4. Toolkit: Monitoring, verification and Enforcement (MV&E)

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Paris, 17 May 2018

IEA

Scenario

You've been given $300,000 to improve compliance rates in your S&L programme

How do you go about deciding on the most effective ways to spend this?

How would you spend this?

Why is compliance important?

Ensure that **consumer** receive the performance they are paying for

Ensure that **suppliers** which invest more in energy efficiency do not lose market share to unscrupulous competitors

Compliance

Ensure **governments** get the outcomes they expect (programme objectives)

Safeguards the integrity of the programme – hard to win back confidence once lost

Group exercise

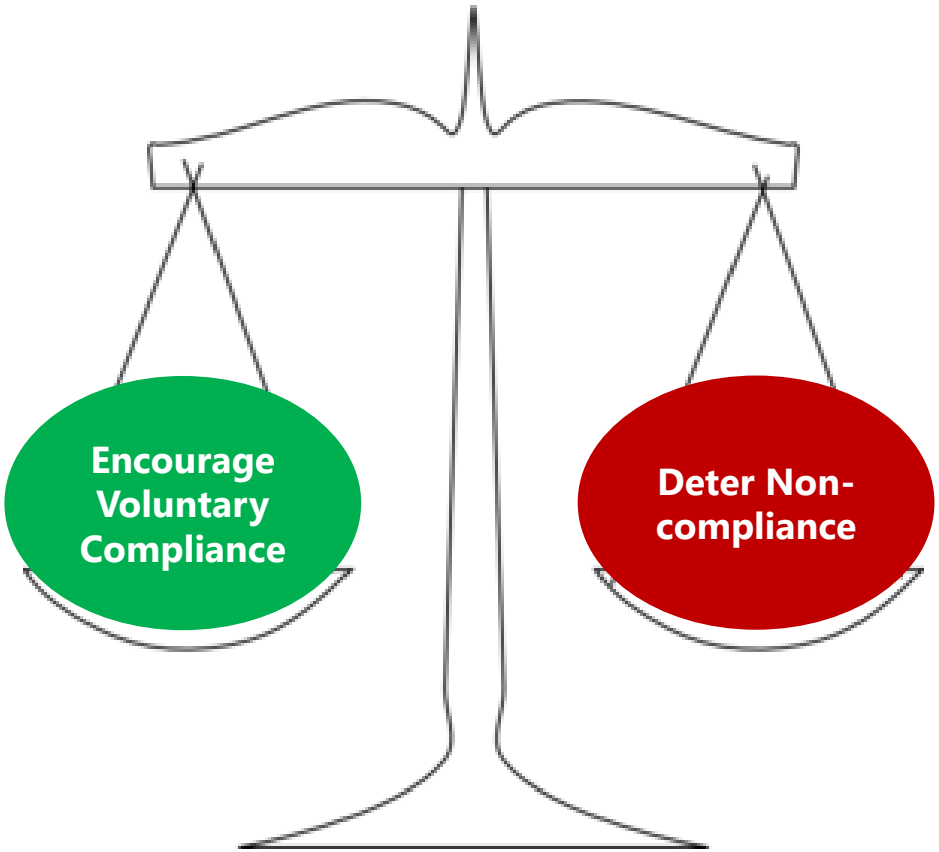
- What are some of the ways to increase compliance rates?

What are the Options?

1. Test more products
2. Build a better laboratory
3. Better educate product suppliers
4. Publish list of offenders & actions taken
5. Inspect more labels in stores
6. Improved powers to act (legislation)
7. Improve the range of sanctions available
8. Publish rules / enforcement policy document
9. Make it easier for suppliers to demonstrate/report compliance
10. Improve targeting of testing
11. Develop in-house manual for staff
12. Publish testing targets in advance
13. Ensure that enforcement action is taken swiftly
14. Add requirements for retailers

Compliance Best Practice

Effective Compliance Frameworks aim to…….



Steps to encourage voluntary compliance

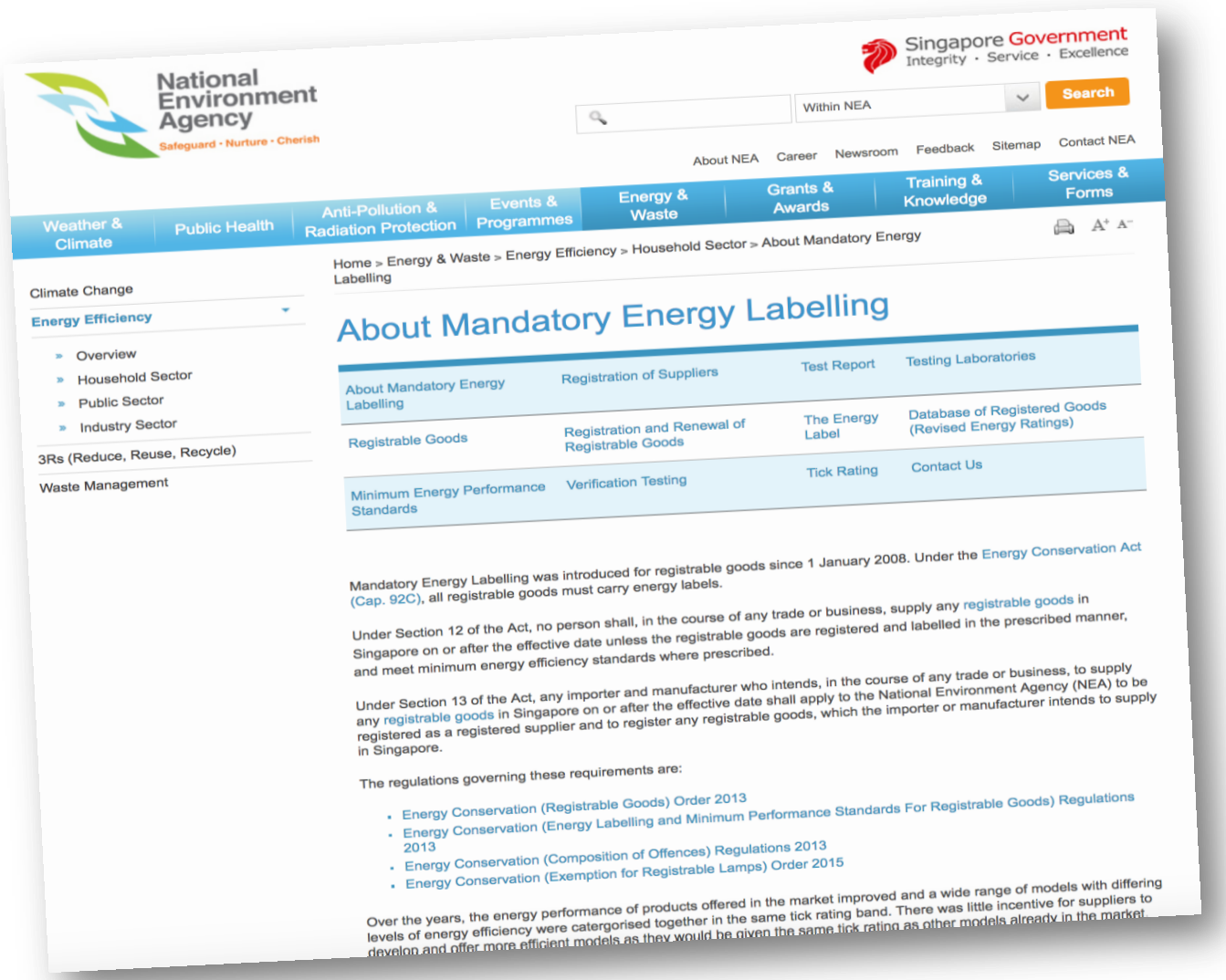
Encouraging Compliance

- Are the requirements for suppliers and retailers clear and accessible?
- Are they understandable (not 'legalese')
- Is registration (or alternatives) simple and effective, online, includes FAQ and guides?
- Is is clear what documentation is required?
- Are all the relevant documents relating to MV&E clearly identified on the website?
- Are enforcement procedures and sanctions obvious?
- Are all staff clear about their roles and responsibilities? e.g. Is there a staff 'operations manual'?
- Are you reaching 'new' stakeholders as they enter the market?

Benefits

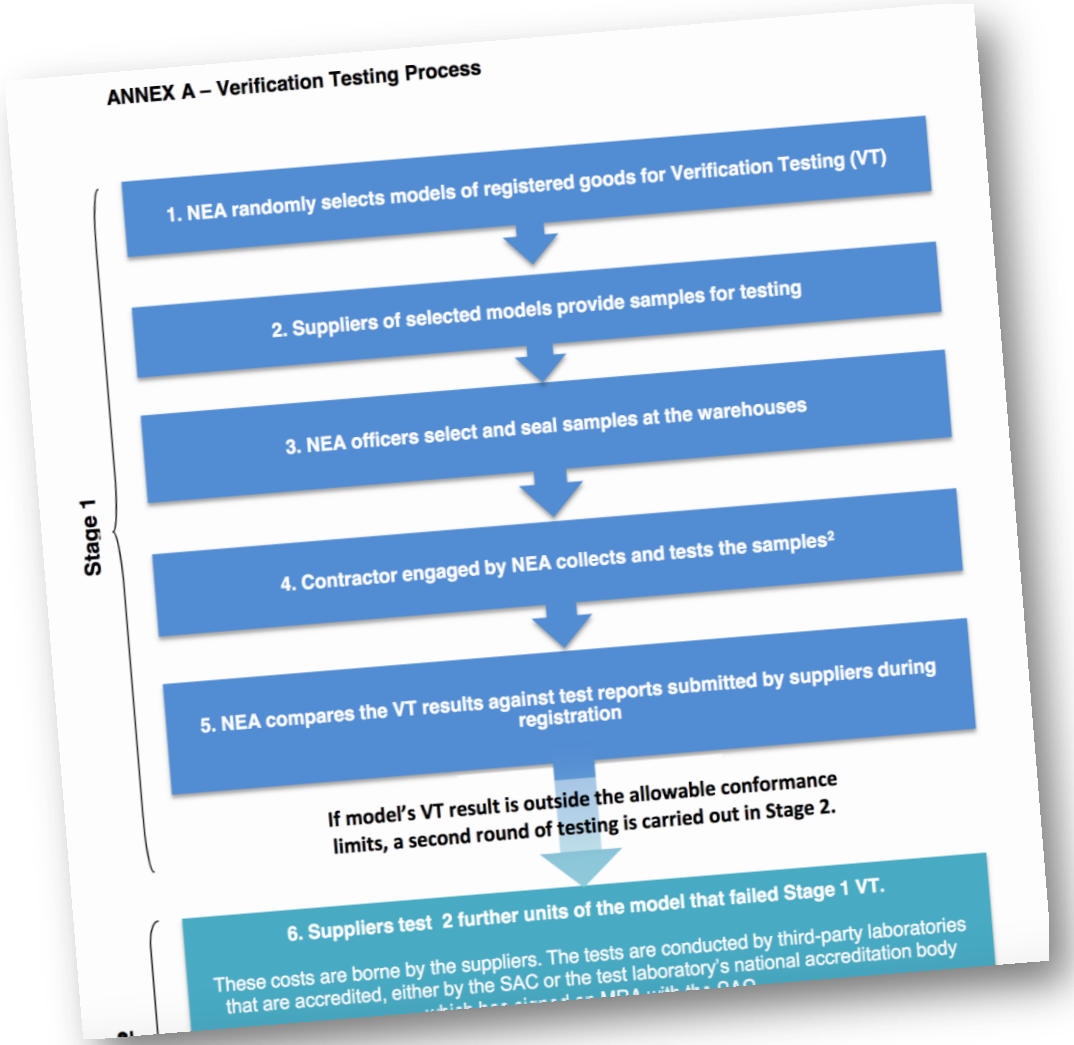
- Avoids time-consuming questions to busy staff
- Avoids wasting time on unresolved cases, delayed action

Example: Singapore



Example: MEPS Verification Process: Singapore

http://www.nea.gov.sg/docs/default-source/energy-waste/energy-efficiency/report-on-vt-results-(updated).pdf



Example: Australia

Video: What suppliers need to know

How the E3 Program affects suppliers of products regulated for energy efficiency in Australia.

If you cannot see the video try viewing it on YouTube or download a transcript.

https://youtu.be/lOZ6RCXz18Q?t=19

ENERGY RATING
THE MORE STARS THE MORE SAVINGS

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注册流程

1. **EDUCATE** Assisting responsible parties to understand their obligations.
2. **MONITOR** Monitoring responsible parties' compliance with the requirements.
3. **INVESTIGATE** Assesses each instance of suspected or alleged non-compliance and, where appropriate, conducts an investigation.
4. **RESPOND** Actively pursuing non-compliance with a range of educative, administrative, civil, and criminal response options.

产品注册

本部分为希望通过澳大利亚监管人注册产品的进口商、制造商和供应商提供分步指示。

澳大利亚和新西兰的 能效监管产品（Products regulated for energy efficiency）必须经注册，且满足一些法律要求，然后才能销售或供应。

如果你正在考虑向新西兰进口、制造或供应产品，请访问EECA网站（EECA website）(link is external)，因为相关指南和条例略有不同。

Compliance Best Practice

- S&L compliance frameworks are designed to:

a) Encourage voluntary compliance, and

b) Deter non-compliance

Steps to deter non-compliance

Deterrence theory:

- *There must be a credible likelihood of detecting violations*
- *Swift, certain, and appropriate sanctions upon detection*
- *A perception among the regulated firms that these detection and sanction elements are present*

1. Make sure all stakeholders understand their obligations
2. Make it simple to demonstrate compliance
3. Increase the risk that instances of non-compliance will be discovered
4. Take corrective action quickly to minimise damage (to all)
5. Make penalties proportional to the extent of transgression but sufficient to be an effective deterrent
6. Ensure corrective action is visible - to deter others

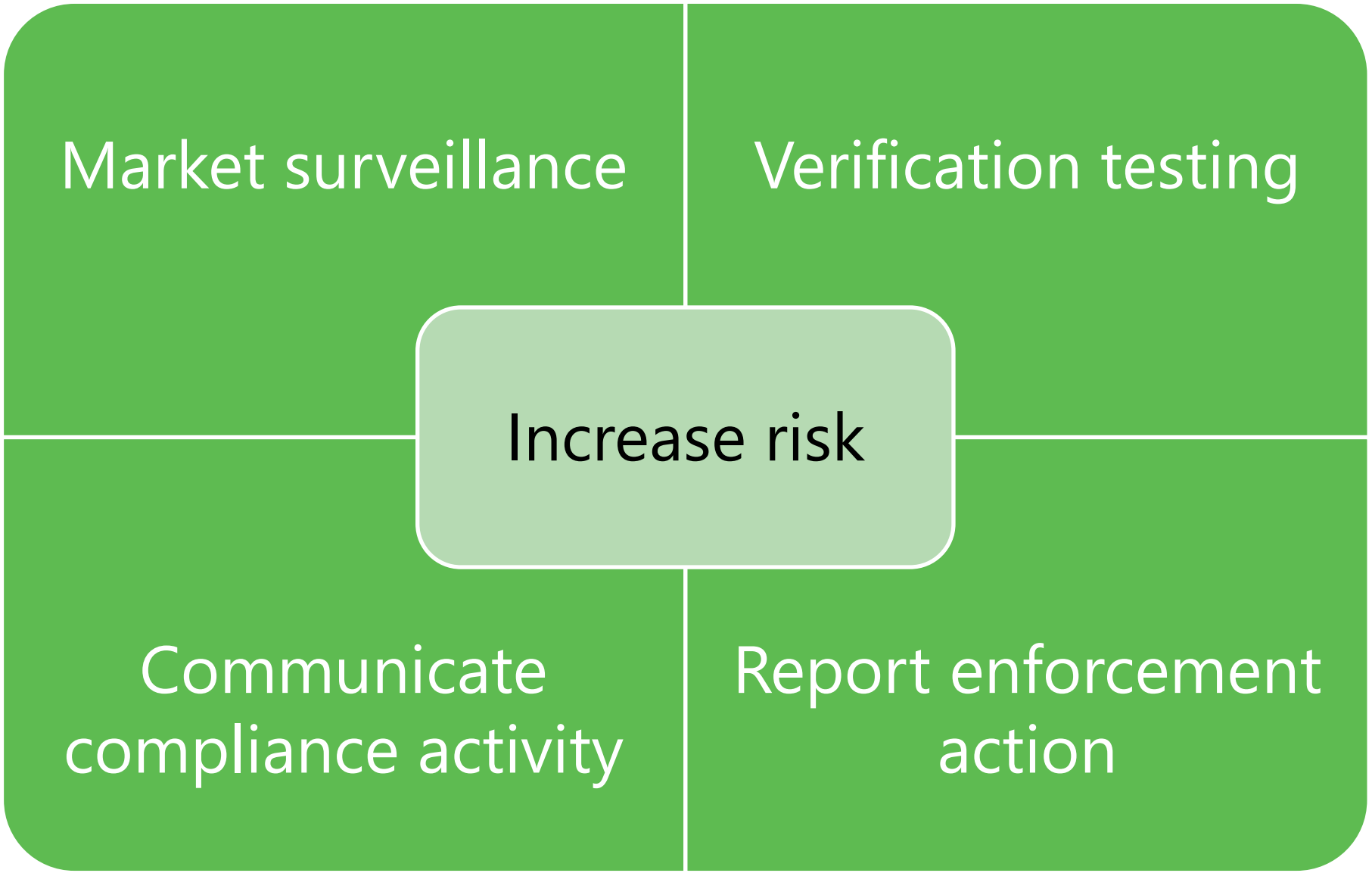
Which is the better deterrent?

3. Increase the risk that non-compliance will be discovered

In most regulated markets:

- 20% of the regulated population will automatically comply with any regulation
- 5% will attempt to evade it
- and the remaining 75% will comply as long as they think that the 5% will be caught and punished.

3. Increase the risk that non-compliance will be discovered



Market Surveillance: labelling display and registration monitoring

- Periodically monitor products within a sample of stores to check that:
  - All required products are correctly labelled,
  - All labels conform to requirements,
  - Fake labels are not being used
  - Products on the market are registered (where required)
- Market surveillance can be undertaken by:
  - Government staff, Consumer groups, Contractors
- Respond to any observed instances of non-compliance & publish results

Benefit

- Early detection of labelling errors can avoid more serious non-compliance
- Demonstrates to suppliers and retailers that government is being vigilant

Verification testing

- Testing is expensive!
- Needed, but only worth it if:
  - It is done to required level of accuracy
  - Is defensible
  - Is acted upon
- Since you can only test a small proportion on models on the market – how do you increase cost-effectiveness?
  - Test products most likely to be non-compliant
  - Co-ordinate or share testing with other countries
  - Ensure tests are enforcible

Test products most likely to be non-compliant

- Random selection represents an inefficient allocation of resources
  - End up testing high proportion of compliant products
- Identify 'risk factors' for products most likely to be non-compliant and have most impact, e.g.
- Models with high market share
- Models with least credible claims.
- At brand level:
  - Does the brand have a good record of compliance?
  - Here and/or in other economies?
- At a model level:
  - What is the quality of evidence for claims – is the test lab known and credible?
  - Have competitors provided evidence of non-compliance?
  - Are the claims of performance excessively high - unbelievable?

Co-ordinate or share testing with other countries

- Numerous options to minimize costs and increase effectiveness:
- Co-ordinate joint market surveillance with neighbouring economies
- Share results of market surveillance to better target future actions
- Use quality laboratories in neighbouring economies
- Commission tests in product country of origin

Example – European surveillance coordination

- Various EU-wide (EU funded) projects

- EEPLIANT
  - 13 Market Surveillance Authorities (MSAs) from EU
  - Organises coordinated MV&E activities, including product testing of LEDs, printers and heaters
  - Electronic database allows MSAs to share plans and results of market surveillance activities in confidence
  - Publication of Best Practice Guide

- Industrial and Tertiary Product Testing and Application of Standards (INTAS)

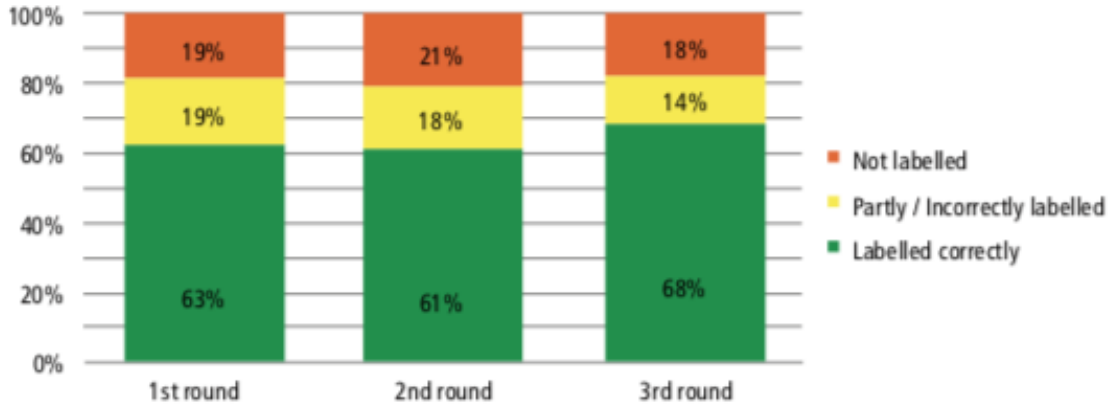


Chart: Overview of label display per products inspected, from late 2011 to early 2013, 900 shops from 13 countries included (Come On Labels, 2013, 5)

4. Take corrective action quickly to minimise damage

- Any delay in taking corrective actions means non-compliant products remaining in the market
  - More energy savings lost
  - Higher household expenditure

- Most non-compliance can be quickly resolved, with minor enforcement

5. Make penalties proportional to the extent of transgression

Programmes need a range of enforcement tools
- To act appropriately to suspected transgressions and quickly to minimise damage

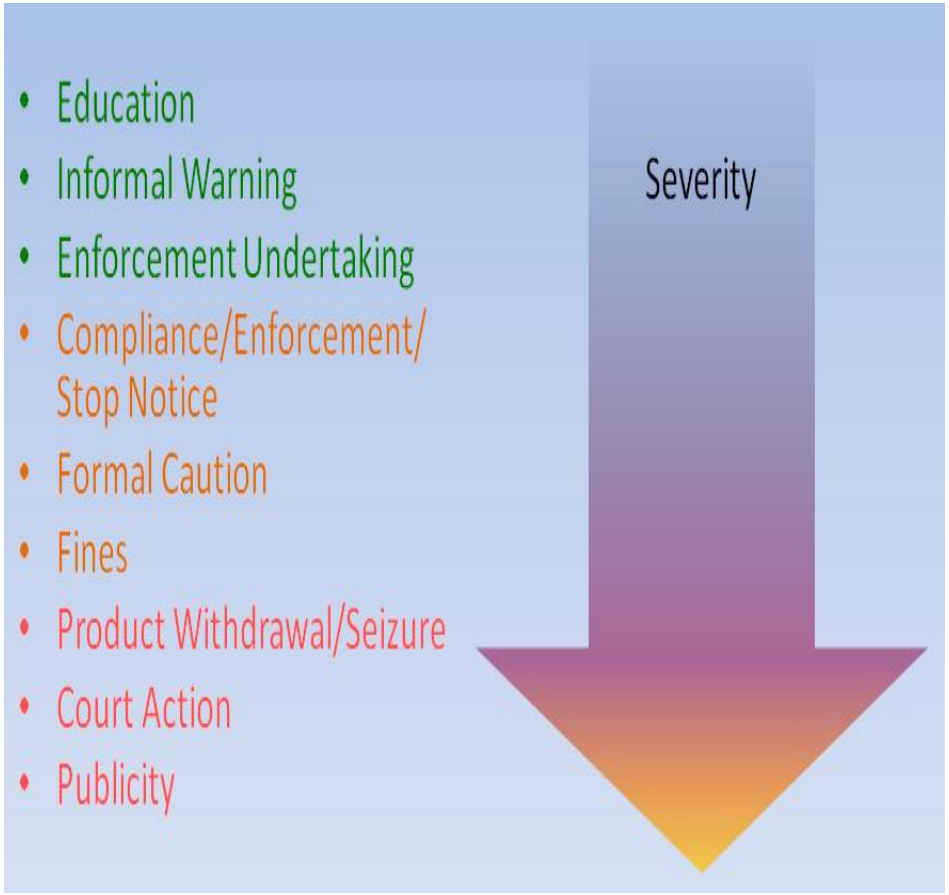
Example - UK response to non-compliance

We operate in accordance with the Regulators' Code, which requires us to:

- support compliance and growth
- engage with those we regulate
- base our activity on risk
- share information
- offer clear guidance
- be transparent

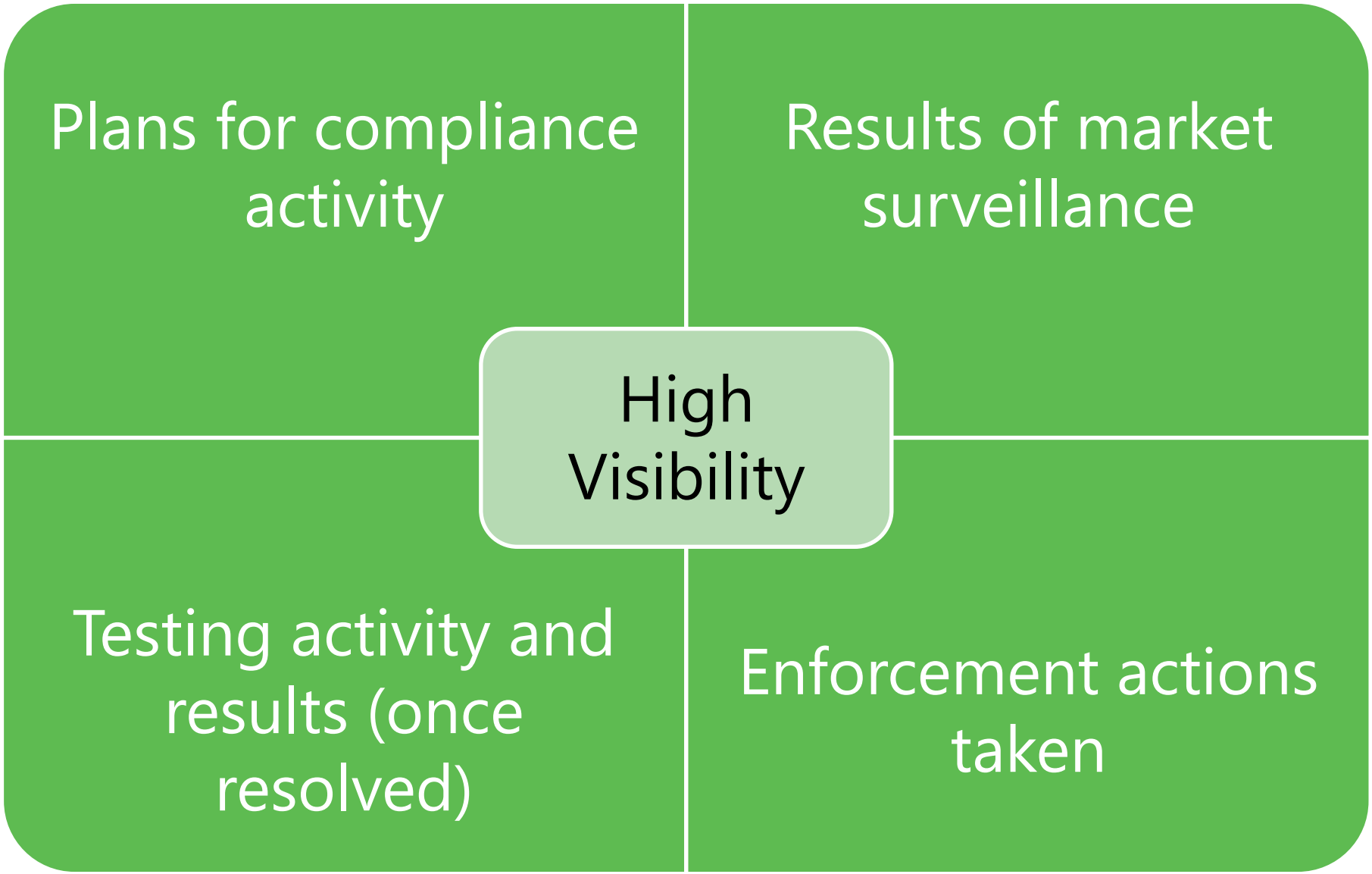
We always act proportionately, depending on the nature of the non-compliance.

We are approachable and do not take enforcement action just because a business asks us a question or tells us that they have a problem.

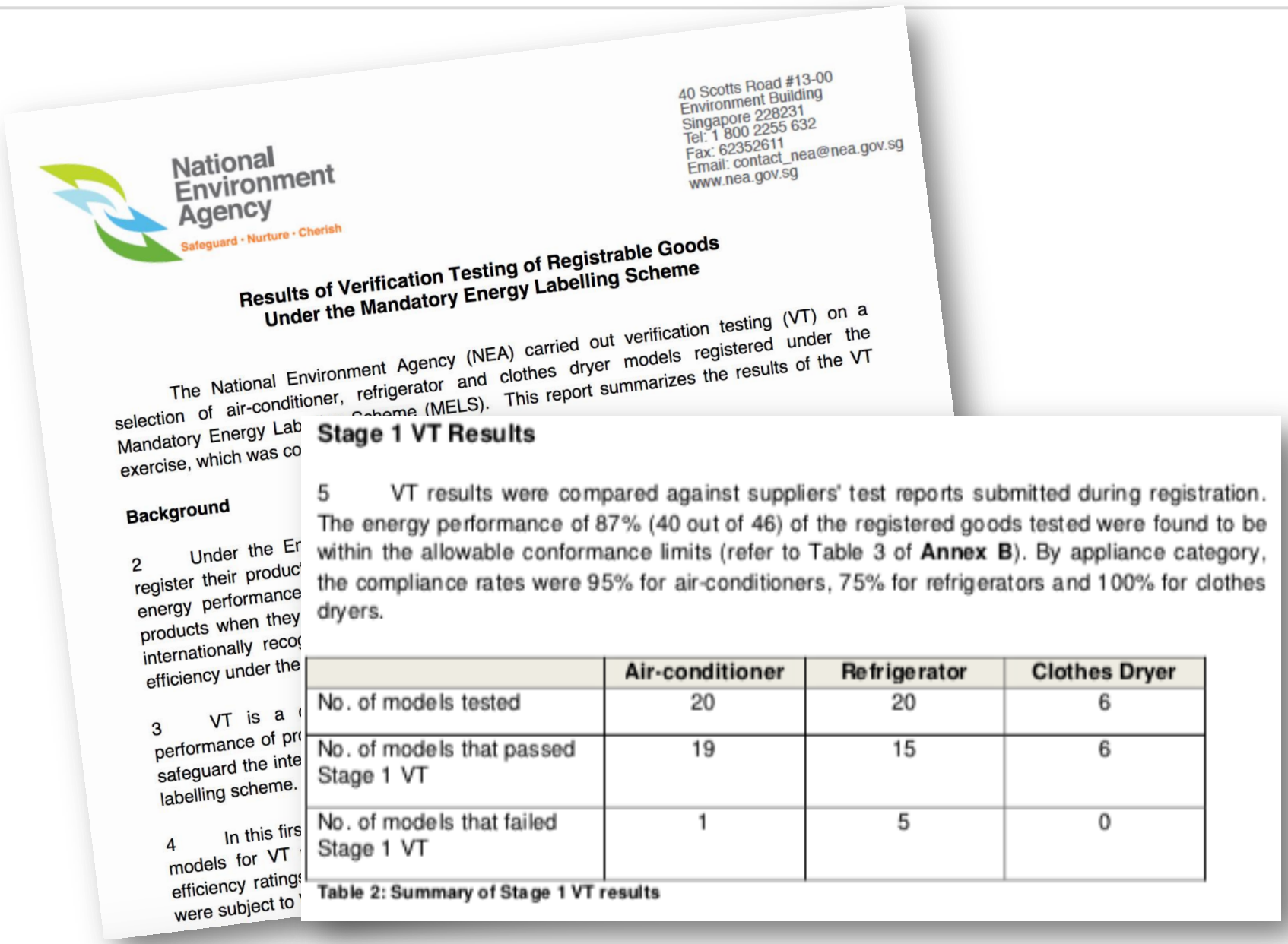


Source: BEIS (2017)

6. Ensure corrective action is visible - to deter others



Reporting testing results



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Results of Verification Testing of Registrable Goods Under the Mandatory Energy Labelling Scheme

The National Environment Agency (NEA) carried out verification testing (VT) on a selection of air-conditioner, refrigerator and clothes dryer models registered under the Mandatory Energy Lab… (MELS). This report summarizes the results of the VT exercise, which was co…

Background

2 Under the En… register their product… energy performance… products when they… internationally recog… efficiency under the…

3 VT is a … performance of pr… safeguard the inte… labelling scheme.

4 In this firs… models for VT … efficiency ratings… were subject to …

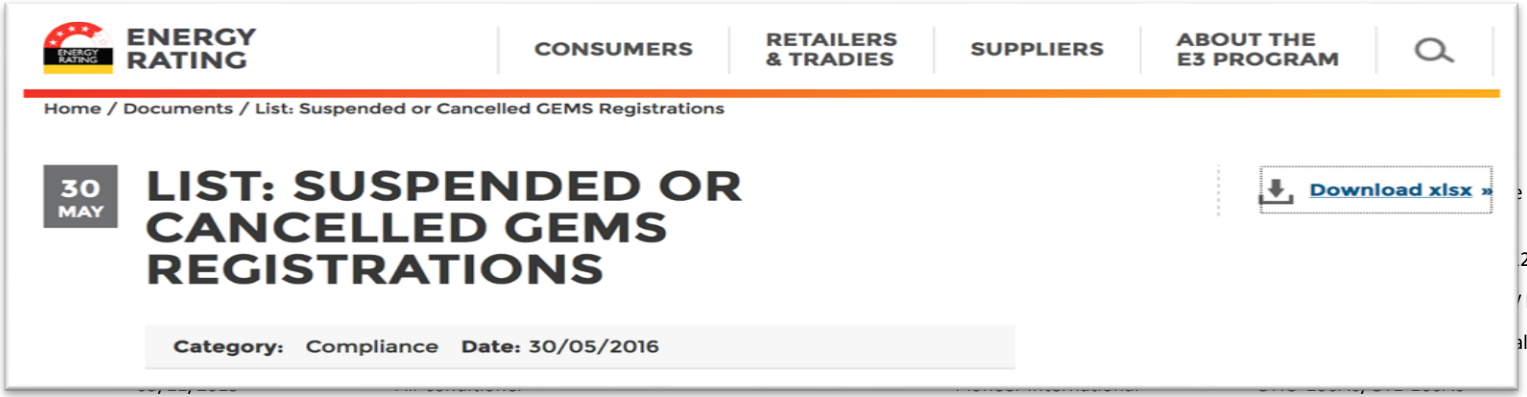
Stage 1 VT Results

5 VT results were compared against suppliers' test reports submitted during registration. The energy performance of 87% (40 out of 46) of the registered goods tested were found to be within the allowable conformance limits (refer to Table 3 of **Annex B**). By appliance category, the compliance rates were 95% for air-conditioners, 75% for refrigerators and 100% for clothes dryers.

	Air-conditioner	Refrigerator	Clothes Dryer
No. of models tested	20	20	6
No. of models that passed Stage 1 VT	19	15	6
No. of models that failed Stage 1 VT	1	5	0

Table 2: Summary of Stage 1 VT results

Reporting enforcement actions



22/09/2015	Incandescent lamp	Osram	64543 A ECO 42W 240V B22D
22/09/2015	Incandescent lamp	Osram	64544 A FR ECO 53W E27
11/09/2015	Self-ballasted compact fluorescent lamp	Olsent	3P414-ES-40K,
17/08/2015	Self-ballasted compact fluorescent lamp	Envirolux	XEU48-15R80 E27 2700K
13/08/2015	Self-ballasted compact fluorescent lamp	Envirolux	XEU48-15R80 E27 4000K
30/07/2015	Self-ballasted compact fluorescent lamp	Olsent	FE-IISB-18W 2700K
30/07/2015	Self-ballasted compact fluorescent lamp	Olsent	FE-AU-15W 2700K
09/07/2015	Self-ballasted compact fluorescent lamp	E-Star	ESSP9W27E27 8w Mini Twist warm white 6500K
26/06/2015	Self-ballasted compact fluorescent lamp	Arlec	FT24
26/06/2015	Self-ballasted compact fluorescent lamp	Osram	Mini Twist 13W/827 E27
11/06/2015	Self-ballasted compact fluorescent lamp	Philips	Ambiance A55 11W WW
18/05/2015	Computer monitor	Philips	284E5Q
05/01/2015	Double-capped fluorescent lamp	NEC	FL30SSEX-N-HG-36 : 30W T8 Tri-Phosphor Natural 5000K

e Clear Fancy Round

.2T GU5.3 ELV Reflector

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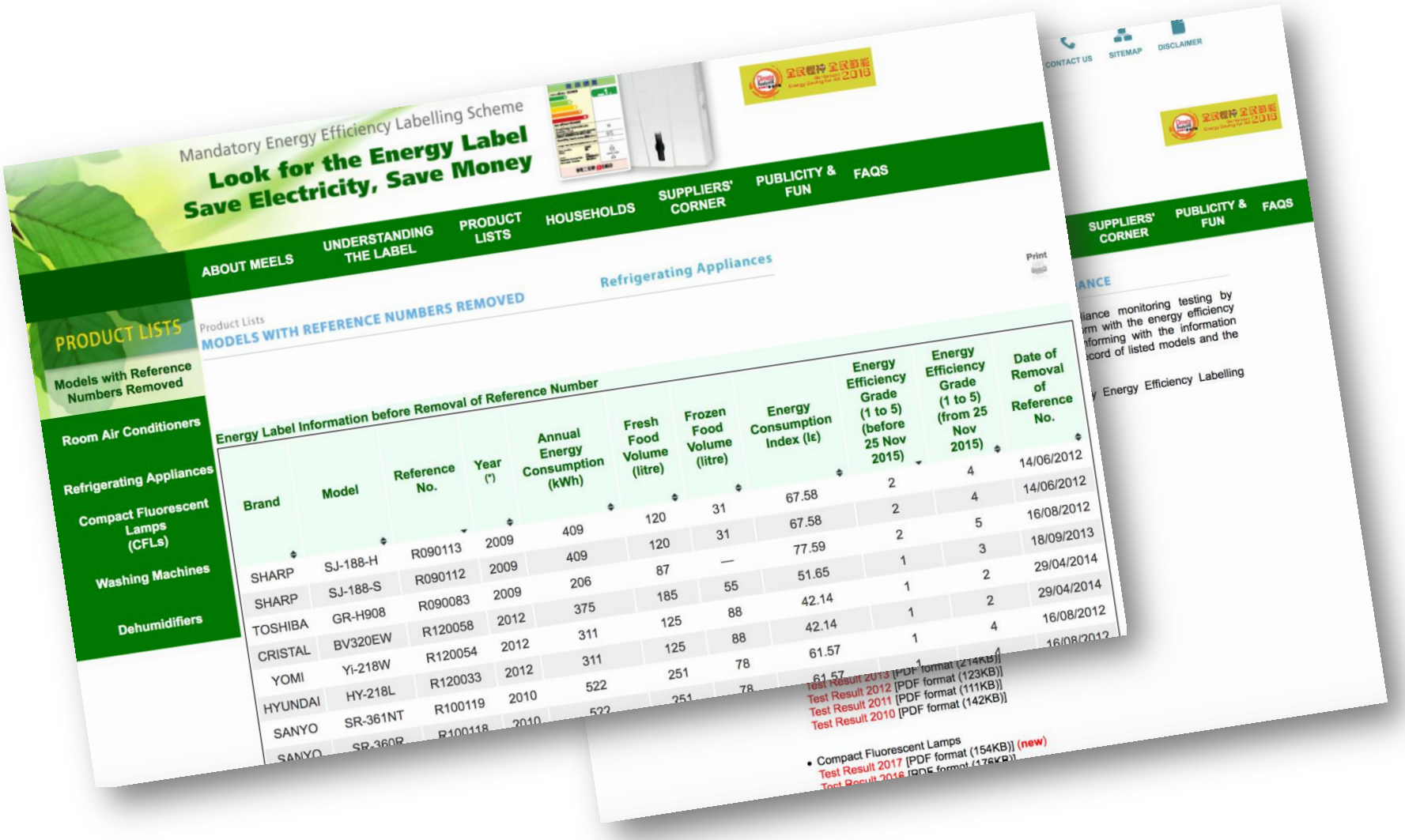
alogen ELV Reflector

Example: Suspended products Hong Kong



Design options

	Post-market verification	Third-party certification
Entry conditions	Independent tests, in-house testing, calculation or self declaration	Third-party verification and/or certification
Government/Programme	$	$
Industry Participant	$	$
Consumers	$	$
	Total costs ≈ same	

Value of improving non-compliance

Assumptions	
Fridge market p.a.	200,000
Av. Energy consumption (kWh/yr)	400
Non-compliance rate	15%
Extent of non-compliance	15%
Lifetime (yrs)	12
Cost of electricity (€/kWh)	0.2
Value of lost electricity savings after one year	**€4.32 million**
After ten years…	€43 million

Outcomes	
Reducing non-compliance rate to 10%	
Saving after one year	€1.44 million
Cost benefit ratio (€0.3m/yr)	1:4.8
After ten years	€14.4 million

Scenario

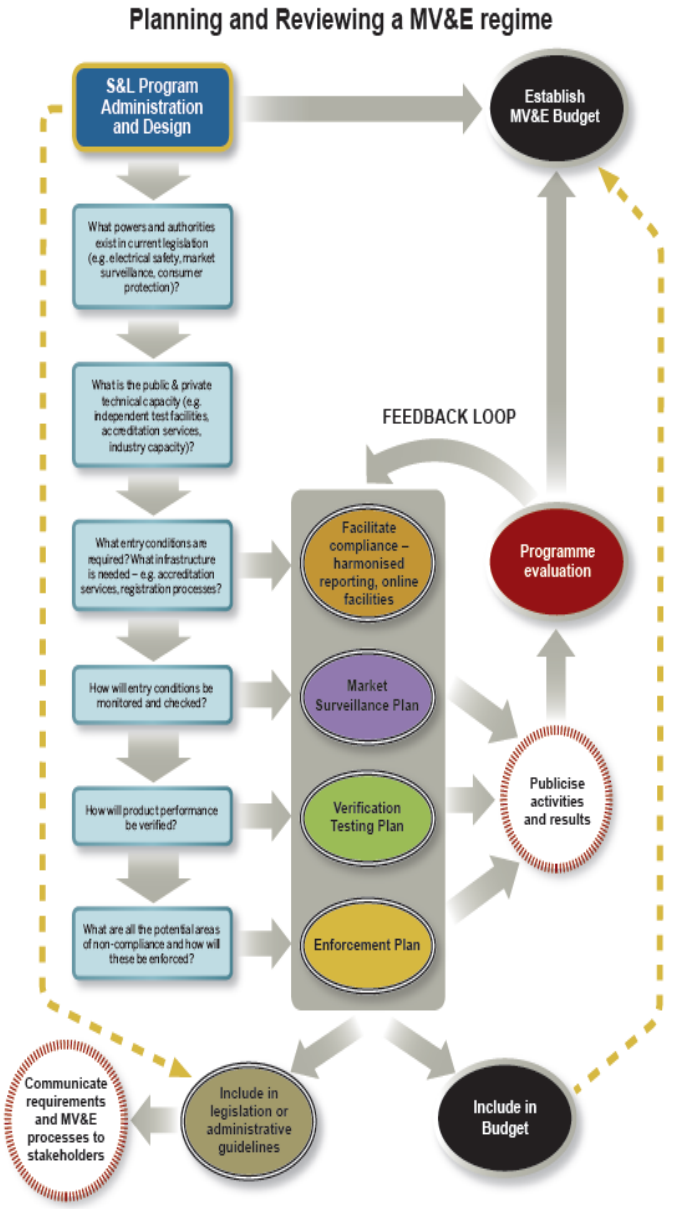
- How would you spend $300,000 on improving compliance?

What would I do?

Item	$
Dedicated compliance staff -Drafting enforcement policy -Drafting internal procedures -Testing selection criteria -Managing tests, reporting on results -Organising legislative change if necessary	110,000
Highlight compliance on website, promotion of enforcement policy	25,000
Labelling survey	25,000
Round-robin tests	60,000
Compliance tests	80,000
Total	**$300,000**

Essential elements of compliance regimes

- Mechanism to facilitate compliance
- Market surveillance
- Verification testing
- Enforcement
- Communication, reporting, feedback
- Legal and administrative framework
- Budget and resource allocation
- Evaluation processes



www.iea.org

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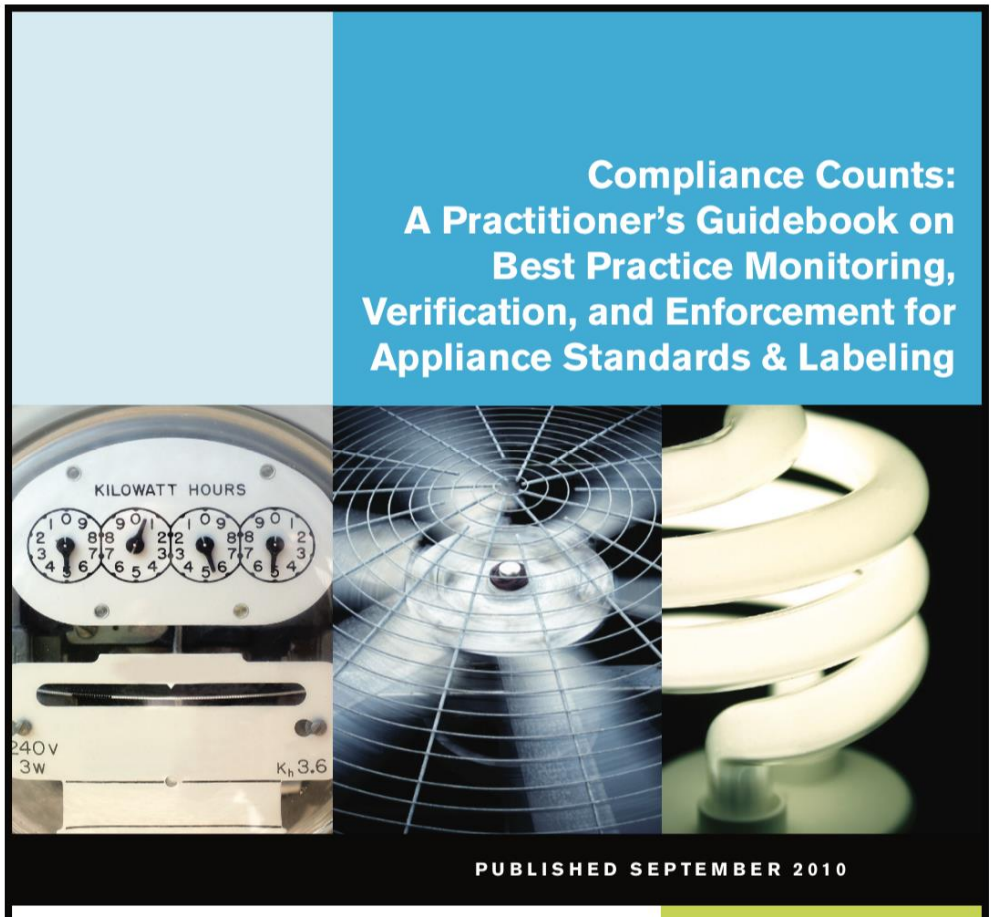
Sources of further information

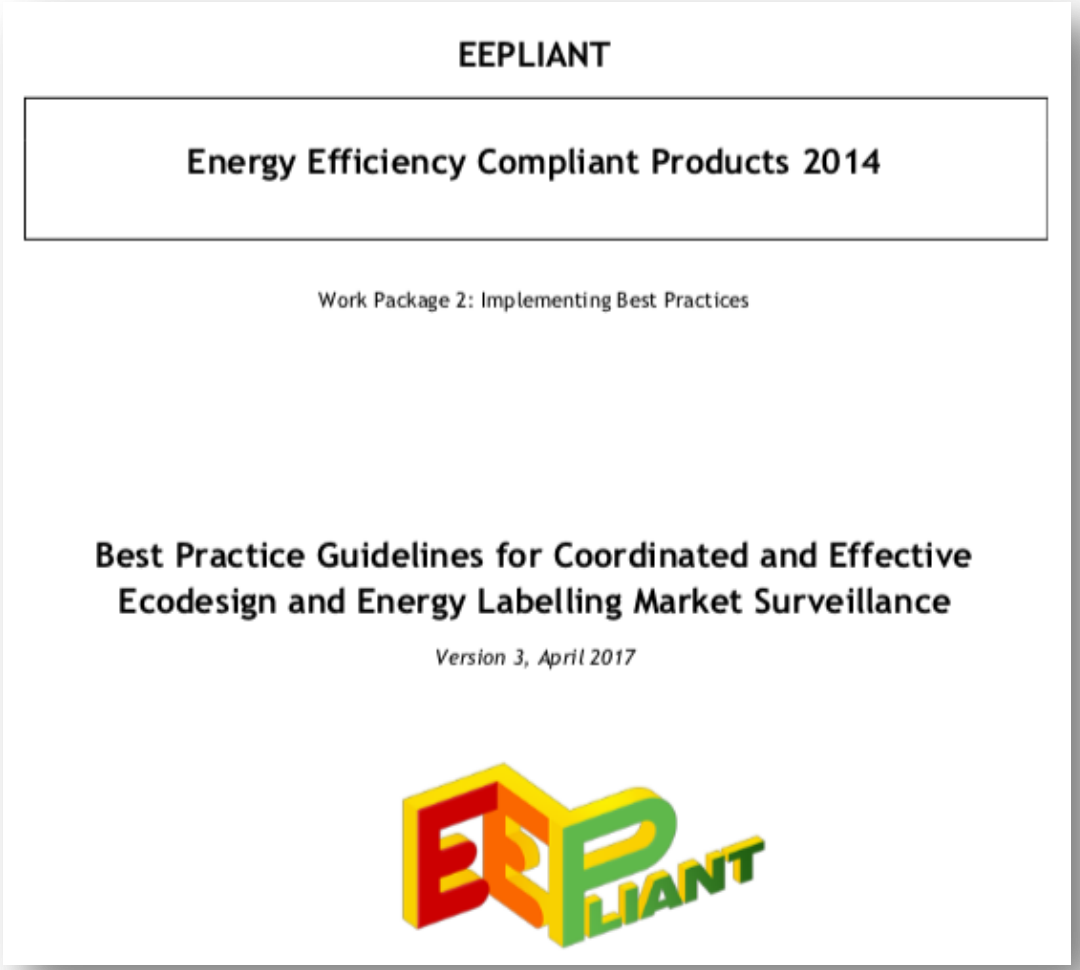
CLASP

https://clasp.ngo



https://clasp.ngo/publications/compliance-counts-a-practitioners-guidebook-on-best-practice-monitoring-verification-and-enforcement-for-appliance-standards-labeling-1

Sources of further information



EEPLIANT

Energy Efficiency Compliant Products 2014

Work Package 2: Implementing Best Practices

Best Practice Guidelines for Coordinated and Effective Ecodesign and Energy Labelling Market Surveillance

Version 3, April 2017

http://www.eepliant.eu/index.php/knowledge-base/item/2017-05-16

Example: UK enforcement options

- Range of activity: from advice to enforcement options
- For first and small infringements may be support Advice
- For larger serious breach, fines and legal proceedings.
- Example below – large fine for significant breach of MEPS
- [Fines can include: lost energy savings, loss of carbon reductions, etc]

Icetech Freezers Ltd Prosecuted for Displaying Inaccurate Energy Labels

National Measurement Office

Enforcement Authority

7th June 2011

The National Measurement Office (NMO) has completed an investigation into a serious offence relating to misleading energy labels displayed on freezers. Icetech Freezers Ltd, pleaded guilty to nine charges and were fined £12,000 and ordered to pay costs of £28,000.

Testing: ensure test results are enforceable

- If results are not repeatable and reproducible between labs – enforcement not possible
- Significant variations mean that the costs of testing is wasted
- Do you know how the results of different labs compare?
- A program of inter-laboratory comparison and witness testing the only way to minimise variations

Reporting targets for compliance activity

ENERGY RATING

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COMPLIANCE NEWS: MARKET SURVEILLANCE ACTIVITIES FOR MOTORS

Topic Compliance | Electric Motors

GEMS inspectors will be conducting market surveillance activities in Western Australia in late March 2016 to ensure suppliers of three phase cage induction motors covered by the GEMS (Three Phase Cage Induction Motors) Determination 2012 are complying with registration and labelling requirements.

GEMS inspectors will also be focusing on motors contained within machines to ensure that machinery suppliers are aware of, and comply with, all GEMS requirements.

More information

GEMS compliance program | energyrating.gov.au/compliance

Electric Motors | energyrating.gov.au/products/electric-motors

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