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Content		
OPENING	5 min	<i>Carol Monticelli - Polimi</i>
1. TENSINET missions & WG Sustainability & Comfort	10 min	<i>Marijke Mollaert – VUB and TensiNet</i>
2. Architectural membranes & Fluoropolymers' use	15 min	<i>Farid Sahnoune – Serge Ferrari</i>
3. European PFAS Restriction	15 min	<i>Francisco Hernández – ChemService</i>
4. Fluoropolymers: PFAS of Low Concern	20 min	<i>Dr Améduri – CNRS research director</i>
5. Socio-economic consultation	15 min	<i>Jaime Sales – ChemService</i>
6. Conclusion	5 min	<i>Carol Monticelli – Polimi</i>

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A slide with a white background and the Tensinet logo in the top right. The text includes the webinar title, contact emails, and a date. A graphic with question marks and the text "PFAS Per-and polyfluoroalkyl substances" is in the bottom right.

First Tensinet Webinar
Membrane Architecture, PFAS Restriction Process,
Fluoropolymers and the Upcoming ECHA SEAC
Consultation

Marijke.Mollaert@vub.be
Carol.Monticelli@polimi.it
info@tensinet.com

05-02-2026

PFAS
Per-and polyfluoroalkyl substances

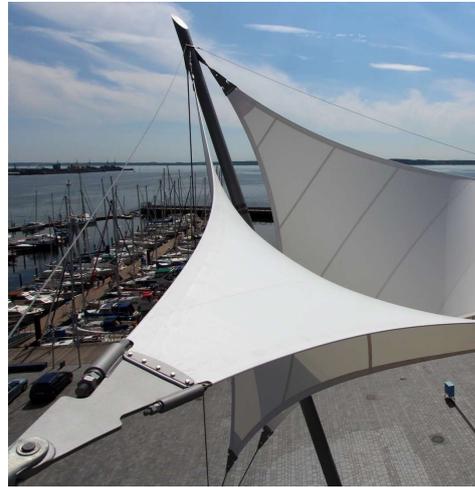
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Welcome to the webinar

We have noticed
that the audience today
covers the entire tensioned
membrane industry
It is therefore an ideal
platform
to share evidence and
engage constructively



Membrane "Harbour Point", TensiNews28

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Introduction to

- tensioned membrane structures
- TensiNet Association
- this first webinar



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Looking back,
the first tensioned
fabric structures
- the nomadic tents -
were made from
natural materials
On average,
the lifespan of these materials
is only 5 years



<https://www.theblacktentproject.com/different-types-of-nomadic-tents-in-turkey/>

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About sixty years ago
tensile architecture
first used 'advanced' materials
and was considered
an 'advanced' technology



<https://architecture-history.org/architects/architects/OTTO/YC/1960.htm>
↓ Expo Lausanne 1964

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Today tensile structures still are
inherently climate-positive:
they require few raw materials
can easily be dismantled
and their structural elements
can be reused

Women's Pavilion at Osaka Expo 2025, reusing
truss elements from the Japan Pavilion at Dubai
Expo 2020

© 2025 Paolo Beccarelli



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Designing consists of:
- new designs
- **re-use**, renovation ...

'... crafted from waste PVC truck curtains stretched
over tensioning frames ...'
<https://www.studiobird.com.au/projects/hydronaut>
© 2022 Studiobird Pty Ltd



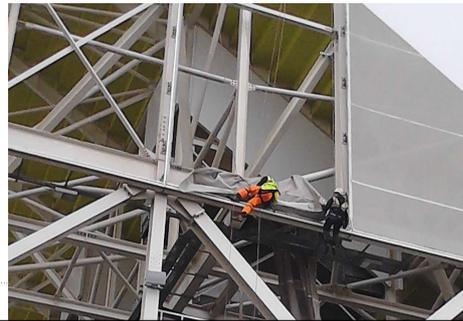
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If it is a new design:
It is important to integrate
the **end-of-life** process
in the design

London Aquatics Centre, 2012:
the external walls and roof
were dismantled
after the Olympic Games
and the fabric was recycled

<https://www.zaha-hadid.com/architecture/london-aquatics-centre/>



Membranes are **lightweight**

Are the materials produced,
used, and disposed of
at the end of their life
in such a way that they do
not harm the environment
at any stage?





Europe's tensioned
membrane structures
sector
depends
on fluoropolymers



<https://fluorogistx.com/applied-plastics-ptfe-infused-fabric-and-conveyor-belting/>

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There are currently
no viable alternatives

The lifespan of natural fibres
is only a few years,
compared to **>30 years**
for the structural membranes
used nowadays



<https://historicengland.org.uk/listing/the-list/list-entry/1481345>

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Introduction to

- tensioned membrane structures
- TensiNet Association
- this first webinar



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TensiNet Association

1999 – 2004: European thematic network for tensile structures (Growth)
2004 – 2020: TensiNet Association is founded under the wings of the Vrije Universiteit Brussel
2020: TensiNet Association became an **international non-profit association**



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Tensinet

Partners TensiNet

Architecture and engineering offices

- formTL ingenieure für tragwerk und leichtbau GmbH – Germany

Manufacturer and fabricator

- Asma Germe - Turkey
- Canobbio Textile Engineering Srl - Italy
- Architekten Landrell – United Kingdom
- VF Lightspan GmbH - Germany

Material producer, Coater and Weaver

- MehlerHeytex – Germany
- Serge Ferrari Group – France
- Sioen Industries - Belgium

Steelwork and Ropes

- PFEIFER Structures GmbH - Germany

Software Companies

- Softraxa Arquitectura i Software, SL - Spain
- technet GmbH - Germany

an interdisciplinary group

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Tensinet

TensiNet Association



It is an advantage that **all areas** of the membrane business are represented in TensiNet

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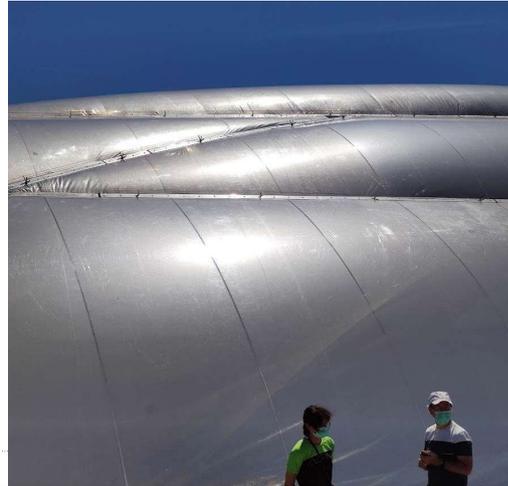
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Tensinet association is a platform for all parties interested in tensile membrane structures

Aims to promote and improve the quality of membrane structures

Increases the range of applications



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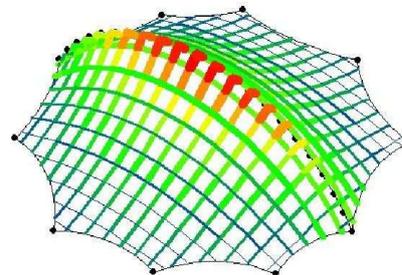
19



Tensinet association is a platform for all parties interested in tensile membrane structures

Supports workshops organised by one of its members (like Textile Roofs) and provides information about events

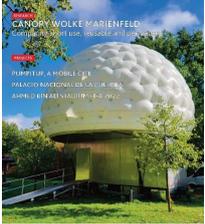
Publishes the TensiNews newsletter twice a year



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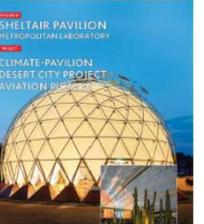












TensiNews is published twice a year, **TensiNews 50 is being prepared**

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Tensinet association is a platform for all parties interested in tensile membrane structures

Organises the **Tensinet Symposium** every three years
 next: <https://www.uni-due.de/iml/tensinet-ems2026.php>
 30/9-2/10/26

Several **Working Groups** focus on specific topics:

- Eurocode
- Sustainability and Comfort

Maintains the **website** www.tensinet.com, containing a **projects database**, reference documents, research reports

This webinar is organised by the WG Sustainability & Comfort

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Coordinated Activities

Overview of **Environmental Product Declarations** for technical textiles and foils on the market

Tensinet

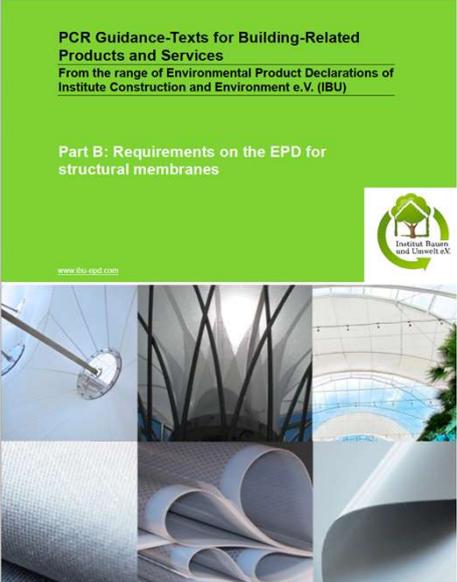
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Tensinet

Coordinated Activities

Prepared the Product Category Rules for structural membranes
published on 5 January 2024



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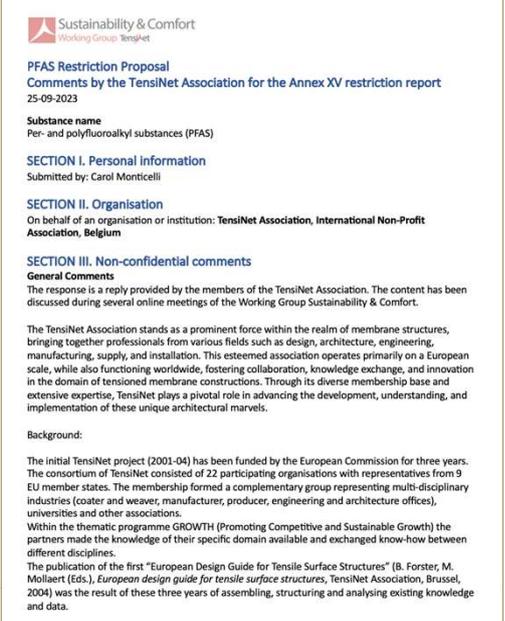
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Tensinet

Coordinated Activities

Concerning the PFAS ban discussion:

Subgroup prepared the response to the ECHA consultation
Background document of Technical textiles and foils (construction sector)
submitted on 23 September 2023



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Tensinet

Coordinated Activities

Comments for Annex XV

ECHA RAC 71 meeting – 26 November 2024
C. Monticelli, H. Bogner-Balz

ECHA SEAC 65 meeting – 27 November 2024
C. Monticelli, H. Bogner-Balz

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Tensinet

Coordinated Activities

Next webinar: on [Life Cycle Assessment](#) of tensioned surface structures
Comparative Life Cycle Assessment Analysis
Massive building materials VS Lightweight ones
Rigid materials VS Flexible ones

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Introduction to

- tensioned membrane structures
- TensiNet Association
- this first webinar



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In many cases
membrane structures are
an appropriate solution
The Membrane Structures
Association of Japan
(MSAJ)
counted almost 70
membrane structures
at Expo 2025 in Osaka

Osaka Expo 2025 Luxembourg Pavilion
+ the State of Kuwait Pavilion



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The currently used materials allow to create **master pieces**
The lessons of Frei Otto's "pioneering work in the field of
lightweight structures that are adaptable,
changeable, and carefully use limited resources
are as relevant **today** as when they were first proposed"

Pritzker Architecture Prize jury citation, <https://omrania.com/inspiration/frei-ottos-lightweight-architecture/>



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With the PFAS ban
under discussion
there is a real concern
about what will happen
to the **availability**
of the materials
which we use today



Jiunvfeng Study on Mount Tai
https://www.lineplus.studio/works_cont_225.html?ctid=33

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The aim of this webinar is two-fold

- Clarify the risks - if any - of **the materials** we use
- Prepare **the SEAC response:**
broaden Tensinet's base, improve the commitment of the industry and mobilise the customers

<https://www.cbextrusion.com/etfe-vs-ptfe-teflon/>



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We know the material when we use **gold**
The same should be true for the coated fabrics and foils we use

<https://anish Kapoor.com/326/dismemberment-site-i-2>



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Collect information on the risks associated with banning fluoropolymers in structural membranes

Explain how actors can contribute to the next SEAC consultation

<https://www.form-tl.de/en/project/busterminal-aarau-ch/> Busterminal Aarau (CH) 2012/2013



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Objective:

Where appropriate, obtain an exemption for the use of fluoropolymers in structural membranes

Flying jumbo carb: a huge flying membrane
<https://kawa-struc.com/koinobori/?ref=langen>



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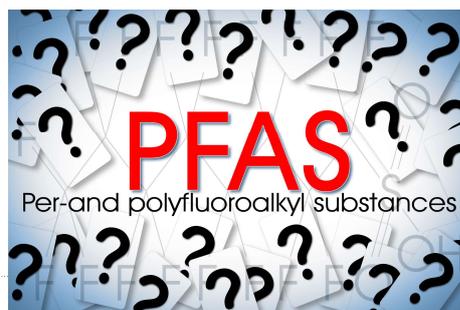
Chemservice - an international consulting company -
has been commissioned by Tensinet to prepare
the SEAC response for the whole tensile architecture
market

CHEMSERVICE



Marijke.Mollaert@vub.be
Carol.Monticelli@polimi.it
info@tensinet.com

05-02-2026





2 – Fluoropolymer in Architectural Membranes

Farid Sahnoune – Serge Ferrari



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Benefits of fluoropolymers



Category	Main Components	Where is FLUOROPOLYMER ?	Main Benefits of Fluoropolymer
COMPOSITE membranes	Polyester/PVC/PVDF	<p>PVC Coating Woven Polyester fabric PVDF Topcoat</p>	Longevity Soiling resistance
	Glass/PTFE	<p>Woven glass fabric PTFE coating</p>	Longevity Soiling resistance Fire safety Translucency
FILM membrane	ETFE	<p>ETFE film</p>	Longevity Soiling resistance Fire safety Transparency

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Tensile Membranes offer unique solution for Architecture



Tensile membrane allows to build **lightweight architecture** (Large free span, flexibility, ...)

CATEGORY	MAIN Components	LIFE SPAN	MAIN BENEFITS for <u>LIGHTWEIGHT ARCHITECTURE</u>
COMPOSITE membranes	PET/PVC/PVDF	30 years	<u>DURABLE, CLEAN & COST EFFECTIVE</u>
	Glass/PTFE	<u>50 years</u>	<u>HIGHLY DURABLE & CLEAN</u>
FILM membrane	ETFE	40 years	<u>HIGHLY DURABLE & TRANSPARENT</u>

- ✓ Each Membrane answers to an **architectural need**
- ✓ The 3 technologies **global solution for lightweight architecture**
- ✓ They are **essential for the continuity of lightweight Architectural Solutions**

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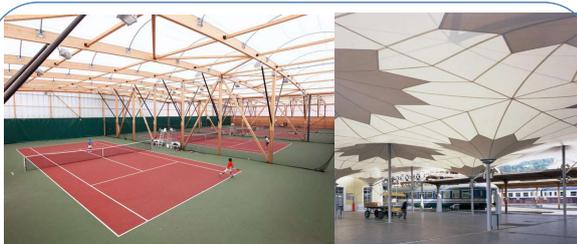
Polyester/PVC/PVDF



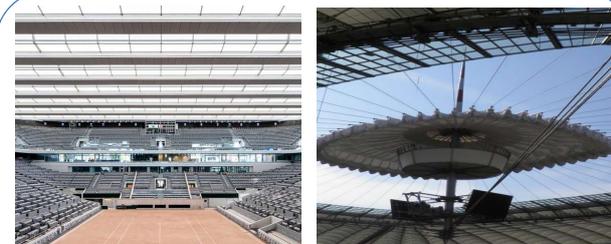
ATHLETIC HALL
8000 m2 Miramas (France)



AIRPORT WALKWAY Cover
Newcastle (Australia)



NATURAL LIGHT INPUT
TENNIS COURT Lyon (France) TRAIN STATION, Lourdes (France)



RETRACTABLE ROOFS
Rolland Garros (France) Varsaw Stadium (Poland)

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Glass / PTFE



Velodrome STADIUM, Marseille (France)



Olympic STADIUM, KIEV (Ukraine)



CENTRAL STATION, Dresden (Germany)



INTERNATIONAL AIRPORT, Madinah (Saudi Arabia)

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ETFE film



Allianz Arena STADIUM, Munchen, Germany



BOTANIC DOME
Cornerwall Eden Project außen - Bodelva (England)



TRANSPARENCY - PUBLIC BUILDING
Feringa building Groningen



OFFICE PHOTOVOLTAIC ROOF
Waste management office, Munchen (Germany)



SPORT & LEISURE
Gaislachkogel - Sölden (Austria)



PUBLIC BUILDING
Avenues Kuwait

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Non-viable alternatives to Fluoropolymers in membranes

Architectural membranes		Alternatives suggested by Restriction proposal	Tensinet's Comments	Tensinet's Conclusion
COMPOSITE MEMBRANES	PES/PVC/PVDF	PES/PVC/photocatalytic TiO2	Old technology not performing without Fluoropolymers	NON VIABLE ALTERNATIVE
		PES/PVC/PVF film	Old technology not easy to handle and use	
	Glass/PTFE	Glass/silicone	Old technology, bad soiling resistance & lifespan.	NON VIABLE ALTERNATIVE
FILMS	ETFE	Composite membranes	Translucent but Not transparent	NON VIABLE ALTERNATIVES
		Glass panels	Heavy Material Not Lightweight & not flexible	

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Architectural membranes & restriction impacts

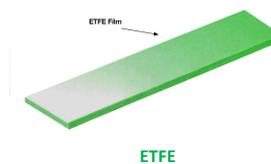
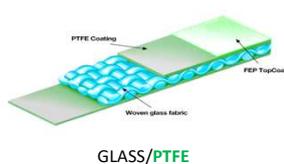
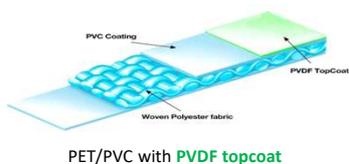
	HIGH FREE SPAN		CUSHION
	POLYESTER/PVC	GLASS/PTFE	ETFE
TODAY WITH FLUOROPOLYMERS	<p>30 years</p>  <p>Good soiling resistance Good Translucency</p>	<p>50 years</p>  <p>Excellent Soiling resistance High translucency Fire safety</p>	<p>40 years</p>  <p>Excellent Soiling resistance Transparency Fire safety</p>
AFTER RESTRICTION OF FLUOROPOLYMERS	<p>10-15 years</p>  <p>Poor soiling resistance</p>		

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Conclusion

- Architectural membranes allows to build lightweighth & durable building envelops
- 3 main technologies needs Fluoropolymers for their unique benefits



- There are no viable alternatives without fluoropolymers

3 – European PFAS Restriction
Francisco Hernández – ChemService



CHEMSERVICE

PFAS European restriction process

TensiNet
February 5, 2026

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TensiNet

Agenda

1. PFAS – REACH restriction process
2. Status of architectural membranes use
3. How are fluoropolymers treated out of the EU?
4. International impact of a European ban
5. Conclusion

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1. PFAS – REACH restriction process

- **The aim of the PFAS REACH restriction is to evaluate** the PFAS substances and limit (or ban) the ones having unacceptable risks to human health and/or environment
- **PFAS restriction process:**
 1. Publication of Restriction proposal
 2. Evaluation by ECHA (European Chemicals Agency) in 2 steps through:
 - ✓ The **RAC (Risk Analysis Committee)** – Public consultation closed, final opinion soon
 - ❑ Fluoropolymer industry and membrane producers already answered with proven arguments
 - ✓ The **SEAC (Socio-Economic Analysis Committee)** – Draft opinion soon, before public consultation
 - ❑ Whole architectural membranes’ industry shall answer to the next consultation (March 2026)
 3. Final decision by European Commission in 2028
- Entry into force of PFAS restriction: 2029 - 2030

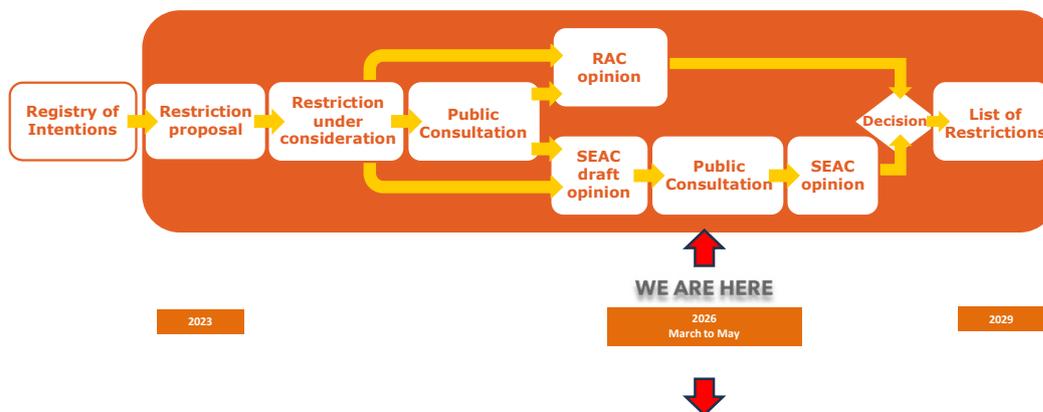
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1. PFAS – REACH restriction process (2)

Next important step: Socio-economic consultation (March – May 2026)



ALL ACTORS OF TENSILE ARCHITECTURE SHALL PARTICIPATE IN THE CONSULTATION TO HELP AUTHORITIES TO EVALUATE THE SOCIO-ECONOMIC RISKS OF THE RESTRICTION OF FLUOROPOLYMERS

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2. Status of architectural membranes use

- **Tensile membranes** are now clearly identified as :
 - ✓ As a sub-use called **“Architectural membranes”**
 - ✓ Within the **“Technical Textiles”** use sector
- For architectural membranes, the **final decision will be taken by the European Commission**
- The next **socio-economical consultation** is **the unique opportunity to identify the socio-economic risks**
- The socio-economic risks will be considered in the final decision of the European Commission
- **3 possible RESTRICTION’S OPTIONS:**
 - ✓ RO1: full ban
 - ✓ RO2: time-limited derogation
 - ✓ RO3: continued use under strict conditions

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3. How are fluoropolymers treated out of EU?

- UK / CANADA : **No restriction of fluoropolymers: POLYMER OF LOW CONCERN**
- USA:
 - ✓ **US Food & Drug Administration (FDA)** considers **Fluoropolymers as safe and essential** for many specific applications (e.g., medical devices, food contact)
 - ✓ US States are **banning PFAS mainly in consumer use/applications**
 - ✓ **Some US States (California & Maine)** are banning textiles but **architectural membranes are exempted (no ban)**

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4. International impact of a European ban

- **A European PFAS ban would have global ripple effects, influencing:**
 - Chemical production - Regional shifts in chemical production hubs, by relocating PFAS production out of the EU.
 - Supply chain - Potential disruptions due to product reformulations or alternative searching to continue selling into the EU.
 - International legislation - The EU often sets “de facto global chemical standards”, so such a ban could effectively drive worldwide PFAS policy alignment
 - Environmental impacts - Reduction of PFAS emissions and exposure by accelerating the phase-out of certain PFAS worldwide.
 - Innovation in safer alternatives - Encouraging R&D investment in safer or sustainable alternatives globally.

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5. Conclusion

- The restriction process is long (started in 2023 and a final decision 2029)
- The low chemical hazards & risks of fluoropolymers have been already extensively argued
- **The socio-economic consultation is the next step: unique opportunity in March – May 2026**
- It will be a **decisive step to continue using Fluoropolymers in architectural membranes** (restriction option 3)
- **The final decision on the use of fluoropolymers for architectural membranes will have an impact at international level**

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Many thanks for your attention

WWW.CHEMSERVICE.GROUP.COM

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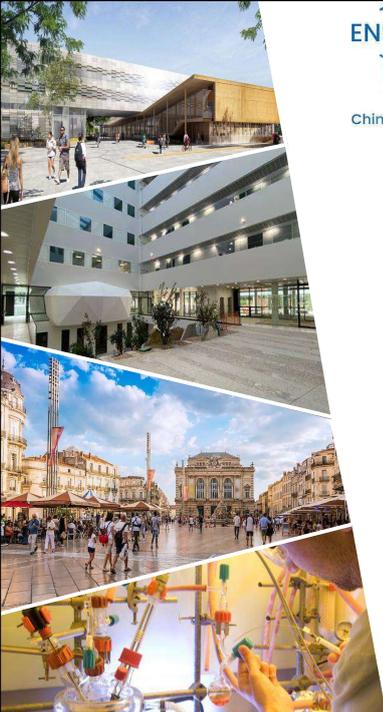
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4 – Fluoropolymers: PFAS of low concern
Dr Bruno Améduri – CNRS Research director

CNRS (French National Center for Scientific Research)

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Fluoropolymers: PFAS of Low Concern

Bruno AMEDURI
Institute Charles Gerhardt, Montpellier
Bruno.ameduri@enscm.fr
www.iam.enscm.fr



February, 5th 2026

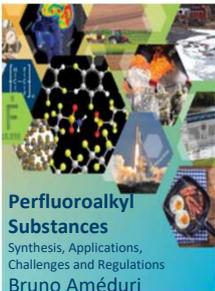
I 59

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Bruno AMEDURI, Directeur de Recherche au CNRS

- **1988: PhD University Montpellier**
- **Has Supervised 35 PhD students and 40 Post Doc researchers**
- **PI for 40 Industrial Projets, 25 International projects and 20 French National projects**
- **(Co)inventor of >70 patents; (co)editor of 7 books; authors of >440 peer reviewed publications**
- **Member of Executive Bureau of the French Fluorine Network**
- **Member of IUPAC (Working on PFAS Terminology)**
- **Prizes/Awards: 2012 ACS Outstanding Award on F-Polymers (USA)**
- **2023: International Prize for Society of Polymer (Sendai, Japan)**
- **2024: International Prize of the Asian Polymer Association (Jaipur, India)**



Perfluoroalkyl Substances
Synthesis, Applications, Challenges and Regulations
Bruno Améduri

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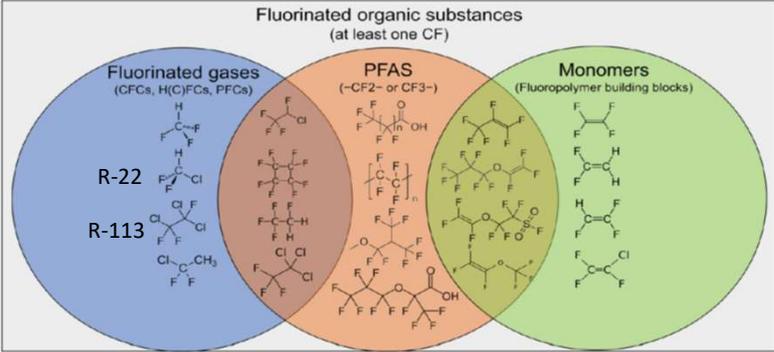


Per- and Polyfluoroalkyl Substances (PFASs)

> 14,000 PFAS



OECD (2021 version) definition of PFAS: "PFASs (*per- and polyfluoroalkyl substances*) are defined as fluorinated substances that contain at least **a perfluorinated methyl group (-CF₃)** or **a perfluorinated methylene group (-CF₂-)** (without any H/Cl/Br/I atom attached to it).



Fluorinated organic substances (at least one CF)

Fluorinated gases (CFCs, H(C)FCs, PFCs)
PFAS (-CF₂- or CF₃-)
Monomers (Fluoropolymer building blocks)

Organisation for Economic Co-operation & Development (OECD) <https://www.oecd.org/fr/>
 Dalmjin et al. *Environ. Sci.: Proc. Impacts*, 2024, 26, 269

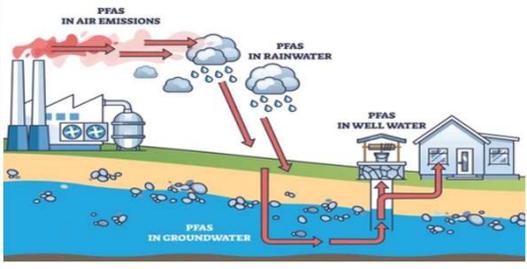
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Various families of PFAS

More than 14 000 PFAS

PFAS Category	Molecule size	Physical state	Example of Substances & Applications	Risks
NON-POLYMER	> 1 Carbon	 GAS		
	> 6 Carbons	 LIQUID		

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**Institut
Charles Gerhardt
Montpellier IAM**

Example of hazardous PFAS (fluorinated surfactants)

PFOA

PFOS

Water Soluble
Mobile
Persistent
Bioaccumulative
Toxic

↓

« Forever Chemicals »
MAIN ISSUES
RESTRICTION

<https://portal.ct.gov/DEEP/Remediation--Site-Clean-Up/Contaminants-of-Emerging-Concern/Per-Polyfluoroalkyl-Substances> | 63

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Montpellier IAM**

Fluoropolymers have negligible risks

More than 14 000 PFAS

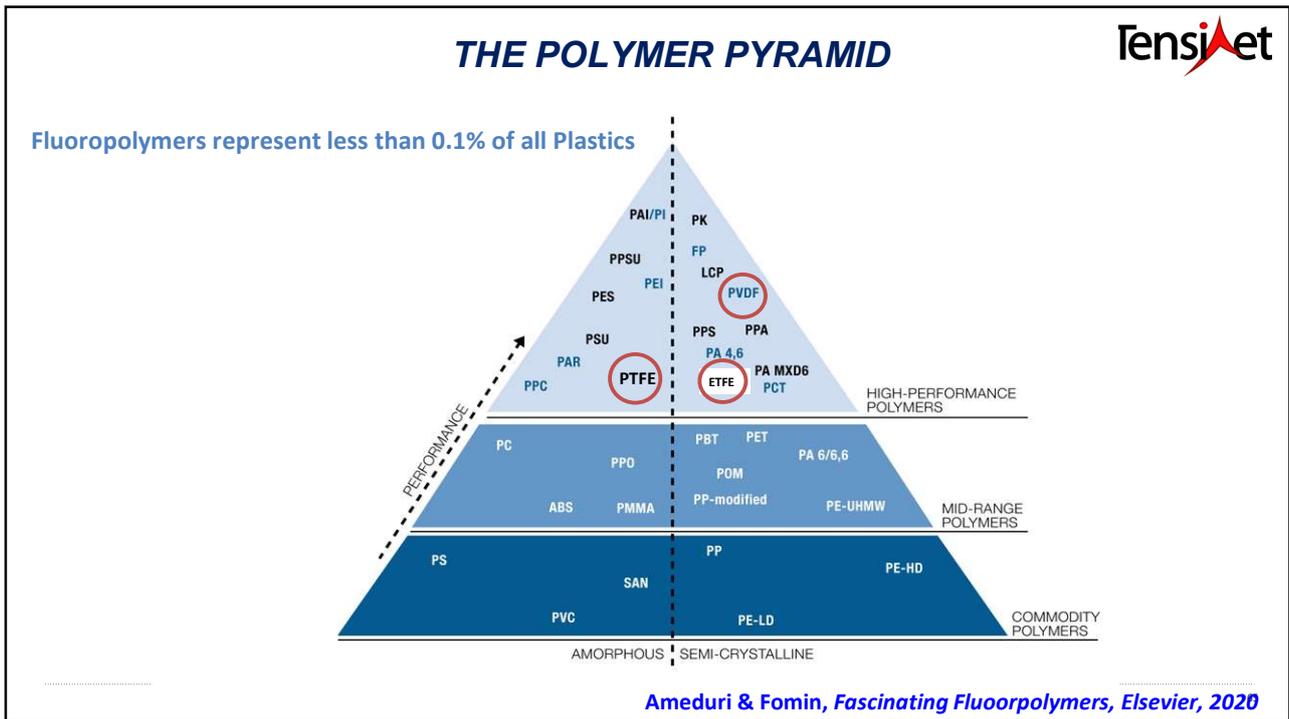
PFAS Category	Molecule size	Physical state	Example of Substances & Applications	Risks & Hazards
NON-POLYMER	> 1 Carbon	 GAS		<p style="color: red; font-weight: bold;">Some of them have been shown to be:</p> <p style="color: red; font-weight: bold;">Mobile Bioaccumulative Toxic</p>
	99%	 LIQUID		
POLYMER	>10 000 Carbons (polymer chain)	 SOLID	<p style="color: green; font-weight: bold;">FLUOROPOLYMERS PVDF / PTFE / ETFE / FEP...</p>	

POLYMER
OF LOW CONCERN

Not Mobile
Not Bioaccumulative
Not Toxic

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**Institut Charles Gerhardt
Montpellier IAM**

Tensinet

Applications of Fluoropolymers in many industries

<p>Aerospace</p> <ul style="list-style-type: none"> ✓ Hydraulic ✓ Electronic ✓ Coating ✓ Cables ✓ ... 	<p>Medical equipment</p> <ul style="list-style-type: none"> ✓ Vascular grafts ✓ Catheters ✓ Heart patches ✓ ... 	<p>Electronics</p> <ul style="list-style-type: none"> ✓ Printed circuit ✓ Semiconductor ✓ Touch screens ✓ ...
<p>Automotive</p> <ul style="list-style-type: none"> ✓ Hydraulic ✓ ABS break lines ✓ Wires and cables ✓ Fuel hoses ✓ ... 	<p>Pharmaceutical industry</p> <ul style="list-style-type: none"> ✓ Medicine packaging ✓ Sterilization ✓ ... 	<p>Renewable energy</p> <ul style="list-style-type: none"> ✓ Batteries ✓ Paints and coatings ✓ Fuel Cell Membranes...
<p>Chemical</p> <ul style="list-style-type: none"> ✓ Vessels ✓ ... 	<p>Water treatment</p> <ul style="list-style-type: none"> ✓ Pipes, pumps ✓ Filtration ✓ ... 	<p>Architectural</p> <ul style="list-style-type: none"> ✓ Tensile membranes ✓ Paints & Coatings ✓ ...

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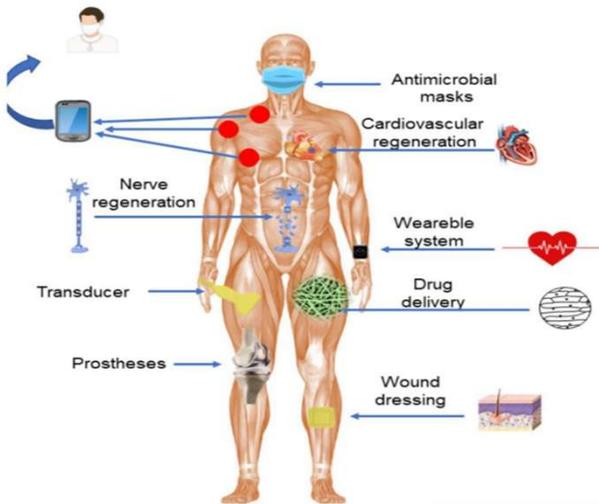
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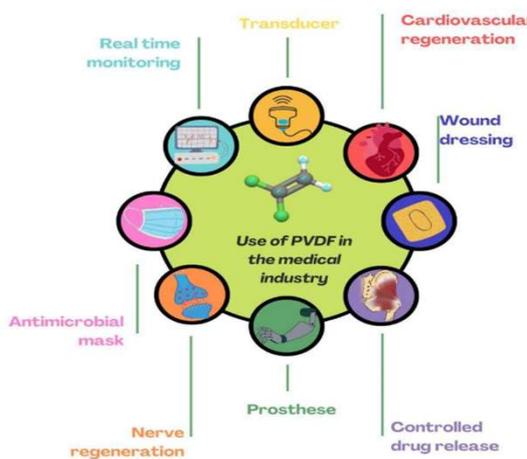


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Montpellier IAM



PVDF Applications in the Biomedical Area





Concha et al., J Mater Sci (2024) 59:14185–14204

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« Polymer of Low Concern » Criteria

- « Polymer of Low Concern » (PLC) expected to pose an **insignificant risk to human health & Environment**
- 13 criteria **defined by OECD**



Polymer composition



MW, M_n , MWD



wt% oligomer



Electrical charge



Reactive Functional Groups (RFG)



Functional Group Equivalent Weight (FGEW)



Low MW leachables



Water/lipid solubility, octanol water partition



Particle size



Polymer stability



Thermal stability



Abiotic stability



Biotic stability

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| FLUOROPOLYMERS: « Polymer of Low Concern »

— Peer-reviewed studies demonstrate that **96% of fluoropolymers meet « Polymer of Low Concern » criteria:**

- + *"A critical review of the application of polymer of low concern and regulatory criteria to fluoropolymers"* by **B. Henry et al.**, *Integr. Assess. Manag.* 2018, 14, 316-334
- + *"A critical review of the application of polymer of low concern regulatory criteria to fluoropolymers II: Fluoroplastics and fluoroelastomers"* by **Korzonowski et al.**, *Integr. Environ. Assess. Manag.*, 2023, 19, 326-354

→ **Fluoropolymers are:**

- + **Non-toxic**
- + **Non-bioaccumulative**
- + **Non-mobile**
- + **Insoluble in water**
- + **Stable – Thermally, chemically & Biologically**
- + **Durable**
- + **Not a Substance of Very High Concern a Substance**

B. Henry et al., *Integr. Environ. Assess. Manag.*, 2018, 14, 316–334

4 Major FPs:

$$\left[-CF_2CF_2- \right]_n$$

PTFE

$$\left[-CF_2CF_2CH_2CH_2- \right]_n$$

ETFE

$$\left[-CF_2CF_2- \right]_m \left[-CF_2CF- \right]_n$$

FEP

$$\left[-CF_2CF_2- \right]_m \left[-CF_2CF- \right]_n \left[-OR_f \right]_p$$

PFA (R_f = n-C₁F₃)

Integrated Environmental Assessment and Management — Volume 00, Number 00—pp. 1–30
Received: 9 March 2022 | Revised: 7 June 2022 | Accepted: 7 June 2022

Critical Review

A critical review of the application of polymer of low concern regulatory criteria to fluoropolymers II: Fluoroplastics and fluoroelastomers

Stephen H. Korzeniewski,¹ Robert C. Buck,² Robin M. Newkold,² Ahmed El kassmi,² Evan Laganis,³ Yasuhiko Matsuo,⁴ Bertrand Dinelli,⁵ Severine Beauchet,⁶ Frank Adamsky,⁶ Karl Weilandt,⁷ Vijay Kumar Soni,⁸ Deepak Kapoor,⁹ Priyanga Gunasekar,⁹ Marco Malvasi,¹⁰ Giulio Brinati,¹⁰ and Stefania Musio¹⁰

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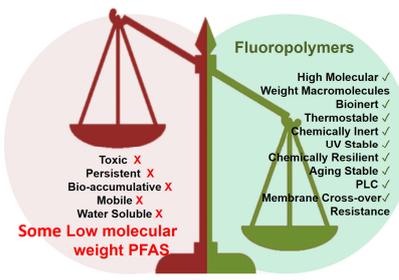


Conclusion



Fluoropolymers are:

High Performance Materials
Essentiel for many Durable Applications
Not comparable with other PFAS in terms of Hazards & Risks
Solid PFAS, of Low Concern and not leachable
Without Viable Alternatives in Most Applications



Fluoropolymers should be exempted from PFAS restriction

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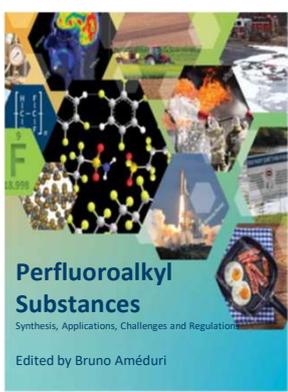
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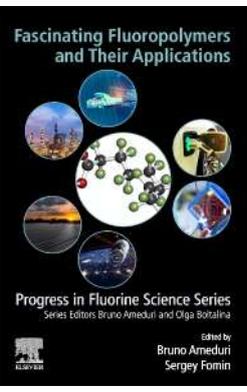
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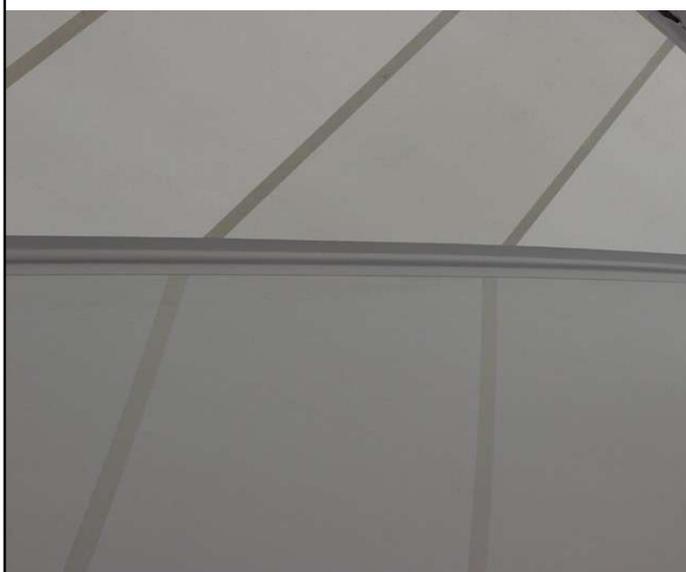
Perfluoroalkyl Substances
Synthesis, Applications, Challenges and Regulation
Edited by Bruno Améduri



Fascinating Fluoropolymers and Their Applications
Progress in Fluorine Science Series
Series Editors Bruno Améduri and Olga Botalina
Edited by Bruno Améduri and Sergey Fomin

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4 – Next Restriction step:
SOCIO-ECONOMIC CONSULTATION
Jaime Sales – ChemService

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PFAS SEAC Consultation

Data collection process

TensiNet

February 5, 2026

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Agenda

1. Description of the public consultation
2. Why should you participate?
3. Relevant items to consider for the reply
4. How will Chemservice work with the data collected?
5. Timing

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1. Description of the Public Consultation

- **SEAC Consultation will run from March to May 2025 (exact dates tbc)**
- **A restricted consultation:**
 - ✓ Pre-defined set of questions, with limits in text size
 - ✓ No possible attachments
- Data on risk & emissions can be provided, but in the context of proportionality

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2. Why should you participate?

Your voice matters!

If you do not defend your interest as an industry, nobody else will do it

- **Last chance to provide input** before restriction goes to European Commission
- Industry's position for SEAC consultation **will be the basis for future advocacy work**
- There is a strong case **to defend the use of fluoropolymers in tensile architecture**
- NGOs that want to ban fluoropolymers will certainly participate trying to influence the process
- Messages need to be adequately displayed, based on robust & reliable data
- Consultation not only for EU companies, **international stakeholders can also participate**

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3. Relevant items for the reply

Most important points to cover in the consultation!!

- **What will SEAC be looking for?**
 - ✓ Socio-economics: Impacts of Fluoropolymer ban on value chain?
 - ✓ Alternatives : Viable architectural membranes not using fluoropolymer ?
 - ✓ Proportionality: socio-economic damage vs PFAS reduction emissions if use is banned
- **Alternatives need to be viable: reduced risk, equivalent performance, easily available.**
- **Focus on negative impacts if industry is forced to switch to next best alternative (non-use scenario)**
- **What will be the impact (for society!) if fluoropolymers cannot be used? what will we lose & risk?**
- Need to base statements on facts, evidence & data: use R&D work, publications, technical reports...
Avoid "there is not alternative" or "other products don't work"

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3. Relevant items for the reply – Examples

- Annual turnover, gross profit & headcount of organization (3 last years, focused on Fluoropolymers' use)?
- Do suitable alternatives exist?
- Are there technical requirements for this use/application? How do potential alternatives perform against the requirements?
- What is the impact of using the alternative on profitability? How much would switching to the alternative cost?
- How many years would it take to develop alternatives to a stage where they can be implemented for the use/application?
- Total annual volume (tonnes) of Fluoropolymers used (or imported) in the EEA?

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3. Relevant items for the reply – Examples (2)

- **If Fluoropolymers cannot be used, what is the most likely impact on organisation(s) covered by your response?**
 - ✓ (1.) Permanent or (2.) temporary closure of business or parts of it (including relocation outside EU);
(3.) Continued operations with increased costs or lower quality;
(4.) No or minor impact
 - ✓ How many full-time equivalent jobs would be lost in your organisation or the companies covered by your response within the EEA?
 - ✓ What is the magnitude of potential negative impacts on society, e.g. from lack of access or worse quality of products
(1.) Very low or none; (2.) Low; (3.) Moderate (4.) High (5.) Very high (6.) I do not know
- Please explain your response to question above, e.g. by describing the elements leading to your judgement on the magnitude of additional impacts. If possible, provide quantified or monetised estimates of the impacts.

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4. How will Chemservice deal with data?

Collective answer (whole architectural membrane market)

- Chemservice will share edited version of ECHA's survey for stakeholders to share relevant data
- **Guarantee confidentiality** of data treatment, NDAs can be established (Chemservice's standard NDA)
- Combine all responses into **1 Single & Global response for the market through Tensinet association**
- Data to be arranged in such a way that individual respondents cannot be identified

Individual answers

- We recommend Stakeholders to also participate as an individual company to be sure your whole message will be considered

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5. Timing

- Chemservice will distribute survey with brief explanations after this webinar
 - ✓ We request that replies are delivered **no later than Friday, March 20th 2026** (6 weeks)
- **To be noted!** Draft SEAC opinion is not available yet (in March)
- **Period March – May** will have to be used to adapt responses to how the use of fluoropolymers in tensile architecture will be displayed in the consultation
- **What happens after consultation?** ECHA's opinions sent to European Commission for final decision
- **European Commission may adapt significantly the proposal and there will be room for further advocacy efforts.**
- Tensinet's input to the consultation will be a **fundamental step to build a unified position**

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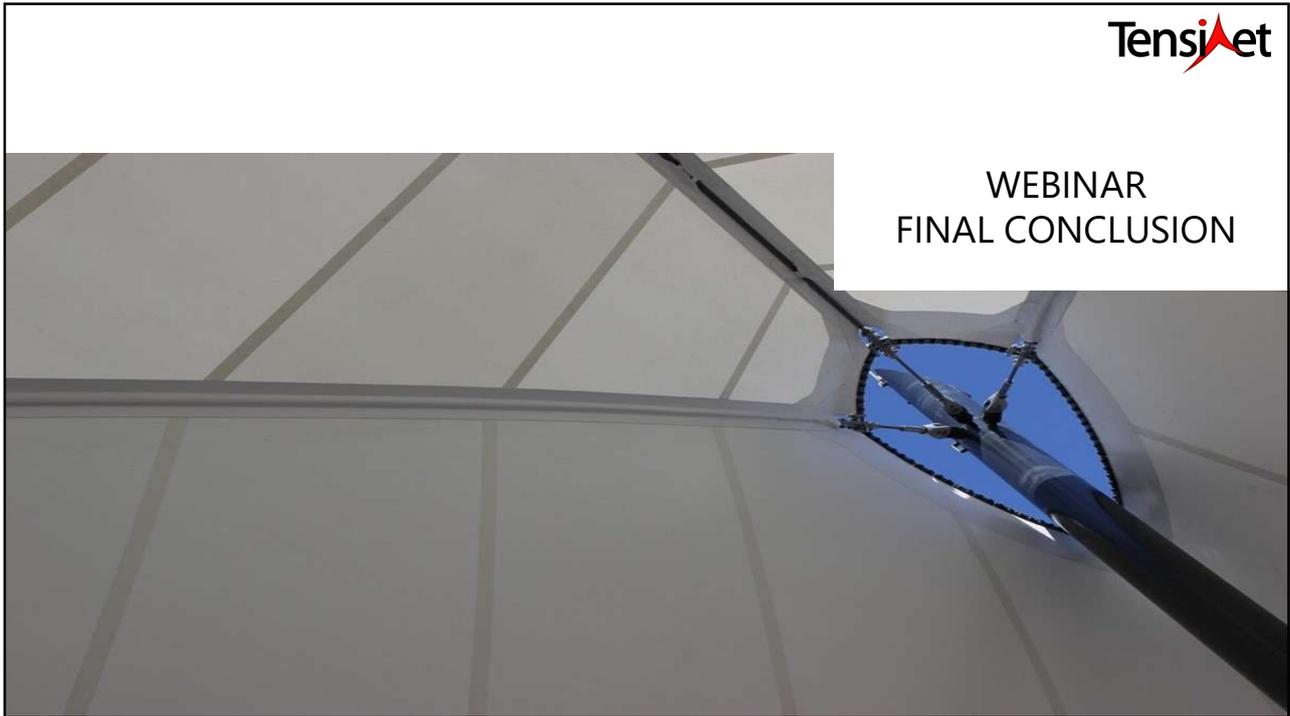
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—
Many thanks for your attention

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Tensinet

FINAL CONCLUSION

- 3 key architectural membranes - **FLUOROPOLYMERS**

PET/PVC with PVDF topcoat

Woven Polyester fabric

GLASS/PTFE

Woven glass fabric

ETFE

ETFE Film

- FLUOROPOLYMERS:**
 - ✓ Not comparable to other PFAS in terms of hazards & risks
 - ✓ Solid Polymeric PFAS, of low concern and not leachable
 - ✓ High performance materials
 - ✓ None viable alternatives in architectural membranes
- OUR AIM** is to avoid prohibition of Fluoropolymers in architectural membranes
- NEXT STEP:** answer to **SOCIO-ECONOMIC CONSULTATION** via Tensinet & ChemService

NEED
YOUR VOICES!

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