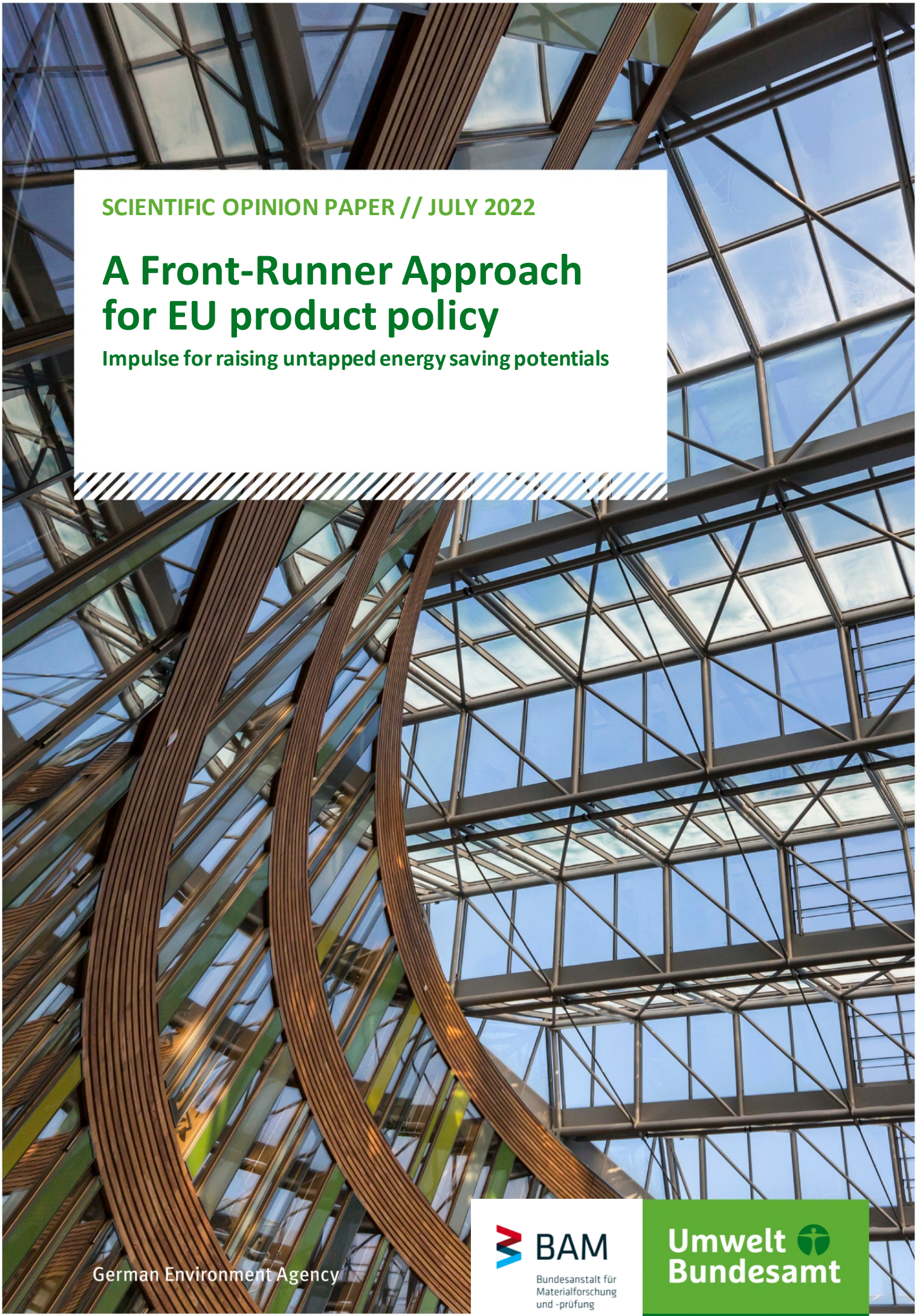

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A Front-Runner Approach for EU product policy

Impulse for raising untapped energy saving potentials

German Environment Agency

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A Front-Runner Approach for EU product policy

Impulse for raising untapped energy saving potentials

by

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Executive Summary

In 2020, the European Commission has announced to propose a Sustainable Product Policy for the EU which shall ensure that the performance of front-runners in sustainability progressively becomes the norm. In addition, the European Commission has re-emphasised the necessity to significantly improve the effectiveness of the current Ecodesign framework for energy-related products.

With this paper, we present an initial outline of a policy approach which we call the "EU front-runner approach". The approach aims at **installing a regulatory framework which enables a semi-automated, progressive adaptation of ecodesign minimum requirements for products**. It builds on performance levels of the best products available on the market by aggregating information in a database.

The "front-runner approach" could first be applied to **progressively adapt product-related minimum energy-efficiency requirements**. This way it would serve as a starting point to introduce this concept to the EU policy arena.

While the approach can be applied for energy efficiency, it is neither limited to energy-related products nor to energy-related requirements. It can be **applied to the wide range of non-energy related products** within the scope of the upcoming Ecodesign for Sustainable Products Regulation (ESPR) **as well as to non-energy-related requirements**, such as minimum requirements for durability, reparability, recyclability and recycled content.

The "Front-Runner" in the Circular Economy Action Plan

*"In order to make products fit for a climate-neutral, resource-efficient and circular economy, reduce waste and ensure that the performance of **front-runners** in sustainability progressively becomes the norm, the Commission will propose a sustainable product policy legislative initiative."*

Source: COM(2020) 98 final: Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: A new Circular Economy Action Plan – For a cleaner and more competitive Europe; Part 2: A Sustainable Product Policy Framework

1 Missed energy saving potentials due to lengthy and complex procedures

To achieve the overall objectives of the European Green Deal the European Commission identified improving energy efficiency as a key dimension in order to reduce energy consumption and cut greenhouse gas emissions (European Commission (2022a)). The energy crisis caused by the Russian invasion of Ukraine, exacerbates the necessity to improve energy efficiency. Elevating savings by just a few percent could mean additional annual energy savings in the EU of 5-10 TWh. Letschert et al. (2013) estimate that if Best-Available techniques (BAT) would be applied to energy using products, 2.700 Mt of CO_2 emissions could be saved from 2015 to 2030.

However, experience gathered so far from the implementation of the Ecodesign Directive (2009/125/EG) and the Energy Labelling Regulation ((EU) 2017/1369) has also shown that the existing saving potentials for a large number of the addressed product groups have not always been effectively and efficiently exploited (European Court of Auditors (2020)). Corresponding legislative processes take years and preparatory and revision studies are delayed. As a consequence, the savings potential across product groups of three quarters of the measures announced in the 3rd Ecodesign Work Plan (2016-2019) has not yet been realised (ECOS & EEB (2021)). In addition, deficits in some product-group specific regulations existed in the past, e.g. for displays or washing machines. In these product groups, the next level of the minimum requirements has been achieved or even significantly exceeded by the products available on the market long before they came into force. Hence, a dynamic in updating the minimum efficiency requirements is precisely what is needed to ensure that they continue to have a control effect and that less efficient products are excluded from the market.

Against the background of the current energy and climate policy goals of the EU as well as individual Member States, such as Germany, the Netherlands or Austria, failing to exploit existing savings potentials due to deficiencies in existing policy procederes is unsatisfactory.

The reasons for the numerous delays in defining initial or reviewed legal minimum requirements are manifold. They result in delayed requirements or in requirements which lag behind the performance levels of products already available on the market. In consequence, the savings potential remains unexploited. However, especially the circumstances outlined below seem to tie up considerable human and financial resources from all parties involved – both at the EU level and from the Member States as well as stakeholders:

- **Time-consuming market analyses** in the context of preparatory and review studies;
- Ongoing discussions about the timeliness and representativeness of researched or modelled market data and about the conclusions to be drawn from this with regard to the appropriate level of requirements, due to **the lack of complete, up-to-date information** about the energy efficiency of the appliances available on the market;
- The significant increase in regulated product groups, which is accompanied by a corresponding **increase in the necessary revision work**;
- A **significant increase in the products' complexity** of both potential and existing product groups and the definition of appropriate system boundaries (e. g. smart appliances, building automation and control systems or ventilation systems);

It may be discussed in the appropriate context how the European Commission's internal procedures can be streamlined.

2 Accelerating ecodesign: Introducing a front-runner approach to EU product policy

2.1 Benefits

The basic mechanism of a front-runner approach is the **dynamic adaptation of the minimum requirements in relation to the energy efficiency level of the product(s) with the highest energy efficiency**. The setting of minimum requirements is thus done in relation to the current performance of the products available on the market. In contrast to the present procedure, the requirement level is always up to date on the basis of the energy efficiencies of currently available products. Those efficiency-related minimum requirements are in line with real market developments. Thus, the approach is therefore equally dynamic as the market itself. This enables:

- a more effective and efficient implementation of Ecodesign regulations;
- a significant reduction of the workload for revision work as well as
- improved calculability of the overall process – the EU Commission, the product development of market actors and for the energy efficiency policy of the member states.

Other time-consuming issues like increased complexity of regulated product groups have to be addressed otherwise.

2.2 Key Elements

These elements are essential for a dynamic increase of energy efficiency requirements following real market developments:

Using the European Product Registry for Energy Labelling (EPREL) database for all product groups to which ecodesign requirements apply.

The basic prerequisite for establishing a front-runner concept is the availability of a constantly updated database on the energy efficiency of the products placed on the market. This database is used to identify the front-runner products of the respective product group. The energy efficiencies of these products are the starting point for deriving the new minimum requirement for the entire product group. The EPREL database (European Commission (2022c)) is a key element of this approach. The database is already mandatory for 15 product groups for which an EU Energy Labelling obligation exists. It represents a big share of products with Ecodesign requirements and gives a sound picture of the products on the market. A verification process for database entries was recently discussed and created (European Commission 2022d)).

This infrastructure, which is already established and in use for data collection and provision, could be used for the collection of the energy efficiencies of all product groups for which Ecodesign requirements apply.

In addition to the EPREL database, other legislation might create useful data sources, such as the establishment of databases in the context of a digital product passport as included in the proposal of the European Commission for a new Ecodesign Regulation (European Commission (2022b)).

Focussing on updating the energy efficiency-related minimum requirements

Currently, an adaptation of the minimum energy efficiency requirements requires a complete revision of the respective implementing regulation. This also requires going through the entire comitology procedure and leads to a corresponding commitment of time and personnel resources by the European Commission, member states and stakeholders. Hinchliffe & Akkerman (2017), for example, point out the limitations of the resources available for conducting review studies. It therefore seems equally reasonable and expedient to carry out the adaptation of the energy efficiency-related minimum requirements separately from the comprehensive revisions. This way, the minimum energy efficiency requirements can be updated or continued at much shorter intervals than before (or even by using an annual omnibus-regulation when a certain number of outstanding revisions is reached in order to avoid overburdening stakeholders). Fundamental changes, such as the definition of new measurement methods, would remain the subject of the comprehensive revisions which may then occur in larger intervals. On this occasion, possible failure of the dynamic approach can be fixed e.g. if the market develops more slowly than expected.

The personnel resources made available by a simplification of the standard procedure for setting energy efficiency-related minimum requirements could be used to further develop material- and resource protection requirements.

2.3 Recommendations for Implementation

► **How can a general obligation to provide and collect data on the energy efficiency of energy-related products be anchored?**

A database can be created under the planned Ecodesign for Sustainable Products Regulation (ESPR) directly or by extension of EPREL to Ecodesign product groups without an energy label.

If the database needed for the front-runner is implemented via Regulation (EU) 2017/1369 we propose the following addition to Articles 4 and 12 (*proposed additions in italics*):

- **Article 4 Obligations of suppliers in relation to the product database:**
  "(1) As from 1 January 2019, the supplier shall, before placing on the market a unit of a new model covered by a delegated act, enter in the public and compliance parts of the product database the information for that model, as set out in Annex I.
  From [1 January 2023], the supplier shall, when placing a unit of a new model covered by an implementing measure pursuant to Article 15 of Directive 2009/125/EC on the market, enter in the compliance parts of the product database the information for that model, as set out in point 3 of Annex I."

- **Article 12 Product database:**
  "(2) The product database shall serve the following purposes: […]
  d) provide the Commission with up-to-date information on the energy efficiency of products for the purpose of updating existing minimum energy efficiency requirements for those product groups for which an implementing measure has been adopted in accordance with Article 15 of Directive 2009/125/EC, in accordance with the regulatory procedure referred to in Article 19(3) of Directive 2009/125/EC."

If the database needed for the front-runner is implemented via the planned ESPR, we propose the following additions:

- **Establish the database:**
  "The Commission shall establish and maintain a product database that provides the Commission with up-to-date information on the energy efficiency of products for the purpose of updating existing minimum energy efficiency requirements for those product groups for which a delegated act has been adopted in accordance with Article 4 of this regulation."

- **Empower the Commission to obligate suppliers for the database (e.g. Article 4):**
  "Delegated acts referred to in the first subparagraph may also supplement this Regulation by: (…)
  requiring manufacturers, their authorised representatives or importers, when placing a unit of a new model covered by a delegated act on the market, to enter in the compliance parts of the product database the information for that model."

► How can the front-runner approach be legally implemented in the implementing regulations?

For the purpose of dynamic legislation, the following shortened procedure could be introduced for updating existing energy efficiency requirements:

A product specific and written procedure regularly updates the energy efficiency requirements of the respective implementing regulations (either as update of a single implementing regulation or as an omnibus regulation for multiple product groups).

To this end, we propose the establishment of the following parameters in the implementing regulation of a product group:

- A threshold value, which triggers an adjustment of the energy efficiency requirement when a critical share of products reached a certain efficiency level (e.g. an energy efficiency gap between x% of the front-runners and the existing minimum requirement
- the specific mechanism for determining the new minimum requirements orientated on average energy efficiency of the top y % of the most efficient products), and
- the respective transition period until the new energy efficiency requirement enters into force.

Examples

"If at [cut-off date] the average of the products in EPREL is [50 %] more efficient than the current efficiency requirement, the efficiency requirement increases to the average energy efficiency of the [30 %] most efficient products in EPREL after a transition period of [2] years."

"If at [cut-off date] [10 %] of the products in EPREL is [30 %] more efficient than the current efficiency requirement, the efficiency requirement increases by [10 %] after a transition period of [2] years."

3 Outlook

The front-runner proposal of dynamic, market-based updating of minimum energy efficiency requirements for Ecodesign product groups is intended to help leverage the existing energy savings potential in the EU through more effective energy efficiency improvements of products. The proposal of a front-runner does not mean that energy efficiency requirements get out of hand (they are still controlled via amendments of the implementing regulations) but it will result in less manual work for revising energy efficiency requirements.

Of course, there are still issues to be discussed or refined:

- Which trigger thresholds are best suited?
- How to prevent the market from developing against this progressive, market-based approach?
- How to maintain affordability of products if it turns out that the front-runner accelerates too fast?
- How to set up appropriate legislative procedures?

Regardless of these questions, we believe the front-runner approach as sketched in this paper provides great potential to keep products' efficiency progress better on track than today and for tackling other environmental impacts more thoroughly.

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