



Deliverable 3.9:

Graphical flow chart of the methodological process, taking into account all tasks within WP3

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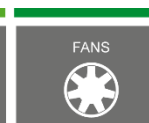
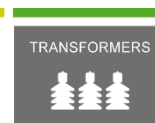
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Industrial and tertiary product Testing and Application of Standard



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More information

about the INTAS project activities
and all of its results
are published on:

www.INTAS-testing.eu

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About the INTAS project

The aim of the INTAS project is to provide technical and cooperative support, as well as capacity building activities, to Market Surveillance Authorities (MSAs). The need for the INTAS project arises from the difficulty that MSAs and market actors face in establishing and verifying compliance with energy performance requirements for large industrial products subject to requirements of the Ecodesign Directive, specifically transformers and industrial fans. Therefore, the project aims to:

- Support European Member State MSAs deliver compliance for large products (specifically for transformers and large fans);
- Support industry to be sure of what their obligations are under the Ecodesign Directive and to deliver compliance in a manner that will be broadly accepted by MSAs;
- Foster a common European approach to the delivery and verification of compliance for these products.

List of project partners:

WIP Renewable Energies	Europe
European Environmental Citizens' Organisation for Standardisation	Europe
European Copper Institute	Europe
Engineering Consulting and Design	Europe
Waide Strategic Efficiency	Europe
Austrian Energy Agency	Austria
Federal Public Service Health, Foodchain, Safety and Environment	Belgium
SEVEN Energy Efficiency Center	Czech Republic
Danish Technological Institute	Denmark
Finnish Safety and Chemicals Agency	Finland
The Polish Foundation for Energy	Poland
Directorate General of Energy and Geology	Portugal
Romanian Regulatory Authority for Energy	Romania
Foundation for the Promotion of Industrial Innovation	Spain
Italian National Agency for New Technologies, Energy and Sustainable Economic Development	Italy
Food and Economic Safety Authority	Portugal

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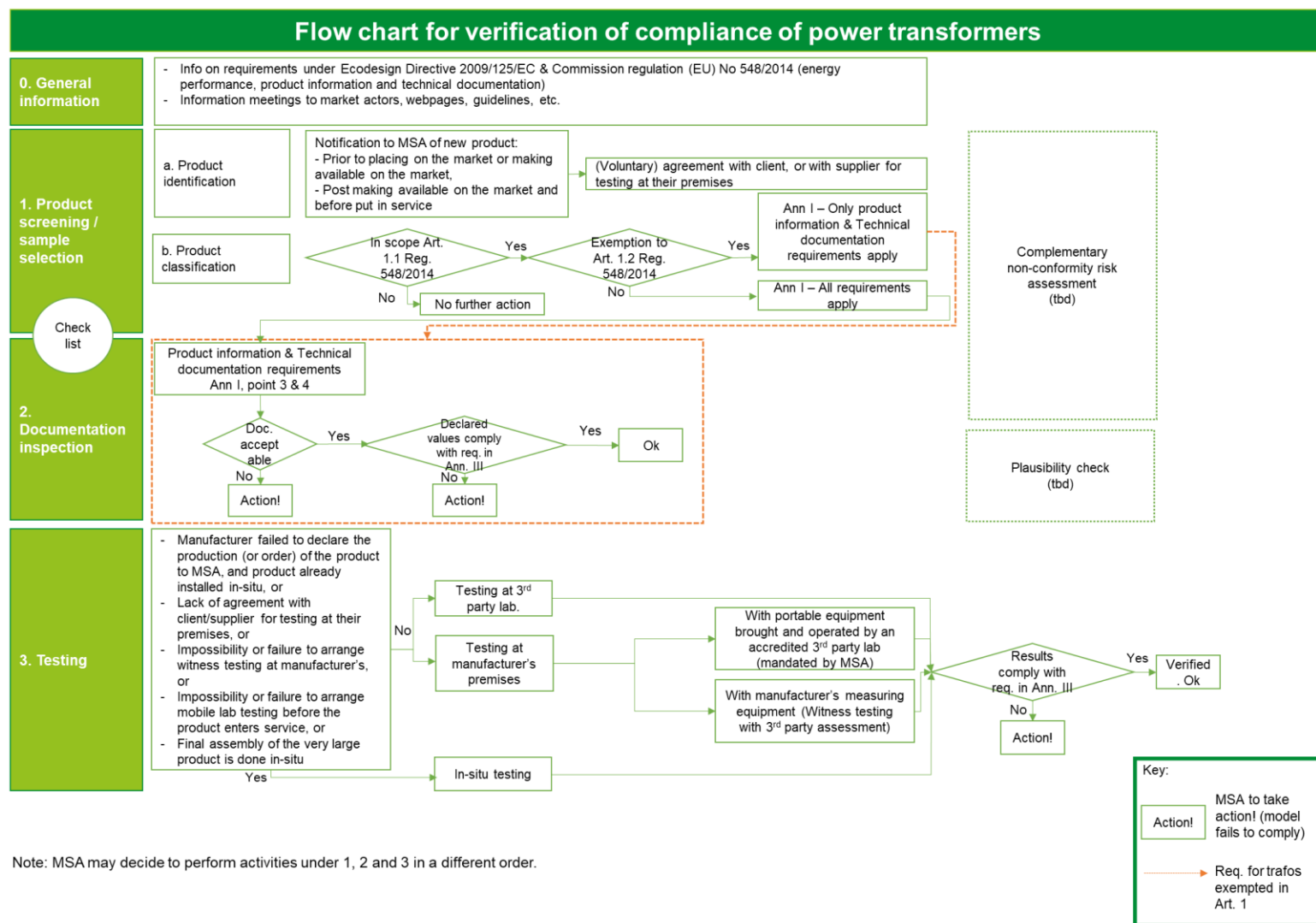
1. Introduction

Deliverable 3.9 contains the graphical flow charts of the methodological process for the verification of compliance for power transformers and fans, taking into account all the tasks within WP 3 “Defining an effective compliance framework for MSAs and manufacturers”. The theoretical compliance assessment methodologies proposed hereby will be evaluated and validated under the upcoming activities in WP 4 “Evaluation of compliance assessment methodology”.

This report includes also an explanatory note to build on the diagrams, and a list of references to other deliverables produced within the INTAS project in which the proposed draft methodologies are based.

Please note that the methodologies presented in these flowcharts are at an intermediary stage, and are not to be considered final recommendations of the INTAS project. The methodologies will undergo a practical validation phase during which MSAs participating in the INTAS project will assess their applicability. Market actors will also be informed and consulted at a number of National Focal Point meetings organized in Europe. The validation phase will allow for refinements of the methodologies until the end of July 2018. Please visit the INTAS project website for information about the channels available for your inclusion in this process.

2. Proposed verification of compliance methodology for transformers



▪ Explanatory note

0. General information

- Proactive role of MSAs to foster knowledge among the different market actors about the regulations, conformity assessment procedures, product information and name plate requirement, etc.

1. Product screening / sample selection

- Large industrial products such industrial fans and power transformers are likely to be poorly suited to the product selection techniques that MSAs established and deployed for Ecodesign conformity verification targeted for smaller mass-produced products.
- Notification: mandatory* notification from the manufacturer/importer to MSA (either that which has a mandate where the product is first placed on the market, and/or that which has the mandate where the product is put into service) to know that the product has been placed on the market.
- Agreement: voluntary agreement between manufacturer/supplier and MSA, or between MSA and client, to allow testing at their premises

* INTAS is exploring the possibility of a mandatory notification for the MSAs to know if a transformer/fan has been installed (or produced), but currently there is no obligation for suppliers to inform MSAs that they have placed products on the market.

2. Documentation inspection

- The documentation inspection is only possible when the product has been placed on the market or it is ready to be placed on the market (the manufacturer elaborates the documentation of the product after testing it).

3. Testing

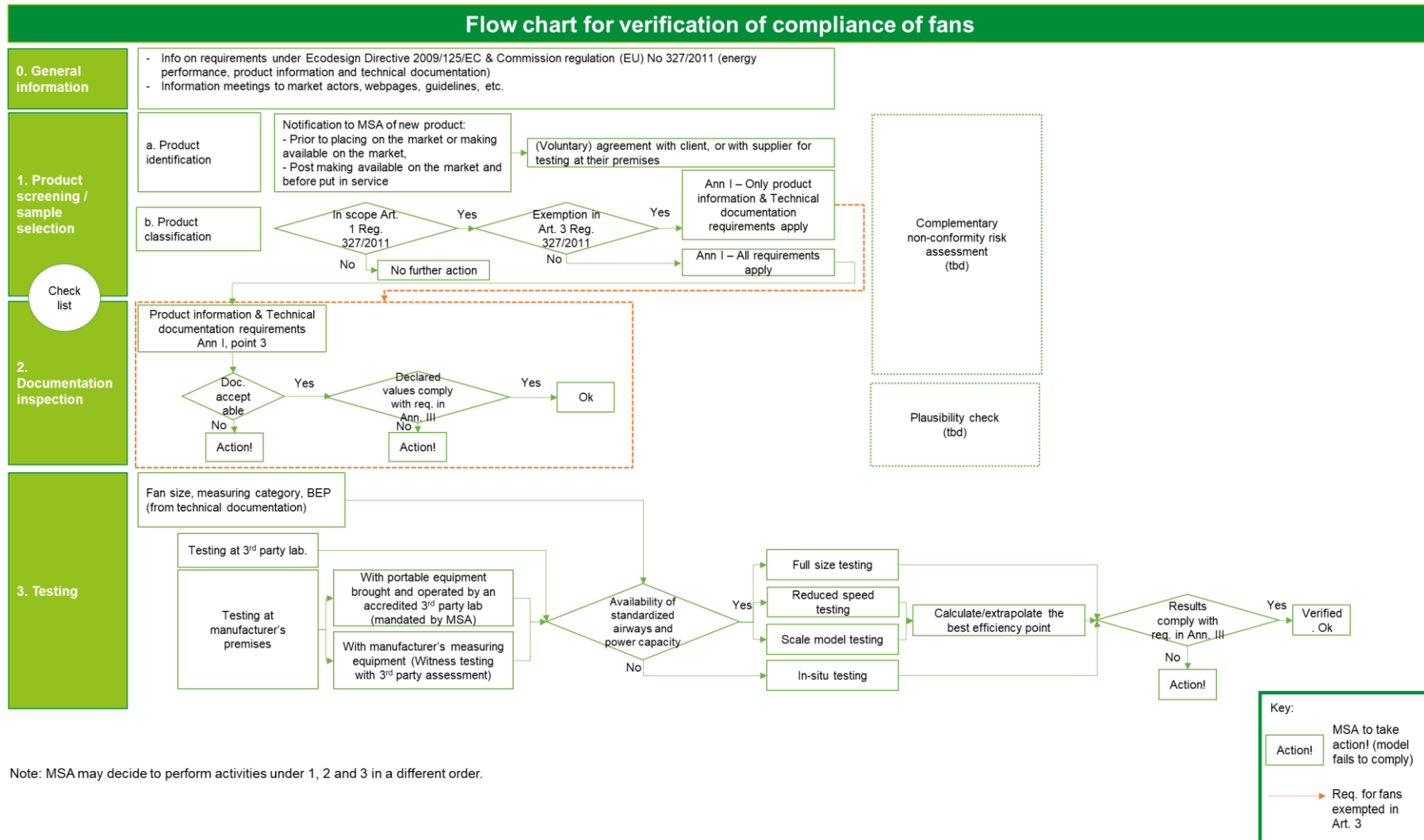
- Testing could occur before the product is placed on the market in those cases in which there is an agreement between the manufacturer/supplier and the MSA to allow testing at the manufacturer's premises.

▪ List of related documents and INTAS tasks

This is a non-exhaustive list to complement the flow chart in which MSA may look for supporting reference documentation and other INTAS deliverables.

Reference to graphical chart	Task	Tools	INTAS input
<u>0. General information</u>	Information meetings Webpage Guidelines Stakeholderlist Conformity assessment	Directive 2009/125/EC Reg. 548/2014	D 3.7 (PU) D 3.6 (PU)
<u>1. Product screening / sample selection</u> Product identification and classification <i>Article 1 and 2: Scope and definitions</i>	Finding trafos Plausibility checks Identify trafos	Checklist Checklist EN50588-1 EN50629 Reg. 548/2014	D 3.2 (CO) D 3.8 (PU) D 3.5 (PU)
<u>2. Documentation inspection</u> <i>Article 3, Annex I & II</i>	Ecodesign requirements Technical documentation Rating plate	Directive 2009/125/EC Reg. 548/2014	D 3.2 (CO) D 3.3 (CO)
<u>4. Testing</u> <i>Article 5, Annex III</i>	Finding laboratory Finding testing method Finding standards Other applicable regulation for testing alongside	Database EN50588-1 & EN50629	D 2.2 (CO) D 2.3 (CO) D 2.4 (CO) D 2.5 (CO) D 2.6 (CO) D 3.3 (CO) D 3.2 (CO) D 3.5 (PU) D 3.7 (PU)

3. Proposed verification of compliance methodology for fans



▪ Explanatory note

0. General information

- Proactive role of MSAs to foster knowledge among the different market actors about the regulations, conformity assessment procedures, product information and name plate requirement, etc.

1. Product screening / sample selection

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2. Documentation inspection

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3. Testing

- Testing could occur before the product is placed on the market in those cases in which there is an agreement between the manufacturer/supplier and the MSA to allow testing at the manufacturer's premises.
- In order to measure the performance of a fan according to the international standard ISO 5801, standardized airways are required. The standardized airways are designed according to the fan sizes - the larger the fan, the larger the standardized airway required. Due to space limitations and the cost of

the standardized airway, the right size of standardized airway is not always available for large fans. Further, the availability of a suitable standardized airway will also depend on the measuring category chosen by the supplier (A, B, C, D). Another limiting factor for testing is the electric power available at the test laboratory (500 kW is considerable power capacity).

Based, on the one side, on the fan size, the measuring category and the best efficiency point (BEP) specified by motor power input, speed, flow and pressure, and on the other side, the testing laboratory options (3rd party independent or manufacturer laboratories) and their capacities, it is evaluated what standardized airways and power capacities are available. Having this overview, the option for full size, reduced speed or scaled model testing is decided. In case neither a suitable standardized test rig, neither the power capacity is available, in-situ testing is proposed.

▪ List of related documents and INTAS tasks

This is a non-exhaustive list to complement the flow chart in which MSA may look for supporting reference documentation and other INTAS deliverables.

Reference to graphical chart	Task	Tools	INTAS input
<u>0. General information</u>	Information meetings Webpage Guidelines Stakeholderlist Conformity assessment ...	Directive 2009/125/EC Reg. 327/2011 ...	D 3.7 (PU) D 3.6 (PU) ...
<u>1. Product screening / sample selection</u> - Product identification and classification <i>Article 1 and 2: Scope and definitions</i>	Finding fans Plausibility checks Identify fan	Checklist Checklist prEN17166 Reg. 327/2011	D 3.1 (CO) D 3.8 (PU) D 3.5 (PU)
<u>2. Documentation inspection</u> <i>Article 3, Annex I & II</i>	Ecodesign requirements Technical documentation Rating plate	Directive 2009/125/EC Reg. 327/2011	D 3.1 (CO) D 3.3 (CO)
<u>4. Testing</u> <i>Article 5, Annex III</i>	Finding laboratory Finding testing method Finding standards Other applicable regulation for testing alongside ...	Database prEN17166 & ISO 5801 & ISO 5802 & ISO 13350 & ISO 13348	D 2.2 (CO) D 2.3 (CO) D 2.4 (CO) D 2.5 (CO) D 2.6 (CO) D 3.3 (CO) D 2.1 (PU) D 3.5 (PU) D 3.3 (CO) D 3.2 (CO) D 3.6 (PU)

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