



REMTECH EXPO

GEOSSMICA

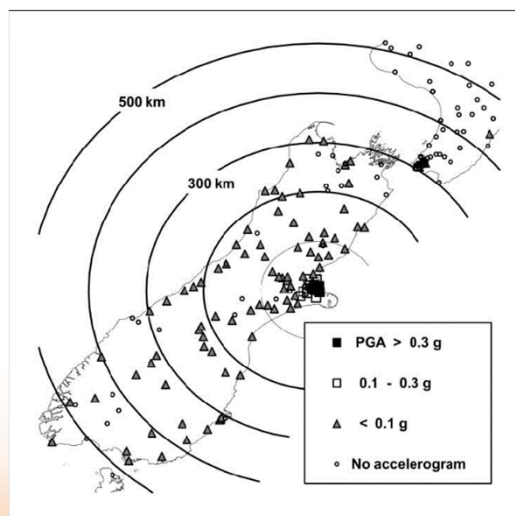
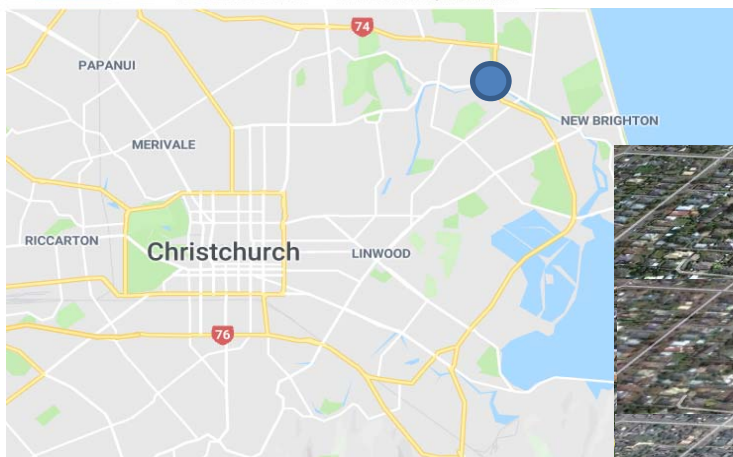


20 Settembre 2018

LIQUEFAZIONE E INSTABILITA' DINAMICA DEI TERRENI

RemTech Expo 2018 (19, 20, 21 Settembre) FerraraFiere
www.remtechexpo.com

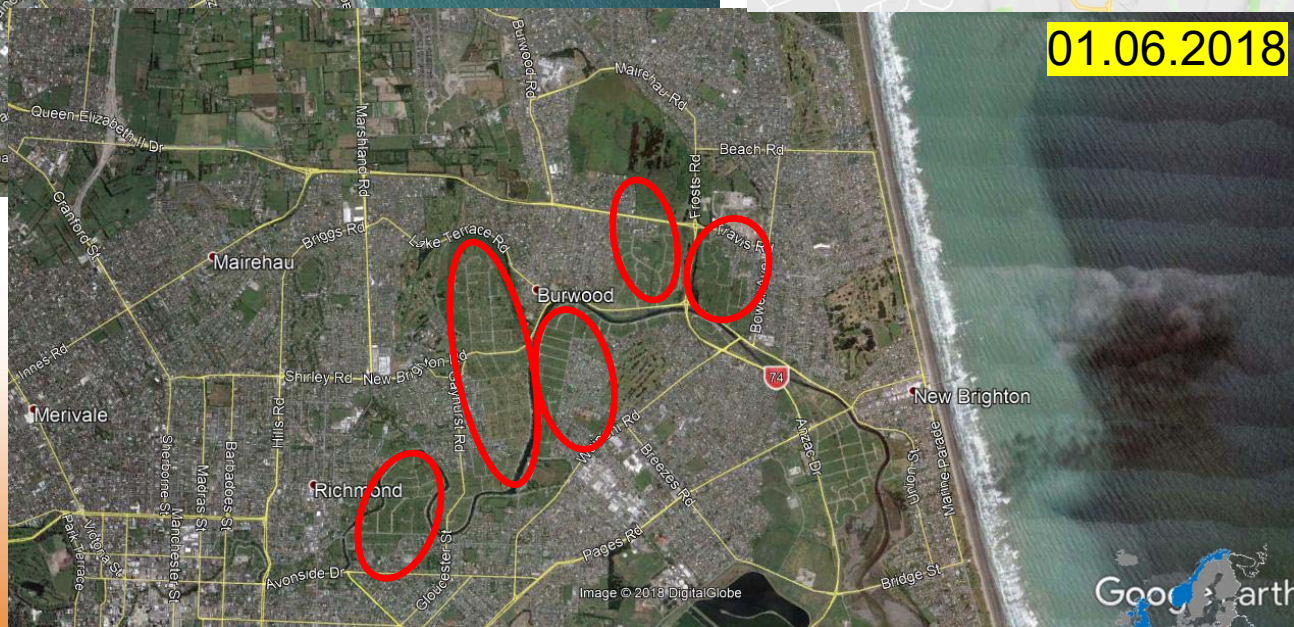
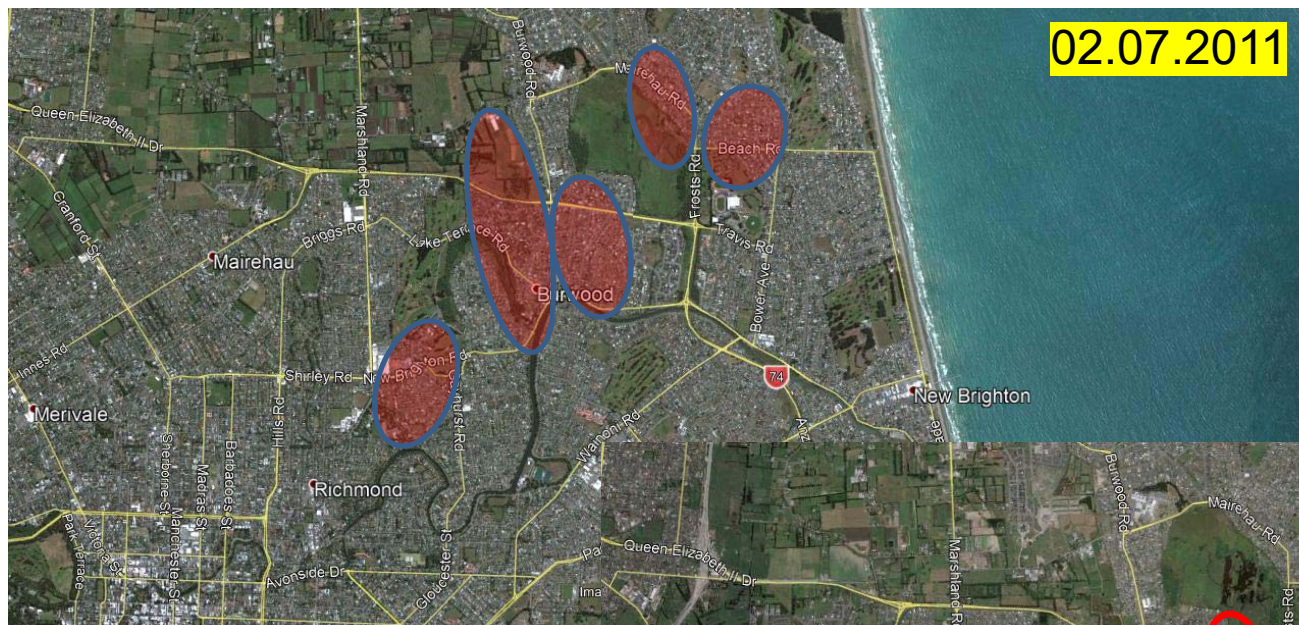
Destructive potential of Earthquake Induced Liquefaction



Feb.22.2011
Mw=6.2



Destructive potential of Earthquake Induced Liquefaction



Sites prone to Liquefaction

- River meanders/point deposits
- Lake shore delta
- Estuarine
- Beach ridge backwater
- Abandoned river channels
- Former ponds, marshes, swamps
- Reclamation fills
- Tailing dams

New Zealand Geotechnical Society (2016)

Christchurch New Zealand (2010-2011)



Mw 6.2
60 000 damaged buildings
1/3 of city infrastructures
out of service

Emilia Romagna Italy (2012)



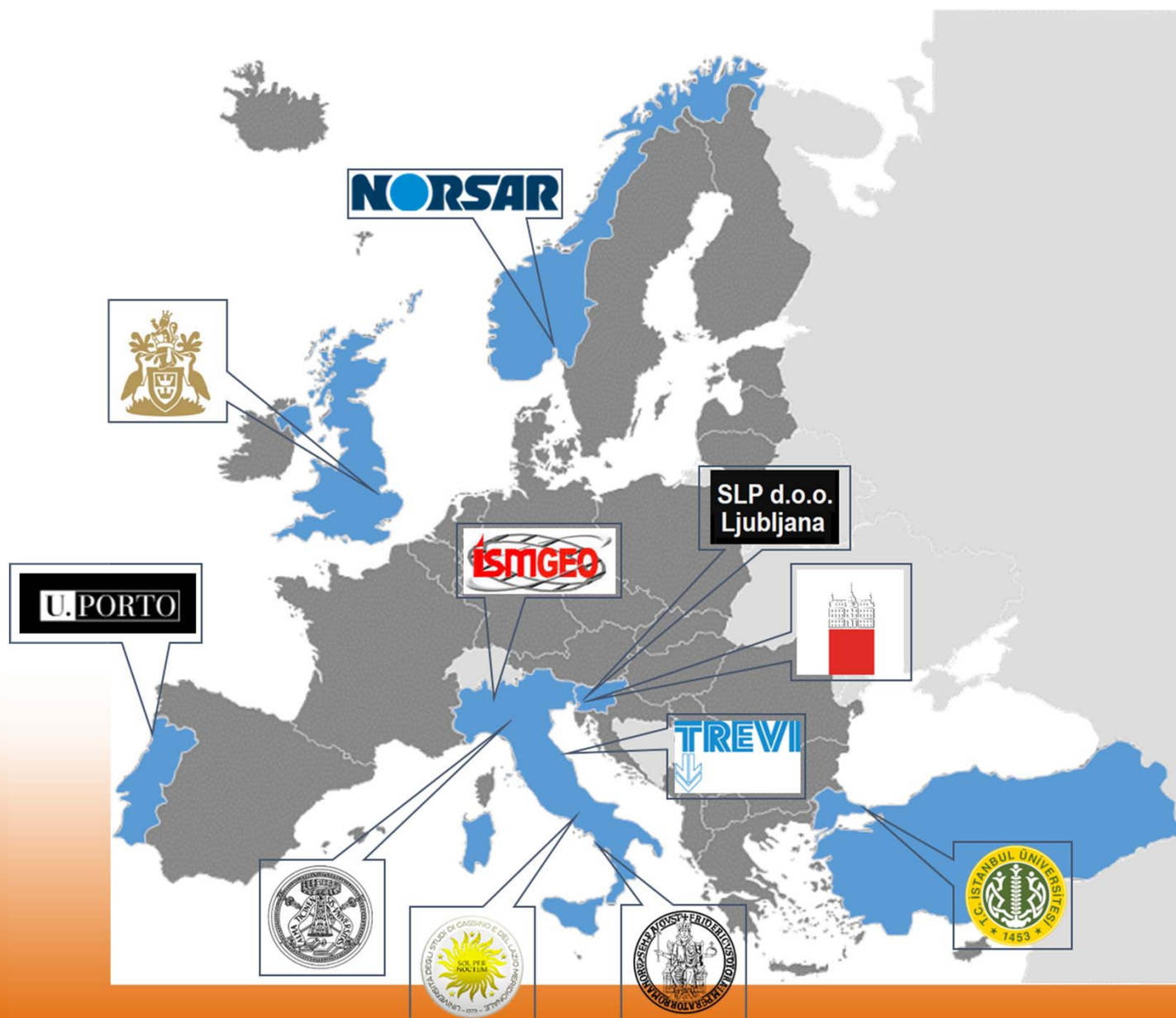
Mw 5.9
12 000 damaged buildings

Urayasu (Tokyo) Japan (2011)

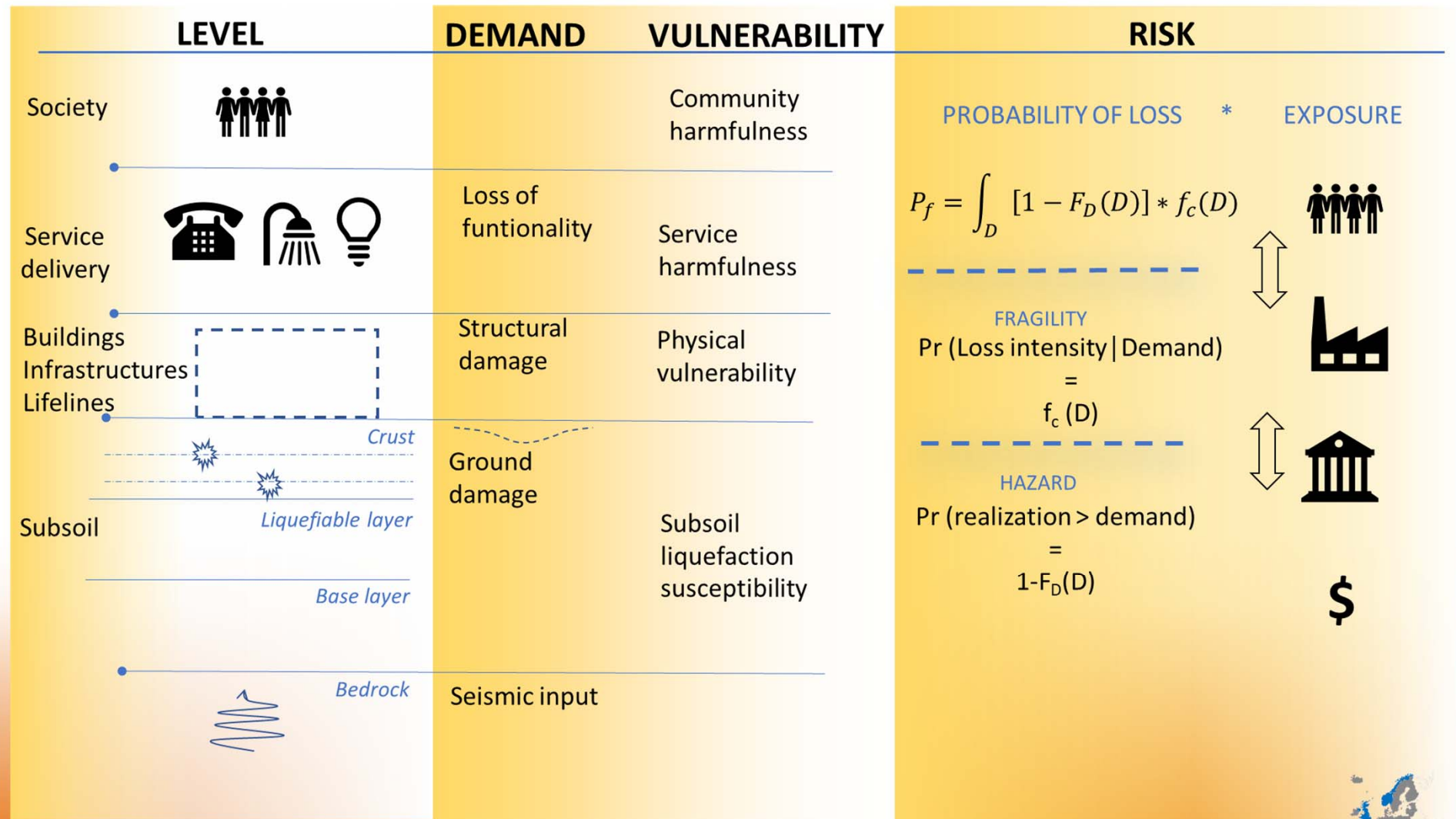


Mw 9.0
27.000 damaged
buildings
2 000 collapsed levees
Several destroyed
bridges

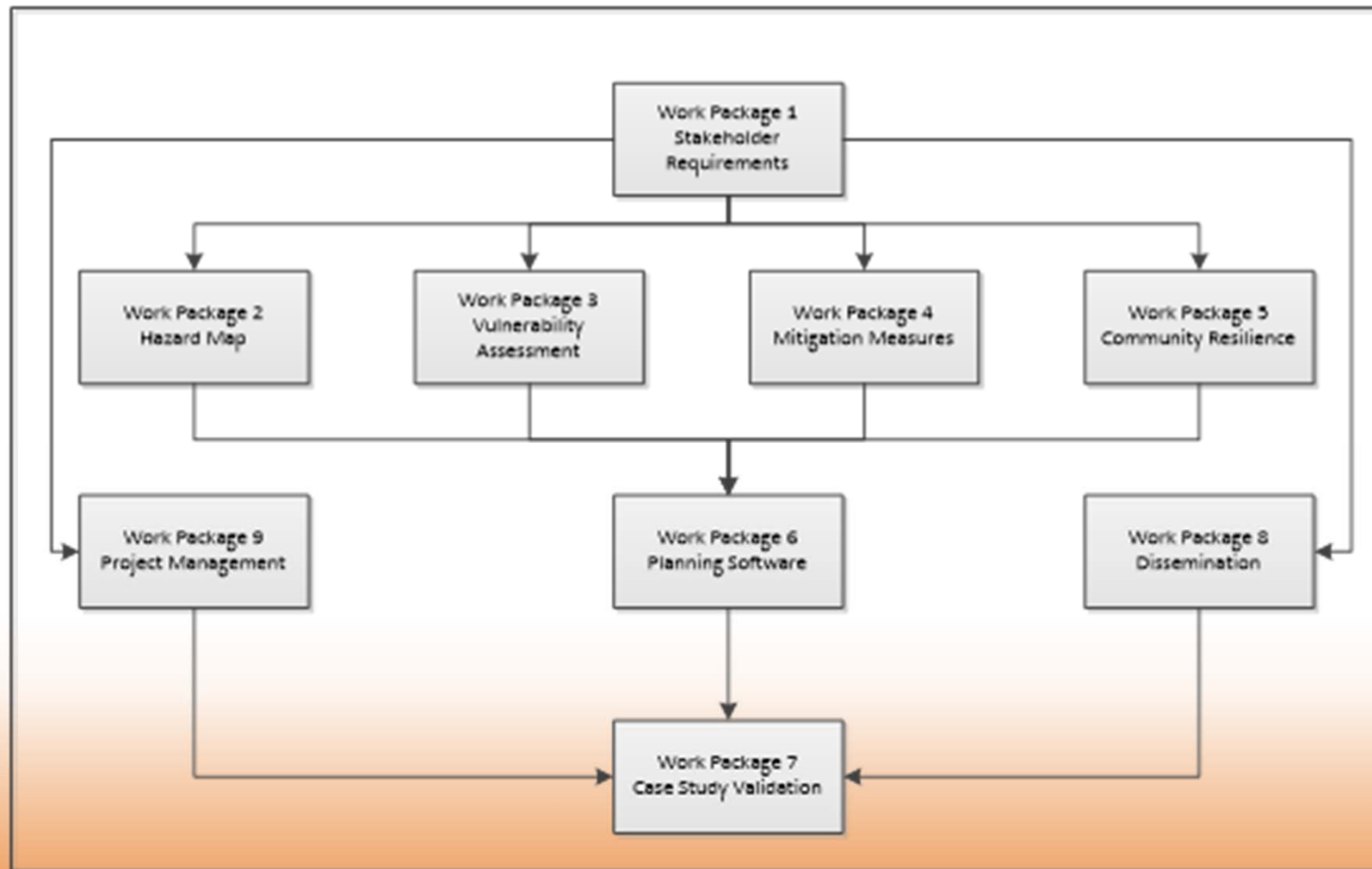




Risk = Probability of loss * Amount of loss



Overall project approach and methodology



GIOVEDÌ 20 SETTEMBRE

Ore 9.30-12.30

LIQUEFAZIONE E INSTABILITÀ DINAMICA DEI TERRENI

*Coordinatori: Giuseppe Modoni, Università di Cassino e del Lazio Meridionale,
Gianluca Loffredo, Comitato Geosismica*

Macrozonazione a scala Europea del rischio da liquefazione e metodologie di microzonazione

Carlo Lai Università di Pavia

Liquefaction risk in the Disaster Resilience Scorecard for Cities

Dr. Maria Antonietta Morga Anglia Ruskin University

Liquefaction vulnerability of structures and infrastructures

Dr. Sara Rios Universidade do Porto

Analisi del rischio da liquefazione a scala urbana: il comune di Terre del Reno

Giuseppe Modoni Università di Cassino e del Lazio Meridionale

Tecniche di mitigazione del rischio da liquefazione

Stefania Lirer UniMarconi - Università Federico II di Napoli

Tecniche di mitigazione del rischio da liquefazione analizzate con prove in centrifuga

Vincenzo Fioravante Università di Ferrara

Un campo prove valutare l'efficacia di tecniche di mitigazione

Luca Pingue Trevi SpA





European
Commission

Horizon 2020
European Union funding
for Research & Innovation

liquefACT



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