



Integrated approach for the development across Europe of user oriented climate indicators for GFCS high-priority sectors: agriculture, disaster risk reduction, energy, health, water and tourism (INDECIS)

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The INDECIS project (see www.indecis.eu) includes 16 institutions from 12 countries and intends to maximize the benefits achievable from the use of observational data across Europe to develop climate indicators and climate services useful to assess the effects of climate variability, including extreme events, and climate change over socioeconomic systems. INDECIS is starting its second year of work and has already produced its first results. The project contributed to the ECA&D dataset by rescuing around 610K meteorological station-based daily observations from the Balkans and Central Europe for the different essential variables (maximum and minimum temperature, rainfall, sunshine duration and snow depth) along the 20th century at daily scale. (<https://doi.pangaea.de/10.1594/PANGAEA.896957>). In addition, 339 climate series (rainfall and temperature) were gathered from Italy and a Global Dataset with 311 wind tall mast data was also recovered. Next to DARE activities, the focus moved to ensure data quality and homogeneity. First, three Quality Control (QC) software suites have been created and are available to use as beta versions (<http://www.indecis.eu/software.php>): the INQC software and the MetQC software, for the quality control of ECA&D daily data; and the QCSS4TT software built specifically for tall masts wind data.

INDECIS has also created a set of daily benchmarks for testing quality control and homogenization methods and software. Two benchmarks are available from the project's website (<http://www.indecis.eu/benchmarking.php>). One of this Benchmark is based on KNMI Climate Regional model (RACMO) and a Real-Data based Benchmark is created by combining close by stations to simulate real relocations. INDECIS has also produced a list of 136 climate indices and a software suite to compute them

(<http://www.indecis.eu/indices.php>). A list of indicators related to circulation variability have been catalogued to inspect their relations with the computed indices and a new software suite for datasets inter-comparison is under development to examine the strengths and weaknesses of different gridded, reanalyzed and modeled datasets. INDECIS is now engaging with potential users to promote a series of workshops to present and co-develop products and services.

In the presentation, an overview of INDECIS activities and results are given.

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