

Правові та економічні механізми санкцій повинні включати відповідальність орендодавців і землекористувачів, що відмовляються від органічного землеробства на оздоровлених і еколого-чистих землях. За знищення стійких невіддільних поліпшень необхідно сплатити в бюджет відшкодування щодо втрати органічного землеробства, та штрафні санкції, щодо внесення токсичних речовин, попередньо ввівши загально-Європейські нормативи, щодо обмеження хімізації земель і сільського господарства.

В Україні особливо різкий позитивний якісний стрибок можна отримати збільшивши площі земель органічного землеробства до 20% сільськогосподарських земель в басейні річки Дніпро.

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## **EURO-INTEGRATION OF ATMOSPHERIC AIR MONITORING OF AGGLOMERATIONS AS A START-UP PROJECT**

The idea of the "City Air Dust" project is to create public monitoring of the state of atmospheric air, namely public involvement, that is, the possibility of installing sensors at any point in the city. The monitoring results are incorporated into the public information system, which has a new approach, namely the planar display of pollution on the city map, as opposed to the dot display. Also, the proposed notification system has an intuitive and easy-to-use interface.

Unlike today's monitoring of the public information system, "City Air Dust" offers monitoring not only at state monitoring points, unlike most of the monitoring systems offered today. Open access to all measurements is also offered, the newest approach to visualization of observation results is provided, and the opportunity to involve everyone interested in atmospheric air monitoring is created.

Today we have:

- Results of observations of only state points - for example, there are only 4 of them in Poltava
- Access to data from previous years is limited - only upon request
- Presentation of results only as point measurements
- The end user is only an observer

CITY AIR DUST offers:

- Results of public monitoring observations - the number varies
- Open access to all available data - only Internet access is required
- Visualization of observation results in planar display
- The end user can become a full-fledged monitoring link for the state of the air

The structure of the project consists of the following links. The first is to establish a partnership or find investors to finance the purchase of sensors and their installation, the second is to involve stakeholders in monitoring and provide them with sensors to measure. The next stage is carried out automatically by the measurement sensors themselves, and the last one is the presentation of the results in the form of a public information system, the prototype of which has already been implemented.

Of course, there are already other systems that show the state of air pollution, but today they have a number of disadvantages, the main of which are point display, unavailability of previous data, and an inconvenient interface. Therefore, the "City Air Dust" project offers new approaches, namely a flat visualization of the results, the availability of previous data and a convenient interface.

The main financial costs are expected for the purchase of portable sensors, but their number depends on the area of the city and the needs of monitoring. The estimated cost of one portable air dust analyzer today ranges from UAH 7 to 50 thousand.

Today, a new data display system is offered. In the future, data will be pulled automatically for the information system. The system itself is one page with data on the level of atmospheric air pollution for the day. The map is completely positioned to the full height and width of the screen. On the left is a floating sidebar, which is the main element for navigation. Toggling the tab and internal switch changes the data visualization on the map and the pollution scale image for this type of sensor.

The main need is finance for the purchase and installation of analyzers. Provided the project is fully implemented, the result of the implementation of public monitoring will be able to provide an increase in the level of environmental awareness of society, as well as the possibility of receiving additional income by placing thematic advertising in the information system. But the main feature of the project will remain a new approach to data visualization.