Delays in ecodesign implementation threaten 55% climate target and cost citizens billions

Brussels, September 2021

EEB European Environmental Bureau

ecos

coolproducts for a cool planet

Summary

Delays in ecodesign threaten 2030 climate target, households foot the bill

Ecodesign and Energy Labelling policies were responsible for achieving a quarter of the EU's 2020 emissions reduction targets, and nearly half of the EU's 2020 energy savings – all the while generating savings for consumers, new jobs and revenue for European businesses[1]. However, the effectiveness of these policies is significantly reduced by lengthy delays in adopting the necessary implementing measures, as pointed out in January 2020 by the Special Report from the EU Court of Auditors. Since then:

- **No new implementing measure** planned under the existing Ecodesign and Energy Labelling Working Plan has been adopted by the von der Leyen Commission. In total, **only 25% of the work planned for the 2016-2019 period has been completed.**
- The Ecodesign and Energy Labelling Working Plan covering 2020-2024 is still under development and is expected to be adopted with a **2-year delay** at least. This situation raises concerns over the Commission's allocation of resources to essential climate and product policies.

These delays have a tangible impact on the environment and consumers: by 2030 delays to the work plan will result in almost **10 million tonnes of CO_2eq emissions annually, equivalent to 5 million cars**, roughly the number registered in Belgium. Additionally, consumers could save 40 billion euros on their energy bills between 2020 and 2030. As it is, an average European household **will spend an extra 110€ on energy by 2030**, as a direct result of poor policymaking.

ECODESIGN AND ENERGY LABELLING POLICIES ARE CURRENTLY EXPECTED TO DELIVER ABOUT ONE THIRD OF THE SAVINGS NEEDED TO ACHIEVE THE EU'S 55% EMISSION REDUCTION TARGET BY 2030

Ecodesign and Energy Labelling policies are currently expected to deliver about **one third of the savings needed to achieve the EU's 55% emission reduction target by 2030** (at least 500Mt out of the total 1,500 Mt that need to be cut down between 2015 and 2030).

According to our calculations, however, the EU could go even further with swifter and more ambitious new regulations for the newly added product groups in the Working Plan 2020-2024, together with bolder and timely revisions of the existing product regulations. An **extra 58 million tonnes of yearly CO_2 savings** could become a reality if the EU strengthened its Ecodesign and Energy Labelling policies. This is roughly equivalent to the annual emissions of Hungary, and almost 4% of the efforts needed to achieve the 55% reduction goal.

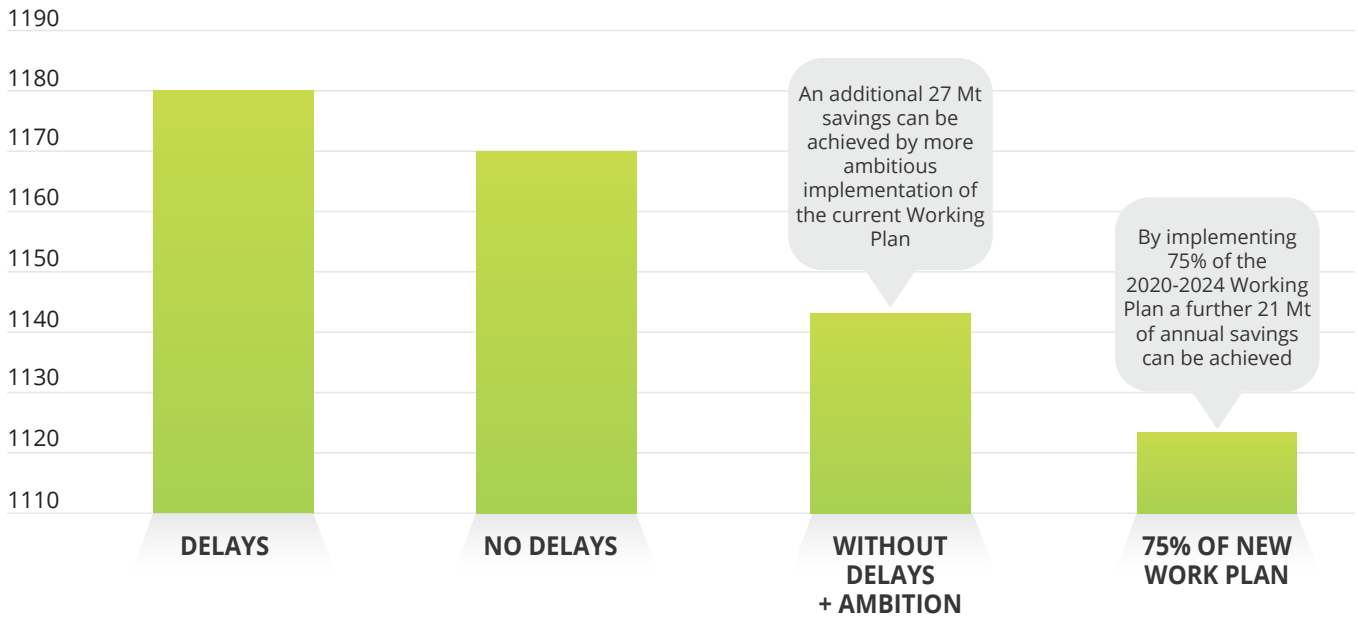
To make up for the time already lost and harvest the potential additional savings, **we call on the European Commission to allocate adequate resources to the crucial Ecodesign and Energy Labelling policies**, primarily in terms of number of staff, and to switch towards a much more ambitious implementation of the existing regulations.

1. https://www.vhk.nl/research/eia.htm

Additional GHG emissions caused by delays, in numbers

The figure below illustrates the total annual emissions in 2030 for the EU27 for energy related products in four scenarios. The first scenario, "delays", illustrates existing implementation including the impact of delays. The second scenario, "no delays", illustrates the existing implementation without any delays. The third scenario, "+ ambition" illustrates more ambition in the existing work plan. The fourth scenario, "75% new work plan", illustrates additional savings from implementing 75% of the 2020-2024 work plan.

Total emissions of products covered under ecodesign regulations during the 2020-2030 period. (Mt CO2 eq)



Estimated 10 Mt savings lost due to delays compared to "normal" implementation.

10Mt in CO_2 = 5 MILLION POLLUTING CARS

40 BILLION EUR IN ENERGY SAVINGS

110 EUR PER HOUSEHOLD (EU27)

This data corresponds to the 2020-2030 period

Savings... delayed

The EU's Ecodesign and Energy Labelling policies have led to mammoth energy and GHG emissions savings since their introduction in 1994 and 2005. In 2020, these policies brought about savings worth 10% of the EU's total primary energy consumption and avoided 311 Mt CO_2 equivalent emissions, which represents about 7% of all GHG emissions[2].

The Ecodesign Directive (2009/125/EC) operates through product-specific and horizontal implementing measures, while the Energy Labelling Framework Regulation (EU/2017/1369) applies delegated acts. These measures need to be updated regularly to ensure that the least sustainable products are progressively pushed off the EU market. To coordinate this work, the European Commission publishes a working plan every three or four years, outlining the priorities for reviews and for new product groups to be regulated as they gain relevance on the market (such as smartphones or tablets).

Despite the proven track record of these policies, chronic delays in their development have resulted in missed GHG emissions and energy bill savings. This is particularly critical for high-impact product groups such as heating appliances and consumer electronics. The European Court of Auditors (ECA) highlighted the lengthiness of the process to establish product-specific regulations and urged the Commission to work towards minimising delays, notably by avoiding the so called 'package approach'[3]. This approach consists of grouping the release of measures, which means that parts of the 'package' are finished and waiting for adoption for months on end.

2. https://www.vhk.nl/downloads/Reports/EIA/EIA%20Overview%20Report%20status%202019%20-%20VHK20201028.pdf page 7
3. https://www.eca.europa.eu/Lists/ECADocuments/SR20_01/SR_Ecodesign_and_energy_labels_EN.pdf

7 OUT OF THE 20 PRODUCT REVIEWS PLANNED HAVE BEEN FINALISED

Adopting a package of regulations allows the Commission to communicate higher, more impactful figures[4]. However, this is only an illusion of success. In reality, this approach means delaying potential savings and creates the risk of measures becoming obsolete by the time that the whole package of regulations is ready. Additionally, it requires redundant heavy workload for the Commission, Member States and all stakeholders involved; this is specifically problematic as resource shortages have become a serious problem in recent years.

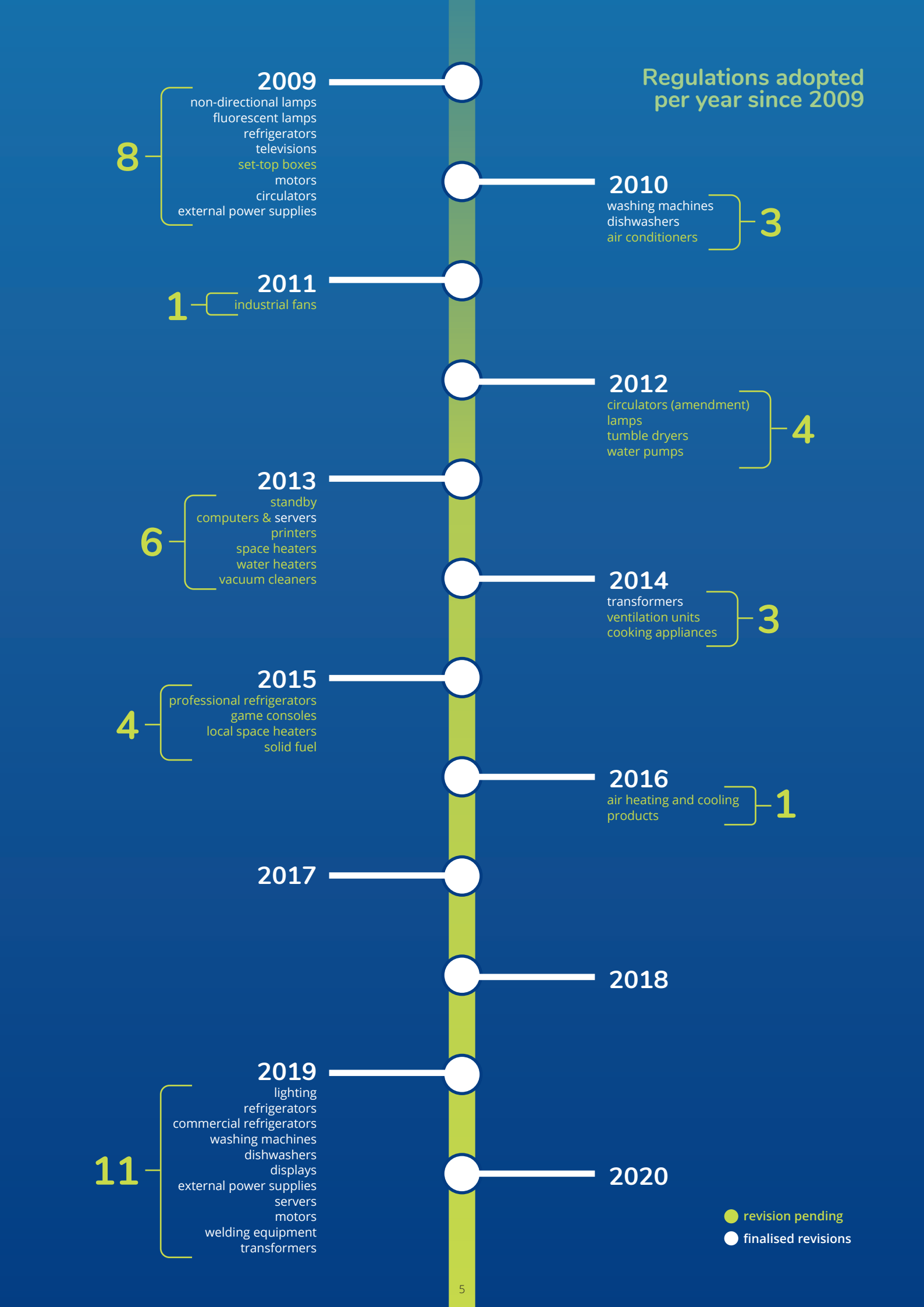
The situation today is critical. No new measures have been adopted since October 2019, before the von der Leyen Commission even took office. Only 25% of the measures listed in the 2016-2019 Working Plan have been adopted to date[5]:

- **None of the 10 new products** listed have been regulated;
- **Seven out of the 20 product reviews** planned have been finalised;
- **At the time of publication of the previous 2016-2019 Working Plan**, work was ongoing on nine products. Since then, only three of these product reviews have been finalised.

Since 2019, 15 Consultation Forum meetings have taken place, allowing for all concerned stakeholders to discuss the draft legislative texts proposed by the Commission. In spite of this, the policy process is on hold. None of the draft legislative texts have progressed to the next steps, which include the tabling of proposed regulations for formal vote or scrutiny by the Council and the European Parliament, and the entry into force of the legal requirements.

In March 2021, Coolproducts and Right to Repair campaigners alerted the Commission[6] about the status of Ecodesign and Energy Labelling policies and demanded a significant increase in the resources dedicated to their development.[7]

4. https://ec.europa.eu/commission/presscorner/detail/en/qanda_19_5889 : The European Commission estimates that this package of measures will deliver 167 TWh of final energy savings per year by 2030. This is equivalent to the annual energy consumption of Denmark.
5. according to our own calculations
6. https://www.coolproducts.eu/wp-content/uploads/2021/03/NGO-letter-on-ecodesign-delays.pdf
7. https://ec.europa.eu/info/energy-climate-change-environment/standards-tools-and-labels/products-labelling-rules-and-requirements/energy-label-and-ecodesign/energy-efficient-products_en#lighting


Regulations adopted per year since 2009
2009
8
non-directional lamps
fluorescent lamps
refrigerators
televisions
set-top boxes
motors
circulators
external power supplies
2010
washing machines
dishwashers
air conditioners
3
2011
1
industrial fans
2012
circulators (amendment)
lamps
tumble dryers
water pumps
4
2013
6
standby
computers & servers
printers
space heaters
water heaters
vacuum cleaners
2014
transformers
ventilation units
cooking appliances
3
2015
4
professional refrigerators
game consoles
local space heaters
solid fuel
2016
air heating and cooling products
1
2017
2018
2019
11
lighting
refrigerators
commercial refrigerators
washing machines
dishwashers
displays
external power supplies
servers
motors
welding equipment
transformers
2020
revision pending
finalised revisions

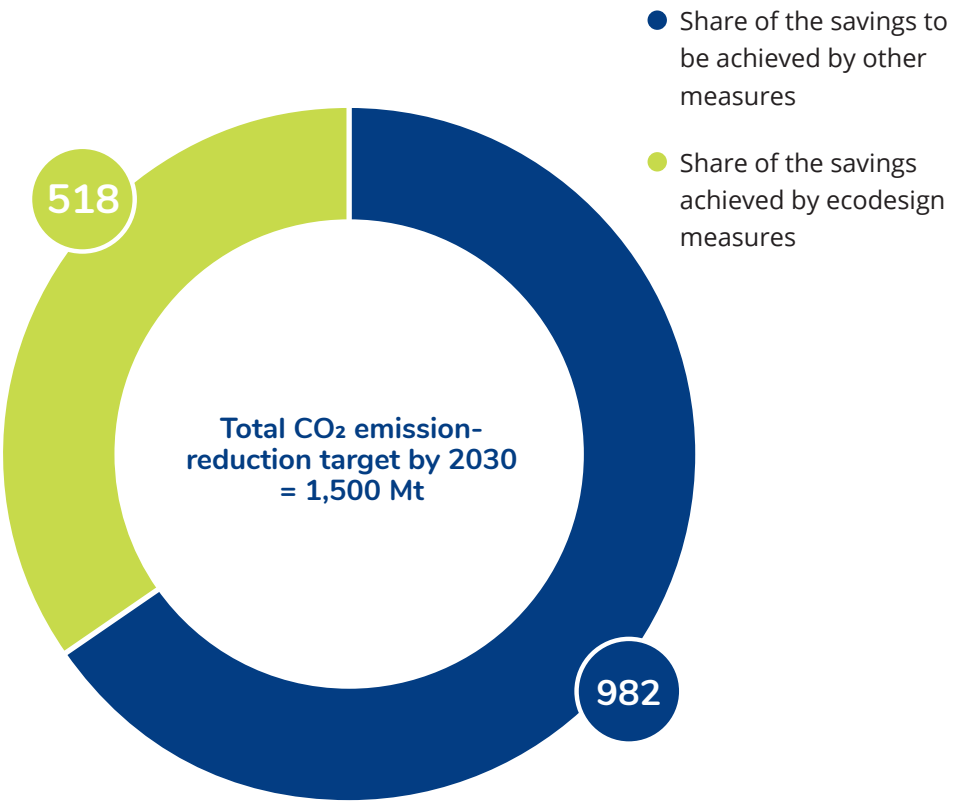
- **On average 4.3 regulations** were introduced per year from 2009 to 2016.
- **Since 2017, only 2.75 regulations** have been introduced per year on average.
- **19 regulations are in the queue for revision** (in green on the timeline above are the regulations that have been revised).
- **To revise them all and to implement 75% of the new Working Plan by 2030**, the Commission would have to adopt an average of four regulations per year.

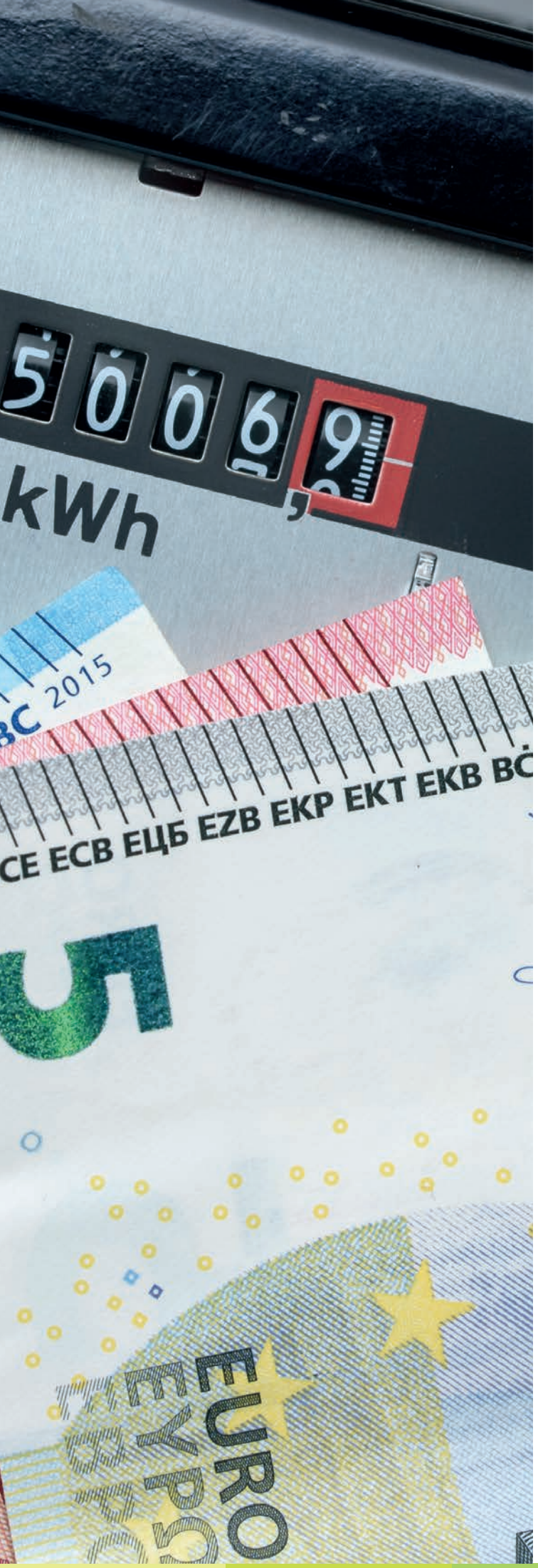
DELAYS ARE COSTING US MONEY AND HAMPERING CLIMATE ACTION

In order to meet its 2030 climate target (55% emission reduction), the EU has to reduce its total greenhouse gas emissions from 3,600 Mt/year in 2015 down to 2,100 in 2030, that is: a 1,500 Mt reduction[8].

8. Source: European Commission, 2020, SWD(2020) 176 – Impact Assessment Accompanying the Communication from the Commission COM(2020) 562 – Stepping up Europe's 2030 climate ambition

Ecodesign contribution to EU CO2 emission-reduction 2030 target





The Ecodesign and Energy Labelling regulations adopted until 2019 are expected to reduce the energy and fuel consumption of many products and contribute to decreasing the related greenhouse gas emissions by about 518 Mt/year by 2030[9]. That is more than **one third of the effort the EU needs to meet its 2030 emission reduction target**. Additional regulations and reviews already underway or expected in the next Ecodesign Working Plan could add another **58 Mt/year of emission cuts by 2030 (which is almost 4% of the total efforts needed to achieve the 55% reduction goal). A further 30 Mt of indirect emission savings could be achieved through resource efficiency provisions** (for example, by increasing the durability of products)[10]. **For that, ecodesign and energy labelling updates must be ambitious and swiftly implemented.**

We are far from achieving this, and in reality, the delays in implementing the policies are jeopardising our chances of meeting the 55% emission reduction target. Our calculations show that the delays in adopting or revising 11 regulations mean that **the EU is likely to emit nearly 10 million more tonnes of CO_2 in 2030** as compared to a timely implementation. This corresponds to the emissions of 5 million cars over a year.

The burdensome decision-making process and resource limitations will ultimately cost consumers and businesses more than **40 billion euro by 2030**, as compared to a timely implementation, our calculations show. Households will bear more than half of the cost of these lost savings (55% compared to 45% for businesses), mainly because of the delayed reviews of regulations on space and water heaters, computers and stand-by energy consumption of household and office equipment. This means that an average European household will have to spend some € 110 more on energy until 2030 due to unnecessary delays.

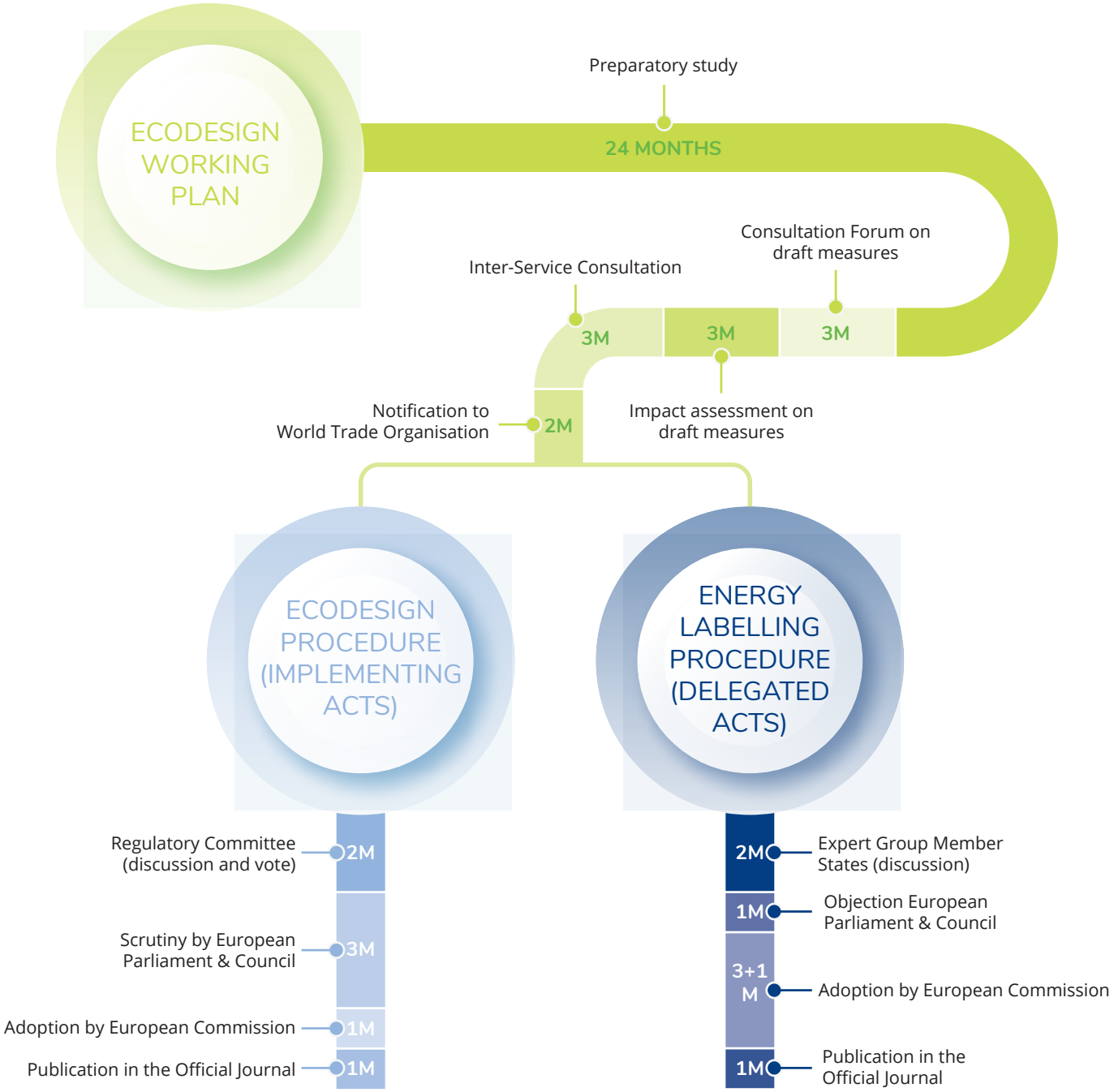
9. Source: VHK, 2020, Ecodesign Impact Accounting – Status Report 2019.
10. Source: own calculations based on Ecodesign Preparatory Studies, draft regulations, and the study for the 2020-2024 Ecodesign and Energy Labelling Working Plan.

Zooming in: The delays, product by product

The EU's estimations show that about three and a half years are needed to follow the regulatory process for a given product group from A to Z (EIA[11]). After a Consultation Forum meeting, the next steps are mostly internal within the Commission, and involve little to no stakeholder consultation.

11. https://www.vhk.nl/research/eia.htm

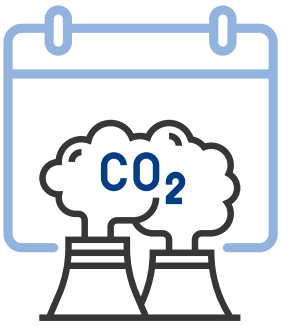
Overview of the review process for energy labelling and ecodesign regulations



Ecodesign and Energy labelling revisions – state of play

The table below shows the current state of play for the development of Ecodesign and Energy Labelling rules for all products covered under the current Working Plan or planned for inclusion under the 2020-2024 Working Plan:

PREPARATORY STUDY ONGOING	DRAFT REGULATION (or VA) TO BE DISCUSSED	PRODUCTS DISCUSSED BUT PENDING	WP PRODUCTS WITH NO PROGRESS OR ABANDONED
Ovens, hobs, range hoods	Space & water heaters	Standby	Professional washing machines & driers
Professional refrigeration	Computers	Smartphones & tablets	Industrial fans
	Printers (VA)	Circulators	Windows
	Game consoles (VA)	Compressors	Lifts
	Solar panels & inverters	Vacuum cleaners	Hand driers
	BACS	Tumble driers	UPS
		Water pumps	Smart appliances
		Air conditioners and comfort fans	High pressure cleaners
		Taps & showers	Complex set-top boxes (previously under VA)
		Refrigerated containers	Solid fuel boilers (3rd party assessment study pending)
		Kettles	Home network equipment (no study)
		Ventilation units	Base stations (no study)

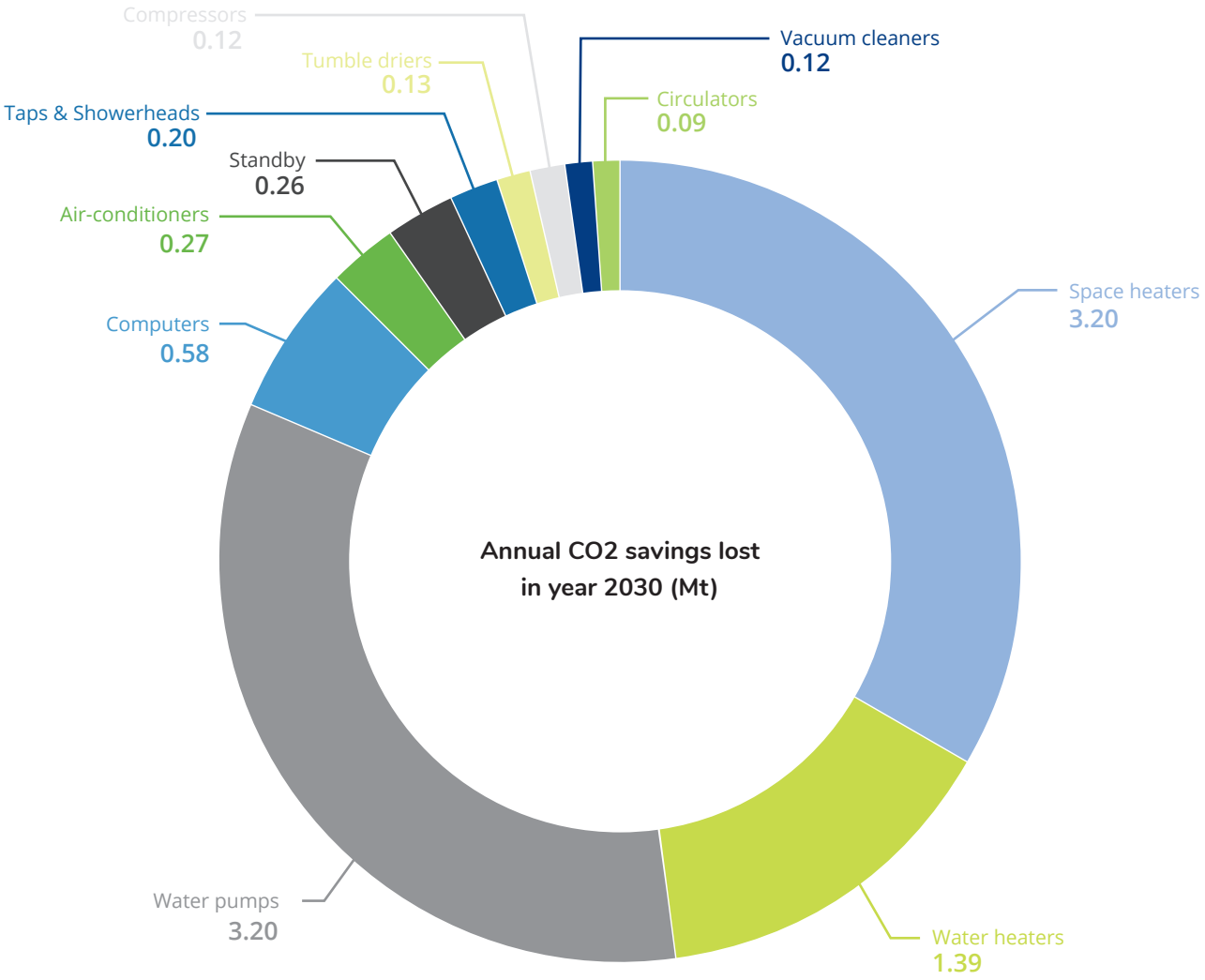


FOR EVERY ADDITIONAL YEAR OF DELAYS, AROUND 3 MILLION TONNES OF CO2 WILL BE RELEASED BY 2030 MAKING IT EVEN MORE COSTLY OR UNLIKELY TO MEET EU'S CLIMATE GOALS.

20 months after the Consultation Forum in 2019, discussions around those products are still stalled. As time goes by, the assessments made in the preparatory studies risk becoming obsolete and irrelevant, which also threatens the ambition of the proposed regulations.

For every additional year of delays, around 3 million tonnes of CO_2 will be released by 2030 making it even more costly or unlikely to meet EU's climate goals.

Breakdown per product groups of estimated CO_2 savings to be lost in 2030 ($MtCO_2$)



Key cases

WATER PUMPS

Consultation Forum date:
October 2019

Estimated delay:
36 months

3.2Mt annual CO_2 savings lost by 2030

14.8 billion €
savings lost

SPACE & WATER HEATERS

Consultation Forum date:
September 2021

Estimated delay:
24 months

4.59Mt annual CO_2 savings lost by 2030 (both products)

11.6 billion €
savings lost (both products)

COMPUTERS

Consultation Forum date:
Not yet determined

Estimated delay:
24 months

0.58Mt annual CO_2 savings lost by 2030

4.6 billion €
savings lost

VACUUM CLEANERS

Consultation Forum date:
October 2019

Estimated delay:
24 months

0.12Mt annual CO_2 savings lost by 2030

1.1 billion €
savings lost

Water pumps

The first ecodesign regulation on water pumps was adopted in 2012. The Consultation Forum to discuss the revision of this regulation was supposed to take place in 2016 but was only held three years (!) later, in 2019. Since then, no progress has been made and the date for the adoption of the revised regulation is unclear.

The update of this regulation is important because new requirements are expected to bring about annual energy savings of around 43 TWh and CO_2 emission savings of 3.2 Mt per year by 2030, while the regulation currently in place was only expected to save an annual 3.3 TWh by 2020. The large increase of nearly 40 TWh extra savings per year is partly due to the extended product approach that will account for additional energy losses beyond the pump itself.

Space and water heaters

Of all the product groups regulated through ecodesign and energy labelling, these two categories are the most impactful in terms of energy use and other environmental impacts, representing 20% of the total[12].

12. https://www.vhk.nl/downloads/Reports/EIA/EIA%20Overview%20Report%20status%202019%20-%20VHK20201028.pdf – page 22.

It took seven years for the current regulations to be adopted, and they finally entered into force in 2015. The review study started in 2018 and was only finalised in mid 2021. **Adopting ambitious revised regulations for space and water heaters could result in two thirds of the emission reductions needed for residential and public buildings to achieve carbon neutrality by 2050[13].**

13. https://ecostandard.org/wp-content/uploads/2020/12/Five-Years-Left-How-ecodesign-and-energy-labelling-Coolproducts-report.pdf

Computers

Computers have been subject to dedicated ecodesign rules since 2013. Although the Commission was expected to complete and present the outcomes of the legislative review by 2017, so as to ensure that the energy efficiency requirements are up to par with market developments, no such review has taken place so far and no draft legislative proposals have been put forward. This means not only that the existing rules on energy efficiency are now outdated, but also that the roll-out of much-needed repairability and durability rules will be significantly delayed.

As a result, we are faced with a continued proliferation of short-lived devices, whose production weighs very heavily on both climate and consumers[14]. Moreover, in spite of repeated calls by a number of stakeholders, no proposal has yet been made for the introduction of a dedicated energy label on computers. The label is of great importance: it would not only guide consumers towards the most energy efficient devices but could also provide them with comparable repairability information through the introduction of a repair score.

14. https://ecostandard.org/publications/long-live-the-machine-how-ecodesign-energy-labelling-can-prevent-premature-obsolescence-of-laptops/

Vacuum cleaners

Delays for this product group are particularly problematic considering that vacuum cleaners are currently exempt from energy labelling since the annulment of the regulation in 2018[15]. Discussions on the draft revised regulations at the Consultation Forum in October 2019 acknowledged some uncertainties and technical difficulties, preventing the Commission from moving forward with the revision of the ecodesign requirements and the introduction of the new energy labels at the same time. The main difficulties derived from the lack of a revised measurement method standard. Regulatory discussions have been stalled since then, despite a proposal from environmental NGOs[16] on a way forward to help deliver the potential environmental benefits as soon as possible.

The adoption of revised regulations for vacuum cleaners is key to restore the energy label and avoid undermining people's trust. Revised regulations would also allow for in-demand products such as robot and handheld vacuum cleaners to be adequately regulated, ultimately achieving greater energy and material savings.

15. https://ecostandard.org/news_events/ecos-calls-for-appeal-against-annulment-of-vacuum-cleaner-energy-labelling-regulation/

16. https://www.coolproducts.eu/wp-content/uploads/2020/11/ECOS-EEB-Coolproducts-rreuse-ifixit-R2R-Topten-position-on-EC-proposal-on-VACUUM-CLEANERS.pdf

Long delays ahead – 2020-2024 Ecodesign and Energy Labelling Working Plan

Every three or four years, the Commission develops a new Ecodesign and Energy Labelling Working Plan, outlining the work that will be prioritised during the period in question. The Plan includes not only the expected reviews, but also a list of new products to be assessed for potential regulation. For instance, the preparatory study for the 2020-2024 Working Plan assessed the potential of base stations for 5G signal and chargers for electric vehicles.

The ongoing Working Plan, published in 2016, came with an 18-month delay[17]. Three years on, only 25% of the announced measures have been adopted, and not a single measure for the 10 new products promised in the Plan has been finalised.[18]

Regrettably, the 2020-2024 plan will be even more delayed than its predecessor: the preparatory study was finalised only in May 2021, 17 months into the period it is supposed to cover. Moreover, environmental NGOs have specific concerns regarding the objectivity of the process followed by the Commission to select the product groups[19] included in the Plan. Worse still, we are deeply concerned about the expected low level of ambition for the implementation of this Working Plan.

In a roadmap[20] published in May 2021, the Commission warned: *'As there will likely be many of the above product groups and crosscutting aspects of interest for further study, the Working Plan will address prioritisation among them and versus the implementation and reviews of the existing regulations.'* In short, the Commission might end up choosing between reviewing the existing regulations, which it is legally bound to do, and regulating new products, which is a prerequisite to achieve the climate and circular economy objectives.

17. https://ecostandard.org/news_events/ecodesign-working-plan-2016-2019-finally-released/

18. (the products in question are: building automation and control systems, electric kettles, hand dryers, lifts, solar panels and inverters, refrigerated containers, high-pressure cleaners, gateways, mobile/smartphones, and base stations).

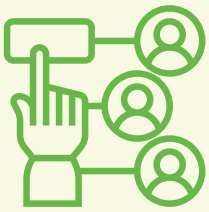
19. https://ecostandard.org/wp-content/uploads/2021/04/ECOS-EEB-CLASP-Coolproducts-R2R_Position-paper-EEL-WP-2020-2024_14.04.2021.pdf

20. https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12852-Efficacite-energetique-et-economie-circulaire-plan-de-travail-2020-2024-sur-l%E2%80%99ecoconception-et-l%E2%80%99etiquetage-energetique_fr

Time to act!

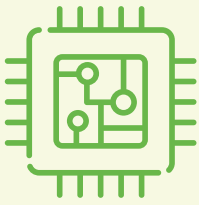
Ecodesign and energy labelling can deliver very significant savings. As the climate emergency becomes ever more pressing, we must do all we can to unlock the energy and resource savings that are already within our reach. The delays linked to inefficient decision-making and lack of resources within the European Commission services are unacceptable.

Coolproducts campaigners call on the Commission to:

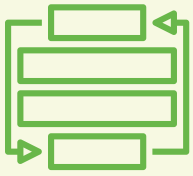


- **Allocate adequate resources**, especially in terms of staff, to enable timely decision-making and a proper implementation of Ecodesign and Energy Labelling policies. This is even more crucial now that the Commission, in the context of the Sustainable Products Initiative (SPI), is putting ecodesign policies at the heart of its climate action.

- **Adopt legal measures** as soon as they are ready, rather than bundling them into a package approach. Swiftly finalise the work on all the draft regulations that have already been presented and discussed at the Consultation Forum but for which resolution is pending.



- **Better anticipate technological developments**, including making use of fast-track review studies and forward-looking tiered requirements according to a 'top-performer approach' (benchmark of today becomes the norm of tomorrow).



- **Swiftly adopt an ambitious Working Plan** for 2020-2024, comprising both assessments to regulate new products and reviews of existing regulations.

- **Set clearer deadlines** for the adoption of legal measures, and automatically increase the ambition of measures when deadlines are missed to keep track with market and technology evolution.

Annex: Methodology for the calculation of the delays

To calculate the lost CO_2 emissions and economic savings caused by the delays, we selected 11 product regulations: space and water heaters, pumps, circulators, tumble dryers, vacuum cleaners, air-conditioners, standby, computers, compressors and taps and showerheads.

We estimated the delays by comparing the implementation date that could be expected upon a timely finalisation of the preparatory study, and we assumed a realistic implementation date considering the current state of development. The comparison stands on the date forecasted for the implementation of Tier 1 in the preparatory study and the assumed real date of Tier 1 for each of the 11 products, taking into account the months of delays.

We then quantified the lost CO_2 and energy savings by 2030 and adjusted the figures to take Brexit into account and provide EU-27 totals.

As regards energy savings, the methodology considers the calculations of savings accumulated between May 2021 and 2030. If no delays have been registered for a product, then the savings accumulated stand between May 2021 and 2030. If, however, there is a 1-year delay, the 2029 savings level is reached only in 2030 so there is a loss of savings for year 2030. It is the same process with 2-year delay where the savings loss accounts for the years 2030 and 2029, etc.

Electricity savings were separated from gas savings for higher precision. The financial impact on consumer bills has been calculated using 2020 EU-average electricity and gas tariffs (source: Eurostat) and assuming flat energy prices until 2030. Adding to these calculations and the Brexit adjustment, we forecasted the cumulated TWh, PJ and euro loss of savings on electricity and gas bills. We also subdivided the results by sector, between tertiary and domestic energy bills.

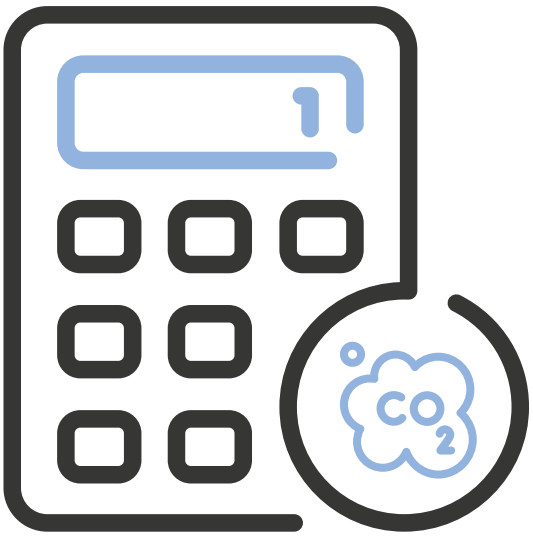
Annex: Methodology for the calculation of the potential additional savings

To obtain the number of 58 Mt of additional yearly CO_2 savings achievable by 2030, we considered two scenarios:

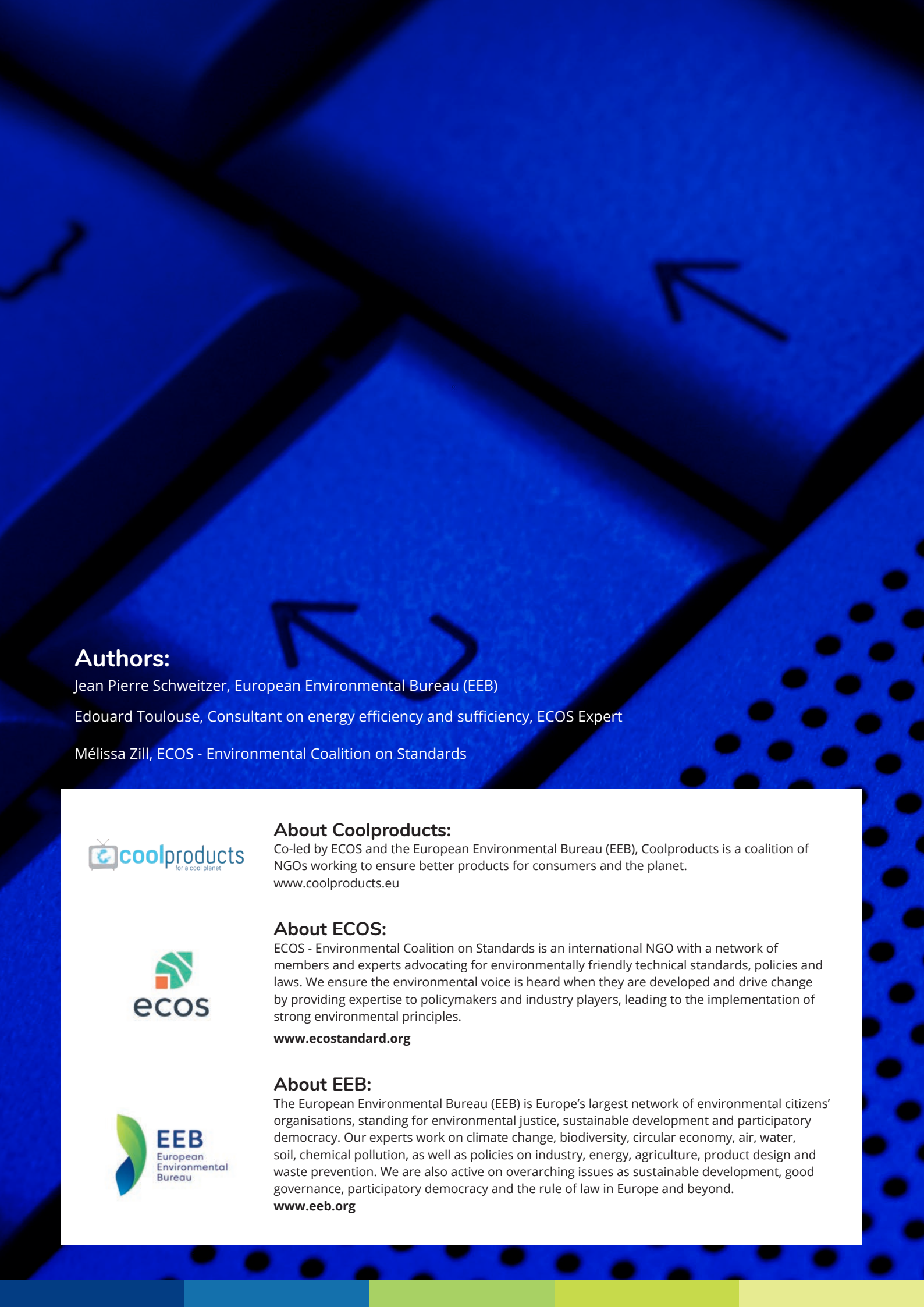
- Standard ambition scenario: we considered a standard implementation of the regulations currently in the pipeline, and an implementation of 50% of the new measures listed in the preparatory study for the 2020-2024 Working Plan.
- High ambition scenario: we considered an ambitious implementation of the regulations currently in the pipeline and an implementation of 75% of the new measures listed in the preparatory study for the 2020-2024 Working Plan.

We used the data contained in the preparatory studies for the products already in the pipeline, and the forecast made in the preparatory study for the 2020-2024 Working Plan[21].

21. http://www.ecodesignworkingplan20-24.eu/documents



TO CALCULATE THE LOST CO_2 EMISSIONS AND ECONOMIC SAVINGS CAUSED BY THE DELAYS, WE SELECTED 11 PRODUCT REGULATIONS



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About Coolproducts:

Co-led by ECOS and the European Environmental Bureau (EEB), Coolproducts is a coalition of NGOs working to ensure better products for consumers and the planet.
www.coolproducts.eu

About ECOS:

ECOS - Environmental Coalition on Standards is an international NGO with a network of members and experts advocating for environmentally friendly technical standards, policies and laws. We ensure the environmental voice is heard when they are developed and drive change by providing expertise to policymakers and industry players, leading to the implementation of strong environmental principles.

www.ecostandard.org

About EEB:

The European Environmental Bureau (EEB) is Europe's largest network of environmental citizens' organisations, standing for environmental justice, sustainable development and participatory democracy. Our experts work on climate change, biodiversity, circular economy, air, water, soil, chemical pollution, as well as policies on industry, energy, agriculture, product design and waste prevention. We are also active on overarching issues as sustainable development, good governance, participatory democracy and the rule of law in Europe and beyond.
www.eeb.org