# INFLAME

# Indoor Contamination with Flame Retardant Chemicals: Causes and Impacts

## A Marie Curie Initial Training Network (ITN)

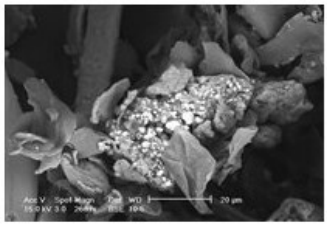
**Project duration: 1st January 2011 - 31st December 2014**

The main research goal of INFLAME is to further understanding of how and to what extent flame retardant (FR) chemicals used in every-day consumer goods and construction materials enter humans and of the risk to health that such exposure presents. Our vision is that this enhanced understanding will inform assessment of risk associated both with recent and current-use flame retardant chemicals, and of those under development, and ultimately lead to more sustainable approaches to meeting fire safety regulations.

Our principal objectives are to discover:

- the mechanisms via which FRs migrate from products within which they are incorporated;
- how and to what extent such migration leads to human exposure; and
- the effects of such exposure.

To achieve its goal and objectives INFLAME will use a range of state-of-the-art techniques associated with analytical chemistry, electron microscopy, human biomonitoring, *in vitro* toxicology mathematical modelling, and "omics".



INFLAME is an interdisciplinary cooperative of chemists, biologists, physicists and toxicologists. Intersectoral aspects unite basic and applied scientists working in universities, two SMEs, a large (non-university) public sector research organisation and a government research institute. The project's S&T objectives will be delivered through research in 3 Work Packages (WPs): WP1- *Migration pathways*, WP2- *Human exposure (pathways and monitoring)*, and WP3- *Understanding effects of human exposure*. Each WP is comprised of a number of individual but closely-linked **projects**.

While the environmental impacts of FRs are the subject of intense global interest, the majority of research is conducted by research groups isolated within their own narrow disciplines. INFLAME has devised a **training programme** designed to increase the knowledge base and experience of a cohort of trainees so that they can communicate and work effectively across disciplinary and sectoral boundaries.

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