



Institute of Informatics and Statistics (INFOSTAT)

INFOSTAT is a research and development (partially subsidised) organisation established by the Statistical Office of the Slovak Republic.

The institute was established in 1969 as a Computing Research Centre of the United Nations in the former Czechoslovakia. During period from 1976 to 1993 the institute achieved a position of a leading position in development and implementation of new information systems. After the Slovak Republic gained independence in 1993 Infostat became the research and development institute of the Statistical Office of the Slovak Republic (SOSR), what determined in a decisive manner its research programme.

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INFOSTAT's main objective is to support the development of the Statistical System of the SR and its systematic integration into the European Statistical System by solving relevant research, methodological and development task.

Some of the most important tasks performed for the Statistical Office of the SR:

- solving of conceptual and content-methodological tasks of state statistics,
- design and development of information systems and tools supporting statistical surveys, analyses and presentations of statistical data,
- applied demographic research aimed at the assessment of demographic development and processes, set up of analyses and forecasts for the public administration,
- set up of macroeconomic analyses and forecasts, mainly for the public administration,
- development of tools and systems supporting e-government solutions in the public administration,
- research and development activities in the fields of statistics and information and knowledge society development,
- education activities (training, testing, accreditation) in the fields of statistics and information technologies.

The commercial activities include:

- conceptual and methodological tasks in the fields of statistics, demography and information society development,
- design and development of information systems,
- operation of information systems and data processing,
- analyses and forecasts set up in compliance with the institute's scope of activities,
- consulting services within the institute's scope of activities,
- organisation of the professional events (conferences, seminars), education and training programmes (training, testing) and related publishing activities.

Organizational units:

- Socioeconomic Analyses and Forecasts Division
 - includes macroeconomic analyses and forecasts, socioeconomic analyses and forecasts and system of national accounts
- Information Systems and Applications Division
 - statistical information system, e.g. urban and municipal statistics and urban information system, information system of research and development potential
- Statistical Systems Division
 - analyses, projection and programming oriented on developing of multi users information systems on technological platform of open systems in the Oracle database ambient, conceptual solution of Automatic Statistical Information System of Statistical Office of the Slovak Republic
- Demographic Research Centre
 - analytical and forecast activity, methodology and Co-ordination of the demographic research in the Slovak Republic

Currently, INFOSTAT is involved in the following international projects:

- **The 7th Framework Programme (FP7):**
 - BLUE-ETS – Blue–Enterprise and Trade Statistics (2010-2013): <http://www.blue-ets.eu/>
- **Eurostat grants:**
 - ESSnet on SDMX (2009-2011):
<http://epp.eurostat.ec.europa.eu/portal/page/portal/essnet/sdmx>
 - Compilation of Slovak Labour Accounts data according to NACE Rev. 2 (2010-2011)
 - National Accounts Indicators according to NACE Rev. 2 (2011-2012)

The Macroeconomic analyses and forecasts division:**Main scope of activities:**➤ **Macroeconomic modelling of the Slovak economy**

Macro-economic modelling is focused on the generation, updating and improving of modelling tools appropriate for the achievement of objectified and internationally comparable information on the expected development of the Slovak economy at macro-level; the modelling tools consist of partial and complex econometric models of the Slovak economy based on the modern methods of economic time series modelling, including the so-called Error Correction Models (ECM), ARIMA models or new developed tool – Genetic Programming GP Coeus 1.0 for data mining and regression.

➤ **Forecasts of macroeconomic development of the Slovak economy**

Preparation of prognostic information on the expected development of basic macro-economic indicators of the Slovak economy in short-term, medium-term and long-term horizon with the support of modelling mechanism; Compilation of flash estimates of the development of selected macro-economic indicators of the Slovak economy (GDP and its components, employment) based on data from both, the quantitative and business tendency surveys, by using the mathematical and statistical methods.

- **Analyses and compilations of time series of macro-economic and branch indicators by using mathematical and statistical methods and models**
- **Construction of composite leading indicator – turning point analysis**
e.g. the [CIRET conference 2010](#)
- **Defining and calculation of quality indicators for sampling surveys**
- [Members of the Macroeconomic Forecasting Committee](#)
- [Members of the Tax Revenue Forecasts Committee](#)

Publications and conference participations:

http://www.infostat.sk/new_web/en/index.php?option=com_content&task=view&id=56&Itemid=59

International cooperation:

LINK project forecasts (for Slovakia):

http://projects.chass.utoronto.ca/link/meeting/ctryrep/Slovak_201010.pdf

Eastern Europe Consensus Forecast

Special attention deserves the forthcoming presentations of INFOSTAT in Brussels at the NTTS conference:

<http://www.ntts2011.eu/>

Dusan Prazenka, Peter Bosko, Infostat – Combining technical standards for statistical business processes from end-to-end

Miroslav Klucik – Introducing New Tool for Official Statistics: Genetic Programming

Jana Juriova – Use of Neural Networks for Data Mining in Official Statistics (poster)

Miroslav Hudec – Exploration of applying fuzzy logic for official statistics (poster)