



# Sediment characterization of Tagus estuarine beaches (Portugal)

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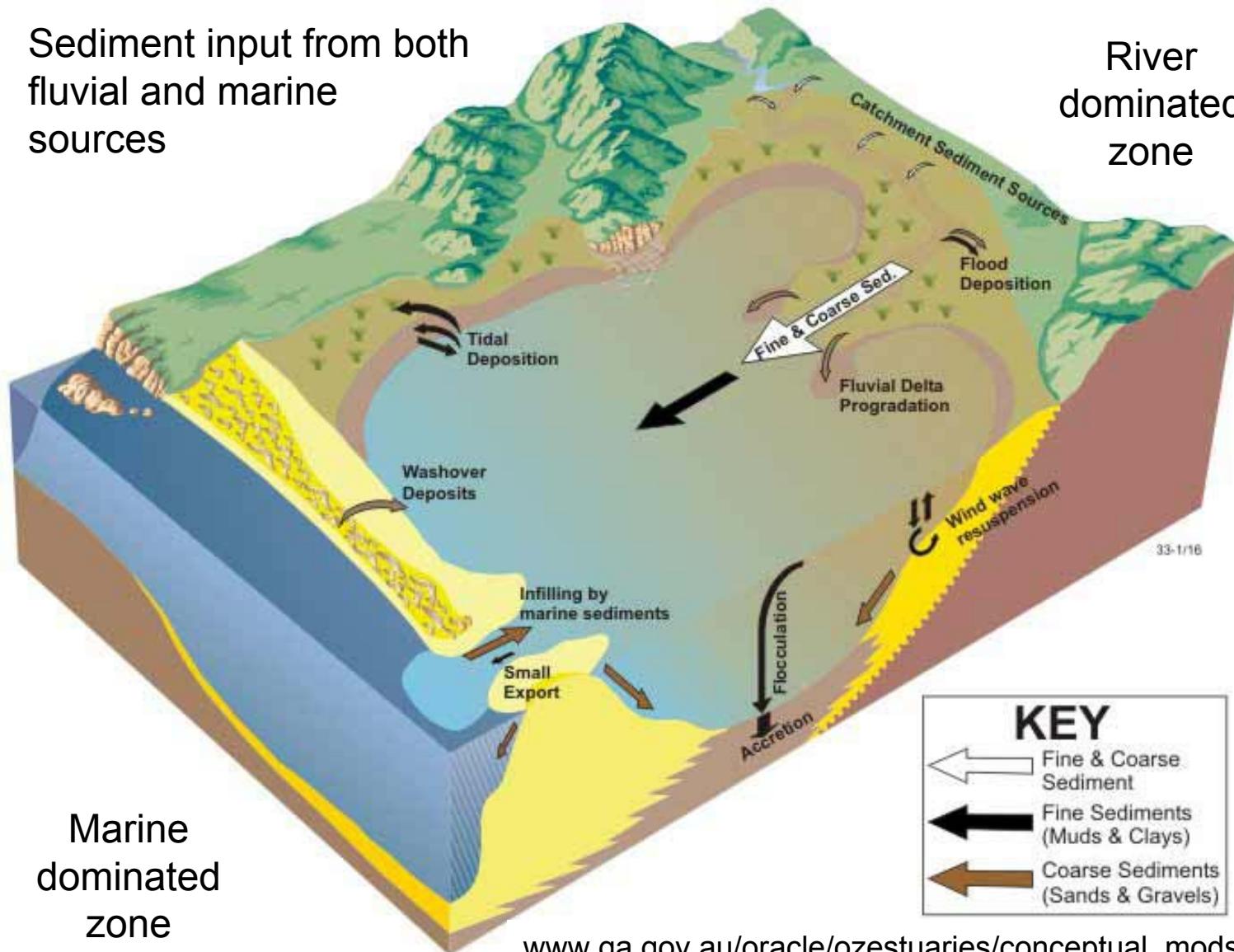
# Objectives

Understand the origin and dynamics  
of Tagus estuarine beach sediments



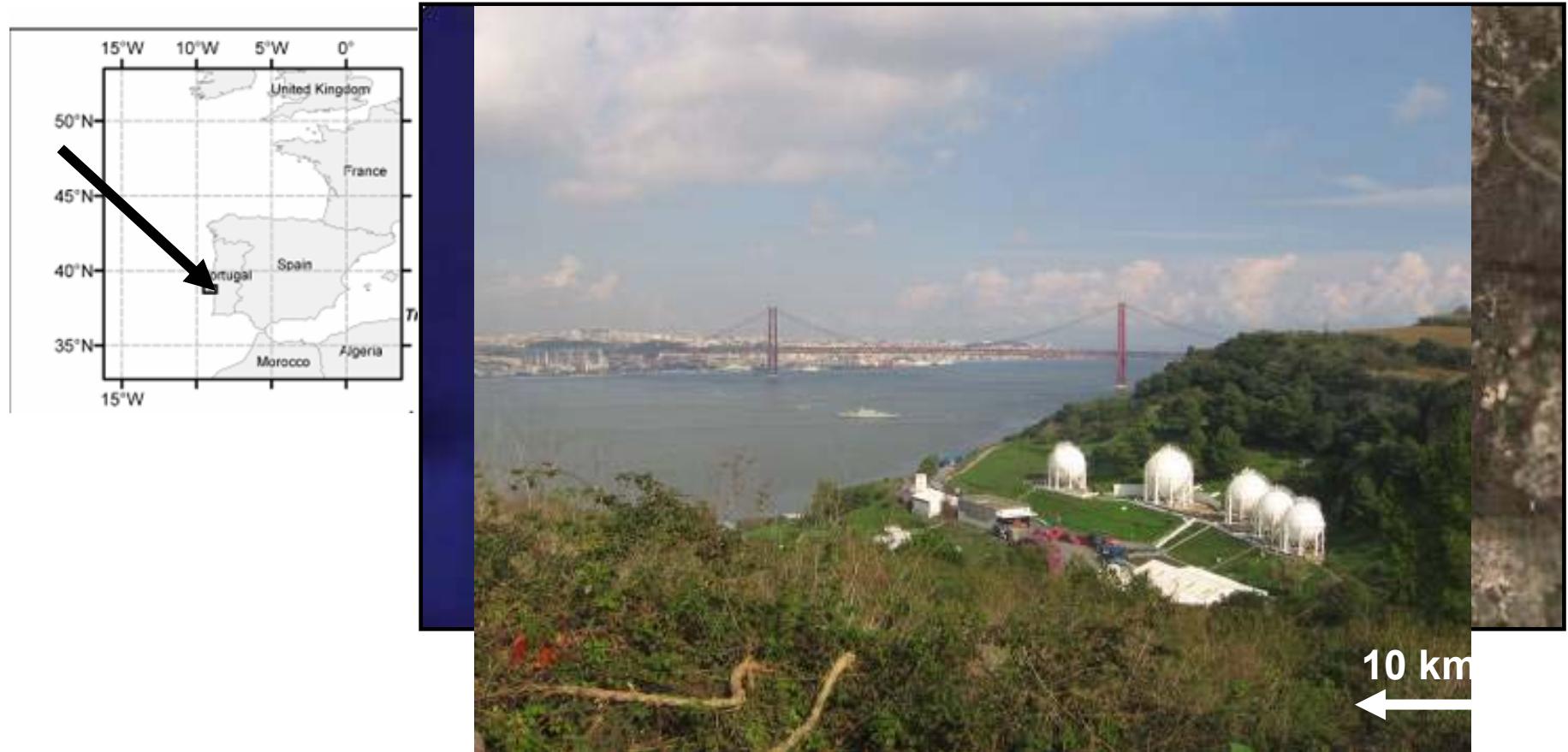
Sediment input from both fluvial and marine sources

River dominated zone



[www.ga.gov.au/oracle/ozestuaries/conceptual\\_mods/cm\\_wde.htm](http://www.ga.gov.au/oracle/ozestuaries/conceptual_mods/cm_wde.htm)

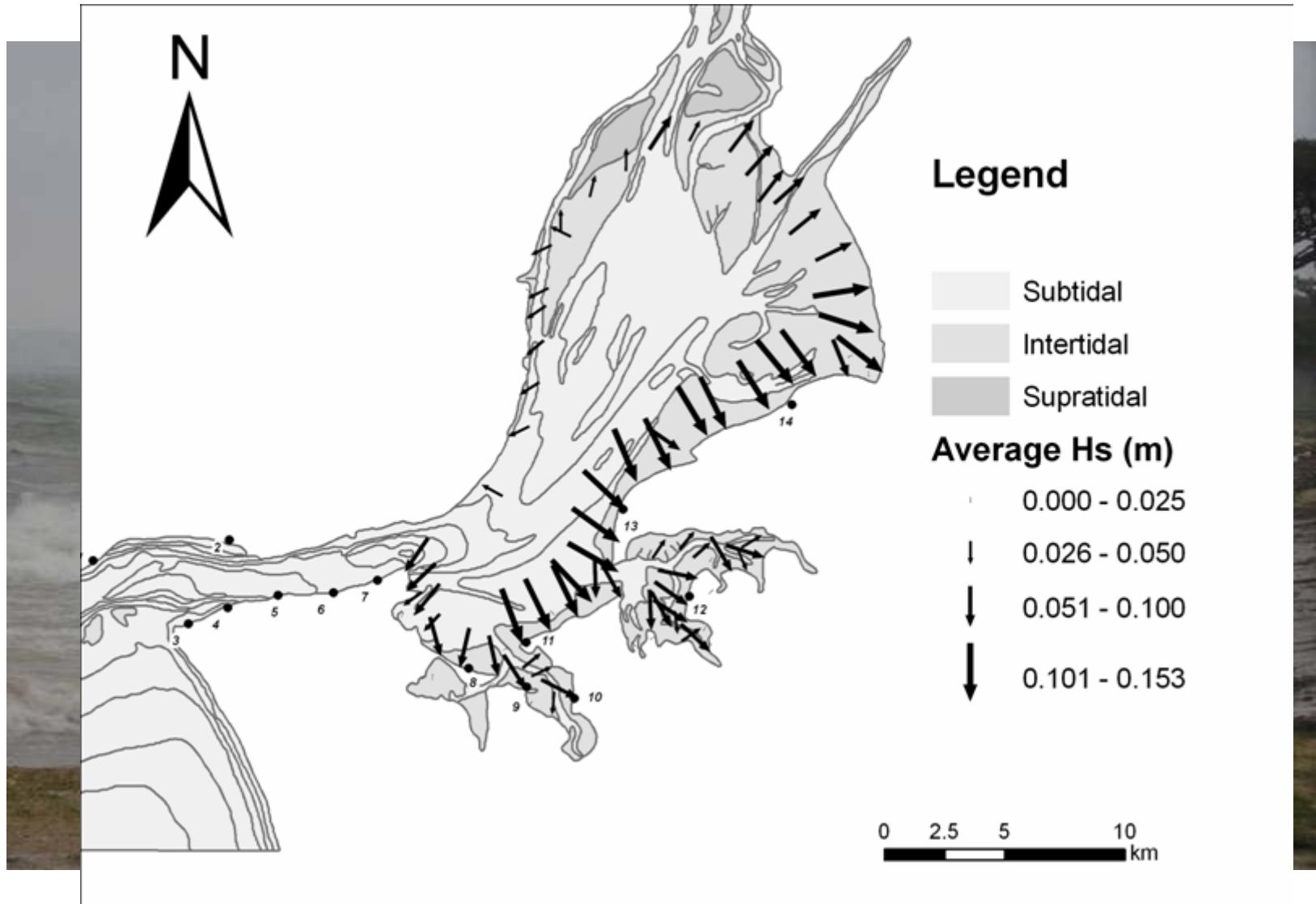
# Tagus Estuary



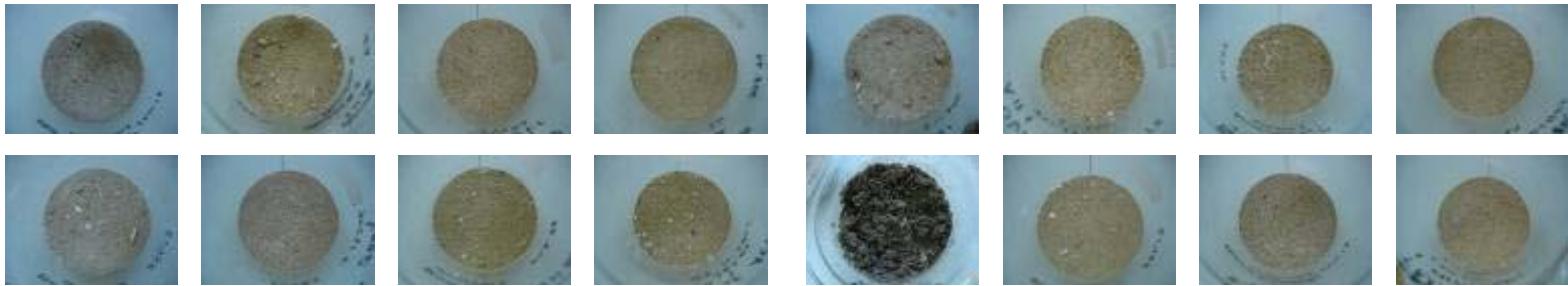


# Wave forcing

## Locally generated waves



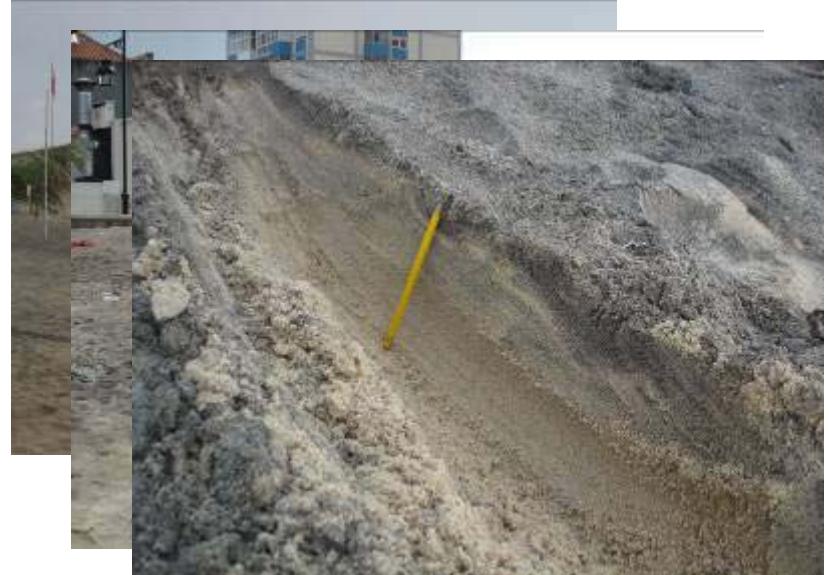
# Sedimentary characterization



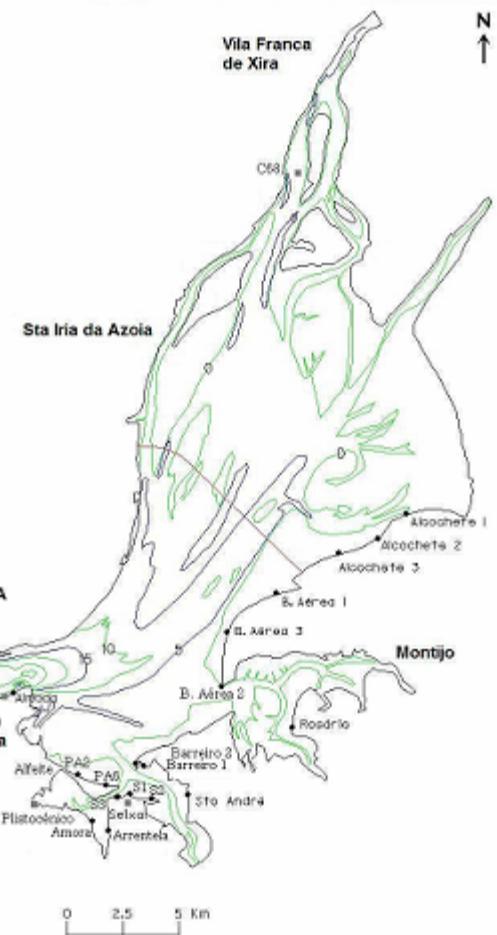
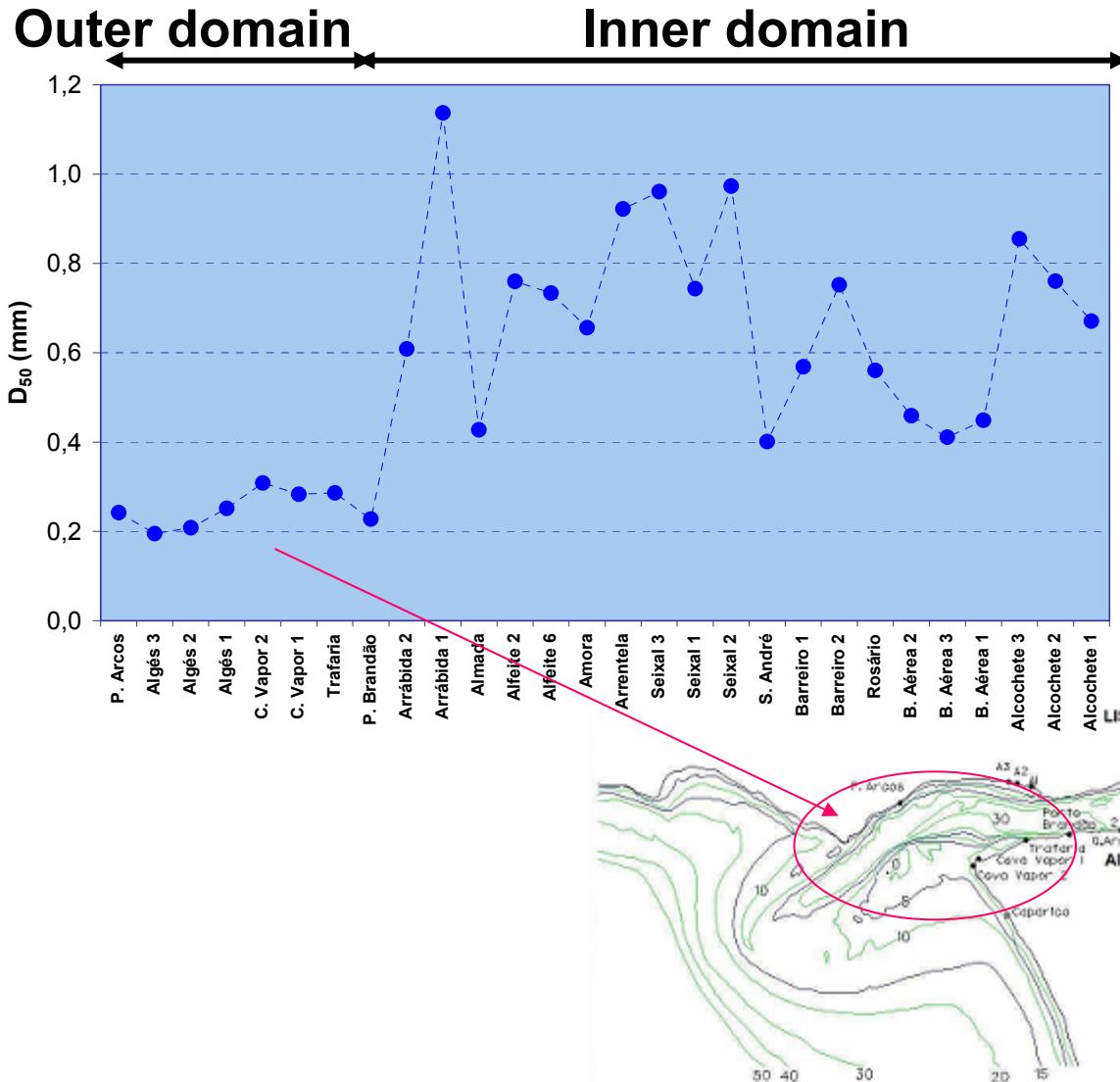
- Texture



- Composition



# Mean diameter

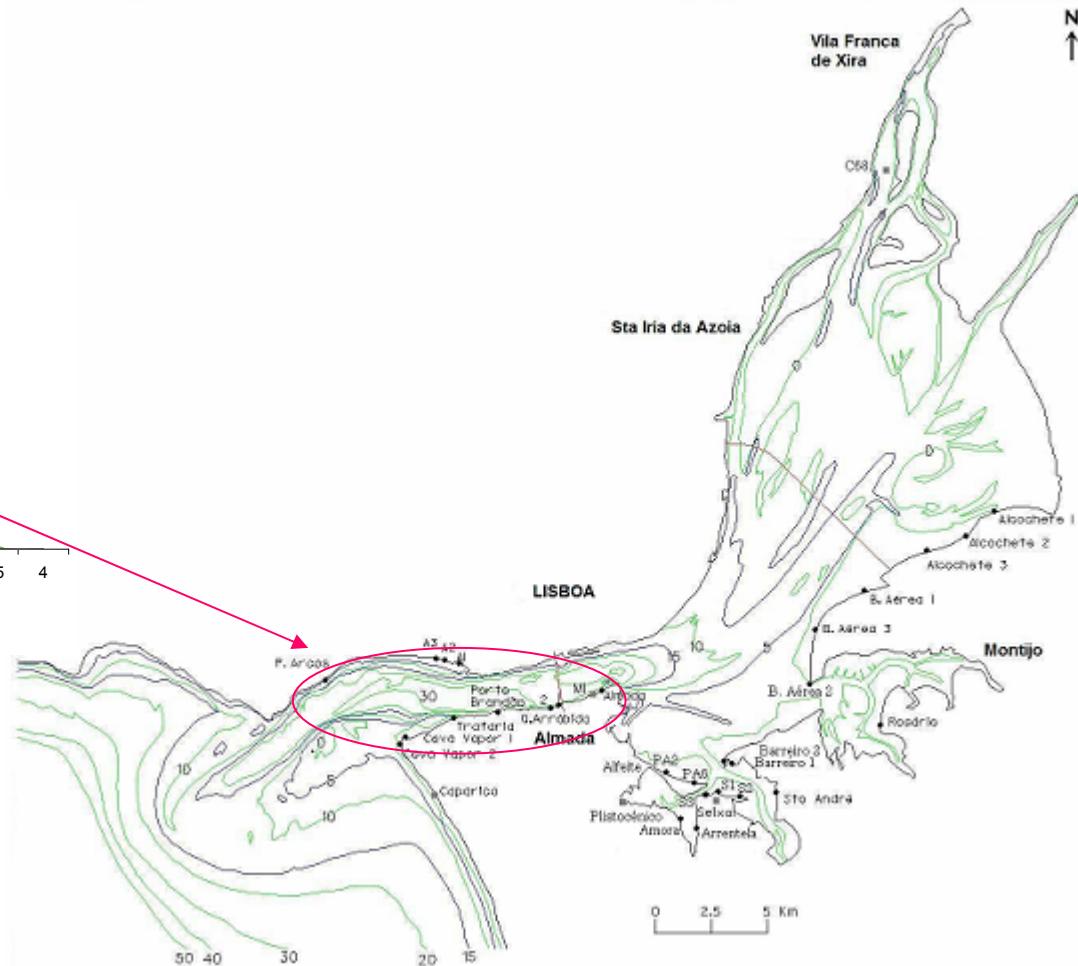
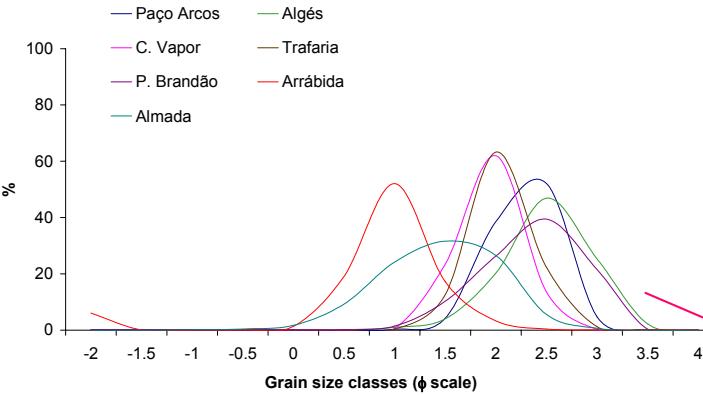


# Inner domain

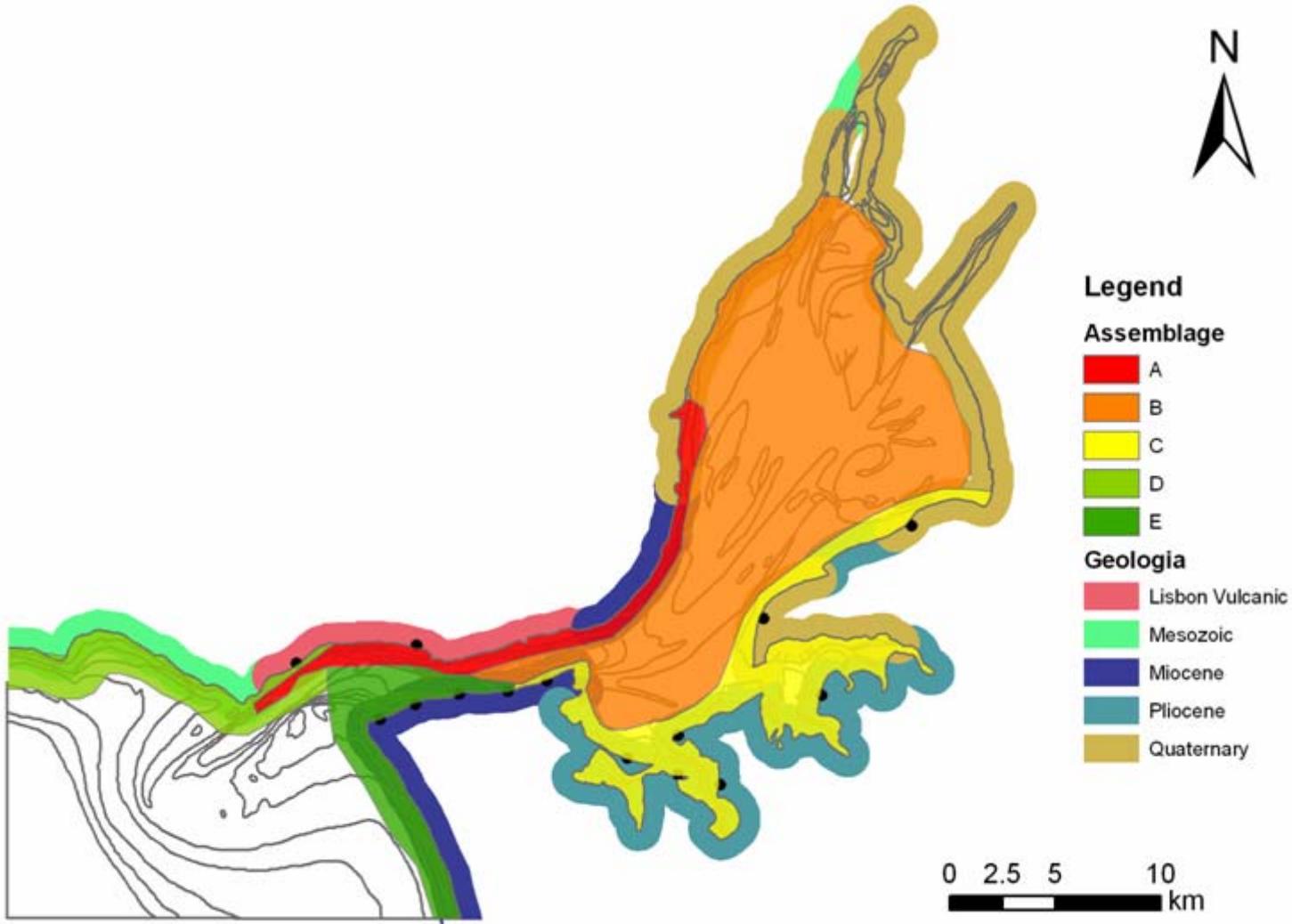


# Outer domain

A

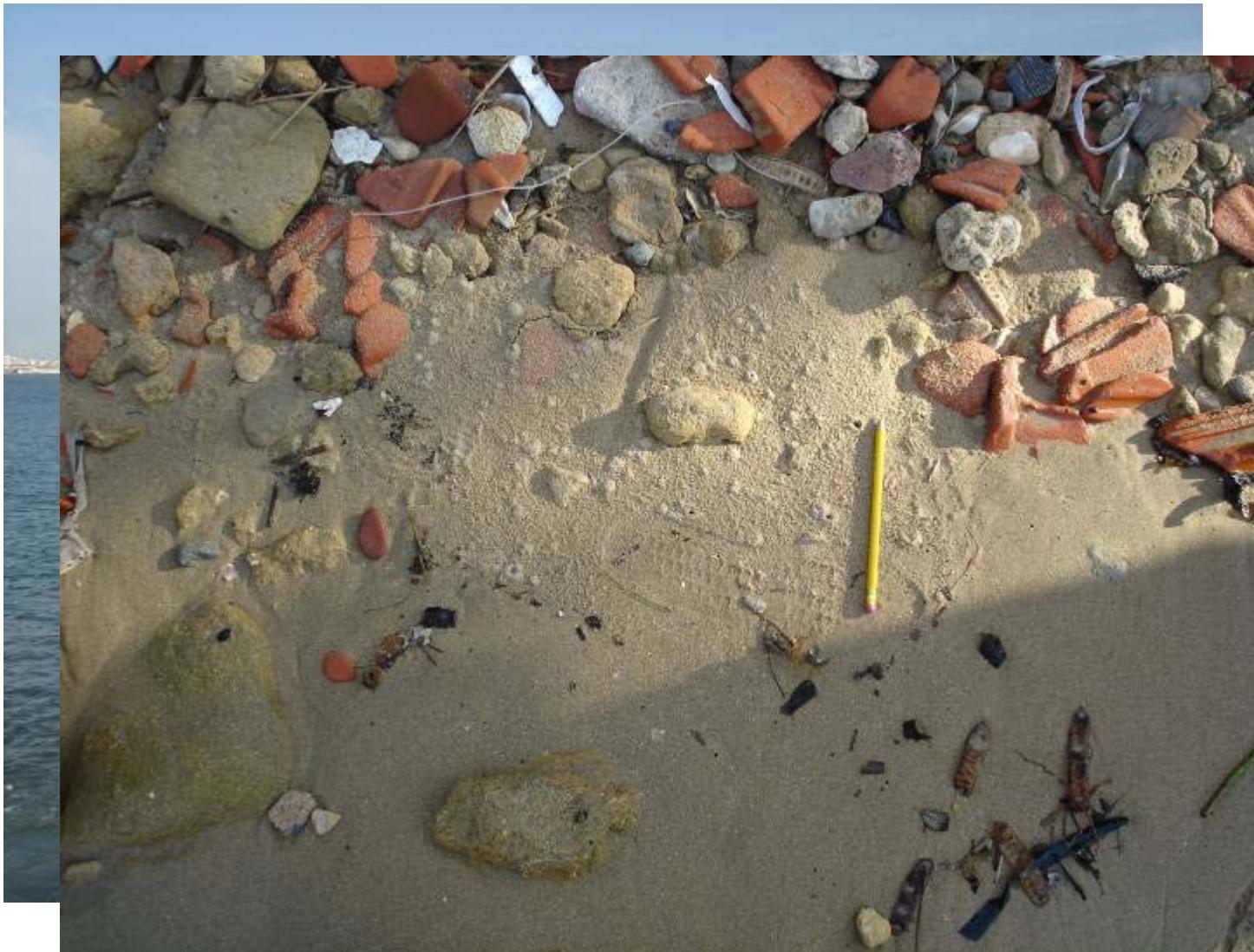


# Heavy mineral assemblages



Adapted from Oliveira (1967)

# Coastline evolution – human intervention



# Conclusions

Sediments of Tagus estuarine beaches show a large textural and compositional variability which was related to :

- sediment supply (local vs marine);
- sedimentary processes;
- human intervention.