



SERBIAN ACADEMY OF SCIENCES AND ARTS

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# 8<sup>th</sup> DANUBE ACADEMIES CONFERENCE

Belgrade  
2018

8<sup>th</sup> DANUBE ACADEMIES CONFERENCE

8. КОНФЕРЕНЦИЈА АКАДЕМИЈА  
ПОДУНАВСКЕ РЕГИЈЕ

СРПСКА АКАДЕМИЈА НАУКА И УМЕТНОСТИ

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# 8. КОНФЕРЕНЦИЈА АКАДЕМИЈА ПОДУНАВСКЕ РЕГИЈЕ

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Belgrade, 21–22 September, 2017

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TOPIC 1:

Endangered Danube:  
What can we do?



# STRATEGY OF ROMANIA DEVELOPMENT IN THE FOLLOWING 20 YEARS, INCLUDING THE LOWER DANUBE PROBLEMS – A STRATEGY PROPOSED BY THE ROMANIAN ACADEMY

Cristian HERA\*, Nicolae PANIN\*

Taking into consideration the actual state of the economy of the country, the current European and world conjuncture, the Romanian Academy developed the “Strategy of Romania Development in the Following 20 Years” and proposed it for guidance to the Romania Presidency and Government.

The Strategy is a complex and comprehensive document, tackling many scientific and socio-economic domains of the country’s life, and structured in 13 chapters (projects). Taking into account the importance of the Danube River for the future development of Romania, the “Strategy of Romania Development in the Following 20 Years” of the Romanian Academy, proposes in its eighth chapter the “National Scientific Research and Innovation Strategy for the Romanian Danube Region”.

Similar to the European Union Strategy for the Danube Region (EUSDR), *the National Scientific Research and Innovation Strategy for the Romanian Danube Region* is structured in four main Pillars composed of 11 Priority Areas. The Priority Pillars are: (1) *Connecting the Romanian section of the Lower Danube River Region with the rest of the Danube Region*; (2) *Protecting the environment in the Romanian Danube Region*; (3) *Building prosperity in the Romanian Danube Region*; (4) *Strengthening the Romanian Danube Region*.

The Romanian Academy through its 14 Scientific Sections and three Territorial Branches, with 69 research and development institutes and centres, is actively involved in R&D&I activities within different projects of the *National*

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\* Romanian Academy

*Scientific Research and Innovation Strategy for the Romanian Danube Region.* Among these projects three projects are of European importance:

1. Global Change Atlas of the EU Strategy for the Danube Region – a tool for the stakeholders in the decision-making process;
2. Sturgeon conservation in the Danube River basin – a complex environmental-economic-social approach;
3. The International Centre of Advance Studies for River-Sea Systems – DANUBIUS-RI – a pan-European distributed research infrastructure.

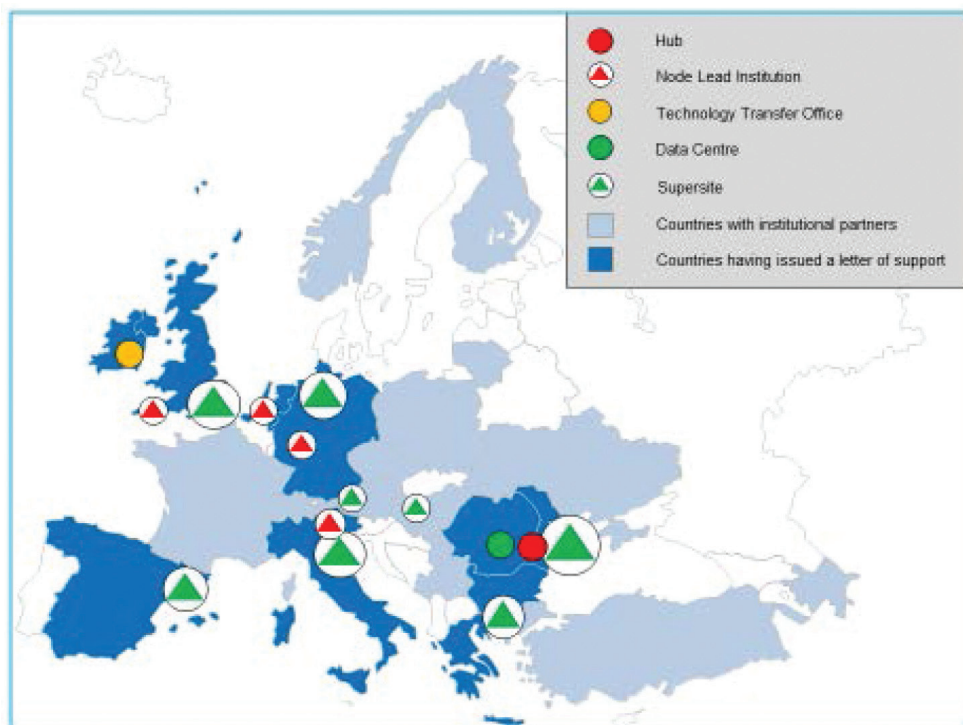
### **Short description of the DANUBIUS-RI project.**

The DANUBIUS-RI project has been declared by the Romanian Government a “Strategic project of national importance” and received the status of a “Flagship Project” of the EUSDR. The Romanian Academy is one of the main actors in the project.

Furthermore, DANUBIUS-RI was accepted at the European Strategy Forum for Research Infrastructures (ESFRI) road-map for 2016, and was granted a Preparatory Phase project of three-year duration in the framework of the Horizon 2020 Programme, aiming to structure the project in a European Research Infrastructure Consortium (ERIC).

European river–sea systems are among the most environmentally impacted regions in the world, after centuries of agricultural intensification, deforestation, industrialization and explosion of urban settlements, and there is an urgent need for special programmes of scientific, sustainable and adaptive measures to rehabilitate these systems. In the last decades, Europe has taken the lead at the global level in trying to find scientifically sound management solutions that would support the sustainable use of the major river systems and the Water Framework Directive is the first initiative of its kind, which aims to obtain the good quality status for the waters and sediments of an entire continent. But such aims require a strong scientific support. Accordingly, the scientific communities from all over Europe (Austria, Bulgaria, Germany, Greece, Hungary, Ireland, Italy, Lithuania, the Republic of Moldova, the Netherlands, Serbia, Spain, the United Kingdom, Ukraine, etc.) have backed up the Romanian initiative to create an International Centre for Advance Studies for River-Sea Systems – DANUBIUS-RI.

DANUBIUS-RI will be a world-leading pan-European distributed research infrastructure supporting research, innovation and knowledge exchange that



Components of the DANUBIUS-RI project – pan-European distributed research infrastructure

will enable excellent interdisciplinary research in river–sea systems for creating their knowledge-based management with a high economic impact.

The physical structure of DANUBIUS-RI will comprise:

*Supersites.* *Supersites* will provide the focus for observation, research and modelling at locations of high scientific importance and opportunity (deltas or estuaries), covering the main river–sea systems in Europe. One of them will be the Danube Delta Supersite.

*Nodes* – highly specialised laboratories across Europe (Germany, the Netherlands, Italy, Great Britain) led by a *Hub* that will provide leadership and governance, coordination and standardisation of activities, communication with other *Supersites* and a *Data Centre* situated in Romania.

Additionally, DANUBIUS-RI will have a *Technology Transfer Centre* located in Ireland. This structure will offer an integrated suite of facilities, services and expertise for research scientists and other stakeholders in Europe and globally.

DANUBIUS-RI will be unique and the most innovative research structure dedicated to sustainable management of the river–sea systems in Europe and

even in the world for knowledge-based socio-economic development of these systems. The main scientific and innovation, managerial and educational activities of DANUBIUS-RI are listed in the White Book (DANUBIUS Framework Programme).

As already mentioned, DANUBIUS-RI is intended to have a legal basis as a European Research Infrastructure Consortium (ERIC). The General Assembly, the decision-making body, will be composed of representatives of member countries of DANUBIUS-RI. Access to the facilities, services and expertise of DANUBIUS-RI will be open to any research scientist or stakeholder, subject to peer review, feasibility and intellectual property considerations. Access may involve a fee, depending on the service or facility provided or further use of knowledge (e.g. for education purposes it could be free of charge), which will be lower for scientists in member country organisations.

As DANUBIUS-RI will have the capacity to respond to the long-term needs of the European research communities and to foster sustainable social and economic development of the most disadvantaged regions.