



Phosphorus, Inorganic & Nitrogen Flame Retardants Association

pinfa Advisory Board – Fifth Meeting

Wednesday, 12th June 2019,
10:00 – 16:30 CET

PIVO Institute Relegem

The content of this report is a capture of the inputs from individual participants. The views included are therefore those of individual participants, and not the consensus of the group as a whole.

Participants

External representatives

Serge Bourbigot, *Professor, Ecole Nationale Supérieure de Chimie de Lille, ENSCL*

Quentin de Hults, *Senior Manager Construction Advocacy and Sustainability, BASF and Executive Chair of the Modern Building Alliance*

Sophie Duquesne, *Professor, Ecole Nationale Supérieure de Chimie de Lille, ENSCL*

Doreen Fedrigo, *Head of Circular Economy Policy, ECOS*

Frank Kuebart, *Managing Director, ECO Institut Germany GmbH*

Frank Poutch, *Director, CREPIM*

Monika Sabaranska, *EMEA Material Program & Poland Sustainability Manager, EMEA, HP*

Marc Sans Armenter, *Firefighter, Catalan Fire Department*

Laurent Tribut, *Plastics expert, Schneider Electric*

Pinfa representatives

Adrian Beard *Chairman*

Jonathan Crozier *Secretary General*

Vicente Mans *Technical Advisor*

External moderators and facilitators

Simon Levitt *Moderator, Harwood Levitt Consulting*

Lisa Schaefer *Assistant moderator / writer, Harwood Levitt Consulting*

Pieter Maes, *Firefighter, Brussels Fire Department and training instructor, Vuur Consult Belgium*

The 5th pinfa advisory board meeting

The fifth pinfa advisory board meeting took place on the 12th of June 2019 at the PIVO institute near Brussels, Belgium. A diverse group of stakeholders from the flame retardant (FR) industry, downstream user industries, testing and research institutes and representatives from firefighter departments and environmental specialists came together to demonstrate fire safety first hand and to discuss the following topics.

1. Smoke is a key factor in fires that should not be underestimated

Firefighters highlighted that flames are not the most dangerous part of a fire, but smoke and the flammability thereof. Modern products, which most often contain plastic, tend to emit a lot of toxic smoke. Smoke is always toxic, with carbon monoxide being most prominent for acute toxicity and always being present when carbon containing material is burnt. Depending on other materials present, toxicants like hydrogen cyanide or hydrochloric acid can also become relevant. This development facilitates flashovers and shortens the time needed for a room to be fully on fire. Fire fighters consider this the main risk factor in modern firefighting. Compartmentalization is an important factor as well: the more a fire can be contained within a closed space, the less quickly it will likely develop and therefore gives more time for people inside a building to escape or be helped to escape.. Fire fighters are therefore calling for a holistic fire safety approach. One important contribution to increased fire safety are smoke detectors: they are relatively cheap and a practical solution, especially when people cannot afford less combustible products such as those made from wool. (See more under section 5).

2. Fire testing of products should also include under-ventilated scenarios and smoke emission

During product flammability tests the impact of smoke is often not considered, because the ignition and flame spread in the early phase of a fire are the focus. By the time fire fighters arrive at a fire scene, fires have become under-ventilated and are producing copious amounts of smoke. Therefore, fire fighters suggest that leaving smoke out of tests reduces the relevance of those tests to real-life situations.

3. New products and fire safety should work hand in hand

Firefighters are often insufficiently aware nor trained to deal with new materials and products. For example, accidents with electric cars pose a new type of fire hazard. Fire fighters are not involved in the development of these products and often need to improvise a firefighting strategy. The composition of modern products is very different than in the past: sofas are lighter and consist of polymers, which give off a lot of flammable and toxic smoke, increasing the risk of flashovers. Tackling this problem is difficult because the composition of modern materials is often confidential, but is also relevant to the circular economy and the plastics strategy objectives and efforts.

4. The training of firefighters and statistics on fires across the EU should be inventoried and discussed

There are substantial differences both in the training and priorities of fire brigades across Europe, and data gathering is even more inconsistent. A common theme is a lack of resources in fire departments to execute a holistic range of functions. For example, Belgian firefighters are very well trained in extinguishing fires but do not focus on prevention efforts, while in Paris firefighter services are highly rated and have proven very vulnerable to rapid fire progressions. German fire departments have a lot

more volunteers than other countries, but they lack dedicated training for every member. Taking stock of different types of training and specialities of fire departments can help pointing out best practices and identify areas of improvement. A good example is the United States Fire Administration, which harmonizes statistics and training. This can improve the collection of data in the EU which helps in drawing policy conclusions and sharing best practices.

5. Socio-economic considerations should influence policies on fire safety

Low-income households are less likely to buy higher quality appliances and furniture which may be less flammable. Home fires remain a socio-economic phenomenon: lower households suffer from more fires than higher income ones, also because landlords/landladies do not necessarily install smoke detectors partly due to their not always being obligatorily required in rented housing. In addition, a more careless lifestyle leads to a higher risk of fire accidents at home. In Estonia a big campaign funded extensive fire safety checks and installed smoke detectors across the country that serves as a first example to consider when tackling this issue.

Next Steps

It was agreed that at the next Advisory Board Meeting during the second half of 2019, Doreen Fedrigo, Head of Circular Economy Policy at ECOS, will introduce the circular economy and fire safety to the group.