



EUROPE'S
VIDEO GAMES
INDUSTRY



European
Games Developer
Federation

Joint ISFE and EGDF contribution to the public consultation on the future sustainable products initiative

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Introduction

1. ISFE and EGDF share the European Commission's conviction that addressing climate change is one of the most critical challenges of the 21st century and welcomes the opportunity to contribute to the roadmap consultation on the sustainable products initiative. The video games sector has taken numerous initiatives to preserve the environment and is continuously striving to improve the energy efficiency of its devices and services.
2. Please find below an executive summary of the joint ISFE and EGDF contribution to the public consultation on the future sustainable products initiative, covering the Ecodesign Directive and the Digital Product Passport. The joint detailed position is explained in the subsequent pages.

Executive Summary:

On the review of the Ecodesign Directive

- **Preserving the ability for the sector to self-regulate is essential and efficient**

[More information available on pages 3-4.](#)

"Self-regulation measures" or voluntary agreements (VAs) authorised under the current framework of the Ecodesign Directive allow industry to develop environmental requirements for their products in a way that is more efficient and flexible than the implementing regulations. The European Commission has supported and endorsed the Games Consoles VA since its inception, deeming it the preferable and viable alternative to regulatory measures. The Games Console VA has significantly exceeded the Commission's energy saving estimate, and includes additional resource efficiency requirements related to topics such as repairability and recyclability. Therefore, the continued recognition of VAs is essential and should be ensured in the future Sustainable Products Initiative.

- **The scope of the Ecodesign Directive should remain limited to physical products only**

[More information available on pages 4-5.](#)

It is extremely difficult, if not impossible, to impose any energy efficiency requirements based on a single metric (such as a maximum energy output) on games software as developers are not fully able to control such outputs. Such requirements could lead game developers to tremendously restrict themselves when developing a game, as they would not be able to use the latest technological innovations at their disposal which would have otherwise supported their creative vision. Therefore, and as it is the case in the current framework, ISFE and EGDF strongly encourage the Commission to restrict the scope of application of the Ecodesign Directive to physical products only, for which ecodesign requirements could be designed more easily.

- **The updated Ecodesign requirements**

- **The use of recycled materials should not be required when the availability of recycled alternatives is limited or when it could compromise the quality or safety during use or the end-of-life recyclability of the product.**

[More information available on pages 5-6.](#)

It is sometimes difficult for manufacturers to source sufficient supply of recycled alternatives to the materials they use within their products. For example, safety standard [EN IEC 62368-1:2020](#), requires recycled PC+ABS (which is the plastic used in consoles) to comply with the flammability standard grade V-0 (1.5mm thickness). However, console manufacturers face difficulties in finding a sufficient available supply of recycled PC+ABS which meets this flammability requirement, thus preventing them on safety grounds from using recycled plastic in their console manufacturing. The European Commission needs to take such circumstances into account in its future sustainable products initiative.

- **Video games and consoles, to be fully sustainable, require an uptake in the supply of green energy**

[More information available on page 6.](#)

Renewable energy is essential to reduce the ICT, including video games sector's carbon footprint as the functioning of software, devices, distribution channels, networks and datacentres all depend on energy. The Renewable Energy Directive, and its future revision, is the relevant framework to encourage renewable energy production and, therefore usage that would serve Europe's digital economy transition to a more sustainable economy.

The Digital Product Passport (DPP)

- **Information requirements on the environmental characteristics of a product must not be detrimental to consumer safety, intellectual property and/or trade secrets**

[More information available on pages 6-7.](#)

Providing consumers and independent repairers with too detailed information on repairability (such as diagnostic tools, detailed repair manuals) or on specific key parts of the product (e.g. proprietary components, internal batteries, etc...) would compromise the protection of video games developers' and games console manufacturers' intellectual property, and may hinder consumer safety. Therefore, ISFE and EGDF recommend that the European Commission includes similar safeguards in the future sustainable products initiative to those included in Article 9(1)(e) of the Waste Framework Directive ([Directive \(EU\) 2018/851](#)).

- **The DPP should not enter in conflict with existing requirements**

[More information available on pages 7-8.](#)

European and global video games companies must already comply with numerous information requirements in existing or forthcoming EU legislation. ISFE and EGDF are concerned that adding new information requirements on similar aspects in the DPP would lead to a lack of legal clarity for businesses. It is therefore essential that information requirements embedded in the DPP do not conflict with existing legislation, and that any potential new information requirements are integrated into the relevant EU legislation.

- **Implementation of the DPP may lead to significant logistical constraints and administrative burden for companies**

[More information available on page 8.](#)

Centralising the environmental information into a single DPP would require numerous trainings of individuals within corporations, across multiple teams and commonly multiple regions. Further administrative burden would occur as companies would need to streamline various internal processes to ensure that the data collected is fit for the format of the DPP. This would represent a substantial logistic exercise for companies operating across multiple Member States and/or globally. In addition, end-producers may be unable to gather the environmental data of the intermediary products that compose their products.

Background information

I- On the review of the EcoDesign Directive

Preserving the ability for the sector to self-regulate is essential and efficient

3. Article 15 of the Ecodesign Directive allows for the industry to commit to voluntary agreements (VAs) as they “can enable quick progress due to rapid and cost-effective implementation, and allow for flexible and appropriate adaptations to technological options and market sensitivities”¹. Such initiatives must comply with specific requirements, such as ensuring that signatories represent a large majority of the relevant economic sector, or that the measures laid-out in the VA deliver added-value (more than a “business as usual” scenario) in terms of the improved overall environmental performance of the product².
4. Following the adoption of the Ecodesign Directive, console manufacturers³ agreed with the European Commission to further improve the energy efficiency of games consoles. Their engagement is codified under the [Games Consoles Voluntary Agreement](#), (Games Consoles VA) which are applicable for both current and future generations of games consoles⁴. Whilst most of the Ecodesign implementing measures for specific products groups⁵ are limited to energy efficiency requirements, the Games Consoles Voluntary Agreement includes additional resource efficiency requirements related to topics such as repairability and recyclability⁶.
5. The European Commission supported the launch of the Games Consoles VA with an inception impact assessment report⁷ which concluded that the VA “provides the most advantages, has the best cost-benefit ratio, and provides the best energy efficiency improvement [compared to other regulatory options]”⁸. The European Commission originally estimated the Games Consoles VA to generate cumulative energy savings of 1 TWh per year by 2020⁹. It is now estimated that over 6.1 TWh of energy use was avoided in 2020 for UHD capable consoles through the use of energy efficiency technologies and power management driven by the Games Consoles VA¹⁰
6. In 2019, the Commission tasked an independent research consortium led by the [CSES](#), [Ökopol](#) and [Vienna University of Technology](#) to perform a review study of the Games Consoles VA. Their conclusions indicate that the proposed self-regulatory measures within the Agreement generated 54.42 TWh of energy saving over the lifetime of former generation consoles (PS4 and Xbox series)¹¹, which is comparable to the electricity consumption of Greece in 2019 (51.74 TWh¹²) and significantly higher than the European Commission’s original expectations. For the new generation of 8K definition

¹ [Directive 2009/125/EC](#), Recital 19.

² The list of the minimal requirements to which a VA must comply is detailed in Annex VIII of the [Directive 2009/125/EC](#)

³ Microsoft, Nintendo and Sony Interactive Entertainment

⁴ More information on the Games Consoles Voluntary Agreement can be found at <https://efficientgaming.eu/>

⁵ Full list available [here](#)

⁶ See section 3.2 of the VA.

⁷ [SWD\(2015\) 89 final](#)

⁸ *Ibid*, p. 36.

⁹ European Commission, *Commission recognises voluntary energy efficiency agreement for game consoles*, 22/04/2015. Available [here](#)

¹⁰ <https://efficientgaming.eu/faq/>

¹¹ Zimmermann, T. et al., *Review Study of the Ecodesign Voluntary Agreement for the Product Group “Videogames Consoles”*, 2019, pp. 154-155. Available [here](#)

¹²Source: Eurostat, *Supply, transformation and consumption of electricity*

consoles, released in 2020¹³, Signatories of the VA expect lifetime energy savings to reach 46 TWh (when comparing new energy efficient technology introduced since UHD capable consoles)¹⁴. The manufacturers have made great efforts to ensure that this new generation of consoles keep within power caps levels for previous generations in spite of significantly increased performance and functionality compared to the previous generation.

7. Representatives of NGOs and civil society are directly involved in the discussions shaping the form of the VA. The Environmental Coalition on Standards ([ECOS](#)), the [NRDC](#), [Oekopol Institute for Environmental Strategies](#) are represented alongside EU institutions and UK governmental bodies in the regular Steering Committees of the VA¹⁵. Content of the meetings and of the VA are also made publicly available online at www.efficientgaming.eu. This ensures an involvement and oversight on the VA's content by the civil society, as required by Article 5 - Annex VIII of the Ecodesign Directive.
8. With regular reviews, the Games Console VA is flexible enough to adapt to new technologies in a timely manner and serve as a template for similar harmonised rules across the world. It enables the games console industry to proactively develop energy efficient solutions that allow for the evolution of gaming technology without degrading the level of play. For instance, as part of the requirements included in the last version of the VA published in March 2020, Signatories introduced a 65W cap for 2K navigation and 70W cap for 4K navigation for 4K-capable gaming consoles.
9. **Considering the above, voluntary agreements allow for the industry to develop cost-effective frameworks which generate significant results. ISFE and EGDF, therefore, strongly encourage the European Commission to reiterate its support to VAs by continuing to allow their use under the Sustainable Products Initiative.**

The scope of the Ecodesign Directive should remain limited to physical products only

10. Video games developers and studios creating video games cannot entirely reduce the carbon footprint of their products as emissions originating from a video game is due, in majority, to elements that are out of the developer's control. Such elements include for instance the quality of the energy grid from which the video game draws its power, or the energy required by the device on which the video game is played. Therefore, it is extremely difficult, if not impossible, to impose any energy efficiency requirements based on a single metric (such as a maximum energy output) on video games software as developers are not fully able to control such outputs.
11. Echoing Paragraph 10 above, the Lawrence Berkeley National Laboratory, University of California, conducted in 2018 an investigation on video gaming performance benchmarks, concluding that "mandatory system-level standards for gaming devices are highly problematic given the inability to consistently and meaningfully benchmark energy use per service (performance) delivered (most of these services are highly subjective and difficult or impossible to quantify), together with technologies and software that are evolving more rapidly than standard-making processes can adapt. Moreover, selecting a single metric upon which to base standards could stifle innovation while failing to recognize true efficiency improvements and their relation to user experience."¹⁶

¹³ PlayStation 5, Xbox Series X

¹⁴ Microsoft, Nintendo, Sony Interactive Entertainment, *Games Consoles Self-Regulatory Initiative 10th Steering Committee Meeting*, 28 July 2020, p. 25. Available [here](#)

¹⁵ See latest minutes [here](#)

¹⁶ Mills, et al. (2018). Green Gaming: Energy Efficiency without Performance Compromise. Lawrence Berkeley National Laboratory, pp.11. Access at [this address](#).

12. Considering the above, any energy efficiency requirements imposed on video games software could lead developers to significantly restrict themselves when developing a title expected to be released on EU markets. Developers could either restrain themselves from developing vast virtual environments or from using the latest innovations at their disposal (such as DLSS, raytracing, 4K or 8K resolutions...) as this would use too much computing power, and therefore energy, while playing. These technologies often allow developers to fulfil their creative vision and to respond to players' expectations on an interactive and innovative gameplay experience. Such requirements would constitute a significant burden for video game developers, especially SMEs, who will in turn be reluctant to release their titles on EU markets.
13. Should the scope be extended to video games software, compliance would be extremely difficult, if not impossible, as it would likely be the platform holder on which the title is released (i.e. console manufacturer, online platform holder) that will be partly responsible for ensuring that the video games on its platform do not breach adopted energy efficiency requirements. Given the number of titles released every year¹⁷, this would translate into a significant burden for platform holders. In the case of video games available on PC, it may even be impossible for any market player to ensure compliance with energy efficiency requirements because of the endless possibilities of hardware and OS configurations, making it possible for a game which is compliant on a given configuration to be non-compliant on another configuration.
14. **Considering the above, ISFE and EGDF strongly encourage the Commission to restrict the scope of application of the Ecodesign Directive to physical products only, for which ecodesign requirements could be designed more easily. In addition, preserving initiatives aiming at reducing the carbon footprint of games device that are cost-effective and efficient, such as the Games Consoles Voluntary Agreement, is essential.**

On the updated Ecodesign requirements:

A- The use of recycled materials should not be required when the availability of recycled alternatives is limited or when it could compromise the safety or the end-of-life recyclability of the product.

15. ISFE and EGDF welcome the impetus to encourage the use of recycled content in products. However, it is sometimes difficult for manufacturers to source sufficient supply of recycled alternatives to the materials they use within their products. For example, safety standard [EN IEC 62368-1:2020](#), adopted by the European Standards Organisation CENELEC¹⁸ in March 2020, requires recycled PC+ABS (which is the plastic used in consoles) to comply with the flammability standard grade V-0 (1.5mm thickness). The standard requires that for consumer protection and safety reasons, the plastic cannot burn for more than 10 seconds. However, consoles manufacturers face difficulties in finding a sufficient available supply of recycled PC+ABS which meets this flammability requirement, thus preventing them on safety grounds from using recycled plastic in their console manufacturing.
16. In addition, consoles manufacturers cannot ensure that recycled plastics which meet the required flammability standards for consoles (High Wattage products) are free from unsafe levels of Halogenated Flame Retardants (HFRs) due to limitations in the production process of recycled plastics. HFRs, are a family of chemical compounds extensively used since the 1970s to prevent products from burning when exposed to a spark, and now recognised as contaminants with adverse health effects in

¹⁷ Around 2000 physical games are annually released just in Europe. Source: PEGI, available in [ISFE Key Facts](#), page 15.

¹⁸ Designated as such by the European Commission. More information available [here](#).

animals and humans¹⁹. Furthermore, the presence of HFRs in recycled plastics can also adversely affect the end-of-life recyclability of products²⁰.

17. **Based on the above, ISFE and EGDF encourage the European Commission to refrain from including in its future Sustainable Product Initiative a requirement for manufacturers to use recycled materials in their products where the supply of recycled alternatives is insufficient. Also, such requirement should not be imposed if use of such alternatives would compromise the safety or the end-of-life recyclability of products. For all these reasons, ISFE and EGDF consider that a flexible and balanced approach is warranted.**

B- To ensure sustainability, an uptake in the supply of green energy is required

18. Availability of carbon-free energy and electricity is key to ensure that players can enjoy virtual video games that are fully sustainable. Similarly, software, devices, distribution channels, networks and datacentres all need energy, hence why renewable energy is essential to reduce the video games and more generally the ICT sector's carbon footprint. The Renewable Energy Directive²¹, and its future revision planned by the European Commission²², would offer a relevant framework to encourage renewable energy production and, therefore, usage that would serve all of Europe's digital economy transition to a more sustainable economy.

II - The Digital Product Passport

Information requirements on the environmental characteristics of a product must not be detrimental to consumer safety, intellectual property and trade secrets.

19. The Waste Framework Directive ([Directive \(EU\) 2018/851](#)), which has been implemented in Member States on 5 July 2020, recognises the importance of preserving a product's safety and security, as well as its intellectual property rights. Its Article 9 establishes that spare parts, technical information and repairs instructions should be made available, **if they do not compromise the product's safety and quality, "without prejudice to intellectual property rights"**²³. This EU acquis must be reflected in any future circular economy proposals.
20. Games consoles are a complex environment in which many key internal components form part of a secure system relying on technological protection measures ("TPMs") and proprietary parts that are deployed to protect against intellectual property infringement. Importantly, the deployment of TPMs by the video games console manufacturers benefits all those who create and develop video games for consoles, and not just the platform holder. With a secure hardware system in which new titles can be created and published, developers (who are often SMEs) are more willing to make the financial investments necessary to support the development of new games because they have the assurance that their IP is protected. This in turn benefits the consumer who has more choice.
21. Every console manufacturer provides clear and detailed information about their product's commercial guarantee, directly available at the point of purchase. Such information includes conditions under which a consumer may be offered a repair or refurbishment of the product within the commercial

¹⁹ See for instance Shaw SD, et al., *Halogenated flame retardants: do the fire safety benefits justify the risks?*, Rev Environ Health, 2010 Oct-Dec, Issue n°25(4), pp. 261-305. Access [here](#)

²⁰ JOUR et al. Recycling of flame retardant plastics from WEEE, technical and environmental challenges, V L - 8, Advances in Production Engineering & Management, 2013

²¹ [Directive 2009/28/EC](#)

²² European Commission, "EU renewable energy rules – review, Have your say". Access [here](#)

²³ [Directive \(EU\) 2018/851](#), Article 9(e)

guarantee period, as well as any specific procedures needed to be followed to ensure a quality repair (where available) by an authorised repair centre without damaging the product owner's commercial rights.

22. Authorised repair centres use proprietary diagnostic software that contains detailed proprietary blueprints to identify components within a console that require repair. In addition, because most parts of a console form part of an encrypted system protected by TPMs to preserve the device against hacking and piracy of video games, console manufacturers cannot directly provide spare parts or similar diagnostic software to independent repair companies without compromising consoles systems and technology. Furthermore, as recognised by the Joint Research Centre in 2019, some repairs require "appropriate technical skills that most consumers do not have. If a product is not properly repaired, consumer safety could be compromised"²⁴.
23. **Therefore, ISFE and EGDF strongly encourage the European Commission to incorporate in its future Digital Product Passport (DPP) similar safeguards to those embedded in Article 9 of the Waste Framework Directive. The preservation of products' safety and quality and protection of intellectual property rights should be ensured when designing information requirements on repairability and on spare parts availability.**

The Digital Product Passport should not enter in conflict with existing requirements as it would lead to legal uncertainty

24. Video games studios already comply with numerous EU legislation related to information requirements on environmental characteristics of the product and/or of the organisation (see next page). In some case, such as for the presence of chemical and hazardous substances, EU regulations and information requirements are the most stringent worldwide, setting a precedent for other regions.
25. ISFE and EGDF are concerned that adding new information requirements on similar aspects in a separate legislation would lead to confusion and lack of legal clarity for businesses. It is therefore essential that information requirements embedded in the DPP do not conflict with existing and forthcoming EU environmental legislation.
26. **Considering the above, ISFE and EGDF would recommend the European Commission to clarify the scope, rules of governance, and nature of the information that should be contained in the DPP. Information requirements embedded in the DPP should not conflict with existing and forthcoming EU legislation. To avoid legal uncertainty, ISFE and EGDF would encourage the Commission to adopt any potential new information requirements in the relevant existing EU legislation.**

²⁴ Cordella, et al. (2019). Analysis and development of a scoring system for repair and upgrade of products, Joint Research Centre Technical Reports, 2019, p.132. Access [here](#).

Topic	Relevant texts applicable to the video games sector that incorporate information requirements on environmental characteristics
Energy consumption	<ul style="list-style-type: none"> • Ecodesign Directive (through the Games Consoles Voluntary Agreement) • Directive 2006/66/EC on batteries and accumulators • Future proposal to empower consumers in the green transition
Company's environmental policy	<ul style="list-style-type: none"> • Directive 2014/95/EU on Non-financial reporting • Future proposal on Corporate Sustainability Reporting
Presence of hazardous substances	<ul style="list-style-type: none"> • Ecodesign Directive (through the Games Consoles Voluntary Agreement) • Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment • Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) • Directive 2008/98/EC on waste • Directive 2006/66/EC on batteries and accumulators
Waste targets	<ul style="list-style-type: none"> • Directive 2008/98/EC on waste
Recycling	<ul style="list-style-type: none"> • Ecodesign Directive (through the Games Consoles Voluntary Agreement) • Directive 2012/19/EU on waste electrical and electronic equipment (WEEE) • Future proposal to empower consumers in the green transition
Repairability	<ul style="list-style-type: none"> • Ecodesign Directive (through the Games Consoles Voluntary Agreement) • Future proposal to empower consumers in the green transition

Implementation of the DPP may lead to significant logistical constraints and unnecessary administrative burden for business

27. Centralising the information collected as part of the abovementioned requirements into a single Digital Product Passport would require significant adaptations from businesses. Individuals in multiple teams and sometimes located in multiple regions would need to be trained and educated on the information to be collected, and then made available in the DPP. Departments' internal processes would need to be streamlined to ensure that data collected is fit for the format of the DPP. This would represent a substantial logistical exercise for companies operating across multiple Member States or even globally.
28. Manufacturers should not be hold responsible for the accuracy of and the gathering of information on the environmental characteristics of the intermediary products that compose their final products. Video games developers and console manufacturers rely on the supply of intermediary products, such as Hard Disk Drives in the case of consoles, from many different partners and the collect of such information would require substantial changes in the commercial contracts with these suppliers, as well as leading to significant administrative burden for end-product producers.
29. **Considering the above, ISFE and EGDF encourage the European Commission to design the DPP in a manner that will avoid legal uncertainty, reduce logistical frictions in its implementation, and ensure information accuracy and collection on the environmental characteristics of the intermediary products that compose the final product is not the responsibility of the end-producers.**

About ISFE

ISFE represents the video games industry in Europe and is based in Brussels, Belgium. Our membership comprises of national trade associations in 15 countries across Europe which represent in turn thousands of developers and publishers in the member states. ISFE also has direct members, the leading console manufacturers and European and international video game companies, many of which have studios with a strong European footprint. They produce and publish interactive entertainment and educational software for use on personal computers, game consoles, portable devices, mobile phones and tablets.

ISFE's purpose is to serve Europe's video games ecosystem by ensuring that the value of games is widely understood and to promote growth, skills, and innovation policies that are vital to strengthen the video games sector's contribution to Europe's digital future. The video games sector represents one of Europe's most compelling economic success stories. Relying on a strong IP framework, the sector is a rapidly growing segment of creative industries. In 2019, the size of Europe's video games industry was €21 billion and registered a growth rate of 55% over the past 5 years in European key markets²⁵. Video games have a proven ability to successfully drive new business models. The digital transformation with the growth of online and app-based gaming represents today 76% of the industry's total European revenue. Via the launch of new high-performance consoles and the strong growth of mobile gaming, the industry offers players across Europe and in all age groups the possibility to enjoy and engage with video games²⁶. Today 51% of Europe's population plays videogames, which is approximately 250 million people, and 54 % of the players regularly play on consoles.

About EGDF

The European Games Developer Federation e.f. (EGDF) unites national trade associations representing game developer studios based 18 European countries: Austria (PGDA), Belgium (FLEGA), Czechia (GDACZ), Denmark (Producentforeningen), Finland (Suomen pelinkehittäjät), France (SNJV), Germany (GAME), Italy (IIDEA), Netherlands (DGA), Norway (Produsentforeningen), Poland (PGA), Romania (RGDA), Serbia (SGA), Spain (DEV), Sweden (Spelplan-ASGD), Slovakia (SGDA), Turkey (TOGED) and the United Kingdom (TIGA). Altogether, through its members, EGDF represents more than 2 500 game developer studios, most of them SMEs, employing more than 35 000 people

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²⁵ ISFE Key Facts 2020 from GameTrack Data by Ipsos MORI and commissioned by ISFE <https://www.isfe.eu/isfe-key-facts/>.

²⁶ See also <https://www.isfe.eu/data-key-facts/>