



General survey

Fields marked with * are mandatory.

1 Respondent background information

Before responding to the survey, please read the following documents (see links in the sidebar):

1. **Guidance Document**
2. **Use Mapping**
3. **Privacy Statement**



- I have read and understood the information in the **Guidance Document** and **Use Mapping**.
- I agree to the privacy policy as set out in the **Privacy Statement**.

* 1.1 **[Q2.0]** Select the EU language in which you will respond to the questions (the questions themselves will be in English only).

English

* 1.2 **[Q2.1]** Which of the following best describes you or your affiliation?

Select Citizen/individual if you are responding in a personal capacity.

Select Organisation if you represent an organisation (e.g. company) or other official role.

- Citizen/Individual
- Organisation

* 1.3 **[Q2.2]** What type of organisation are you responding for?

- Government organisation
- Non-governmental organisation
- Academic institution
- Industry association
- Company

* 1.4 **[Q2.3]** What is the name of the organisation you are reporting for?

Text of 1 to 300 characters will be accepted

IOGP Europe

* 1.5 **[Q2.4]** Please name a point of contact ECHA can contact if needed.

Text of 1 to 100 characters will be accepted

A point of contact is needed for seeking clarification or justification for the consultation responses if considered necessary by SEAC.

For individual respondents, the contact's name is always kept confidential.

Jonathan Smith

* 1.6 **[Q2.5]** What is the email address for that contact point?

jsm@iogp.org

1.7 **[Q2.6]** If you submitted comments in the previous consultation on the Annex XV restriction proposal (Mar-Sep 2023), please list the comment numbers (e.g. #1234, #5678).

300 character(s) maximum

#9493

* 1.8 **[Q2.7]** Is your organisation national or international?

Organisations having activities in several countries (in EEA or globally) should choose "international".

- National
- International

* 1.9 **[Q2.8]** What country are you (or your organisation) based in?

Individuals should choose the country where they permanently reside.

Respondents representing organisations, such as companies, should select the country where the largest share of their PFAS related activities occur.

Respondents representing other organisations may choose the country where the organisation is based in.

Belgium (BE)

1.10 **[Q2.9]** How many members does your association have?

Provide the number of member organisations (e.g. for industry associations), or individuals (e.g. for trade unions).

2 General survey questions

Instructions

Please do not include links to particular websites or source literature in the response fields. For security reasons, links to external sources will not be opened.

If you wish to cite a third-party source (e.g. research paper), you can reference it in the response field. This allows SEAC to note the source and request it from you if necessary.

For more information, please see the Guidance document.

***2.1 [Q2.17]** Choose all sectors that are relevant or covered by your responses in this general survey.

Minimum 1 selection(s)

Select the sector(s) for which you will provide information. You can choose PFAS manufacturing and 22 sectors (14 sectors covered by SEAC sector-specific evaluation and additional eight sectors identified in the Background Document).

You can select as many sectors as you see fit. Information provided will apply to all selected sectors unless you specify otherwise in your answers. If you prefer to do it so, you can submit one survey for each specific sector of use your answers apply to.

If your use is not covered by any of the identified sectors, choose “other” and specify it in the next question.

- [01] PFAS manufacturing**

- [02] Textiles, upholstery, leather, apparel and carpets (TULAC)**

- [03] Food contact materials (FCM) and packaging**

- [04] Metal plating and manufacture of metal products**

- [05] Consumer mixtures and miscellaneous consumer articles**

- [06] Cosmetics**

- [07] Ski wax**

- [08] Applications of fluorinated gases**

- [09] Medical devices
 - [10] Transport
 - [11] Electronics and semiconductors
 - [12] Energy
 - [13] Construction products
 - [14] Lubricants
 - [15] Petroleum and mining
 - [16] Printing applications
 - [17] Sealing applications
 - [18] Machinery applications
 - [19] Other medical applications
 - [20] Military applications
 - [21] Explosives
 - [22] Technical Textiles
 - [23] Broader industrial uses
 - [24] Other sector
-

* 2.2 [Q2.18] Please provide a general description of the use(s) of PFAS (or alternatives) you are providing comments on

Text of 1 to 2000 characters will be accepted

Briefly describe the use(s) of PFAS (or alternatives) in this sector(s).

The Upstream Oil and Gas, and Carbon Capture and Storage (CCS) sectors use PFAS-containing products, equipment and components in a wide range of machinery, equipment and industrial processes to meet performance criteria for safety- and environment-critical equipment deployed in challenging conditions and within industrial processes.

Alongside products covered by the 'Petroleum and Mining' sector questionnaire the industry relies on materials containing polymeric PFAS in a wide range of applications.

PFAS are present in a range of fluoropolymers and fluoroelastomers that are widely used for sealants and sealing devices, coatings for capacitors and wires, and in umbilicals and flexible pipes and risers. The temperature- and chemical-resilience of fluoropolymers, combined with their flexibility and sealing properties, uniquely delivers the required performance in safety-critical installations. As set out in previous Annex XV consultation response #9493, IOGP Europe is most concerned about the continued availability of fluoropolymers and elastomers that are required to safely deliver hydrocarbon production / CO₂ storage. They are the only materials known to have the necessary performance characteristics, and no substitution options (or prospect of future substitution options) have been identified.

Other uses include:

- Batteries – in multiple large and small equipment sources and hand-held devices
- Building and construction equipment
- Conveyor belt/roller systems
- Electrical and electronic systems
- Fastenings / fittings
- Fire Suppression systems - (not foam in another restriction) but 'clean agent' mists
- Hydraulic Fluids
- Environmental sampling and monitoring equipment
- Laboratory / testing equipment
- Lubricants / Greases
- Membranes and Filters
- Power management systems
- Safety equipment, including PPE

2.3 [Q2.19] Please provide your comments on section 1.2. SEAC opinion

Text of 1 to 5000 characters will be accepted

Consult the SEAC draft opinion and provide your comments relevant to this specific section of the opinion.

IOGP Europe is surprised and disappointed that SEAC concluded its draft Opinion for an additional eight sectors without undertaking a SEA. It is clear from numerous PFAS end-user sector engagements, including many that representatives from ECHA have attended, that the fluoropolymers and fluoroelastomers in those eight sectors, including 'sealing devices', 'machinery applications' and 'broader industrial uses', will have very significant impacts on a wide range of European industries, competitiveness and consumers, but they have not been evaluated by SEAC to date.

It remains IOGP Europe's strong opinion that the hazard profile posed by fluoropolymers and elastomers is both substantially different in nature, and much lower in magnitude, than those for the fluorosurfactants.

IOGP Europe recognises that the PBT, PMT, and associated properties of fluorosurfactants likely justifies additional controls and restriction.

With regards to fluoropolymers and elastomers it is recognised that the production of some of these materials uses fluorosurfactants (albeit alternative non-fluorinated processing aids are understood to be recently available: for example, Arkema, 2025; AGC, 2024). IOGP Europe considers the potential risks associated with polymeric-PFAS manufacturing are best managed through effective regulation of manufacturing installations under the EU Industrial Emissions Directive. Specific regulatory controls under IED permits should be applied to prevent and limit emissions to air and water to prevent pollution.

IOGP Europe also recognises that at end-of-life, suitable controls and materials handling protocols for PFAS containing materials is required to increase reuse / recycling and to prevent input to a circular economy system. The evidence available indicates that modern incineration technologies operated to BAT destroy fluoropolymers (Gehrmann et al., 2024; USEPA, 2026 - Updated Interim Guidance on destruction and disposal of PFAS, April 20, 2026) and are not expected to give rise to harmful emissions.

We consider that effective regulation of fluoropolymer/ fluoroelastomer manufacturing facilities under IED and improved end-of-life materials management is an effective risk management control and should be considered preferable to the proposed Restriction for fluoropolymers and fluoroelastomers.

IOGP has commissioned an independent SEA of the effectiveness of a broad Restriction on the Oil & Gas sector (Ricardo, 2026). The conclusions include that the benefit/cost ratio of the proposed restriction on fluoropolymers and elastomers in the Oil & Gas sector is less than 1, and that the Restriction proposal is not justified for that industry sector/use.

The disbenefits in terms of increased HSSE risk (including potential for more spills and fugitive emissions) during oil and gas, and CCS operations is assessed to far outweigh the risk associated with industrial use of polymeric PFAS. Many PFAS containing components currently in use provide exceptional chemical resistance, thermal stability, and durability, which help prevent leaks, equipment failures, and accidental releases of process fluids and are required for safe operations. If substitute materials do not achieve comparable performance, particularly in high temperature, high pressure, or corrosive environments, there is a potential for increased operational and environmental risks. These could include more frequent leaks, fugitive emissions, or accidental discharges of hydrocarbons, chemicals, or other hazardous substances. While these risks are not directly related to PFAS, they represent an important environmental consideration that could be a consequence of a fluoropolymer/ elastomer restriction.

We challenge both the Restriction in so far as it applies to polymeric substances, and Restriction Proposal 2 (iii) as drafted.

References:

Arkema 2025: <https://www.arkema.com/global/en/products/product-families/fluoropolymers/non-fluorinated-surfactants-in-arkema-pvdf/>

AGC, 2024: https://www.agc.com/en/news/detail/1207104_2814.html

Gehrmann et al., 2024. Mineralization of fluoropolymers from combustion in a pilot plant under representative European municipal and hazardous waste combustor conditions. *Chemosphere*, <https://doi.org/10.1016/j.chemosphere.2024.143403>

Ricardo, 2026. Socio-economic analysis for a REACH Restriction proposal on PFAS in the upstream Oil and Gas, oil refining and fuel distribution sectors, and in carbon capture and storage. Concawe and IOGP.

USEPA, 2026. Interim guidance on the destruction and disposal of perfluoroalkyl and polyfluoroalkyl

substances and materials containing perfluoroalkyl and polyfluoroalkyl substances - 2026 version. USEPA, April 20, 2026.

2.4 **[Q2.20]** Please provide your comments on section 2.2. Summary of the opinion and 2.2.2. SEAC opinion summary

Text of 1 to 5000 characters will be accepted

Consult the SEAC draft opinion and provide your comments relevant to this specific section of the opinion.

Firstly, IOGP Europe is surprised and disappointed that SEAC concluded its draft Opinion for an additional eight sectors without undertaking a SEA. It is clear from numerous PFAS end-user sector engagements, including many that representatives from ECHA have attended, that the fluoropolymers and fluoroelastomers in those eight sectors, including sealing devices, will have very significant impacts on a wide range of European industries, competitiveness and consumers, but they have not been evaluated by SEAC to date.

With regards to the text, the Restriction Proposal and SEAC Opinion (e.g., s2.1) frequently treats all PFAS alike and fails to recognise the vastly different hazard profiles of different types of PFAS. Based on the literature currently available fluorosurfactants (some of which are PBT, PMT, subject to long range transport), differ from fluoropolymers and elastomers (P, but presenting no other significant hazardous properties in use), and F-gases (P and long-range transport potential) (e.g., Ameduri 2023). IOGP recognises the logic for a restriction of fluorosurfactants and other liquid/aqueous PFAS in, for example, fire-fighting foam and environmental tracers where their use could lead to environmental releases and receptor exposure. We do not, however, consider persistence (P) alone as being an appropriate basis for group-wide restriction, and note that this approach has not been used in REACH previously.

To illustrate the point, the draft SEAC Opinion states (s2.1, p12) “Environmental monitoring of PFAS demonstrates ubiquitous distribution in the environment...shows omnipresence of PFAS in humans.”. While these statements may be accurate for certain fluorosurfactants, such as PFOS, PFOA and PFHxS, both statements are factually incorrect for fluoropolymers, such as PTFE.

With regard to concerns that SEAC note regarding enforceability and monitorability of the Restriction, IOGP Europe recognises and agrees with these concerns. For most affected parties PFAS is a supply chain issue; only a few companies manufacture or import PFAS other than in finished articles or components. IOGP Europe supports the proposed requirement for manufacturers to label materials that contain PFAS, such that product stewardship and end-of-life management are more easily undertaken.

With regard to emissions monitoring, IOGP considers that it is feasible to measure and report emissions where there is a deliberate discharge or input (e.g., injection of a tracer into a geological formation). By contrast measurement of emissions from polymeric components contained within sealed industrial equipment is not feasible, and the potential for PFAS emissions from industrial use of polymeric components is likely minimal in-use. Emissions from manufacturing installation should be regulated under EU IED, and emissions control /monitoring at end-of-life are feasible with improved guidance.

Given the results of the Concawe-IOGP SEA report (Ricardo, 2026), and the time-limited derogations proposed for fluoropolymer applications in sealing applications, electronics and other applications, we ask for an exemption for all polymeric-PFAS application until proven replacement technology is available for each application.

Ameduri, 2023. Fluoropolymers as Unique and Irreplaceable Materials: Challenges and Future Trends in these Specific PFAS. Molecules, DOI: 10.3390/molecules28227564

2.5 [Q2.21] Please provide your comments on section 3.2. Justification that action is required on a Union-wide level

Text of 1 to 5000 characters will be accepted

Consult the SEAC draft opinion and provide your comments relevant to this specific section of the opinion.

We recognise that certain toxic PFAS are mobile and subject to long-range transport, and that certain PFAS are present across the EU environment due to widespread use and emissions. IOGP Europe recognises that Union-wide action may be appropriate for those substances. Fluorosurfactants and other mobile PFAS that are deliberately, or inevitably, released into the environment by virtue of their intended uses are recognised as candidates for Union-wide action.

We differ with regards to the best course of action for other PFAS, and specifically the fluoropolymers and fluoroelastomers. In use (often fully enclosed) within industrial equipment and machinery that is used in the oil and gas sector, we do not consider that fluoropolymers/elastomers generate significant emissions.

IOGP Europe is of the opinion that fluoropolymers/elastomers are best excluded from the proposed Restriction: their production is best controlled through improved regulation under the Industrial Emissions Directive, and end-of-life management that includes requirements for segregation and incineration (or other suitable technologies) to destroy fluoropolymers/elastomers.

The text in paragraph 3, s3.2 (p19) states that 'Continued emissions PFAS...lead to ever more increasing amounts of PFAS until such levels are reached where adverse effects are likely.' This statement is true for PFAS that are potentially toxic to humans or ecosystems, but is not correct for PFAS that are biologically inert and not bioavailable, such as fluoropolymers (Ameduri, 2023; Henry et al, 2018).

Furthermore, at para 4, s3.2 (p19) it is stated that 'Removal of contamination is, if even possible at all, technically challenging, energy intensive and thus costly'. There is a large and rapidly growing research track record on PFAS remediation, including published work on both soil and water remediation by industry associations such as www.concawe.eu, and an extensive research base by the US military SERDP-ESTCP programme (www.serdp-estcp/mil/). Remediation of certain mobile PFAS (such as TFA) is indeed challenging, but remediation of larger PFAS (e.g., PFOS) has been successfully demonstrated in commercial projects, and there is no evidence known to us that fluoropolymers/ elastomers give rise to contamination to a point where remediation to prevent harm to human health has, or conceivable could, be necessary.

Given the results of the Concawe-IOGP SEA report, and the time-limited derogations proposed for fluoropolymer applications in sealing applications, electronics and other applications, we ask for an exemption for all polymeric-PFAS application until proven replacement technology is available for each application.

References:

Ameduri, 2023. Fluoropolymers as Unique and Irreplaceable Materials: Challenges and Future Trends in these Specific PFAS. *Molecules*, DOI: 10.3390/molecules28227564

Henry et al, 2018. A critical review of the application of polymer of low concern and regulatory criteria to fluoropolymers. *Integrated Environmental Assessment and Management*

2.6 **[Q2.22]** Please provide your comments on section 3.3.1 Availability and technical and economic feasibility of alternatives

Text of 1 to 5000 characters will be accepted

Consult the SEAC draft opinion and provide your comments relevant to this specific section of the opinion.

IOPG Europe notes that SEAC was unable to conclude on the overall feasibility and availability of alternatives was not possible due to the wide breadth of sectors and sub-uses covered by the proposal Restriction (3.3.3.1, p21), and SEAC considers that “information on emissions as well as costs and benefits should also have been taken into account. This would allow SEAC to fully assess the positive and negative effects associated with a lack of actions on specific PFAS application.”

IOPG and Concawe have commissioned an independent Socio-Economic Analysis of the impacts of the proposed Restriction on the Oil and Gas sector, with a focus on fluoropolymers and elastomers. This analysis (Ricardo, 2026) concluded that the costs to the Oil & Gas sector outweigh the benefits to society, and consequently do not support their restriction.

At bullet 1 on Page 21 (s 3.3.1) we note that the Restriction goes wider than as stated in the text at this point of the SEAC Opinion (listed there as PFAAs and precursors, F-gases and polymeric PFAS). Perfluoroalkanes (e.g., oil tracers) and fluorosiloxanes (e.g., anti-foam agents) do not degrade to PFAA, nor meet the other criteria listed.

Our analysis (Ricardo, 2026) of substitution opportunities for fluoropolymers and elastomers used in the oil and gas / CCS sector indicates there are no suitable alternatives for most applications in sealings, flexible pipes and umbilicals, or electrical components, which would maintain HSSE risks at equally low levels either now or in the foreseeable future. Identified alternatives from the literature have been summarised in Appendix 3 of the SEA report (Ricardo, 2026), which includes a summary of their technical feasibility. Ricardo (2026) state:

Sealing devices: “... have not identified any commercially available PFAS-free alternatives for sealants and sealing devices suitable for upstream O&G and CCS; refinery and fuel distribution operations.”

Coating for wires: “...have not identified any commercially available PFAS-free alternatives for coatings for wires suitable for upstream O&G and CCS; refinery and fuel distribution operations.”

Capacitors: “...a lack of information on PFAS-free alternatives for the use of PFAS in capacitors.”

Pipes: “...have not identified any commercially available PFAS-free alternatives.”

It should be noted that the development of fluoropolymers and elastomers has enabled the development and growth of a number of important industries, including oil, gas and CCS, elements of which could not exist without fluoropolymer-based equipment and components. It is unlikely that deep water hydrocarbon production, subsea processing and production, and geological CO₂ storage could have developed without the prior development of fluoropolymers that allow safe and reliable operation under a combination of challenging conditions. The performance criteria that allowed these developments, and in particular resistance to chemically aggressive materials and high temperatures indicate that any substitute materials developed in the distant future will, perhaps by definition, also be persistent.

We note that Ramboll (2026) identified similar constraints for fluoropolymers in the transport and electronics /semiconductor sectors.

References:

Ramboll, 2026. Assessment of alternatives to fluoropolymers for the transport and electronics and semiconductor sector. Fluoropolymer Group of Plastics Europe, Brussels.

2.7 **[Q2.23]** Please provide your comments on section 3.4.1. Regulatory risk management options other than restriction

Text of 1 to 5000 characters will be accepted

Consult the SEAC draft opinion and provide your comments relevant to this specific section of the opinion.

SEAC's Opinion (s3.4.1, final text on p23) starts with a statement that a group-wide restriction will prevent regrettable substitution. IOGP recognises that such substitution has occurred within certain product development (such as C8 to C6 to shorter chain fluorosurfactants in fire-fighting foam), but notes that such examples of regrettable substitution are limited to molecules with very similar properties. It is not conceivable, for example, that a fluorosurfactant would be replaced by an F-gas or fluoropolymer, since the material properties requirements are completely different. A group-wide restriction is not justified by the logic of regrettable substitution; at least not beyond the much smaller groups of PFAS compounds that are structurally similar and transposable in a product line.

Avoidance of regrettable substitution has logic in a restriction proposal for fluorosurfactants in isolation, but has no logic when applied across material types (surfactants – gases – polymers – etc) where such substitution is not plausible.

SEAC also conclude (s3.4.1, para 3, p24) that grouping is a good basis for risk assessment. Again, IOGP Europe disagrees with this assertion. We recognise that grouping molecules that are similar in terms of fate and transport in the environment may be useful for simulating their migration for risk-assessment purposes. This is commonly done for petroleum hydrocarbon fractions in environmental risk-assessment. We do not accept that grouping of molecules that have no common structural, physical or other properties makes sense in a risk-assessment framework. PFAS are linked by two common factors: C-F bond(s) and persistence. These criteria imply no common environmental properties (beyond persistence) that is useful for risk-assessment purposes, since all other properties, and in particular mobility and toxicity vary across the group.

The four bullet points in s3.4.1 (bottom of p24) are valid reasons for grouping where the constituent members have similar properties. In this case we suggest that authors were clearly thinking about PFAAs, and that grouping makes sense in that context. We contend that it does not make scientific sense to group all PFAS with entirely different physical and toxicological properties (solids, liquids, gases).

If grouping is adopted, we advocate that it should be limited to grouping (and proposing restrictions for) fluorosurfactants, separately to F-gases, and separately to fluoropolymers and elastomers, such that groups are limited to molecules with broadly similar properties.

The SEAC Opinion goes on to state (s3.4.1, para 3, p28) that "... a general restriction of PFAS is considered the most appropriate EU-wide measure...an assessment of interactions between restriction and possible other legislative measures has not been performed.."

IOGP Europe has undertaken a Socio-Economic Analysis of the proposed Restriction on the Oil and Gas sector (Ricardo 2026). The analysis indicated that a full restriction of fluoropolymers/elastomers is not supported by cost-benefit analysis, and that a more proportionate (yet still effective) regulatory control for polymers would be improved controls on manufacturing facilities (under IED) and improved end-of-life materials management. The available evidence on in-use emissions from polymers in industrial machinery and installations indicates very low emission potential.

We consider that effective regulation of fluoropolymer/ fluoroelastomer manufacturing facilities under IED and improved end-of-life materials management is an effective risk management control, and should be considered preferable to the proposed Restriction for fluoropolymers and fluoroelastomers.

2.8 [Q2.24] Please provide your comments on section 3.4.2.2.1. Socio-economic analysis: Approach

Text of 1 to 5000 characters will be accepted

IOGP Europe is concerned to read that SEAC state:

“Most of the sectors and (sub-)uses assessed in the Background Document lack robust socio-economic information, which hampers a proper (quantitative or qualitative) evaluation of the socio-economic impacts related to the restriction options discussed. SEAC emphasises that in such broad and complex restriction proposals, a well-elaborated approach, which is consistently applied across all sectors and (sub-)uses covered, is necessary to assess and conclude on the socio-economic impacts, regardless of whether the data allow for a quantitative or merely a qualitative assessment. Such an approach allows evaluating and comparing impacts (eg costs) across the sectors and (sub-)uses assessed and drawing conclusions in spite of data and information gap. SEAC acknowledges the Dossier Submitter’s effort to present a thought-through approach that tackles this challenge in a stepwise and transparent manner. SEAC finds the approach outlined by the Dossier Submitter, in principle, a good foundation upon which the assessment of socio-economic impacts can be built. However, SEAC noticed that there are shortcomings in both, the design of some steps of the approach (ie the proportionality assessment) as well as the actual implementation of the approach, which hampered SEAC’s ability to evaluate the socio-economic impacts of the restriction options assessed.”

IOGP Europe agrees with SEAC’s position that the Background Dossier fails to properly assess and justify the proposed Restriction based on a thorough socio-economic analysis of the likely impacts.

We acknowledge SEAC’s recognition that the PFAS restriction proposal is broad and complex and that a stepwise, transparent approach is needed to compare socio-economic impacts across many sectors and (sub-)uses. However, based on Ricardo (2026), we consider that the SEAC current approach would benefit from further strengthening in several respects to better support robust proportionality conclusions for industrial uses.

1) Better reflect sector-specific use conditions and exposure context: The Concawe–IOGP SEA (Ricardo, 2026) notes that direct exposure during normal operation is expected to be limited and that potential exposure/ release pathways are mainly associated with maintenance and end-of-life/waste stages. A socio-economic approach that does not explicitly distinguish these conditions risks mischaracterising the relevance and scale of impacts for such closed-system industrial applications.

2) Address system dependencies and “real-world” substitution constraints more explicitly:

The Concawe–IOGP SEA indicates that in the covered sectors PFAS-containing components are often operationally critical, and stakeholders reported that only a limited share of equipment is currently substitutable with PFAS-free alternatives, with major implications for continuity of operations under RO2 timelines. The approach described by SEAC emphasises the need for consistency across sectors/sub-uses, but in practice substitution decisions depend on interdependent systems, standards, qualification and management-of-change requirements, issues that can materially change cost and feasibility outcomes and should be more systematically integrated where safety-critical systems are involved.

3) Strengthen treatment of broader economic/strategic impacts where evidence exists:

SEAC notes pervasive data gaps and acknowledges that shortcomings in the implementation of the approach hampered evaluation of socio-economic impacts. Ricardo (2026) provides quantified estimates (where possible) for turnover/GVA/employment impacts under RO2 impact scenarios for the relevant energy value-chain sectors over the appraisal period, and discusses competitiveness and investment implications. These types of sector-level economic baselines and impact pathways can help reduce reliance on generic qualitative grading and improve comparability across sectors.

4) Clarify how uncertainty and evidence strength are operationalised for costs/effectiveness.

SEAC highlights that consistent application of the approach is essential and notes shortcomings in the

proportionality step and implementation. The Concawe–IOGP SEA similarly emphasises that conclusions are sensitive to assumptions (e.g. substitution rates, timing, and availability of alternatives), and explicitly uses scenario ranges to reflect uncertainty. Greater alignment on how uncertainty is carried through to sector conclusions would improve transparency and decision-usefulness.

Conclusion.

While the overall stepwise framework is a useful foundation, the Concawe–IOGP SEA evidence suggests that a more explicit integration of (i) industrial closed-system contexts, (ii) system-level substitution constraints, and (iii) sector-level quantified baselines/impact scenarios (where available) would strengthen the socio-economic approach and its contribution to proportionality conclusions.

2.9 [Q2.25] Please provide your comments on section 3.4.2.2.2. Socio-economic analysis: Costs

Text of 1 to 5000 characters will be accepted

Consult the SEAC draft opinion and provide your comments relevant to this specific section of the opinion.

IOPG Europe notes (s3.4.2.2.2, para 2, p31) that “SEAC cannot conclude on the magnitude of costs due to a general lack of data and partly substantial shortcomings in the cost assessment provided in the Background Document.”

IOPG Europe agrees with SEAC that there are material shortcomings in the submitted social-economic analysis used in the Restriction Proposal Background Document. Whilst we recognise it is difficult, sometimes impossible, to establish quantitative cost estimates for an SEA, Ricardo (2026) were able to generate such data for the oil and gas sector’s use of products and components containing polymeric PFAS. Our independent commissioned analysis (Ricardo, 2026) suggests that the Upstream oil and Gas sector would likely experience significant negative impacts from a restriction on polymeric PFAS containing components and equipment:

1. Significant negative economic impacts in Upstream Oil & Gas: Loss of up to 21,000 jobs
2. Reduced turnover of up to €26 billion per year
3. Increased risk of reallocation of oil and gas investment outside EU, and accelerated closure of existing operations
4. Increased risk of reallocation of CCS investment outside EU, challenging further development to the nascent CCS industry

SEAC conclude (s 3.4.2.2.2, para 2, p 36) that “... the costs associated with these [reporting and labelling] requirements could potentially be significant due the broad scope of the restriction proposal.”.

For the oil and gas sector PFAS management is essentially a supply chain issue, so labelling is largely an issue for service companies and suppliers.

For reporting, the anticipated challenge is undertaking representative measurement of polymeric PFAS emissions from industrial equipment and processes. The costs, particularly for facilities located off-shore, on seabed, or for components situated deep inside complex industrial process equipment would likely be simultaneously technically challenging, introduce unnecessary safety risks, and present disproportionate costs. We are unable to offer realistic cost estimates since we are unclear how, for example, polymeric PFAS emissions from composite flexible pipes in subsea environments could actually be measured.

With regards to reporting substitution opportunities in PFAS Management plans, IOPG Europe considers that its members are not well placed to obtain this data, and the equipment manufacturers would be better placed to report on materials substitution opportunities across their product lines.

Preparation and reporting PFAS Management plans is somewhat easier for tracers, anti-foam agents (and similar products, such as fire-fighting foam) where products are typically purchased in bulk from a small number of suppliers, and materials swap-out programmes are managed at a regional or global scale in companies.

2.10 [Q2.26] Please provide your comments on section 3.4.2.2.3. Socio-economic analysis: Benefits

Text of 1 to 5000 characters will be accepted

Consult the SEAC draft opinion and provide your comments relevant to this specific section of the opinion.

SEAC’s conclusions (s 4.4.2.2.3) on the potential benefits of a PFAS restriction rely heavily on the potential for removal of substances that are “very persistent...as well as supporting concerns...(eco)toxicity, mobility, bioaccumulation, long-range transport and global warming potential.” (para 1, p36). IOPG Europe notes that these criteria apply to a number of fluorosurfactants, but not to polymeric PFAS.

The only criteria listed that applies to all polymeric PFAS is persistence, which is a quality implicit in the desired technical properties of the materials required in harsh industrial conditions (of chemical and thermal resistance in use) that are requirements for the products used in the oil and gas industry.

Whilst noting that persistence alone has been considered sufficient reason for restriction, we continue to challenge whether persistence without any other hazardous properties (particularly toxicity and/or bioaccumulation potential) is a sound basis for restriction.

SEAC also notes that remedies are challenging (s3.4.2.2.3, para 1, p36): "...technically and economically (nearly) impossible to clean up and, even if possible, remediation techniques are known to be very costly.". We note that similar statements could, and regularly do, get be made for a range of soil and groundwater remediation activities, and yet the European environmental remediation industry is large and successful. IOGP Europe recognizes that pollution prevention should be prioritised over post-incident recovery actions, however recent research by oil and gas industry bodies (Concawe 2020, 2021, 2024) and via the US military research forum SERDP-ESTCP has documented a number of novel and effective PFAS remediation approaches. Remediation of certain mobile PFAS (such as TFA) is indeed challenging, but remediation of larger surfactant PFAS (e.g., PFOS) has been successfully demonstrated in commercial projects, and there is no evidence known to us that fluoropolymers/ elastomers give rise to contamination to a point where remediation to prevent harm to human health has, or conceivable could, be necessary.

SEAC note RAC's approach to consider all PFAS non-threshold substances for the purposes of risk-assessment (s.3.4.2.2.3, para 2, p37). While PBT and other substances having a similar level of concern are typically assessed as non-threshold, we do not believe that this approach is appropriate or relevant to biologically inert substances such as common fluoropolymers (Burmistrov, et al., 2022). We therefore consider the health and ecological benefits estimated are greatly overstated since many of the PFAS covered are not PBT, PMT, or sensibly classed as non-threshold substances. Furthermore, we note, and agree, that SEAC consider health cost estimates provided in the Background Dossier relates to PFAS that are already subject to existing REACH Restrictions (s.3.4.2.2.3, final para, p38), and which relate to the PFAS compounds that appear to pose the greatest health and environmental risks.

As a consequence, we conclude that SEAC's agreement "with the Dossier Submitter's approach to estimate benefits of each restriction option through the emission reduction potential." will likely result in a significant overestimate of potential benefits associated with a restriction on polymeric PFAS and other biologically inert and non-toxic forms (Ameduri, 2023; Lee et al, 2022).

Our independent analysis (Ricardo 2026) indicates that the potential benefits associated with a restriction on fluoropolymers in the Upstream oil and gas sector would likely generate only minor benefits, largely associated with reduced emissions at fluoropolymers production sites, and a lesser benefit associated with emission reduction via landfill of the small (ca 15%) reduction of industrial wastes that are not incinerated.

The disbenefits in terms of increased HSSE risk (including potential for more spills and fugitive emissions) during oil and gas, and CCS operations is assessed to far outweigh the risk associated with industrial use of polymeric PFAS. Many PFAS containing components currently in use provide exceptional chemical resistance, thermal stability, and durability, which help prevent leaks, equipment failures, and accidental releases of process fluids and are required for safe operations. If substitute materials do not achieve comparable performance, particularly in high temperature, high pressure, or corrosive environments, there is a potential for increased operational and environmental risks. These could include more frequent leaks, fugitive emissions, or accidental discharges of hydrocarbons, chemicals, or other hazardous substances. While these risks are not directly related to PFAS, they represent an important environmental consideration that could be a consequence

of a fluoropolymer/ elastomer restriction.

2.11 **[Q2.27]** Please provide your comments on section 3.4.2.2.4. Socio-economic analysis: Other relevant impacts

Text of 1 to 5000 characters will be accepted

Consult the SEAC draft opinion and provide your comments relevant to this specific section of the opinion.

IOGP Europe is pleased to see that the requirement for spare parts in existing installations is recognised (s3.4.2.2.4, para 2, p45). This is critical for continued safety, continuity of operations and avoiding premature obsolescence. IOGP Europe agrees with SEAC that spare-parts derogations are necessary to avoid premature obsolescence of articles/complex objects. The Ricardo SEA highlights that PFAS-containing equipment (sealants/sealing devices, coatings, pipes/umbilicals) is operationally critical equipment and that limited substitution potential risks severe disruption/cessation of activities after derogations expire. This makes continued availability of compliant spare parts pivotal for safe operations, asset integrity and orderly transition at existing operating assets. We support SEAC's concern that spare-parts provisions should be clearly framed (e.g., linked to service life/legal obligations and clarifying "spare part" vs consumable), to ensure legal certainty while maintaining safety and continuity of supply.

Recycling/circular economy and end-of-life pathways: The Ricardo SEA indicates that fluoropolymers /fluoroelastomers are difficult to recycle (they are often present in composites), with historically low recycling rates (a few percent) and that most industrial PFAS-containing waste in Europe is incinerated (83.5%), with a small fraction (ca 15%) to landfill (Concawe, 2024). It also notes that the oil and gas sector's waste streams are typically managed as hazardous waste through controlled systems, with high-temperature incineration (>1,100° C) required/used for effective monomeric PFAS destruction (e.g., fire-fighting foams), while municipal incineration (~850° C) is sufficient for fluoropolymer destruction (Gehrmann 2024, Améduri & Hori, 2023). Any restriction design should therefore consider: (i) whether it unintentionally diverts waste away from BAT-aligned hazardous waste routes; and (ii) whether sufficient hazardous-waste treatment capacity exists to manage transition waste flows without increasing environmental burden.

Cumulative impacts, competitiveness, trade and investment leakage: SEAC lists cumulative impacts and overarching trade/competitiveness as relevant. The Ricardo SEA concludes that even RO2-type restriction assumptions could weaken EEA competitiveness across the oil and gas value chain, contribute to supply disruptions and higher product prices, and potentially to redirect investment away from the EU/EEA, with wider macroeconomic effects. These "other impacts" should be explicitly weighed alongside the benefits narrative, particularly where derogations end before viable alternatives/standards exist.

Standards/qualification/management of change: SEAC notes upstream supply chain issues as relevant. The Ricardo SEA underlines that compliance requires not only alternative materials but also testing/validation, development of international standards, and management-of-change to install replacement components. Where derogations remain, maintaining upstream supply for derogated uses (incl. spare parts) is essential to prevent shortages that could trigger early shutdowns before end of derogation periods.

SR&D / PPORD and innovation effects: SEAC lists SR&D/PPORD impacts. The Ricardo SEA recognises potential positive innovation effects from additional R&D for PFAS-free alternatives, but also warns that regulatory drivers may redirect resources into compliance-driven substitution, potentially crowding out more productive innovation versus baseline. These opposing effects should be transparently reflected when describing "other relevant impacts".

2.12 **[Q2.28]** Please provide your comments on section 3.4.2.2.5 Socio-economic analysis: Proportionality

Text of 1 to 5000 characters will be accepted

Consult the SEAC draft opinion and provide your comments relevant to this specific section of the opinion.

SEAC explains that the Dossier Submitter compares qualitative cost levels with effectiveness (emission reduction) in a matrix as the proportionality step, and notes this is only available on a sector basis and is challenged by data gaps. For the oil, gas and CCS value chains, an independent SEA (Ricardo, 2026) provides a structured, sector-specific cost/benefit synthesis and should be reflected in proportionality considerations.

SEAC uses avoided emissions as a proxy for risk for persistent substances (all PFAS being assumed non-thresholds substances) and recognises uncertainties in translating emission reductions to benefits. The Ricardo SEA finds that, for fluoropolymers/fluoroelastomers in O&G/CCS applications, baseline emissions and emission reductions cannot be quantified and health impact magnitude is uncertain, with no sector-specific attribution of baseline health burden possible. These evidence limitations should be explicitly acknowledged when concluding on proportionality for polymeric PFAS uses in this value chain.

Costs in oil, gas and CCS sectors are quantified and potentially very high - proportionality assessment must reflect this: The Ricardo SEA provides quantified, scenario-based estimates indicating that under RO2-type timing, limited substitution (often 10–30% in the most likely case) could lead to severe disruption/cessation of activities post-derogation (and potentially ahead of derogation end-dates as investment decisions in the oil and gas industry are decadal in nature), with large impacts on turnover/GVA and employment in Upstream oil and gas, Downstream (refining and distribution) and CCS. These quantified cost implications are directly relevant to the proportionality balance for these sectors and should inform SEAC's proportionality narrative beyond qualitative cost bands.

Wider "system" impacts (security of supply, investment leakage) should be part of proportionality: SEAC recognises that costs may include competitiveness/trade/investment effects. The Ricardo SEA indicates the restriction scenario could weaken EEA competitiveness across the oil and gas value chain and may affect CCS investment and renewable fuels' decarbonisation role, with knock-on socio-economic consequences. These impacts should be explicitly integrated into proportionality conclusions for the energy/fuels value chain.

The Ricardo (2026) SEA concludes that the benefits/cost ratio (BCR) is less than 1 for fluoropolymers and elastomer use in industrial applications in the oil, gas and CCS sector; (BCR < 1) for assessed RO2-type scenario.

SEAC discusses proportionality using cost-effectiveness logic for persistent substances and acknowledges that RO2 is often preferred over RO1 due to significantly lower costs at slightly reduced effectiveness. The Ricardo SEA's synthesis for the relevant sectors concludes that the scale of benefits is lower than the costs, reflected by a benefit-to-cost ratio < 1, and that conclusions do not support adoption of the assessed (RO2) restriction scenario assumptions. This sector-specific evidence should be considered when SEAC frames proportionality for impacts on Upstream and Downstream oil and gas, and CCS.

2.13 **[Q2.29]** Please provide your comments on section 3.4.2.3. Practicality, including enforceability

Text of 1 to 5000 characters will be accepted

Consult the SEAC draft opinion and provide your comments relevant to this specific section of the opinion.

The SEA prepared by Ricardo (2026) provides sector-specific evidence that enforceability in the oil and gas value chain is constrained by information and monitoring gaps:

- (i) uncertain PFAS presence in equipment (>50% of survey respondents did not know / answered N/A, when asked whether purchased parts and equipment contained PFAS),
- (ii) lack of information on quantities (concentrations) of PFAS present in purchased complex equipment (e.g. multi-layered pipes and umbilicals), and
- (iii) lack of monitoring data for polymeric PFAS emissions (respondents did not have emission information due to lack of monitoring, and were unclear how representative polymeric-PFAS emission monitoring from industrial equipment (e.g., umbilicals on the seabed, or o-rings positioned inside complex industrial equipment) could even be undertaken.

2.14 [Q2.30] Please provide your comments on section 3.4.2.4. Monitorability

Text of 1 to 5000 characters will be accepted

Consult the SEAC draft opinion and provide your comments relevant to this specific section of the opinion.

Monitorability depends on enforceability and harmonised implementation:

SEAC states the proposed restriction is monitorable, but notes that monitorability is affected by challenges linked to enforceability, since enforcement is the principal means to monitor compliance/effectiveness. IOGP Europe agrees: a practical, harmonised EU/EEA enforcement approach and clear guidance are prerequisites for monitorability in complex industrial supply chains.

Analytical monitorability - concentration limits must align with realistic sampling/testing for complex objects: SEAC notes the concentration limits are appropriate given the current state of analytical methods and highlights RAC's recommendation on precursor degradation for the 250 ppb limit. For IOGP Europe's sectors, compliance relates frequently to complex objects/installed systems and spare parts, where sampling can be difficult. Monitorability should therefore be supported by guidance clarifying acceptable evidence (e.g., supply-chain documentation/traceability) in addition to analytical testing where testing is not feasible.

Emissions reporting for polymeric PFAS uses may be technically constrained:

The Ricardo SEA concludes that for polymeric PFAS (fluoropolymers / fluoroelastomers) in the O&G/CCS value chain, quantitative emissions estimates are not possible due to lack of monitoring, absence of standardised methods, and limited data; stakeholders reported not having information on polymeric PFAS emissions. Therefore, extending monitorability via mandatory emissions reporting for these uses risks generating low-quality, non-comparable data unless accompanied by (i) agreed methods/standards and (ii) realistic expectations about what can be measured.

Site-specific management plans and monitoring results: ensure auditable, method-based requirements:

SEAC notes concerns about enforceability and lack of information to assess impacts for site-specific PFAS management plans and for RAC-recommended monitoring/labelling measures. IOGP Europe agrees that monitorability measures should be auditable and standardised. Given the Ricardo SEA's evidence gaps on polymeric PFAS emissions, monitoring obligations should be linked to available methods and phased-in as methods mature, rather than imposing immediate requirements that cannot be met consistently.

2.15 [Q2.31] Please provide your comments on section 3.4.3.2.1. Conclusion whether the suggested restriction is the most appropriate EU-wide measure: (i) PFAS definition

Text of 1 to 1000 characters will be accepted

Consult the SEAC draft opinion and provide your comments relevant to this specific section of the opinion.

IOGP Europe notes that the restriction proposal adopts the OECD definition of PFAS. Whilst we have no objection to the use of the current and widely adopted OECD definition, we consider that it is important to understand and assess the hazard and potential risk that individual PFAS, and types of PFAS, pose.

We do not believe that all PFAS represent a similar level of health or environmental hazard, and that the polymeric PFAS used inside industrial equipment pose a vastly lower hazard than fluorosurfactants whose use inevitably or likely results in environmental emissions.

Whilst using the OECD definition of PFAS we believe it is still possible to evaluate different types of PFAS based on materials properties, and that doing so would result in a conclusion that industrial use of fluoropolymers and elastomers should be excluded from the Restriction.

2.16 **[Q2.32]** Please provide your comments on section 3.4.3.2.1 Conclusion whether the suggested restriction is the most appropriate EU-wide measure: (ii) Exclusion of PFAS from the scope

Text of 1 to 1000 characters will be accepted

Consult the SEAC draft opinion and provide your comments relevant to this specific section of the opinion.

We note the discussion (s3.4.3.2.1 (ii); page 85) regarding inclusion of polymeric PFAS within the restriction proposal. IOGP Europe remains of the view that fluoropolymers pose a materially different and lower hazard than certain monomeric PFAS (Ameduri 2023), that concerns about 'regrettable substitution' is not relevant in the argument to include polymers in scope of the Restriction, and that manufacturing of fluoropolymers is already moving away from reliance on fluorosurfactant processing aids.

Given the results of the Ricardo SEA report undertaken for Concawe / IOGP, we ask for an exemption for all polymeric PFAS applications from the scope of the restriction, at least until proven replacement technology is available for each application.

2.17 **[Q2.33]** Please provide your comments on section 3.4.3.2.2 Conclusion whether the suggested restriction is the most appropriate EU-wide measure: Scope of the proposed restriction

Text of 1 to 1000 characters will be accepted

Consult the SEAC draft opinion and provide your comments relevant to this specific section of the opinion.

IOGP Europe recognises the logic for restriction of certain PFAS (e.g., PBT monomers that are inevitably released to the environment and result in human and ecological exposure).

We do not believe that the same logic applies to, or justifies, a restriction on the industrial (and controlled) use of polymeric PFAS containing components and equipment.

2.18 **[Q2.34]** Please provide your comments on section 3.4.3.2.3. Conclusion whether the suggested restriction is the most appropriate EU-wide measure: Concentration limits

Text of 1 to 1000 characters will be accepted

Consult the SEAC draft opinion and provide your comments relevant to this specific section of the opinion.

No comments.

2.19 **[Q2.35]** Please provide your comments on section 3.4.3.2.4. Conclusion whether the suggested restriction is the most appropriate EU-wide measure: General 18-month transition period

Text of 1 to 1000 characters will be accepted

Consult the SEAC draft opinion and provide your comments relevant to this specific section of the opinion.

For those uses where substitution is a simple 'product drop-in, or swap' we do not object to an 18 month transition period. However, we note that for examples such as anti-foam agents, the substitution process may also require hardware changes or modification, which need to be planned and incorporated into broader asset 'turnaround' activities, including at off-shore facilities. In such cases 18 months is inadequate.

2.20 **[Q2.36]** Please provide your comments on section 3.4.3.2.5. Conclusion whether the suggested restriction is the most appropriate EU-wide measure: Derogations

Text of 1 to 5000 characters will be accepted

Consult the SEAC draft opinion and provide your comments relevant to this specific section of the opinion.

IOGP Europe is pleased to see 'spare parts' recognised as a critical element in ensuring continued safe operation of existing assets that have been designed and built with PFAS-containing materials and components.

2.21 **[Q2.37]** Please provide your comments on section 3.4.3.2.6.1. Conclusion whether the suggested restriction is the most appropriate EU-wide measure: Reporting requirements

Text of 1 to 1000 characters will be accepted

Consult the SEAC draft opinion and provide your comments relevant to this specific section of the opinion.

IOGP members are reliant on a component supply chain. Comprehensive traceability systems for derogated uses and contractual agreements would be needed to enable reporting by manufacturers, importers and formulators, which may not work in complex value chains. e.g., manufacturers of high-volume PFAS-containing articles, such as O-rings, cannot realistically trace the incorporation of each item into downstream equipment.

Additional reporting on emissions from derogated uses increases compliance costs and requires clear guidance. Importers of articles face further challenges, compliance depending on equivalent traceability or reporting systems implemented by non-EU suppliers. With regard to reporting emissions from polymeric PFAS containing components located in complex industrial equipment (e.g. o-rings in industrial equipment), or composite materials (e.g. umbilical control lines on the seabed), there are no established methods that would allow consistent or reliable monitoring.

2.22 **[Q2.38]** Please give an indication of the costs related to the reporting requirements.

Consult the SEAC draft opinion section 3.4.3.2.6.1. Conclusion whether the suggested restriction is the most appropriate EU-wide measure: Reporting requirements.

Provide an estimate of the magnitude of the costs for the implementation of the reporting requirements, from very low when the impacts are estimated to be insignificant to very high when they may result in a decision to discontinue your business activities.

- Very low or none
- Low
- Moderate

- High
- Very high
- I do not know

2.23 **[Q2.39]** Please provide your comments on section 3.4.3.2.6.2. Conclusion whether the suggested restriction is the most appropriate EU-wide measure: Site-specific PFAS management plan

Text of 1 to 1000 characters will be accepted

Consult the SEAC draft opinion and provide your comments relevant to this specific section of the opinion.

IOGP Europe does not believe that the proposed PFAS Management Plan is a workable or proportionate requirement for polymers used in industrial equipment. RAC proposes to limit management plan obligations to high-emission activities excluding industrial uses of PFAS-containing articles, which is strongly supported by IOGP Europe to ensure proportionality. We are also in agreement with SEAC's opinion that extending the scope of these obligations may result in considerable costs for stakeholders affected by such requirements.

2.24 **[Q2.40]** Please give an indication of the costs related to the implementation of a site-specific PFAS management plan

Consult the SEAC draft opinion, section 3.4.3.2.6.2. Conclusion whether the suggested restriction is the most appropriate EU-wide measure: Site-specific PFAS management plan.

Provide an estimate of the costs for monitoring of emissions at industrial sites. Use the scale from very low (minimal impact) to very high (may result in a decision to discontinue business activities).

- Very low or none
- Low
- Moderate
- High
- Very high
- I do not know

2.25 **[Q2.41]** Please give an indication of the costs related to monitoring of PFAS emissions at industrial sites

Consult the SEAC draft opinion, section 3.4.3.2.6.2. Conclusion whether the suggested restriction is the most appropriate EU-wide measure: Site-specific PFAS management plan.

Provide an estimate of the costs for monitoring of emissions at industrial sites. Use the scale from very low (minimal impact) to very high (may result in a decision to discontinue business activities).

- Very low or none
- Low
- Moderate
- High
- Very high
- I do not know

2.26 **[Q2.42]** Please provide your comments on section 3.4.3.2.6.3. Conclusion whether the suggested restriction is the most appropriate EU-wide measure: Additional conditions considered by RAC

Text of 1 to 1000 characters will be accepted

Consult the SEAC draft opinion and provide your comments relevant to this specific section of the opinion.

IOPG Europe support adding labelling requirements may help improve understanding across supply chains, raise awareness on PFAS use, and help users of PFAS-containing materials to comply with materials / waste handling requirements. The three points proposed by RAC (SEAC Opinion s3.4.3.2.6.3, p112) are supported. Communication methods must be practical, allowing for labelling, safety data sheets, technical cards, product passports, or voluntary systems in both digital and paper formats. Supply chain communication should deliver key information so users of the PFAS-components can fulfil site management and reporting requirements. Any labelling obligations should demonstrably contribute to improved risk management.

2.27 [Q2.43] Please give an indication of the costs related to the additional conditions considered by RAC

Consult the SEAC draft opinion, section 3.4.3.2.6.3. Conclusion whether the suggested restriction is the most appropriate EU-wide measure: Additional conditions considered by RAC.

Provide an estimate of the costs for implementing these conditions. Use the scale from very low (minimal impact) to very high (may result in a decision to discontinue business activities).

- Very low or none
- Low
- Moderate
- High
- Very high
- I do not know

2.28 [Q2.44] Please provide your comments on section 3.4.3.2.7. Conclusion whether the suggested restriction is the most appropriate EU-wide measure: Interaction with other relevant legislation

Text of 1 to 1000 characters will be accepted

Consult the SEAC draft opinion and provide your comments relevant to this specific section of the opinion.

No comments.

2.29 [Q2.45] Please provide your comments on section 3.5.2. Uncertainties evaluated by SEAC

Text of 1 to 5000 characters will be accepted

Consult the SEAC draft opinion and provide your comments relevant to this specific section of the opinion.

SEAC acknowledge that there are numerous uncertainties in the restriction proposal justification; IOGP Europe agrees with this analysis.

The Background Document is weak on cost-benefit assessment for various sectors, which introduces significant uncertainty. The draft SEAC Opinion recognises this. The oil and gas sector has commissioned its own independent socio-economic assessment, which concluded that the benefits generated by a restriction on fluoropolymers and fluoroelastomers are less than the costs (for the oil and gas sector), and are therefore not justified. Consideration of the report would help to reduce some of the uncertainties identified by EAC in this respect.

Reference:

Ricardo, 2026. Socio-economic analysis for a REACH Restriction Proposal on PFAS in the Upstream Oil & Gas, oil refining and fuel distribution sectors, and in carbon capture and storage. Available at both IOGP and Concawe websites.

3 Confidentiality and submission

3.1 **[Q2.46]** Indicate each section for which your response contains confidential information.

Select all the questions for which you consider your responses confidential. The options below include all questions in the survey.

- Respondent background information
- General survey questions

Useful links

[Guidance Document \(https://echa.europa.eu/documents/10162/17091/upfas-seac-do_consultation_guidance_for_respondents_en.pdf/68d5b13b-d7d6-f14b-2c3e-9b3c07c98113?t=1765956675386 \)](https://echa.europa.eu/documents/10162/17091/upfas-seac-do_consultation_guidance_for_respondents_en.pdf/68d5b13b-d7d6-f14b-2c3e-9b3c07c98113?t=1765956675386)

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