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Literature findings – responses and gaps

Commission's Public Consultation Meeting

14/10/2013

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DISCLAIMER

This presentation merely presents findings from available literature and evidence base, and does not yet constitute the consultant's views on the topics discussed.

Topics to discuss

1. Have the objectives of the Energy Labelling and Ecodesign Directives been met by the delegated acts and implementing measures adopted so far?
2. Has the current energy label been appropriate for its purpose?
3. How could the rulemaking procedures for Energy Labelling and Ecodesign be improved?
4. What are experiences to date with market surveillance and standardization related to Ecodesign and Energy Labelling?
5. How do Energy Labelling, Ecodesign and other policies interact?
6. Should the scope of Energy Labelling and Ecodesign be expanded? If yes, how?
7. Other aspects (questions from participants)

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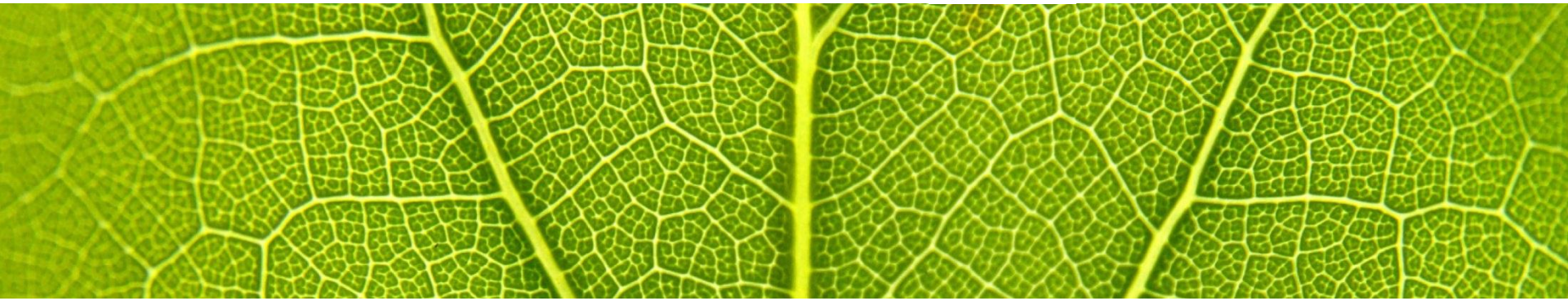

Objectives of the Energy Labelling and Ecodesign Directives

1. ELD Objectives - Where there is plentiful literature

- Informing consumers – literature agrees that energy labelling has done this relatively effectively although there are some aspects where comprehension and salience is not as high as it might be
- Is labelling needed? – literature agrees that it is due to information failures
- Relative focus on efficiency vs. energy consumption – when there is literature on this topic it usually comments that: a) a focus on efficiency alone will be insufficient to reduce total energy demand and meet climate objectives and that a concept of sufficiency should be encouraged, b) efficiency measures can be flawed through being overly generous to large capacity products
- International experience – a broad topic with relevance to many of the evaluation issues in this review including, revision of label classes, resources, potential for unintended consequences in the information presented in labels, procedure and planning, voluntary vs. mandatory, etc.

1. ELD Objectives - Where there is some literature

- Fulfilling its potential for energy savings – literature agrees that energy labelling has led to savings for specific labelled products but is sparse when a) evaluating the programme as a whole, b) when estimating the savings separately from Ecodesign, c) estimating the additional savings that could be achieved were more products to be labelled
- Strongest and weakest elements of the current labelling scheme – there is a lot of literature commenting on specific strengths and weaknesses but almost none that attempts to define the greatest strengths and greatest weaknesses
- Mandatory and voluntary labelling – discussion of specific schemes but little that considers the merits of doing both nor of national vs. EU-wide mandatory labelling except for cars where two studies argue for a harmonised EU-wide scheme
- Increasing the dynamism of the labelling scheme – a modest amount of literature putting forward thoughts on this topic

1. ELD Objectives - Where there is some or no literature

- Selection of product groups – there is little literature that addresses this but what there is indicates that energy labelling could and should be rapidly extended to commercial, industrial and other residential end-uses if additional savings are to be achieved
- Focus on in-use vs. life-cycle phase impacts – there is a very little literature commenting on labelling of life-cycle phase impacts and how to balance this with in-use labelling. That which does exist comments in passing that more consumers are motivated by energy bills than environmental impacts although both are important motivating factors
- Two separate frameworks? – no literature considers the most appropriate legal framework for energy, environmental or lifecycle labelling
- Legal protection of the labelling scheme – no literature considers this topic

2. Objectives ED IMs - Outstanding questions

- Have the implementing measures fulfilled their objectives in terms of reducing energy consumption and other relevant environmental impacts?
- Ambition ok, scope ok, objectives expected to be reached?
- Compare to the results from similar policies in the relevant third countries
- Challenges in preparing, running, implementing and monitoring voluntary agreements and how to overcome?
- What has been the effectiveness of the voluntary agreements concluded by industry?
- Costs of preparing, running and implementing voluntary agreements? More than benefits?

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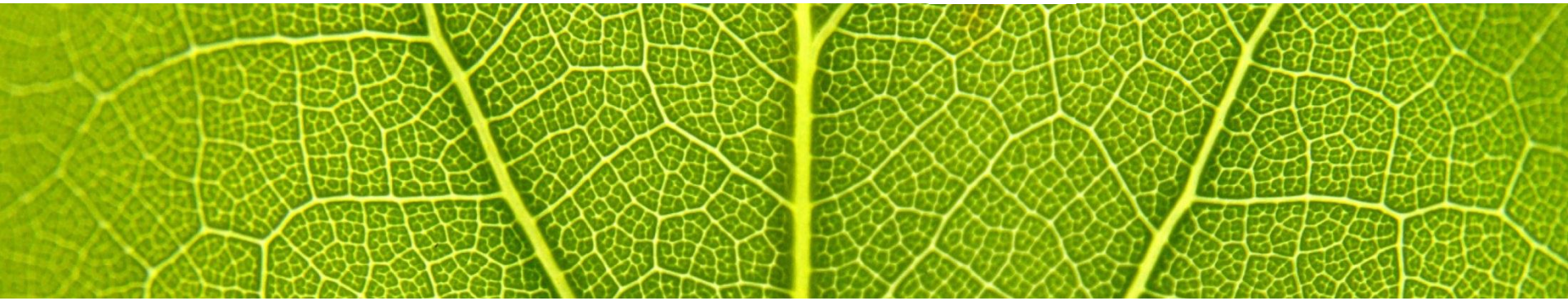

2. Appropriateness of the current energy label

A selection of key questions addressed

- the energy label's costs and benefits
- consumer recognition and understanding
- layout / design / content of the energy label (new label)
  - new classes A+, A++, A+++
  - maintaining 7 classes, recalibration
- product fiches
- use of ICT in relation to the label
- use of the label in distance selling and technical documentation
- extension of the scope of the information on the label
  - to include environmental content
  - to include monetary content
  - to include whole life cycle impact

Main findings

- Energy label's costs and benefits
  - literature: somewhat sparse and tends to give qualitative statements on cost-effectiveness but few precise numbers
  - main findings: evaluations are generally very positive for society, industry and consumers. Stakeholders agree that the labelling scheme is positive and appropriate; however, aggregate numbers on cost/benefits of the ELD are lacking
- Consumer recognition and understanding
  - literature: relatively strong and well documented
  - main findings:
    - energy related performance is a top-of-mind concern for consumers
    - European consumers recognise the energy label
    - the general purpose of the label is understood (including new label)
    - consumers usually trust the label
    - comprehension varies from 80 – 50% for the efficiency ranking
    - comprehension of icons varies but can be very low

Main findings

- Lay out / design / content of the energy label (new label)
  - literature: strong and well documented
  - main findings:
    - A+, A++, A+++ introduction potentially harming the label (less motivating to consumers)
    - Other findings address: units, tolerances, EEI, thresholds between classes, colour code, icons, rescaling and specific recommendations for the future from stakeholders
- Product fiches
  - literature: weak
  - main findings: the fiches seem to be useful for market surveillance activities and should not disappear for this reason
- Use of ICT in relation to the label
  - literature: strong on expectations, weak on implementation/evidence
  - main findings: ICT would be good to have but is it mature enough, what information would be conveyed?
- Use of the label in distance selling and technical documentation
  - literature: strong on problem identification, non existent on solutions
  - main findings: distance selling is the worst retail channel in terms of label correct use

Main findings

- Extension of the scope of the information on the label
  - Whether or not to include environmental content
    - literature: strong on the general approach, weak on specific issues
    - main findings: difficulties relating to the inclusion of environmental content, whether on the energy label or on a separate label
  - Whether or not to include monetary content
    - literature: strong
    - main findings: monetary information would be complex to include and potentially misunderstood
  - Whether or not to include information on the whole life cycle impact
    - literature: average to weak
    - main findings: a switch to whole life cycle impact may dilute the appeal and salience of the information conveyed

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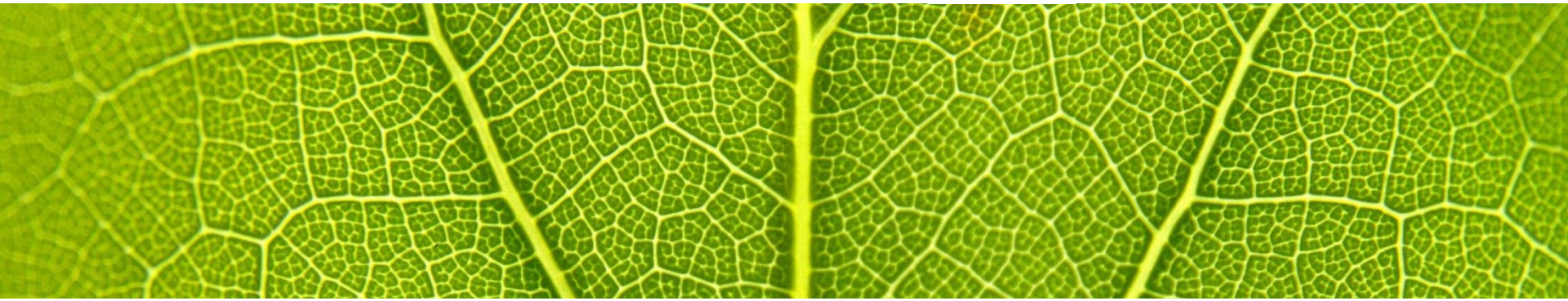


3. Improvements in rulemaking procedures for Energy Labelling and Ecodesign

Criteria and procedures – mostly no literature

> Procedure – only Consultation Forum submissions on:

- need for an energy labelling working plan
- appropriateness of delegated act procedure for energy labelling
- applicability of a horizontal labelling regulation
- suitability of a horizontal verification procedure
- stakeholder engagement

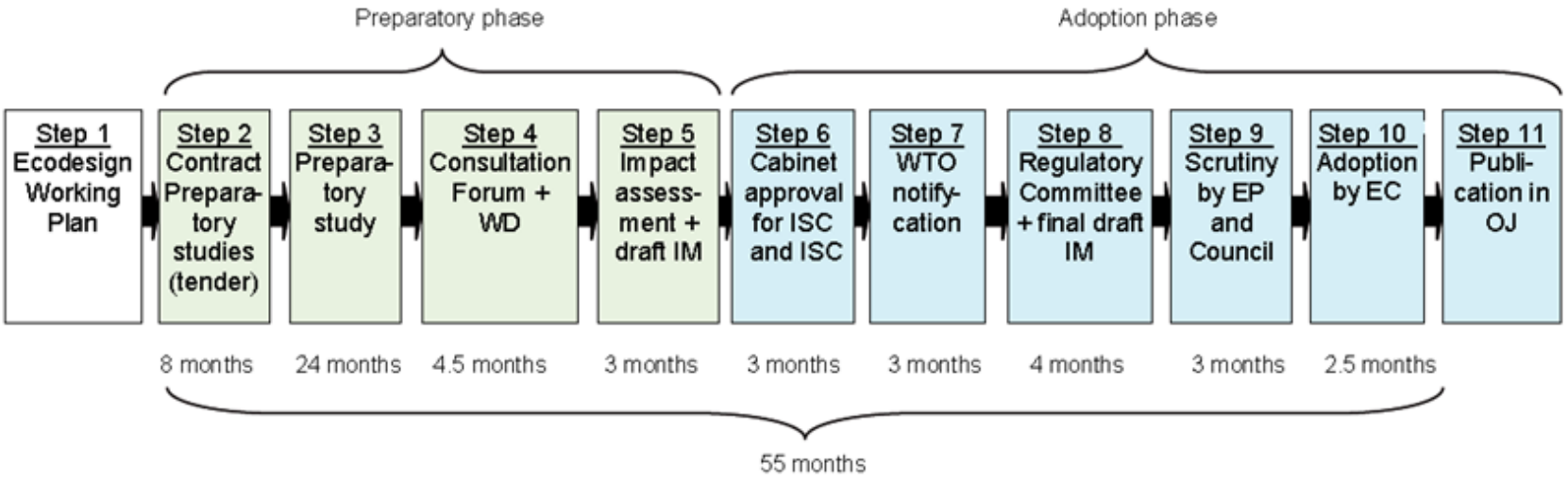
nothing on:

- appropriateness of criteria mentioned in paragraph 2 of Article 10 of ELD

> Resources – one study that compares resources for ELD and Ecodesign with peer economies and finds that the EU has committed far less resources than the USA or China for regulatory development

> Standardisation and scope issues addressed elsewhere

Rulemaking procedures – historic process



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Rulemaking procedures – areas literature suggests need improvement

- Delay in the regulatory process
- Limited data availability and quality
- Ambition level of timing and level of requirements
- Insufficient focus on non-energy aspects.

Rulemaking procedures – suggestions from the literature

Suggestions to reduce delays in the regulatory process

- Complexity and contentiousness analysis to screen products for fast track, slower track process
- Stricter deadlines for process steps
- Shorter periods between process steps
- Increased staffing, consultancy support and planning at the European Commission

Rulemaking procedures – suggestions from the literature

Means of addressing limited data availability and quality

> 'Energy-Related Product Database' is under development by EU (public data)

Other suggestion from literature:

> Legal obligation for manufacturers to submit their product data into a central database, as is done in some other jurisdictions

Rulemaking procedures – suggestions from the literature

Suggestions on how to deal with ambition level in regulations

- To include learning effects in the LCC calculations;
- To set the implementing measure at the break even (BE) point;
- To use best available technology (BAT) and best not yet available technology (BNAT) as target points for the revision of existing implementing measures

Rulemaking procedures – improvement - gaps

Insufficient focus on non-energy aspects

- The use of horizontal measures to regulate non-energy aspects (e.g. on recyclability or use of chemicals)
- Ecodesign preparatory studies should analyse in more detail the main drivers of the lifetime impact of products
- Technical advisory committees, including experts from the Joint Research Centre and open to other stakeholders, should be established to develop measurement standards and metrics to help decision-makers move forward with non-energy aspects.

Questions where the literature is mostly silent

- How could the efficiency and effectiveness of the procedure be improved (incl. centralisation of preparatory work?)
- What are the benefits of horizontal measures rather than vertical measures?
- In which way and at which stage should stakeholders be involved?
- What are the benefits and risks of one horizontal (omnibus) act?
- Are the requirements of Ecodesign Directive (Art 15 and Annex I and II) adequate for identifying/covering the significant environmental parameters?

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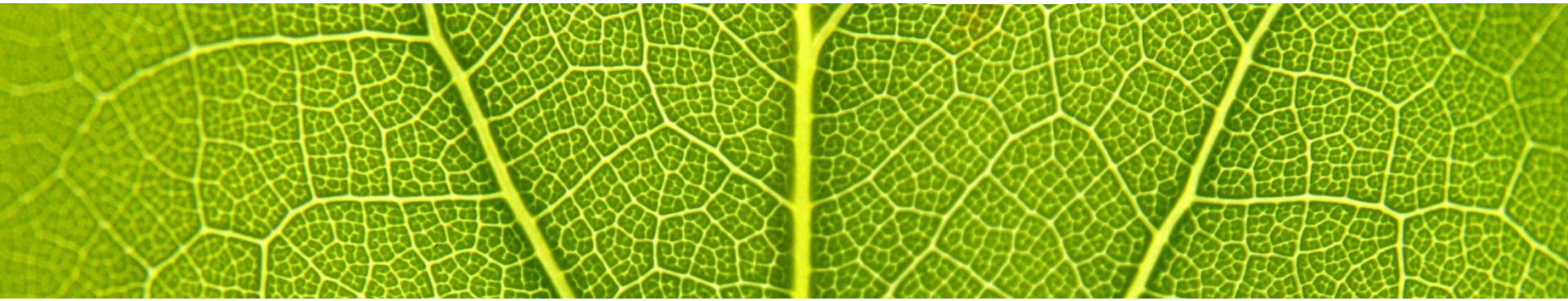


4. Experience with market surveillance and standardisation

Status of market surveillance – literature findings

Level of activities:

Literature (authored by different stakeholders – from EC to industry associations, NGOs and market monitoring projects) coherent about **weak and insufficien**t market surveillance round EU:

- 5 EU MS are active in market surveillance
- 6 countries are not active
- The rest has „Medium to low activity"

- Overall, only **small market segment is surveyed**: < 0,6% when considering number of models tested out of all models available on the market (ELD).
- Literature also confirms even larger lack of surveillance for ecodesign requirements.

Level of non-compliance

Most common estimates

Literature reviewed, containing national testing campaigns and expert / study estimates, most often suggests that:

- 10 – 25% of products are non-compliant (but various projects identify between 10 – 70%)
- 10% of value of yearly energy savings could be lost due to non-compliance.

Only rare calculations are available on the „profitability of market surveillance for the society), which is one barrier for increasing the level of surveillance:

- Current total government expenditure on compliance activities in the EU: €7 million/yr = **<u>0.05%</u> of the value of lost yearly energy savings**

Surveillance related problems

Literature commonly identifies the following **barriers**:

> Resources

- **Laboratories** : barriers or lack of experience/confidence in using external or foreign laboratories
- **Expertise** : literature reports that due to growing list of product groups covered, expertise is lacking among surveillance professionals
- **Model names**: identified as one possibly very effective way to increase impact of surveillance, to ensure the transfer of „results" to model families (within one country) and internationally, where manufacturer uses the same label declaration.
  - But lack of evidence on: is the manufacturer obliged to supply such list?

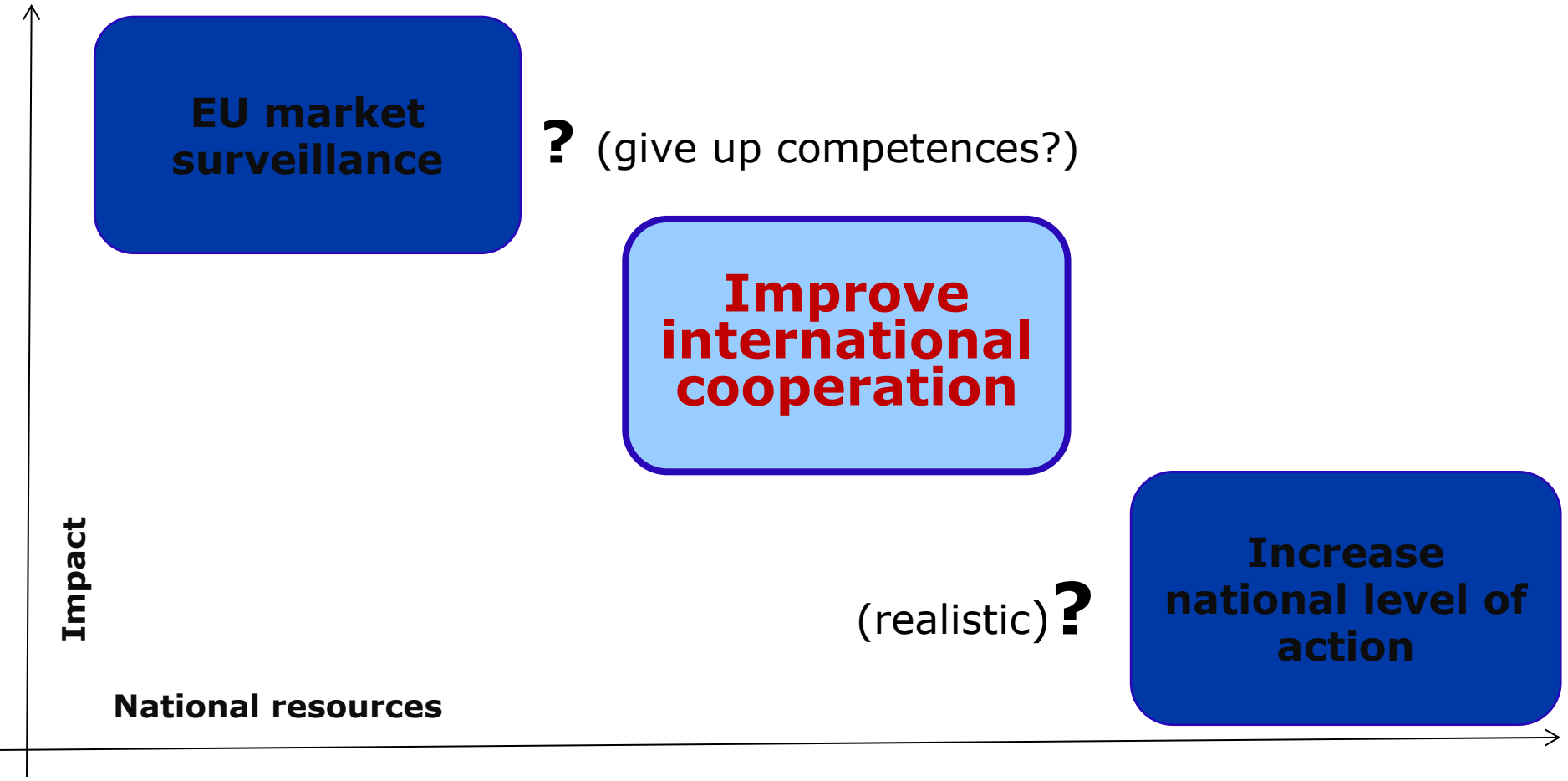
Suggestions for improvement - literature

Literature, by authorities, projects, stakeholders, identifies and suggest the following opportunities for increasing the impact of surveillance:

- **Guidelines / templates / best practice**: ensure common and unified procedures, evaluations, report formats
- **Cooperation with stakeholders**: manufacturers / retailer chains / NGOs, so that there is:
  - Common understanding on regulations´ requirements
  - Results of individual surveillance actions have impact on wider product groups / number of shops
- **Among authorities**: identified interest to share plans and share results. One challenge with great potential to increase impact of surveillance activities: To **transfer results** (on the same models) between countries.

Suggestions for improvement - literature (2)

From the organisational point of view, most common recommendation is to cooperate internationally and also to involve EC in coordination, best practice sharing, monitoring, guidance.



Standardisation

Main obstacles identified in the literature concerning standardisation and its impact on energy labelling and ecodesign:

- **Time gaps** between certain regulations entering force and the testing standards being developed
- Standards **not** always sufficiently **reflecting common consumer habits**
- The development of standards usually dominated by manufacturers, with **lack of surveillance authority and other stakeholder inputs** (recent efforts to increase other stakeholder inputs supported by EC)
- The **tendency of models to perform well in standard conditions**, but not for the remaining (washing, cleaning, etc) programmes offered by the model.

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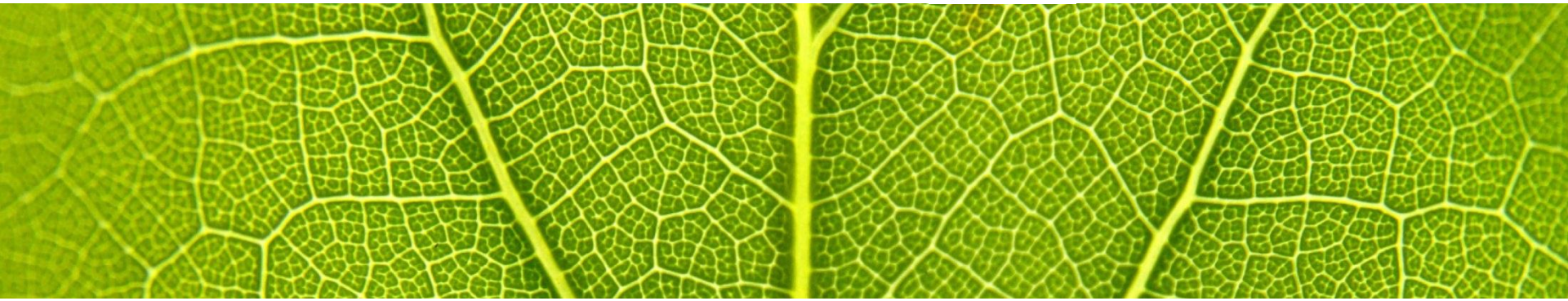


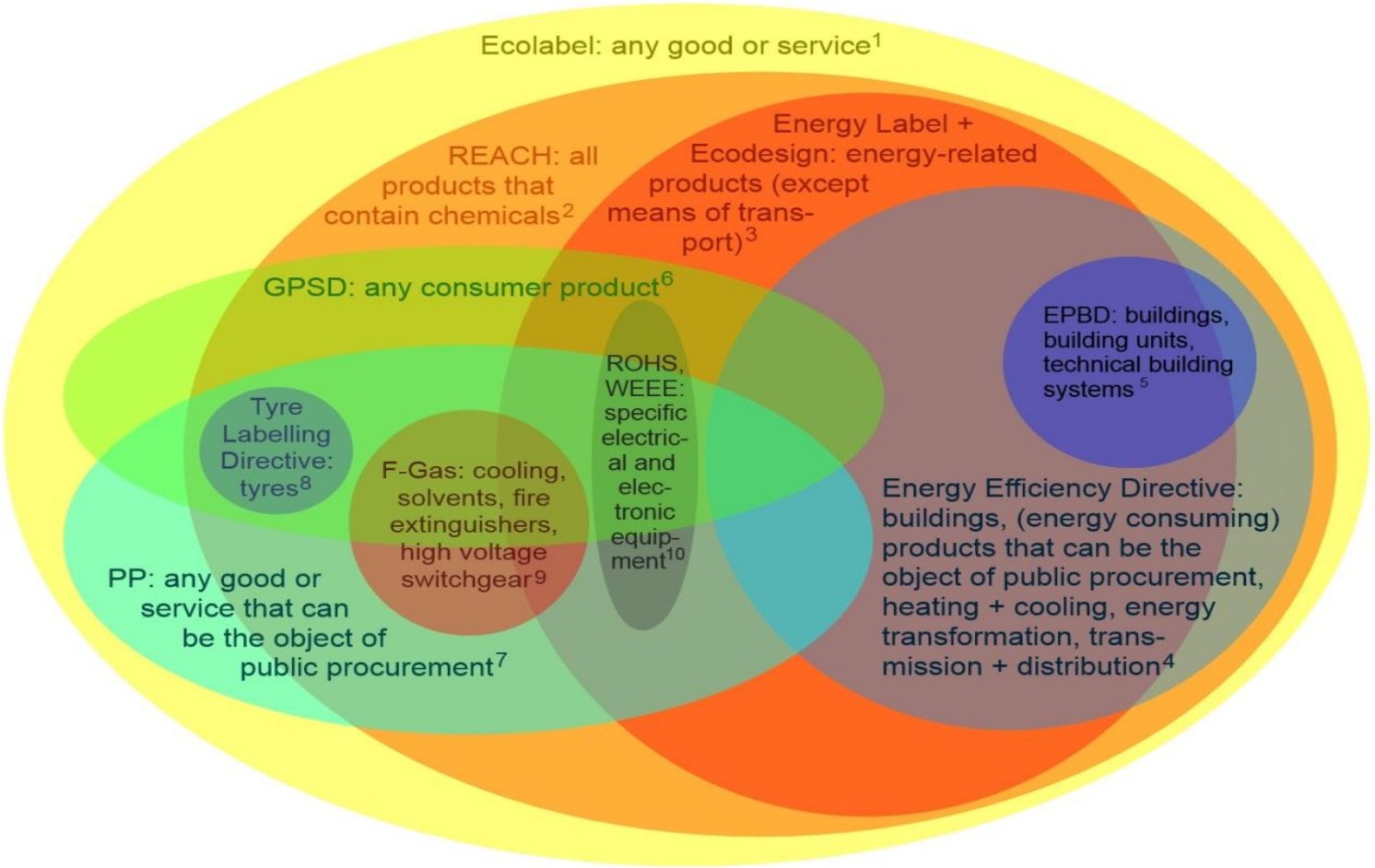
5. Interaction between Energy Labelling, Ecodesign and other policies

Key questions addressed (selected) – from own policy analysis, not literature

- **Types of relations examined:**
  - Overlaps
  - Conflicts and misfits
  - Synergies and complements
  - Gaps
  - Selected issues: comparison of results
- **Levels of analysis**
  - Theoretical level (potential conflicts etc.; derived from policy scope and mechanisms; level of framework directives)
  - Actual level (recent examples; level of product-specific regulations and procedures) (ongoing)

Principle findings (I)

Overlaps of scope



CO_2 labelling of cars not included here

Principle findings (II)

- Main potential for synergies / complements:
  - Complementary products or aspects addressed (e.g. ELD and tyre labelling, ED / ELD and Ecolabel, RoHs, REACH…)
  - Complementary actors addressed (e.g. ED / EPBD)
  - Complementary policy mechanisms (push and pull; eg ED and ELD; ED and GPP / voluntary labelling)
  - May share information basis (e.g. ED and ELD prep studies)
- Main potential for conflicts:
  - Conflicting requirements: Between Ecodesign and other environmental legislation
  - Conflicting mechanisms or strategies: Between Ecodesign and EPBD (ex. boilers: EPBD allows national variation, Ecodesign needs EU-wide agreement)
- Main potential for misfits:
  - Misfit in requirements (e.g. weak Ecolabel criteria as compared to ELD classes); often due to
  - Misaligned timing or procedure/ benchmarks etc.
- Main potential for gaps
  - Overlap of scope that invites "shifting" of problems between policies (e.g. end-of life issues in ED and vs. WEEE)

Would welcome input on:

- Actual and recent examples for synergies, conflicts, gaps, or misfits
  - with respect to product-specific requirements
  - with respect to procedures
- Comparison of the results of EPBD vs. ED and ELD in the field of technical building systems
- How to improve synergies between Ecolabel, GPP, ED and ELD (especially with respect to procedures)?

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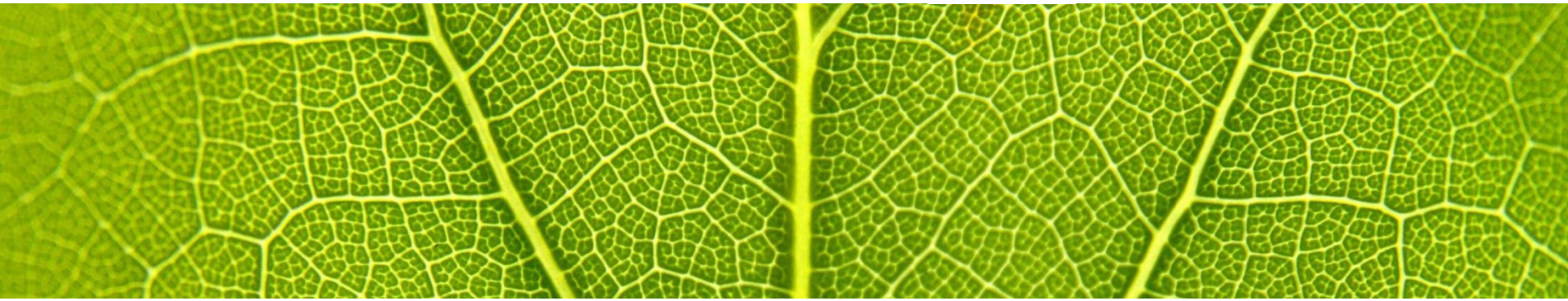

6. Scope extension of the Energy Labelling and Ecodesign Directives

Products and impacts regulated, *legal* (**ED**, **ELD**)

Life cycle phase ➡ / Product type ⬇	Manufac-turing	Use	End of Life
EuP-consumers	**ED**	**ED**	**ED**
		ELD	
EuP-B2B			
'Product-systems'			
ErP			
Non-ErP			
Means of transport			

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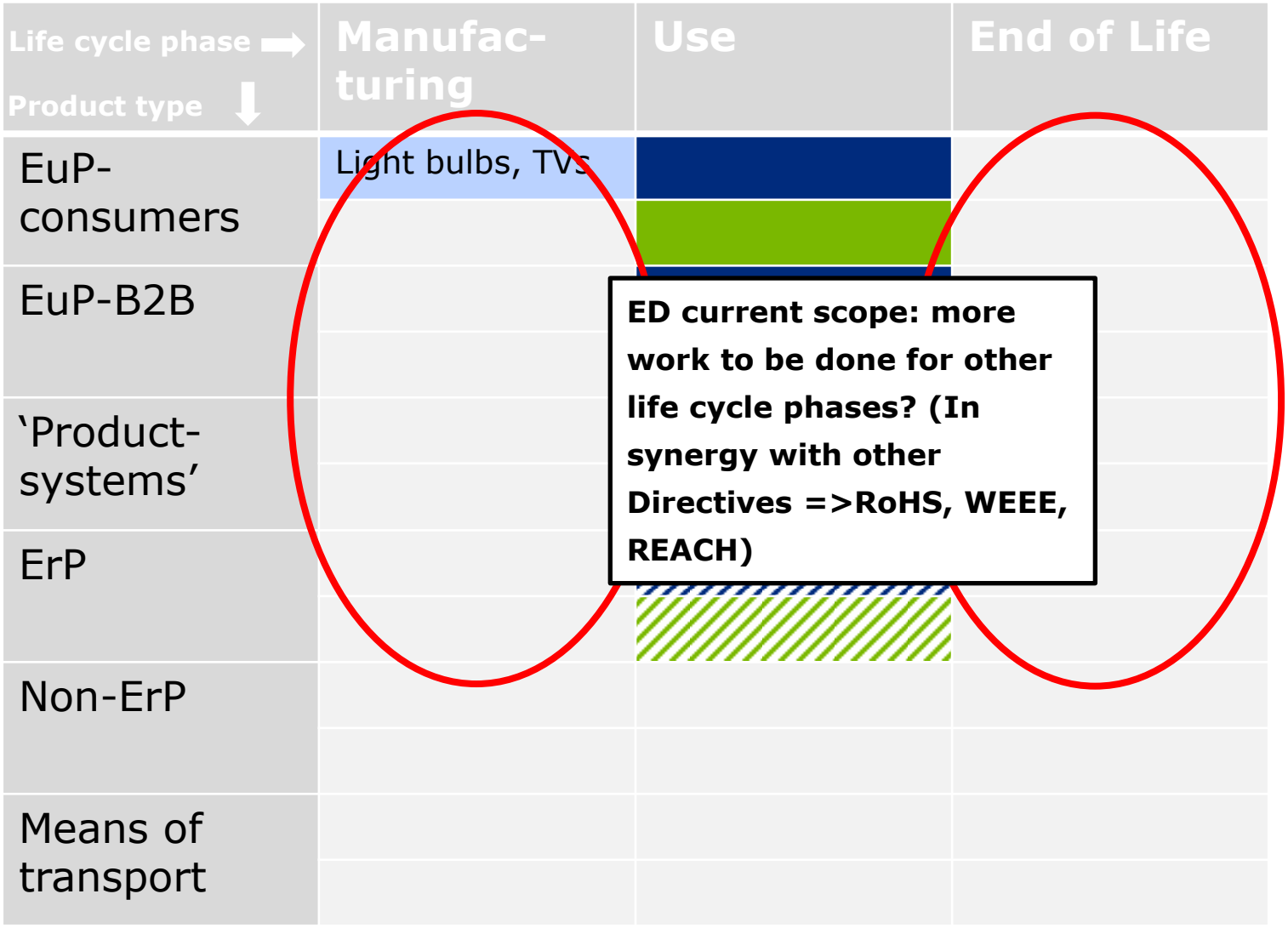
*Actually it concerns CO_2 rather than energy

Products and impacts regulated, *in practice* (**ED**, **ELD**)

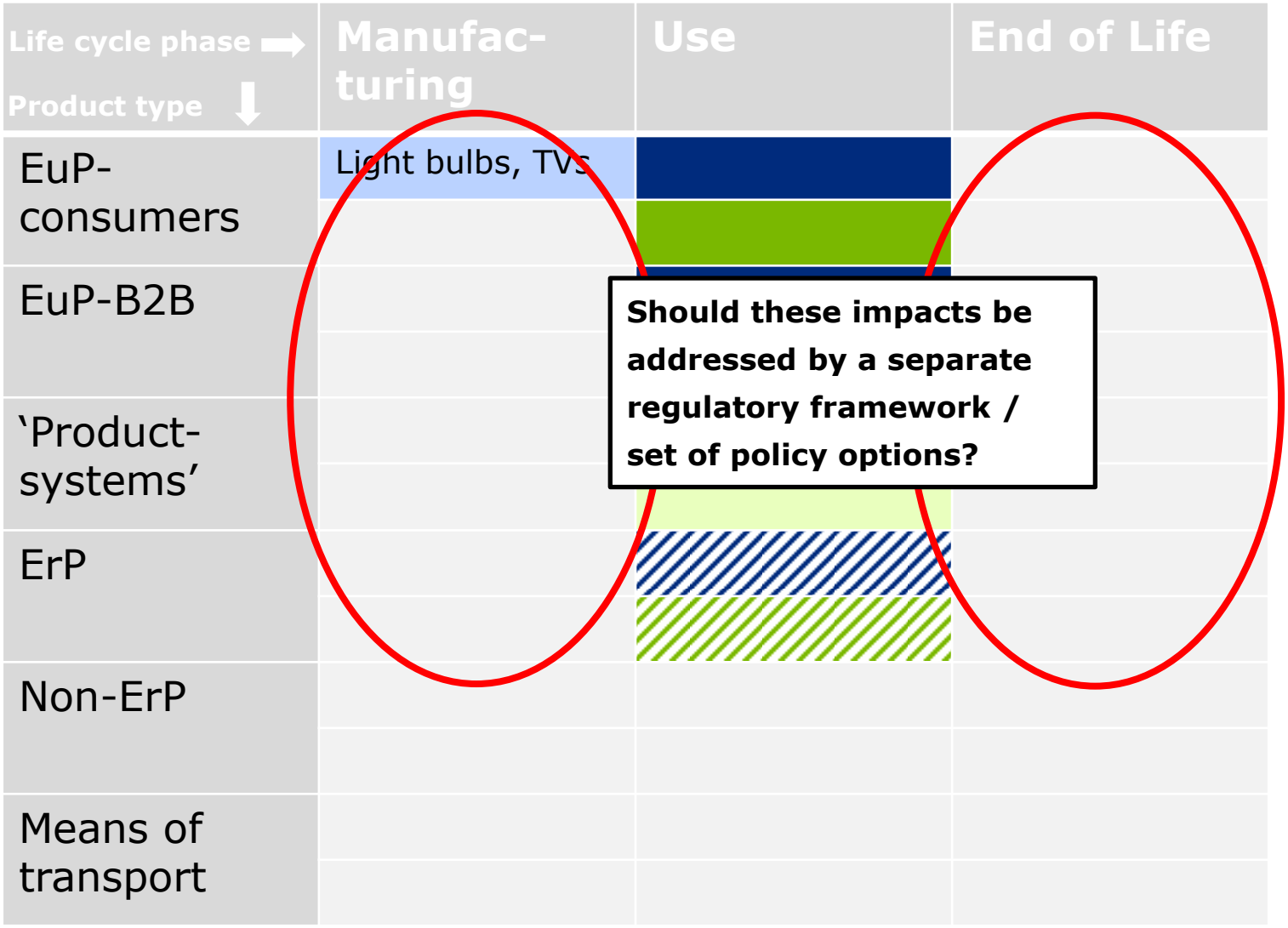
Life cycle phase ➡ / Product type ⬇	Manufac-turing	Use	End of Life
EuP-consumers	Light bulbs, TVs		
EuP-B2B			
'Product-systems'			
ErP			
Non-ErP			
Means of transport			

Current scope: more ED/ELD energy savings to be achieved

Products and impacts regulated, *in practice* (**ED**, **ELD**)



Products and impacts regulated, *in practice* (**ED**, **ELD**)



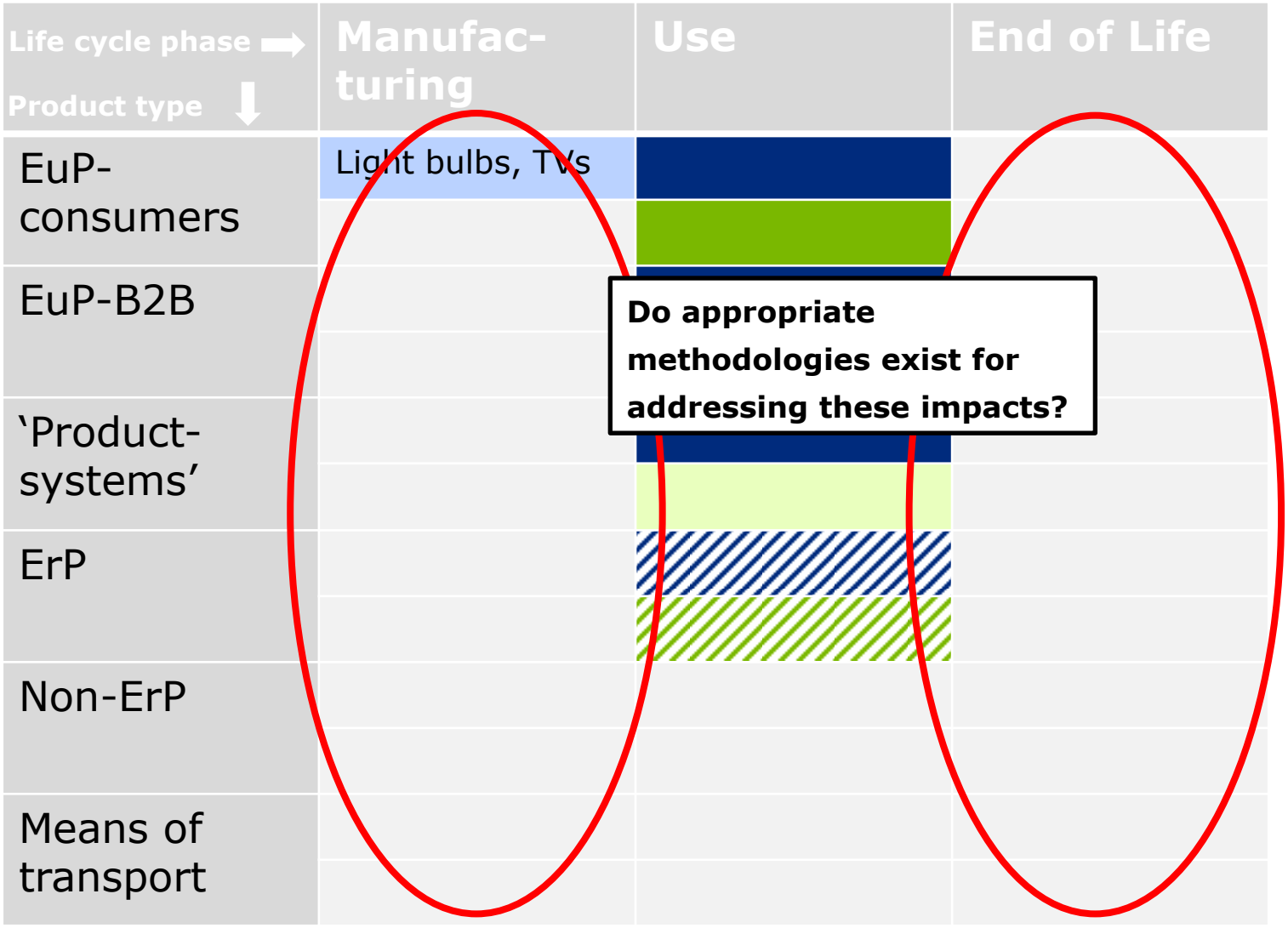
Relevance of scope extension

- ***Relevance***: are the objectives of the Directives appropriate to the needs of EU community? What additions would be appropriate? How could changes impact the ***effectiveness*** and the ***efficienc***y of the current Directives? Would changes increase ***coherence*** in policy framework?

Main Findings in literature

- Extension of scope to non-ErPs
  - Existing Literature: Weak
  - Main Findings
    - Non-ErPs represent a large part of the total impact of industrial production and product consumption
    - Main environmental impacts are related to the initial stages of the life cycle (production phase including raw material production / extraction)
    - Including environmental information on the label often has rather limited impact on consumer choice
    - For certain product categories (e.g. passenger cars) existing legislation is already covering most of the relevant environmental aspects.

Products and impacts regulated, in practice (**ED**, **ELD**)



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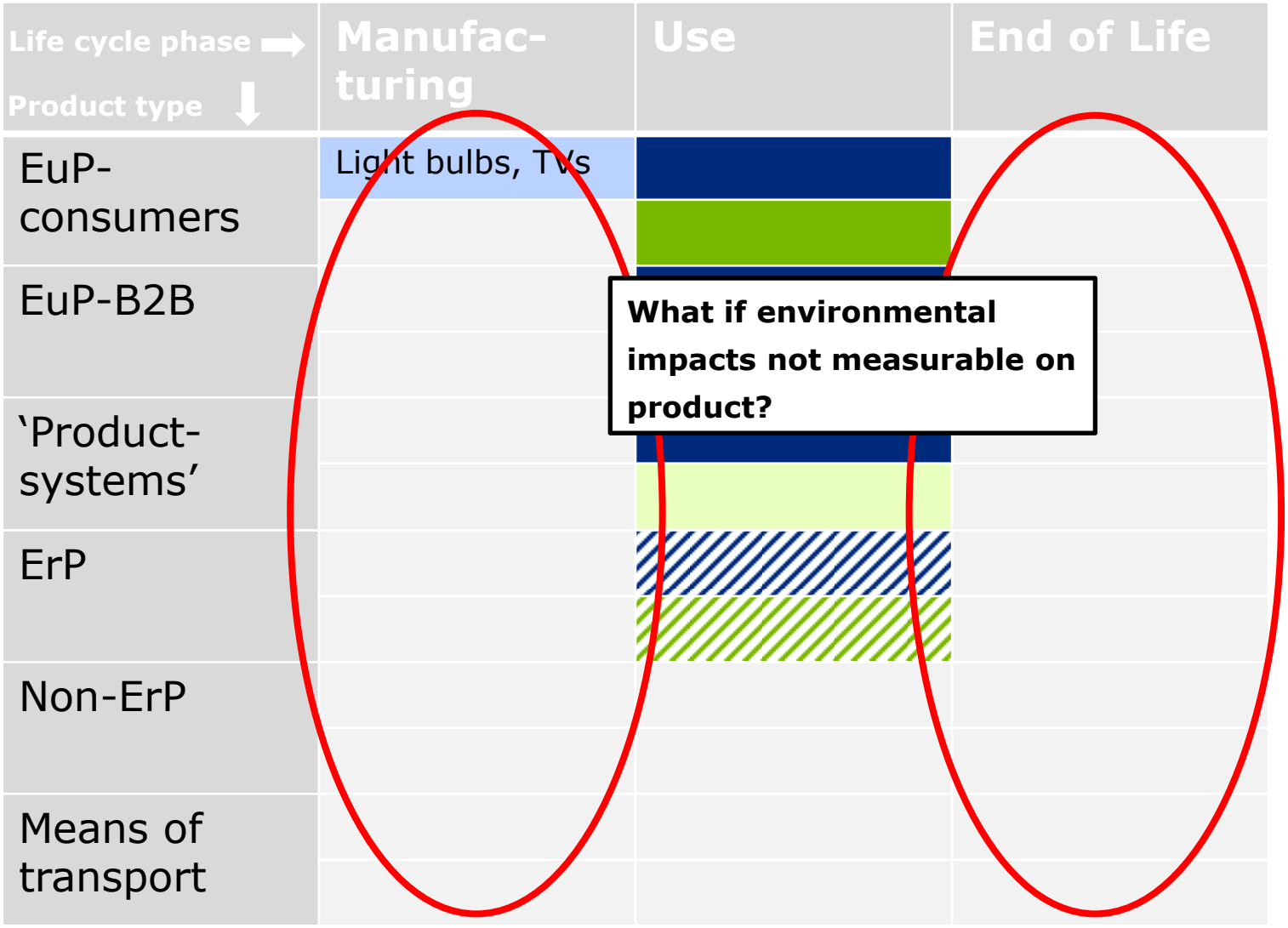
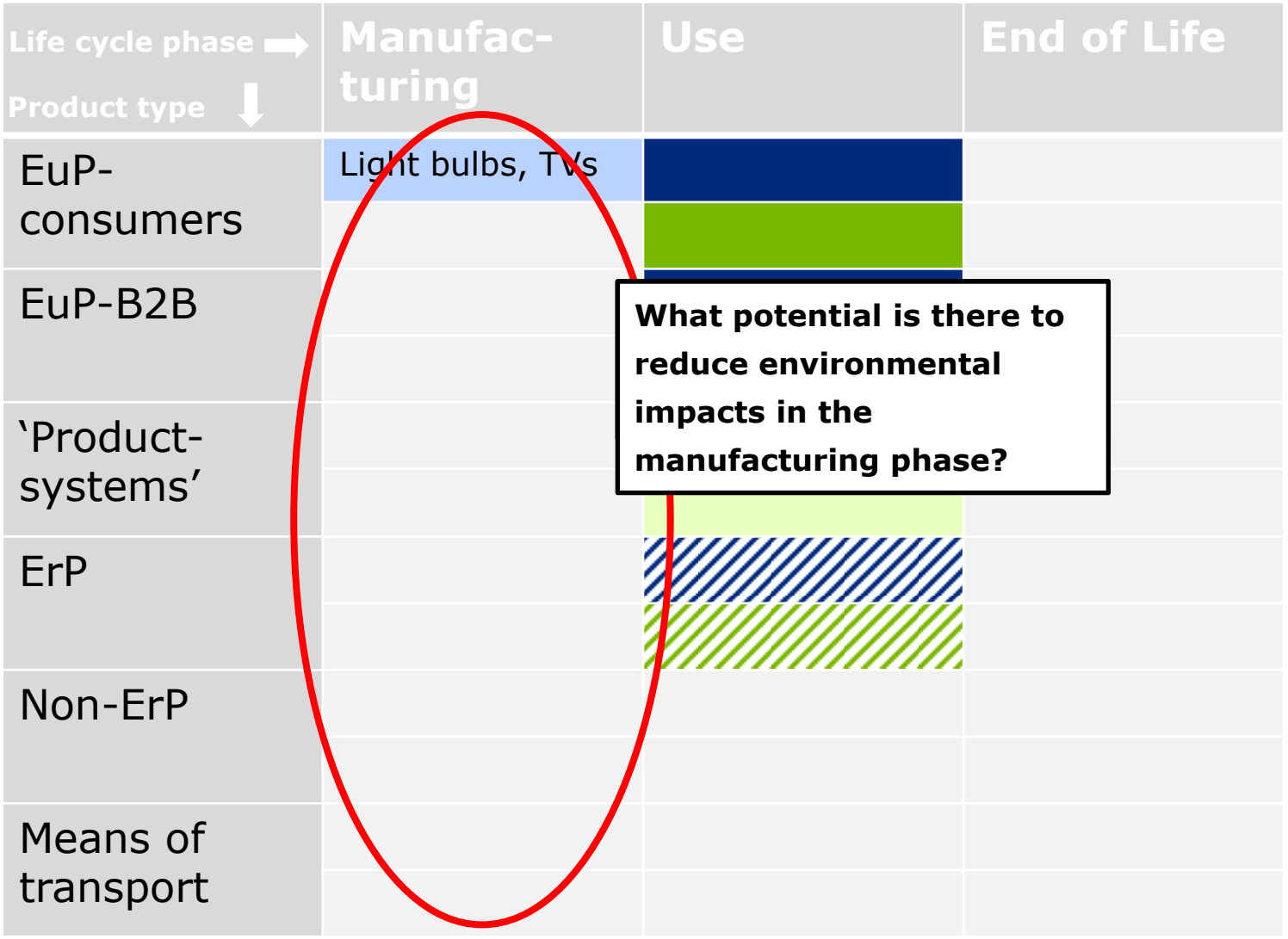
Products and impacts regulated, in practice (**ED**, **ELD**)



Products and impacts regulated, in practice (**ED**, **ELD**)



Products and impacts regulated, in practice (**ED**, **ELD**)

Life cycle phase → / Product type ↓	Manufac-turing	Use	End of Life
EuP-consumers	Light bulbs, TVs		
EuP-B2B			
'Product-systems'			
ErP			
Non-ErP			
Means of transport			

Should the scope be extended to non-ErPs? What are the options? (methodological and verification issues)

Products and impacts regulated, in practice (**ED**, **ELD**)

Life cycle phase → / Product type ↓	Manufac-turing	Use	End of Life
EuP-consumers	Light bulbs, TVs		
EuP-B2B			
'Product-systems'			
ErP			
Non-ErP			
Means of transport			

How to label environmental impacts?
How to avoid reducing the effectiveness of energy labelling?

Products and impacts regulated, in practice (**ED**, **ELD**)

Life cycle phase ➡ / Product type ⬇	Manufac-turing	Use	End of Life
EuP-consumers	Light bulbs, TVs		
EuP-B2B			
'Product-systems'			
ErP			
Non-ErP			
Means of transport			

In what regulatory framework should these be addressed? Should a harmonised EU label be introduced for cars? (Consider overlap with CO_2 requirements and labelling for cars and Tyre Labelling)

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