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EU STRATEGY
FOR THE BALTIC
SEA REGION

PA SAFE

BalMarGrav

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Interreg
Baltic Sea Region

Co-funded by
the European Union

BLUE ECONOMY
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BalMarGrav: Background

- **Programme:** Interreg Baltic Sea Region Programme 2021/2027, Priority 2 "Water-smart society", Objective 2.2 "Blue economy"
- **Type of project:** small
- **Period of realization:** 06/2022 - 12/2024
- **Number of project partners:** 11 (from all countries around the Baltic Sea, except Russia)
- **Project challenges:** improvement of insufficient and outdated mapping of the marine gravity field in the south-eastern Baltic Sea region necessary for common height reference system
- **Project objectives:** increasing the potential of national sectoral agencies responsible for providing geodetic reference systems and the Baltic Sea Hydrographic Commission; initiating and keeping network of experts in gravity measurements and geoid modelling
- **Project target groups:** national sectoral agencies, Baltic Sea Hydrographic Commission (BSHC), Nordic Geodetic Commision (NKG)

Current Status

- Activity 1. Revitalization and quality checking of the historical marine gravity data sources - completed
  - Output: Report on availability and re-processing procedure of the historical marine gravity data (https://interreg-baltic.edu/project/balmargrav/#output-1)
- Activity 2. Modern shipborne gravity surveys for validation of the historical data - completed
  - Output: Report on modern marine gravity data for selected areas of the southern and eastern Baltic Sea (https://interreg-baltic.edu/project/balmargrav/#output-0)
- Activity 3. Homogenization and implementation of the historical marine gravity data into the national and NKG databases - in progress
  - 24 historical and modern gravity sources released in February 16, 2024 in the NKG gravity database under the BalMarGrav license

Coming up / Next Steps

- Calibration, validation and unification of historical marine gravity data.
- Incorporation the unified historical marine gravity data into the national and NKG databases.
- Development of free-air and Bouguer gravity anomaly maps for free download from the project website.
- Pilot activities to test by target groups an access to the homogenized historical marine gravity data developed under the BalMarGrav project.

Challenges experienced / anticipated

- Recognition the righful owners of historical data and taking care of their formal consents regarding the use of data in the project.
- Regulation of ownership of data measured during the project (different national and institutional rules).
- Collection and release of 24 gravity data sources into the NKG gravity database under the BalMarGrav license, which included obtaining all formal owner consents, preparing metadata and processing the data in accordance with the database data format requirements.
- Unification of historical gravity data taking into account different measurement periods, methods and their quality.

Questions / Comments

- Special thanks to associated organisations involved in the BalMarGrav project:
  - Agency for Data Supply and Infrastructure (Denmark)
  - Estonian Land Board (Estonia)
  - Latvian Geospatial information agency (Latvia)
  - National Land Service under the Ministry of Agriculture (Lithuania)
  - Norwegian Mapping Authority (Norway)
  - Maritime Administration of Latvia (Latvia)

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Thank you!

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