Brussels, 8 January 2020

Games Consoles:
Position on the Proposed Update to the Voluntary Agreement

While the proposed update to the Voluntary Agreement (VA) on games consoles includes some incremental improvements compared to last iterations, **it contains some major shortcomings** and **therefore cannot be endorsed as stands**. The proposed text fails to address the energy use of the multiplicity of rest modes available on games consoles today and is also out of line with the existing ecodesign regulations in relation to repairability and other material efficiency aspects. Moreover, contrary to the expectations, the self-regulatory measure is overly slow in adapting to changing market realities and does not set any trajectory to address the ever-increasing energy use of games consoles in gaming mode or the rise of new services such as cloud gaming in the future – instead continuing to set commitments which do little else than follow market developments. We strongly believe that any measure aimed at addressing the environmental and climate impacts arising from the use of games consoles should **set forward-looking objectives free of any loopholes** and **at the very least match the level of ambition of existing ecodesign regulations**.[1]

Insufficient commitments on energy efficiency

We welcome the proposed commitment to cap the power use of the newest consoles in navigation and media play modes at the levels set for their previous generation. However, it is concerning to see that the **power use of the new consoles in gaming mode is substantially higher** compared to previous models[2]. Since gaming remains the primary function of game consoles, this means that the annual energy consumption of the new models will, instead of going down, continue to increase. Games consoles, therefore, will remain one of the few product groups under the Ecodesign framework the energy consumption of which is expected to continue to rise in the future.

In order for the regulatory measure to effectively address the rising energy consumption of games consoles over time, the following aspects must be addressed by the regulatory instrument:

- **Forward-looking power caps in navigation and media modes**: even though gaming remains the primary function of gaming consoles, they are commonly used beyond gaming.[3] The regulatory instrument must therefore set proper long-term objectives so to influence the development of future models of games consoles instead of reflecting the capabilities of hardware that is already

[1] See, notably, the Regulation (EU) 2019/2021 laying down ecodesign requirements for electronic displays
[2] Report on the 2020 Review of the Games Consoles Self-Regulatory Initiative, 9 November 2020, pp. 24-26
[3] See e.g. German Youth Study (Feierabend et al., 2019): 16 percent of respondents use their game consoles for accessing the internet, https://www.mpfs.de/fileadmin/files/Studien/JIM/2019/JIM_2019.pdf, pp. 22

available on the market. This should comprise a **readjustment of the existing caps in media and navigation modes** (which at their current levels are already easily met by all of the consoles available on the market), and a **mechanism of progressive reduction in power caps over time for all new consoles**.[4] Significant changes in the level of ambition are notably needed in order to reduce the disproportionately high energy consumption by games consoles during media playback and streaming compared to other devices available on the market today[5].

- **Limits on low power modes**: the proposed SRI continues to allow for some low power modes to be available on games consoles which are neither subjected to limits under the EU's standby regulation (Regulation (EU) 1275/2008) nor to dedicated caps under the SRI. These rest modes can, in the case of the 'instant-on' mode available on Xbox, draw up to 12W of power and represent a large share of the annual energy use of consoles[6]. It is our view that energy consumption in all low power modes – whatever their name – must be subjected to either existing standby rules applicable to other devices, or, in cases where the said regulation does not apply, to dedicated power caps (set, e.g., at 5W), including a trajectory towards progressive reduction of power caps over time. Failing that, the 'instant-on' mode option and any other low power modes with a disproportionately high energy consumption should be deactivated on all models shipped to the EU.
- **Commitment to address energy use in gaming mode in the future**: the self-regulatory initiative should align with ongoing attempts to capture the energy use of devices in active mode[7] and introduce a commitment to consider the introduction of power caps on active (gaming) mode in the future. This would allow to better assess – and limit – the ever-increasing energy use of games consoles, and to provide more accurate information to consumers about the environmental impacts of their devices.
- **Commitment to address cloud gaming services 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 impacts of all gaming devices and services, a commitment should be made to address cloud gaming services, which are already offered by the signatories of the VA, in the future. An instrument designed to limit the environmental impacts arising from gaming cannot continue to ignore a trend that is likely to become dominant in the future.
- **Reinforced consumer information commitments**: in order to improve the information provided to consumers on the energy use and environmental impacts of gaming, the signatories should commit to provide energy and environmental information in their marketing and advertising materials, as is required for product groups covered by the EU Energy Labelling framework. This should notably be applicable to the main product description pages on company websites, where

[4] See environmental NGO comments on the previous review of the Voluntary Agreement (dated 10 January 2020) for a more detailed proposal on this point

[5] See environmental NGO comments on the previous review of the Voluntary Agreement (dated 10 January 2020) for additional detail on this point

[6] Report on the 2020 Review of the Games Consoles Self-Regulatory Initiative, 9 November 2020, p. 26

[7] As is the case currently with the ongoing work by the European Commission and CLASP to capture the active mode energy use of computers

energy use information should be provided through a specific page module (with legible data on power use in active and all other modes).

Inadequate commitments on repairability and resource efficiency

The proposed commitments on recyclability, repairability and durability of games consoles continue to be insufficient and evidently misaligned with existing ecodesign regulations. We believe that the regulatory measure should at the very least address the following aspects:

- **Controllers must be brought into scope:** controllers are always sold together with the console (just as external power supplies and contrary to such peripherals as keyboards in the case of personal computers) and, as the most heavily used component of the console, are proven to be likely to break due to wear and tear. The recent cases reported by consumer organisations about the early failure of controllers of the Nintendo Switch console point to the fact that improving the repairability of controllers is both relevant and timely [8]. The SRI should therefore include controllers sold together with the consoles in the scope, and add such components as their batteries, akku-packs, buttons and connectors to the list of spare parts to be provided to professional repairers and end users.
- **All gaming devices must be brought into scope:** a regulatory instrument designed to address the environmental impacts arising from gaming should be sufficiently broad in terms of scope so to address all gaming devices available on the market today, which includes the short-lived arcade-style devices. Their exclusion from the scope of the initiative and especially commitments related to resource efficiency does not stand justified, and the scope of the SRI should therefore be broadened so to include these devices.
- **Spare parts provision must be extended to additional key components**: The proposed list of spare parts to be provided to professional repairers and end users should be significantly extended so to improve the repairability of games consoles and better align with the existing ecodesign regulations for other product categories. While the manufacturers claim that no additional components can be made available due to them forming 'a specialised and locked encrypted system to prevent software piracy', there is no evidence that repair-hampering designs as implemented in current games consoles are actually effective in avoiding piracy[9]. Our analysis of the two console hacks that were referred to by the manufacturers in their exchange with environmental stakeholders reveals that in both cases custom-built hardware was used by the hackers that was made specifically to circumvent locks built into the games consoles, which demonstrates that ease of disassembly has little direct relevance to the issue of piracy [10]. This is further underlined by the fact that although optical drives are not cryptographically paired to the

[8] See, for instance, the reporting by the French consumer organisation Que Choisir: https://www.quechoisir.org/nos-combats-switch-nintendo-l-ufc-que-choisir-denonce-l-obsolescence-programmee-des-manettes-joy-cons-n72823/

[9] As an example, on Xbox Series X it is not the optical drive itself which is paired to the motherboard, but the circuit board. It is possible to swap out the optical drive by transplanting the circuit board from one optical drive to the other. Having to desolder the board in order to do that instead of using a simple connector, does nothing to prevent software piracy. The only thing that this design achieves, is that the drive is more difficult to replace. For further details, see https://www.ifixit.com/Teardown/Xbox+Series+X+Teardown/138451?#s275556.

[10] See https://hackaday.com/2018/11/05/how-the-sony-playstation-was-hacked/ and https://hackaday.com/2018/11/19/how-the-xbox-was-hacked/

motherboard on personal laptop and desktop computers (which are also widely used for gaming), this does not seem to have led to generalised piracy of games. In addition, we strongly believe that safety considerations do not constitute a reason for the list of spare parts to comprise hard drives and power supplies only. The existing ecodesign regulations already provide for extensive lists of key components to be made available to professional repairers, including such components as power sources of welders which are capable of producing currents in excess of 300 amperes[11].

All this considered, we call on the signatories to extend the list of spare parts to the following key components which would significantly facilitate the repair of consoles: fans, internal power supplies, optical drives, motherboards, displays, and, where applicable Wi-Fi and RF boards, as well as components referred to above specific to controllers. Additionally, commitments on firmware and security updates should be introduced so to align the SRI with other relevant ecodesign regulations.

- **Spare parts provision must be extended to at least 7 years:** Our analysis of the iFixit Q&A website reveals that there are thousands of enquiries about faulty games consoles manufactured by both Microsoft[12] and Sony[13]. A great number of those are about games consoles that are older than 7 years old, including some that have been in use for as long as 15 years. Common issues include the overheating of consoles of both brands, which requires cooling elements to be removed and affixed anew – issue that is colloquially referred to as the 'yellow light of death' (in the case of PS3) and the 'red ring of death' (in the case of Xbox).

  Furthermore, analysis of the relative occurrence of terms submitted to Google search over time reveals that the interest in repair of games consoles starts right at the time of the introduction of the console on the market, and continues with a steady increase well beyond the 5-year mark[14].

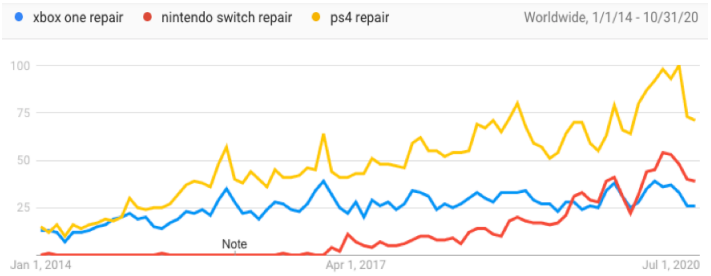

Figure 1: Google trends in searches worldwide for Xbox One, Nintendo Switch and Sony PS4 repair

[11] See Regulation (EU) 2019/1784 laying down ecodesign requirements for welding equipment
[12] See https://www.ifixit.com/Answers/Device/Microsoft%20Game%20Console
[13] See https://www.ifixit.com/Answers/Device/Sony%20Game%20Console
[14] See https://trends.google.com/trends/explore?date=2014-01-01%202020-10-31&q=xbox%20one%20repair,nintendo%20switch%20repair,ps4%20repair

A similar trend can be observed when analysing the page visits on the iFixit webstore[15], which indicate that interest in spare parts starts approximately 2 years after the product is introduced on the market, and actually increases well 5 years after the product launch.

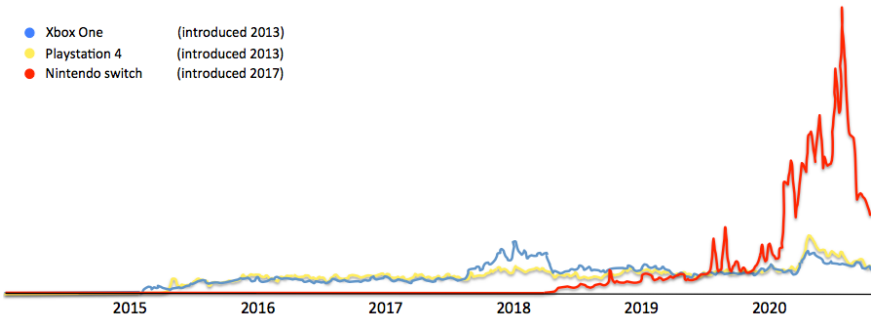

Figure 2: Traffic to iFixit webstore for Xbox One, Nintendo Switch and Sony PS4 parts (source: iFixit GmbH)

This provides ample evidence for the relevance of a requirement for spare parts – and repair instructions – to be provided for at least 7 years instead of the currently proposed 2. Repair instructions should at the very least document the dismantling operations needed to access the targeted components, including the type of operation, type of fastening technique(s) to be undone, and tool(s) required.

- **Commitment on flame retardants should be aligned with existing ecodesign rules:** While we welcome the newly proposed commitment to limit the presence of halogenated flame retardants in the plastic enclosures of games consoles, we believe that the text of the proposed commitment should be brought in line with the recently amended ecodesign regulation on electronic displays (Regulation (EU) 2019/2021). This should notably include the deletion of reference to the weight limit, as well as specification that the homogeneous material cannot exceed 0.1% by weight of halogen content. The commitment on flame retardants should, moreover, also be extended to the casings of controllers.
- **Commitment on recycled plastic content:** in order to demonstrate that Voluntary Agreements can anticipate regulatory developments, a commitment should be made to introduce a dedicated requirement for postconsumer recycled plastic content in the plastic components of games consoles upon next revision of the Voluntary Agreement. This would bring the SRI in line with the ambition of the new Circular Economy Action Plan to increase recycled content in products[16].
- **Reinforced compliance procedures**: we are concerned that compliance with several of the resource efficiency commitments in the SRI is possible solely through the provision of a declaration or letter. More robust compliance procedures must be implemented, most notably with regard to commitments on spare parts and flame retardants.

[15] See https://www.ifixit.com/Store/Game-Console/Xbox-One, https://www.ifixit.com/Store/Game-Console/Nintendo-Switch and https://www.ifixit.com/Store/Game-Console/PlayStation-4

[16] See Commission Communication "A new Circular Economy Action Plan", COM(2020) 98 final, p. 6.

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