

The Role of Human Resources in the European Union's Growth Strategy from the Perspective of Hungarian Regional Inequalities¹

ÁGNES HEGYI-KÉRI

PH.D. STUDENT

e-mail: hkagi@uni-miskolc.hu

SUMMARY

The European Commission introduced the Europe 2020 growth strategy in order to recover from the crisis and prepare the European economy for the next decade. The employment crisis of the North Hungarian region accelerated after a decline in the economic growth in 2008. In this situation, the region is to adopt the national goals and take the responsibility that are needed to materialize the Europe 2020 strategy. Furthermore, innovation efficiency connected to human resources and its conditions regarding the defined aims on the level of national values are to be analysed. Emphasising those priorities that are to be accepted on the national level can advance the region's economic growth. One of the possibilities to place the brownfielded areas of the North Hungarian region on a new developing track is forming an institutional system based on centralised innovation and improving the backgrounds of human resources and setting forth long-term financing.

Key words: human resource potential, sustainable development, innovation, Europe 2020 strategy

Journal of Economic Literature (JEL) code: J48 R58

THE EUROPE 2020 STRATEGY AND HUNGARIAN RESPONSIBILITIES

The Europe 2020 is the EU's growth strategy for the coming decade. The Commission pointed out three key areas that increase economic growth: (1) knowledge, innovation, education and "intelligent development" focusing on digital society (2) a more efficient utilization of resources and "sustainable growth" increasing competitiveness and on the top of that (3) the area of "inclusive growth" intensifying participation in the labour market acquiring competences and helping in the fight against poverty.

The Hungarian government in order to reach the highlighted goals of the Europe 2020 Strategy, proposed a national program to perform the following figures until 2020:

- the R&D expenditure is to increase to 1.8% of the gross national products;Ł

- the rate of employment among the workforce aged 20-64 is to increase to 75%;
- The rate of those with a diploma among the 30-34 year-old population is to increase to 30.3%; the rate of those not involved in education, trainings with maximum vocational certificates is to decrease to 10% among the 18-24 year-old population;
- the rate of the population living in poverty or social exclusion is to decrease by 5%;
- The proportion of renewable energy in terms of energy consumption is to increase to 14.6 %, the whole energy saving pledge is 10%, the emission of greenhouse gases outside the European Union's emission-trade system is to increase with maximum 10% compared to the level of the year 2005.

These goals can only be accomplished if the Hungarian government takes into consideration the development of the conditions of regional innovation. (Varga 2005).

¹ My research was support by „Közösen a Jövő Munkahelyeiért Alapítvány” (“Together for Future Workplaces Foundation”)

Taking into consideration the regional specialities and the economic, social condition of the regions, and also the size and situations of them, a better innovation performance may only be achieved through revitalisation strategies. The factors that hinder the expansion of innovation in the country have to be analysed, for instance the dominance of Central Hungary. Many characteristics of the North Hungarian region's innovation situation is to be analysed in the view of employment policy and migration processes in order to have a more complete view of the priorities of the tasks ahead.

*Table 1.
The priorities of the Europe 2020 strategy*

Intelligent Growth	“Innovative Union” – developing the conditions of R&D
	“Youth in Action” – Enhancing the accomplishment of education
	“European Digital Society” – the development of Internet access
Sustainable Growth	“Resource Efficient Europe” - Energy efficiency, Environment friendly industry
	“Industrial Policy in the Age of Globalisation” – developing the circumstances of business, strengthening industrial basis
Inclusive Growth	“New Competences and the Platform of Workplaces” Modernisation of the labour market, Life-Long Learning
	“European Platform Against Poverty” – Ensuring cohesion regarding society and regions

Source: The Official Statement of the European Commission, 2010

RESEARCH AND DEVELOPMENT FUNDS IN THE NORTH HUNGARAN REGION

The Europe 2020 strategy's first aim is to increase the funds in the field of R&D. The government intends to spend 1.8% of the GDP on R&D in the future at national level. In the case of the North Hungarian region 8 billion Ft is needed at current prices to achieve the minimum expenditure of 1%. Despite low financial resources North Hungarian companies seem to be committed to increase innovation and revenues.

In 2006, according to product innovation (these data were provided by the Central Statistics Office although the latest ones were asked) in the North Hungarian region the ratio of those companies that did not introduce product innovation was only 72% which exceeds the national average. In this way, this region shows the third highest innovation activity. At the same time, the number of patent applications was very low in the region. We may come to the conclusion that this region in the field of innovation imitates those products having new contents.

We may conclude that economic growth in the region realises in parallel with the increasing of differences. The expenses of R&D allocations contribute to these factors.

Table 2. Regional distribution of R&D activity (2009)

	Central Hungary	Northern Great Plain	Southern Great Plain	Central Transdanubia	Western Transdanubia	Northern Hungary	Southern Transdanubia
GDP	48,14%	9,34%	8,87%	9,9%	9,68%	7,55%	6,53%
Funds of R&D activities (%)	65,4%	10%	7,7%	5,6%	4,7%	4,1%	2,53%
People employed in R&D activity (%)	57,2%	9,5%	6,3%	5,2%	5,9%	5,2%	10,7%
R&D facilities (%)	47,58%	11,21%	12,35%	6,49%	7,9%	7,21%	7,25%

Source: Central Statistic Agency, private counting

The North Hungarian Regional Innovation Strategy² features an aim focusing on the creation of developmental poles in regions. As it was recognised previously, the lack of spatial distance has a huge impact on the expansion of hidden knowledge or the rapid flow of information. Trust is vital for innovation-oriented cooperation, or the appearance of “common grounds” concerning communication which can be supported by frequent interactions and spatial propinquity (Varga 2006). The dominance of the Central Hungarian region is clearly visible: the North Hungarian region only gets 4.1% of the R&D funds (the national average is 11.16%).

These values are under the GDP rates and one of the lowest among the the regions. The regional balance was not achieved during the innovation activities between 2006-2010 by the support of “ÚMFT GOP 1.” The Northern and Southern Lowlands were most supported since about 50% of the R&D funds of the regions were spent there. On the other hand, viewing the priority of “GOP 1.” the North Hungarian region performed better which meant 14%. This time it was the Western Transdanubian region that lost the most. After the financial resources, the roles of the innovative companies are to be highlighted. Two basic conditions are essential

² North Hungarian Regional Innovational Strategy, 2008, p. 67.

for the realisation of a system of an innovative company. First of all, the business sector should be full of vitality, able to develop and compete, and secondly a well-qualified population is needed. Not only an increase in the number of researchers can enhance the intensity of interactions, but also the mushrooming innovative companies and business services (even if the R&D factors are static) can boost the production of new and useful knowledge influencing the nation's economy. In order to improve the North Hungarian innovation

performance rearranging the European Union's financial resources for economy development purposes can be vital. Namely for the "high-tech" or innovative companies highlighting the quaternary sector. In order to use them capital is needed which is limited both at the level of the state and at the enterprises. The settlement and performance of innovative companies in a region is influenced by the structure and quantity of the labour force. When companies choose their premises or plants labour force has a leading role (Horváth 2010).

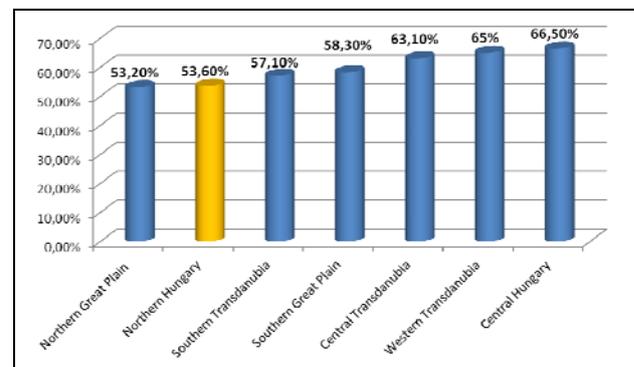
Table 3. GDP, funds of R&D activities and the awarded "GOP 1." supports

	Northern Great Plain	Southern Great Plain	Central Trans-danubia	Western Trans-danubia	Northern Hungary	Southern Trans-danubia
GDP	18,1%	17,10%	19,8%	18,66%	14,56%	12,58%
Funds of R&D activities (%)	27,39%	21,24%	15,4%	13,07%	11,16%	6,78%
Awarded rate of support "GOP 1."	24%	23%	20%	9%	14%	10%

Source: National Development Agency, private counting

The second axis of the goals set by the government is to increase the rate of employment along with the rate of people possessing a diploma. The new Széchenyi plan focuses on the dynamic expansion of employment nationwide. In terms of numbers this program of economic and social development plans to achieve one million new tax paying workplaces in the next ten years in Hungary. The government in the new Széchenyi plan does not make territorial demarcations. According to the government's plan to create new workplaces nationwide the regions have to adapt to the plan and increase the rate of employment by 22% regionally, in order to achieve the national goal.

According to the statistical data the 75% employment rate would mean 609 thousand employees according to the study of Hungarian Central Statistical Office (HCSO), 686 thousand according to the Public Employment Service. Today the data is the following: 435 thousand (HCSO), 392 thousand (PES) employees. The data according to PES show an even lower employment rate. According to the most optimistic theories the number of employees should be increased by 150 thousand, this is slightly lower than the number of inhabitants of Miskolc. In my opinion in regard to the new Széchenyi Plan the intention needs to be declared, that during the establishment of new workplaces the disadvantaged regions need to be in the forefront. The government can send a message this way that it does not support migration and mobility trends, that it is important to keep the local knowledge in its own place, and to strengthen the circular migration which is the basis of a region's economic and social competitiveness.

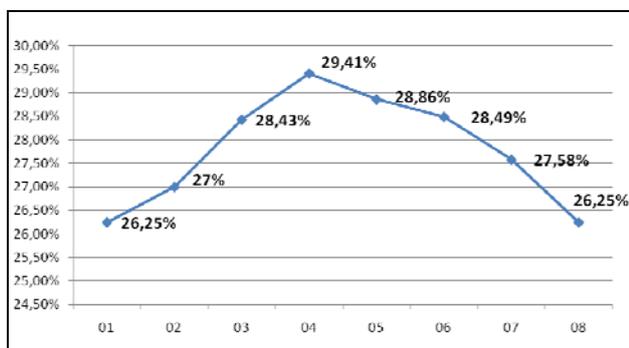


Source: National Statistic Office

Figure 1. Regional employment rates in the group of 20-64 in 2009

For the long term developments it would be important to see the minimum number of workplaces created in each region. Priority should be given to creating jobs in the primary labour market sector. This is important because of the quality of the workforce, and also because of the presence of the consumers who are open and have demands towards the companies. At the same time the increasing social acceptance of the innovation has a great impact on the members of the business sector. That is why education and openness becomes significant in terms of workforce demands. To increase the innovation activity of the corporate sector it is needed to have an adequate labour supply. In addition to these, a further element of the regional innovation programs is the local university. In order to increase the quantity of available knowledge a significant increase in research funding would be necessary for the science and engineering departments of the universities. (Varga 2006)

The Hungarian government made a commitment in accordance with the plans mentioned above, that till 2020 people with higher education degrees would reach a rate of 30.3% among the 30-34 year-olds. While the ration of those who do not take part in higher education or training programs, or have only the minimum education level among the 18-24 year-olds would decrease to 10% . In the first study I chose the data of the Central Statistical Office to calculate the ratio, I compared the number of students in higher education to the age group. It shows that since 2004 the number of students participating in higher education compared to their age group is decreasing. Among the positive things we must mention is that Hungary's scientific and engineering performance is in a good position in international comparison. It shows better conditions than the country's economic development would suggest (Török 2002). Northern Hungary also has a high quality engineering training. After the government change in the 90s and after Hungary has joined the EU the individuals were able to make their own choices. This also created the possibility and provided the legal background for employees to work abroad especially for those with a university degree and in possession of some language skills. In the following chart I examined the number and ratio of people taking part in higher education in the region, based on the statistics.



Source: National Statistic Office, own edition

Figure 2. Rate of the students in the group of the 30-34 (%)

In 2008 in the North Hungarian region for every 1000 inhabitants there were 12 students, which is the second lowest ratio. In the Central Transdanubian region the ratio is 10.2. In the Northern Great Plains there are 20 students

per 1000 inhabitants, while in the Central Hungarian region the ratio is 36.8. The number of people (age-group 19-24) in higher education decreased by 4% on country-level and with 4.7% in North Hungary between 2005 and 2008. In the region of North Hungary the proportion of those who have university or college degrees in 2005 (10.8%) hardly exceeded the country's average showed by the data collected during the census in 1990 (10.1%).

Table 4. The number of the students per to 1000 inhabitants, 2009

Region	The number of the students per 1000 inhabitants
Central Hungary	36,8
Southern Transdanubia	20,8
Northern Great Plain	20
Southern Great Plain	18,2
Western Transdanubia	16,8
Northern Hungary	12
Central Transdanubia	10,2

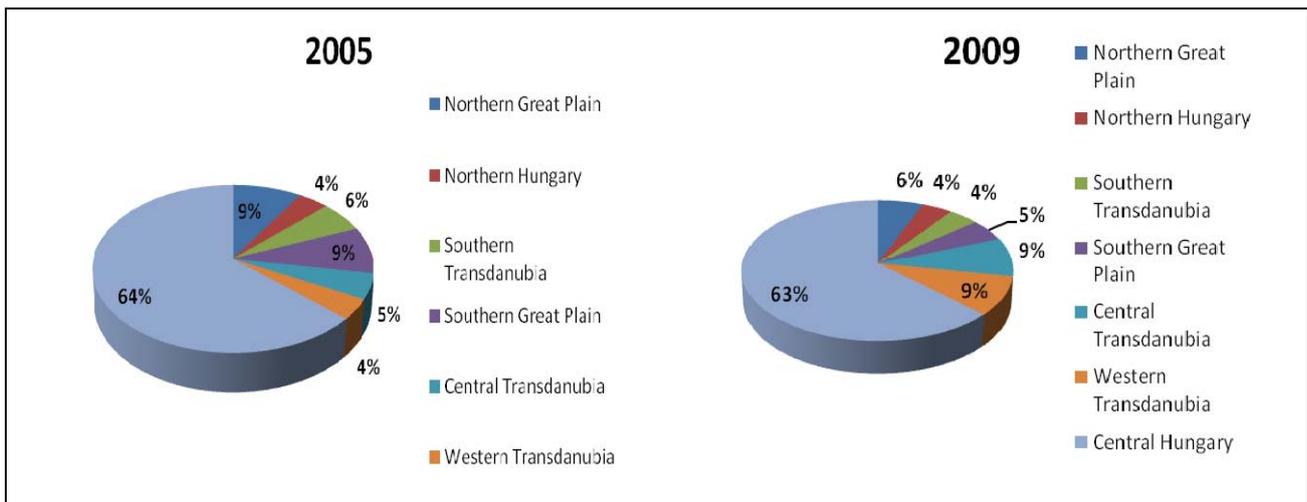
Source: Hungarian National Statistics Office

The census in 2001 and also the micro-census in 2005 showed that the number of people who had diploma was the lowest in North Hungary (KSH, 2010).³ The adverse situation of North Hungary was also confirmed by the data on education of the micro-census in 2005. The number of the population aged 15-29 was above 264000; nearly four tenth of them graduated from secondary school, and 8% had university or college diploma. Numbers are better nationwide: 45.3% and 10% (KSH, 2010).⁴ The structure of the labour market does not help the process of innovation: the number of qualified people is very low in the labour supply.

Then I studied the proportion of employees in the region working in research. In 2009 62.9% of the researchers in the country worked in the region of Central Hungary, this number decreased in 2007 to 59.4%. In the region of North Hungary the number of researchers increased with 400 members from 2005 to 2009 (KSH, 2005, 2009) which is the same as the national average. This means that in 2009 1327 full-time researchers worked in the region, which was the second lowest number in the country (after the region of South Transdanubia). The rate rose only in two regions: in Northern Great Plain and in the region of Central Transdanubia.

³ KSH: Higher Education in North Hungary, 2010

⁴ KSH: The Situation of the Youth in North Hungary, 2010



Source: Hungarian National Statistic Office

Figure 3. Regional distribution of the full-time employed researchers in 2005 and 2009

It is not easy to establish new, useful workplaces, when there is no background of researchers, who could take part in the innovation directly, or when there are no innovative and creative professionals who are highly qualified and able to develop their knowledge. We cannot imagine progress in employment without decreasing the tendency of migration,⁵ (in 2008 9000 was the number of emigrants). The expansion in the primary sector of labour market is also a goal, together with the facilitation of re-migration and circular migration.⁶ It could be one element to call young employees back to the region, whose job experience and language skills would be useful for international companies. It is important to make a strategy about labour market, which is based on attraction and protection as well – which means decreasing emigration and also controlling the number of the unemployed who move to the region (Dabasi 2009). Using the strategy of protection is also important, because the migration tendencies of the Hungarian researchers' know-how depend on innovative strategies and also the phenomenon called technology transfer. (Buzás-Molnár, 2003). The number of creative intellectuals can effect and help the appearance of foreign capital in the R&D sector of the region. It would be very important to emphasise re-migration, also because the last census showed that the number of those who speak foreign languages is low in North Hungary, around 12%, while 18% of the age-group between 15-39 spoke a language besides their mother tongue, most of them English (these numbers in the whole country are around 19% and 30%).

SUMMARY

It is essential to increase funding of regional innovations in order to achieve economic growth in North Hungary. To have better innovation results it is necessary to expand the human resource potential, and to apply conscious planning. Based on the human potential created by the circular migration it is easier to create a labour supply that is adaptable and creative in the region. However this process of government incentives is difficult to implement without the economic and political decisions and strategies. The decentralization of the resources is necessary, at least to the extent of the GDP, compared to which the regional R+D resources and the number of employees is lower. More than that, it shows the lowest value among the regions. The government needs to decide on the establishment and schedule of priorities of a National Action Plan. To achieve the national goals planned in the Europe 2020 strategy, the government needs to take into account the regional differences in creating new workplaces, and to distribute the innovation funds accordingly. In my opinion in relation to this the intention must be declared in the new Széchenyi plan, that in the creation of new workplaces the hindered regions should come first. On the other hand the social costs of migration impose further burdens on the state and national budget. I am hopeful and look forward to the time when the plans including the regional factors mentioned above would be included in the government decisions and incorporate it in the national strategy.

“The described work was carried out as part of the TÁMOP-4.2.1.B-10/2/KONV-2010-0001 project in the framework of the New Hungarian Development Plan. The realization of this project is supported by the European Union, co-financed by the European Social Fund.”

⁵ Besides this, it would be useful to consider the way we could help the inactive population to go back to work.

⁶ International examples show that contacting migrants and developing programs that aim to help re-migration could be successful.

REFERENCES

- BUZÁS Norbert - MOLNÁR István (2003): On the Treshold of an Innovation Act: Development of the Institutional Characteristics of Hungary's NSI (National System of Innovation) from the Change of the Political System until Today. AIPPI – International Association for the Protection of Industrial Property PROCEEDINGS of the Hungarian Group, 2003, vol. 30.
- CSONKA László (2008): Strengthening and Upgrading Regional Knowledge Capabilities in Hungary. W. L. Filho, M. Weresa (ed.) Fostering Innovation and Knowledge Transfer in European Regions, Peter Lang, Frankfurt am Main, pp. 109-138.
- DABASI HALÁSZ Zsuzsanna (2009): Winners and Losers! Inertantional migarton stategy's tendencia in Borsod-Abaúj-Zemplén county. PhD Study
- Europe 2020: A European strategy for smart, sustainable and inclusive. Source: http://ec.europa.eu/eu2020/pdf/1_HU_ACT_part1_v1.pdf letöltve: 2011.05.02.
- GALASI Péter – VARGA Júlia (2005): Labor Market and Education, MTA Institute of Economics, Budapest, 2005. 149 p.
- KOCZICZKY György (2004): The measurement of the innovation peotential of the Northern Hungarian region, In.: Northern Hungarian Stargetical Studies I.year, number 1. 5-40 p.
- National Statistic Office Publication (2010): The situation of the younger generation in Nothern Hungary, Budapest, National Statistic Office
- National Statistic Office Publication (2010): Higher Education in Nothern Hungary, Budapest, National Statistic Office
- National Statistic Office Publication: Research and Develpomnet, 2007, 2008, 2009, Budapest, National Statistic Office
- LIPPÉNYI Tivadar – IMRE József – PEREDY Zoltán (2006): R & D and innovation hubs of the knowledge-based society and economy in Hungary, Information Society (3/2006) 40-53. p.
- LUKOVICS Miklós (2005): Innovation capacity as a regional basic of econmic development. JATEPress, Szeged, 74-86. p.
- TÖRÖK Ádám (1996): The diffuse system of Rand D in Hungary, in.: Külgazdaság, number 5. 63–72. p.
- VARGA, Attila (2000) Local academic knowledge transfers and the concentration of economic activity. Journal of Regional Science 40, 289-309. p.