

Overview of competent tester schemes for building airtightness testers

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Context

- Today, several hundreds of thousands of building airtightness tests every year in Europe
- This number continues to grow because of:
 - Regulatory requirements gradually enforced
 - Energy penalties for poor building airtightness in EPCs



Context

- Lessons learnt from a survey conducted within TAAC - *TightVent Airtightness Associations Committee* (11 countries, *not exhaustive*)
 - Most countries account for building airtightness in their EP regulations
 - Several countries have **minimum requirements** either for specific programmes or regulations
 - **Mandatory testing** applies in several countries (e.g. UK, DK, FR, IE)

Airtightness testing and compliance

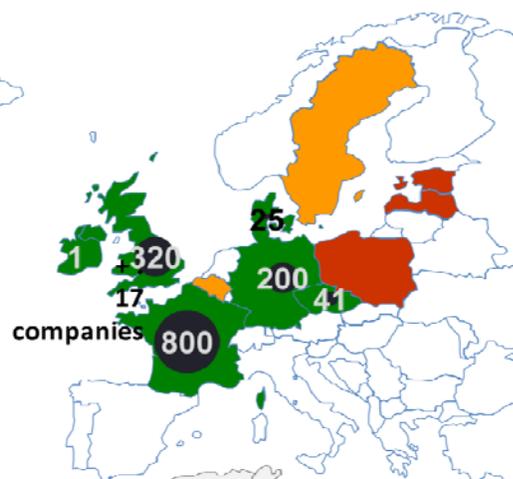
- Significant risk of mistake or fraud
- Compliance may be affected due to:
 - Test not performed although required
 - Test wrongly performed and/or reported
 - Test results are such that the EPC does not meet the regulatory requirements

Competent tester schemes

- These schemes have been developed for one or several of the following reasons:
 - Ensure that the testers are competent to perform a test
 - Give a quality seal to airtightness testing
 - Bring trust to the market
 - Avoid the pitfall experienced with EPC experts
 - Follow-up the testers' service
 - ...

8 EUROPEAN COUNTRIES

Competent tester schemes



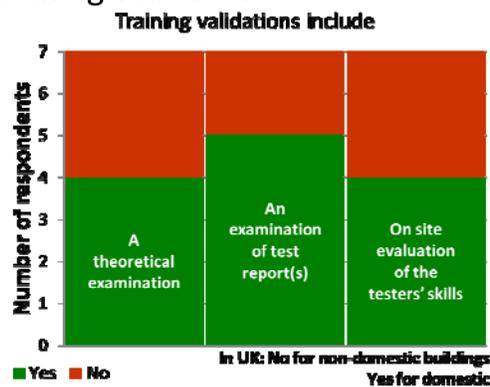
Number of qualified testers in 6 European countries in January 2014 (the Swedish scheme started in 2014, Belgian scheme in 2015)

Competent tester schemes

- Key components
 - Tester knowledge (regulatory context, fundamentals of ventilation, infiltration and airtightness measurement)
 - Pre-requisites on tools (equipment, analysis and reporting tools)
 - Minimum standard for the know-how of the tester
 - To use the equipment
 - To use analysis tools
 - To use reporting tools
- These key components are supported by technical documents, training programs and evaluation procedures

Competent tester schemes

- The details of each component varies significantly between countries
 - e.g. training validation



Specific reporting in a database

- Required in some schemes, e.g.:
 - DK, DE, CZ, FR
- It becomes possible to:
 - Analyze large samples and extract meaningful trends (see presentation of CEREMA tomorrow)
 - Track suspicious results... but to our knowledge, this is not operational yet in any of the schemes
 - Check consistency between the test results and the data used in the EPC

Is it worth it ?

- Over 200 persons at the annual meeting organized by QUALIBAT



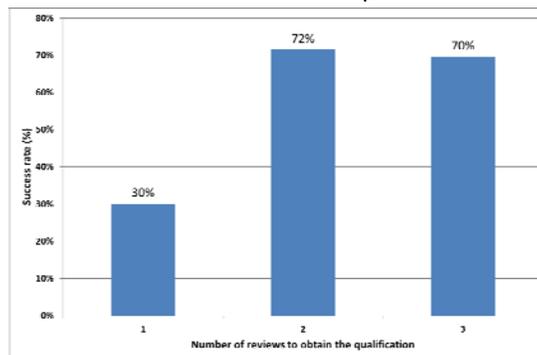
Is it worth it ?

Ordre du jour de la 3^{ème} rencontre nationale des opérateurs de mesures autorisés Jeudi 5 mars 2015 à BLUEBAT (LYON) de 14h00 à 17h30

14 h00 Introduction BEPOS, Programme d'Action pour la qualité de la Construction et la Transition Énergétique PACTE	Alain MAUGARD (Président de QUALIBAT)
Actualité réglementaire au sujet de perméabilité à l'air de l'enveloppe des bâtiments et des réseaux de ventilation Présentation des arrêtés modificatifs et des révisions de textes normatifs parus fin 2014 - définition de la SRT en remplacement de la SION RT - passage de la démarche qualité annexe VII en certification - respect du FD E51-767 et qualification B721 obligatoires pour la mesure des réseaux de ventilation - révision du GA P50-784 : les modalités de prise d'effet	Lucille LABAT (CEREMA) Gérard PÉJAIRE (Président de SYN'EOLIE)
Perspectives 2015 - révision et prise d'effet de l'ISO 9972 Évaluation de la performance énergétique des bâtiments, enjeux de la normalisation européenne et internationale	Florent TROCHU (AFNOR NORMALISATION) Lucille LABAT (CEREMA)
EFFINERGIE - actions de l'association - le guide d'usage Effinergie - présentation de l'observatoire BBC, des labels Effinergie+ et BEPOS-Effinergie 2013 (nombre de logements certifiés, nombre d'opérations certifiées).	Sébastien DÉLMAS (EFFINERGIE)
L'étalonnage des matériels de mesures	Lucille LABAT (CEREMA) Daniel JACQUEMOT (QUALIBAT)
Synthèse QUALIBAT - les dossiers de révision (les interrogations directes...), les mentions - le questionnaire de suivi (les attestations de Maître d'Ouvrage...) - le corpus Qualibat... et synthèse des travaux de la commission d'examen Mesure de l'enveloppe (thermométrie, thermographie, infiltrométrie) Audit énergétique	Daniel JACQUEMOT (QUALIBAT) Christophe ACHTE (Président de la commission Mesureur)

Is it worth it ?

- Feedback from the French competent scheme holder:
 - Less than 1/3 of applicants get the qualification at the 1st review
 - Over 10% fail after 3 reviews
 - Over 50% fail the follow-up checks (1st review)
- => Confirms the relevance to check competence



Is it worth it ?

- Insurance companies require qualification to insure testers

Summary

- Competent tester schemes have been developed in several countries
- Today, they mostly help:
 - Bring confidence that testers are able to perform tests correctly
 - Avoid wrong reporting due to lack of competence
- With adequate IT developments, they could be used:
 - To track suspicious behaviour and results
 - To check consistency between testers results and the values reported in the EPC

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Acknowledgements



The TightVent Europe “Building and Ductwork Airtightness Platform” was launched on January 1, 2011. It aims at facilitating exchanges and progress on building and ductwork airtightness issues.

Diamond partners



Gold partners



Associate partners



ECF has given substantial support to TightVent in the start-up phase 



The Air Infiltration and Ventilation Centre was inaugurated through the International Energy Agency and is funded by the following countries:

Belgium, Czech Republic, Denmark, France, Germany, Greece, Italy, Japan, Republic of Korea, Netherlands, New Zealand, Norway, Spain, Sweden, and United States of America.



TightVent Airtightness Associations Committee

- Set up and hosted within TightVent since 2012
 - At present, the participants are from
 - Belgium, Czech Republic, Denmark, France, Germany, Ireland, Poland, Sweden, and the UK
 - Contacts with Estonia, Norway, Netherlands, Latvia
- The scope includes various aspects:
 - airtightness requirements in the countries involved
 - competent tester schemes in the countries involved
 - applicable standards and guidelines for testing
 - collection of relevant guidance and training documents

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