

Report

Tackling PFAS pollution & Launch Knowledge Center Innovative Remediation Solutions

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Moderator: Victor Dries

Reporter: Chris Lambert

Subject: Prevention and substitution of PFAS

1 PREVENTION AND SUBSTITUTION OF PFAS

The session started with the presentation of Daphné Hoyaux (Belgian Federal Public Service of Economy) on PFAS in Belgian Industry with the focus on the stimulation of the development of alternatives to PFAS : Presentation of the results ». An important part was the explication of the criteria used to define the priorities. This resulted in a very high priority for medical devices and a high priority for TULAC (Textile, Upholstery, Leather, Apparel & Carpet) and HVACR (Heating, Ventilation, Air Conditioning & Refrigeration), and a medium priority for semiconductors and pesticides.

The results of the study and the presentation includes an important part on public policies and how these can support the transition to alternatives, with the need to avoid regrettable substitution.

The following presentation of Dr. Asli Tamer Vestlund (Change Chemistry) focused on Safe and Sustainable Alternatives to PFAS and how to make safer and sustainable chemistries widely available in the marketplace. Important message was that there is no magic solution but an important tool for informed substitution is the alternatives assessment and what it does address. One of the messages was that alternatives are not always necessary, and that substitution results mostly in safer but not always safe outcomes. To come to a substitution with a positive effect data are key, but the needed data are not always there (yet).

Eeva LEINALA (OECD) presented the OECD-work on PFAS and alternatives and in particular the commercial availability and current use in 3 sectors: Food packaging (paper and paperboard), coatings, paints and varnishes, and cosmetics. An important message was that each sector is different, and that a regulatory push

is sometimes crucial because of the higher cost involved with the switch to alternatives. Interventions provided the example of the Danish policy that resulted in the complete substitution of PFAS following the step to prohibit the use of PFAS in cardboard and paper food contact materials (FCMs) beginning on July 1, 2020. Eeva also announced further work on medical devices and lubricants / hydraulic fluids.

Jonathan Kleimark (ChemSec) presented their tool marketplace which is a B2B platform to connect providers of safer alternatives with potential buyers. He explained the important aims of the tool. The special PFAS section will receive a specific focus in 2024. His presentation indicated the state of affairs on alternatives for PFAS for different applications. Some of his key messages on the proposed general PFAS restriction (REACH) were that time-limited derogations for uses where there is a lack of viable alternatives today seem justified, and unsubstantiated claims are not enough to prove the lack of alternatives. Time-limited derogations are necessary to ensure phase-out, and granularity is required to avoid blanket derogations.

Myriam Vanneste (Centexbel-VKC) explained the PFAS challenges for technical textiles. Why PFAS is used for this kind of textiles. For certain uses the alternatives already exist, but sometimes the performance should still be improved. For oil repellency the alternatives for PFAS are not yet available at the moment. She and her team keep screening the products that come onto the market to evaluate their performance. They also assess other (critical) properties and engage in further R&D where possible. Also for standardisation – Centexbel is a sector operator.

On the case of that standards Jonathan Kleimark explained that for a lot of uses 'PFAS-quality' is not needed. By putting the required standards on a high level we have for certain applications built a system that requires PFAS to reach these standards. Myriam Vanneste agreed that this is sometimes the case, and that some of the standards could be modified to adjust this.

V. Dries also raised the question if that kind of high end products (developed to protect professionals) should also be available on the market for non-professionals. M. Vanneste replied that it could be hard to explain to them that that kind of additional protection is not on offer for them.

The remark (X. Trier – Univ. of Copenhagen) was made that it is not always possible to replace one substance by another, and more is needed to promote substitution with a safer alternative.

E. Leinala also stressed the need to make a better use of economic tools to shift to less harmful alternatives, or phase out unwanted applications. She also saw an important role for education.

Some interventions wondered if after the European elections the new European parliament would still have the same ambitions on substances of concern and PFAS in particular. J. Kleimark hoped that the momentum would stay intact. A. Tamer Vestlund hoped that we can get politics out of PFAS. V. Dries explained that at least in the Flemish Parliament all the political parties agreed on the proposed actions (including a call to go for an ambitious phase-out) in a Parliamentary Inquiry Commission, as all of them saw the benefits for the health of themselves and their children ...

Another important point concerned the need to get the same message on substitution of PFAS also accepted outside the EU as the biggest market is in Asia. Roel Jans wondered how we will stop import of products with PFAS from Asia. If we fail to do so the pollution caused by PFAS will remain important in the EU by using those products, and at their end of life. Jonathan Kleimark believed that for instance in China they can elaborate a faster change towards alternatives than is the case in EU/US. Asli Tamer Vestlund stressed the need to collaborate and to find out what kind of policies could work in China.

Tine Cattoor signalled that most of the patents are at the moment introduced in China, and she wondered what the available resources are to support innovation. Jonathan Kleimark also witnessed a lack of obvious support from several authorities for innovation. Their support seemed sometimes not enough, or not focused enough.

Stefan Scheuer (ChemTrust) made the point that we need to focus on the big volumes, and need priority setting as we need to lower the PFAS impact as fast as possible.

J. Kleimark explained that there is also a need for clear messages that should lead to a phase out as there is an important need for predictability, needed to put substitution high on everybody's agenda. There are already many alternatives, and still more seem to come quite soon.

Some conclusions

Substitution of PFAS results mostly in safer but not always safe outcomes. To come to a substitution with a positive effect data are key, but the needed data are not always there (yet). A regulatory push for PFAS substitution or prevention is crucial because of the higher cost that are mostly involved with the switch to alternatives. Time-limited derogations are necessary to lead all actors to a needed PFAS phase-out, and granularity is required to avoid blanket derogations.

There is a need to make a better use of economic tools to encourage the shift to less harmful alternatives, or phase out unwanted applications. There is also an important role for education.

It is very important to get the same message on substitution of PFAS also accepted outside of the EU, as for instance the biggest market is in Asia and still a lot of products with PFAS could still be exported towards the EU.

ANNEX 1 – PRESENTATIONS

- Federal Ministry of Economy Belgium - Daphné Hoyaux
- Change Chemistry - Asli Tamer Vestlund
- OECD - Eeva Leinala
- CHEMSEC - Jonatan Kleimark
- CENTEXBEL - Myriam Vanneste

ANNEX 2 – LIST OF PARTICIPANTS

- Flemish Government (Departement Omgeving, Departement Zorg, Departement Mobiliteit en Openbare Werken, Department for Business and Trade, VMM, OVAM, KABINET Minister Demir, 3M Belgium, Advocatenkantoor De Coninck, AECOM, Agoria, Alecto Consulting, APPLiA, Aquafin, ARCHE Consulting, Arkema, Atlas Copco, ATMOSphere, BAYER AGRICULTURE BV, BDEW, Bond Beter Leefmilieu, Change Chemistry, CHEM Trust, ChemSec, Chemviron NV, Dancet Company BV, DCMR, Deloitte, DEME, , Denuo, DuPont, DWS, Elegis-Huybrechts, Engels, Craen & Vennoten, Essenscia,

EURATEX, European Commission, European Environmental Bureau, EEB, ExxonMobil, Febev VZW, , Federal Ministry for Climate Action, Fedustria, Finnish Environment Institute, FIPRA International, FOD Volksgezondheid en Leefmilieu, Growth Inc., Hasselt University, Huduma VOF, Indaver, Industrious Law, Ineris, , InOpSys, IUW Integrierte Umweltberatung, Jan De Nul / Envisan, KULeuven, Leefmilieu Brussel, Liedekerke Wolters Waelbroeck Kirkpatrick, Marlex, Materia Nova, Milieu Consulting (retired), Netwerk Brandweer, NICOLE, OECD, Panasonic Europe, Ramboll, RCS Environmental Solutions, Rudy Dams Consulting, SARPI Remediation nv, SPAQUE SA, SPF Economie, PME, Classes moyennes et Energie, Svenskt Vatten, Tauw België nv, Tectero BV, TerraCorrect bv, UAntwerpen, Universiteit van Hasselt, Veneto Region, Italy, Vewin (Dutch Association of water companies), VITO, VLAIO, VOBAS, Zwijndrecht Gezond