

## **IMPACT OF EUROPEAN BIOCIDES LEGISLATION ON INNOVATION FOR PUBLIC HEALTH CONTROL**

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**Abstract** Innovation means many things to many people and some definitions that may be considered as representative, particularly with respect to public health pest control include “The act of introducing something new”, “a creation (a new device or process) resulting from study and experimentation” and “generation of new or improved products, processes or services”. In some cases, innovation may be driven by the arrival of new active ingredients, for example the arrival of the pyrethroid family, in others the match between a mode of action, a delivery system, pest biology and customer service, such as with the advent of the cockroach and termite baits, some 20 years ago. Sometimes these changes are driven, in turn, by tighter regulation that causes the withdrawal of tried and trusted products (DDT, chlordane .... and now the organophosphates in Europe) because they fail to meet increasing standards of human and environmental safety. The Biocidal Products Directive (98/8/EC) entered into force in Europe some 10 years ago as a means to harmonise standards of evaluation across the European Union. Since many types of biocidal product were either poorly regulated in some countries, or not regulated at all, the creation of a level playing field was never going to be an easy task either for the authorities, or for industry. The net result for public health insecticides has been a halving of the number of active ingredients that remain available to PCOs/PMPs from just over 100 to less than 60, and the loss of some well established compounds including chlorpyrifos, temephos, propoxur and malathion as well as numerous botanical oils. The only new arrivals during that same period have been indoxacarb and metofluthrin. With less chemistry and significantly increased costs to defend existing products, the available resources for new product developments have become squeezed, and it is all but impossible to justify the costs to develop completely new chemistry purely for biocidal uses. Therefore the focus for innovation has shifted to new products, delivery systems and an increased incentive for greater co-operation between small, technology driven companies or research groups and larger industry players.

**Key Words** Innovation, Regulation, Biocidal Products Directive

