POSITION PAPER

SELF-REGULATORY INITIATIVE ON GAMES CONSOLES. VERSION 5.0

Environmental NGOs, including the Right to Repair Europe and Coolproducts campaigns, welcome the publication of the draft Version 5.0 of the Self-Regulatory Initiative on Games Consoles. We recognise that some improvements have been made to Games Consoles' energy and resource efficiency over the last few years but maintain that the Self-Regulatory Initiative lacks any serious ambition. Rather the Self-Regulation merely lists out the current performances of Games Consoles and any improvements known to have already been achieved by future Games Consoles models or iterations. We also recognise that Ecodesign Regulations on other electronics products are likely to achieve significantly more resource efficiency improvements. As such, we would support either the development of an Ecodesign Regulation on Games Consoles or that Ecodesign requirements on other products are transferred across into the Self-Regulation. This would ensure impartiality on products that share similar functionality and result in more efficiency savings. The following sections explain where we observe the draft Version 5.0 of the Self-Regulatory Initiative is lacking in ambition. We also propose some possible solutions to ensure that the energy and resource efficiency of Games Consoles is improved in the future.

SELF-REGULATION DRAFT REQUIREMENTS

We welcome the range of draft requirements put forward by the Games Console manufacturers. However, we do not support the level of ambition inherent in most of the requirements. In this section, we look at the level of ambition included in the major draft Self-Regulation requirements and compare them to other products' performances as well as recently agreed Ecodesign requirements on other electronics products.

Scope

There are several issues with the scope of the draft Self-Regulation that need to be investigated.

The scope is limited to mains-powered devices but then covers products such as the Nintendo Switch – which is predominately a battery-powered device. If the Nintendo Switch is covered in scope, then other battery-powered gaming products should also be included in the scope.

The Nintendo Switch is by far the biggest seller (Nintendo Switch 131.54M, PS5 – 45.62M, Xbox Series S/X – 24.34M), but as it uses less than 20 W in Active Gaming Mode, it is not covered by the Self-Regulation energy efficiency requirements. This means that information on the energy usage of Nintendo Switch will not be accessible to consumers. This also means that the Self-Regulation only covers around 35% of "Games Consoles" on the market for energy efficiency. The Commission Guidance document on Self-Regulations states that "*The requirements should apply to at least 90 % of all units (covered by the self-regulation measure) placed on the market and/or put into service by each signatory*".[1] The guidance document does not appear to allow only some of the requirements to apply to just some of the products in scope.

In addition, the scope does not cover all accessories and other devices placed on the market with the console (e.g. external power supplies, controllers, etc). This could amount to many products not being covered by the scope of the Self-Regulation. Some of these components could have implications for the energy use of Games Consoles and would have their own material efficiency impacts.

REDUCING ENERGY CONSUMPTION OF GAME CONSOLES

The energy efficiency of Games Consoles is not adequately addressed in the draft Version 5.0 of the Self-Regulatory Initiative. There are significant gaps in the requirements and where requirements do exist, they are far too lenient.

The main oversight is the lack of any efficiency metric on gaming power demand. The Commission Guidance Document on Self-Regulations states[1]:

> *"The requirements should relate to significant environmental impacts over the product life-cycle and aim at improving the environmental performance of the products".*

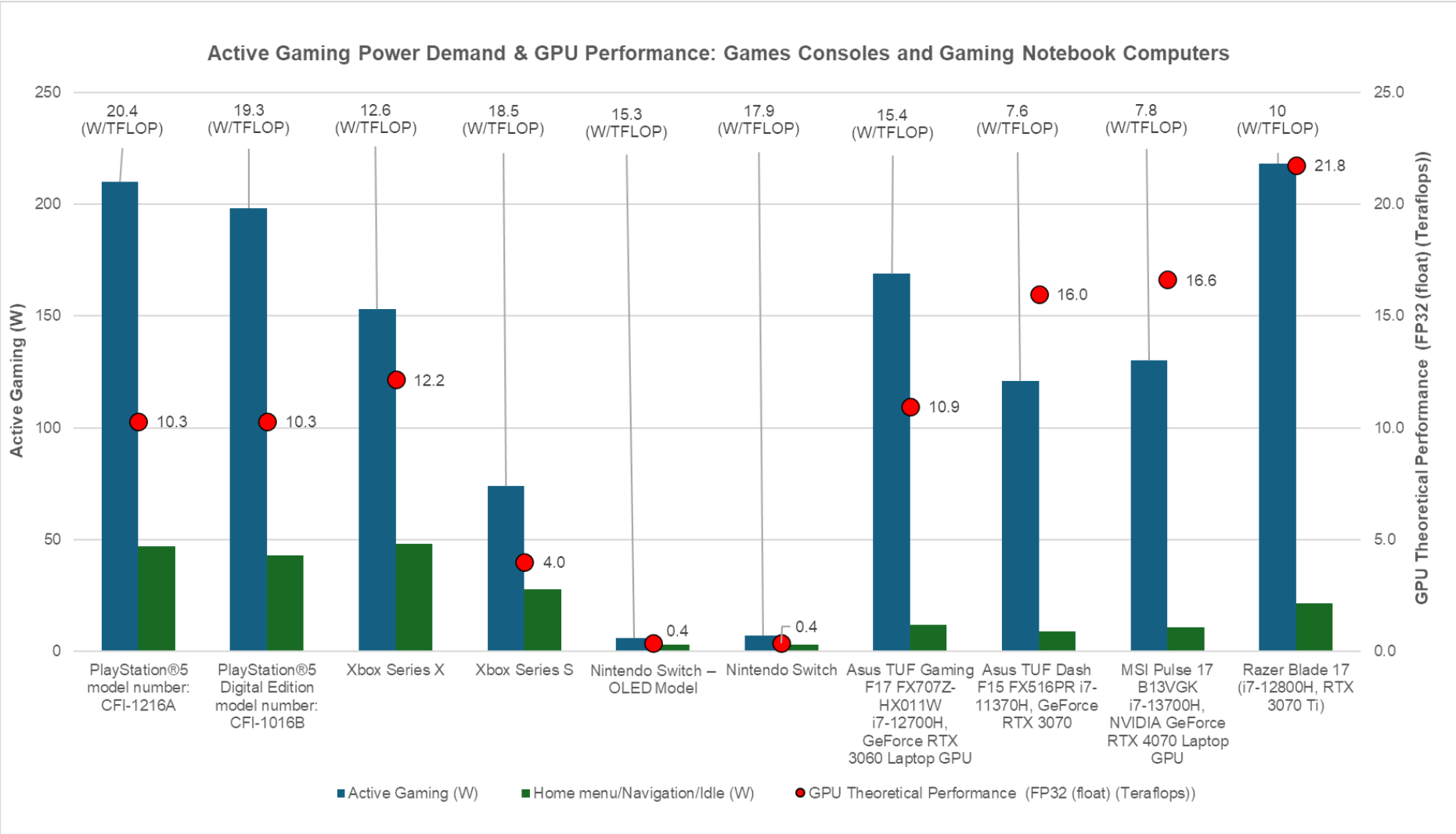
As "gaming" is the primary function of these products, which accounts for the highest power demand, it is imperative that efficiency requirements are developed. The active state efficiency of gaming personal computers will likely be covered in a future Ecodesign Regulation on computers. Given the similarities in their functional units, it is not appropriate for EU policies to address gaming efficiency in computers but not in Game Consoles.

Games Consoles' active mode energy efficiency is significantly lower than seen in other similar products such as gaming laptops. The difference with gaming desktops is that most of their internal components are readily upgradable as individual components (e.g. discrete graphics cards), so energy efficient architectures cannot be used as readily. Gaming notebooks manufacturers, like Games Consoles manufacturers, have far more control over the component architecture and can prioritise energy efficiency. It is recognised that gaming laptops are designed to be energy efficient to conserve battery life. However, this drive towards energy efficiency in gaming laptops shows what is technically possible in terms of active mode energy efficiency in Games Consoles.

Figure 1 illustrates the wide gap between the gaming energy efficiency of current Games Consoles and comparable gaming computers. The figure shows that the active mode energy efficiency (expressed in Watts per Teraflop of GPU performance) of some Games Consoles is almost 3 times lower than seen in efficient gaming laptops. It is recognised that navigation/home mode in Games Consoles is not directly comparable to the Idle state in gaming notebooks because Games Consoles utilise their internal GPU more during this power state (e.g. displaying moving images). However, it is important to note that the higher power demand in the Games Consoles is not a consequence of the technical functionality of the products, but a consequence of the software functionality provided in navigation/home modes.

[1] COMMISSION RECOMMENDATION (EU) 2016/2125 of 30 November 2016 on guidelines for self-regulation measures concluded by industry under Directive 2009/125/EC of the European Parliament and of the Council – available here

Figure 1 - **Comparison of gaming power demand and efficiency across product types**



Comparing the power demand of Games Consoles to dedicated media players also shows that the media play power caps in the draft Version 5.0 of the Self-Regulatory Initiative do not reflect energy efficient media play; they simply reflect the amount of power current Games Consoles use to provide media playback functionality.

Figure 2 illustrates the different in power modes needed to provide the same media playback functionality across different types of products. Some Games Consoles use over 7 times the amount of energy to provide UHD media playback compared to a dedicated 4K streaming device.

Figure 2 - **Comparison of streaming media power demand across product types**

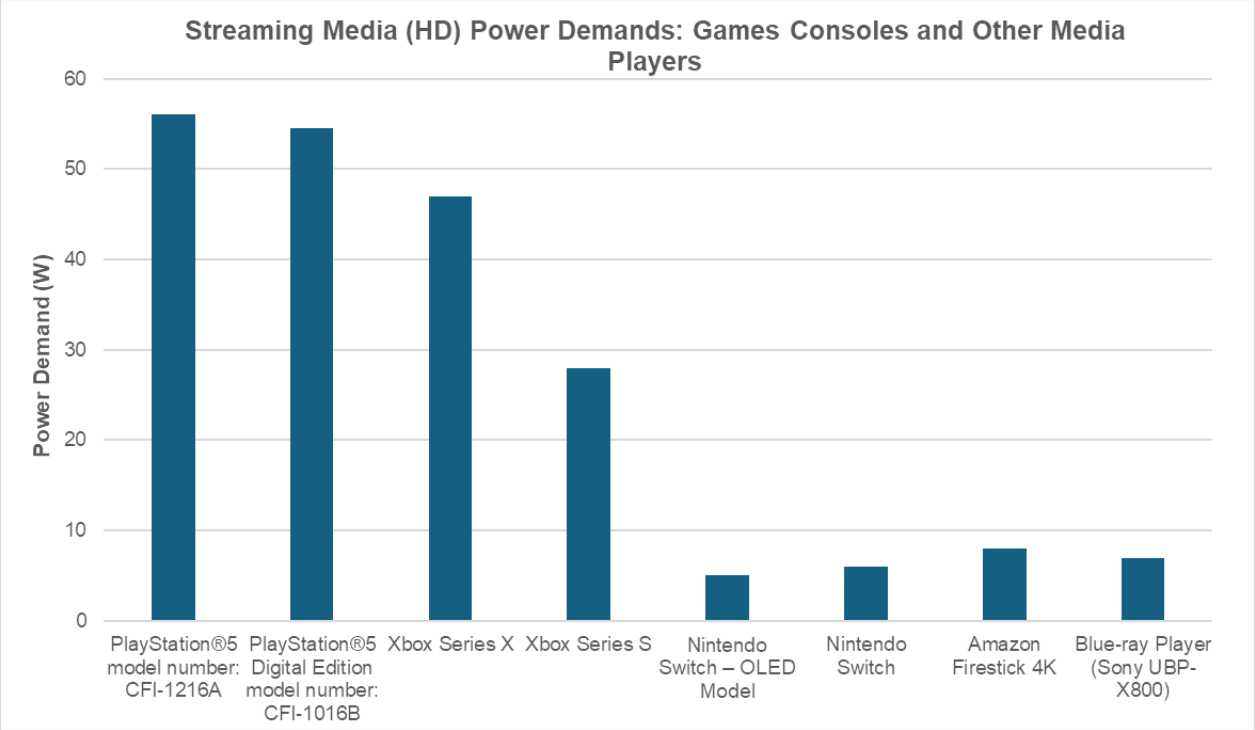
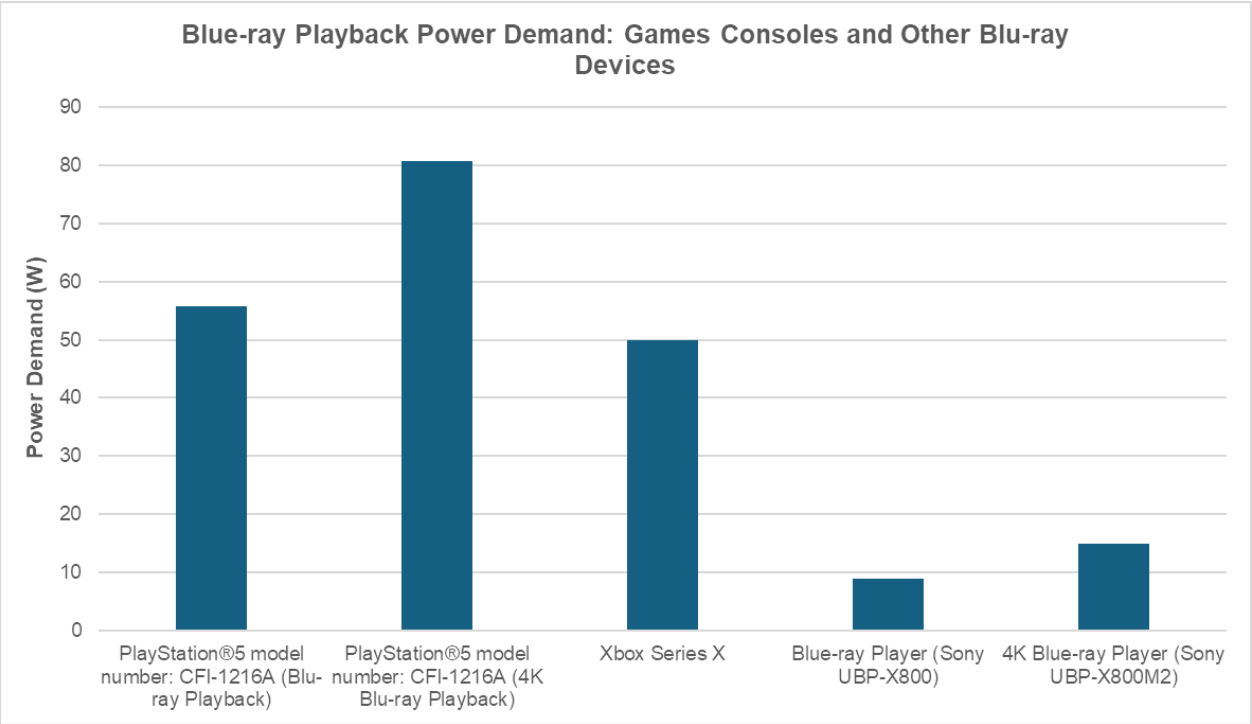


Figure 3 shows a similar situation where Games Consoles can use over 5 times the amount of energy for 4K Blu-ray playback. Whilst media playback is a secondary function to game playing, and the amount of time users typically use Games Consoles for media playback has fallen, there are still a considerable number of users that use Games Consoles for watching media and other non-gaming activities.[2, 3]

Figure 3 - **Comparison of Blu-ray power demand across product types**

[2] MarTech (2022), Tough-to-reach console gamers watch more TV on streaming than linear – available here

[3] Ofcom (2023), Children and Parents: Media Use and Attitudes – available here



Action: Given that the primary functionality of Games Consoles is gameplay, there should be requirements in place for this power State. This could be as basic as providing a W/TFLOP efficiency metric requirement as shown in Figure 1.

Games Consoles are very inefficient at providing media functionality. The current power caps on the draft Self-Regulation appear to just match the power demands of the current Games on the EU market. Manufacturers should be encouraged to reduce the power demands associated with these functionalities. This could be achieved through the following requirements:

1. Tighten the media playback requirements significantly.
2. Agreement to remove media playback functionality from future products due to the large inefficiencies.
3. Provide media playback functionality through separate components such as optional add-on devices that could be plugged into the main Games Console. The Games Console manufacturers already offer optional devices such as Blu-ray drives.
4. Include a requirement for on packaging reporting of the power demands associated with media playback to inform users of the high-power demands.
5. Include an agreement for the Games Console manufacturers to work with other manufacturers to develop a system of automatically identifying the most energy efficient device for media playback. This could be a staged approach with a first step agreeing to provide on-screen warnings of the high-power demands of using Games Consoles and recommendations for more efficient media playback through dedicated devices.

RESOURCE EFFICIENCY REQUIREMENTS

The draft Self-Regulation includes a list of other requirements designed to address the material efficiency of Games Consoles. There are some positive inclusions, but they fall well short of the level of ambition included in recent Ecodesign Regulations, such as the Ecodesign Regulation (2023/1670) on smartphones.

Table 1 shows a comparison between the resource efficiency requirements in the Ecodesign Regulation (2023/1670) on smartphones and the requirements in the draft V5.0 Self Regulation on Games Consoles. The results clearly show that the resource efficiency requirements in the draft Self-Regulation lack ambition.

The resource efficiency requirements included within Ecodesign Regulation (2023/1670) are likely to be adopted (amended where necessary) into other Ecodesign Regulations for a range of other electronics products. As such, these resource efficiency requirements will be the blueprint for meeting the policy objectives on resource efficiency for a range of electronics products. The Commission Guidelines Document on Self Regulations states:

> "*Products should be subject to alternative courses of action such as industry's self-regulating voluntary agreements provided for in Article 17 of Directive 2009/125/EC rather than to mandatory implementing measures, if such action is likely to deliver the policy objectives faster or in a less costly manner than the latter*".

For the Self-Regulation to be compliant with the Commission Guidelines on Self-Regulations, it is likely that the resource efficiency requirements will need to provide the same level of ambition as those laid down in Ecodesign Regulation (2023/1670).

RECOMMENDATIONS FOR IMPROVING RESOURCE EFFICIENCY REQUIREMENTS

The Games Consoles manufacturers should emulate the resource efficiency requirements included in the Ecodesign Regulation (2023/1670) on smartphones. It is recognized that not all resource efficiency requirements in Ecodesign Regulation (2023/1670) will be applicable to all Games Consoles in scope.

- Information Reporting Requirements

The Ecodesign Regulation (2023/1670) on smartphones also includes a range of information reporting requirements which tackle resource efficiency issues. These are shown in Table *2*, including identification of whether the same requirements are included in the draft Self-Regulation. It is clear from the results that the Self-Regulation lacks the level of ambition seen in a new Ecodesign Regulation for electronics products.

Action: The Games Consoles manufacturers should also reflect the information reporting requirements included in the Ecodesign Regulation (2023/1670) on smartphones.

Table 1 – **Comparison of Resource Efficiency Requirements in COMMISSION REGULATION (EU) 2023/1670 (Smartphones) and the Draft V5.0 Self-Regulation on Games Consoles**

Requirements in: COMMISSION REGULATION (EU) 2023/1670 (Smartphones) (Paraphrased)				Comparable Requirements in Games Consoles Self-Regulation
1. RESOURCE EFFICIENCY REQUIREMENTS	1.1. Design for repair and reuse	(1) Availability of spare parts	Availability for at least 7 years after the date of end of placement on the market (Slightly different component lists for professional repairers and end-users)	Spare part availability limited to either 2 years after the date of the end of placement on the market or 5 years after the manufacturing of the last unit of the Games Console
			Battery endurance and waterproofing requirements	No requirements
			A list of spare parts and the procedure for ordering is publicly available on a free-access website	List of spare parts to be provided but no mention of free-access websites
		(2) Access to repair and maintenance information	For at least 7 years after the date of the end of placement on the market, provide access to repair and maintenance information to professional repairers for parts	Agree to ensure out-of-warranty repair and refurbishment is available for 5 years after the manufacturing date of the last unit of the Games Console model.
			Clear Process for registering as a professional repairer	No requirements
			Repair and maintenance information referred shall contain the level of detail needed to be able to replace parts	Included
			Without prejudice to intellectual property rights, third parties shall be allowed to use and publish unaltered repair and maintenance information initially published by the economic operator	No requirements
			From one month after the date of placement on the market, whichever is later, repair instructions and maintenance information for parts shall be publicly available on free access website for at least 7 years after the date of end of placement on the market.	No requirements
			(i) during the first 5 years of the period referred to in points 1(a) and (c), spare parts are delivered within 5 working days after having received the order;	No requirements

		(3) Maximum delivery time of spare parts	(ii) during the remaining 2 years of the period referred to in points 1(a) and (c), spare parts are delivered within 10 working days after having received the order	No requirements
		(4) Information on the price of spare parts	Provide indicative pre-tax prices for spare parts, including the pre-tax price of fasteners and tools, if supplied with the spare part, on a free-access website.	No requirements
		(5) Disassembly requirements	Shall ensure that the process for replacement of parts meets clear criteria including requirements on fasteners and process for replacement (tools lists, user environments and expertise type)	No requirements
		(6) Requirements for preparation for reuse	• Encryption of the user data stored in the internal storage • Inclusion of a software function, that resets the device to its factory settings and erases securely by default the encryption key and generates a new one • Record the following data from the battery management system	No requirements
		(7) Replacement of serialised parts	From one month after the date of placement on the market for at least until 7 years after the date of end of placement on the market provide: • Non-discriminatory access for professional repairers and end-users to software tools, firmware or similar auxiliary means needed to ensure the full functionality of those spare parts and of the device • On a free access website a description of the procedure for the notification and authorisation of the intended replacement of serialised parts by the owner (procedure shall allow for remotely providing the notification and authorisation) • Access to the software tools, firmware or similar auxiliary means within 3 working days after having received the request	No requirements
	1.2. Design for reliability		• Resistance to accidental drops, Scratch resistance, Protection from dust and water, Battery endurance in cycles, Battery Management, Operating System Updates (For at least 5 years after that date of end of placement on the market)	No requirements
	1.3. Marking of plastic components		• Plastic components heavier than 50 g shall be marked by specifying the type of polymer with the appropriate standard symbols or abbreviated terms (Exemptions - not possible due to shape or size, marking impact performance, not possible due to molding method, packaging, tape and other specific components)	Console plastics parts >25 g will be marked (exemptions apply)
	1.4. Recyclability requirements		• Make available, on a free access website, the dismantling information needed to access any of the product's components referred to in Annex VII, point 1, of Directive 2012/19/EU (WEEE) (for at least 15 years after the placing on the market). • Sequence of dismantling steps, tools or technologies needed to access the targeted components.	No requirements

Table 2 – **Comparison of Information Reporting Requirements in COMMISSION REGULATION (EU) 2023/1670 (Smartphones) and the Draft V5.0 Self-Regulation on Games Consoles**

Requirements in: COMMISSION REGULATION (EU) 2023/1670 (Smartphones) (Paraphrased)		Comparable Requirements in Games Consoles Self-Regulation
2. INFORMATION REQUIREMENTS	(1) Manufacturers, importers or authorised representatives shall provide in the technical documentation and make publicly available on free access websites: • Compatibility with removable memory cards • Indicative weight range of the following critical raw materials and environmentally relevant materials (cobalt, tantalum, neodymium & gold) • Indicative value of the recyclability rate • Indicative percentage of recycled content • Ingress protection rating • Minimum battery endurance in cycles in number of cycles	No requirements
	(2) Manufacturers, importers or authorised representatives shall provide user instructions in the form of a user manual on a free access website: • How to access on the device information from the battery management system (date of manufacture, date first use, number full charge/discharge cycles, measured health) • Instructions for battery maintenance (impacts on battery lifetime, effects switching off radio connections, other features which extend battery lifetime)	No requirements
	(3) Manufacturers, importers or authorised representatives shall ensure that: • Information about data encryption and data erasure • Information about wireless charging and warning about extra energy use	No requirements
	(4) Where the package does not include a charger, information about standard USB power adapters and cables	No requirements

ADDITIONAL REQUIREMENTS THAT SHOULD BE INCLUDED IN THE SELF-REGULATION

EFFICIENCY OF INTERNAL POWER SUPPLY UNITS

We would welcome the inclusion of requirements addressing the efficiency of internal power supplies included in Games Consoles. Other similar products, such as Gaming computers, already have Ecodesign

requirements placed on internal power supply efficiency, so they should also be carried over into the Games Console Self-Regulation.

STANDARDIATION OF GAMES CONSOLES AND ACCESSORIES

Certain parts and accessories could be standardized or made more easily interoperable. Many tutorials on YouTube show techniques, through adapters and applications, to connect any controller to any games console[4][5][6], demonstrating that a non-negligible number of users would be interested in this function. Interoperability could be further facilitated and allow controllers to be directly compatible, on the same model as the Musical Instrument Digital Interface (MIDI). Buying a new game console would not necessarily result in having to buy new controllers. The use of standardized accessories in different game consoles also supports their long-term availability: replacement is facilitated in the event of a defect. In addition, the subsequent upgradeability of game consoles with newly developed accessories could be supported. To increase the environmental benefit of standardization, producers should also sell unbundled versions of their game consoles, meaning without the controllers and cables that would be standardised. Standardisation should be developed as far as possible within manufacturers' product lines, but also cross-manufacturers. Manufacturers should also have to publish technical specifications of their devices.

ADDITIONAL ISSUES IN THE SELF-REGULATION

TEST METHODOLOGY ISSUES

The draft Self-Regulation includes several statements that could be seen as undermining the robustness of the testing:

"*Unless otherwise specified, the tests shall be conducted with retail software written specifically for the Games Console under test and certified by the Console manufacturer*". Reliance on the manufacturer's own software opens the possibility for manufacturers to "tweak" the software to achieve the best possible energy efficiency performance.

"*To avoid stifling such innovation, any unanticipated additional secondary or new functionality which contributes to an incremental increase in power consumption, but which is not listed in this document, should be deactivated during the measurement process*". This could allow manufacturers to disable functionalities that increase power demand whilst under test.

"The test results show that the power limit values are not exceeded by more than 10% or 0.1 W, whichever is the greater" – the Ecodesign Regulation (617/2013) on computers provides for a verification tolerance of 7%, not 10%, as included in the draft Self-Regulation.

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[4] Max Dendy (2023), How to connect any controller to Xbox? || PS5, PS4, PS3, Nintendo Switch Pro controller, etc. – available here

[5] My Mate VINCE (2020), All Controllers Working on PlayStation 5 - PS4, Xbox, PS3, Wii, Bongos – available here

[6] Lotus Tech (2023), How To Use Any Controller On Nintendo Switch (Mission Control Guide) – available here

REPORTING ISSUES

The Self-Regulation states, "*Should a Signatory comply with any subsequent power consumption targets of the SRI as set out in Section 3.1 (Power Caps) before the entry into force of those targets, then that Signatory is entitled to make that achievement public*". Given that the power demand caps for media playback are very high, in comparison to the power drawn by dedicated devices, these announcements could give users the impression that a Games Console is especially energy efficient.

The Self-Regulation states that signatories should identify "*whether at least 90 percent of the products placed on the market are compliant with the applicable SRI requirements*". This statement suggests that up to 10% of each Games Console's products (sales-based) can fall outside of the agreement. These 10% of products could be very high-powered devices that are not covered by any requirements.

NON-COMPLIANCE ISSUES

The Self-Regulation includes the statement, "*A Signatory, who remains non-compliant twelve months after the publication of the Independent Inspector's Annual Compliance Report or relevant investigation report, shall forfeit its status as a Signatory of the SRI*". Given that the reporting period is the year following the products being placed on the market (Independent inspector reports in the following May), a signatory could place non-compliant products on the market for almost 2.5 years without facing removal from the Self-Regulation agreement.

DECISIONS TO AMEND THE SELF-REGULATORY INITIATIVE ISSUES

The Self-Regulation includes the statement, "*The SRI can only be amended with the full agreement of each Signatory, in consultation with the European Commission*". This sets up a situation where the requirements are based on the worst-performing Games Console and not the most efficient Console. This situation could be viewed as being unlikely to encourage any efficiency improvements.

EDITORIAL ERRORS

There are a few editorial errors in the document which need to be addressed to ensure accuracy of the requirements:

- Page 7: "EU Regulation (EU) No 801/2013" – should reference "Commission Regulation (EU) 2023/826"
- Page 12: UHD Gaming Capable Consoles – Tier 4 Media Play back requirements – no reference given to how the requirement is measured as the link is broken.
- Page 14: "*Signatory's authorised*[11] *repair or refurbishment centres*" – the footnote reference is incorrect, and the term needs to be defined.
- Page 15: "*authorised*[11] *repair or refurbishment centres*"- the footnote reference is incorrect, and the term needs to be defined.