

# **Applying Digitalization of the Transport of Air Pollution Pollutants Over Europe in the Efforts to Study More Efficiently Some Dangerous Effects**

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The impact of climate changes on the pollution levels in Europe is the major topic of this paper. It is highly desirable to carry out such a study together with the investigation of the relationship between

(a) the impact of the climate changes on the European pollution levels

and

(b) the changes of the pollution levels that are due to a combination of the warming effect with some other factors.

It was important to compare the changes of the European pollution levels that are caused by climatic changes with changes that are created by other factors (different emissions levels, inter-annual variability of meteorological conditions, etc.). Such an extensive comparison has successfully been accomplished by designing and using **four categories** of scenarios:

- traditional scenarios,
- climatic scenarios,
- scenarios with variations of the human-made (anthropogenic) emissions,
- scenarios in which the biogenic emissions were varied.

The total number of scenarios used during the work on this project was 14. It was necessary to run these scenarios on a long-time period in order to capture climatic variation. A time-period of **16 consecutive years** was used in the whole investigation and it was necessary to digitalize all involved processes in order to resolve successfully these tasks.