This project is funded by the European Union

Recovering lost energy: The role and the impact of EU market surveillance on energy efficiency. A gap analysis with findings from the EEPLIANT trilogy of EU projects

Dr Kyriakos Papazoglou - Senior Programme Officer, PROSAFE

EEPLIANT3 Concerted Action

Coordinated by PROSAFE Joint Actions Best Practice

BEHAVE 2020-2021 6th European Conference on Behaviour and Energy Efficiency

Transition to a lower/net-zero carbon economy is a pressing strategic challenge and a multidimensional problem

In EU, Ecodesign and Energy Labelling account for over 40% of the 20% energy efficiency target for 2020, and 23% of 2020 GHG emission reduction target

This project is funded by the European Union

A range of possible employable levers exists

This project is funded by the European Union

Level of Relevance

The EEPLIANT trilogy in a nutshell

Scope

Large-scale transboundary market surveillance joint campaigns on ecodesign and energy labelling by Market Surveillance Authorities for targeted/prioritised product (domestic appliance) sectors

Goal

Detect greenwashing and free-riding non-compliant products in the EU market and enforce compliance = Recover lost energy

Methodology

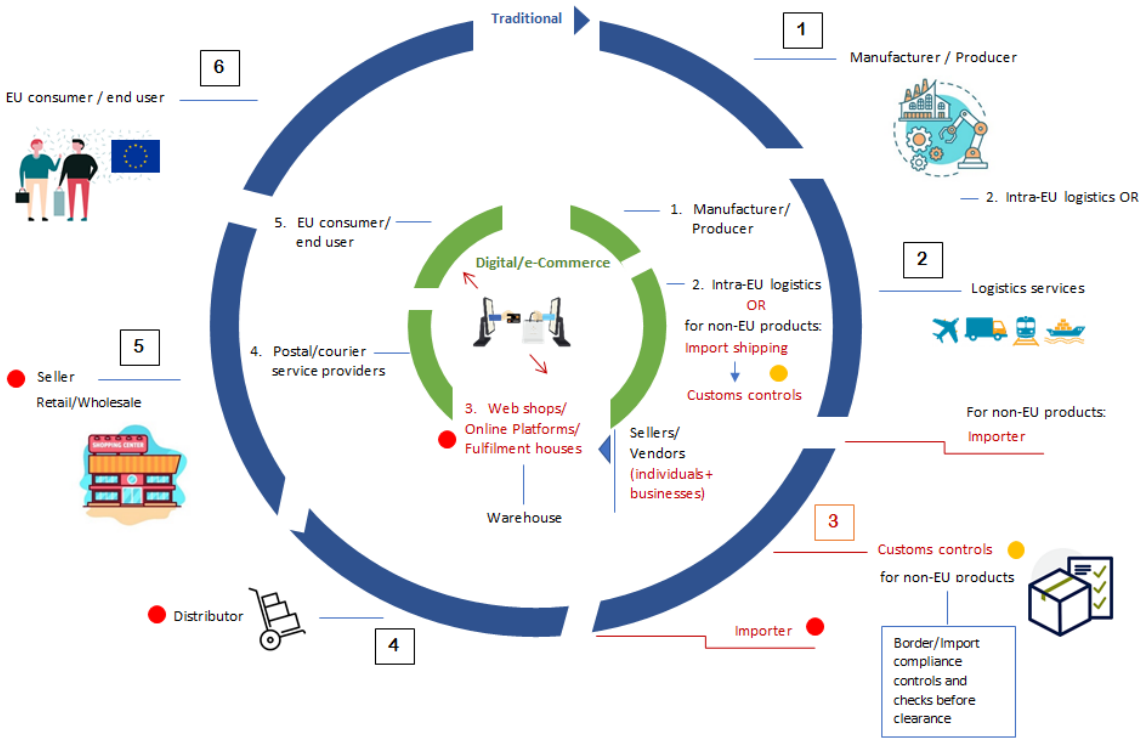
Product inspections on technical and labelling requirements, and compliance lab testing to control the energy performance and compliance to Union legislation

This project is funded by the European Union

The landscape…

Types of intervention for compliance checks:

- Proactive or reactive market surveillance by MSAs:
  product screening, sampling, visual checks (inspection of documents, marking, labels), physical testing
- Border/Import compliance controls by customs authorities



This project is funded by the European Union

Evidence-driven problem definition

Inspection and testing results from the EEPLIANT programme exhibit serious high levels of non-compliance.

In EEPLIANT2 (2017-20), the average test failure rate for the three targeted product sectors was almost 40% - energy consumption was too high.

The primary energy loss saved as a result of the EEPLIANT2 activities on refrigeration alone is estimated to average 80 GWh savings per year for the period 2020-30. This translates into millions of Euros in reduced energy costs for the consumer and a number of 'knock-on' effects.

A comparison between the results of EEPLIANT2 and ATLETE1 (2009-11) on domestic refrigeration shows that the overall levels of non-compliance do not seem to improve – non-compliance has been found to be a consistent and persistent problem.

This project is funded by the European Union

Examples of non-compliance across the EEPLIANT projects

Packaging/Marking/Labelling information contained mistakes or missing data

Technical documentation contained mistakes

Technical documents were missing

Mismatch between the measurement results and declared nominal values/energy label class

High power consumption

Low tap water efficiency (e.g. for gas boilers in EEPLIANT1)

This project is funded by the European Union

Typologies of non-compliance

Old – New/Emerging [Cognition]

Formal – Material [Kind/Nature]

Trivial – Serious [Severity]

Conscious – Situational (e.g. context-dependent) [Ethics]

This project is funded by the European Union

The 3 main actors and their relationship to the problem
(*policymakers set aside)

Producer/Seller/Market place – produce and trade non-compliant products

Market Surveillance Authorities (+ Customs) – not able or do not have resources to detect all non-compliant products

End user – buy non-compliant / energy inefficient products

This project is funded by the European Union

Mapping the process

- Priority-setting (What clusters of products?)
- EU Market Surveillance Authorities - OR better inspectors - get grouped based on shared/overlapping interests/priorities
- Desk/Market research to narrow the scope; Selection of specific product types
- Mapping economic operators per country; Screening and Sampling products (online)
- Stage 1 - Inspecting technical and labelling requirements (online + documents)

Time gap

[Nudging and formally requesting manufacturers/retailers to rectify]

- Enforcement action (country-specific approach) = Request lab testing, temporary/permanent withdrawal, recall, sales ban, penalty/fine
- Stage 2 - Testing a segment of the screened products in lab

[Informal or formal contact with manufacturers/retailers to rectify]

- Enforcement action (country-specific) = Request further lab testing, temporary/permanent withdrawal, recall, sales ban, penalty/fine

This project is funded by the European Union

Classic ED/EL market surveillance sees a non-compliant product as a static unidimensional transmitter of anomalies across the supply chain.

Next generation market surveillance needs to understand the behaviours that produce these anomalies.

This project is funded by the European Union

A product as a portal to energy-related patterns of behaviour

If so, we would do more than just inspecting and testing the energy efficiency of products. In fact, we would research behaviours.

This project is funded by the European Union

What works in changing energy-related behaviours?

There is not one single motivating structural or other factor that drives sustainable energy behaviours. There is a myriad of potential influences on producer and consumer behaviour in relation to sustainability and a range of technical and behavioural measures/behaviour change interventions with the potential to improve energy efficiency and save energy.

In EEPLIANT3, we test some solutions.

Still, there are boundaries in the extent of our intervention. For example, one key enabler to bridge the gap with reality in EEPLIANT3 is automation/digitalisation – technology-supported IT tools (e.g. web crawlers) that can boost convergence in product inspections while alleviating cost and time constraints; a data-informed energy and non-energy impact modelling, a forecaster to enable policy design and policy innovation.

Next to these, other facilitators of change are:

Standardisation of screening procedures; synergising with the industry to inform and educate before hardcore enforcement; supporting and guiding good compliance behaviour; working with consumer associations to increase public awareness and trust on energy labels; implementing peer-to-peer digital communication systems to ease the flow of information; rolling out easy information communication campaigns sealed by the production of a final Layman's report on findings and impacts/benefits. And the ambition to contribute in the modelling of non-compliance by risk classes.

This project is funded by the European Union

Disclaimer

This presentation is part of the EEPLIANT3 project that has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No832558.

The content of this report represents the views of the author and it is his sole responsibility; it can in no way be taken to reflect the views of the European Climate, Infrastructure and Environment Executive Agency (CINEA), the European Commission or any other body of the European Union, who are not responsible for any use that may be made of the information it contains.

CONTACT

INFO@PROSAFE.ORG

WWW.EEPLIANT.EU

@PROSAFE_ORG / @EEPLIANT

PROSAFE (Product Safety)