

# Design and Establishment of a Unified Higher Education Management Information System

## HEMIS

### 1. BASIC PROJECT INFORMATION

|                                   |                                                                                      |
|-----------------------------------|--------------------------------------------------------------------------------------|
| <b>Official Project Title</b>     | Design and Establishment of a Unified Higher Education Management Information System |
| <b>Acronym / Short Name</b>       | HEMIS                                                                                |
| <b>Programme / Funding Source</b> | World Bank                                                                           |
| <b>Duration</b>                   | 08.2018–12.2019                                                                      |
| <b>Coordinator</b>                | Ministry of Education and Science of the Republic of North Macedonia                 |
| <b>Partner Institutions</b>       | Accredited higher education institutions in North Macedonia                          |

### 2. PARTICIPATION OF UNIVERSITY SKOPJE ACADEMIC STAFF

**Name and Surname:** Sime Arsenovski

**Academic Title:** Full Professor

**Role / Function in the Project:** Consultant

#### **Specific Contribution to the Project**

Analysis of documentation and legislation; preparation of data models and functional requirements for EMIS and HEMIS; requirements for data migration and manual data entry; detailed software and technical specifications for software and cloud infrastructure; cost estimates and a system testing plan.

### 3. CONTENT AND ACHIEVED RESULTS

#### **Brief Project Description**

The aim of the project was to design and establish a unified Higher Education Management Information System (HEMIS), covering the relevant stakeholders and processes in higher education in North Macedonia. The engagement included review and assessment of relevant documentation and legislation, preparation of an inception report, development of data models and functional requirements for EMIS and HEMIS, as well as definition of requirements for migration and manual entry of data from the Ministry's existing systems. Detailed software and technical specifications were prepared for procurement of the required software and cloud infrastructure, together with cost estimates and a system testing plan.

#### **Key Results / Outputs**

Inception report; data models for EMIS and HEMIS; functional requirements; data migration requirements; software and technical specifications; cost estimates; testing plan.

#### **Publications / DOI / Other Relevant Scientific Results**

Arsenovski, S., Gorachinova Ilieva, L., & Djinevski, L. (2024). "Contribution to Digital Transformation of Higher Education in RSM." In Proceedings of the 9th International Scientific Congress ICON BEST 2024:

Shaping the Future: Trends and Insights for Tomorrow, University of Skopje, Skopje, North Macedonia.  
Proceedings: ICON BEST 2024 Proceedings (PDF)

#### **4. SIGNIFICANCE FOR THE FACULTY**

##### **Benefits for Students, Teaching and/or Research**

Particularly relevant to higher education management, information systems analysis and design, data modelling, digital transformation and university administration.

#### **5. LINKS AND MULTIMEDIA MATERIALS**

##### **Official Website / Project Link:**

<https://documents1.worldbank.org/curated/en/698761636037655215/pdf/North-Macedonia-Skills-Development-Innovation-Support-Project.pdf>