EO-PERSIST: Team Meeting Report #01

Project: EO-PERSIST
Document_Type: Team Meeting Report
Meeting Number: 01
Meeting Purpose: Definition of Individual Research Contributions and Project Workflow
Date: December 19, 2024
Authors: Alexandros Liaskos, Eleni Achmakidou, Konstantina Lymperopoulou

Table of Contents

Meeting Objectives

This initial team meeting was convened to:

- Establish clear roles and responsibilities for each team member
- Define individual research contributions and expected outcomes
- Outline publication strategy and research papers
- Determine team's project structure and workflow
- Align team understanding of project goals

Team Members

SUPERVISORS	BENEFICIARY RESEARCHERS	SUPPORT
Prof. George Petropoulos	Alexandros Liaskos	Dr. Eleana Karkani
Prof. Niki Evelpidou	Eleni Achmakidou	Nektarios Tselos
	Konstantina Lymperopoulou	Spyros Detsikas
		Prof. Petropoulos's research team
		Prof. Evelpidou's research team

Team Goals and Deliverables

Focus Area: Arctic coastal evolution and modelling

Team Goal: Contributing to the project's "Coastal monitoring and modeling (UC3)".

Deliverables:

- Automated vulnerability assessment system (Software Development) [LIASKOS]
- Software deployment to an existing platform (Software Deployment) [LIASKOS]
- Development of a new European revised CVI [LYMPEROUPOULOU]
- SEVI adaptation (SEVI) [LYMPEROUPOULOU]
- CVA Case Studies

> Alternative and additional Deliverables:
>
> - CVA of Swedish coastlines at risk
> - Review Paper

Contribution of Alexandros Liaskos

Primary Responsibilities:

- Development of an automated CVA assessment system
- Software deployment and platform integration

Deliverables:

- Automated vulnerability assessment software
- Technical documentation
- Research papers

Technical Background for potential advancements:

- Coastal Research Experience:
  - Published paper: "Coastal erosion: the future of sandy beaches" (2021)
  - Thesis: CVA automation framework in ArcGIS Pro with ArcPy and custom Python
  - Automated acquisition and processing of CVI parameters from Sentinel-2 images
  - Coastline and coastal features extraction through Spectral Analysis and ML from Sentinel-2 images
  - Satellite image acquisition and batch image set-topology analysis in Google Earth Engine and with Copernicus OData API in custom web platforms
- Relative Programming Experience:
  - Python in ArcGIS Pro + ArcPy
  - Data Science with Python's Data Structures and Algorithms
  - GeoPandas, Shapely, Rasterio, NumPy, GDAL, PyTorch, TensorFlow, SciPy, scikit-learn
  - Google Earth Engine
  - Turf.js
  - Copernicus OData API
  - ArcGIS API

Project Experience:

- Personal projects
- Freelance development projects for clients
- Development of geospatial analysis solutions personal business
- Projects with the research team of Prof. Evelpidou

> Additionally I have experience and knowledge in:
>
> - Web development (React-based, MD-based Documentations)
> - Business organization and project management (Archimedes)
> - Professional documentation and technical writing (Github)

Contribution of Eleni Achmakidou

Potential Primary Responsibilities:

- CVA of Swedish coastlines at risk
- Review Paper

Potential Deliverables:

- CVA Case Study in Sweden
- Research Papers
- Review Paper

Technical Background for potential advancements:

- Fieldwork experience
- Mapping, Sampling, and Geoprocesses Identification
- Laboratory Analysis
- Vulnerability assessment
- ArcGIS Pro
- Surfer

Relative Experience:

- CIVIS-BIP: "Coastal Zone Geomorphological Interactions: Natural vs Human-induced Factors"
- CIVIS-BIP: "TRANSMOUNT - Transitions in Mountain Environments"
- Projects with the research team of Prof. Evelpidou
- Communication of Geology to the general public and local

Contribution of Konstantina Lymperopoulou

Primary Responsibilities:

- Development of a new European revised CVI
- SEVI adaptation (SEVI)
- CVA Case Studies

Deliverables:

- Research Papers

Technical Background for potential advancements:

- Data Analysis
- Geomorphological Identification and Evaluation
- Sampling and Laboratory Analysis
- ArcGIS Pro
- DSAS
- GNSS RTK
- Surfer

Relative Experience:

- Thesis: "Tidal Notches in the Mediterranean Sea: Spatial Analysis and Sea Level Changes"
- CIVIS-BIP: "Climate Change and Landscape Evolution in the Mediterranean context"
- Project for coastal erosion in Greece with application of CVI
- Projects with the research team of Prof. Evelpidou

Report prepared by: Alexandros Liaskos, Eleni Achmakidou, Konstantina Lymperopoulou
Date: December 19, 2024