21st International Scientific Conference
"Economics for Ecology"
ISCS'2015

Економіка для екології
Матеріали
XXI Міжнародної наукової конференції
(Україна, Суми, 6–7 травня 2015 року)

Суми
Сумський державний університет
2015
INFORMATION SUPPORT FOR ENVIRONMENTAL ASSESSMENT OF THE ENTERPRISE EFFECTIVENESS

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Contemporaneous (modern) approach to raise ecological safety of economic activity has to be based on the operative recourses management methods with using the information technologies (IT). Complex number and using the information allow creating necessary analysis data base, forecasting and planning economical and ecological activity of enterprise, raise the basing of the creating strategies, gives the ability for modern correction of plans and budget of the enterprise.

Nowadays utilization of the information leads to cutting down the expenses and raise the production quality and effectiveness. For example, the valuation inculcation allow to cut down the expenses for the projects – from 10 to 30%; to short the time for introduction new products in the market – from 25 to 75%; to cut down the expenses for preparing technical documents – to 40%.

The IT for environmental assessment of the enterprise effectivenes can be divided to: software for statistical data processing, software for economic analysis, software for formalistic primary information which is need for further leading ecological and economical evaluation and analysis managing the enterprise and GIS data using GIS technology [1] (table 1).

Table 1 - Functional possibility of the IT for Environmental assessment of the effectiveness of the enterprise
<table>
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<tr>
<th>Type of the IT</th>
<th>Newest specimens of program product</th>
<th>Program product possibilities</th>
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<tbody>
<tr>
<td>Software for statistical data processing</td>
<td>BMDP, SAS, SPSS, STATGRAPHICS, RATS, MikroTSP, Minitab, STADIA, SYSTAT, ZOZAVR, EBPICTA</td>
<td>Business graphic; parametrical tests; non parametrical tests; categorical analysis; dispersive analysis; regressive analysis; time line analysis; multivariate methods.</td>
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<tr>
<td>Software of economic analysis</td>
<td>ATM Technologies, BS Integrator, IBM Informix, FinExpert, Symantec, Antaris</td>
<td>Complex system of managing the enterprise; business-attachments for financial automation the enterprise, staff management; financial and governmental program products.</td>
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<td>Software in ecological tendency</td>
<td>«Ecol-Gas», “EOL” “Tandem”,“Inventari sation”,“NEORIST”, &quot;NORMA6XML&quot;</td>
<td>Program calculation of atmosphere pollution; Calculation of gross ejections pollution substances from unorganized sources atmosphere pollution etc.</td>
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<tr>
<td>GIS technology</td>
<td>Map–Window, JUMP, QGIS, ILWIS Open–, ArcGis, GrassGIS, MapInfo, gvSIG, SAGA</td>
<td>Visualization of spatial information. 3D modeling in environmental and economic problems. Modeling of the Earth's crust, visualization of satellite data.</td>
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Choosing the statistic package for data analysis and taking the necessary calculation deepens from the problems character, size of the data, which are processed, necessary equipment and user qualification.

Most of the statistic analysis can be very effective in solving with using the program processing the electronic spreadsheet Microsoft Excel. Specter of the possible statistic functions of the latest MS Excel almost don’t give up the specialize programs of statistic data processing (more than 70 functions).

The structure of GIS unit includes: a spatial database that contains geographic information in order to construct of GIS model for sustainable
development of regions and attribute information on the construction of EP level; geovisualisation (a set of intelligent maps and other geographic information, including interactive maps, 3D scenes, summary charts and tables, a publication on the Internet web maps); geoprocessing (set of tools to get new sets of geographic data with existing data sets with analytic functions application to them). GIS data processing using GIS technology has become a common powerful tool in the state and municipal government in many countries for decision making.

But we must to admit, that the main component of ecological and economical analysis is a complex valuation of condition and effectiveness of natural using and securing of the environment in a different economical sectors and on the all levels – from the exact enterprise to the separate regions and the all country in common, including utilization the exact nature resources an ecological interindustry base. Today in Ukraine were exploit not so many program resources, which helps to process information necessary for ecological and economical analysis of economic activity. In this situation there is a necessaries for exploit a specialized program needs ecological and economical valuation and analysis of economic activity.

References: