

FORFAIT: A Holistic Approach In The Assessment Of Forest Fire Risk

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FORFAIT sets out to develop and demonstrate a Decision Support System (DSS) to assist planners, regulators and industry in optimising the management of forest fire risks, on a holistic, integrated and traceable basis. It will aid in implementing measures that eliminate or mitigate harm to humans, the environment and business, using a cost benefit approach where appropriate and depending on local regulatory requirements.

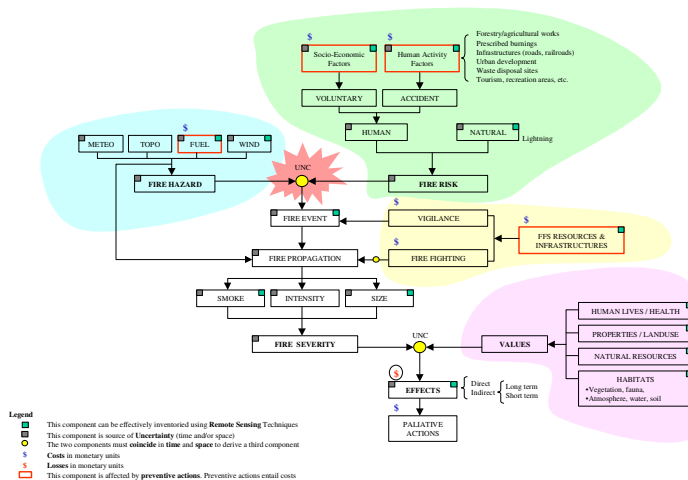
FORFAIT will uniquely combine generic and time varying site-specific information (via electronic links from field and satellite data sources), state-of-the-art predictive models, and expert knowledge. Recognising that in general there are many different decisions that could be made in any given situation the system will use fuzzy logic to suggest the most appropriate course of action and a probabilistic framework to take account of uncertainty in the parameters.



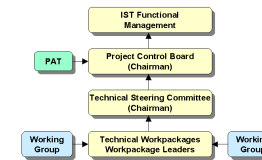
1. Project Objectives

- To contribute to the **protection of national resources** and improvements in **health and safety** as applicable to forest fires.
- To integrate established and **emerging technologies**, including electronic data gathering, in order to design and build a Decision Support System for use as a tool in planning, educational, regulatory and business contexts.

2. Conceptualisation of forest fire scenario



3. Project management



4. FORFAIT System functionality architecture

At the heart of the system will sit a **central decision engine**, incorporating an extensive **Fire Management Knowledge Base**, and utilising the latest **Fire Propagation and Mitigation Models**. The Decision Support framework places emphasis on effective communication, collaboration and negotiation between stakeholders and allows the problem to be approached from an integrated, quantitative and holistic perspective. Inputs to the system will take the form of local, site specific data collected in the field, and timely **satellite derived information**. By making use of such Remotely Sensed data, the system is able to exploit unique indices of fire-related information sources, which can be created and updated rapidly. The user interface and system outputs will build upon the growth of Geographical Information System (GIS) technology to present a map-based view of social, environmental and economic risk

