



Világ- és Regionális Gazdaságtan Intézet



**University of Miskolc
Faculty of Economics
Institute of World and Regional Economics**

on-line: <http://gtk.uni-miskolc.hu/iwre>

Contents

| | |
|--|----|
| 1. Mission of the Institute | 3 |
| 2. Research Profile | 4 |
| 2.1 Empirical examination of regional development and economic growth..... | 4 |
| 2.2 Examination of the impact of processes in the world economy on transitory economies..... | 6 |
| 2.3 Local economy development and its impact on environmental sustainability | 7 |
| 3. Academic Activities..... | 10 |
| 4. Consultancy Profile, References | 11 |
| 5. Library, Publications | 12 |

1. Mission of the Institute

The organisational units within the Institute of World and Regional Economics (Department of World Economics, Department of Regional Economics, Department of Urban and Regional Development and External Department of Economic Relations) hold the following as their mission:

- creating an organic relation between research, academic activities and consultancy as part of their profile;
- undertaking an active role in the society and economy;
- developing the professional competences of our students, preparing them for an existence as intellectuals;
- active involvement in the social and economic convergence of the region of Northern Hungary.



2. Research Profile

In recent years economics has been paying perhaps even greater attention than before to the relations between world and regional economic processes and to the potential conditions of convergence. This is no coincidence: theoretical experts and practitioners are faced with a number of issues that have remained unsolved for decades, such as:

- > The hopes that predicted the rapid convergence of regions in peripheral positions have not been borne out in practice; by contrast, an acceleration of polarisation can be seen in the world.
- > The per capita difference in GDP between the best performing statistical region of the EU (inner London) and the weakest region (Southern-Central Bulgaria) is more than tenfold.
- > Unequal regional development can be detected and shown in all the countries of the world (irrespective of the level of development).

Meeting this challenge, the research activities in the Institute of World and Regional Economics have focused on the following since the mid-1990s:

- > Econometric modelling of regional economic development and growth with consideration of the human and environmental potentials, developing the quantification methodology of the impacts.
- > Comparative investigation of mezo-economic competitiveness and of development paths.
- > Lifecycle examinations, relations determining shifts in regional labour market and migration movements.

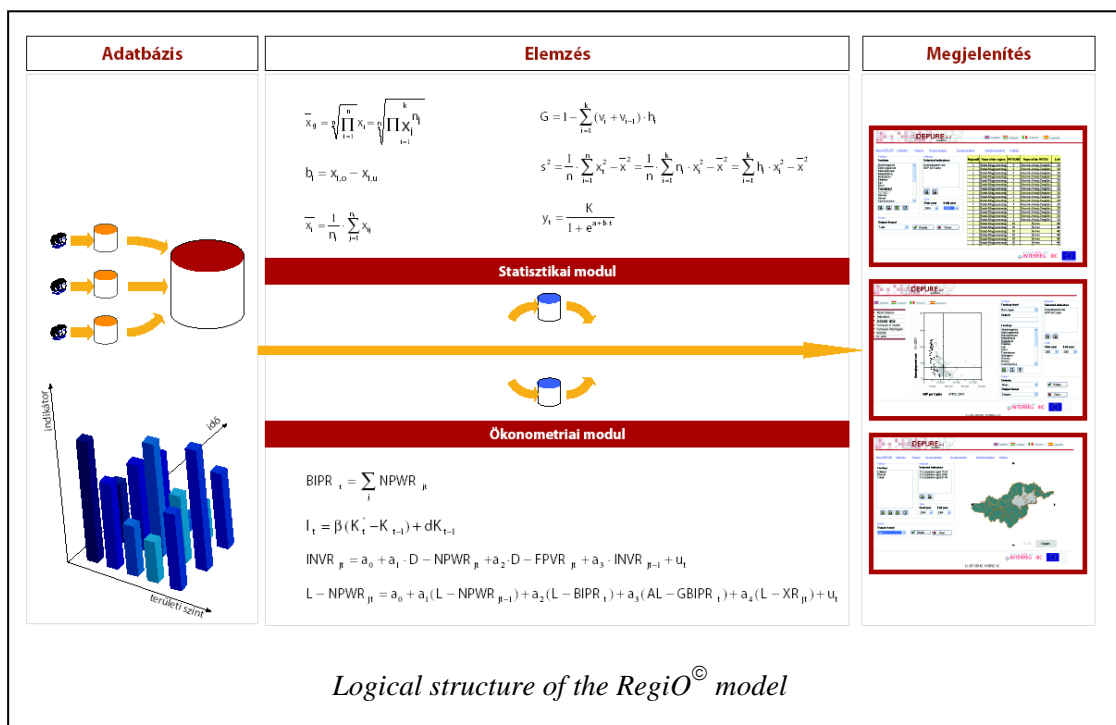
2.1 Empirical examination of regional economic development and growth

The examination of economic growth is one of the recurrent topics of economics, which undergoes a cyclical Renaissance. Within this, the re-thinking of the relations in regional growth is justified both by theoretical and by economic and social policy reasons. The RegiO[®] and InnoMonitoring[®] models developed by the Institute in the framework of INTERREG IIIC (international consortium cooperation) are designed to analyse the regional level social and economic processes, to explore their causal relations, to prepare and visualise forecasts.

They enable the experts in local governments, the officials of governing authorities, the actors in the civil sphere as well as investors to measure the impacts of actions, to show and monitor the expected results of the interventions planned, to examine the regional economic development policies and to analyse the efficiency of subsidy mechanisms.

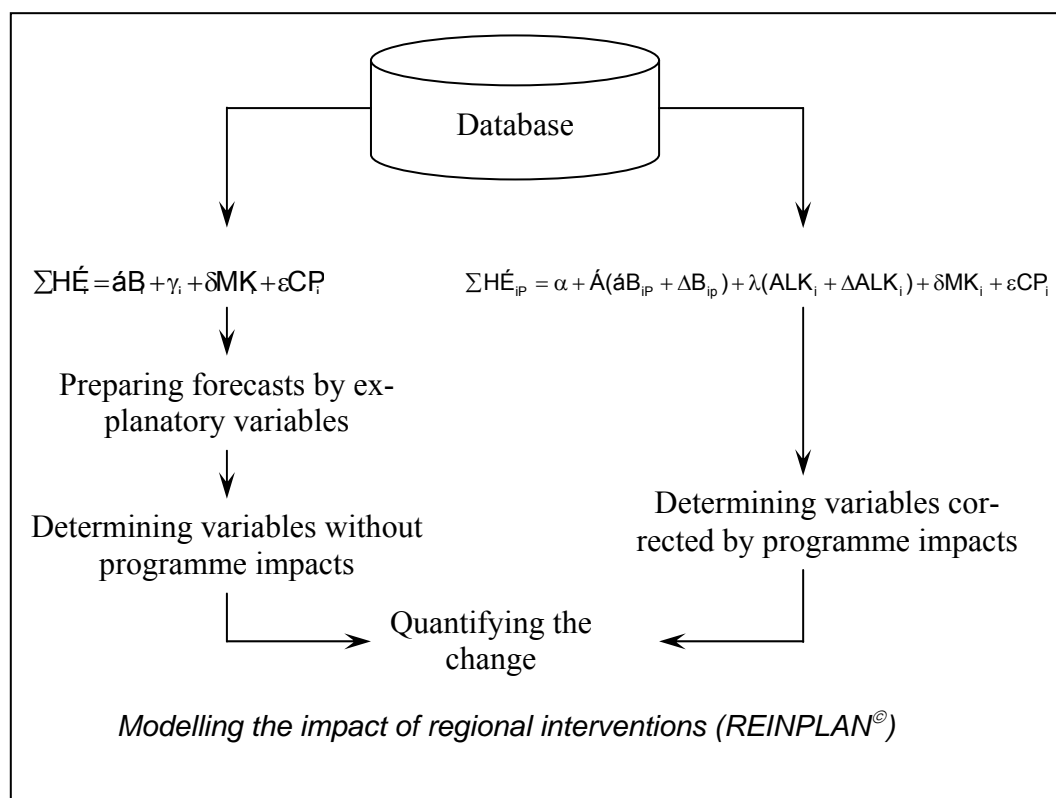
The model is basically made up of three parts: a database, and the database manager and arithmetic sub-system for ex-post and ex-ante analyses, as well as the search and visualisation sub-systems.

The data in the database (currently close to 1.2 million) arranged by five indicator groups (social, economic, R+D, infrastructure and environmental) facilitate searching by settlement series, small region, county and regional level for the period 1995-2008. In the forecast module trends and econometric models can be used to make forecasts for periods of 3-5 years.



The Institute regards it as its task of priority importance to process and analyse the economic and social changes of our region proper in the 20th century with scientific standard. Beyond the 'obvious vicinity', the significance of the examinations is also justified by the fact that it is hardly possible to understand the crisis situation that has arisen in the region without a knowledge of the previous events or to seek a solution. On the other hand (as shown by international experience as well), the crisis management of what are called regions of heavy industry is a prolonged, highly cost-intensive process. The management of local problems may be assisted by our comparative examinations which are targeted at the investigation of the crisis management methodologies applied in regions in similar situations in the 1960s and 1970s.

The REINPLAN model (cost-benefit model on the one hand, and econometric model on the other) developed by the Institute was used to analyse the changes forecast in the region of Northern Hungary for the period 2007-2013.



2.2 Examination of the impacts of processes in the world economy on transitory economies

Processes in the world economy (e.g. transnationalisation, globalisation, etc.) are of deterministic importance also in the 21st century. The free movement of capital and labour may lead to an efficient allocation of resources, and the changes and development of the actors in the world economy are of outstanding significance also concerning the future of the Hungarian economy.

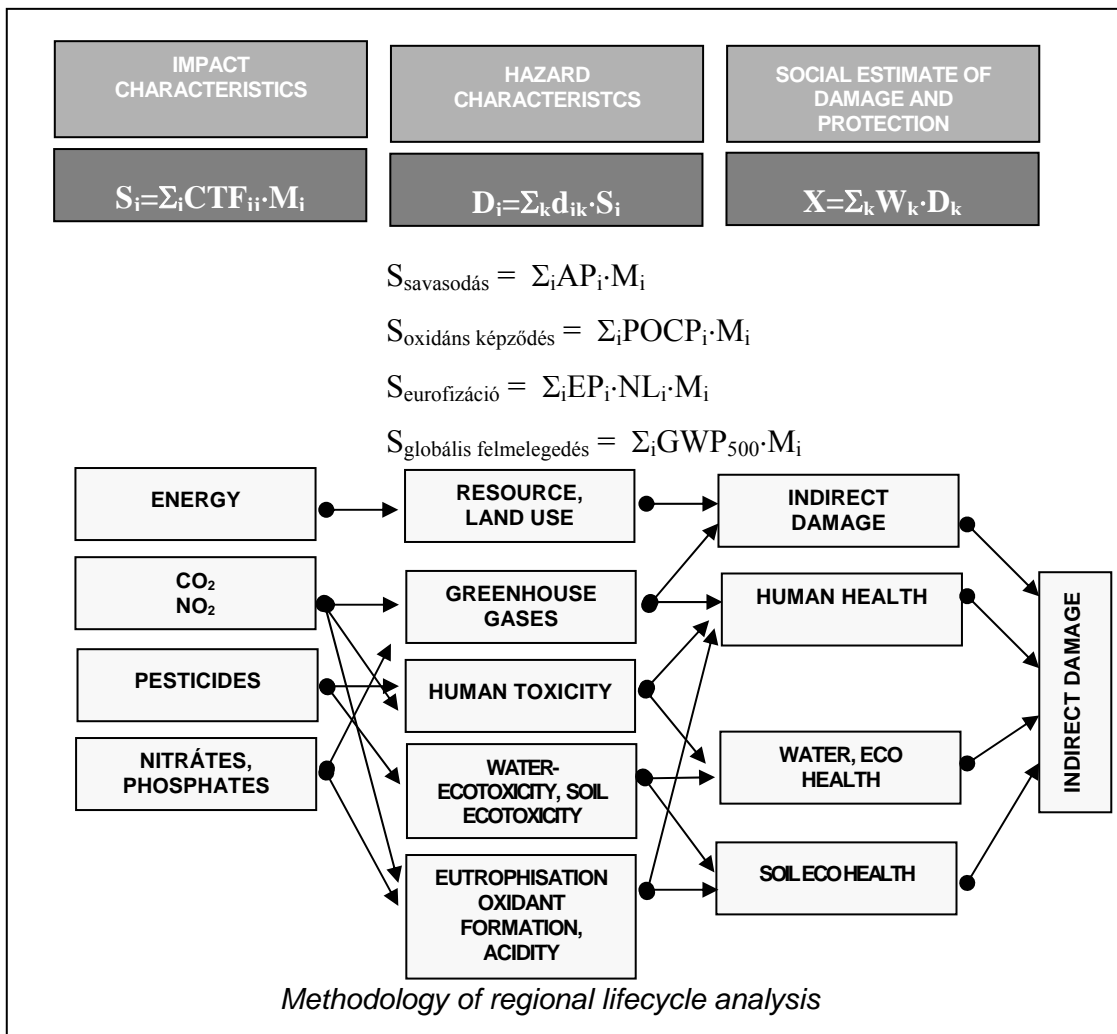
There have been fundamental changes in the international monetary and capital markets lately, the countries in the region of Eastern-Central Europe, including Hungary, have been involved not only as importers of working capital but also as investors in the process of the global flow of working capital. Regional companies generally invest within the region and often show characteristics typical of global companies. The outflow of working capital may be increasingly important in the future, thus creating opportunities for the further development of the companies and increasing the country's revenues by repatriating the returns of capital invested abroad.

The research topics of the Institute include: a comparative analysis of world economic regions and action centres; analysis of the changes in Hungary's position and of the economic relations of the country, presenting the performance of the regions of Hungary in a European comparison, demonstrating the impacts of globalisation on the Hungarian economy, and an examination of the opportunities for Hungarian regional-multinational companies and of the characteristics of the flow of working capital in the region. The group of the Visegrád Four in the category of transitory economies can be easily delineated due to their geographical vicinity and common historical past.

One of the foundations of the research of the Institute is the examination of the economic-social processes of the past two decades in the transitory economies. In addition, the following topics are present: measuring competitiveness in the changed system of conditions, positioning transitory economies and the countries of Eastern-Central Europe (their regions and towns) in the European economic area, examining the impact of various factors (human, economic, environmental) on competitiveness, of the roles of infrastructure and transport development in economic development as well as analysing and modelling regional development paths by means of comparative examinations of a longer time horizon.

2.3 Local economy development and its impact on environmental sustainability

Lifecycle examinations play a definitive role in examining the relations between the environment and the economy and in measuring sustainable development. The aim of the research is to gain a better understanding of the impact of the development of individual areas on the environment and society and to map the external impacts to be expected in the future better. The research was aimed at the examination of individual sectors, including a production process or at a particular region.



The research of the Institute has shown that problem management in the lifecycle approach is important not only for determining environmental effects, environmental performance and safety of foods, but also allows eco-efficiency measurements. And with a further improvement of IO-LCA, when the dynamic movements of material and energy flows are connected with economic data, LCA will make it possible to judge economic performance in a novel, more complex econometric way projected to various levels.

Our research 'The Development and Expected Impact of Biotechnology' has shown that it may be of definitive significance for the development and competitiveness of the economy, particularly if the achievements in biotechnology and the potential hazards are presented in an appropriate manner.

One of the conditions for the dissemination of lifecycle analyses is the establishment of a database showing the Hungarian characteristics. The research aimed at establishing the on-line LCA database was a significant step in implementing lifecycle analysis in practice. The database can be utilised if it is connected with academic and training activities, with methodology exchange of experience, the involvement of small and medium-sized enterprises, and with the further extension of the Hungarian and Central European LCA network and database. In this field, a significant advance was presented by organising the Hungarian lifecycle conferences and the HUPLEE LCA seminar, by creating LCA web-site, the increase in student project work, and teaching lifecycle analysis (GVOP, HUPLEE Mecenatúra project, ROP).

The objective assessment and impact analysis of the results of development is modelled by cost-benefit analysis in addition to lifecycle analysis. The research was connected to an examination of the environmental impact of technology development in the food industry and complex analyses were prepared for food industry waste disposal and recycling, for the assessment of the environmental performance of new products and processes (lifecycle impact analysis of biodegradable packaging materials, and comparative lifecycle impact analyses with polystyrene and polyethylene, apple marc and sewage sludge utilisation). Lifecycle assessment (LCA) was used in determining the development opportunities, the directions of environmentally conscious development, while the effectiveness calculations supported the economic aspects of viability. Starting from the concept of factor 20 eco-efficiency, creative visions of the future were born for 2050 in the SusHouse project – using the improvement techniques of the scenario method -, in which households will represent much lower loads on the environment than currently (SusHouse project, OTKA T 043139). Even if the target of factor 20 has not been achieved, a 50 % saving can be achieved in fossil resources. In the models of future households the use of services is expected to increase, while traditional household models will be increasingly superseded and eating habits will be transformed.

Priority Projects of the Institute:

- > TÁMOP- 4.1.2-08/1/A Course material development and content development „Sustainable development and management”, „World economic action centres (2010-2012).
- > TÁMOP-4.2.1.B - 10/2/KONV - 2010 - 0001 "Improvement of the quality of higher education based on the development of excellence centres in the strategic research fields of the University of Miskolc" Geo information economic aspects (2011-2013).
- > TÁMOP 4.2.1-08/1-2008-0006 "Formation of technology transfer consulting service based on multimedia distance education system for SMEs" (2010-2012).
- > Silhouette - INTERREG IV C (2011-2013).
- > SEMIGRA - ESPON (2010-2012).
- > Egeszseg – Establishing a Health Tourism Research Centre, Developing Innovative Health Tourism Products (2009-2010).
- > INNOMONITOR – Regional Innovation Monitoring and Forecast System (2009-2010).
- > Auswirkungen/Chancen der EU-Zugehörigkeit auf die gesellschaftlich-wirtschaftlichen sowie ökologischen Verhältnisse in alten Montanregionen Ungarns und Österreich. Stiftung Aktion Österreich – Ungarn (2007).
- > Jean Monnet Centre of Excellence – EU (2007).
- > Carpathian Project – INTERREG III. B. CADSES (2006-2007).
- > DEPURE-INTERREG III.C. (2005-2007)
- > ROP 3.3.1-2005-02-0014/31 'Students for the Region, the Region for the Students' (2005-2007).
- > ROP-3.3.1/1-2005-12/0006/31. „Easier in network!" (2006-2008).
- > Jean Monnet Chair – EU (2003-2006).
- > Jean Monnet Permanent Course – EU (2001-2003; 2004-2006).
- > Contribution to the development of Csíki Basin (2000).
- > Regional Assessment and Development Strategy for the Csík Basin, Rumania, Soros Foundation R SSI. (1998).
- > Regional Assesment and Development Strategy for the Csík Basin, Rumania. Soros R SSI. Külföldi partner: WAC-Center for Regional and Antropological Research, Rumania (1997).

3. Academic Activities

The Institute is professionally responsible for

- the 7-semester Bachelor programme in International Economics (BSc),
- the 4-semester Master programme in Regional and Environmental Economics (MSc),
- the postgraduate specialist programme in Regional and Urban Development Management (3 semesters),
- the postgraduate specialist programme in European Studies (3 semesters).

Courses offered:

- Economic Geography
- Regional Economic Geography
- Tourism Geography
- Integration Economics
- World Economics
- History of the EU Integration and Institutions
- EU Monetary and Capital Markets
- EU Policies
- Export Policy
- Regional Economics
- Regional Policy
- Environmental Economics
- Regional and Urban Policy
- Regional Economic Development
- Labour Market Economics
- International Finance
- International Economic Organisations
- International Comparative Economics
- International and Regional Economic Relation
- SAP Business Administration



4. Consultancy Profile, References

On the basis of the system of values, professional proficiency and knowledge as well as experience of our staff, our competence centre undertakes to solve the following problems and tasks:

- Elaborating, managing and monitoring regional and settlement development as well as economic development plans.
- Elaborating, managing and monitoring regional innovation increasing plans and projects.
- Lifecycle analysis of products (LCA).
- Examining the social and economic impacts of regional economic development projects.

References:

- AQUAPROFIT Zrt.
- Békés Megyei Önkormányzat (Local Government of the County Békés)
- Békési Többcélú Kistérségi Társulás (Multi-Purpose Small Region Association of Békés)
- Borsod-Abaúj-Zemplén Megye Önkormányzata (Local Government of the County Borsod-Abaúj-Zemplén)
- Borsodi Kereskedelmi és Iparkamara (Chamber of Commerce and Industry of Borsod)
- Miskolc MJ. Város Önkormányzata (Municipality of Miskolc)
- Nemzeti Kutatási és Technológiai Hivatal (National Research and Technology Office)
- Nemzeti Örökségvédelmi Hivatal (National Heritage Protection Office)
- NORDA Észak-Magyarországi Regionális Fejlesztési Ügynökség Közhasznú Nonprofit Kft. (NORDA North Hungarian Regional Development Agency Non-Profit Co.)
- NORRIA Észak-Magyarországi Regionális Innovációs Ügynökség Nonprofit Közhasznú Kft. (NORRIA North Hungarian Regional Innovation Agency Non-Profit Co.)
- Terület- és Településfejlesztők Magyarországi Egyesülete (The Hungarian Association for Regional and Urban Development)

5. Library, Publications

The library of our Institute supports on the one hand research in our profile and our academic activities with its stock of nearly three thousand Hungarian and foreign language books, textbooks, periodicals and CD-ROMs, and on-line Internet database subscriptions (EUROSTAT, etc.).

On the other hand, it is a specialist repository of

- demographic and economic statistics and
- development documents

describing the changes in the region of Northern Hungary in the past 150 years.

In addition, our library collects statistical publications and

- economic and regional development documents of the countries of the Carpathian Basin.

Our Institute publishes the periodical *Észak-magyarországi Stratégiai Füzetek* (North Hungarian Strategic Journals) (www.strategiaifuzetek.hu) twice annually.

