

# CHEMICAL ENGINEERING

## NaTech: management of process plants & territories

<b>Funded By</b>	Ministero dell'Università e della Ricerca - MUR [P.iva/CF:96446770586]
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<b>Context of the research activity</b>	NaTech events: multirisk approach for the management of process plants and the territory in the event of natural hazards triggering technological accidents.
<b>Objectives</b>	<p>The project will address, in collaboration with ARPA Piemonte, the problem of the evaluation of the environmental consequences of industrial accidents triggered by natural events, the so-called NaTech.</p> <p>The analysis of the aetiology of an accident, its dynamic and its impacts on diverse environmental targets will be deepened in this project with a multi-hazard approach, identifying the preventive and protection measure that can be implemented, through a risk-based approach.</p> <p>The collaboration with a local (regional) authority will drive the research towards the risk management and risk communication aspects, exploiting the benefits from human sciences to be combined with engineers' expertise to help co-constructing risk studies that are both intelligible and acceptable to risk management stakeholders.</p> <p>The devising and development or adoption of a platform for a collaborative work environment available for the different stakeholders that have to manage risks and intervene in case of accidents, considering both technologies and collaboration maximisation, will be the core activity of the project. The collaborative environment, supported by an ontology able to allow the communication and mutual understanding among several actors, will be the starting point of the PhD project. The choice of the tools and their implementations for the purpose will constitute the following step, that will be concluded by the application of the devised approaches to one or more case studies. Multi-national comparative approaches will be a plus for the project.</p>
<b>Skills and competencies for the development of the activity</b>	No specific competencies are required, a part those for standard application

