

Appliance testing for Energy Label Evaluation

Experience with testing 80 cooling appliances
from the ATLETE project and continuation in
ATLETE II

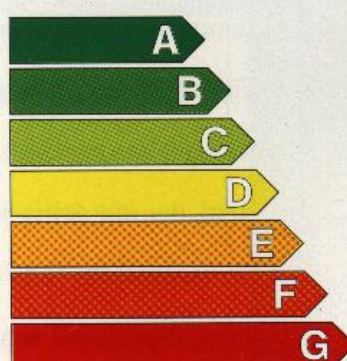


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- Main purpose of the project
 - to increase European-wide implementation and control of Energy Labelling and eco-design implementing measures for appliances
 - to provide the first pan-European testing results on a large number of refrigeration appliances
- Duration 26 months
 - June 2009 – July 2011
- Budget
 - Total Budget: 1 mil.€
- 5 Partners
 - ISIS, ADEME, CECED, ENEA, SEVEN

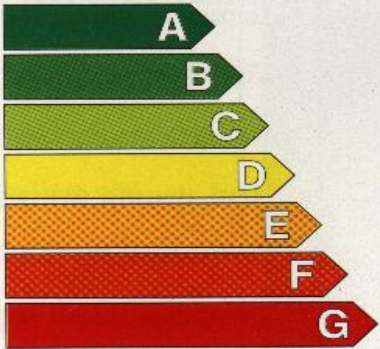

- Introduced in 1994


Energie

| | |
|---|--|
| Hersteller: Modell | AEG ÖKO-ARCTIS SUPER 2273 GS |
| Niedriger Energieverbrauch | A |
|  <p>A B C D E F G</p> | |
| Hoher Energieverbrauch | |
| Energieverbrauch kWh/Jahr <small>(Auf der Grundlage von Ergebnissen der Normprüfung über 24 h)</small> Der tatsächliche Verbrauch hängt von der Nutzung und vom Standort des Gerätes ab | 256 |
| Nutzhalt Kühlteil I Nutzhalt Gefrierteil I | 184  |
| Geräusch dB(A) re 1 pW | |
| Ein Datenblatt mit weiteren Geräteangaben ist in den Prospekten enthalten |  |
| <small>Norm EN 153, Ausgabe Mai 1990 Kühleräte-Richtlinie 92/2/EG</small> | |

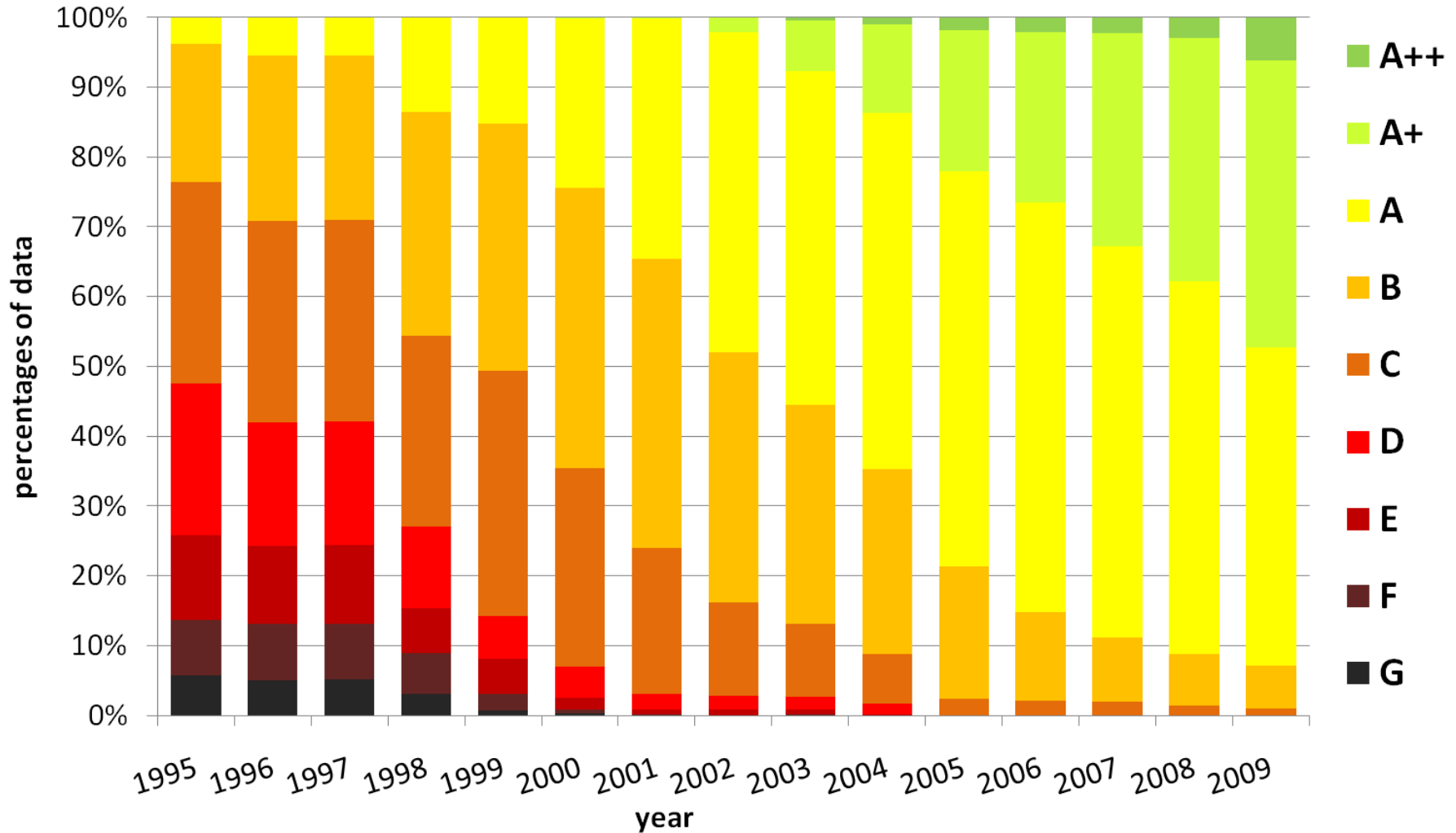
- Introduced in 1994
- Amended in 2005 by subdividing class A and introducing A+ and A++

Energie

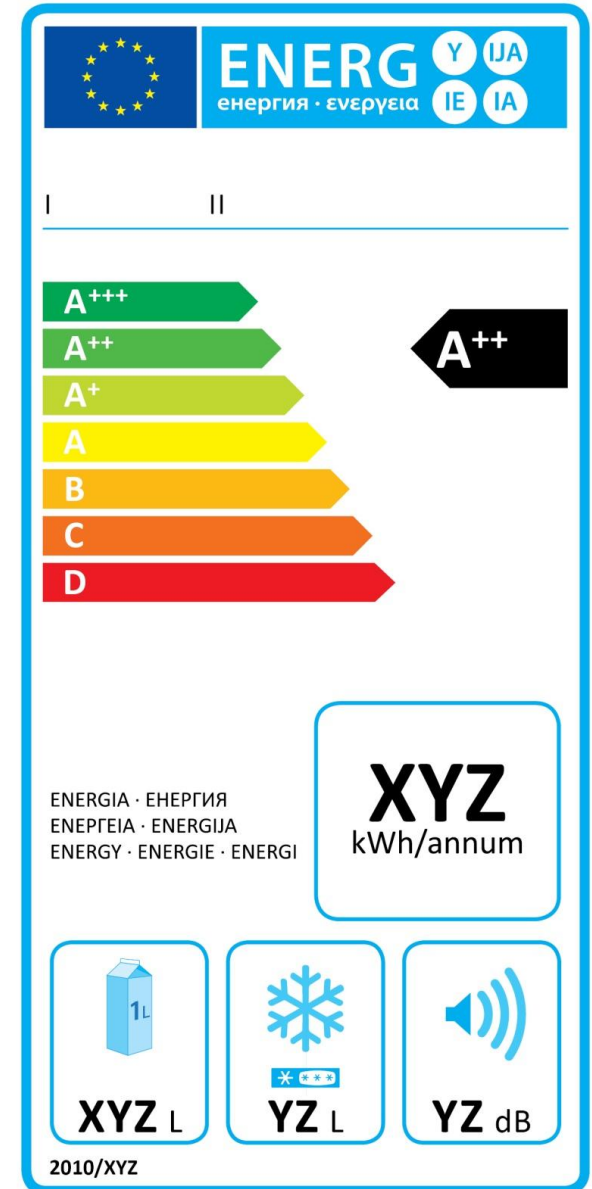
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| Hersteller: Modell | AEG ÖKO-ARCTIS SUPER 2273 GS |
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cold appliances: energy efficiency classes from 1995 to 2009

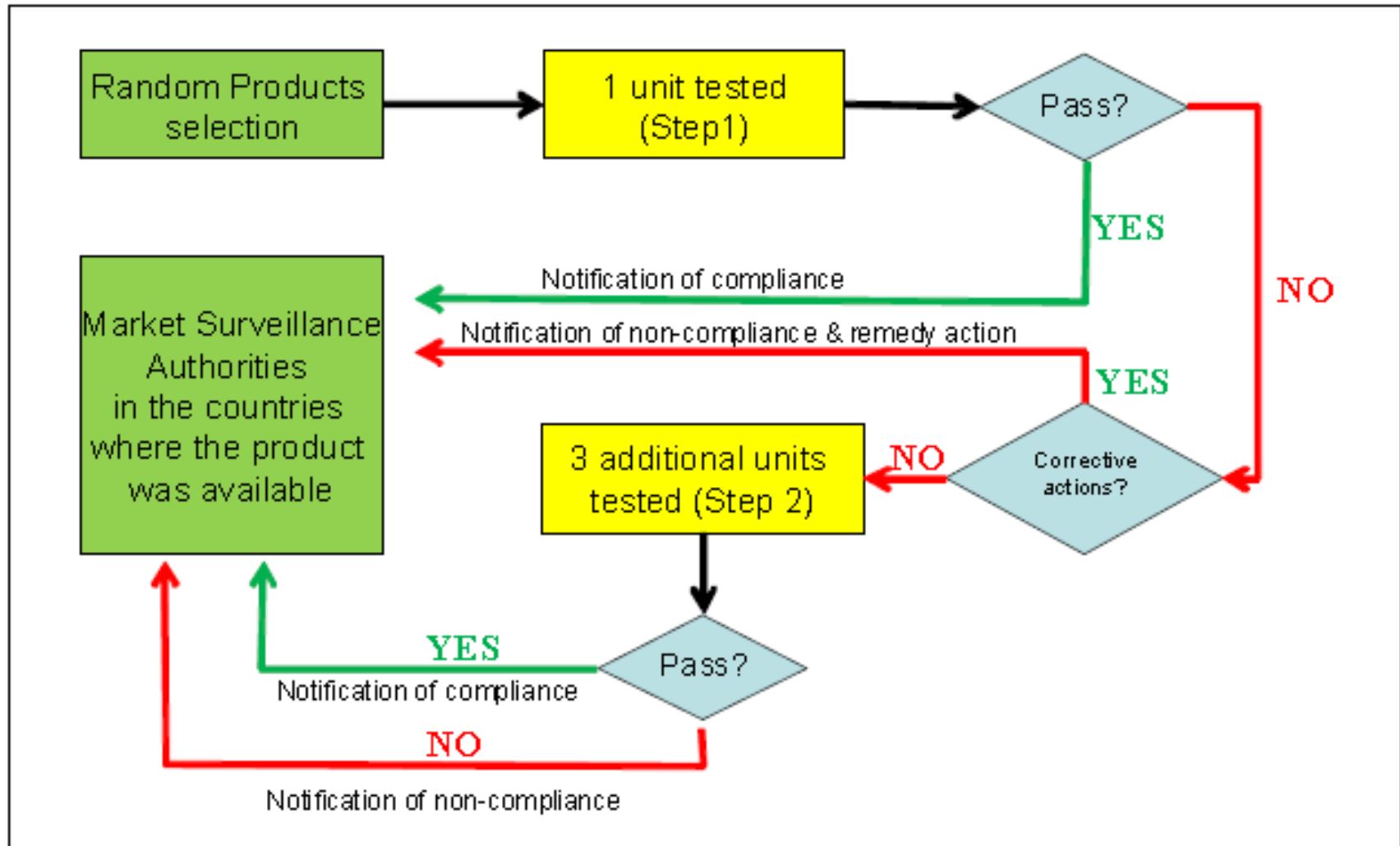


- Introduced in 1994
- Amended in 2005 by subdividing class A and introducing A+ and A++
- Re-newed in 2011
 - new classes up to A+++
 - pictograms



Validate the verification procedure:

- task of national Market Surveillance Authorities

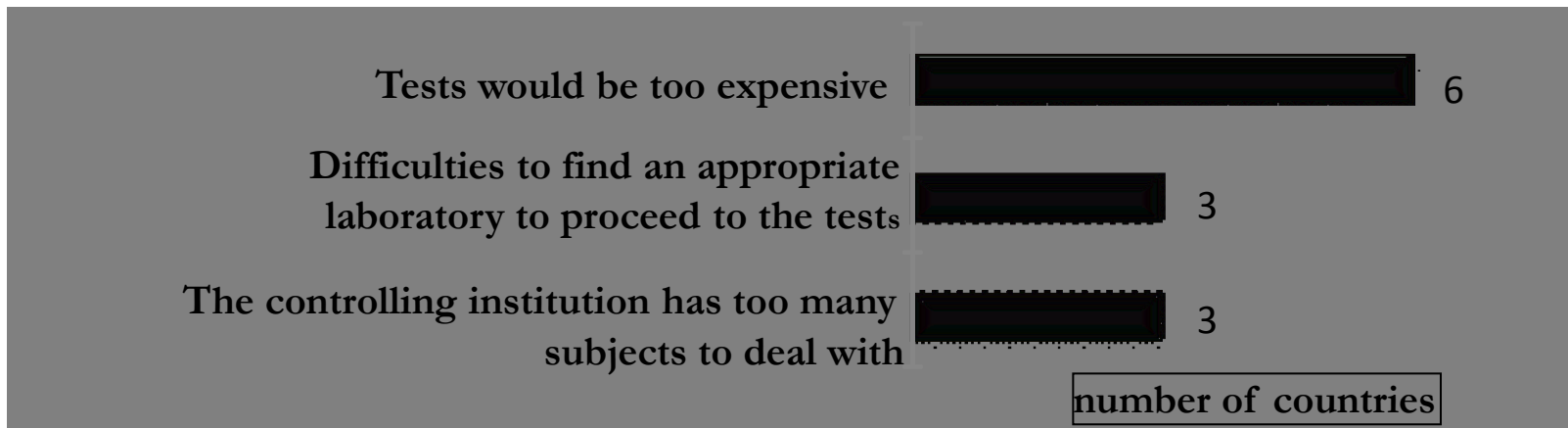


Legislation

- only 12 EU countries mention verification tests in the legislation
- In 3 countries the legislation does not mention any sanctions

Testing

- only 13 countries perform appliance tests in practice
 - from 1 to 200 tests per year; highest frequency in Hungary, The Netherlands, United Kingdom
- 7 countries test after complaints (from competitors, consumers)
- Main reasons for not testing:



EU market as reference

- All EU top-sellers (>0,1%) and National top-sellers (>1%) in the following countries: BE, DK, FR, DE, IT, NL, PL, ES, UK

Four product categories

- Bottom-mounted refrigerator-freezers
- Top-mounted refrigerator-freezers
- Freezers, upright and chest
- all other refrigerating appliances



Energy consumption

energy consumed by a refrigerating appliance over the period of 24 hours

Storage temperature (& climate class)

the ability of an appliance to maintain simultaneously the required storage temperatures in the different compartments at a certain ambient temperature

Storage volume

the space to store food in the appliance

Freezing capacity

the amount of food, expressed in kilograms, that can be frozen to a core temperature of -18 °C in 24 h

Temperature rise time

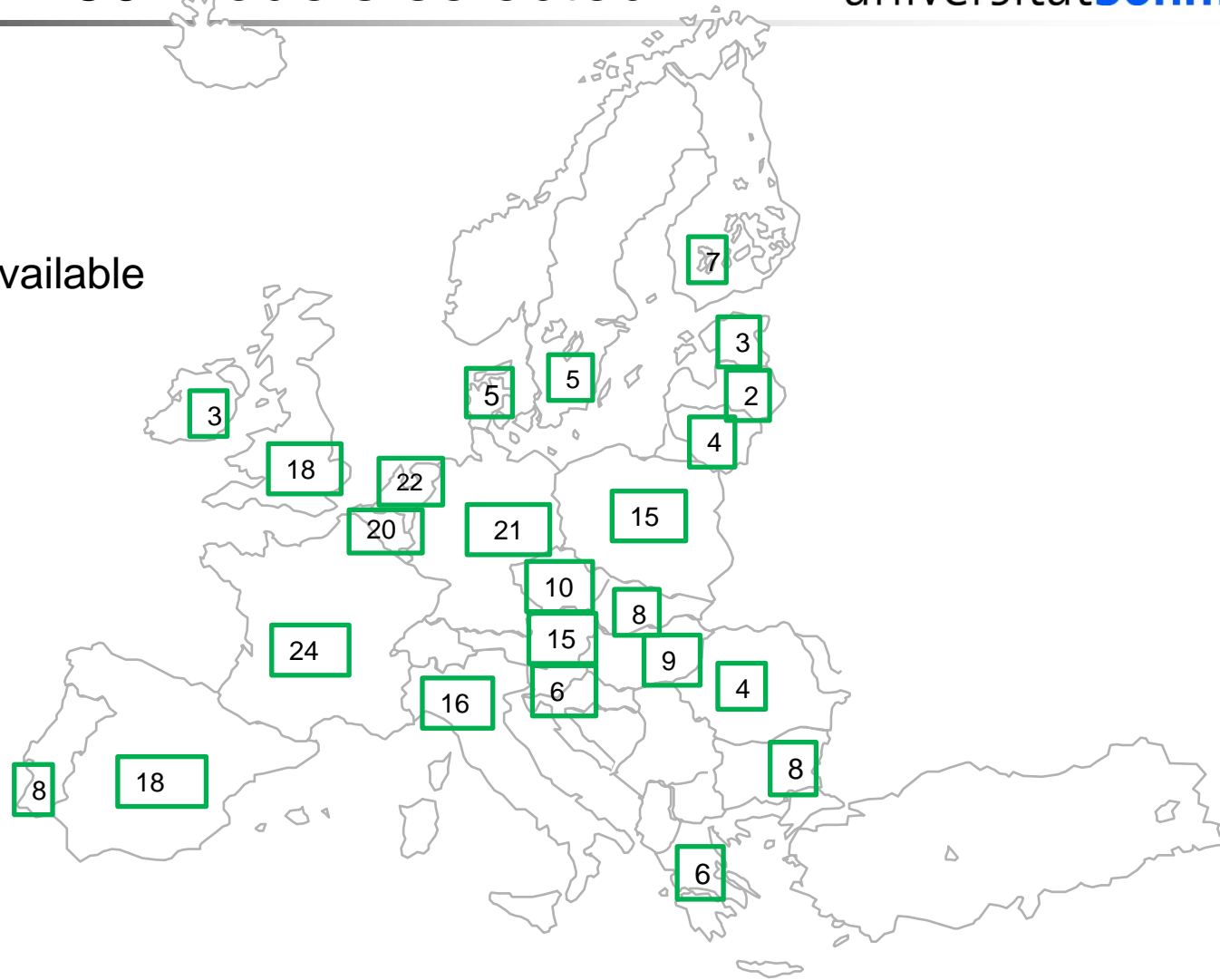
the time period needed to raise the temperature of food in the frozen food compartment from -18 °C to -9 °C after the operation of the refrigerated system has been interrupted

all following harmonised standards: EN 153:2006 & EN ISO 15502:2005

Testing (3)

80 models selected

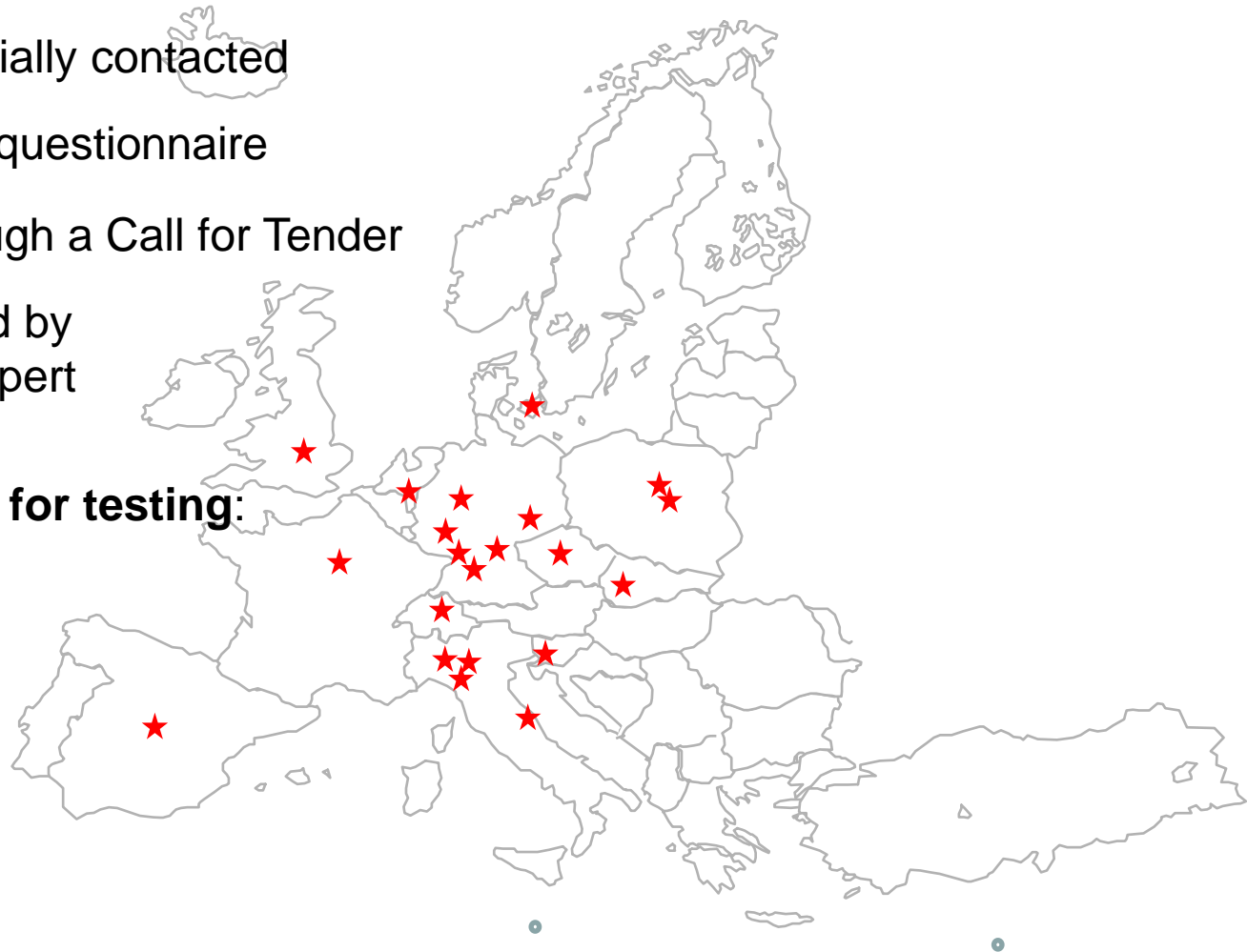
Number of models available
in each country:



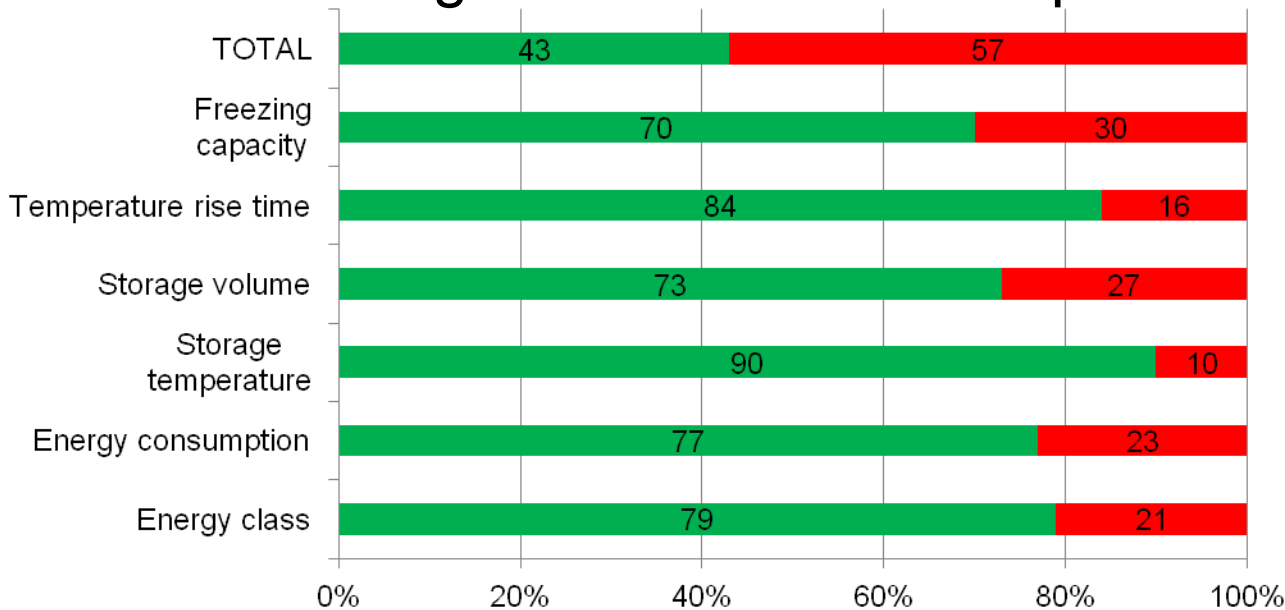
- 23 laboratories were initially contacted
- 15 replied to an ad-hoc questionnaire
- 10 were contacted through a Call for Tender
- 5 best labs were visited by ATLETE technical expert

4 were finally selected for testing:

- iPi - DE**
- LCOE - ES**
- RegenT - NL**
- VDE - DE**



Overall refrigerator & freezer compliance:



79 % complied with the energy efficiency class declaration.
 But when all five parameters are taken into consideration **57 % do not comply** with at least one of the tested parameters.

Distribution of compliance with declared energy efficiency class

| Declared energy efficiency class | Compliant | Non-compliant | 3 n.a. | Total |
|----------------------------------|-----------|---------------|-----------|-----------|
| A++ | 2 | 0 | 1 | 3 |
| A+ | 14 | 8 | 2 | 24 |
| A | 12 | 31 | 8 | 51 |
| B | 1 | 1 | 0 | 2 |
| C | 1 | 0 | 1 | 2 |
| D and lower | 0 | 0 | 0 | 0 |
| Total | 30 | 40 | 12 | 82 |

All compliant and non-compliant models are fully disclosed to:

- relevant manufacturers and project partners
 - Voluntary protocol
- EU national Market Surveillance Authorities
- public opinion via the Final Conference and media (project website, press release, articles, etc.)

Remedy actions where:

- Remedy actions after Step 1: 18 models
 - change of label, instructions and freezer capacity
 - improving foaming and compressor quality
- Discontinuing sales after Step 1: 4 models
- Discontinuing sales after Step 2: 3 models

Overall considerations and recommendations:

- Market surveillance is vital to improve situation
- Market attention brings to better results.
 - Compliance on label is better than compliance on fiche.
- Speed of procedures must be compatible with market speed.
 - Market fragmentation/seasonality is even higher for other products
- Industry commitment to move further towards a more transparent market is reinforced

Scope: **ATLETE II** to allow the EU Member State Market Surveillance Authorities:

- to face the legislative and market challenges of the new Energy Labelling/ Ecodesign of **washing machines**
- to carry out their crucial tasks in an effective and cost efficient way

Project duration: 30 months

- Start date: 01 May 2012, Finish date: 31 October 2014

Budget:

- Total Budget: **1.591.093€**
- Total EC financial contribution: **1.193.316 €**

Thank you for the attention

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Results will be made public via

<http://www.atele.eu>