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Compliance check of large fans – the INTAS methodology

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The INTAS-project

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- INTAS aims to foster a **common European approach to the delivery and verification of Ecodesign compliance for large industrial products** (power transformers and **industrial fans**)
- Regulation (EU) No. 327/2011 implements the Ecodesign Directive for fans with an **electric input power between 125 W and 500 kW** – minimum requirements for overall efficiency
- Co-funded by the Horizon 2020 programme
- **11 national Market Surveillance Authorities (MSAs) or cooperating organisations, 5 technical partners**
- **Advisory Board** (Industry, legislators, more MSAs)
- **The project will conclude in February 2019**



INTAS

INDUSTRIAL AND TERTIARY
PRODUCT TESTING AND
APPLICATION OF STANDARDS



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The INTAS-project

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Year 1

Landscape of testing avenues

INTAS monitors and analyses current testing practices in Europe and the rest of the world, and reviews test standards, facilities, procedures and methods already in place for large products with a specific focus on power transformers and fans.

Year 2

Defining an effective compliance framework for MSAs and manufacturers

INTAS is engaged in defining the process and methodology by which MSAs can identify, select, and evaluate large industrial power transformers and fans for the energy efficiency related requirements.

Year 3

Evaluation of compliance assessment methodology

INTAS analyses the results of the previously conducted assessments, processes and analysis, and ensures that the proposed methodology is valid and reliable by undertaking pilot testing schemes.

All years

MSA collaboration and strategic capacity building

Throughout the project, the INTAS partners will foster market surveillance collaboration between MSAs and raise awareness and information exchange of the product energy performance and market surveillance among key stakeholders, decision makers and end users.



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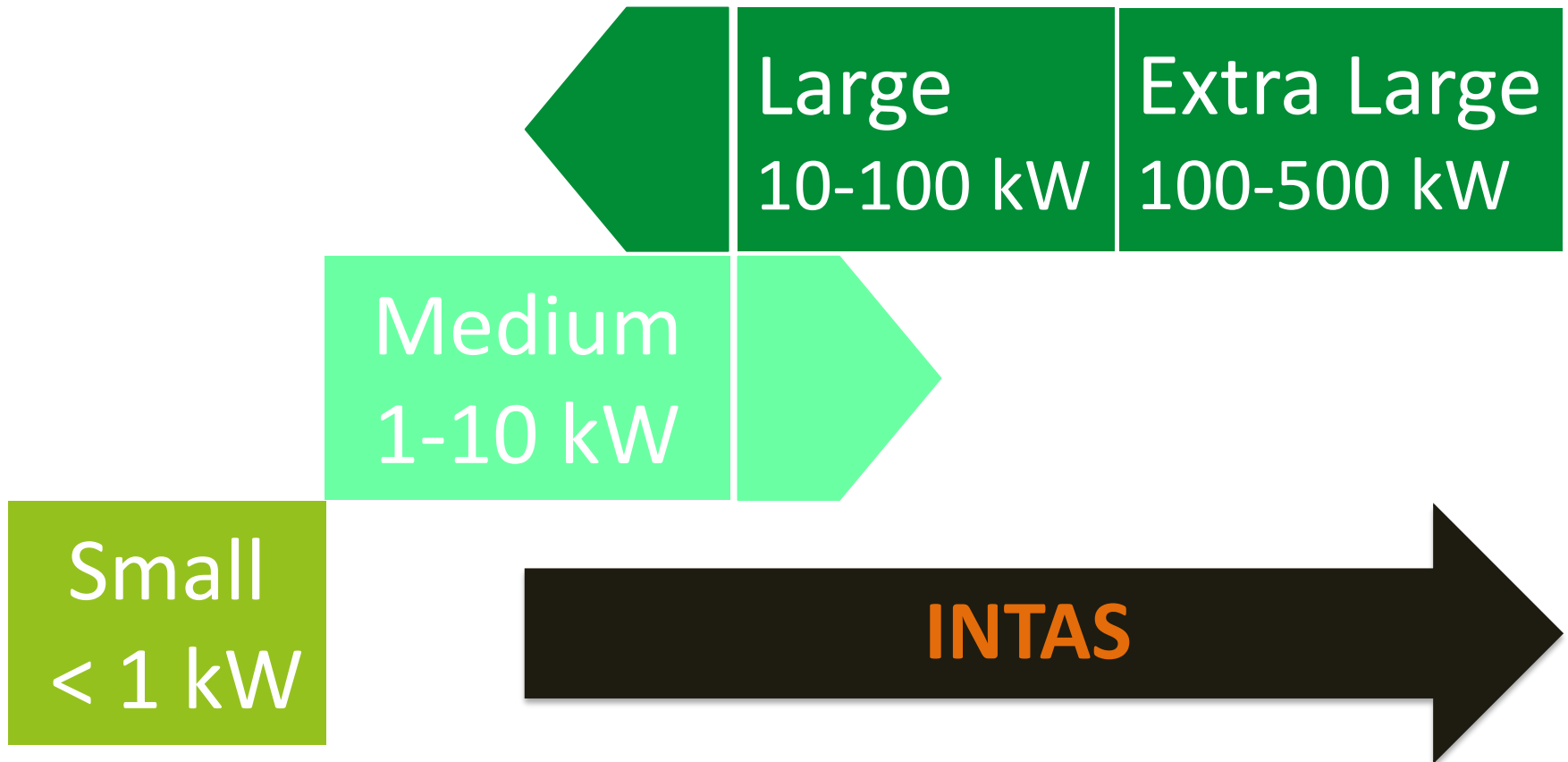


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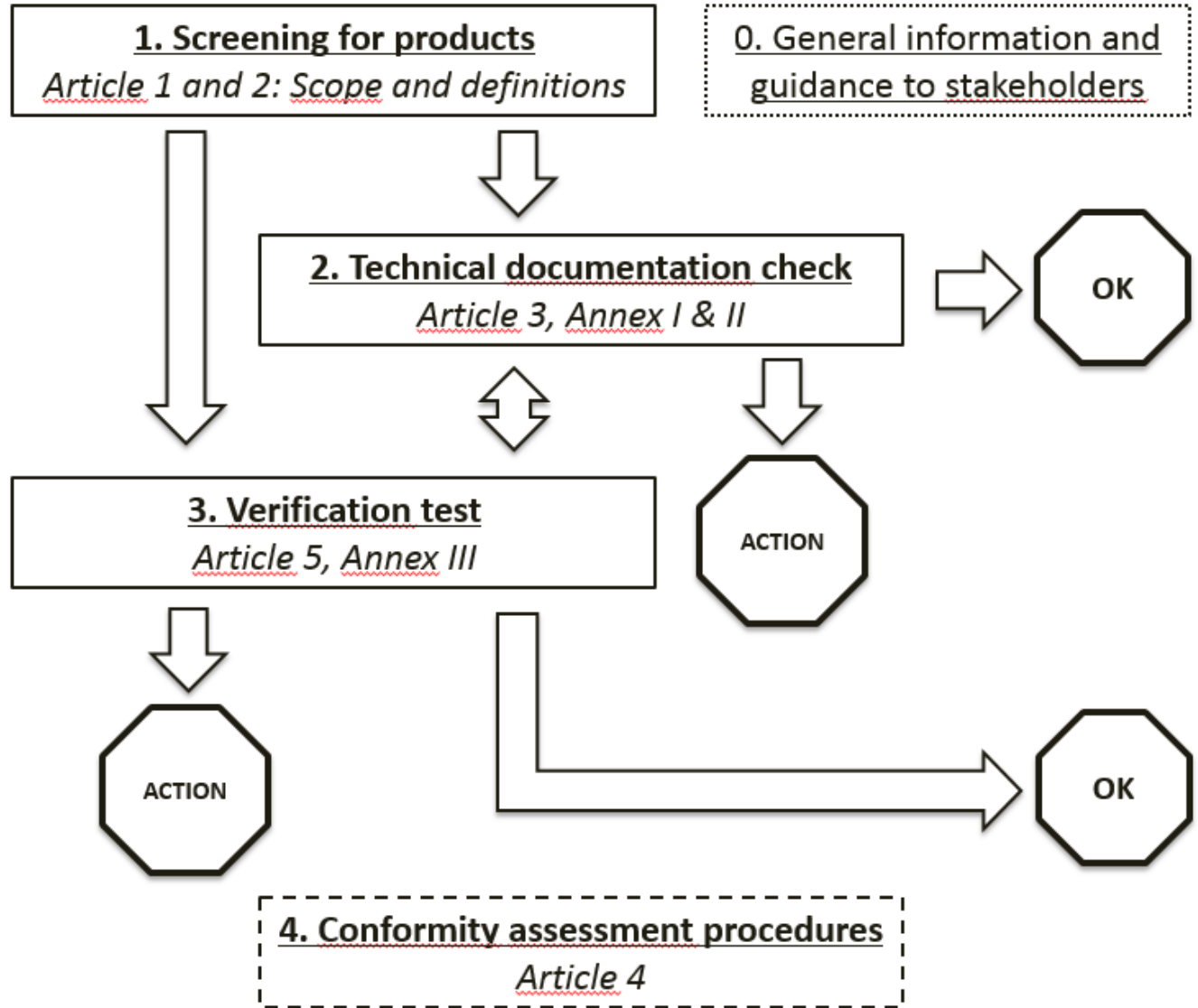


What fans are in the INTAS-project?

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MSA tasks



Screening for products

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Challenges:

- MSAs do not know when the large industrial products are placed on the market and cannot identify this
- Products are engineered to order via B2B procurement processes and are typically not advertised in catalogues

Tool options:

- Notification prior or post a product is placed on the market (by manufacturer/supplier, procurer, other authorities)
- Conducting market intelligence and risk profiling
- Site visits of (local) producers
- Plausibility check of design characteristics



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Technical documentation checks

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Challenges:

Technical capacity to evaluate the technical documentation:

- Product information
- Name plate
- Test reports, test rigs, standards, accreditations, calculations etc.

Tool options:

- prEN 17166 (the harmonized standard candidate)
- Checklists
- Spreadsheet for calculation of target efficiency of fans
- Informative note on manufacturer's use of scale-model test, reduced speed tests and calculations to determine efficiency



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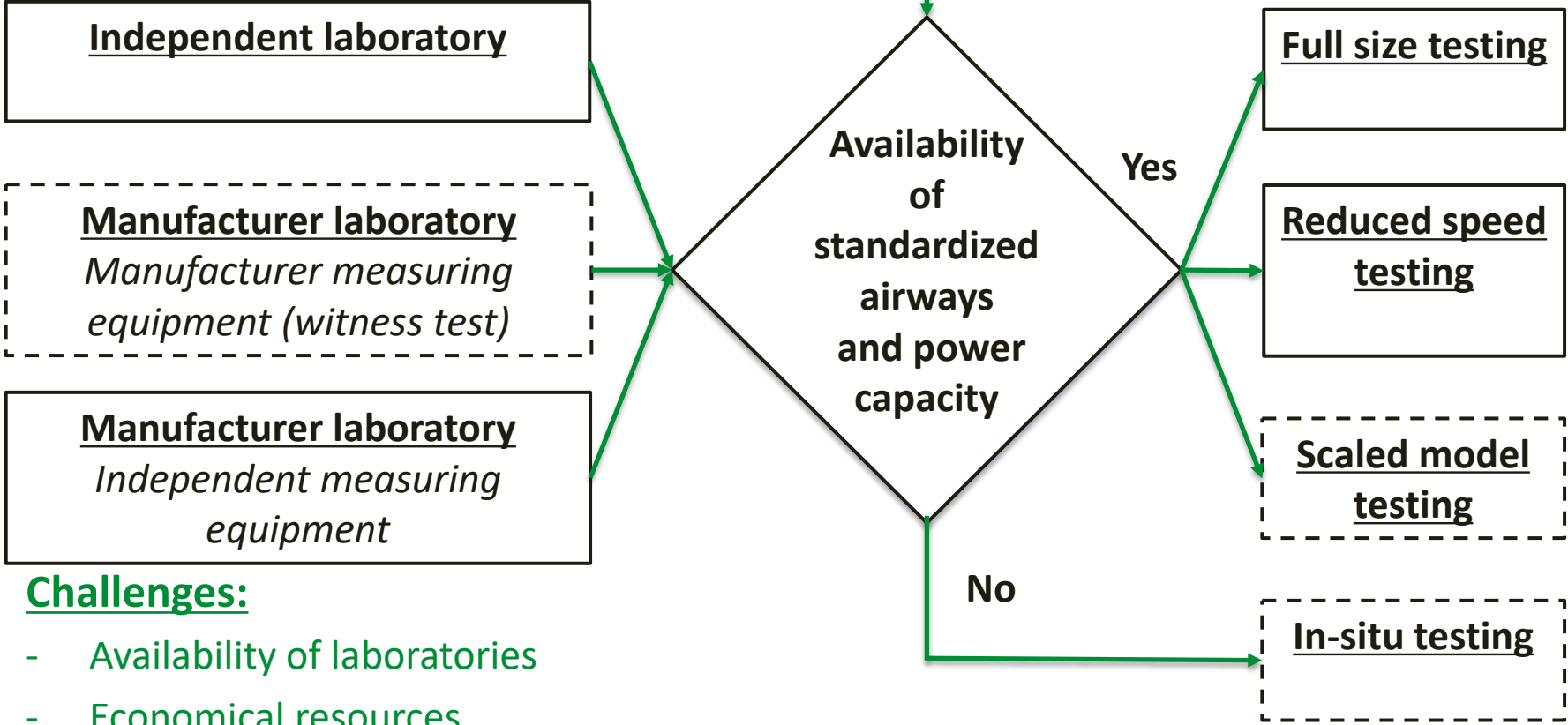
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Verification testing

Fan size, measuring category, BEP
(best efficiency point, from technical documentation)

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Challenges:

- Availability of laboratories
- Economical resources



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Verification testing

A fan in the lower range of a fan design series e.g. 15 kW

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Independent laboratory

Manufacturer laboratory
Manufacturer measuring equipment (witness test)

Manufacturer laboratory
Independent measuring equipment

Availability of standardized airways and power capacity

Yes

Full size testing

Reduced speed testing

Scaled model testing

No

In-situ testing



The INTAS Methodology

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1. Step-by-step guide
 1. General information to stakeholders
 2. Product screening and sample selection
 3. Documentation inspection
 4. Testing
2. Evaluation of costs, benefits and new methods of compliance verification
3. Policy recommendations for future regulation on industrial products



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More information

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about the INTAS project and its results:

www.INTAS-testing.eu

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