

- 4-year hindcast of supratidal morphological development of the Sand Motor mega nourishment using the AEOLIS model for aeolian sediment availability and transport.
- AEOLIS captures the supratidal morphodynamic behaviour at the Sand Motor, which is characterized by the significant compartmentalization, modest aeolian sediment transport rates and relatively low dune growth rates.
- The AEOLIS model is able to reproduce multi-annual aeolian sediment transport rates in the Sand Motor domain in the four years after its construction with a RMSE of $3 \cdot 10^4 \text{ m}^3$ (7% of the total sediment accumulation of $40 \cdot 10^4 \text{ m}^3$) and R^2 of 0.93 when time series of measured and modeled total aeolian sediment transport volumes are compared.