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## Participation of Ukrainian Educational and Research Institutions in Implementation of the Tasks of the Pan-Eurasian Experiment (PEEX)

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In 2019 three Ukrainian institutions (Taras Shevchenko National University of Kyiv, Ukrainian Hydrometeorological Institute and Odessa State Environmental University) joined the Pan-Eurasian Experiment (PEEX). This can be considered as a practical result of implementation of the Erasmus+ international educational project of 'Adaptive Learning Environment for Competence in Economic and Societal Impacts of Local Weather, Air Quality and Climate' (ECOIMPACT) being in line with the ideology of PEEX (research – research infrastructure – education) and covering part of the project's geographic region.

Inclusion of the Ukrainian institutions in the project will make it possible to develop studies into climate change issues, their impact on air quality, dynamics of carbon cycles in ecosystems, biodiversity loss, greenhouse gas emissions and forest fires, public health, chemization of industry and agriculture, food provision, energy production and access to fresh water in Ukraine – all those tasks which are designated as priority ones in the PEEX project.

Under the framework of Infrastructure subprogramme of the PEEX, Ukrainian partners plan to create a long-term research infrastructure to consist of an extensive network of research stations, being only standard meteorological stations so far. Unfortunately, in Ukraine there are no FluxNet micrometeorological stations, let alone flagship research stations, to provide for measurement of a complete set of characteristics of the ecosystem-to-atmosphere interaction.

Having regard to the joint research plan of the Ukrainian project partners for 2020 it is supposed to revise the capacities of the existing network of hydrometeorological stations and the feasibility of its expansion by means of automatic weather stations 'Inspector-Meteo' (AWS-IM) and air quality transmitters 'Vaisala' AQT-420 available at three Ukrainian universities as a result of the Erasmus+ project ECOIMPACT, as well as acquisition of data from the network of automatic stations of the Ukrainian company IT-LYNX, which established a network of 55 AWS-IM for agribusiness purposes. The AWS-IM will expand the range of standard meteorological observations, and supplementation of it with models of environmental processes will make it possible to simulate the state of natural and man-made ecosystems in spatial and temporal scales.

It is additionally proposed to include AQT-420 transmitters available to the three Ukrainian universities due to the acquisition under the Erasmus+ project ECOIMPACT into the programme of monitoring air quality in large cities of Ukraine, with a view to the probable subsequent co-

operation with the MegaSense project.

A detailed research plan of the Ukrainian participants for PEEEX programme collaboration for the year 2020 is to be presented at the PEEEX Inter- and Transdisciplinary Session at the EGU General Assembly.

Participation of Ukrainian universities, being the project partners in the PEEEX educational subprogramme Transfer of Knowledge, is also important in order to provide training for a new generation of researchers in Ukraine who will use the new opportunities and tools gained over the course of implementation of the PEEEX programme, including those ones that could be aimed at adaptation, mitigation of the climate change effects as well as dissemination of new knowledge and technologies acquired under the project to all concerned decision makers and the wider public.