Modus Operandi of the International Centre for Advanced Studies on River–Sea Systems

INTRODUCTION

DANUBIUS-RI is a **distributed research infrastructure** (RI) integrating studies of rivers and their catchments, transitional waters such as estuaries and deltas, and their adjacent coastal seas.

2016 - 2020 **Preparatory Phase (PP)** → 2020 - 2024 **Implementation Phase** → from 2024 **Operational Phase**

In 2016, the **European Strategy Forum for Research Infrastructures (ESFRI)** included DANUBIUS-RI in its roadmap.

COMPONENTS

DANUBIUS-RI is composed of a Hub, Nodes, Supersites, Data Centre, Technology Transfer Office and e-Learning Office across Europe.

- **Nodes**: state-of-the-art facilities, offering interdisciplinary expertise and applying interoperable methods for observation, analysis, modelling and socio-economic impact
- **Supersites**: exemplary study sites covering a whole River-Sea System or several sites within a River-Sea System and a range of River-Sea Systems along climatic, environmental and socio-economic gradients across Europe

ACCESS

- **Facilities**: establishing and providing access to facilities for observation and analysis, modelling and socio-economic impact studies (e.g. field equipment, research platforms, laboratories, high-performance computing, innovation lab)
- **Methods & Tools**: developing and providing access to algorithms, sensor and machine learning technologies; methods and standards for sampling and analysis;

model codes and manuals, coupled models (e.g. "from catchment to coast") and "what if?" scenario applications; concepts, methods and tools to support governance, policy-making and management
- **Data**: generating and providing access to earth observation and in situ data over large areas and over time, ex situ data at representative locations over time, modelled data filling gaps from observation and analysis

INTEGRATION

- **Data**: providing access to comparable data along freshwater-seawater continuum and between several River-Sea Systems
- **Knowledge**: advancing process and system understanding, co-creating scenarios and solutions with stakeholders, and research questions for further observation, analysis and modelling
- **Experts**: bringing together interdisciplinary expertise and providing expert support and training regarding observation and analysis, modelling and socio-economic impact studies in River-Sea Systems

GOVERNANCE

DANUBIUS-PP has brought together 30 partners from 16 countries across Europe. It is planned that a **European Research Infrastructure Consortium (ERIC)** will provide the governance framewok for DANUBIUS-RI, coordinated by Romania.

DANUBIUS-ERIC
- General Assembly
- Scientific Advisory Committee
- Research Infrastructure Committee
- Director General
- Executive Office

DANUBIUS-RI
- Hub
- Nodes
- Supersites
- Data Centre
- Technology Transfer Office
- e-Learning Office

www.danubius-ri.eu

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Photo by Chris Bradley

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