



## Digital Climate Atlas of the Carpathian Region

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The main idea behind the CARPATCLIM (Climate of the Carpathian Region) Project is to conduct a detailed analysis of the temporal and spatial structure of the climate of the Carpathian region, using unified methods. The main goal of the project is to construct the gridded climatological database for the region in a daily temporal resolution for the period 1961-2010 by using 0.1° spatial resolution for a number of meteorological variables. Considering the long period of time and the need to organize and visualize data for various climate variables and indicators it was necessary to design an efficient infrastructure and tools for proficient management of vast amount of climate data.

The solution of this requirement as well as one of the final products of the CARPATCLIM project is a Digital Climate Atlas which is designed as the main entry point for all the gridded data and maps generated during the project, together with metadata for all data sets (original data as well as data created during the project). With respect to the INSPIRE (Infrastructure for Spatial Information in the Europe community) directive, the Digital Climate Atlas is developed as a rich Web GIS (Geographic Information System) application based on modern Web standards offering all necessary tools for climate data visualization and extraction. Additionally the main gain of using modern Web standards was the compatibility with all mayor web browsers thus making the process of Digital Climate Atlas installation a rather trivial task.

Another important product of the CARPATCLIM project is the Metadata Catalog which is designed as a tool for searching of climate metadata by various parameters (i.e. period, variable, region etc.) Combined, the Digital Climate Atlas and the Metadata Catalog make a powerful online utility which offers a free, fast and easy access to Carpathian Climate data.