**PFAS crisis in Flanders**

**PFAS commissioner Karl Vrancken advocates participatory system approach**

In June 2021 soil samples taken as part of major infrastructure works near Antwerp revealed the presence of significant quantities of PFAS. The contamination was found to be caused by the activities of 3M, a chemical company situated in close vicinity to the works. This discovery instantly sparked major upheaval, both on a political level within the Flemish regional government and in the media. Almost immediately it became obvious that the problem was not limited to the site in question and that other locations in Flanders may be contaminated with PFAS as well. In most cases the pollution seems to be linked to fire extinguishing activities with fluorinated foam or specific industrial activities in which PFAS is part of the production process. The government decided to appoint a commissioner to coordinate the approach to the PFAS issue. In his first intermediary report in September commissioner Prof. Dr. Karl Vrancken presented his initial conclusions to the Flemish government.

First of all, Vrancken identified three priorities in order to successfully complete his assignment: (i) Developing an integrated approach by setting up a participatory framework that brings together experts from the world of science and the various administrations and organisations involved. In the (mid to) long term this will result in guidelines for the elaboration of a strong and well-founded policy in which Flanders can play a pioneering role on a European level. (ii) A second major challenge consists in getting all the stakeholders (citizens, interest groups, businesses, ...) around the table. Vrancken wants to communicate in a transparent manner and (re)build public trust. (iii) And finally, the expertise brought together today can lay the groundwork for a well-founded and balanced approach to dealing with persistent chemicals in Flanders.

**Three months of concrete action**

Over the last three months a great deal of work has been done, both in the field and on a scientific level.

The Agency for Care and Health launched a blood sampling campaign among 800 inhabitants of the Zwijndrecht region and in several locations (further) measurements were carried out in the soil, water and food chain. OVAM, the Public Waste Agency of Flanders, embarked on an extensive inventory of more than 4,000 PFAS risk sites all across Flanders, As the capacity for carrying out measurements in the field and for laboratory testing is not suited to the large-scale testing this project demands, a system of prioritisation was introduced. Some 40 new site investigations can be started every month. So far, in consultation with OVAM and the health experts of the Flemish Agency for Care and Health, a series of no-regret measures has been proclaimed for about ten sites and their immediate surroundings.

Based on the insights and data acquired by the experts to date, four hypotheses have been formulated that will now be verified in the remainder of the measuring campaigns:

1. In order of importance, nutrition, the ingestion and inhalation of dust, drinking water or cutaneous absorption constitute the greatest risks of exposure for the inhabitants of the hotspots identified in Flanders.
2. The pollution of the industrial sites was or is mainly caused by the discharge of waste water or the use of water treatment sludge for agricultural applications.
3. The pollution around the 3M site occurred via different routes (water, soil, air).
4. Soil contamination around fire stations and fire extinguishing sites remains limited to the location where the fire raged or fire extinguishing drills were staged. However, contamination does spread via the groundwater.

Fast and transparent communication towards the local residents and local authorities was essential. In the last few months the commissioner has consulted with a variety of possible stakeholders: representatives from civil society, the local communities (resident groups or civil movements) and industry. Several webinars were organised to inform the local authorities in as much detail as possible and to answer their questions. For the inhabitants of those towns where pollution was found, meetings were held in conjunction with the mayor and the representatives of relevant government organisations. A dedicated PFAS-website under the flag of the Flemish government offers continuous updates on the state of the investigations and the no-regret measures that are in force in the vicinity of sites where PFAS contamination has been confirmed.

In the next phase the team around the commissioner is planning additional action including measurements and modelling of exposure routes and scenarios; while analysis of blood samples is ongoing. This will build a scientifically-based picture of the current and historic situation in terms of the contamination of soil, water, air or the food chain in Flanders and its impact on the population. In addition, this will also allow the evaluation, fine-tuning and tweaking of the current no-regret measures as a function of the concrete (local) context and risks.

**System approach**

The evaluation of the impact and risks of PFAS exposure is a research field that is currently in full development. The elaboration and implementation of a (new) set of standards is therefore crucial and is currently a topic of profound reflection on a European level. The knowledge and expertise being built in Flanders, now and in the future, will enable us to play an active and prominent role in the European processes aimed at formulating a wider and well-grounded approach to persistent organic pollutants.

Only an efficient knowledge exchange between the various experts will yield optimum insights into the health risks, limit exposure risks and help us put better standards in place with regard to PFAS. In this manner the PFAS issue will contribute to a better founded, broader and more effective policy in dealing with persistent chemicals in Flanders. Naturally this comes with a price tag for numerous public administrations, the affected companies and citizens, as well as the local authorities. The basic principle must remain the same: the polluter pays.

Professor Vrancken concludes that PFAS confront us with the limits of our industrial and densely populated system. That is not only true today; the contamination has built over time and will remain present for many years to come. This calls for a system approach: solving one issue must not cause other problems elsewhere. We must do everything in our power not to lapse into a PFAS tunnel vision where only acute symptoms are tackled. Whereas some are calling for the immediate implementation of far-reaching measures, Vrancken feels that much more sustainable and strategically effective results can be achieved through scenarios in which PFAS is phased out in combination with a strict benchmark policy.