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Games Consoles:
Position on the Proposed Updated Voluntary Agreement

The game console industry has proposed an update of its Self-Regulatory Initiative (SRI) under the Ecodesign Directive, following an independent review study completed in 2019[1]. The present position paper summarises the views of environmental NGOs in relation to the revision discussed at the Consultation Forum on 12 December 2019 and puts forward changes that are essential in order for the proposed SRI to constitute a genuine first step towards the level of ambition expected from an ecodesign measure.

Voluntary Agreement cannot be approved as proposed

Although console manufacturers have achieved some energy efficiency improvements in the past, mostly spurred by higher sales and innovation, the context is worrying: new generations of game consoles, as the industry itself recognises, are expected to lead to an "added energy cost in the future". When compared in their yearly energy use, some Ultra High Definition (UHD) console models already consume more electricity than a regular washing machine. In addition, the rise of new gaming services such as cloud gaming are also expected to lead to at least "a short-term increase in energy consumption"[2].

In order to prove credible, the SRI must be capable of preventing this from happening, through a larger scope and challenging commitments. In the context of the increasingly acute climate emergency, the historic trend towards growing overall energy consumption from a luxury product can in our view no longer be accepted. With 47 million games consoles sold in the EU every year, an unclear number collected at end of life, and an even more uncertain number properly recycled, it is high time to put an end to the wasteful consumption patterns induced by gaming.

The most efficient means of achieving the said outcome would be through the replacement of the existing Voluntary Agreement with an ambitious legislative measure. The failure by the proposed version of the SRI to at the very least match the level of ambition of existing ecodesign requirements clearly demonstrates that it is in no way a better suited or a speedier instrument than mandatory provisions to address issues of growing energy use, resource efficiency and recycling. Were the SRI to

[1] Review Study of the Ecodesign Voluntary Agreement for the Product Group "Videogames Consoles", Final Report, 2019
[2] Report on the 2019 Review of the Game Console Self-Regulatory Initiative, Microsoft, Nintendo, Sony Interactive Entertainment, 2019

be endorsed regardless, it must **resolve a number of inherent flaws present in the proposed draft** and at the very least **match the level of ambition of the recently adopted ecodesign regulations**.[3]

We believe that the most pressing improvements to be introduced are:

1. Introduction of **ambitious power use targets** and making sure that these cannot be relaxed for new generations of consoles during future revisions of the SRI
2. Limiting of the number of and introduction of caps on all existing **rest modes**
3. Alignment of the SRI with the **right to repair** provisions in the existing ecodesign measures
4. Genuine commitments to improve **recyclability** of games consoles
5. Additional steps to improve **user information**
6. **Extension of scope** to all gaming devices and services
7. More robust **compliance procedures**

Business as usual can no longer be accepted

In terms of power use, the industry currently proposes only a slight adjustment to one of the commitments related to the navigation mode in UHD consoles. This will not have any real impact on the market, however, as all available consoles already perform below this level. The same can be said about the proposal to remove the 20W natural user interface allowance, which will not have any effect in practice either[4].

This demonstrates that **the games consoles manufacturers once again refuse to set themselves any meaningful long-term targets**. Encouraged by the voluntary nature of the agreement, preference is instead given to an approach whereby manufacturers release their increasingly energy-intensive new generations of consoles before committing to any objective. This leads to a scenario where commitments set out in the SRI follow the market rather than the other way around, resulting in unhindered increases in energy use between the generations of consoles[5]. Worse still, the overall stock of gaming devices is ever increasing, as is the average time spent gaming, and the use of additional console capabilities such as media playback and streaming – all of which translate into a growing energy consumption from the European stock of games consoles.

We firmly believe that the regulatory instrument should set proper long-term objectives to frame the next generation of consoles in advance of their launch. As demonstrated by the review study, there is ample scope for their better power management, and a number of best practices exist which can be generalised. It is of paramount importance that the SRI clearly states that the **caps currently in place cannot be overshot or relaxed in the future for new generation consoles**. The inability to design next

[3] See, for instance, Regulation (EU) 2019/2021 laying down ecodesign requirements for electronic displays
[4] Requirement was relevant for consoles with sensing camera peripherals (e.g. Xbox Kinectis) which are no longer available on the market
[5] See European Commission, 'Ecodesign Impact Accounting: Overview Report', 2019, p. 39, available at: https://ec.europa.eu/energy/sites/ener/files/documents/eia_overview_report_2017_-_v20171222.pdf

generation consoles in line with the current caps and the intention to relax these at future revisions would be indicative of a complete failure of the SRI to achieve its goals.

In addition, we recommend establishing a **set of genuine new commitments**, aimed at legitimate energy efficiency improvements over the coming 4 years and based on the best performing models on the market:

	Existing & proposed caps – industry	***New caps for 2024 – ECOS proposal***[6]
UHD media capable models		
Navigation	50 W	*30 W*
HD media play	60 W	*35 W*
UHD media play	60 W	*35 W*
UHD gaming capable models		
Navigation	65 / 70 W	*50 W*
HD media play	70 W	*52 W*
UHD media play	110 W	*55 W*

Table 1: Energy efficiency commitments – ECOS proposal

Lastly, we consider it unacceptable that a game console requires as much as 70W or even more to perform **media playback** while a standard player only uses about 25W for the same function. This comment has been ignored despite being included in the previous consultation and must be tackled as part of future commitments. The same can be said about the energy consumption of games consoles during **streaming** (see table below[7]), which also appears to be vastly disproportionate compared to stand alone video streaming devices (e.g. Amazon Fire TV, Apple TV, Google Chromecast Ultra or Roku Ultra all of which consume between 2.3 and 3.3 W during on-mode[8]). Considering major increases in time spent streaming videos globally, which has grown by 18% in 2018-2019 alone[9], the current mismatch between the two technologies must be addressed without delay.

Games console	Streaming power usage (W)
Xbox One	63
Xbox One S	32
Xbox One X	53
PS 4 (CUH-11XX)	82
PS 4 (CUH-12XX)	68
PS 4 Slim (CUH-20XX)	53
PS 4 Slim (CUH-22XX)	47
PS 4 Pro (CUH-70XX)	59
PS 4 Pro (CUH-72XX)	55

[6] Based on the best performing consoles as reported in the Review Study, 2019

[7] See Table 8, Review Study, 2019, pp. 39-40

8 See https://www.nrdc.org/experts/noah-horowitz/are-smart-speakers-or-streaming-devices-energy-efficient

[9] See "The State of Online Video 2019", Limelight, 2019, available at: https://www.limelight.com/resources/white-paper/state-of-online-video-2019/

Nintendo Switch	5 to 8

Table 2: current streaming power usage of consoles

Energy use in "rest" modes must be capped

It appears that some game consoles include an increasing number of low power modes that are not explicitly covered by the SRI or EU standby regulations. **These "instant on" or rest modes can draw up to 15W of power and represent a large share of the annual energy use of consoles**.

The SRI must clearly discourage and prevent the development of high consuming rest modes that escape any commitment or legal requirement. In cases where these are not considered to be fulfilling the definition of networked standby, a cap of 5W on all possible rest modes must be set for the consoles that are currently available on the market. Furthermore, an additional commitment should be added that future consoles with SSD storage will not be allowed to include any instant on / fast start functionalities, as booting times with SSD storage are reduced by a factor of 10. Only low power modes compliant with EU regulations should be tolerated.

Resource efficiency and repair must be genuinely addressed

The proposed commitments on recyclability, repairability and durability are, in our view, too **selective and entirely lacking in ambition**. We find the argument of proprietary technologies and piracy risks significantly overstated as a justification, as no evidence is provided to support the claim that generalising console repair would pose a genuine threat. Moreover, no commitments are made in relation to the existing out-of-warranty repair service, which leads to commonplace situations where repair is not encouraged or is prohibitively expensive. Lastly, we are concerned that compliance with several of the resource efficiency commitments in the SRI is only checked through the provision of a declaration or letter. More robust compliance procedures must be discussed and implemented.

In relation to general resource efficiency considerations and repair, we call on the signatories to:

- Clarify that **controllers** are integral parts of the consoles, and therefore fully covered by all resource efficiency commitments; batteries must be required to be rechargeable and easily replaceable by the user, and their material efficiency must be addressed under the ecodesign framework rather than Batteries Directive which focuses solely on their end of life treatment;
- As recommended by the review study, set a commitment on **battery lifetime** (e.g. minimum of 90% of the nominal capacity after 500 charges);
- Suppress exceptions and restrictions in order to allow for the **removability and replaceability** of all key components **with commonly available tools** (batteries, including those for controllers, power supplies, fans, optical drives and hard drives, displays, and, where applicable Wi-Fi and RF boards). The currently proposed wording, which includes an additional consideration for wear and tear (section 3.2 of the SRI), is arbitrary and should be removed;
- Make **repair instructions and spare parts** of key components (see above for a provisional list) available at least to professional repairers – in line with the existing ecodesign measures for household dishwashers, fridges, washing machines and washer-driers, and ideally to all

consumers. The reason why a certain spare part should only be available to professional repairers should be thoroughly explained and justified by manufacturers;

- Set a **minimum number of years for the availability of spare parts** for key components of 10 years after placing the last unit of the model on the market – in line with existing ecodesign regulations.

Hazardous substances and flame retardants must be phased out without delay

The proposed new version of the SRI does not sufficiently address the issue of hazardous substances present in and the recyclability of games consoles. Indeed, according to the independent analysis undertaken as part of the evaluation of the existing SRI, it appears that far too many game consoles do not enter adequate recycling streams at end of life[10].

Manufacturers must make additional efforts to **encourage a better collection and recycling of their products** through improved communication with recyclers, dedicated take back schemes that comprise both incentives to return broken games consoles and collection targets, as well as design practices that are recycling friendly. We find the proposed new commitment on recyclability highly inadequate in this regard.

In addition, we fundamentally disagree with the statement that "hazardous substance restrictions are not in the scope" of this policy, as it is not supported by any sound legal argumentation. The ecodesign framework explicitly refers to all environmental dimensions of products, including the use of hazardous substances. Furthermore, using the ecodesign framework to **regulate the use of hazardous substances** in products is explicitly proposed as a policy option to support circularity in the communication on the implementation of the circular economy package[11] that has already been made use of in relation to other product groups[12].

We propose the following improvements to the SRI revision in relation to recyclability:

- A commitment to phase out all toxic **flame retardants** from console casings in line with the existing ecodesign regulation for displays, as well as from handheld controllers, power cords, printed circuitry and other components such as power transistors or connectors;
- A commitment to standardise the use of agreed types of **plastic grades and blends** for games consoles to avoid complex and unexpected mixtures of materials that hinder recyclability in order to allow for effective use of recycled materials in the future, alongside requirement to mark plastic components with regard to their polymer type.

[10] See Review Study, 2019

11 Communication on the implementation of the circular economy package, SWD (2018) 20 final, 2018, p. 11

[12] See, for instance, Regulation (EU) 2019/2021 laying down ecodesign requirements for electronic displays

Additional steps to ensure sufficient user information are necessary

Users can play a key role in limiting the energy and material waste of game consoles. The SRI already includes a commitment to "provide consumers with information on the power consumption" of game consoles. However, the practical implementation of this is unconvincing. For instance, on the Microsoft webpage presentation of the Xbox One X console, **no data or other type of information is provided in order to raise awareness on the energy use or environmental impact** of the said console[13].

Besides, the consultants of the 2019 review study suggested that manufacturers offer easier, "one-step" approach to powering consoles off – so that users may more easily reduce energy waste if they wish to do so. **Unfortunately, the SRI signatories have dismissed this proposal** without providing any convincing argument to support this decision.

We recommend to **significantly reinforce user information requirements** in order to raise awareness about the energy use and environmental impact of game consoles, and to present relevant information in all standard marketing materials rather than on secondary webpages only.

All gaming devices and services must be brought into the scope

The newly proposed Voluntary Agreement leaves its scope essentially unchanged. This means that the initiative would cover neither arcade-style and new gaming devices (such as the Nvidia Shield) nor increasingly popular gaming services (such as cloud gaming, which is endorsed as a business model by an increasing number of market players and is already offered by both Sony and Microsoft). In limiting the coverage to physical consoles produced by the three manufacturers, **the SRI is becoming more and more inadequate to gauge the way in which gaming develops in the future**.

In order to demonstrate that Voluntary Agreements can take latest technological developments into consideration as fast or faster than the regular regulatory processes and to effectively address the environmental impact of all gaming devices and services, we call on the relevant parties to **address cloud gaming services** and to **expand the scope of the instrument to new and arcade-style gaming devices** in the future revision of the SRI.

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[13] See https://www.xbox.com/en-GB/xbox-one-x?xr=shellnav