

# Risks, Decision and Territories

## Presentation of two RDT projects



### ResTO TerRIN : Contribution to the systemic modeling of technical and organizational resilience of a territory to Natech risk (from microscopic to macroscopic)

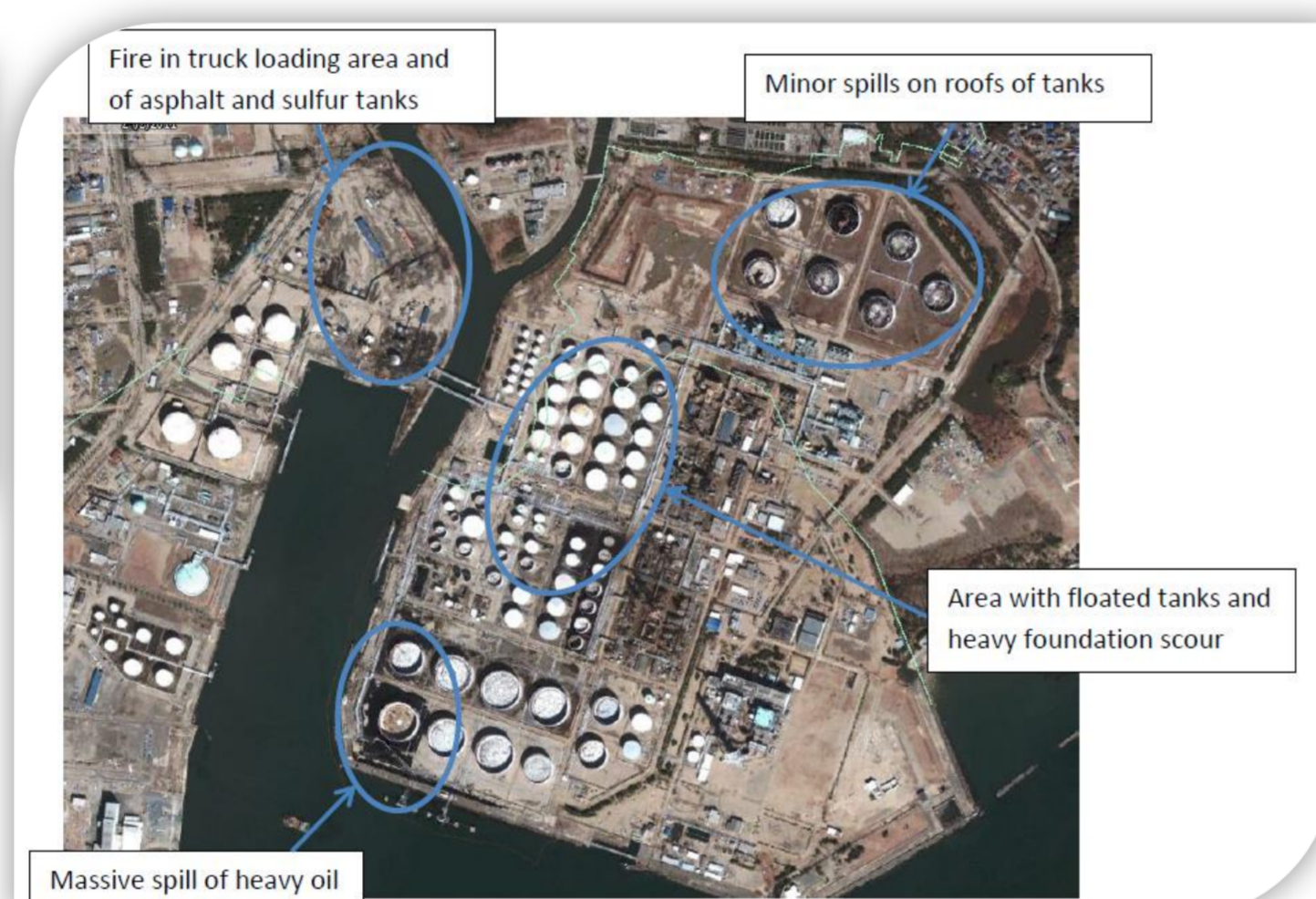


The main goal of ResTO TerRIN is to produce relevant knowledge and effective methods and tools to improve the resilience of a territory against Natech accidents (chemical accidents triggered by natural hazards) especially those due to flood/tsunami. In more details, the objectives are :

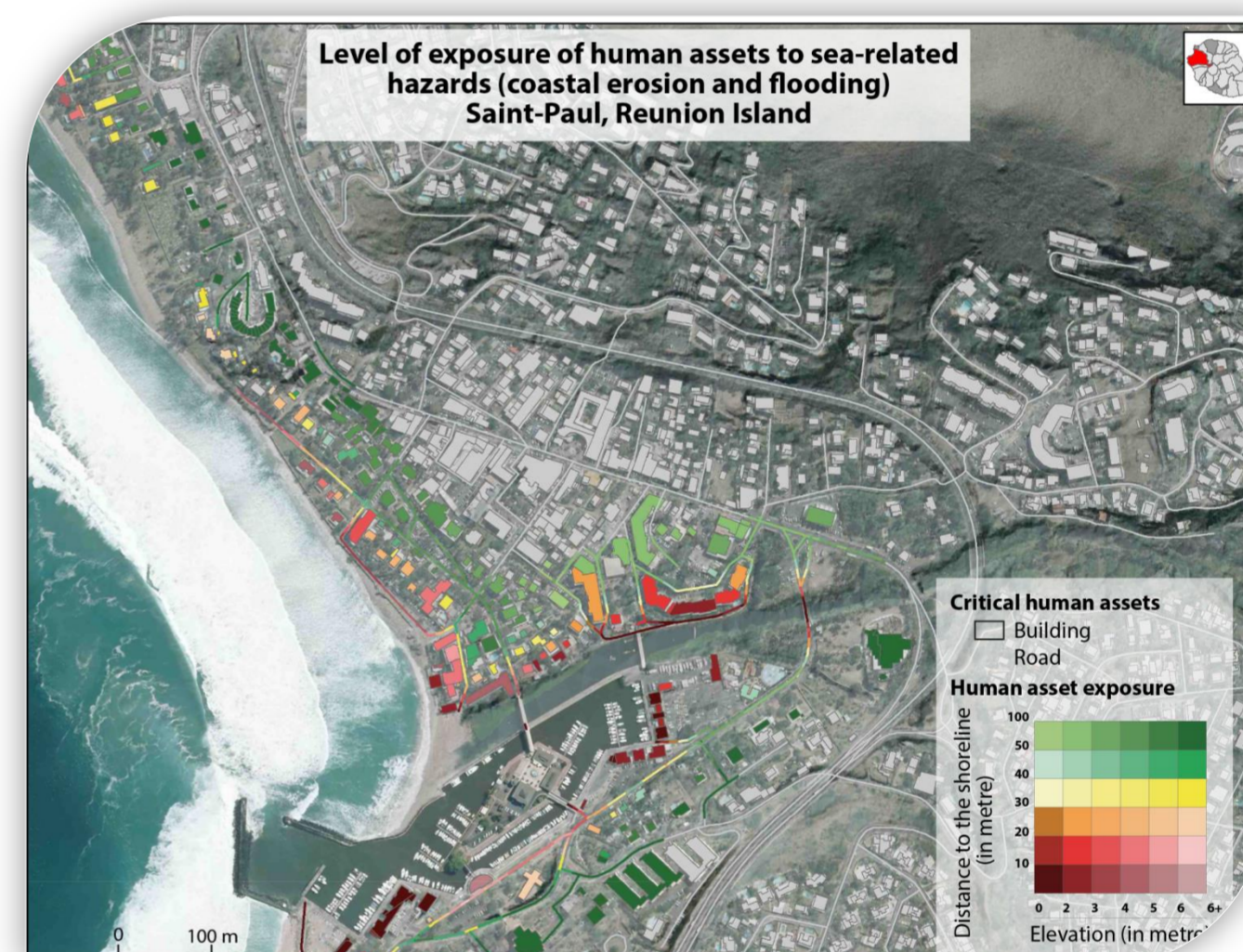
- to better understand the physical and organizational vulnerability of industry exposed to flood/tsunami ;
- to identify gaps between industrial risk management and government authorities emergency response practices ;
- to make recommendations on prevention measures and appropriate safeguards for improved Natech risk management to ensure that plant owners/operators as well as emergency organizations are able to cope with Natech events.

The work proposed is done based on a posteriori (in Japan) and a priori (in France) analyzes of the industrial as well as the local governments (e.g., city and prefecture governments, fire division/departments, industrial emergency responders) emergency management to the Natech accidents during the Great East Japan Earthquake and Tsunami (GEJET) and during severe flooding events in France. A survey questionnaire has been sent to chemical industries in Sendai, Kashima and Chiba industrial parks, to the Japanese Industrial and Medical Gases Association, and to more than 100 French chemical industrial sites located in areas subject to flooding. Follow-up visits to industry and government services have been carried out to complete the survey. The data collected are used to construct event trees, fault trees, to model the impact of the natural hazard events on the safety barriers, and on the emergency management, and represent the Natech organizational/management frameworks of the two countries.

Contact : eric.piatyszek@emse.fr



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### RÉOMERS : Resilience of French overseas territories to coastal risks in the context of global change



The Réomers project aims to support the reduction of climate-related risks (coastal erosion and marine inundation) and the adaptation to climate change in French overseas territories through a better understanding of the drivers and processes controlling both vulnerability and resilience. Réomers focuses on two territories that have contrasted physical and human characteristics, French Polynesia (Pacific ocean) and Reunion Island (Indian ocean). Réomers is based on a holistic, dynamic and place-specific approach through three main axes :

- the analysis of the impacts of a series of recent extreme events, including the assessment of benefits and shortfalls of stakeholder responses ;
- the identification of the drivers and processes enabling resilience, based on the reconstruction of the trajectories of vulnerability of territories over the past 70 years ;
- the development of a multi-scenario prospective approach taking into account on-going trends, national and local disaster risk reduction and adaptation of climate change policies and strategies, and local projected impacts of climate change.

This project relies on a close collaboration with both national and local stakeholders, including representatives of ministry divisions and the French IPCC focal point, elected representatives, practitioners, professionals, NGOs, etc. These professional partners are associated to the successive phases of the project. Beyond the concrete products, this project includes local and nationwide workshops aiming to disseminate results and support the identification of future adequate strategies enabling to strengthen resilience.

Contact : virginie.duvat@univ-lr.fr