



INTAS

INTAS Project 3rd Half-yearly progress summary: April 2017 – September 2017

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Industrial and Tertiary Product Testing and Application of Standards



Co-funded by the Horizon 2020 programme
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TRANSFORMERS



FANS



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1. Executive Summary

This document is the third half-yearly status report of the INTAS project. It is intended to provide external stakeholders with a summary of the project and progress made by the project consortium within the third six months of the project.

The Industrial and Tertiary Product Testing and Application of Standards (INTAS) project is funded by the EU's Horizon 2020 programme and aims to provide technical and cooperative support and capacity building activities to Market Surveillance Authorities (MSAs) concerned with the enforcement of Ecodesign Directive requirements for very large products. The need for INTAS 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 under the Ecodesign Directive. It is specifically focused on transformers and industrial fans.

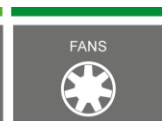
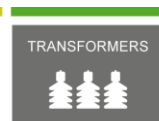
The project aims to:

- support European Member State MSAs to deliver Ecodesign compliance for transformers and large fans
- support industry to fully understand their obligations 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.

The project started in March 2016 and will conclude in February 2019. It involves 16 European partners, among which 11 are national MSAs or cooperating organisations and the remainder are technical partners.

Within the third six-monthly project period the project partners have:

- Held a face to face working meeting and numerous teleconferences.
- Have maintained and extended contacts with a wide variety of relevant stakeholders (Market Surveillance Agencies, testing laboratories, accreditation authorities, standardisation bodies, product regulators, industrial and commercial actors, technical experts and NGOs)
- Continued to foster contacts with key EU market surveillance processes and related projects
- Held several national stakeholder consultation meetings
- Completed detailed (Work Package 2) technical work on:
 - Standardisation (deliverable D2.3)
 - Product testing (deliverable D2.2)



- Accreditation (deliverable D2.4)
- Market and commercial testing practices (deliverable D2.5)
- Current practice in market surveillance with the EU and internationally (deliverable 2.6).
- Begun detailed technical work (Work Package 3) on:
 - Identification and classification of product types, and the related document requirements (Task 3.1).
 - Evaluation and testing – the best strategy based on product classification (Task 3.2)
 - Links with other legislation – Assessment of Member State and EU-level legislation (Task 3.3)
 - Building collaboration with MSAs and manufacturers – understanding how and when fans and transformers are produced, particularly looking how customised and unique products are procured and delivered (Task 3.4)
 - Derivation of screening methodologies for targeting products for compliance assessment (Task 3.5).



2. Introduction to the INTAS project

2.1 Project description

The INTAS project comprises six work packages as set out below.

2.1.1 Work Package 1 – Management and coordination

Lead = WIP, Contributing parties = all project partners (see Section 2.2).

The main objectives of the management and coordination are the following:

- 1) Efficient management and co-ordination of the project ensuring progress in line with the budget and the schedule of milestones and deliverables.
- 2) Risk management and overall strategic project guidance.
- 3) Building and maintaining effective communication channels within the consortium.

The work package deliverables:

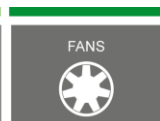
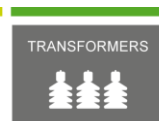
- D1.1 Minutes of 7 project meetings
- D1.2 Internal communication platform
- D1.3 First progress report.

2.1.2 Work Package 2 – Landscape of testing avenues

Lead = ECD, Contributing parties = WIP, ECOS, ECI, WSE, AEA, BHTC, SEVEN, DTI, TUKES, FEWE, DGEG, ANRE, FFII-LCOE, ENEA, ASAE (see Section 2.2).

This work package aims to analyse in depth the existing testing avenues in Europe and the rest of the world, and to explore test standards, facilities, procedures and methods already in place to help, including:

- 1) EU (and worldwide) MSAs to set up a sustainable and effective market verification of energy performance compliance and information requirements for large products with a specific focus on power transformers and fans.
- 2) EU (and worldwide) standardisation bodies to amend actual standards for energy performance compliance and information requirements for large products with a specific focus on power transformers and fans.



- 3) EC to enhance Eco-design policy measures on energy performance of large products with a specific focus on power transformers and fans.

This work package also aims to define a common approach at European level with respect to MSA methods and convergence in testing approaches as well as exploiting synergies by mutualizing the means of testing at EU scale.

The work package deliverables (with delivery dates in brackets) are as follows:

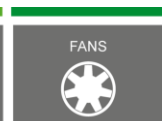
- D2.1 Database and report on EN/IEC/ISO technical standards and National laws/decrees of interest for testing energy performances of A and B product groups separately (October 2016)
- D2.2 Database (non-exhaustive) about test labs suitable for energy performance test of A and B product groups providing for each lab and each product range for in lab testing & in-situ testing (February 2017)
- D2.3 Report for A and B product groups on (February 2017)
- D2.4 Report on accreditation possibilities for labs/procedures (if any) for A and B product groups (February 2017)
- D2.5 Report for A and B product groups on the degree of compliance which is likely to be produced through normal commercial practices including specifically (February 2017)
- D2.6 Report on worldwide and EU practices/plans on energy performance market verification including, for A and B product groups (February 2017).

2.1.3 Work Package 3 – Defining an effective compliance framework for MSAs and manufacturers

Lead = AEA, Contributing parties = WIP, ECOS, ECI, ECD, WSE, BHTC, SEVEN, DTI, TUKES, FEWE, DGEG, ANRE, FFII-LCOE, ENEA, ASAE (see Section 2.2).

The overall objective of this work package is to clearly define the process and methodology by which market surveillance authorities (MSAs) can identify, select, and evaluate large, industrial products. The work package is divided into interconnected Tasks that are each essential for effective testing and evaluation of compliance. These Tasks form a workflow that simplifies and streamlines market surveillance activities. These Tasks can generally be categorised as:

- Identification and classification of product types, and the related document requirements (Task 3.1).
- Evaluation and testing – the best strategy based on product classification (Task 3.2).
- Links with other legislation – can other legislation be enforced simultaneously to further reduce costs? Assessment of Member State and EU-level legislation (Task 3.3).



- Building collaboration with MSAs and manufacturers – understanding how and when fans and transformers are produced, particularly looking how customised and unique products are procured and delivered (Task 3.4).
- Derivation of screening methodologies for targeting products for compliance assessment (Task 3.5).

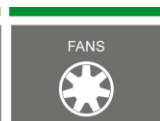
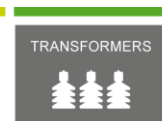
A further Task, Task 3.6, will work throughout the project to ensure the availability and accessibility of manufacturing and laboratory facilities. Several manufacturers have expressed an interest in working with the project a priori willing to provide further data and input and opening their facilities to allow for on-site/in-situ testing. The role of Task 3.6 will be to formalise and agree on specific terms and dates for such activities to take place. In terms of the project's overall objectives, this WP will:

- Help MSA's to develop an effective compliance framework based on the documentation and analysis of available information and including MSA cooperative activities.
- Produce guidelines to help industry deliver compliance and help manufacturers to establish compliance assessment strategies that minimise disruption of market entry.
- Derive alternative compliance measures for very large products (or others unviable to test).

Finally, this work package will foster a common approach at European level, which addresses MSA methods and tests convergence as well as synergies by mutualizing the means of testing at EU scale. The overall methodology will be expressed in a graphical work-flow diagram that highlights the importance of each step of market surveillance actions.

The work package deliverables (with delivery date in brackets) are as follows:

- D3.1 Report including template checklist on information and additional requirements related to inspection of fans (April 2017)
- D3.2 Report including template checklist on information and additional requirements related to inspection of Transformers (April 2017)
- D3.3 Evaluation of products in each testing type and unit category (January 2018)
- D3.4 Analysis and report on other applicable regulations, including at the national level, to be considered when undertaking inspection on fans (January 2018)
- D3.5 Analysis and report on other applicable regulations, including at the national level, to be considered when undertaking inspection on transformers (January 2018)
- D3.6 Report highlighting the best practice and experiences of both MSAs and industry regarding testing of fans (February 2018)



- D3.7 Report highlighting the best practice and experiences of both MSAs and industry regarding testing of transformers (February 2018)
- D3.8 Report about the screening techniques available for product/supplier targeting (January 2018)
- D3.9 Graphical flow chart of the methodological process, taking into account all Tasks within WP3 (February 2018).

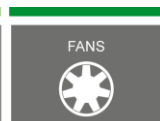
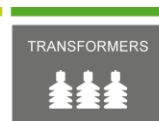
2.1.4 Work Package 4 – Evaluation of compliance assessment methodology

Lead = ECOS, Contributing parties = WIP, ECI, ECD, WSE, AEA, BHTC, SEVEn, DTI, TUKES, FEWE, DGEG, ANRE, FFII-LCOE, ENEA, ASAE (see Section 2.2).

The theoretical compliance assessment methodology at this stage will have been planned and tested in practice in accordance with the tasks and deliverables of work packages 2 and 3. It is vital at this stage to analyse the results of this assessment and ensure that the proposed methodology is valid and reliable, particularly in accordance with the regulations. In addition it is necessary to help clarify all the options and trade-offs that could be applied in a practical approach (such as for example screening techniques for products targeting) to compliance assessment in order to support the most effective allocation of MSA resources. Further, it is at this stage that the second national focal point meeting (details of which are outlined in WP6) will take place, allowing for national interests, including the concerns of market surveillance authorities, to provide feedback and input. Aside from the evaluation, this work package will be responsible for drafting final recommendations and guidelines.

The work package deliverables (with delivery date in brackets) are as follows:

- D4.1: Final Methodology on market surveillance of Fans (September 2018)
- D4.2: Final Methodology on market surveillance of Transformers (September 2018)
- D4.3: Evaluation of costs, benefits, and new methods of compliance verification (September 2018)
- D4.4: Final policy recommendations for future legislation on industrial products (October 2018).



2.1.5 Work Package 5 – MSA collaboration and strategic capacity building

Lead = WSE, Contributing parties = WIP, ECOS, ECI, AEA, BHTC, SEVEN, DTI, TUKES, FEWE, DGEG, ANRE, FFII-LCOE, ENEA, ASAE (see Section 2.2).

The objective of this work package is support strategic capacity building through:

- Awareness raising and information exchange.
- Development of compliance verification screening tools.
- Fostering market surveillance collaboration between MSAs.
- Raising awareness of the value proposition of product energy performance market surveillance among key funders, decision makers and budgetary resource allocators.

The work package deliverables (with delivery date in brackets) are as follows:

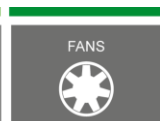
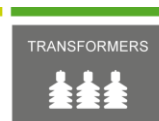
- D5.1: electronic leaflet/report - Project summary (May 2016)
- D5.2: electronic report - Report on strategic capacity building and awareness raising at the pan-European level (July 2018)
- D5.3: electronic report - Report on the overall methodology for the targeting and compliance verification for fans and transformers (November 2018)
- D5.4: electronic report - Final report summarising findings from fans and transformers (November 2018).

2.1.6 Work Package 6 – Dissemination and Communication

Lead = ECOS, Contributing parties = WIP, ECI, ECD, AEA, BHTC, SEVEN, DTI, TUKES, FEWE, DGEG, ANRE, FFII-LCOE, ENEA, ASAE (see Section 1.3).

The highly technical nature of this project requires a specific, targeted dissemination strategy. This work package will outline such a strategy using a national focal-point approach that shall be adopted throughout this project in order to ensure that dissemination of the project outcomes reaches the largest number of stakeholders. It is planned that the dissemination of this work package will allow for input to the project from the various stakeholders this WP intends to reach including, but not limited to; manufacturers, trade associations, retailers, importers, consumer and environmental organisations, and relevant national government departments.

Further, the work package will use a similar 'focal point' system to disseminate to European level trade and manufacturer associations, and EU-level consumer and environmental NGOs.



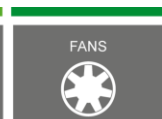
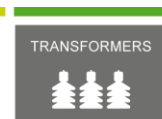
The work package deliverables (with delivery date in brackets) are as follows:

- D6.1: Database of collection of interested national parties + EU-level stakeholders (June 2016)
- D6.2: Database of minutes, including detailed input of national stakeholders, of all physical and virtual/teleconference meetings (August 2018)
- D6.3: Collection of minutes from project meetings, or written evidence of consideration of national input and 2 excel tables listing comments and questions with their answers and replies. Electronic format (August 2018)
- D6.4: Final reports translated (if appropriate) and printed (December 2018)
- D6.5: Coordination of final conference (February 2019)
- D6.6: Participation in 2 international (February 2019)
- D6.7: Creation of project website and FAQs in English language (August 2016).

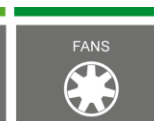
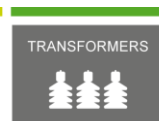
2.2 Project partners

The INTAS project comprises the following partners.

N°	Participant name, role in the project and area of activities implementation	Country	Role
1	WIP – Renewable Energies (WIP) Coordinator – Europe and worldwide	Germany	Coordinator
2	European Environmental Citizens’ Organisation for Standardisation (ECOS) Technical expert – Europe	Belgium	Beneficiary
3	European Copper Institute (ECI) Technical expert – Europe	United Kingdom	Beneficiary
4	Engineering Consulting and Design (ECD) Technical expert – Europe	Italy	Beneficiary
5	Waide Strategic Efficiency Ltd. (WSE) Technical expert – Europe	United Kingdom	Beneficiary



6	Austrian Energy Agency (AEA) National focal point – Austria	Austria	Beneficiary
7	Federal Public Service Health, Food chain Safety and Environment (BHTC) National focal point – Belgium	Belgium	Beneficiary
8	SEVEEn, The Energy Efficiency Center (SEVEEn) National focal point – Czech Republic	Czech Republic	Beneficiary
9	Danish Technological Institute (DTI) National focal point – Denmark	Denmark	Beneficiary
10	Finnish Safety and Chemicals Agency (TUKES) National focal point – Finland	Finland	Beneficiary
11	Polish Foundation for Energy Efficiency (FEWE) National focal point – Poland	Poland	Beneficiary
12	Direção-Geral de Energia e Geologia (DGEG) National focal point – Portugal	Portugal	Beneficiary
13	Regulatory Authority for Energy (ANRE) National focal point – Romania	Romania	Beneficiary
14	Fundación para el Fomento de la Innovación Industrial Laboratorio Central Oficial de Electrotecnia (FFII-LCOE) National focal point – Spain	Spain	Beneficiary
15	Italian National Agency for New Technologies, Energy and Sustainable Economic Development (ENEA) National focal point – Italy	Italy	Beneficiary
16	Food and Economic Safety Authority (ASAE) National focal point – Portugal	Portugal	Beneficiary



2.3 Project advisory board

One of the first tasks of the project was to formulate a project advisory board to ensure guidance and advice is provided to the project by leading relevant stakeholders. The advisory board was formally inaugurated at the 1st Technical Progress meeting held in Brussels on September 19th & 20th, 2016. The members include leading Ecodesign and H2020 desk officers from the Commission, representatives of MSAs that were not formally partners within the project, representatives of the leading European associations representing the fan and transformer industrial sectors. The INTAS partners are therefore confident that all pertinent information will be brought to the attention of the project team and that the findings of the project will be disseminated among the key stakeholders who are best able to make use of this work. The INTAS Advisory Board held its first meeting in Lisbon on 28th March 2017.

Advisory Board of the INTAS project		
Stakeholder group	Organisation	Name
MSA – DE	BAM	Floris Akkerman
MSA – DE	MUKE BW	Tamara Janke
MSA – CZ	SEI	Marcela Juračková
MSA – DK	DEA	Bjarke Hansen
MSA – SE	SEA	Lina Kinning
MSA – NO	NVE	Ingvill Sjøvold Nilsen
Industry Association – Transformers	T&D Europe	Michel Sacotte
Industry Association – Fans	EVIA	Karsten Witt
Policy maker	EC DG Growth	Cesar Santos
Policy maker	EC DG Energy	Ronald Piers de Raveschoot
Standardization – Fans	ISO fans	Tony Breen
Transmission System Operators	ENTSO-E	Jean-Christophe Riboud

3. Project progress: April 2017 - September 2017

3.1 Progress with Work Package 1: Management and coordination

3.1.1 Project meetings

The 3rd Technical Progress meeting was held in Copenhagen on October 5th & 6th, 2017. On the second day the meeting was hosted at the DTI facilities in Taastrup, where a visit of the fan testing facilities was offered to the project partners.





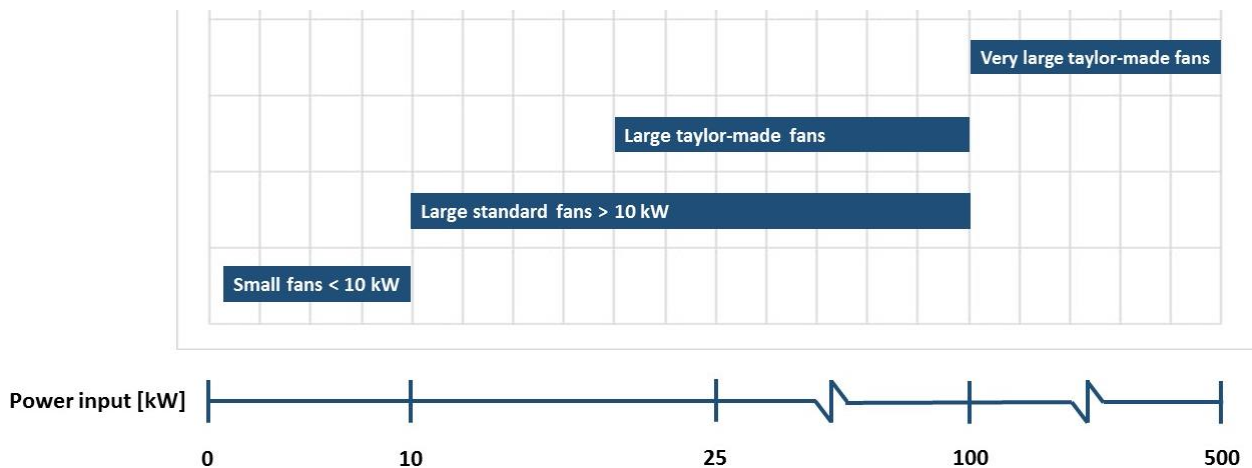
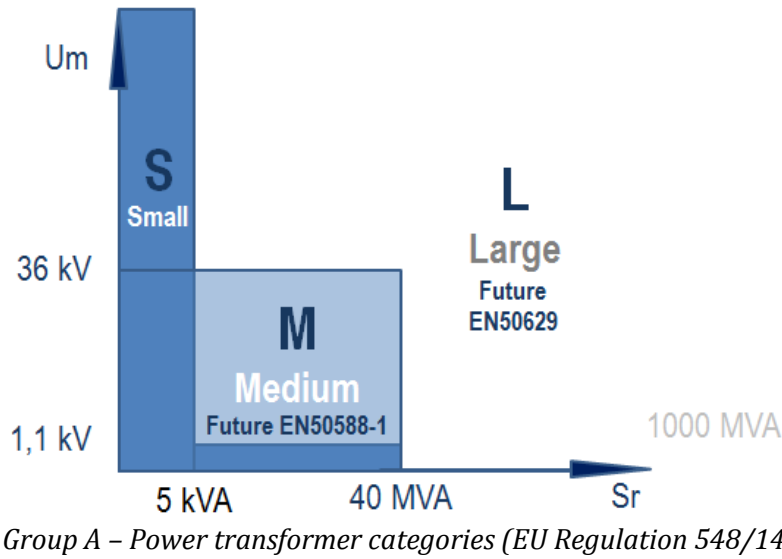
3.2 Progress with Work Package 2: Landscape of testing avenues

Work Package 2 was the first technical task to get underway and hence was described in detail in the 2nd 6-monthly report. Section 3.2.1 summarises the approach to the conducted activities and section 3.2.2 describes the progress achieved.

3.2.1 Summary of approach to the conducted activities

This work package involves 5 different tasks conducted in parallel for transformers and large industrial fans respectively.

The sub-categories based on size adopted for the two product groups are summarized in the two figures below.



Group B – Indicative fan size categories

The main aim is to provide the elements to help European MSAs to set up a system for market verification of power transformers and fans that avoid duplication of lab activities, and which support the putting together and synchronisation of the needs and the activities of the main actors involved in the process, i.e. MSA themselves, labs, manufacturers, purchasers/users and importers.

The tasks of this Work Package aim to define the state of the art as it exists in the EU and at the broader international level, while taking into account the real constraints in conducting effective market surveillance for these products, for example taking into account issues such as:

- The difficulty to remove large products (such as large power transformers) from service for the purpose of verification testing because of the high costs that would be incurred to the end-users.

- The difficulties, costs or impossibility of transporting large products for testing purposes to specific test locations.
- The compliance of test procedures with current technical and legislative prescriptions.
- Current available testing possibilities for large products around Europe.

To ensure consistency and clarity of outputs and deliverables for both fans and transformers, a plenary group of technical partners and interested national partners was established and operated via email, virtual meetings and conference calls. This group also helped to define the scope and definitions within each task.

3.2.2 Summary of findings

Deliverable D2.1 - Database and report on EN/IEC/ISO technical standards established a database of all relevant EN/IEC/ISO technical standards applied in Europe and internationally that apply to power transformers and fans. It found that:

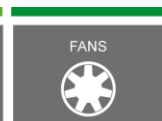
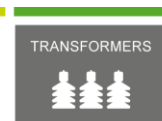
- Worldwide the most important standards are the international ISO/IEC standards
- At regional level the most important are the EN standards for the European region and the IEEE standards for the North American region. Even if containing regional practices and unification values, the EN standards are fully aligned with the ISO/IEC standards while the IEEE standards just initiated the alignment with the international standards and still differ in some main assumptions
- At the national level some other standards apply, reproducing partially or totally the contents of ISO/IEC, EN or IEEE standards.

To support principal targets such as energy savings, a consistent number of legislative documents dealing with the energy performance of the products of interest were identified. They vary from voluntary or mandatory minimum energy efficiency standards (MEPS), to labelling, financial or fiscal incentives and information and motivation. The contents of the main standards and legislative documents are briefly analysed and summarized along with introductory briefings on the large products of interest and information relative to their testing methods and characteristics of interest. Two specific databases listing the documents of relevance are also provided.

This deliverable will be made public on the project website in the coming weeks.

Deliverable D2.2 - Database on EU labs established a database of test labs suitable for energy performance testing of power transformers and fans in Europe and internationally.

With the intention to identify the most appropriate tools and facilities to be used in Market Surveillance activities in the Ecodesign Regulations applicable to large fans and transformers, a number of actions were taken to identify test laboratories which are capable of performing energy efficiency tests for these product



groups. This included analysing the measurement quality, accuracy and competence, through the accreditation, or evaluation processes used for these activities. The analysis covers both third party (independent) laboratories as well as manufacturer laboratories in this area.

Questionnaires were prepared respectively for a) transformer and b) fan testing laboratories and initial investigations were undertaken to find those that were likely to perform the tests covered by the respective Regulations, checking their capability for testing large transformers or fans either in-house or on-site and considering the possibility to perform the test at manufacturer premises. For that reason, manufacturer laboratories were included in the investigation and on occasion visited by WP2 consortium partners to verify directly the normal practices of the manufacturer testing activities with regard to compliance.

The investigation also extended to laboratories located outside the EU area. Extra-European laboratories were analysed considering similar tests to those that other national legislations are requesting today.

It found that:

- 103 transformer test laboratories were identified
- 83 fan test laboratories were identified
- 53 laboratories answered the sent questionnaire, of which 50 answers were validated
- Roughly 2/3rds of the labs were manufacturer owned and operated and about 1/3 were independently owned and operated.

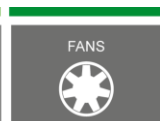
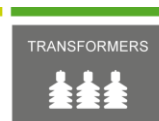
This deliverable is confidential to INTAS project members.

Deliverable D2.3 - Report on laboratory selection process conducted an analysis and developed guidelines to select test labs suitable for energy performance testing of power transformers and fans.

Specifically, it provides guidelines on how to select laboratories for A) medium and large power transformers and B) large fans, covering an analysis of:

- constraints and limitations in getting an object under test in independent test labs
- comparison among 3rd party test labs and manufacturer test labs
- comparison among 3rd party test labs and extra-European test labs.

This deliverable is confidential to INTAS project members.



Deliverable D2.4 - Report on accreditation possibilities provides an overview of the accreditation options for laboratories engaged in testing the energy performance of large fans and power transformers.

In order to collect data from accreditation bodies, a combined questionnaire addressing both accreditation possibilities of transformer and fan labs was developed. The link to complete the questionnaire was sent to 22 accreditation bodies; all of them situated in countries of the European Union.

The relatively sparse but qualitatively good answers to the questionnaires were combined with additional sources to establish the overview. This included direct contacts to accreditation bodies, discussions with manufacturers about accreditation, and desktop research.

Based on the fact, that accreditation bodies are in place in all EU/EEA countries and that general procedures exist for companies wanting their activities accredited, it seems plausible that accreditation can be provided for both transformers and fan laboratories throughout Europe. Furthermore, the general picture from the questionnaires is that it is common practice to give accreditation for all kind of independent testing services: independent lab testing, on-site testing as well as testing at manufacturer labs.

This deliverable is confidential to INTAS project members.

Deliverable D2.5 - Report on Commercial Practices informs about how the relevant market actors for medium and large transformers and large fans currently handle issues related to energy performance verification in general, and specifically compliance with the Ecodesign Directive regulations.

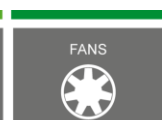
The overview is based on input gathered through a systematic interview process (online survey, phone interviews and personal discussions during a trade show) with totally 49 representatives from three key market actors:

- Manufacturers
- Importers, distributors and intermediaries like EPCs (Engineering/ Procurement/ Construction & Commissioning companies)
- Purchasers (End-users of transformers and fans).

The current market practice with regard to compliance of the two product groups is based on self-declaration by the manufacturers or importers and independent control is just starting, very slowly, in a few EU member states. Hence there is an evident need for effective market surveillance as these hermetic commercial circles operating via self-regulation cannot guarantee that all medium and large transformers and large fans placed on the EU market are always compliant with the Ecodesign Directive.

There is no doubt that future market surveillance methodologies to be developed should be compatible with and take into account the market logistics and time frames, but on the other hand, these must assure that the same rules apply for all market actors in all EU member states to guarantee fair competition.

This deliverable is confidential to INTAS project members.



Deliverable D2.6 - Report on Worldwide and EU current practices in market surveillance provides an overview of the market surveillance processes applied around the world to verify the energy performance of large fans and power transformers.

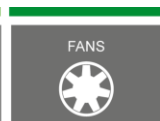
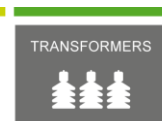
Specifically, the scope was to collect information and build a firm understanding of the monitoring, verification and enforcement techniques used in major economies for these products. The boundaries for the analysis were the availability of information in an understandable language and that is sufficiently detailed with regard to procedures applied for fans and/or transformers to be understood, and hence goes beyond simple information that market surveillance for these products is in place. In this respect the main conclusions are that sufficient freely available information is available in English, but that in all investigated Countries no information about actual best practices is available. The monitoring, verification and enforcement procedures have been examined worldwide: in America (North & South: Canada, USA and Mexico), in Asia (China, India, Japan), in Oceania (Australia and New Zealand) and in Europe (EU and some Member States), along with the assessment of private certification schemes and of potential alternative techniques. All collected methods were investigated to identify the most interesting elements to be considered as suggestions and advice for the market surveillance procedure to be developed within the INTAS project for EU Ecodesign Market Surveillance purposes.

Monitoring, verification and enforcement techniques are applicable in all investigated countries, but no information is available on their actual application or of the achieved results. The difficulty for the compliance verification for large industrial products is well known, but also without a unique and validated solution. The investigated procedures differ in terms of the emphasis given to the documental inspection, third party certification, physical testing by the national authority and also to the response to allegations or complaints.

When physical testing is foreseen, the number of units to be tested differs among the investigated procedures. Alternative procedures have been proposed, at least as pilot projects, to take into consideration the actual difficulties in the compliance verification or in the case of low-volume, custom built products or where adequate laboratory facilities are unavailable. In this respect, the use of witness testing and/or reduced sample sizes can be foreseen, to permit effective enforcement testing without imposing unreasonable burdens on manufacturers. Unfortunately, it is unclear if these procedures have been successfully applied. Other approaches or techniques do exist for certifying the performance of large products: private certification schemes - to assess the compliance of product to own requirements - appear to be more largely applied due to the strong involvement of manufacturers and their associations. On the other side utilities generally procure transformers through a competitive bidding process encompassing a complex qualification process that includes an audit of production and quality processes, verification of certain ISO certifications, and inspection of the manufacturing environment.

Finally, a number of testing laboratories can develop custom test plans that meet manufacturers' specific needs for those products where a published standard is unavailable. One reason for developing a custom test plan is to check equipment performance against marketing claims made by the equipment manufacturer, or to check the performance of a product against a competitor's product.

This deliverable will be made public on the project website in the coming weeks.



3.3 Progress with Work Package 3: Defining an effective compliance framework for MSAs and manufacturers

Work Package 3 builds strongly on the work undertaken in WP 2 and its main outputs. Work Package 3 commenced in December 2016 and will continue until February 2018.

3.3.1 Summary of approach to the activities to be conducted

The overall objective of this work package is to clearly define the process and methodology by which market surveillance authorities (MSAs) can identify, select, and evaluate large, industrial products. The work package is divided into interconnected tasks that are each essential for effective testing and evaluation of compliance. These tasks form a workflow that simplifies and streamlines market surveillance activities.

All core partners deliberate upon intermediate results and findings on a regular basis (approx. monthly conference calls) to ensure a smooth elaboration of activities both for fans and transformers.

3.3.2 Progress with task activities and deliverables

3.3.2.1 Task 3.1 – Information requirements and documentation inspection

This task is concerned with the analyse of the information requirements at both the point of sale and upon request by national market surveillance authorities. It necessitates thorough identification of products as a precursor to be able to undertake market surveillance. In addition to the collection of this information on actual products, a secondary goal of producing a check-list type document is planned. This includes a degree of elaboration in terms of the current Ecodesign Directive regulations that for now, include too many ambiguities.

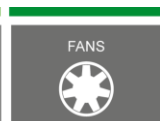
The Task 3.1 report for fans was finalised in April 2017 and contains the following sections:

- Introduction and objectives
- A guide on product categorization to assist MSAs to identify fan types & casings as defined in the regulation 327/2011
- A checklist for documentation control – elaborated compared to the existing regulation

The product categorization and checklist is intended to be included in the final evaluation of methodologies (WP4), but also serves as the basis of the Task 3.2 to evaluate the product's energy performance.

The initial version of the Task 3.1 report for power transformers has been drafted and contains the following chapters:

- Introduction and objectives
- Checklist for documentation control – elaborated compared to existing regulation



To further elaborate the reports, additional inputs will be drawn from INTAS partners (specifically MSAs) and other stakeholders involved in meetings organised at the national level.

3.3.2.2 Task 3.2 – Evaluation of product's energy performance

This sub-task shall commence with the first actual testing exercises within the INTAS project.

For fans, based on a potential list of approaches identified during WP2 and presented at the project meeting held in Lisbon at the end of March 2017 as well as the feedback from stakeholder at this meeting, the testing and evaluation methods to be assessed within the INTAS project were narrowed down to:

- Those based on current industry practices for which INTAS will investigate the strengths and limitations of:
 - scale-model testing, i.e. testing a smaller kW fan of the same design as part of series of larger fans and extrapolate findings for the larger models of the same design
 - part load testing, i.e. testing a fan in a part load operational point and calculating/extrapolating performance at the best efficiency point

and seeing if the performance of such approaches in independent laboratories might be suitable for Ecodesign verification purposes.

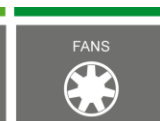
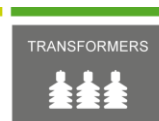
- Participation in witness tests or factory acceptance tests to define which procedures could be specified for MSAs to assist at manufacturers' premises tests.
- Evaluation of a consolidated approach for auditing manufacturers conformity assessment procedures (Art. 8 of DIR. 2009/125/EC) to define recommendations on required documentation of conformity assessment, in alignment with MSAs and industry.

The fan categories to be evaluated and the predominantly industrial fan types are axial fans and centrifugal backward curved fan with housing. The activities have mostly been completed and their evaluation is under way as of January 2018.

Regarding power transformers tests a common approach was discussed at the project meeting in Lisbon. According to the data collected in WP2, the following scenarios were to be analysed in particular.

- On-site testing
- Witness testing at manufacturer premises (The inspector could be staff of an independent lab or from a MSA)

The deliverable addressing the evaluation of products within each testing type and unit category is due in January 2018.



3.3.2.3 Task 3.3 – Multiple regulation testing

The work schedule and the activities requested to participants, preliminary discussed and agreed during the Lisbon meeting, were finalized and presented during an ad hoc conference call.

Each participant provided inputs on both European legislation (Directives and Regulations) and National legislation applicable to INTAS group of products primarily focusing on large rather than very large products.

To increase the chance of success, a creative approach has been adopted: not just looking at legislation directly or indirectly applicable on transformers and fans but also at legislation addressing activities or products using, or involving, or linked to transformers and fans.

At the moment the research and the preliminary analysis of the inputs received has been carried out for both the power transformer and large fan product groups. It shows very few possibilities to exploit the existence of regulations other than Ecodesign as a basis for coordinating market surveillance and verification testing efforts. Other potential synergic testing situations are under investigation even if they are not mandatory but only de facto.

The activity schedule is mostly on track. The final deliverable (reports on the two products) is expected by the end of January 2018 (D3.4 and D3.5).

3.3.2.4 Task 3.4 – Information on testing and regulation for industry

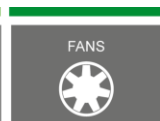
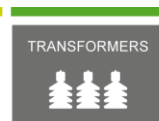
This task commenced with preparatory activities in May 2017 and a variety of desk research, conference calls and communication/dialogues have since been undertaken.

The activity schedule is on track. The final deliverables D3.6 and D3.7, reports on the best practice and experiences of both MSAs and industry regarding testing of fans and transformers respectively, is expected by the end of February 2018.

3.3.2.5 Task 3.5 – Screening methodologies for targeting products for compliance assessment

This task commenced with preparatory activities in May 2017 and a variety of desk research, conference calls and communication/dialogues were undertaken to the end of the reporting period.

The activity schedule is on track. The final deliverable D3.8, a report on screening techniques available for product/supplier targeting, is expected by the end of February 2018.



3.3.2.6 Task 3.6 – Relations with industry/manufacturers – Specifically to accommodate for testing and collaborative working

The main idea of this task is to establish a network of transformer and fan manufacturers which can be involved in the different tasks in WP3. The process undertaken is as follows:

- Start in WP2 to establish contacts (e.g. from proposal phase + new contact generation)
- Enlarge contact data base with input from other partners
- Use survey recruitment to update and add more contacts.

The INTAS consortium is in direct contact with the EVIA and T&D Europe, the European manufacturer associations for fans and transformer respectively. The associations and their members are kept informed of the project developments and joint meetings allow for direct exchange and feedback on the investigated methodologies.

3.4 Progress with Work Package 4: Evaluation of compliance assessment methodology

This work package aims at the practical evaluation of the results of the theoretical assessment methodology planned and tested in WPs 2 and 3. Partners will derive a number of lessons learnt and experiences from the project and translate these into core recommendations for both policy makers and national authorities.

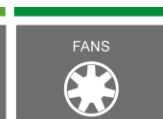
Tasks under this WP are expected to start in February 2018.

3.5 Progress with Work Package 5: MSA collaboration and strategic capacity building

Work Package 5 comprises three main activities:

- Task 5.1 – Awareness raising among MSAs and facilitation of information exchange
- Task 5.2 – Strategic capacity building and awareness raising at the pan-European level
- Task 5.3: Collation of outputs and final reports

The awareness raising and information exchange activities in Task 5.1 are summarised in the figure below.





In this third reporting period the project:

- Followed-up on the creation of the ADCO's INTAS working group (see the 2nd 6-monthly report) to maintain a dialogue with MSAs on INTAS project activities
- Presented INTAS activities and participated in an active dialogue on Market Surveillance at the EVIA-hosted event on *How to improve market surveillance of ventilation products in the EU?*, held in Brussels on 10th May 2017.

The Task 5.2 activities on strategic capacity building and awareness raising at the pan-European level will commence in February 2018 and the Task 5.3 activities which concern the collation of all the INTAS project outputs and compilation of the final report will start in June 2018.

3.6 Progress with Work Package 6: Dissemination and Communication

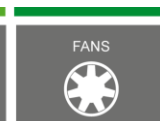
Work Package 6 comprises a number of dissemination and communication activities. The full website, FAQs and visual identity of the project (i.e. logo, project leaflet, templates, etc.) have been completed to a high standard and are currently in use throughout the many areas of work within the project.

The collection of the interested parties (e.g. stakeholders at national level and stakeholders with a pan-European area of influence) materialised in the form of a stakeholder database, and even though this was initially completed in June 2016, it is regularly updated to mirror the new interests in the project.

Furthermore, a national (and European) focal-point approach has been adopted with the aim to ensure that dissemination of the project outcomes reaches the largest number of stakeholders. In this context, project partners have successfully organised the 1st National Focal Point meeting in their countries, where national stakeholders have been invited to share their experiences with testing transformers and fans. The national partners have recorded the input provided at national level, anonymised it, translated it into English and it has been collated in a central database which is used to feed the overall strategy developed in WP3. Additionally, each comment received through these dialogues is discussed with expert partners and considered by the project consortium. This process will be repeated for the second round of NFP meetings, scheduled to take place in March/April 2018, when national stakeholders will be given the opportunity to review and comment on the methodologies proposed by the INTAS project.

Furthermore, Task 6.5 foresees INTAS' participation at international events. Partners are currently working on the submission of several abstracts to present the outcomes of the project to wider audiences. It can already be announced that project activities related to large fans will be presented at the FAN2018 conference which will take place in Darmstadt (Germany) on 18-20 April 2018.

Task 6.4 foresees the dissemination of final outcomes and methodologies; however, this work will take place towards the end of the project.



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

www.INTAS-testing.eu

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