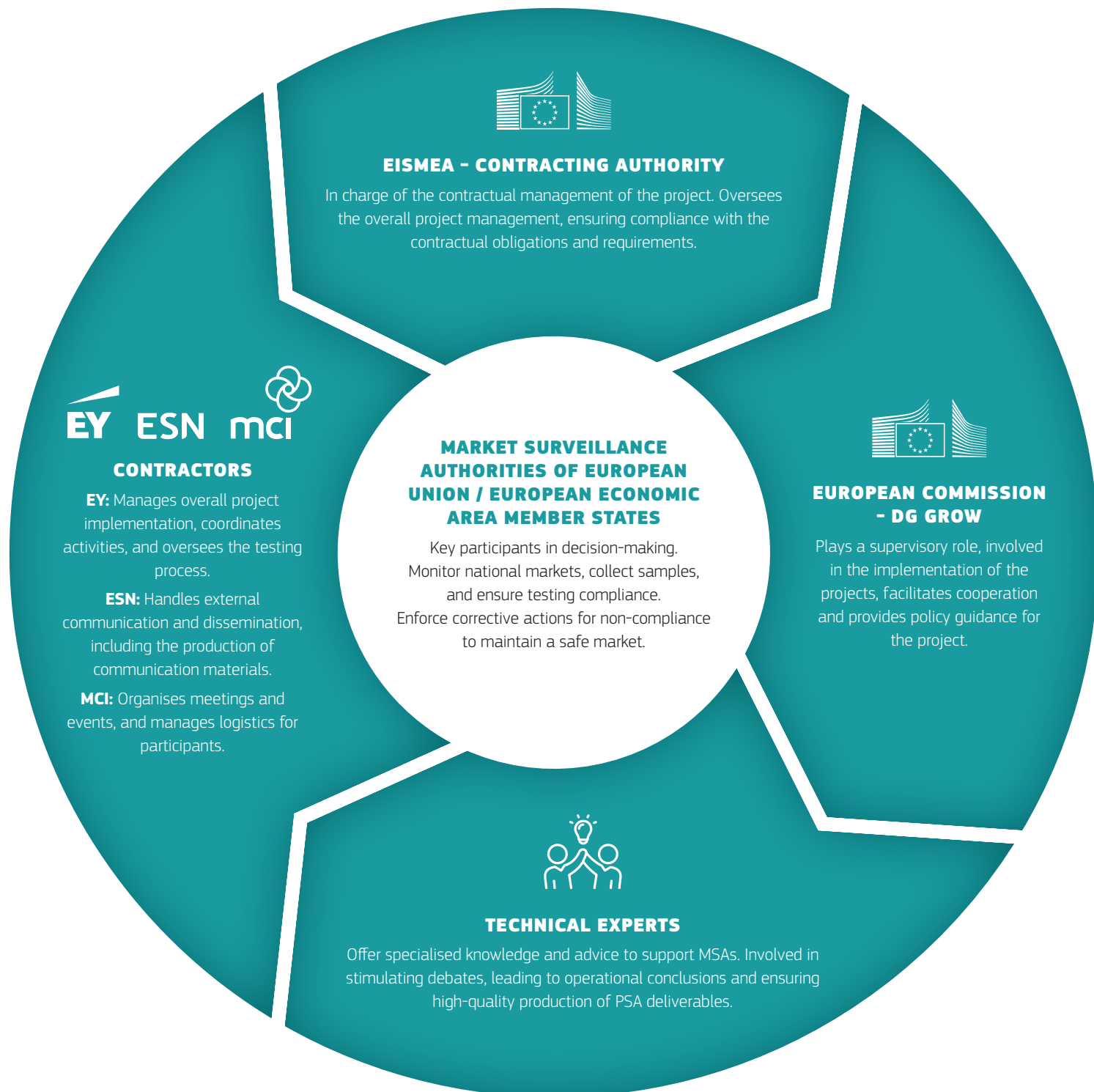


PSA 10
**PPE HELMETS
(CONSUMER)**

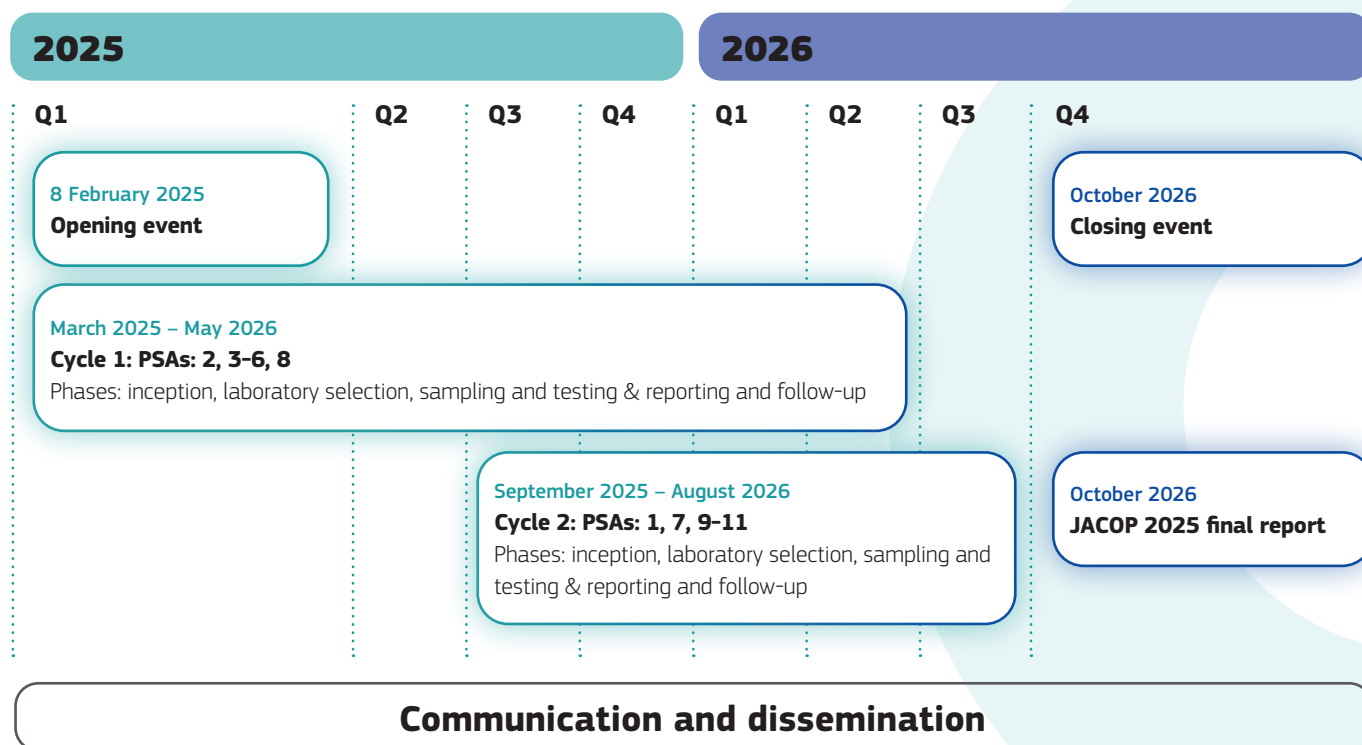


PSA 11
**PPE FOOTWEAR
(PROFESSIONAL)**

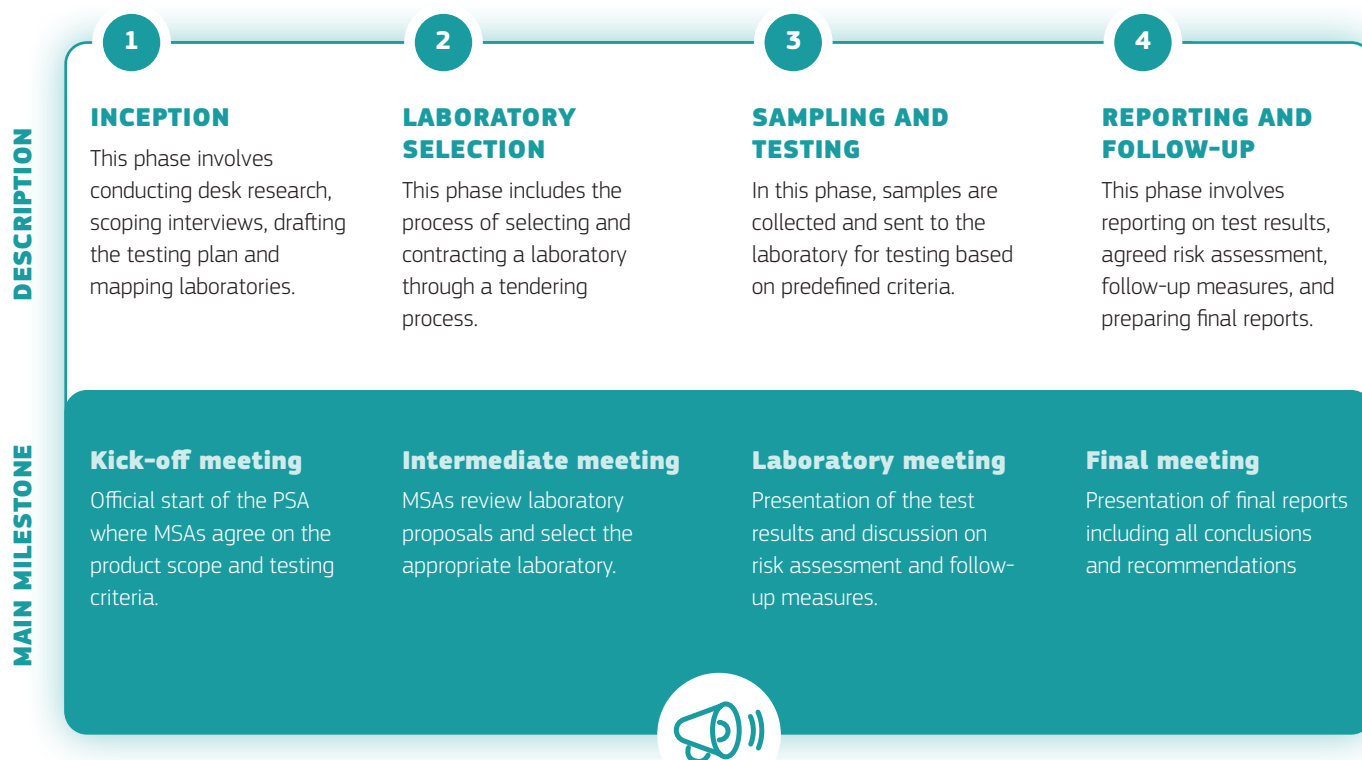
ROLES AND RESPONSIBILITIES



WORK PLAN AND TIMELINE

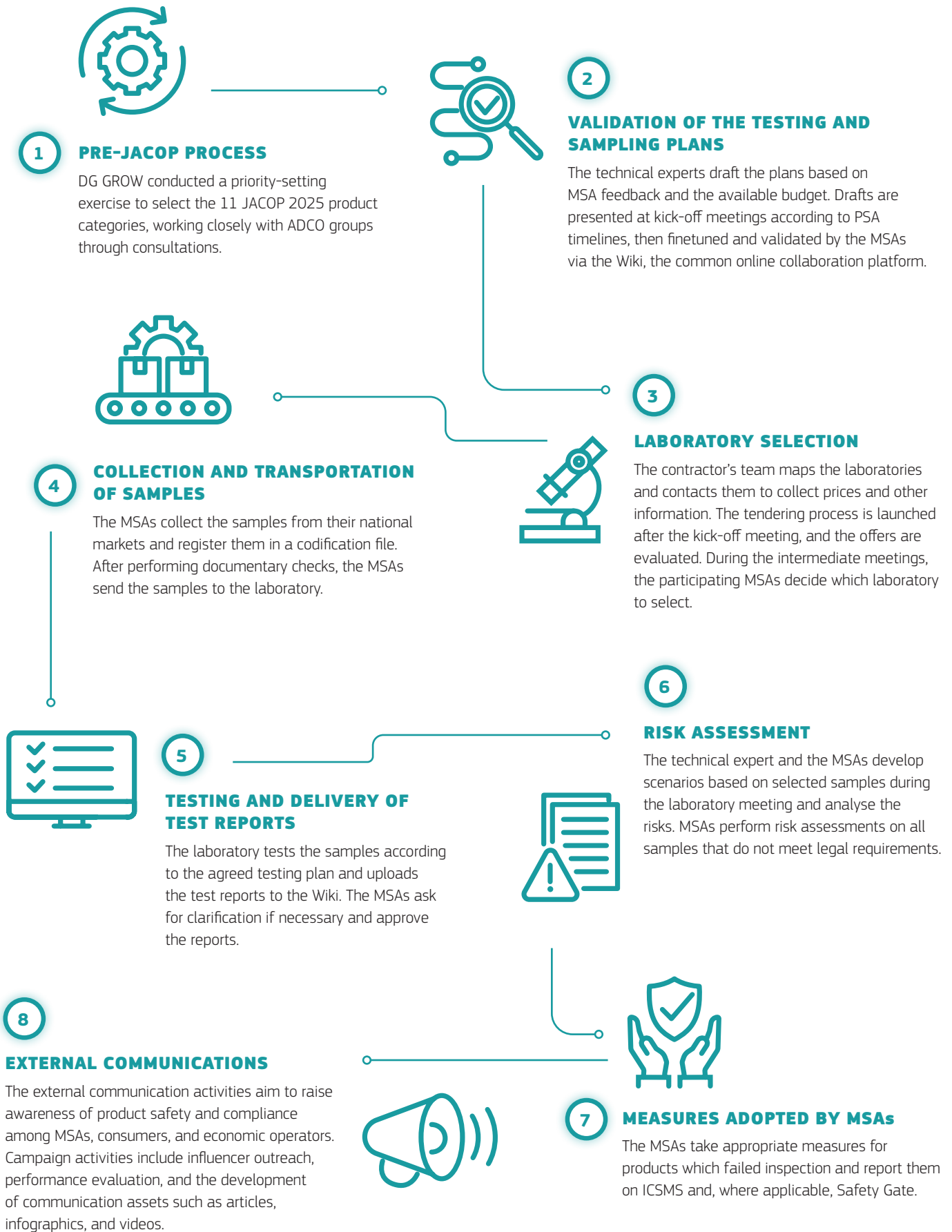


PROJECT PHASES



Communication and dissemination activities involve raising product safety awareness among MSAs, consumers, and economic operators through targeted campaigns, media engagement, and influencer involvement, focusing on compliance education.

PROCESS



COMMUNICATION ASSETS

For all 11 PSAs:



Article summarising the main findings of the testing activity. The article includes at least 1 image.



One **social media** visual based on the infographics.



One-page infographic summarising the main findings of the testing activity.



One infographic and one social media visual covering the entire JACOP 2025 project.

These communication assets are available in 23 EU languages + Norwegian and Icelandic.

For 3 PSAs:

PSA 4 - Cosmetics, PSA 8 - Gas Appliances, PSA 10 - PPE Helmets (Consumer)



Short **video** for social media promotion.

COMMUNICATION CHANNELS

The communication assets are disseminated using:



National and specialised media across the EU27.



Online and social media platforms.



Influencers on social media.



MSAs' national communication channels.



JACOP 2025 newsletter – a four-issue series showcasing the campaign's progress, key milestones, and major achievements.

This document was written by EY for the European Commission. June – 2026

EUROPEAN COMMISSION

Directorate-General for Internal Market,
Industry, Entrepreneurship and SMEs (DG GROW)
Unit H.4 Market Surveillance
Email: GROW-H4@ec.europa.eu

Specific contract: EISMEA/2023/SC/002. Part of framework contract: EISMEA/2021/OP/0016

The European Commission is not liable for any consequence stemming from the reuse of this publication.

© European Union, 2026.

The reuse policy of European Commission documents is implemented based on Commission Decision 2011/833/EU of 12 December 2011 on the reuse of Commission documents (OJ L 330, 14.12.2011, p. 39). Except otherwise noted, the reuse of this document is authorised under a Creative Commons Attribution 4.0 International (CC-BY 4.0) licence (<https://creativecommons.org/licenses/by/4.0/>). This means that reuse is allowed provided appropriate credit is given and any changes are indicated.

For any use or reproduction of elements that are not owned by the European Union, permission may need to be sought directly from the respective rightholders.

Cover image: © iStockphoto - minemero

Information about the European Union in all the official languages of the EU is available on the Europa website at: https://europa.eu/european-union/index_en



**Publications Office
of the European Union**
Law | Data | Publications

Luxembourg: Publications Office of the European Union, 2026

ISBN 978-92-68-43726-1
doi:10.2873/8242144