



**PROJECT ACRONYM AND TITLE:** SEA-LIMITHS - Sea Level Rise Impacts on Italian Hospitality

**FUNDING PROGRAMME:** HORIZON EUROPE

**CALL:** HORIZON-MSCA-2022-PF-01 (MSCA Postdoctoral Fellowships 2022)

**KEYWORDS:** *sea level rise, beach erosion, flooding, economic impacts, hospitality sector, Italia, general equilibrium model*

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Project total costs	Overall funding assigned to UNIVE
€ 188.590,08	€ 188.590,08

## ABSTRACT:

Due to climate change, sandy beach erosion and loss have a huge influence on society and the hospitality sector. Despite the fact that sandy beaches are a key component of the hospitality industry in the majority of Italian beaches, alarmingly, policymakers frequently do not include quantified risk assessments of sandy beach losses due to climate change. This research explores the effects and economic implications of sea level rise on sandy beaches and beach hospitality losses due to beach erosion and flooding in two economically significant coastal regions of Italy, Veneto and Emilia-Romagna. Combining sandy beaches with a proposed rich dataset based on machine learning and artificial intelligence, user-generated data is matched to the land cover/land use map to separate the hospitality sectors (accommodation, food and drink, sports and leisure) in order to assess economic losses in hospitality from 2050 to 2100 using representative concentration pathways (RCP 4.5 and RCP 8.5). The projected cumulative damage costs per hospitality sector are analysed with no adaptation measures taken into account and compared to the investment cost of implementing several adaptation strategies. The projected direct costs will be utilised in a macroeconomic evaluation as input to understand how changes in hospitality activities affect regional value added by using an Italy-specific computable general equilibrium model. The fact that this proposition refers to several fields of study is what gives it its interdisciplinary quality as an innovative idea. The combination of economic and environmental research, in addition to the emerging and expanding techniques of machine learning, will provide an excellent piece of work and greatly enhance the scientific career of the author.

Planned Start date	Planned End date
01/06/2023	31/05/2025

## PARTNERSHIP

1. Ca' Foscari University of Venice	Italy	Beneficiary
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