
SELECTED ASPECTS
OF MODERNIZATION PROCESSES
IN "YOUNGER EUROPE"

PAST AND PRESENT

EDITORS

PAWEŁ GRATA
JAROSŁAW KINAL

WYDAWNICTWO
UNIWERSYTETU RZESZOWSKIEGO

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Editors: Paweł Grata, Jarosław Kinal



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From Editors

Over the past century, the countries of Central and Eastern Europe have undergone significant modernization processes. Over several decades, tremendous progress has been made in industry, technology, infrastructure and agriculture, which in turn has contributed to increased prosperity in these regions. Despite these successes, the modernization process is not homogeneous and has many different definitions.

Basically, modernization means the pursuit of change, the transition from traditional and archaic forms of life to more modern and efficient ones, in order to achieve higher levels of social, economic and political development. However, the way modernization has taken place in various Central and Eastern European countries has varied depending on the culture, history and political conditions of each country.

Poland, Romania, Hungary, the Czech Republic and Slovakia are countries with different histories and cultures, and the modernization processes in these countries had their own specific characteristics. For example, Poland, as a country that was subject to partition and communist rule, had to face problems related to the discontinuity of development and economic policies introduced by communist governments. In Romania, as in Poland, modernization was delayed by decades of communist and socialist rule. Hungary, on the other hand, was in a difficult situation after the Soviet period, but quickly recovered and became one of the fastest growing countries in the region. The Czech Republic and Slovakia, which were part of Czechoslovakia until 1993, had their own specific challenges related to the separation of the country and the creation of two independent states.

Common to all these countries was the need for economic history research. This research helps to understand the modernization processes that took place in the past, as well as to identify the factors that contributed to their success or failure. Through this research, lessons can be learned and applied to improve modernization processes in the future.

Modern modernization research also focuses on social and cultural issues, such as changes in social structure, the development of mass culture or urbanization processes. In the context of "Younger Europe," attention can be paid to the specific challenges faced by these countries in the modernization process, such as catching up with economic development, fighting corruption, building democracy, and preserving cultural and linguistic identity in the age of globalization.

In the case of Poland, modernization processes date back to the time of partition, when the country lost its independence and became subject to partition by neighboring powers. In the interwar period, Poland experienced dynamic economic development, but this was halted by the outbreak of World War II. After the war, the country came under the influence of the Soviet Union, which affected the country's economic and social development. In the 1990s, after the collapse of communism, Poland began a process of systemic transformation aimed at introducing a market economy and integrating with the European Union.

In Romania, modernization processes began in the second half of the 19th century, when the country was under Austro-Hungarian rule. In the interwar period, Romania experienced dynamic economic development, but during World War II the country was under German occupation, which negatively affected its development. In the post-war period, Romania came under the influence of the Soviet Union, which affected the country's economic and social development. After the collapse of the communist regime, Romania began the process of systemic transformation and the introduction of a market economy.

The book presents various aspects of the modernization processes in "Younger Europe," i.e. the countries of Central and Eastern Europe. The authors focused on analyzing the past, present and future of the region, citing examples from various fields, such as social history, economics, and environmental protection. In the book "Selected aspects of modernization processes

in 'Younger Europe'. Past and Present," seeks to combine these diverse perspectives and provide a comprehensive perspective on modernization processes in the Central and Eastern European region.

By analyzing various cases of modernization in Poland, Romania, Hungary, the Czech Republic and Slovakia, we were able to identify common features and challenges of this process in the region. The book begins with a text by researchers from the University of Oradea entitled The inhabitants of the Bistra Valley (Bihar County, Romania). Past, present and future. Inscribed in the current of localism, the reader can read the materials prepared by Jozef Kapošta – The rise of localism in the new rural space, Falk Flade Semiconductors in socialist Poland. The Sectoral Innovation System of the Polish semiconductor industry, 1950s-80s. Contemporary issues include texts by Tamas Toth and Peter Mate (The challenges of the LEADER program) and András Szeberényi (Study on the knowledge of renewable energies among the younger generation.) One of the goals of our research is to highlight the role of economic history in understanding contemporary challenges and opportunities in modernization processes. In this context, it is worth noting texts such as New Gross Domestic Product (GDP) Benchmark Estimate for Latvia in 1935 by Zenonas Norkus and his team from Vilnius University, or Is Central Europe doomed to imitation? Models of modernizing Poland in the process of European Union integration – opportunities and threats, by Leszek Cichobłazinski of the Częstochowa University of Technology.

The second issue existed into book focuses on the challenges facing Central and Eastern European countries in today's world.. Texts such as The role of higher education institutions in fostering economic development of Hungarian regions by Henrietta Nagy or Environmentally-conscious production – health-conscious consumption. Present and future of organic farming in Hungary by Csilla Mile draw attention to the need to take measures for sustainable development and environmental protection.

All the issues discussed in the publication are important elements in the discussion of modernization processes in Central and Eastern Europe. With our book, we want to contribute to a better understanding of these processes and offer perspectives on the future of this important region.

The addressees of this publication are not only academics, but also all supporters of economic history, as well as people outside the scientific com-

munity who are interested in the history of this part of Europe. Complementing the publication, there is a second item published by the University of Rzeszów Publishing House containing a scientific analysis of the phenomena from the perspective of Polish researchers. Both publications were financed under the project "Central European Congress of Economic History. Modernization processes in Younger Europe" carried out within the framework of the program of the Minister of Education and Science of the Republic of Poland "Excellent Science – Support for Scientific Conferences" number DNK/SP/512085/2021 carried out at the College of Humanities of the University of Rzeszów.

Part I. Past

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The inhabitants of the Bistra Valley (Bihor County, Romania). Past, present and future

Abstract

Bistra Valley is a microregion situated in North-Western Romania and in the northern half of Bihor County. The main characteristic of its population is represented by the existence of an ethnic and confessional mosaic. Along with the Romanians, which represent most of the population, there are Hungarians, Slovaks, Germans, Jews and Gypsies living here for centuries. Political changes influenced the ethnic and confessional structure of the population. In the Contemporary Era, the economic development determined a higher standard of living for the inhabitants of the Bistra Valley, in contrast to the neighbouring settlements. Nowadays, the community of Bistra Valley deals with problems related to demographic decline, economic restructuring, ageing population, migration of young people and of labour force, reduction or disappearance of ethnic communities. In an interdisciplinary approach, the present study aims to identify to what extent the research of the past (historical analysis, demographic analysis, economic analysis) and of the present (sociologic analysis) could provide solutions for the future of the inhabitants of the Bistra Valley, through tourism for example.

Keywords: Bistra Valley, interdisciplinary approach, history, economy, tourism.

Introduction

The settlements on the Bistra Valley are located in the North-Western part of Romania, in Bihor County. In the 18th century, the settlements were part of the Habsburg Empire. From 1867 to 1918 they were included in the Eastern half of the Austro-Hungarian Empire. Geographically, the Bistra River springs from the plateau area of the Plopiş Mountains (mountains with low altitudes, having the appearance of hills) and flows into the Barcău River, on a plain area.

In a demographic perspective, the 18th century meant a spectacular population growth throughout Europe. After the strong demographic regression at the end of the 17th century and the beginning of the 18th century, caused by the military and social conflicts, the documents from the second half of the 18th century (urbaria, religious urbaria) register an important increase of the population, which is also visible in the settlements of the Bistra Valley¹.

Population growth was almost continuous throughout the 19th century and at the beginning of the 20th century. The main feature of the population in the analyzed period is the existence of an ethnic and religious mosaic. Along with Romanians, who are the majority, Hungarians, Slovaks, Germans, Gypsies, Jews have been living here for centuries. In 2011, in the 17 settlements (totally rural) lived a population of 12,999 inhabitants. Written documentary sources, toponymy and anthroponymy prove the continuity of habitation in the Middle Ages and the Modern Age. Currently, the Slovak community in this region (Bihor-Sălaj region) is the most important region inhabited by Slovaks in Romania.

Methodological aspects

Our approach was motivated by the desire to discover aspects related to the economy of the settlements on the Bistra Valley between 13th-20th centuries. We understand that the events of 1989 suddenly stopped a develop-

¹ C. Patca, *Așezările de pe Valea Bistrei de la primele atestări documentare până la instaurarea administrației românești. Studiu monografic*, Oradea 2022, p. 162.

ing economy and we want to understand to what extent the economic restructuring and closure of the factories in the Bistra Valley has influenced the evolution and structure of the population in the area, the natural and migratory movement of the population, the labour force, the standard of living or the state of local education. Two traditional occupations, mining and glassware, disappear from the local landscape after 1990, and the population is undergoing profound transformations.

Such research, at the border between history, sociology, statistics and historical demography, is aimed to contribute to a deep and accurate knowledge of the local realities in order to find solutions for the economic recovery of the area. That is why our analysis does not stop only at the past and present, but it aims to argue the need to capitalize from a touristic point of view the information related to the economic history in order to propose future solutions for the preservation of traditional communities.

Among the most commonly used methods we mention: statistical method, collection, processing and interpretation of demographic data, long-term analysis, investigation of historical documents, field research. The documentary sources included: *archive sources*: various funds from the National Archives of Romania (Bihar County Service), A.N. of Hungary (available online on the hungaricana.hu); *archives of local parishes and town halls*; *sources of oral history*: interviews with former glassmakers and miners, questionnaires about the Slovak community; *edited sources*: Official censuses within different states (Habsburg Empire, Austro-Hungarian Empire, Hungary, Romania).

Economic activities (13th–20th centuries) – general aspects

Through our research, we aim to identify some aspects related to the economic activities specific to the inhabitants of the Bistra Valley between the 13th–20th centuries, based on the existing documentary sources and through a long-term analysis. In the Middle Ages, documentary sources are low and sporadic, which is why it is necessary to resort to the comparative method and to the broadening of the analysis horizon (analysing the wider space of Bihar and of Crişana).

The use of these methods and means shows us a society with a strong agrarian imprint, in which plant culture and animal farming played the major role. The environment has played an important part in the evolution of economic aspects of the settlements of the Bistra Valley. Grain was grown in the lowlands of the Bistra River meadow and the main tributaries.

The most cultivated cereal was wheat, but the low quality of the soil required the cultivation of wheat mixed with other cereals (rye, oats, millet). The grain was then stored in bell-shaped pits, with the walls burned, or in pots (ceramics) of supplies stored in cellars, as shown by the discoveries of Voivozi². The grain was ground with the help of mills. In addition to grain mills, there were many pives (for oil, pennies, blankets) and plank mills. The vegetables were grown in the gardens near the households (cabbage, peas, lentils, onions, garlic). Natural conditions favoured animal farming. Extensive pastures and meadows ensured the breeding of cows, sheep, goats, and oak forests offered the possibility of fattening pigs with acorns. Fruit growing and viticulture were two other important activities, being favoured by the hilly relief³.

Archaeological discoveries from the medieval complex from Voivozi attest the existence of old crafts: pottery, blacksmithing, wood and stone carving. Hunting, fishing and picking fruits and mushrooms from nature were widespread activities that complemented the daily food of the inhabitants. The integration of the territory of the Bistra Valley within the Hungarian Kingdom between the 13th-15th centuries meant the gradual transformation of the inhabitants into people dependent on the landowner.

In the 16th century, the feudal domain undergoes important transformations, relying more on its own production⁴. The 17th century meant an increase of the subsistence crisis throughout the entire Europe. In addition to the wars, the food crisis manifested by low yields generated by natural disasters caused an increase in the prices of cereals, famine and later plague⁵. An inventory of the reckonings on the Mişca domain indicates the economic

² R. Popa, D. Căpăţână, A. Lukács, *Cercetările arheologice de la Voivozi. Contribuţii la istoria Bihorului în secolele XII–XV*, „Crisia”, 1987, XVIII, p. 90.

³ C. Patca, *Aşezările...*, p. 440.

⁴ D. Prodan, *Iobăgia în Transilvania în secolul al XVI-lea*, vol. I, Bucureşti 1968, p. 492.

⁵ M. L. Bacci, *Populaţia în istoria Europei*, Iaşi 2003, pp. 13–14.

state of the domain: in each household there were on average 1.8 oxen, 1.6 cows, 1.5 pigs, 0.3 sheep⁶. The low average number of animals per household indicate a difficult economic situation of the inhabitants.

Military conflicts at the end of the 17th century had negative consequences on the economy. The comparative tracking of the taxes recorded from one year to another reveals a large fluctuation in agricultural production. The situation of animals in peasant households at the end of the 17th century confirms the difficult economic condition of the inhabitants of this period. Analysing the average number of animals in a household of dependent peasants between 1688–1699, once again a small number of animals is to be noticed. On average, there were between 1 and 2 oxen in one household, used for daily work. The food of an extended family was provided by 1–2 cows (milk, cheese), 1–2 pigs (meat, bacon) and 4–5 goats or sheep⁷.

The spectacular growth of the population in the 18th century determined the increase of arable land necessary for agriculture, through deforestation actions. New types of crops were introduced, first that of corn and then that of potato, which helped to provide new food resources for a population strongly affected by poverty. Viticulture also extended to the settlements in the upper basin of Bistra. Cattle, fruits (especially plums) and other products were easily sold in the Marghita fair. The use of the horse is expanding more and more, even if the ox remains the main traction animal. Under the influence of Austrian cameralism, the landlords will try to increase their income by capitalizing on natural resources. The exploitation of wood, the huts of potash and glass, the exploitation of coal and asphalt will play an increasingly important role in the occupation of the inhabitants of the settlements of the Bistra Valley, especially in the 19th century.

From the reports drawn up by the authorities in 1720 and 1770⁸, it appears that the settlements in the Bistra Valley had a generally low arable land,

⁶ Magyar Nemzeti Levéltár, Budapest, Országos Levéltára (MNL-OL), *Urbaria et Conscriptiones*, fasc. 108, no. 051, f. 13, HUNGARICANA. Cultural Heritage Portal, hungaricana.hu (accessed: 14.09.2021).

⁷ *Ibidem*, fasc. 061, no. 026; fasc. 006, no. 092; fasc. 024, no. 043, 045, 048.

⁸ Bihor County Service of the National Archives (SIAN Bh.), fund Prefectura Județului Bihor, dos. 159-161, 166; MNL-OL, *Urbarium of 1767*, HUNGARICANA... (accessed: 14.09.2021); B. Ștefănescu, *Tehnică agricolă și ritm de muncă în gospodăria*

of medium fertility, which was suitable, especially in the upper part of the Bistra basin, to wheat crops mixed with other cereals, due to their low fertility. In the settlements located in the lower part of Bistra (Tăuteu, Chiribiş), the arable land was more extensive and productive, but they were subject to flooding. Fruit trees (especially plum trees) were a constant presence in the villages of the Bistra Valley. Fruits were frequently exchanged for cereals. In general, there were very good conditions for animal farming: the hay was of good quality, and the pasture was enough (the exception was only the Tăuteu settlement, where the pasture was little due to the expansion of the arable areas and overpopulation). Near the households there were vegetable gardens, and in Tăuteu vines were cultivated. There are also new crops, such as hops, used for beer production and attested in the settlement of Bogei in 1770.

Classifying households in 1735 by the number of oxen, cows, pigs and horses in each household, one notices that most households are those without livestock. By the number of oxen, 171 households (representing 63%) are without oxen, 17 households (6%) have 1 ox, 44 (16%) have 2 oxen and 35 (13%) have 4 and more oxen. By the number of cows, 98 households (36%) had no cow, 93 (34%) had a cow, 50 (18%) had 2 cows, 16 (6%) had 3 cows, and 14 (5%) had 4 and more cows⁹.

The agricultural census of 1895 provides information on animals, fruit trees and agricultural coupling in the settlements of the Bistra Valley. Being an area of hills and mountains, the culture of fruit trees occupies a very important place; the most common trees were plum trees (68%). Some of these fruits were offered in exchange for grain or were sold at nearby weekly fairs (especially in Marghita). Analysing the average number of animals for each household in 1895, we do not notice very big differences from the end of the 17th century. The most used traction animal remains the ox; 56% of the agricultural couplings were pulled by oxen (2, 4 or 6 oxen), most commonly by two oxen¹⁰. The census data indicates a poor general economic condition for the majority of the population in the settlements of the Bistra Valley.

țărănească din Crișana (secolul al XVIII-lea și începutul secolului al XIX-lea), vol. II, Oradea 1995, pp. 164–166, 174–176.

⁹ SJAN Bh., fund Barany, inv. 270, dos. 7, f. 55–76.

¹⁰ T. Rotariu, *Recensământul agricol din 1895. Transilvania*, vol. II, Cluj 2003, pp. 84–91, 120–123, 128–135.

Glassware and mining (18th–20th centuries)

Under the influence of mercantilist policy, the Court of Vienna promoted a policy of modernization of all provinces of the empire, since the first decades of the 18th century, by encouraging the development of the state manufacturing sector based on the riches of the local soil and subsoil. The forest occupied considerable areas of the Bistra Valley area in the 18th century. For the landowner, the forest brought important incomes through the tithe imposed on the pigs that were raised with the acorns from these forests. However, new gain possibilities arose by valuing the wood. Deforestation to obtain new agricultural land was generally an expensive activity. That is why huts of potash are established in areas with large forests. Potassium (potassium carbonate) was in great demand at the time, being used for glass huts or other needs. Deciduous wood ash was needed for the preparing the potash. Considering the simplicity of the installations, the production process, the low number of workers, the fact that they did not require specialized labour, potash huts cannot be considered manufactures¹¹. The 19th century represents the development of glass huts in the Bistra basin, in order to capitalize on the existing natural resources and to obtain the finished products (glass) needed on the market.

Glassware

The first glass hut was established at Huta Voivozi. A first record of the glass hut in the civil status registers appears in 1802, but it is possible that it is older (from the end of the 18th century). In 1826, along with the glass hut from Huta Voivozi, another glass hut appears recorded at Şinteu. The establishment of the Huts and the exploitation of forests in the Plopiş Mountains area is the result of the action of the local nobles, masters of these places¹². The development of capitalist relations and the desire to increase land gains led them to resort to colonization of the Slovaks and, to a lesser extent, of the Germans.

¹¹ A. Ilea, *Industria manufacturieră din Comitatul Bihor în secolul al XVIII-lea*, „Crisia”, 1991, XXI, p. 65.

¹² I. Kukucska, *Etapele procesului de colonizare a slovacilor în Ținuturile de Jos (Alföld – Dolná zem)* [in:] *Slovacii din România*, eds. A. Zsolt Jakab, L. Peti, Cluj-Napoca 2018, p. 68.

For the establishment of a glass hut, specific conditions were needed: quartz gravel, sand (even insufficiently clean), large forests (for the excessive consumption of wood fuel necessary for the melting furnaces), deciduous forests (by burning, the ashes of the wood were used for the production of potash) and ores (various dyes were obtained from their oxide)¹³.

The glass smelters had the appearance of wooden sheds or barns and housed the installations for melting glass, those for annealing the finished products, other workshops, and their annexes. The operation and maintenance of the manufactures was ensured primarily by qualified personnel, reduced in number, consisting of ethnic Germans and Slovaks specialized in the craft of glass and colonized in the area of the Plopiş Mountains. However, the work of the serfs from the surrounding villages was fully used, both for city obligations and for payment.

The depletion of wood resources led to the closure of the glass hut. The same happened with the one from Huta Voivozi, the bottle being produced in the new hut from Şinteu. Towards the end of the first half of the 19th century, the glass hut at Şinteu stops its activity as a result of the exhaustion of resources. A new glass hut is established also on the Bistra Valley, downstream, at the Black Forest.

Information about the beginning of the manufacture of glass at the Black Forest is quite unclear and contradictory to some extent. Confessional schematisms and civil status registers record the Black Forest locality and the glass hut here only in the middle of the 19th century. In contrast, the bibliographic sources that dealt with the problem of glassware in Transylvania¹⁴ refer to events in the first half of the 19th century. According to them, the factory was founded in 1840, on the estate of the Austrian landlord Ammon. Until 1856, the factory worked with an oven with "pots" (crucibles). After the construction of the Aleşd-Pădurea Neagră road, in 1855–1856, the factory moved under the property of the Austrian Liebich, who began to manufacture glass sheets for windows. In 1870, the factory was bought by several

¹³ M. D. Lazăr, *Repertoriul glăjăriilor transilvănene din secolele XVII-XIX*, „Brukenthal Acta Musei”, 2006, I.1, p. 215.

¹⁴ M. Bunta, I. Katona, *Az erdélyi üvegművesség századfordulójáig*, Bucureşti 1983; G. Pinţa, *Din istoricul fabricării sticlei în judeţul Bihor, Fabrica de sticlă de la Pădurea Neagră*, „Crisia”, 1991, XXI, pp. 151–163.

bankers in Budapest. The use of wood as fuel was given up and they switched to coal; also, a gasmeter was built. The forests that belonged to the factory were thus sold.

For the decoration of glass objects, an important role was played by the construction of the grinding and engraving workshop, introduced into production in the late 19th century. The owner of the factory changed again in 1889, and in the winter between 1895–1896 a fire stopped the activity of the factory. At the beginning of the 20th century, work in the glass factory was carried out in teams, each worker being specialized in a certain operation of making the finished product. At the *blast*, the teams consisted of 7–8 workers: a *blisterer* (he took the melted bottle on the end of the pipe), two *blowers* (they blew the glass), the *foreman* (he pulled the foot of the glass), the *foreman's helper* (he made the sole of the glass) and 2–3 *bearers* (they took the glasses to the oven). After they were taken out of the oven, the cups were sent to *decalotation* (cutting the lid at the top of the cup), and then to the *grinder* and to the *engraving* or *painting* (different patterns were engraved or painted on the glasses). The workers were inhabitants of the Black Forest, where housing was built for them¹⁵.

However, there were also workers who came from nearby villages, especially Cuzap, Șinteu and Huta Voivozi (some of the former glassmakers from the glass huts of Șinteu and Huta Voivozi). These workers crossed the distance to the factory and back on foot, usually walking in small groups. A special category of workers was represented by children. From the age of 13–14, children accompanied their parents and worked in the factory along with them. The children mostly did easier work, in general they were bearers, but the talented ones learned the craft by sitting next to a glassblower¹⁶.

Mining

Coal and asphalt mining began in the second half of the 19th century. First, bituminous sand was mined. A first concession took place in Budoii on

¹⁵ The information about the workers at the Glass Factory was obtained from local history research and is based on the testimonies of the following people: Maghiar Florian-Cuzap (b. 1930, Cuzap), Naghi Gavril-Aleșd (b. 1935, Cuzap), Lincar Grațian-Voivozi (b. 1953, Voivozi), Patca Gavril-Cuzap (b. 1945, Cuzap).

¹⁶ Ibidem.

September 30, 1860, for the Antonia Francz company. Thus, in the *Register of mining properties* from 1861 the asphalt mine was recorded in the Budoï Valley. According to the same register, in 1877 in the Tătăruş area were leased more 10 perimeters: "Maroş" mine, "Bihor" mine, "Koros" mine, "Beretyo" mine, "Micske" mine, "Derna" mine, "Măgurioza" mine. In 1880, the Hungarian Anonymous Society "Magyar Asphalt" was founded, which took control of the lignite and bitumen exploitations in the area¹⁷, which was followed by a more intensive exploitation of resources. At the end of the 19th century, several workers arrived in the mining field in Budoï (miners, blacksmiths, carpenters, mechanics, day laborers). They came from different countries of the Austro-Hungarian Empire: Sălaj (Şumal), Sătmar (Dindeşti), Ciuc (*Balán bánya*), Csóngrad-Ungaria (*Dorozsma*), Hont-Ungaria (*Also Szemeréd*), Stiria-Austria (*St. Georgen*), Udine-Italia (*Artegna*), Tirol-Austria (*Flirsch*), Arva-Ungaria (*Kriva*), Nyitra-Ungaria (*Szkacsán*), Moravia-Cehia (*Sztráni*), Krajna-Slovenia, Croația (*Sveti Rok*)¹⁸. During the surface exploitations, women and children also worked alongside the men. Men made the more difficult work, and women and children helped to load in "wheelbarrows" and transport to wagons.

Regarding the exclusive exploitation of coal (lignite), the oldest documentary attestations date back to 1891, when a lignite mine is mentioned in Budoï (Ladislau mine). In 1899, three other lignite mines are mentioned in the area of the Bistra Valley: Cuzap, Voivozi and Popeşti. The workers came from the local population, but there were also workers with experience in mining, arriving from different places in the Empire. The charcoal was mostly used in the glass melting furnaces from the Black Forest. The transport was made with oxen or horse-drawn couplings, on the Country Road (UJ ÚT), the road that connected Cuzap to the Black Forest, a road built of cubic stone in the second half of the 19th century. Over time, the exploitation of tar sand and coal deposits at the mines in the area has undergone profound changes. At the beginning of mining, until around 1910–1915, the exploitation of the deposits was done through galleries on the surface in the direction of the

¹⁷ SJAN Maramureş, *Registrul de proprietăți miniere*, p. 305, *apud.*; G. Moisa, *Voivozi-Bihor (1406–2011). Leagăn de istorie, credință și continuitate. Studiu monografic*, Cluj-Napoca 2011, pp. 151–152.

¹⁸ SJAN Bh., fond Colecția RSC 1505, dos. 94/1889-1936.

appearance of deposits and with a single retreat room¹⁹. The support of the galleries was made with wood coming from the local logging. The transport of the extracted material to the surface was done with wooden wagons; and later it was done with metal wagons, hand-pushed or pulled by horses. The cutting of the material was done with simple tools (hoe, "pickaxe"), while the transport from the mine to the nearest station was done with the help of carts.

Economic and social changes after 1989

The political events of December 1989 had multiple economic and social effects. In addition to the many advantages related to the restoration of democracy in Romania, the local communities have also faced some problems: economic restructuring, unemployment, labour and youth migration, ageing of the population, drastic reduction of ethnic minority groups (Slovaks). The main cause for the economic restructuring was the closure of mining operations and glass factory. After a failed privatization, the glass factory was permanently closed in 1996. The building was abandoned, turned into ruin and almost totally demolished today. The period between 1990–1997 meant the continuous decrease of coal production, and the bituminous sand production stopped. The mines were closed one by one, and the number of workers decreased from 4254 in 1989 to 24 in 2004 (the year in which Voivozi Mining ceased its activity)²⁰.

Almost all the male labour force in the commune, but also a good part of the female one, was employed at the Voivozi Mining Exploitation and at the Glass Factory in the Black Forest. Coal extraction and glass production were the specific activities of the Bistra Valley. The salaries received were usually above the average salaries in Romania. This context led to an increase in financial resources for the local community and local people, and consequently to an increase in the living standards of the inhabitants. Obviously, the changes had effects on all levels of life of the inhabitants of the Bistra Valley. The villages have radically changed their appearance. Culture houses, schools and village shops were built. The spectacular development of the local econ-

¹⁹ G. Moisa, *Voivozi-Bihor ...*, p. 154.

²⁰ G. Moisa, *Perioada interbelică și postbelică* [in:] *Satele de pe valea superioară a Bistrei. Schiță monografică*, Oradea 2011, pp. 96–97.

omy has also impacted the health system and the local sport. The events of December 1989 determined significant changes throughout Romania, including the villages on the upper Bistra Valley: the introduction of democracy, individual freedom, market economy, private initiative. All of these, but also the lack of professionalism and interest, corruption, organized robbery and external pressures, have led to the reduction of production and even the definitive closure of most of the factories and industrial activities. After having a generally upward trend of evolution in two historical periods, between 1910–1930 and 1977–1990, after 1989 the population of the Bistra Valley undergoes profound changes²¹.

The case of the Bistra Valley is suggestive and can be representative of the general situation of Romania because it was one of the most strongly industrialized areas of Bihor County and Romania in communism, whereas after 1990 its economic profile has totally changed.

The data from the National Institute of Statistics and its comparative analysis show profound transformations: the decrease of the population, the decrease of income and living standards, the decrease of the weighting of national minorities, the increase of unemployment, poverty and emigration. Therefore, the economic restructuring and closure of the factories in the Bistra Valley influenced the evolution and structure of the population from Popeşti commune, the natural and migratory movement of the population, the workforce, the standard of living or the state of local education²².

The ecotourism footpath "The story of the Slovaks in Huta"

One of the most affected groups in the region were the Slovaks. As the Slovaks were specialized in forestry and wood cutting, they were brought here mainly for economic reasons. The colonized Slovaks were promised wood for the construction of their houses, the land resulting from deforestation, and a sort of pay. Some of them were colonized as qualified workforce

²¹ C. Patca, *Istorie, economie și demografie în România postcomunistă. Studiu de caz: Satele de pe Valea Superioară a Bistrei (Județul Bihor, România)*, „Studia Universitatis Moldaviae”, 2017, nr 4 (104), pp. 164–169.

²² Ibidem

for the newly founded glass manufactures. This is how the Slovak settlements in the plateau area of the Plopiş Mountains came into existence: Şinteu (slov. *Nova Huta*, hun. *Solyomko*), Huta Voivozi (slov. *Stara Huta*, hun. *Almaszeghuta*), Socet (slov. *Sočet*, *Zachotar*, hun. *Forduló*), Valea Târnei (slov. *Židáreň*, *Židarňa*, hun. *Hármaspatak*), Făgetu (slov. *Gemelčíčka*, hun. *Magyarpatak*), Şerani (slov. *Šarany*, magh. *Sárán*)²³.

Initially, when the first colonists settled in the area, about 50 families came. In 1838, there were 512 Slovaks and Czechs in Şinteu²⁴. In 1880²⁵, in the Roman Catholic parish of Şinteu there were 2942, and at the 1930 census, 1245 people of Slovak or Czech ethnicity were registered in Şinteu. In 1941 they reached the demographic peak, a number of 7096 ethnic Slovaks being registered (Şinteu commune – 4219 Slovaks, Plopiş commune – 2877 Slovaks)²⁶. Over the years, due to the socio-economic and political conditions, the population underwent fluctuations. As the glass industry and mining registered a decline, the Slovaks were forced to move either in other places of Romania, or to re-immigrate to their native territories. Consequently, at the 2011 census, the population of the Şinteu village comprised 458 Slovaks. Presently, the Slovak population in the Şinteu area counts 1754 Slovaks (Şinteu commune – 984 Slovaks, Plopiş commune – 770 Slovaks)²⁷.

With this concerning data, we felt that some solutions are needed, in order to preserve the Slovak community. It represents a community with well-

²³ I. Kukucska, op. cit., pp. 68–69; R. Ocelák, *Počátky slovenského osídlení v bihorskó-salajské oblasti Rumunská: osídlení vrchu. Stará Huta, Gemelčíčka, Nová Huta, Židáreň, Sočet*, http://www.ocelak.cz/wp-content/uploads/2017/07/pocatky_osidleni.pdf (accessed: 15.09.2021); C. Patca, *The Slovak Community of Bihar-Sălaj area. Aspects of Historical Demography [in:] The Shades of Globalisation Identity and Dialogue in an Intercultural World. History, Political Sciences, International Relations*, Târgu Mureş 2021, pp. 236–247.

²⁴ SJAN Bh., *fund of the Roman Catholic Parish of Şinteu*, folder 1, f. 3: *Status Animarum in Administratura Solyomkeő Matre et Filialibus ejus cum sine Anni Militaris 1838. Sumario Specifice factus*

²⁵ *Schematismus Venerabilis Cleri Dioecesis Magno-Varadinensis*, Pro Anno a Christi Nato MDCCCLXXX [1880]... Magno-Varadini, Typis Joannis Tichy.

²⁶ E. Á. Varga, *Erdély etnikai és felekezeti statisztikája. Népszámlálási adatok 1850-2002 között*, <http://www.kia.hu/konyvtar/erdely/erd2002.htm> (accessed: 11.11.2021).

²⁷ *Census of population and housing*, National Institute of Statistics (INS), Bihar County Directorate of Statistics (DJS Bihar), 20.10.2011.

defined traditions, unique customs, rituals and occupations that have harmoniously blended together with those of the natives over the centuries. Thus, the importance of knowing and promoting the traditional values of this community must be underlined. We tried to do this through a vast project, *“The story of the Slovaks from the Huta”*, that includes the creation of an ecotourism route in one the most attractive places in the middle of the Slovak community, i.e., in Şinteu, along with a historical-geographical album that aims to presenting the ecoturistic footpath, the sights on it, and some aspects of the Slovak culture. The main objectives of our endeavour are: getting to know the Slovak community in multiple aspects; studying the history and culture of Slovaks in the region; finding solutions to strengthen the Slovak community; preserving and promoting the culture of the Slovak population in the Bihor-Sălaj region; promotion of local tourism; development of interethnic cooperation. The ecotourism route has a length of 2 kilometres and it comprises 24 objectives where tourists can observe and appreciate the nature and local Slovak traditions and get to know the history, traditions and customs of the Slovak community in Şinteu. As it is mostly an interactive path, one can take part to the crafting workshops or engage in seasonal specific activities such as harvesting, Easter or Christmas celebrations. Moreover, ecotourism is a sustainable solution, as it meets the following conditions: conservation and protection of nature, use of local human resources and minimal negative impact on the natural, cultural and social environment. It also has an educational character, respect for nature through the awareness of tourists and local communities.

Conclusion

The analysed documentary sources indicate that during the 13th–19th centuries the local economy was poorly developed, the main economic activities were based on the cultivation of plants and animal farming. Despite the progress made over the centuries, the standard of living was very low. From the end of the 18th century and in the 19th century, as a result of the Austrian cameralism, two specific economic activities are developed in the region: the obtaining of glass (glassware) and the extraction of resources from the subsoil (coal and oil shale/asphalt). In the 20th century, these two economic ac-

tivities developed a lot and determined the improvement of the standard of living. Most of the inhabitants worked in these fields of activity.

In conclusion, in the Bistra Valley, profound changes occur over time, but probably the events of December 1989 have the most strongly felt impact. If until 1989 the area was extremely attractive to those around it due to the superior economic development (most of the inhabitants were employed at the Voivozi Mining Exploitation and at the Glass Factory, the gains were substantial and the standard of living high), after 1990 things are changing gradually and profoundly. The data collected from the National Institute of Statistics for the 1990–2016 period indicate major transformations in terms of evolution, structure and specificity of the population of the Bistra Valley. The causes of the negative evolution in terms of population are multiple and are related to the entire social, political, cultural, economic context. It is obvious that the economic restructuring, the loss of jobs and the economic decline have left their mark on the evolution, structure, and specificity of the population in the upper Bistra Valley.

However, solutions can be found. One of them is local tourism, whose purpose is the knowledge, the promotion and preservation of the local patrimony. Capitalization of research related to the history of the local economy could be done through ecotourism, which could be a solution for the preservation and promotion of local heritage, and for the economic development of micro-regions.

One of the solutions to save the cultural patrimony of this area and to create future opportunities is ecotourism. The project *“The story of the Slovaks from the Huta”* stands for a good example of how this objective can be achieved. We consider that the past can always be used as a resource for the present and the future, especially when talking about cultural heritage.

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Mieszkańcy Doliny Bistra (okręg Bihor, Romania). Przeszłość, terażniejszość i przyszłość

Abstrakt

Dolina Bistra to mikroregion położony w północno-zachodniej Rumunii oraz północnej części okręgu Bihor. Główną cechą charakterystyczną jego populacji jest różnorodność etniczna i wyznaniowa. Wraz z Rumunami, stanowiącymi większość ludności, od wieków obszar ten zamieszkują Węgrzy, Słowacy, Niemcy, Żydzi i Cyganie. Zmiany polityczne wpłynęły na strukturę etniczną i wyznaniową ludności. W czasach nowożytnych, w przeciwieństwie do sąsiednich osad, rozwój gospodarczy determinował wyższy standard życia mieszkańców Doliny Bistra. Obecnie społeczność doliny zmagają się z problemami związanymi z niżem demograficznym, restrukturyzacją ekonomiczną, starzeniem się społeczeństwa, migracją młodzieży i siły roboczej oraz redukcją lub zanikaniem społeczności etnicznych. W podejściu interdyscyplinarnym niniejsze badanie ma na celu określenie, w jakim stopniu badania przeszłości (analiza historyczna, analiza demograficzna, analiza ekonomiczna) i terażniejszości (analiza socjologiczna) mogą dostarczyć rozwiązań dla przyszłości mieszkańców Doliny Bistra, na przykład poprzez turystykę.

Słowa kluczowe: Dolina Bistra, podejście interdyscyplinarne, historia, gospodarka, turystyka

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New Gross Domestic Product (GDP) Benchmark Estimate for Latvia in 1935¹

Abstract

The interwar independent Republic of Latvia was among the first ten pioneering states, where a national statistical office published official estimates of total output (1934–1936). Paradoxically; however, Latvia is the Baltic country with the most disputed interwar economic growth performance. According to the authoritative account of Roses and Wolf in *The Cambridge Economic History of Modern Europe* (2010), Latvia’s GDP per capita growth rate was the highest among European countries in 1929–1938. It impressively ranked number ten next to Sweden, France, and Norway. However, according to Norkus and Markevičiūtė (2021), it only surpassed Southern European countries, and its growth performance was mediocre. Both these contradictory estimates are derived by indirect methods. This paper contributes to the resolution of this controversy, directly estimating Latvia’s GDP in 1935 within the SNA

¹ The authors acknowledge financial support from the Baltic Research Programme project “Quantitative Data About Societal and Economic Transformations in the Regions of the Three Baltic States During the Last Hundred Years for the Analysis of Historical Transformations and the Overcoming of Future Challenges” (BALTIC100), project No. EEA-RESEARCH-174, under the EEA Grant of Iceland, Liechtenstein and Norway Contract No. EEZ/BPP/VIAA/2021/3.

2008 framework, providing gross value-added calculation for 20 ISIC industries at basic and at market prices. It provides a more fine-grained analysis of the composition of Latvia's total output in comparison with interwar historical national accounts, where only 11 industries were distinguished. This estimate provides the benchmark for future research on Latvia's interwar economic growth performance. Converting our estimates into monetary units, used in the Maddison Project Database, we assess Latvia's position in the international GDPpc rankings. coming to conclusions that are closer to Norkus and Markevičiūtė (2021) findings.

Keywords: Gross Domestic Product (GDP); Benchmark GDP Estimate; Latvia 1918–1940; Historical National Accounts; Cross-National Wealth Comparison.

Introduction

We start with explanation why new estimate of the gross domestic product (GDP) of Latvia in 1935 is needed to advance the knowledge of the economic past of this Baltic country (in section 2). This explanation includes brief presentation of the state of art in the historical macroeconomical measurement of the output growth of interwar Latvia. It also clarifies, why current controversies cannot be resolved just by updating pioneering attempts at the estimation of Latvia's national income from interwar time. In the section 3, we describe our methods and sources. Section 4 presents our key findings on the size of Latvia's GDP in 1935 and its composition by industries. Concluding discussion (section 5) uses them for the assessment of Latvia's international wealth standing in the interwar Europes and discusses the venues of continuation of research, presented in this paper.

Why Estimate Gross Domestic Product of Latvia in 1935?

Getting information about the relative economic standing or comparing the growth performance of most European countries during selected periods of 20th century is not a daunting task. Researchers have access to standard data source, namely the famous Angus Maddison "Historical Statistics of the World Economy: 1–2008 AD" data collection, which was updated and extended in the Maddison Project Database (MPD) releases

2013, 2018, 2020². In the last two MPD releases, an user can find even the cross-time and cross-country comparable annual GDP per capita (GDPpc) series of former republics of Yugoslavia since 1952, including those which never were independent states before its dissolution in 1991. For Poland, this series starts with 1400 (!).

This is truly enviable, because for Baltic countries MPD 2020 provides first GDPpc estimates only for 1973 (together with other former Soviet Union republics), and annual series are available only since 1980. This situation stands in the sore contrast with the self-perception of Baltic countries as aged national states, which did celebrate in 2018 their centenary anniversaries. Therefore, international research project „Quantitative Data about Societal and Economic Transformations in the Regions of the Three Baltic States during the Last Hundred Years for the Analysis of Historical Transformations and the Overcoming of Future Challenges (BALTIC100)“, involving researchers from Norway (NHH Norwegian School of Economics), Estonia (Tartu University), Latvia (Vidzeme University of Applied Sciences), and Lithuania (Vilnius University) considers as one of its aims the filling out gaps in the available total output (GDP) knowledge.

Rather obviously, this work should start with production of the GDP estimates for interwar period (1918–1940), because inability of historians to produce reliable knowledge about real size of economies during the first period of the independence of Baltic countries is least tolerable for so many stakeholders during the second period of their independence. There are three ways, in which historical GDP estimates can be produced.

Firstly, pioneering interwar time national income calculations can be re-used (or ‚recycled‘) in the framework of the actual System of National Accounts (SNA 2008) version.

Secondly, indirect (econometric) methods can be used, where the GDP value of a country is derived from its values for benchmark countries and selected indicators that are known to be closely associated with GDP.

Thirdly, GDP value can be estimated “from the scratch”, compiling historical production (supply), income or consumption (expenditure) accounts according to actual SNA rules for selected benchmark year(s). Among these three methods of the direct estimation of GDP, the produc-

² *Historical Development*, <https://www.rug.nl/ggdc/historicaldevelopment/> (accessed: 02.01.2023).

tion method is preferable, because it allows knowing not only the size but also the sectoral composition of the gross added value (GVA; which is identical to GDP in the production method). As the second step, physical volume indexes for particular sectors are constructed, and their values for years before and after the benchmark year are established. As the third step, the GVA of sectors at the prices of the benchmark year is derived from volume index values and GVA in the benchmark year. Finally, summing up sectoral GVA for each non-benchmark year, we get the values of total GDP for these years.

Direct methods are reputed to be the most reliable, and this is the reason why we prefer them to indirect methods. In fact, indirect methods were already applied to our problem. Roses and Wolf published GDPpc figures for Estonia and Latvia in 1922, 1929, and 1938 in the authoritative “The Cambridge Economic History of Modern History”³. Recently, these were disputed by Norkus and Markevičiūtė, who provided GDPpc estimates for all the three Baltic states for 1913, 1922, 1929, 1938⁴. According to Roses and Wolf (2010, 190), the Latvian GDPpc in 1990 Geary Khamis international Dollars (GK 1990\$) was 1929 in 1922, 2798 in 1929, and 4048 in 1938. The alternative figures are 1847, 2347, and 2836, respectively. The differences are most dramatic for 1938, with estimates by Roses and Wolf exceeding those of Norkus and Markevičiūtė by 43%. According to Roses and Wolf, Latvia’s GDP per capita growth rate was the highest among European countries – 1929–1938. It impressively ranked number ten next to Sweden, France, and Norway. According to Norkus and Markevičiūtė (2021), it only surpassed Southern European countries, and its growth performance was mediocre.

These differences in results are related to use of the indirect estimation methods by both teams. Roses and Wolf did not disclose their method in the detail necessary to replicate their calculations. Norkus and Markevičiūtė used the method applied by the researchers at the Groningen Growth and Development Centre (GGDC) to fix GDP value gaps for African countries for the

³ J. R. Roses, N. Wolf, *Aggregate growth, 1913–1950* [in:] *The Cambridge economic history of modern Europe*, vol 2. *1870 to the Present*, eds. S. Broadberry, K. H. O’Rourke K.H, Cambridge 2010, pp. 183–207.

⁴ Z. Norkus, J. Markevičiūtė, *New estimation of the gross domestic product in Baltic countries in 1913–1938*, “*Cliometrica*” 2021, 15, pp. 565–674.

1950s and 1960s in the MPD 2018⁵. In this method, pioneered by Allen⁶, GDPpc values for countries with insufficient data are derived from the GDP data of the benchmark country and data on real wages and agricultural employment, using urban population data as a proxy. Norkus and Markevičiūtė calibrated their model with data on food self-sufficiency and the comparative labour productivity in the Baltic and benchmark countries. In the final assessment, they used a geometric mean of GDP values, derived from the application of this method to 13 benchmark countries.

While this could increase the reliability of their estimates, it is still not possible to know for sure whether they are more accurate than the figures of Roses and Wolf. Importantly, even reliable indirect estimates of GDP are of limited usability. While they may allow for cross-national comparisons of the levels of living standards, they are not usable for the fine-grained analysis of productivity variation across industries and regions. The only way to move out of this deadlock is to measure the GDP of Latvia in a direct way.

But why not spare the effort by using pioneering national income estimates from interwar time just properly updating interwar time calculations, because they were also produced by direct method? This way was used by Estonian researchers Jaak Valge and Martin Klesment to derive GDP estimates for Estonia in 1923–1938, basing on the pioneering work of Juhan Janusson on Estonian national income published in interwar time⁷. His methodology was outdated from contemporary view, as Janusson believed that the bulk of service sector is “economically unproductive”. However, it was sufficiently transparent to allow for Valge and Klesment to expand Janussons calculations by missing industries and expand them backwards and forwards.

⁵ J. Bolt, R. Inklaar, H. de Jong, J. L. van Zanden, *Rebasing “Maddison”: new income comparisons and the shape of long-run economic development*, https://www.rug.nl/ggdc/html_publications/memorandum/gd174.pdf (accessed: 02.01.2023).

⁶ R. C. Allen, *Economic structure and agricultural productivity in Europe, 1300–1800*, “European Review of Economic History”, 2000, 3, pp. 1–25.

⁷ J. Valge, *Uue majanduse lätteil. Eesti sisemajanduse kogutoodang aastatel 1923–1938*, „Akadeemia” 2003, 10–12, pp. 2202–2228; 11, pp. 2443–87; 12, pp. 2712–35; M. Klesment, *Eesti majandusarengu dünaamika näitajaid sõdadevahelisel perioodil*, „Tuna. Ajalookultuuri Ajakiri”, 2008, 1, pp. 25–37; J. Janusson, *Eesti majanduslik areng*, Tallinn 1932; idem, *Eesti majanduse arengu perspektiive*, „Konjunktuur”, 1937, 3/4(28/29), pp. 134–144.

Vaskela and Norkus did attempt to do the same for Lithuania, using interwar estimates of national income for 1924, 1938 and 1939⁸.

This “Estonian way” of arriving at the output estimates, comparable to MPD figures may appear even more attractive in Latvia’s case. According to Studenski, Latvia belonged to the first ten pioneer countries where national statistical offices published estimates of total output⁹. In Latvia, this happened in 1936¹⁰. These estimates cover 1933–1935 period. Before that, Alfred Ceichners did publish national income estimates for 1925, 1927, 1929–1930, and 1932¹¹. However, after examining interwar publications we came to the conclusion that this will not work in Latvia’s case¹².

The most important obstacle is that the Latvian statistical office did publish only final figures, but did not report its methodology. It looks like this methodology was not stable, because there are no official publications of national income estimates for later (1936–1938) years, although some figures (including the revision of downward revision of figures for 1933–1935) did leak into the press. However, relevant archival materials did not survive or are still not found, so their methodology remains unknown. Differently from the national statistical office, Alfred Ceichners did explain the methodology of his national income estimates. However, he was not employed to continue this work by the national statistical office, of which (maybe exactly for this reason) he was highly critical¹³. As a result, putting together Ceichners estimates for 1925–1932 and national statistical office estimates for 1933–1938 and applying to them extant price indexes, we do not get sensible time series of real national income¹⁴.

⁸ G. Vaskela, *Tautiniai aspektai Lietuvos ūkio politikoje 1919–1940 metais*, Vilnius 2014; Z. Norkus, *Kas turtėjo greičiausiai? Baltijos šalių ūkio augimo 1913–1938 metais palyginimas*, „Politologija”, 2015, 3(79), pp. 3–54.

⁹ P. Studenski, *The Income of Nations. Theory, Measurement, and Analysis: Past and Present*, Washington 1958, p. 151.

¹⁰ *Finanču un kredita statistika 1936*, Valsts statistiskā pārvalde, Rīga 1936.

¹¹ For survey of Ceichners work see O. Grytten, Z. Norkus, J. Markevičiūtē, J. Šiliņš, *Can the economic growth of interwar Latvia be estimated by contemporary national accounts?*, “Baltic Journal of Economics”, 2022, 22(2), pp. 90–109.

¹² *Ibidem*.

¹³ A. Ceichners, *Lauksaimniecība un zemnieki – Latvijas pamats*, Rīga 1937.

¹⁴ For details, see O. Grytten, Z. Norkus, J. Markevičiūtē, J. Šiliņš, *op. cit.*

Therefore, we come to conclusion, that interwar Latvia's real GDP can only be established, by starting "from the scratch" and measuring its size and composition in the benchmark year as the first step.

Sources and Methods

Because of the reasons explained in the preceding session, from three methods of direct GDP estimation (production (supply), income, and expenditure (consumption)) we prefer the production method. Its application is very data-intensive. Therefore, we selected as benchmark year 1935, which was the year of four censuses, i.e. a population census (12.02.1935), an industrial census (26.06.1935), a trade census (26.06.1935), and agricultural census (26.06–09.07.1935). Estimating intermediate consumption in agriculture, we used data of regular agricultural survey of a sample of farms, representing all four Latvia regions (Kurzeme, Latgale, Vidzeme, Zemgale). Estimating output of the public sector, in addition to published sources we used archival materials. They were of critical importance, in estimating the size of state subsidies to agriculture. The data on subsidies is needed to estimate the size of GDP both at the basic and at market prices.

This distinction of an essential part of the application of the production method according to SNA 2008¹⁵. Namely, using the production method, GDP is conceived as gross value added (GVA) for all industries of the economy. It is calculated by subtracting the gross value of intermediate consumption IC_i from the gross value of output in this sector (GVO_i):

$$GVA_i^p = GVO_i - IC_i.$$

Intermediate consumption (IC) is the value of goods and services used as inputs to produce the output in the economy. It is valued at the purchaser's (market) prices and includes material expenses and additional service costs, but excludes capital, labour costs, and taxes.

¹⁵ *System of National Accounts 2008*, <http://unstats.un.org/unsd/nationalaccount/docs/SNA2008.pdf> (accessed: 02.01.2023); V. Q. Viet, *GDP by production approach: a general introduction with emphasis on an integrated economic data collection framework*, New York 2009.

To distinguish GVA at basic and market (purchaser's) prices, we mark GVA with upper indices, denoting them GVA^b and GVA^m correspondingly. "Basic prices exclude any taxes on products the producer receives from the purchaser and passes on to government but include any subsidies the producer receives from government and uses to lower the prices charged to purchasers"¹⁶. Basic prices also exclude trade markups and transportation markups¹⁷. The purchaser's or market price includes trade, transportation markups, and taxes on products (T) less subsidies on products (S):

$$GVA_i^m = GVO_i - IC_i + (T_i - S_i).$$

Industries according to the SNA are discerned by International Standard Industrial Classification (ISIC)¹⁸, including 21 sections, denoted using the alphabetical sequence from A to U (see table 1 below). However, the last industry (U: Activities of extraterritorial organizations and bodies) is irrelevant to our purpose. Although extraterritorial organizations and bodies did exist in the interwar time, represented by the League of Nations and associated bodies (e.g. International Organization of Labour), they are not known to have local branches or agencies active in Latvia by 1935.

After establishing industrial GVA, the total GDP can be achieved by summing up the added value of all industries. However, some industries, e.g. education in countries where it is provided for free, are represented by non-market activities. Here value is generated, although there are no market prices or their role is insignificant. For such industries, the only practicable method to find added value created in these sectors is to use the component approach. It is usable also for industries with no data on output and intermediate consumption. Applying this approach, GVA_i^b is calculated according to the following equation:

¹⁶ *System of National...*, p. 101.

¹⁷ SNA 2008 contains also the concept of producer's prices, which excludes (similarly to basic prices) transportation and trade markups, but includes taxes on products except value added tax (VAT) and excludes subsidies on products.

¹⁸ *International Standard Industrial Classification of All Economic Activities (ISIC), Revision 4*, New York, https://unstats.un.org/unsd/publication/seriesm/seriesm_4rev4e.pdf (accessed: 02.01.2023).

$$GVA_i^b = CE_i + \text{other production } (t - s)_i + CFC_i + NOS_i.$$

CE denotes the compensation of employees. Compensation of employees is the total remuneration in kind or cash payable to employees by employers for work done. It also includes direct social transfers to employees, retired employees, and their families from their employers, payments for sick-leaves, educational grants, and pensions.

“Other production (t-s)” means other taxes less subsidies on production. “Other taxes” are taxes payable by employers to carry out production independently of the quantity of services and goods produced. “They may be payable as license fees or on the ownership or use of land, buildings or other assets used in production or on the labour employed or on the compensation of employees paid”¹⁹. They should be distinguished from taxes on products, which are taxes charged on values of produced outputs or sales (e.g. value added tax). For taxes on production, “examples include taxes on land or premises used in production or on the labour force employed. The distinction between subsidies on products and other subsidies on production is made on similar grounds”²⁰.

CFC is the consumption of fixed capital, i.e., the cost of fixed assets used in production. NOS is net operating surplus, which is nearly equal to the net profit of a firm but does not include capital gains from stocks, incidental income gained as interest or dividends, and rental income. It should be distinguished from a gross operating surplus (GOS), which is obtained by deducting CE and other taxes less subsidies on production. It still includes rents on non-produced assets such as patents, land, and subsoil assets. CFC should also be deducted from GOS to obtain NOS. However, practical guidebooks on how to apply SNA allow for exemptions from these rules: “for many developing countries with limited information on fixed assets, the calculation of net operating surplus may not be feasible, thus, gross operating surplus is the only alternative”²¹. Working with the ISIC classification retrospectively, we made use of this exemption when necessary.

¹⁹ V. Q. Viet, op. cit., p. 22.

²⁰ *The System of National...*, p. 101.

²¹ V. Q. Viet, op. cit., p. 22.

Findings: Latvia's GDP in 1935 at basic and market prices

Table 1 provides the summary (in the second column from the left) of our estimation of added value by ISIC 4 sectors in Latvian national currency *Lats* (Ls) at current prices. To make more transparent the economic substance of these figures, they are also expressed as percentages of total GVA (in the ultimate right column)²². They provide the picture of a still mainly agrarian economy (with the primary sector creating the largest share of GVA), which however was fairly advanced along the industrialization pathway, as the share of manufacturing (C) together with kindred sectors B, D, E, F did make out 22.6% of total GVA. In this respect, our findings do not differ from the results of the interwar time Latvian pioneers in national accounting. However, our calculation contains much more gain, because even in the semi-official estimates by the Latvian national office only 11 industries (sectors) were distinguished.

Table 1. Latvia's total GDP (in mil. Ls) in 1935

ISIC sector	GVA at basic prices	Taxes on products	Subsidies on products	Other taxes	Percentage in total GVA at basic prices
A. Agriculture, forestry, and fishing	383.5		13.34		36.11%
B. Mining and quarrying	1.92	0.03			0.18%
C. Manufacturing	199.13	3.96			18.75%
D. Electricity, gas, steam and air conditioning supply	13.85	0.03			1.30%

²² For details of calculation see Z. Norkus, J. Markevičiūtē, O. Grytten, J. Šiliņš, A. Klimantas, *Benchmarking Latvia's economy: a new estimate of gross domestic product in the 1930s*, „Cliometrica”, 2022 <https://link.springer.com/article/10.1007/s11698-022-00260-x> (accessed: 02.01.2023).

ISIC sector	GVA at basic prices	Taxes on products	Subsidies on products	Other taxes	Percentage in total GVA at basic prices
E. Water supply, sewerage, waste management and remediation activities	1.62	0.14			0.15%
F. Construction	23.59	0.70			2.22%
G. Wholesale and retail trade	137.17				12.92%
H. Transportation and storage	44.96				4.23%
I. Accommodation and food service activities	13.63				1.28%
J. Information and communication	8.18				0.77%
K. Financial and insurance activities	13.87	1.09			1.31%
L. Real estate activities	68.90	9.89			6.49%
M. Professional, scientific and technical activities	1.30				0.12%
N. Administrative and support service activities	5.73				0.54%
O. Public administration, defence, and compulsory social security	64.39				6.06%
P. Education	27.64				2.60%
Q. Human Health and Social Work activities	11.54				1.09%
R. Arts, entertainment and recreation	4.82				0.45%
S. Other service activities	11.82				1.11%

ISIC sector	GVA at basic prices	Taxes on products	Subsidies on products	Other taxes	Percentage in total GVA at basic prices
T. Activities of Households as employers and producers for own use	24.35				2.29%
U. Activities of extraterritorial organizations and bodies	0.00				0.00%
Excise taxes				19.90	
Alcohol monopoly				19.99	
Sugar monopoly				10.00	
Import taxes				25.39	
Total economy	1061.85	15.84	13.34	75.28	100.00%
GDP at market prices	1139.63				

Source: Latvia's total GDP (in mil. Ls) in 1935 by industries according to International Standard Industrial Classification of All Economic Activities (ISIC), Revision 4, and UN System of National Accounts 2008. Own calculation.

Adding up all sectoral GVA's at basic prices, we obtain a national aggregate of GDP at basic prices, which is equal to 1061.85 mil. Ls. To obtain GDP at market prices, we add product taxes less subsidies. These were excluded when calculating GVA at basic prices of ISIC industries B-F, K, and L. They include excise taxes, import taxes, and net revenue from state monopolies. Importantly, the last ones could serve both as instruments of taxing and of subsidizing. The first interpretation (taxing) applies to state alcohol and sugar monopolies, and the second (subsidising) to state monopoly for food grain. Running alcohol and sugar monopolies, the state did sell these products to consumers significantly above its production cost. We interpret the surplus appropriated by the state treasury, as (indirect) consumption tax. Running a grain monopoly, the state bought grain for human consumption at stable prices, which in 1935 were significantly above international market prices.

As bad conjuncture on grain markets continued for several years, the grain production was in excess of internal demand, and the state was forced

to sell the grain from overstocked storages in international markets significantly below the acquisition prices²³. Interpreting losses of government as subsidies on products, we follow the SNA 2008 instruction: “losses of government trading organizations <...> consist of losses incurred as a matter of deliberate government policy by government trading organizations whose function is to buy the products of resident enterprises and then sell them at lower prices to non-residents. The difference between the buying and selling prices is an export subsidy”²⁴.

The pre-estimated net cost (loss) of the grain monopoly 1935–1936 was 4,400,790 Ls²⁵. The actual net cost became 7,334,698 Ls²⁶. The central government did also maintain stable purchasing prices for flax, pork, and milk. Flax, pork (bacon) and butter (produced from milk), together with wood and wood products, were the main staples of Latvian exports. State-controlled production and trade agencies, which had monopoly rights to buy pork and butter for exports, paid stable prices for bacon and milk to farmers and received compensations for net losses from selling their products abroad. In the 1935–1936 state budget 5.9 mil Ls were allocated to subsidize flax producers²⁷.

However, due to rising flax prices and lower-than-expected flax harvests, the state was able to purchase and re-sell flax at international markets with no loss²⁸. The costs of maintaining stable milk and pork (bacon) in 1935 were

²³ A. Stranga, *Kārļa Ulmaņa autoritārā režīma saimnieciskā politika: (1934–1940)*, Rīga 2017, pp. 58-59.

²⁴ *The System of National...*, p. 149.

²⁵ Latvian State Historical Archive 1307, 1, 1217, 800.

²⁶ *Valsts kontroles revīzijas darbības pārskats par 1935/1936 saimniecības gadu*, Latvijas Republikas Valsts kontrole, p. 55, Rīga 1936. Differently from the subsidies to support bacon and butter export, those to run food grain monopoly were classified under Ulmanis regime (they are not reflected in the officially published 1935/1936 state budget). In the State controle office report on the budget execution, net loss inflicted on state budget by running of food grain monopoly is concealed by the description of this loss as a „loan from the Ministry of Finance“. The reason for this secrecy was that food grain monopoly increased price of bread for urban consumers. Bread producers had to pay for a ton of food grain more than state received selling it abroad.

²⁷ Latvian State Historical Archive 1307, 1, 1217, 771.

²⁸ P. Vanags, *Valsts ienemumi 1935/1936 gada*, „Economists”, 1936, 18, p. 626.

3 271 112 and 2 707 055 Ls respectively. There were also minor losses from promotion of exports of eggs and cheeses, with total subsidies on products making 13.34 mil. Ls. So they were only slightly less than total taxes on products (15.84 mil.Ls). Adding the total taxes less subsidies to the aggregated GDP at basic prices (1061.85 mil. Ls) we get GDP at market prices 1139.63 mil. Ls. According to the 12.02.1935 Population Census, Latvia's population was 1 950 502²⁹. Hence, its GDPpc in 1935 was 544.40 Ls at basic prices and 584.27 Ls at market prices.

Final considerations: tasks of further research and Latvia's international wealth standing in 1935

There are two major uses of the GDP figures in economical historical research. Firstly, they enable researchers to find out the rates of economic growth during specific periods. The use of our results for this aim is the major task of further research. Next steps in this research is construction of the physical volume indexes for relevant periods. Ideally, such indexes should be constructed for all ISIC sectors. However, many sectors of importance in contemporary postindustrial economies (e.g. M (Professional, scientific and technical activities) and R (Arts, entertainment, and recreation)) still made only a minuscule contribution to total GDP. Therefore, they can be agglomerated with kindred sectors, with a single output index covering the whole group of ISIC 4 industries.

The second use is a cross-national comparison to find out Latvia's position in the international economic productivity or wealth ranking. Some authors still argue that conversion of the GDP estimate (in the national monetary units) into leading international currency at the foreign exchange rate may give satisfactory or even the best result³⁰. However, this barely can apply to Lats in 1935, because since the breakdown of the international gold standard in September

²⁹ Z. Norkus, A. Ambrulevičiūtē, J. Markevičiūtē, V. Morkevičius, G. Žvaliauskas, *Latvian Population by Sex and Age in 1935 Census Data*, <https://hdl.handle.net/21.12137/CZV5CH> (accessed: 02.01.2023).

³⁰ R. P. Korzeniewicz, A. Stach, V. Patil, T. P. Moran, *Measuring National Income: A Critical Assessment*, „Comparative Studies in Society and History”, 2005, 46(3), pp. 535-86; S. Babones, *Methods for Quantitative Macro-Comparative Research*, Los Angeles 2014, pp. 59-66.

1931 Latvian currency was under strict foreign exchange control by the government with its unavoidable companion – the black market in currencies³¹.

Therefore, we follow the standard approach of calculating purchasing power parities. Preferably, they should allow converting GDP estimates in 1935 Lats into monetary units, used in the most encompassing real GDP database, which is MPD. In the most recent MPD release, these units are 2011 international Geary Khamis \$. The shortest way to convert 1935 Latvia's GDP in Lats into 2011 GK\$ is to establish PPP between 1935 Lats and national currencies of selected comparator countries which already have their GDP estimates for 1935 in the 2011 GK\$.

Important consideration in selecting such countries is similarity of consumption habits and so the consumer expenditure composition. However, this composition depends not only on culture ("tastes"), but also on their richness (it is well known that consumers in poor countries spend more on food). All considered, we used as comparator countries Sweden and Lithuania. They are culturally close to Latvia (therefore, the same basket of goods and services was used for all three countries)³², but Sweden was (and remains) richer, while Lithuania was poorer than Latvia. Besides that, Swedish historical national accounts are reputed as reliable³³. There are also no no-

³¹ See A. Aizsilnieks, *Latvijas saimniecības vēsture, 1914–1945*, Stockholm 1968; G. Krūmiņš (ed.), *Latvijas tautsaimniecības vēsture*, Rīga.

³² We thank Adomas Klimantas for sharing his price data on Lithuania and Sweden. Z. Norkus, A. Ambrulevičiūtė, J. Markevičiūtė, V. Morkevičius, G. Žvaliauskas 2021, *Annual Average Retail Prices of Food in Lithuania, 1913-1939*, V3, „Lithuanian Data Archive for HSS (LiDA)“, 2022 <https://hdl.handle.net/21.12137/UN7JZ9> (accessed: 02.01.2023); Z. Norkus, A. Ambrulevičiūtė, J. Markevičiūtė, V. Morkevičius, G. Žvaliauskas 2021, *Annual Average Retail Prices of Non-Food Goods in Lithuania, 1913-1939*, V3, „Lithuanian Data Archive for HSS (LiDA)“, 2022 <https://hdl.handle.net/21.12137/QFUBCC> (accessed: 02.01.2023); Z. Norkus, A. Ambrulevičiūtė, J. Markevičiūtė, V. Morkevičius, G. Žvaliauskas, *Annual Average Retail Prices of Food in Latvia, 1913-1939*, V3, „Lithuanian Data Archive for HSS (LiDA)“, 2022 <https://hdl.handle.net/21.12137/NISDN4> (accessed: 02.01.2023); Z. Norkus, A. Ambrulevičiūtė, J. Markevičiūtė, V. Morkevičius, G. Žvaliauskas 2021, *Annual Average Retail Prices of Non-Food Goods and Other Selected Services in Latvia, 1913-1939*, V3, „Lithuanian Data Archive for HSS (LiDA)“, 2022 <https://hdl.handle.net/21.12137/BHSV3V> (accessed: 02.01.2023).

³³ R. Edvinsson, *Main page. Sweden*. 2018, <http://www.historicalstatistics.org> (accessed: 02.01.2023).

ticeable criticisms of the conversions of the estimates of Swedish national income in the national currency at current prices into international dollars at constant prices of 1990 or 2011 (differently from other prospective comparator country Norway). Lithuania's benchmark GDP estimate (for 1937) was only recently published (together with conversion into MPD monetary units)³⁴.

Adjusting the Latvian–Swedish and Latvian–Lithuanian GDPpc capita comparisons for differences in price levels, we computed three PPP indices (Laspeyres, Paasche, and Fisher) for each of these comparisons and used as final Latvia's GDPpc values the geometric means of GDPpc values derived by using Fisher index. To make our results comparable both to MPD 2013 and MPD 2020 releases, we converted Latvian GDP values both into 1990 GK\$ (used in MPD 2013) and into 2011 GK\$ (used in MPD 2020). This makes our findings cross-nationally comparable (see Table 2).

Table 2. International GDP per capita for 1935

Rank	Country	GDP pc (GK\$ 1990)	Rank	Country	GDP pc (2011 \$)
1	Switzerland	7697.80	1	United States	9681.00
2	United Kingdom	5799.01	2	Switzerland	9479.00
3	Denmark	5479.69	3	United Kingdom	9244.00
4	United States	5466.84	4	Denmark	8735.00
5	Netherlands	4929.46	5	Netherlands	7857.00
6	Belgium	4894.20	6	Belgium	7801.00
7	Sweden	4491.73	7	Sweden	7160.00
8	Germany	4119.81	8	Norway	7003.00
9	France	4085.93	9	Germany	6567.00
10	Norway	4069.24	10	France	6513.00
11	Finland	3092.66	11	Finland	4930.00
12	Ireland	2966.00	12	Ireland	4728.00
13	Austria	2906.66	13	Italy	4670.00

³⁴ A. Klimantas, *Estimation of GDP PPP of interwar Lithuania, 1919–1940*, Oxford 2020; A. Klimantas, A. Zirgulis, *A new estimate of Lithuanian GDP for 1937: How does interwar Lithuania compare?*, „Cliometrica”, 2020, 14, p. 227–281.

14	Latvia	2776.05	14	Austria	4634.00
15	Italy	2654.11	15	Latvia	4424.94
16	Estonia	2598.00	16	Greece	3953.00
17	Spain	2582.77	17	Hungary	3939.00
18	Greece	2479.91	18	Czechoslovakia	3841.00
19	Hungary	2471.22	19	Japan	3825.00
20	Czechoslovakia	2409.90	20	Spain	3806.00
21	Japan	2120.47	21	Lithuania	3029.01
22	Lithuania	1900.37	22	Soviet Union	2971.00
23	Soviet Union	1863.87	23	Portugal	2660.00
24	Portugal	1668.65	24	Poland	2546.00
25	Poland	1596.71	25	Bulgaria	1992.00
26	Bulgaria	1249.58	26	Yugoslavia	1672.00
27	Romania	1196.21	27	Romania	674.00
28	Yugoslavia	1049.24	28	Estonia	Nd

Sources: Maddison Project Database, version 2013; Maddison Project Database, version 2020; O. H. Grytten, *Revising growth history: new estimates of GDP for Norway, 1816–2019*, „Economic History Review”, 2022 75(1) (for Norway); J. Valge, op. cit. (for Estonia); . Norkus, J. Markevičiūtė, O. Grytten, J. Šiliņš, A. Klimantas, op. cit. (for Lithuania).

Using MPD (2013) and MPD (2020) data, we replace Norwegian data with the newest and more precise calculations by Grytten³⁵. The GDP numbers for Norway in 1990 international Geary Khamis \$ are underestimates due to the problem with low oil prices in 1990, which make appear Norwegian GDP back in time low too. This accounts for a marked increase in the rank of Norway due to change of base year from 1990 to 2011. For Lithuania, we are using updated figures from work by Klimantas and Zirgulis³⁶. We include also an estimate for Estonia by Valge in 1990 GK\$³⁷.

³⁵ O. H. Grytten, *Revising growth history: new estimates of GDP for Norway, 1816–2019*, „Economic History Review”, 2022, 75(1), pp. 181–202. The MPD (2020) estimate for Romania in 2011 international \$ (see Table 2) is obvious mistake, as in 1990 international \$ it was nearly twice higher (according to MPD (2013)). It makes Romania in 1935 to appear as poorest country in the world (among those with data available).

³⁶ A. Klimantas, A. Zirgulis, op. cit.

³⁷ J. Valge, op. cit.

The position of particular countries differs in both rankings. So Portugal was richer than Poland in 1935 according to MPD 2013, but poorer according to MPD 2020, while Switzerland was richer than US according to MPD 2013 but poorer according to MPD 2020. However, these differences reflect only changes in the knowledge of particular countries by 2013 and by 2020 as well as changes in the methodology applied by the experts of Groningen Growth and Development Centre, updating MPD. Anyway, in the context of both sets of data, Latvia emerges as the richest country of Eastern Europe, its GDPpc surpassing by some 74% the GDPpc of Poland (Poland=100%) according to both MPD 2013 and MPD 2020.

Comparing our GDP findings of Latvia in 1935 with the previous estimates, we can conclude that Roses and Wolf with 4048 GK\$ 1990³⁸ were more off mark than Norkus and Markevičiūtė with 2836 GK\$ 1990³⁹. In 1935–1938 Latvia's GDPpc could grow from 2776 to 2836 GK\$ 2011, but “big leap” from 2776 to 4048 GK\$ is not credible. Nevertheless, the ultimate resolution of differences in the picture of Latvia's interwar output growth between these authors will be possible only after Latvia's GDP in the years preceding and following 1935 will be estimated using sectoral volume indexes and our benchmark estimate. This is the task for further research.

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³⁸ J. R. Roses, N. Wolf, op. cit.

³⁹ Z. Norkus, J. Markevičiūtė, op. cit.

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Nowe reperowe oszacowanie produktu krajowego brutto (PKB) dla Łotwy w 1935 roku

Abstrakt

Niepodległa w okresie międzywojennym Republika Łotewska była jednym z dziesięciu pionierskich państw, w których krajowy urząd statystyczny opublikował oficjalne szacunki dotyczące produkcji ogółem (1934–1936). Paradoksalnie jednak Łotwa jest krajem bałtyckim o najbardziej spornych wynikach wzrostu gospodarczego w okresie międzywojennym. Według autorytatywnej relacji Roses and Wolf w *The Cambridge Economic History of Modern Europe* (2010) tempo wzrostu PKB na mieszkańca Łotwy było najwyższe wśród krajów europejskich w latach 1929–1938. Łotwa imponująco zajęła dziesiąte miejsce obok Szwecji, Francji i Norwegii. Jednak według Norkusa i Markevičiūtė (2021) przewyższyła tylko kraje Europy Południowej, a wzrost jej PKB był mierny. Oba te sprzeczne szacunki są wyprowadzane metodami pośrednimi. Niniejszy artykuł przyczynia się do rozwiązania tej kontrowersji, bezpośrednio szacując PKB Łotwy w 1935 r. w ramach SNA 2008, dostarczając obliczenia wartości dodanej brutto dla

20 branż ISIC w cenach podstawowych i rynkowych. Zapewnia bardziej szczegółową analizę składu całkowitej produkcji Łotwy w porównaniu z międzywojennymi historycznymi rachunkami narodowymi, w których wyróżniono tylko 11 branż. Szacunek ten stanowi reper dla przyszłych badań nad wynikami wzrostu gospodarczego Łotwy w okresie międzywojennym. Przeliczając nasze szacunki na jednostki monetarne, wykorzystywane w Maddison Project Database, oceniamy pozycję Łotwy w międzynarodowym rankingu PKB na mieszkańca, dochodząc do wniosków bliższych ustaleniom Norkusa i Markevičiūtė (2021).

Słowa kluczowe: produkt krajowy brutto (PKB); oszacowanie PKB reperowe, Łotwa 1918–1940, historyczne rachunki narodowe, międzynarodowe porównanie bogactwa

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"Looking for a job".
The role of state institutions
of the Second Republic
in vocational activation
of the unemployed in the 1930s.

Abstract

The article presents the activities of state and local governments, which consisted of vocational activation of the unemployed. Such activities were initiated in 1919 and consisted of organizing public works. During the period of the Great Economic Crisis, they were continued, their territorial scope and organization of works increased, and the sources of financing changed. In addition, an action was taken to employ unemployed youth in public works.

In the 1930s, "innovative methods" called special actions appeared. These shares were modeled on economically developed countries, but were adapted to Polish realities. They were addressed to the unemployed and those earning below subsistence level. They included the organization of the foundations of independent existence, social and educational assistance and the employment of white-collar workers. Creating bases for independent existence consisted of supporting the unemployed in creating new jobs or improving the standard of existing jobs that provided a source of income. Socio-educational assistance was intended to contribute to the unemployed becoming self-reliant. Allotment gardens and vocational training were of great interest to the unemployed. Employment of unemployed white-collar workers consisted of subsidizing institutions that created jobs for this socio-professional group. Special actions were financed by the Labor Fund.

The special actions were intended to enable the unemployed to return to an active working life. They were supposed to restore their self-esteem and convince them that they were not a burden on society. However, these were innovative measures. They were undertaken too late to produce visible results before the end of the interwar period. They were at the organizational stage, were

conducted on a small scale and were poorly funded. It can be said that they were experimental in nature.

Keywords: unemployment in the Second Polish Republic, professional activation of the unemployed, special actions, public works, vocational training

Introduction

From 1919 to 1929, various measures were taken to alleviate the effects of unemployment: financial and non-financial. In the 1930s due to the great economic crisis, there was a reorganization of existing methods and the emergence of "innovative methods" called special actions. This was due not only to the high financial outlay, but also to the demands of the unemployed, who were demanding state support in the form of establishing new workplaces¹.

For the purpose of registration and job placement, National Employment Agency Offices (PUPP) were established under the Law of July 18, 1924², subordinate to the Unemployment Fund. A March 26, 1935³ decree transferred these functions to the National Labour Agency Bureau (PBPP), which were subordinate to the Labor Fund. An ordinance of November 24, 1927⁴ exempted white-collar workers from PUPP registration, and their records were handled by the Insurance Institutions for Office Workers (ZUPU). The aforementioned institutions – PUPP, PBPP and ZUPU – provided services to the registered unemployed and employers interested in hiring the unemployed. Their role was to register people looking for work. In practice, these were those who were granted financial and non-financial benefits by law, including work⁵.

¹ *Pamiętniki bezrobotnych*, t. 1, Warszawa 1967, p. 136.

² Ustawa z dnia 18 lipca 1924 r. o zabezpieczeniu na wypadek bezrobocia, Dz. U. 1924, nr 67, poz. 650.

³ Rozporządzenie Ministra Opieki Społecznej z dnia 26 marca 1935 r. o wykonaniu przez Fundusz Pracy pośrednictwa pracy, Dz. U. 1935, nr 23, poz. 152.

⁴ Rozporządzenie Prezydenta Rzeczypospolitej Polskiej z dnia 24 listopada 1927 r. o ubezpieczeniu emerytalnym pracowników umysłowych, Dz. U. 1927, nr 106, poz. 911.

⁵ Szerzej o kategoriach bezrobotnych uprawnionych do rejestracji: E. Słabińska, *Łagodzenie skutków bezrobocia w województwie kieleckim w latach 1918–1939*, Kielce 2008, pp. 14–17.

Consideration is given to those forms of vocational activation that emerged in the years preceding the Great Depression and to so-called "innovative methods" that emerged during the crisis. The term "innovative" is entirely accurate and justified by the fact that the models came to the Second Republic from economically developed countries and were adapted to Polish realities. In addition, the methods were of an experimental nature, so the results were modest.

Public works

Employers were reluctant to approach employment agencies to recruit workers. This was due to the fact that they had no problem finding workers during the economic collapse, and those registered as unemployed were not, in their view, a valuable workforce. Employers' concerns were somewhat valid, as a significant percentage were unskilled, elderly, malnourished and physically exhausted. Even when the December 31, 1924⁶ ordinance imposed an obligation on employers to notify PUPP of any vacancy or newly filled position, they did not change their attitude. In this situation, the efforts of job placement institutions have focused on employing the unemployed in public works.

Since 1919, public works were organized on a casual basis by local government units in regions with high unemployment. Over time, the government found it advisable for local governments to organize public works throughout the state with state funds in the form of low-interest loans (4% with a repayment term of 6 years) or subsidies. Local governments performed the work on a subcontract basis (mostly private entrepreneurs)⁷.

⁶ Rozporządzenie Ministra Pracy i Opieki Społecznej z dnia 31 grudnia 1924 r. w porozumieniu z Ministrem Skarbu, Ministrem Przemysłu i Handlu, Ministrem Rolnictwa i Dóbr Państwowych, Ministrem Kolei i Ministrem Robót Publicznych oraz Ministrem Sprawiedliwości w sprawie obowiązku pracodawców zawiadamiania państwowych urzędów pośrednictwa pracy o każdym wolnym lub nieobsadzonym miejscu, Dz. U. 1925, nr 2, poz. 23.

⁷ *Polityka społeczna państwa polskiego 1918-1935*, Warszawa 1935, p. 162, 174; B. Okulicz, *Roboty publiczne w świetle działalności Ministerstwa Opieki Społecznej, „Praca i Opieka Społeczna”*, 1933, R. XIII, z. 3, pp. 216-217.

The regulations stipulated that priority for employment in public works was given to unemployed persons registered with PUPP. However, if the employer was not able to obtain enough workers through this route or had difficulties in getting them to the site and accommodating them, he could employ people himself⁸. Employers abused regulations and favored people for whom working in public works was an additional source of income, as they represented cheap labor⁹.

During the first years of the Great Depression, provincial offices were brought into public works. Their task was to prepare an inventory of the works planned by the local authorities and to justify the proposals on economic and social terms. The granting of loans to local authorities was gradually relinquished as they were unable to repay them due to their disastrous financial state. In turn, subsidies were granted, which could only be used to cover labor costs (expenses for materials, tools and inventory were covered by investors). Unemployed workers employed in public works received wages independent of their qualifications and the type of work they performed. The rates corresponded to the cost of living in the particular place¹⁰.

The organization of public works changed with the creation of the Labor Fund. It did not carry out public works on its own, but through ministries, local governments, public institutions that could subcontract them. The Labor Fund entered into contracts with them, which included clauses on the amount of loans or subsidies granted and the terms of employment¹¹. If these funds were not sufficient, public works were discontinued¹². As a condition for receiving financial assistance from the Labor Fund, unemployed workers registered with the PBPP had to be employed in public works. Despite the borrowers' obligations, there was a tendency to take on casual

⁸ Archiwum Państwowe w Kielcach (on: APK), Urząd Wojewódzki Kielecki 1919–1939 (on: UWK I), sygn. 8599, W sprawie sposobu przyjmowania robotników do robót publicznych prowadzonych przez związki komunalne – pismo z 16 IX 1924 r., k. 32.

⁹ APK, UWK I, sygn. 8625, Sprawozdanie informacyjne o stanie bezrobocia na terenie PUPP w Kielcach za miesiąc listopad 1925 r., k. 116–117.

¹⁰ *Polityka społeczna...*, pp. 174–175; B. Okulicz, op. cit., p. 218.

¹¹ *Sprawozdanie z działalności Funduszu Pracy za okres od 1 kwietnia 1934 roku do 31 marca 1935 roku*, Warszawa 1936 (on: *Sprawozdanie 1*), p. 21.

¹² Example APK, UWK I, sygn. 20947, Pismo Magistratu miasta Sosnowca Wydział Budownictwa do Urzędu Wojewódzkiego w Kielcach z 17 IX 1931 r., k. 118.

laborers and peasants content with minimum wages. Employers used such practices mostly on earthworks outside cities¹³. To counteract them, the Labor Fund tightened credit conditions in 1935. Only unemployed people registered with the PBPP could be employed on the works financed by it. If irregularities were found during inspections, subsidies were withheld¹⁴. Soon the arrangements went further. Since 1937, all public works carried out in areas with high unemployment could only employ unemployed people registered with the BPP, regardless of the source of funding¹⁵. The Labour Fund financed public works carried out on a large scale, i.e. of regional and statewide importance, which involved a significant number of unemployed people (e.g. railway works, construction of beaten roads, water and sewerage and gasification facilities, drainage works, electrification, erection of public buildings). Work of regional importance was left to local authorities¹⁶.

The Labor Fund forced employers to hire a large number of unemployed people for public works, which was possible using the turnaround system (part-time work)¹⁷. Since the system was not performing well, it was avoided by employees¹⁸. If conditions permitted, they were obliged to employ the unemployed in such positions as suited their qualifications and physical condition. Office workers and skilled laborers were part of the supervisory staff, while unskilled laborers worked physically¹⁹. The Labor Fund decided on the rules for remuneration and determined its maximum share in covering labor costs. The unemployed received day or piecework wages. The Fund abandoned the use of equal rates for employees, but differentiated wages according to qualifications, position held and average wages in the area²⁰.

¹³ *Sprawozdanie 1*, p. 27.

¹⁴ *Sprawozdanie z działalności Funduszu Pracy od 1 kwietnia 1935 roku do 31 marca 1936 roku*, Warszawa 1937, (dalej: *Sprawozdanie 2*), pp. 27–28.

¹⁵ *Sprawozdanie z działalności Funduszu Pracy za okres od 1 kwietnia 1936 roku do 31 marca 1937 roku*, Warszawa 1936, (dalej: *Sprawozdanie 3*), p. 33.

¹⁶ *Sprawozdanie 1*, p. 21.

¹⁷ *Sprawozdanie 3*, p. 40; W. Ratyński, *Zmiany strukturalne i położenie ekonomiczne klasy robotniczej w Polsce w latach 1929–1935* [in:] *Polska klasa robotnicza. Studia historyczne, t. 1*, ed. S. Kalabiński, Warszawa 1970, p. 298.

¹⁸ *Sprawozdanie 3*, p. 42.

¹⁹ *Sprawozdanie 2*, tab. 83.

²⁰ *Sprawozdanie 1*, p. 26; *Sprawozdanie 2*, p. 27.

The wages would have been sufficient for public works employees to meet their basic needs if it were not for the turnaround system and the interruption of work due to the exhaustion of funds. Those unemployed who worked for the period required to acquire the right to statutory benefits could apply.

In 1935, the Labour Fund introduced compulsory work for unemployed recipients of non-financial forms of assistance (e.g. food shares). Using their own resources, the organisation of works for these people was handled by the local authorities in accordance with the guidelines of the Labour Fund. They organized sporadic work of a local nature due to financial difficulties. The unemployed had a negative attitude toward these measures²¹.

Youth employment

During the Great Depression, a youth employment action was taken. Drawing on the experience of the volunteer workers teams (ODR) operating in Upper Silesia on the initiative of the provincial office, the creation of such teams in other areas was initiated. The Ministry of Labor and Social Welfare has assumed patronage of the campaign²². It was on its initiative that the Society for the Care of Unemployed Youth (SOM) was founded in 1933, which, a year later, started to cooperate with the Labour Fund in organising and financing public works for young people. In 1935, the campaign to employ unemployed youth was taken over by the Labor Fund, and SOM was dissolved. In 1936, the Ministry of Military Affairs (MIA) received patronage for the campaign. Pursuant to a decree of 22 September 1936, the ODRs were replaced by the Junak Labour Corps (JHP). Membership in squads, then detachments, was based on the principle of voluntariness, and their members were called "junak". They aimed to reduce unemployment among

²¹ APK, Starostwo Powiatowe w Kielcach 1919–1939 (on: SPK I), Wytyczne akcji pomocy, sygn. 3150, k. 45–47.

²² E. Słabińska, *Ochotnicze drużyny robotnicze na terenie województwa kieleckiego w latach 1933–1935*, „Studia Kieleckie. Seria Historyczna”, 2004, nr 4, pp. 107–108; Z. Sowiński, *Ochotnicze drużyny robocze [in:] Roboty publiczne w Polsce i Fundusz Pracy*, ed. S. Wodziński, Warszawa 1933, pp. 7–10; *Fundusz Pracy w latach 1933 i 1934*, Warszawa 1934, p. 34.

young people, train them for a profession so that in the future they will be able to live independently²³.

SOM recruited youths in areas with high unemployment. Recruitment was spontaneous, carried out in a hurry, depending on funding and demand. In terms of age or morality – no selection of candidates was undertaken. As it was a safe haven from the police and the judiciary, problematic youth often infiltrated the work centres²⁴. Only when the action of employing unemployed youth was taken over by the Labor Fund did it demobilize the teams, leaving the junaks under 21. It soon adopted the principle that young people aged 16 to 19 would be considered for recruitment²⁵. Age limits were narrow because there was a lack of funding for the work.

The youth formed into squads, and these into teams. They worked in labour camps, run by chiefs who were responsible to the SOM authorities, then to the JHP²⁶. They performed earthmoving, renovation and construction work. During periods of natural disasters, it took part in rescues of people and property. The work was hard, poorly paid and not suited to the physical capabilities of the young people. There have been cases of unlawful withholding of wages for a 14-day trial period. As a consequence, the junaks were not very efficient (in some labor camps only 40% of the productivity of wage laborers)²⁷. In addition, after work they had to participate in military preparation and civic education classes.

²³ Dekret Prezydenta Rzeczypospolitej z dnia 22 września 1936 r. o służbie pracy młodzieży, Dz. U. 1936, nr 72, poz. 515; M. Ciechocińska, *Próby walki z bezrobociem w Polsce międzywojennej*, Warszawa 1965, pp. 155-7, 159-160; eadem, *Stowarzyszenie Opieki nad Niezatrudnioną Młodzieżą* [in:] *Encyklopedia historii Drugiej Rzeczypospolitej*, Warszawa 1999, p. 426; APK, UWK I, sygn. 3629, W sprawie ochotniczych obozów pracy – pismo z 31 X 1935 r., k. 123-124; ibidem, Zatrudnienie bezrobotnej młodzieży – pismo z 25 XI 1935 r., k. 137-138.

²⁴ Ibidem, W sprawie ochotniczych obozów pracy – pismo z 31 X 1935 r., k. 124-125.

²⁵ M. Ciechocińska, *Próby walki...*, p. 157.

²⁶ *Fundusz Pracy...*, p. 34; Z. Sowiński, op. cit., p. 8.

²⁷ "Ośrodki Pracy" R. I, 1934, nr 7-8, p. 16-19; M. Ciechocińska, *Próby walki...*, s. 155-156; APK, UWK I, sygn. 3629, Sprawy obozów pracy – pismo z 25 IV 1935 r., k. 43; ibidem, W sprawie ochotniczych obozów pracy – pismo z 14 X 1935 r., k. 115; ibidem, Zatrudnienie bezrobotnej młodzieży – pismo z 25 listopada 1935 r., k. 139.

The junaks were barracked in settlements built for them located near the labour camps. They stayed in dilapidated barns, barracks or army tents. They received meager rations. They lacked clothing and medicine. The harsh conditions of work and camp life were the reason for their breaches of discipline (e.g. stealing crops from neighbouring farms, stealing from each other, taking possession of camp property, fights with local youths, active resistance to police arriving on the scene and even escaping from the labour camps)²⁸.

Special actions

In the 1930s. innovative methods of job activation for the unemployed called special actions emerged. Their genesis can be traced back to earlier years. These actions were initiated and (mostly) financed by the Labor Fund. It cooperated in the implementation of ideas with the state administration, local government, numerous institutions and economic and socio-cultural organizations. The special campaigns targeted the unemployed and those earning below the subsistence level. They were:

- organization of the basics of independent living,
- socio-educational assistance,
- employment of office workers.

The campaign to lay the foundations for independent existence was launched by the Labour Fund in 1934, in cooperation with the Ministry of Economic Development and the Ministry of Agriculture and Rural Development. It aimed to create new workshops and raise the level of existing facilities. New establishments could not compete with existing ones in the area. The Labor Fund financed the action in the form of loans, occasionally grants²⁹.

The organization of the foundations of independent existence included rural action and suburban colonization. Both were experimental and limited to a few localities. Rural colonization was aimed at increasing the profitability of small farms to reduce the migration of people from the countryside to the

²⁸ E. Słabińska, *Ochotnicze drużyny...*, pp. 111–114.

²⁹ Archiwum Państwowe w Katowicach (on: APKa), Akta miasta Sosnowca [1854] 1902–1945 (on: Akta m. Sosnowca), sygn. 4254, Podstawy samodzielnej egzystencji, k. 1; *Fundusz Pracy*, pp. 43–44; *Sprawozdanie 1*, p. 40.

cities. The Chamber of Agriculture was the dispenser of funds from the Labour Fund. In line with the Fund's recommendations, they allocated funds to departments that could develop in the region due to its specific characteristics (e.g. the folk industry in the Kielce province). Financed were almost exclusively cooperatives, workshops with factory and overlay production systems. Funds were used for investment (acquisition or lease of a room for the workshop and its equipment), purchase of raw materials and semi-finished products. In addition, instructional cadres were paid for the growing branches of manufacturing³⁰.

In 1937, the name of the organisation of the basics of independent living was changed to the organisation of additional activities for the agricultural population. The Inter-Ministerial Committee on Folk and Home Industries was established under the Ministry of Economic Development to formulate an action plan for the promotion of people's industries and the distribution of credit. The campaign was led by The Chamber of Agriculture with funds from the Labor Fund. The loan was for both working capital and investment capital³¹. On the initiative of the Chambers of Agriculture, a number of conferences were held with the participation of representatives of state authorities, local government, business government and interested organizations to discuss the possibility of developing the people's industry in the region. The 1938 conference in Kielce was regularly reported by the „Gazeta Kielecka”. Workshops in ceramics (in Iłża and Chałupki), utilitarian and commemorative woodworking (in Łączna and Św. Krzyż), marble and red sandstone structures (in the vicinity of Kielce, Chęciny and Tumlin), ironworking (in the Staropolski Basin) and basketry (in the south of the Świętokrzyskie Mountains and the Vistula region), weaving and haberdashery (throughout the Świętokrzyskie district) were considered to have the greatest opportunities for development in the Świętokrzyskie region³². A model cottage industry center for the production of iron articles was established in Starachowice³³.

Suburban colonization consisted of the migration of unemployed people from cities with high employment in crafts and small trade to areas where

³⁰ Ibidem, p. 44; *Sprawozdanie 2*, p. 55; *Sprawozdanie 3*, p. 56.

³¹ *Sprawozdanie z działalności Funduszu Pracy za okres od 1 kwietnia 1937 roku do 31 marca 1938 roku*, Warszawa 1938, (on: *Sprawozdanie 4*), p. 45.

³² „Gazeta Kielecka” 1938, nr 77, p. 3.

³³ Ibidem, nr 89, p. 2.

they had opportunities for economic initiative due to weak competition. For example, a dozen unemployed families from Zawiercie were resettled in a 46-hectare colony established near Lida in the Eastern Borderlands. Each family received a 2,500-square-meter plot of land and permission to set up a craft workshop in the city. As in the case of rural colonization, the disposer of funds from the Labor Fund was the Chamber of Agriculture³⁴.

Since 1933, the Labor Fund took action to provide social and educational assistance to the unemployed. It aimed to assimilate the unemployed into the work environment and contribute to their professional independence. It occurred in the form of actions: allotment gardens, cultural and educational, and professional adoption.

Land for the unemployed³⁵. The initiative of allotments for the unemployed came from the Union of Allotment Societies of the Republic of Poland, which was established in Poznań in 1927. The Labour Fund supported the initiative because it assumed that the allotments for the unemployed would be a form of short-term employment (tiny substitute workshops) evolving towards the creation of permanent job workshops³⁶. Allotment colonies were to be established and managed by the union's local committees in cooperation with local government units. Local authorities designated areas for colonies and the Fund allocated resources to develop them (i.e. tidying up, levelling, fencing and bringing in water). (i.e. tidying up, levelling, fencing and bringing in water)³⁷.

³⁴ *Fundusz Pracy...*, p. 44; *Sprawozdanie 1*, p. 44.

³⁵ Szerzej: E. Słabińska, *Osadnictwo rolne jako forma zatrudnienia bezrobotnych w województwie kieleckim w okresie wielkiego kryzysu gospodarczego* [in:] *Problemy pracy i zatrudnienia w Polsce w XX i na początku XXI wieku. Wybrane zagadnienia*, ed. E. Słabińska, Kielce 2015, pp. 111-125.

³⁶ *Sprawozdanie 1*, pp. 41-42.

³⁷ Archiwum Państwowe w Kielcach (on: APK), Starostwo Powiatowe Kieleckie (on: SPK 1) 1919-1939 APK, SPK I, sygn. 3158, *Sprawozdanie ze zjazdu delegatów akcji ogródków działkowych na terenie Wojewódzkiego Komitetu w Kielcach z 27 III 1935 r.*, k. 4-7; APK, SPK I, sygn. 3154, *Sprawozdanie ze zjazdu delegatów akcji ogródków działkowych z terenu Wojewódzkiego Komitetu Funduszu Pracy w dniu 26 lutego 1935 r.*, k. 94; „*Gazeta Kielecka*” 1930, nr 59, s. 1; APKa, Akta m. Sosnowca, sygn. 1714, *Magistrat miasta Sosnowca do Rady Miejskiej miasta Sosnowca – pismo z 9 XI 1928 r.*, k. 1; *Sprawozdanie z działalności Centralnego Związku Towarzystw Ogródków i Osiedli*

The idea of colony plots for the unemployed attracted the interest of local governments in many cities. It was also supported by institutions for which the plots would serve economic and social functions (educational, health, recreational, etc.). Numerous statements³⁸ stressed that they would ensure that unemployed families "survive the hardest times, which will relieve their plight, and then still give them this conviction that they are not becoming a burden on society in its entirety"³⁹. Ultimately, the campaign to organize allotment colonies was aimed at selecting people for agricultural work. In cities, district and local branches subordinate to the Association were established under the name – allotment garden societies.

In 1929, the organization changed its name to the Union of Societies of Allotment Gardens, Small Estates and Breeding of Small Livestock of the Republic of Poland in Poznań. In 1937, the headquarters was moved to Warsaw. The fundamental goal of the Union did not change. However, it was announced that the Association would undertake educational activities for allotment users to improve their theoretical knowledge (i.e. congresses, conferences, lectures, courses, conventions, tours, reading) and practical knowledge (i.e. exhibitions and demonstrations) of gardening and horticulture. The plan was to develop a network of instructors at the headquarters of allotment societies and to publish magazines and brochures. The thought was to organize a trading center where allotment holders could buy tools and seeds and sell the food produced⁴⁰.

Detailed guidelines for organizing allotment colonies for the unemployed were developed by the Labor Fund. It recommended that the colony be brought to a usable condition with minimal financial outlay and the involvement of unemployed future allotment holders. The condition for receiving a plot was to register with the PUPP (or PBPP) and become an ordinary member of an allotment society⁴¹.

Działkowych Rzeczypospolitej Polskiej w Warszawie za czas od dnia 1 kwietnia 1937 roku do dnia 31 marca 1939 roku, Warszawa 1939, p. 5.

³⁸ E. Słabińska, *Osadnictwo rolne...*, pp. 112-113.

³⁹ APKa, Akta m Sosnowca, sygn. 4254, Protokół z Trzeciego Kongresu Delegatów Związku Towarzystw Ogródków Działkowych RP w Katowicach odbytego w dn. 2–3 IX 1933 r., k. 29–30.

⁴⁰ E. Słabińska, *Osadnictwo rolne...*, p. 113.

⁴¹ *Ibidem*, p. 117.

The societies acquired state, local government and private land for allotment colonies on a lease basis. Allotment holders were also bound by a lease agreement with the society, in which they agreed to pay rent, develop their plots in accordance with the society's recommendations, participate in training, and donate a portion of their crops to a food charity event for the unemployed. They were only allowed to grow vegetables, flowers, dwarf fruit trees and sometimes raise fowl. They were obliged to keep their garden "in the best possible condition"⁴². The Labor Fund allocated tools, fertilizers, seeds, trees, shrubs to allotment holders partly in the form of non-refundable, partly refundable aid. It provided them (through cooperation with chambers of agriculture) with instructional assistance⁴³.

The average plot size was 470–850 m². Initially, allotmentists were given a great deal of freedom by the boards of allotment societies to choose their crops. This has led to unreasonable use of plots of land. The boards, having learned from the bad experience, changed their strategy. They allocated seed potatoes, pulses, seedlings to allotment holders free of charge, thus determining the structure of crops. They also took care of the fertilizer supply⁴⁴. In these activities, the boards were supported by the Labour Fund. This is because the Fund sought far-reaching crop intensification in the colonies.

The plot colony action for the unemployed was carried out to a modest extent. The reason was the scarcity of land and funds. Most often, land on the outskirts of cities, with poor soil, originally used for waste disposal, was allocated for colonies. They were fertilized with the fecal matter of city residents and waste from city slaughterhouses⁴⁵. The problem was the short lease term of the land designated for the colonies and the restrictions ap-

⁴² APKa, Komitet Niesienia Pomocy Bezrobotnym i Biednym w Czeladzi 1931–1942 (on: KNPBBC), sygn. 48, Regulamin Towarzystwa Ogródków Działkowych w Dąbrowie Górniczej z 1933 r., k. 7.

⁴³ APK, SPK I, sygn. 3154, Sprawozdanie ze zjazdu delegatów akcji ogródków działkowych na terenie Wojewódzkiego Komitetu w dn. 26 lutego 1935 r., k. 113; *ibidem*, Pomoc społeczna, k. 205-206.

⁴⁴ APK, UWK I, sygn. 20948, W sprawie Komitetu Niesienia Pomocy Bezrobotnym – pismo z 23 V 1931 r., k. 123; APKa, KNPBBC, sygn. 48, Protokół z 13 IV 1934 r., k. 55.

⁴⁵ APK, SPK I, sygn. 3154, Sprawozdanie ze zjazdu delegatów akcji ogródków działkowych z terenu Wojewódzkiego Komitetu Funduszu Pracy w dniu 26 lutego 1935 roku, bp.

plied by the landowners (included in the lease agreements)⁴⁶. As a result, important investment work could not be undertaken. Added to this was the sluggishness and lack of experience in conducting such activities by allotment societies, modest models of colonies and allotments suitable for imitation. It is also believed that the relatively slow development of the allotment colony and the numerous shortcomings in its operation were determined by the too short time since the action was initiated. One participant at the 1933 national conference of presidents of allotment societies in Warsaw said that the colonies were an "experiment" that gained public approval⁴⁷. Since the campaign to organize colonies was on a small scale, not all interested parties were able to obtain land for cultivation.

The effects of the allotments holders work were varied and not necessarily dependent on themselves. They faced many difficulties, including modest assistance from the Labor Fund, the authorities of allotment societies and local governments, and a lack of experience in agricultural work. They worked on infertile land, were often deprived of access to water, and relied on small rations of fertilizer, seeds and seedlings.

We learn about the appearance of the colonies from systematic inspections carried out by qualification committees appointed by the boards of allotment societies in conjunction with the Labor Fund. Usually the reviews were negative. Allotment holders improperly selected crops, made elementary mistakes in growing fruits and vegetables, and achieved low yields. However, instructed by the selection committee, they achieved better results⁴⁸.

Nonetheless, there were positive sides to the action of creating allotment colonies for those who were unemployed. The unemployed were given job opportunities that made them feel useful in society. They have ceased to pose a potential threat to public order. They took part in training sessions,

⁴⁶ APKa, KNPBBC, sygn. 47, Towarzystwo Górniczo-Przemysłowe „Saturn” SA do Komitetu niesienia pomocy bezrobotnym w Czeladzi – pismo z 14 IV 1934 r., k. 1; *ibidem*, sygn. 48, Protokół z zebrania organizacyjnego Sekcji Ogródków Działkowych z 10 III 1934 r., k. 3–5.

⁴⁷ *Ibidem*, Akta m. Sosnowca, sygn. 4254, Konferencja prezesów Towarzystw Ogródków Działkowych o wynikach stanu ogródków działkowych w województwach centralnych w dn. 23 X 1933 r., k. 45.

⁴⁸ APKa, KNPBBC, sygn. 49, Protokół lustracji ogródków działkowych w Czeladzi dokonanej przez komisję kwalifikacyjną 8 VIII 1936 r., k. 16–17.

lectures, readings and benefited from the help of instructors. All this served to expand their knowledge of horticulture and fruit growing. They were able to produce food for themselves and their families. Some developed exemplary plots, and received cash and material awards for their achievements. They shared their experiences at regional and national conventions⁴⁹.

Vocational training. The vocational training campaign was initiated by the Labour Fund in 1935 and co-financed by it. Its goal was to prepare the unemployed for a profession. According to the Fund's guidelines, it was to be conducted by cultural and educational institutions and organizations in the form of vocational courses, using methods such as lectures, demonstrations and internships. Initially, the Labour Fund was interested in training the unemployed in occupations that were in short supply in public works (e.g. construction-related). Over time, it expanded his training offer.

Provincial Labour Fund Offices reported on vocational training (i.e. eligibility conditions, profile and period) in the local press. Typically, the requirements (in terms of age, education, pre-exempt work) placed on candidates were excessive. They were held in major cities and lasted several months. The organizers usually did not provide housing and food for the trainees. The training profile was not fully thought out, which was due to poor market intelligence. Information on shortage occupations was obtained by the BPP from interviews with employers. Completion of the course did not result in employment. Because of the aforementioned piling up difficulties, the unemployed distanced themselves from training⁵⁰.

Vocational training was also provided to young people belonging to ODR and JHP. They were aimed at "preparing workers with full professional qualifications – at the secondary and lower secondary level – for the needs of commerce, industry, crafts and agriculture, and preparing skilled laborers in

⁴⁹ Ibidem, Akta m. Sosnowca, sygn. 4254, Konferencja prezesów Towarzystw Ogródków Działkowych o wynikach stanu ogródków działkowych w województwach centralnych 23 X 1933 r., k. 45; ibidem, Związek Towarzystw Ogródków Działkowych – okręg warszawski – zjazd 18 XII 1933 r., k. 49–50; M. Chmieleńska, *Ogrody działkowe a bezrobocie*, „Praca i Opieka Społeczna”, 1932, R. XII, z. 4, p. 372.

⁵⁰ E. Stabińska, *Łagodzenie skutków bezrobocia...*, pp. 155–156; eadem, „Akcje specjalne” – założenia i realizacja w Polsce centralnej w latach 1933–1939, „Annales Universitatis Paedagogicae Cracoviensis. Studia Historica XIV”, Folia 139, eds. J. Chrobaczyński, A. Paciorek, Kraków 2013, pp. 176–177.

the relevant profession"⁵¹. Male junaks showed interest in courses for: locksmith, turner, tinsmith, electrician, specialist in bronze and brass working, saddler, tanner, upper maker, hatmaker, ironworker, electrical installer, water and drainage supervisor, technical assistance with machinery, cooperative worker, merchant, woodworker, draftsman, office worker. While female junaks were being groomed as future housewives, so they were offered courses in tailoring, weaving, knitting, cooking, cleaning, uniform repair, and gardening. Training consisted of theoretical and practical parts. The latter took place in factories, craftsmen's workshops and commercial establishments. A novelty was the creation of the so-called independent school companies – industrial, masonry, workshop, etc. The young people who belonged to them received training in reputable factories. Unfortunately, due to poor supervision during internships, students were negligent⁵².

In special cases, the Labor Fund covered fees for young people's tuition at vocational schools, apprenticeships in workshops and exams. For example, it financed the education of unemployed youth at the Vocational River Shipping School in Warsaw⁵³.

In 1936, the adoption campaign was expanded to include career counseling. The Labor Fund financed career counseling centers, which worked to link young people leaving school with the labor market⁵⁴.

A systematic campaign to employ the jobless office workers was carried out from 1933 and took various forms. The Labor Fund provided subsidies to institutions employing unemployed office workers in scientific and research work (carried out, among others, by the Institute of Social Affairs, the Institute of Social Economy, the Polish Academy of Arts and Sciences, the Economic and Statistical Bureau at the Central Office of Interest-Free Credit, the Small Farms Research Bureau at the Union of Chambers and Agricultural Organizations) and cultural and educational work (carried out, among others, by the Polish Educational Society, the Polish Scouting Association, the Wom-

⁵¹ Archiwum Akt Nowych (dalej: AAN), Junackie Hufce Pracy [1921, 1923, 1927, 1933-1935] 1936-1939 (dalej: JHP), sygn. 362, Szkolenie zawodowe w JHP – informacje ogólne Ministerstwa Spraw Wojskowych, bp.

⁵² E. Słabińska, „Akcje specjalne”..., p. 177.

⁵³ *Sprawozdanie 2*, p. 53; *Sprawozdanie 3*, p. 65; *Sprawozdanie 4*, p. 42.

⁵⁴ *Sprawozdanie 3*, p. 55; *Sprawozdanie 4*, p. 42.

en's Civil Labor Union). In addition, it financed (initiated by the Agricultural Chambers and Organisations, Agricultural Societies) activities of an economic nature aimed at raising the level of agriculture (for example, organizing courses of instruction and employing the unemployed as instructors of small farms and allotment colonies). Initially, the Labour Fund provided employment for the winter relief campaign conducted by citizens' committees (in the Kielce and Łódź provinces and the Capital City of Warsaw), but withdrew from the campaign because the committees often failed to follow their instructions. The financial assistance was only for the labor fee.

The Labor Fund employed public workers in connection with public works. They worked as administrative (office) staff and technical staff (engineers, technicians, foremen and janitors). In addition, it financed work on studies and technical projects (carried out by Regional Planning Offices including Warsaw, Łódź and other places)⁵⁵.

Summary

The biggest benefit for the unemployed was work. Since the state institutions set up for registration and job placement had modest results in finding vacancies for the unemployed, they concentrated their efforts on public works. Public works had been organised since 1919, yet in the 1930s the territorial scope and organisation, employment and funding sources increased. A new feature was public works for young people.

Also in the 1930s, there was an action to lay the foundations for independent existence. It consisted of the organization of the basics of independent living, social and educational assistance and the employment of white-collar workers. They were innovative in nature (although models from economically developed countries were adopted, but adapted to Polish realities). These actions were financed or co-financed by the Labor Fund.

The aforementioned actions can be considered in social and economic terms: social – they counteracted the exclusion of the unemployed from society, economic – they provided work and income. On the positive side,

⁵⁵ *Sprawozdanie 1*, p. 38–39; *Sprawozdanie 2*, p. 55; *Sprawozdanie 3*, p. 57; *Sprawozdanie 4*, p. 48; *Fundusz Pracy...*, p. 42.

they were diverse and addressed different categories of unemployed (registered and unregistered, urban and rural residents, occupationally diverse). On the negative side, they were experimental, conducted on a small scale (territorially and in terms of employment) and modestly funded. As a result, the effects of special actions were negligible, and thus the goals were not fully realized.

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„Looking for a job”.**Rola instytucji państwowych Drugiej Rzeczypospolitej w aktywizowaniu zawodowym bezrobotnych w latach 30. XX wieku****Abstrakt**

Jednym z największych problemów politycznych, ekonomicznych i społecznych w Drugiej Rzeczypospolitej było bezrobocie, które miało przeważnie charakter koniunkturalny. Jego nasilenie nastąpiło w okresie wielkiego kryzysu gospodarczego. Od początku niepodległości państwa polskiego podejmowano finansowe i pozafinansowe formy pomocy bezrobotnym, jednak oni sami domagali się od rządzących pomocy w postaci tworzenia nowych miejsc pracy. Działania zmierzające do aktywizowania bezrobotnych podjęte zostały w 1919 roku i polegały głównie na organizowaniu robót publicznych. W okresie kryzysu były one kontynuowane, jednakże zwiększył się zakres terytorialny i organizacja robót, zatrudnienie oraz zmieniły się źródła finansowania. W latach 30. XX wieku pojawiły się „metody nowatorskie” zwane akcjami specjalnymi. W tej dziedzinie Polska wzorowała się na krajach rozwiniętych gospodarczo, ale dostosowała je do rodzimych realiów. Akcje specjalne były rodzajem eksperymentu. Charakteryzowały się różnorodnością, jednak prowadzone były na niewielką skalę i ich efekt był skromny.

Moim celem było pokazanie (w ujęciu syntetycznym) aktywnej polityki państwa na rynku pracy. Skoncentrowałam się na „metodach nowatorskich”. Dokonałam ich charakterystyki oraz wskazałam na pozytywne i negatywne ich cechy.

W tekście wykorzystałam naukowe metody historyczne. Sięgnęłam do tekstów źródłowych proveniencji państwowej (ustawodawstwa, sprawozdań i archiwaliów) oraz opracowań.

Słowa kluczowe: bezrobocie w Drugiej Rzeczypospolitej, aktywizacja zawodowa bezrobotnych, akcje specjalne, roboty publiczne, przysposobienie zawodowe.

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Semiconductors in socialist Poland. The Sectoral Innovation System of the Polish semiconductor industry, 1950s-80s

Abstract

This article applies the theoretical approach of Sectoral Innovation Systems (SIS) to the case of the Polish semiconductor industry between the 1950s and 1980s. Although the approach was developed with market economies in mind, applications to case studies in planned economies can shed additional light on the actors as well as innovation inputs and outputs, such as the workforce structure of key companies, or patenting. Furthermore, a periodization is proposed, distinguishing four periods roughly corresponding to the decades from the 1950s to the 1980s. In general, the development of the workforce structure and patenting over the period under study supports the proposed periodization and shows that the Polish semiconductor industry was capable of producing innovation in both pure and applied research. The case of socialist Poland illustrates, however, that the general dysfunctions of the economic and political system significantly reduced the innovative potential in this field.

Keywords: semiconductors, Poland, innovation, planned economy, economic history

Introduction

Since the 1990s, the economies of Central European countries have been swiftly catching up with their Western European counterparts. This has been made possible by a far-reaching process of transformation of the entire economy, often resulting in shutdowns of large factories and entire sectors¹. These factories and sectors seemed unfit to survive intensifying international compe-

¹ See for example A. Karpiński, S. Paradyś, P. Soroka, W. Żótkowski, *Jak powstały i jak upadły zakłady przemysłowe w Polsce. Losy po 1989 roku zakładów zbudowanych w PRL-u*, Warsaw 2013.

tion. Research conducted in the 1990s highlighted that planned economies were characterized by inherent dysfunctions, resulting in a considerable development gap between former Eastern Bloc countries and the capitalist West². Characteristics such as soft plans, socialist ownership, absence of competition, and lack of a rational pricing system resulted in decreasing productivity. These aspects in turn are closely related to fundamental features of planned economies such as the centralization of decision-making, as well as information and motivation problems that resulted in allocative inefficiency³.

All of the aforementioned aspects and characteristics lead to a general observation: planned economies were characterized by underperformance as regards innovation, that is, technological change resulting in economic progress. A downward trend in technological change in Eastern Europe was already observed by Western researchers in the late 1980s and early 1990s. Without competition or pressure to reduce costs, the incentives for enterprises – which were often protected by a monopoly – to invest in innovation were too weak. Rather, the most important goal of enterprise managers was to fulfil plan targets, and risky innovation investments had the potential to thwart such fulfilment. Therefore, investments in technological change, with the West as a blueprint, often had to be decreed by the central planners, necessarily leading to a considerable modernization gap with respect to leading capitalist economies and companies⁴.

Theory and hypothesis

In order to shed more light on innovation in planned economies, this article will make use of a theoretical approach of Sectoral Innovation Systems

² See J. Kornai, *The Socialist System. The Political Economy of Communism*, Oxford 1992; L. Balcerowicz, *Socialism, Capitalism, Transformation*, Budapest 1995, pp. 59–60.

³ C. Buchheim, *Die Wirtschaftsordnung als Barriere des gesamtwirtschaftlichen Wachstums in der DDR*, „Vierteljahrschrift für Sozial- und Wirtschaftsgeschichte“, 1995, 82/2, p. 210; G. Gutmann, *In der Wirtschaftsordnung der DDR angelegte Blockaden und Effizienzhindernisse für die Prozesse der Modernisierung, des Strukturwandels und des Wirtschaftswachstums* [in:] *Die Endzeit der DDR-Wirtschaft. Analysen zur Wirtschafts-, Sozial- und Umweltpolitik*, ed. E. Kuhrt, Opladen 1999, p. 29.

⁴ P. Hanson, K. Pavitt, *The Comparative Economics of Research Development and Innovation in East and West: A Survey*, New York 1987, p. 19; S. Gomułka, *The Theory of Technological Change and Economic Growth*, London 1990, pp. 97–98.

(SIS). A SIS can be defined as a “system of firms active in developing and making a sector’s products and in generating and utilizing a sector’s technologies”⁵. This means that the interaction between the firms in a specific sector is central to the system. This is in line with results in innovation research, which highlight that innovation is an outcome of complex feedback processes, in contrast to early linear innovation models⁶. The central role of firms points to the fact that this approach is based on market economies. To adapt it to the realities of planned economies, it is necessary also to consider other actors. Following the Triple Helix model of innovation,⁷ this analysis will also include actors from academia, and especially those from government and state administration⁸.

The SIS is based on the broader approach of National Innovation Systems, which since the late 1990s has been complemented by regional, global or technological perspectives⁹. In contrast to national or regional approaches, the boundaries of a SIS are defined by the products characteristic for the sector. Furthermore, it does not limit the perspective to a certain geographical area, but explicitly includes actors from abroad. Besides the aforemen-

⁵ S. Breschi, F. Malerba, *Sectoral Innovation Systems: Technological Regimes. Schumpeterian Dynamics and Spatial Boundaries* [in:] *Systems of Innovation. Technologies, Institutions and Organizations*, ed. C. Edquist, London 1997, pp. 130–156 (131).

⁶ See S. Kline, N. Rosenberg, *An Overview of Innovation* [in:] *The Positive Sum Strategy. Harnessing Technology for Economic Growth*, eds. R. Landau, N. Rosenberg, Washington D.C. 1986, pp. 275–306.

⁷ H. Etzkowitz, L. Leydesdorff, *The Triple–Helix. University–Industry–Government Relations: A Laboratory for Knowledge Based Economic Development*, „EASST Review”, 1995, 14/1, pp. 14–19.

⁸ S. Radosevic, *Transformation of science and technology systems into systems of innovation in central and eastern Europe: the emerging patterns and determinants*, „Structural Change and Economic Dynamics”, 1999, 10, pp. 277–320 (282).

⁹ See L. Coenen, F. Díaz López, *Comparing systems approaches to innovation and technological change for sustainable and competitive economies: an explorative study into conceptual commonalities, differences and complementarities*, „Journal of Cleaner Production”, 2010, 18, pp. 1149–1160; G. D’Allura, M. Galvagno, A. Mocciaro Li Destri, *Regional Innovation Systems: A Literature Review*, “Business Systems Review”, 2012, 1/1, pp. 139–156; Ch. Binz, B. Truffer, *Global Innovation Systems. A Conceptual Framework for Innovation Dynamics in Transnational Contexts*, „Research Policy”, 2017, 46/7, pp. 1284–1298.

tioned actors from science, the economy and the state, the SIS embraces additional actors such as suppliers, customers, federations and unions, research institutes, and so forth¹⁰.

To measure innovation, innovation research usually focuses on inputs such as expenditure on research and development (R&D), as well as outputs such as patents. Other criteria used include licences, high-tech exports, investments, or the level of technology¹¹. Since data for most of these yardsticks are beset by numerous problems and are hard to obtain, especially in relation to the period under study here, it is necessary to include the micro level in the form of key enterprises as a proxy for the entire sector¹².

This article will apply the SIS approach to the case of the Polish¹³ semiconductor industry in the period from the 1950s to the 1980s. Particular attention will be paid to workforce structure as a measure of innovation input, and patents as innovation output. The following is suggested as a hypothesis: that the structure of the SIS of the Polish semiconductor industry was capable of producing and diffusing innovation, although the economic and political crises in the 1980s significantly reduced the innovative potential in this field.

Case study: the Polish semiconductor industry

Brief historical overview

We propose to divide the studied time frame into four periods. The first period stretches from the interwar years until the late 1950s, and was marked by strong continuities, but also new beginnings. The second period extended through the 1960s, and was characterized by the formation of enduring industrial structures. The third period, encompassing the 1970s, was

¹⁰ F. Malerba, *Sectoral systems of innovation and production*, „Research Policy”, 2002, 31, pp. 247–264 (250).

¹¹ M. Weresa, *Polityka Innowacyjna*, Warsaw 2014, pp. 55–56.

¹² C. Freeman, L. Soete, *Developing science, technology and innovation indicators: What we can learn from the past*, „Research Policy”, 2009, 38, pp. 583–589 (584).

¹³ This article will use the word “Poland” instead of the more precise term “Polish People’s Republic”.

marked by ambitious governmental investment programmes. The fourth period covers the 1980s, characterized by a significant decline in investment and production output.

First period (1934–1957): Although the destruction of the Second World War was enormous, the semiconductor industry in post-war Poland was characterized by strong continuities. Especially the State Institute for Telecommunication (Państwowy Instytut Telekomunikacyjny, PIT), established in 1934 in Warsaw, became a major hub for experts returning from Western exile after the war. The PIT was managed by the engineer Janusz Groszkowski, who became a decisive figure in the early Polish semiconductor industry¹⁴. Despite the return of some from exile, the post-war Polish semiconductor industry lacked experts. Consequently, the education of young professionals in the field became a focal point. From the early 1950s, the number of graduates from the Technical University of Warsaw and other educational institutions increased significantly. They found employment in newly established science and education centres such as the Institute for Basic Technological Problems (Instytut Podstawowych Problemów Techniki, IPPT) and the Industrial Electronics Institute (Przemysłowy Instytut Elektroniki, PIE). Since most of these new structures were established in Warsaw, the capital reinforced its position as the most important technology location in Poland¹⁵. Research institutes like the IPPT and the PIE and its successors became hotbeds for the next generation of experts, such as Witold Rosiński, Bohdan Paszkowski and Jerzy Pułtorak, who would shape the Polish semiconductor industry in the following decades. In 1953, Rosiński constructed the first Polish point-contact transistor (TP1) and two years later the first Polish bipolar junction transistor (TW1)¹⁶.

Second period (1958–1970): From the late 1950s, the semiconductor industry was increasingly marked by the establishment of industrial and administrative structures that would persist into the following decades. In 1958,

¹⁴ *Stowarzyszenie Elektryków Polskich: Historia Elektryki Polskiej*. Tom III: *Elektronika i telekomunikacja*, Warsaw 1974, p. 746, p. 750.

¹⁵ J. Kuciński, *Przemysł elektroniczny w latach 1950–69* [in:] *Zarys Historii Elektroniki w Polsce. My tak to pamiętamy*, ed. M. Frącki, Warsaw 2015, pp. 40–43 (40).

¹⁶ K. Dąbrowski, *Od tranzystora do mikroprocesora. Krótka historia polskich półprzewodników* [in:] *High-tech za żelazną kurtyną. Elektronika, komputery i systemy sterowania w PRL*, ed. M. Sikora, Katowice 2017, pp. 71–88 (74–75).

the ministry of heavy industry established the TEWA semiconductor factory in Warsaw. This was initially responsible for the production of transistors. After incorporating other production sites for semiconductors in 1961, TEWA became the largest Polish semiconductor manufacturer. Besides semiconductor production, TEWA also had its own R&D facility¹⁷. In 1961, the UNITRA Association for the Electronics and Teletechnical Industry (Zjednoczenie Przemysłu Elektronicznego i Teletechnicznego) was established. It embraced almost all of the companies operating in the Polish electronics sector. To strengthen semiconductor research, the Institute for Electronics Technology (Instytut Technologii Elektronowej, ITE) was established in 1966 as part of the Polish Academy of Science (Polska Akademia Nauk, PAN). In a further major centralization step, almost all existing production and research facilities of the Polish semiconductor industry, including the PIE, TEWA and the ITE, were incorporated into the Semiconductor Research and Production Centre (Naukowo-Produkcyjne Centrum Półprzewodników, CEMI) established in 1970 in Warsaw. This was a major attempt to bring together research and production in order to facilitate the diffusion of innovation. The case of the ITE illustrates the significance of this process. The ITE was split off from PAN, which was led at that time by Janusz Groszkowski, who also became part of ITE's research council¹⁸.

Third period (1971–1979): The 1970s were marked by ambitious programmes of investment by the Polish government. After two years of preparation by the Ministry of Machine Industry in cooperation with UNITRA, the Politburo of the Central Committee of the Polish United Workers' Party (Polska Zjednoczona Partia Robotnicza, PZPR) adopted the Programme for the Development of the Electronics Industry (Program Rozwoju Przemysłu Elektronicznego) in October 1971. It was planned to invest 3.5 billion zloty until 1975 in order to produce up-to-date products like silicon semiconductors and integrated circuits¹⁹. Modernization attempts were to be continued through

¹⁷ Archiwum Państwowe w Warszawie (APW), 1935/8, 2. Pismo ministra przemysłu ciężkiego do dyrektora Zjednoczenia przemysłu elektronicznego, Warsaw, 1 October 1960.

¹⁸ J. Świederski, *Instytut Technologii Elektronowej* [in:] *Zarys Historii Elektroniki...*, pp. 159-163 (159).

¹⁹ APW 2685/3, 171, 175–176. Sprawozdanie z działalności Organizacji Partyjnej 1971-1972, Warsaw 1972.

the Programme for the Electronization of the Economy to 1990 (Program Elektronizacji Gospodarki Narodowej do 1990 roku) adopted in October 1975. Semiconductors were assigned central importance as key parts of modern electronics equipment for several branches of the national economy, including industry, transport, communication and education. The value of production was planned to increase from 40 billion zloty in 1975 to more than 300 billion in 1990²⁰. An integral part of the electronization programme was the State Programme for Research and Development (Rządowy Program Badawczo-Rozwojowy, PR-3). This programme included 53 projects at 23 facilities, coordinated by the ITE, and had the aim of developing and producing semiconductor and microelectronics products²¹.

Fourth period (1980–1989): The aforementioned programmes failed to reach their ambitious aims. While organizational and investment problems had led to delays in the mid-1970s, the general economic downturn beginning in the late 1970s and the consequent political troubles thwarted all efforts at least in the first half of the 1980s²².

Actors

As suggested by the theoretical approach described above, the SIS of the Polish semiconductor industry comprised actors from science, state administration, and especially the industry itself. The most important of them, including UNITRA, TEWA, the ITE and CEMI, were briefly mentioned above. UNITRA, established in 1961, was the umbrella organization for the radio, television, telecommunications, lighting and semiconductor industries. Initially it also included enterprises like ELWRO in Wrocław, transferred to a separate industry association (Zjednoczenie Przemysłu Automatyki i Aparatury Pomiarowej MERA) in 1964. In 1967, six research facilities and 41 factories

²⁰ J. Kuciński, *Program elektronizacji gospodarki narodowej do 1990 roku* [in:] *Zarys Historii Elektroniki...*, pp. 52–63 (55).

²¹ B. Jakowlew, J. Kuciński, *Rządowy program badawczo-rozwojowy PR-3. Rozwój materiałów i podzespołów dla potrzeb elektronizacji* [in:] *Zarys Historii Elektroniki...*, pp. 64–70 (64).

²² APW 2897/0/1.2/630, no page number. Program elektronizacji i gospodarki narodowej oraz kierunki rozwoju przemysłu elektronicznego do 1990 r. – aktualizacja programu stanowiącego załącznik nr 1 do uchwały RM nr 77/83. Warsaw 1985.

were affiliated to UNITRA²³. In 1971, the entire lighting and tele-electronic industries were moved to the industry associations POLAM (Zjednoczenie Sprzętu Oświetleniowego i Elektromechanicznego) and TELKOM (Zjednoczenie Przemysłu Teleelektronicznego). Between 1978 and 1982 UNITRA was split into UNITRA-ELEKTRON, responsible for the production of industrial electronics, and UNITRA-DOM, responsible for household electronics. Due to these organizational changes, the number of affiliated enterprises was reduced to 35, of which 21 were located in Warsaw (Figure 1).



Figure 1. Affiliated facilities and factories of UNITRA, 1985.

Source: M. Hutnik, T. Pachniewicz, *Zarys historii polskiego przemysłu elektronicznego do 1985 roku*, Warsaw 1994, pp. 131–132.

Map source: author's illustration, based on a map from the Ginkgo maps project, map licence CC-BY-3.0, <http://www.ginkgomaps.com> (accessed: 6.12.2022).

²³ Archiwum Akt Nowych (AAN), 1154/51/174, 13. Schemat organizacyjny Zjednoczenia Przemysłu Elektronicznego i Teletechnicznego UNITRA, Warsaw, 7 September 1967.

The semiconductor industry was united under the umbrella of CEMI in 1970. The only significant semiconductor producer not incorporated into CEMI was UNITRA-Lamina in Piaseczno near Warsaw. All UNITRA factories, as well as factories of other industry associations such as MERA, POLAM and TELKOM, were customers of CEMI. Due to the electronization programmes of the 1970s, more factories from other associations like POLMO and PREDOM and from the mining, steel and chemicals industries became customers²⁴.

Suppliers of the raw materials needed for the production of semiconductors, such as germanium, silicon, and alloys, included the aluminium factory in Skawina, the nitrogen compound factory in Tarnów, and the Institute for Non-Ferrous Metals (Instytut Metali Nieżelaznych) in Gliwice.

Besides these industrial customers and suppliers, there were other actors from science and state administration relevant to the Polish semiconductor industry. In 1963, responsibility for semiconductor research was transferred from PAN to the newly established Committee for Science and Technology (Komitet Nauki i Techniki, KNiT), which was comparable to a ministry in terms of decision-making power and influence. The KNiT's task was to develop research policies for crucial technologies such as semiconductors, with the aim of enhancing the transfer of knowledge from research to production²⁵. In February 1964, eight task forces were established to evaluate and coordinate R&D activities. The task force responsible for semiconductors was led by the aforementioned Witold Rosiński. After the establishment of CEMI, the KNiT was dissolved in 1972²⁶.

As mentioned above, the SIS approach explicitly includes actors from abroad, in order to shed more light on the international circulation of knowledge. Staff of CEMI, the key enterprise of the Polish semiconductor industry, cultivated contacts with organizations and business partners all over Europe. Based on the enterprise newsletter, published every two months between 1972 and 1981, it is possible to reconstruct these foreign contacts. As

²⁴ AAN 2296/6/106, 73-99 (88, 91). Analiza działalności naukowo-badawczej i rozwojowej Zjednoczeń MPM w zakresie elektronizacji wyrobów, Warsaw 30 November 1977.

²⁵ J. Modelski, *Od pomysłu do przemysłu, czyli od nauki do gospodarki* [in:] *Zarys Historii Elektroniki...*, pp. 150-153 (151).

²⁶ *Współpraca Nauki z Techniką*, „Biuletyn Informacyjny TEWA”, 1964, 3, p. 64.

Figure 2 illustrates, there was no strong division between Eastern and Western Europe. Although this is only a snapshot from 1974, and in other years different contacts would appear on such a map, information from the CEMI newsletter does not suggest any fundamental differences, at least in the 1970s.

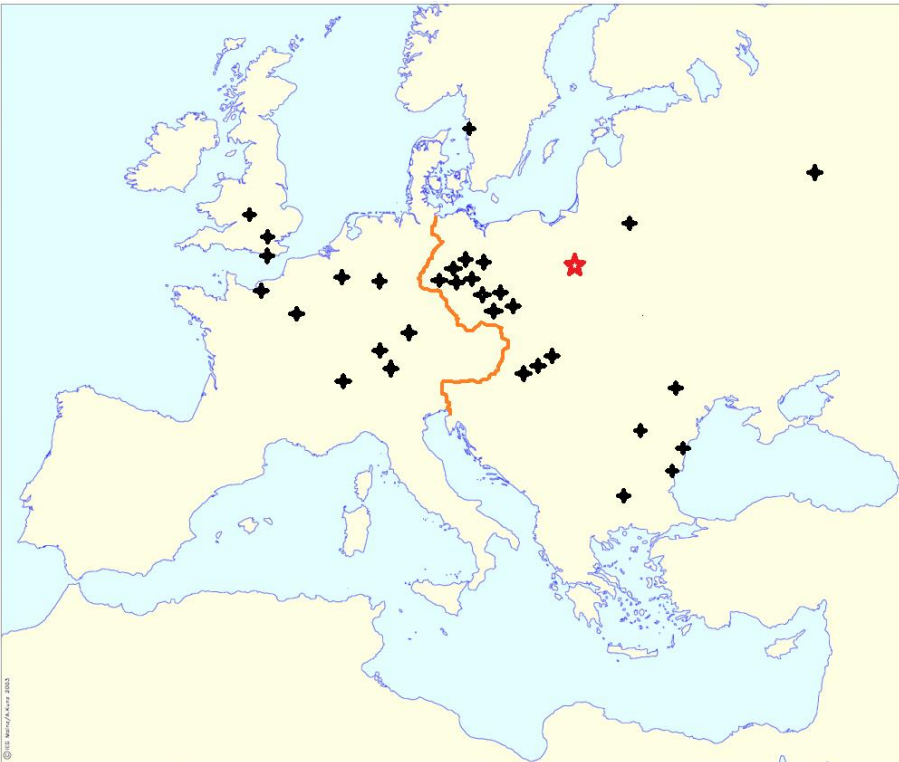


Figure 2. Stays abroad by CEMI staff, 1974.

Source: *Sprawozdania z wyjazdów zagranicznych*, „Biuletyn Informacyjny CEMI” 1974/2, pp. 76–84, 1974/3, pp. 71–73, 1974/4, pp. 68–70, 1974/5, pp. 74–79, 1974/6, pp. 57–60, 1975/2, pp. 65–68, 1975/3, p. 61.

Map source: author’s illustration based on an open-access map from the Leibniz Institute of European History, www.ieg.maps.de (accessed: 3.01.2023).

However, contacts with Western and Eastern European organizations differed in terms of content. In the case of partner companies in Eastern Europe, like Tesla or the semiconductor factories in Frankfurt/Oder and Plovdiv, it was usually technical consultations that took place, while contacts with

Western European companies like Electromag or Leybold-Heraeus served to negotiate contracts for the import of high technology. CEMI staff also took part in conferences, fairs and summer schools on both sides of the Iron Curtain, and in consultations of the Council for Mutual Economic Assistance (Comecon) within Eastern Europe.

This “division of labour” between East and West also applied to the development and production of the first integrated circuits in Poland. During the first development programme in the early 1970s, the Polish semiconductor industry acquired Japanese and French licences for the production of the first integrated circuits in 1973. Earlier technical consultations with Soviet partners regarding the Logika series were also a part of the technology transfer process, which resulted in the capability of ITE researchers to make further technological improvements on their own²⁷.

A rather indistinct East–West divide is also visible with regard to UNITRA’s foreign trade enterprise (Przedsiębiorstwo Handlu Zagranicznego, PHZ), established in 1971. In the 1980s PHZ operated offices both in Eastern European capitals such as Belgrade, Berlin, Budapest, Bucharest, Moscow, Prague and Sofia, and in such Western European cities as Frankfurt/Main or Paris²⁸.

Workforce

In 1960, the entire Polish electronics industry consisted of around 40 factories employing around 50,000 persons, 30,000 of them in Warsaw. By the end of the 1960s, employment had increased to 92,500²⁹. The swift expansion of the electronics industry, which was expected (not only in Poland) to become the heart of the entire economy, posed a major challenge for policymakers. The first electronization programme, adopted in 1971, did not propose a clear growth strategy regarding the workforce, and especially well-educated experts. It was only in 1977 that the Ministry for Research, Higher Education and Technology (Ministerstwo nauki, szkolnictwa wyższego i techniki) produced detailed figures regarding the specialists required

²⁷ J. Kuciński, *Program elektronizacji gospodarki...*, pp. 52–63 (52–53).

²⁸ J. Kuciński, *Przedsiębiorstwo Handlu Zagranicznego UNITRA [in:] Zarys Historii Elektroniki...*, pp. 296–297 (297).

²⁹ J. Kuciński, *Przemysł elektroniczny...*, pp. 40–43 (42–43).

for the implementation of the second electronization programme up to 1990. As Table 1 shows, the deficit of specialists was planned to be eliminated in the early 1980s.

Table 1. Demand and availability of specialists anticipated by the Ministry for Research, Higher Education and Technology regarding the electronization programme up to 1990, 1976–1990.

	1976–80	1981–85	1986–90
demand	12,690	14,260	16,250
graduates	9,250	12,300	14,950
post-graduates	1,800	2,400	2,500
	-1,640	440	1,200

Source: AAN 2296/6/106, 4–69 (65). Informacja o przebiegu realizacji Programu Elektronizacji Gospodarki Narodowej w okresie pierwszych dwóch lat NPSG na lata 1976–80, Warsaw 1977.

The rather specific programme PR-3, adopted in 1975, foresaw that 45 percent of specialists should be electrical engineers, 23 percent mechanics, 22 percent physicists and chemists, and the remaining 10 percent should have other specializations³⁰. These specialists were expected to be trained at technical universities in Warsaw, Gdańsk, Wrocław, Katowice, Poznań, Łódź, Rzeszów, Szczecin, Radom/Kielce, Białystok, and Cracow. In particular, the technical university in Warsaw, which produced around 350 electrotechnical graduates annually, was planned to cover up to 70 percent of the overall demand³¹.

Regarding semiconductors, the workforce structure of CEMI, as the single most important semiconductor producer, is representative. Since the initial aim of its establishment was to form close connections between research and production in the entire semiconductor industry, CEMI incorporated renowned research facilities such as the ITE and PIE (and a number of

³⁰ B. Jakowlew, J. Kuciński, *Rządowy program badawczo-rozwojowy PR-3. Rozwój materiałów i podzespołów dla potrzeb elektronizacji* [in:] *Zarys Historii Elektroniki...*, pp. 64–70 (69).

³¹ E. Stolarski, *Pierwsze w roku 1974 posiedzenie Rady Naukowej Naukowo-Produkcyjnego Centrum Półprzewodników*, „Biuletyn Informacyjny CEMI”, 1974, 3, pp. 55–64 (58).

smaller facilities) as well as the large production plants of TEWA and KAZEL. Except for KAZEL, in Koszalin, all of the organizations were located in Warsaw. Table 2 shows the size of the total workforce in the individual organizations that became part of CEMI in 1970.

Table 2. Overall employment in CEMI facilities, 31 March 1970

Facility	Employment
ITE (Instytut Technologii Elektronowej) B-10	387
PIE (Przemysłowy Instytut Elektroniki) B-40	627
ONPMP (Ośrodek Naukowo-Produkcyjny Materiałów Półprzewodnikowych) B-20	159
Ośrodek Naukowo-Produkcyjny Mikroelektroniki Hybrydowej B-30	74
Zakład Doświadczalny Produkcji Półprzewodników B-11	463
Zakład Doświadczalny Produkcji Półprzewodników B-12	227
Zakład Doświadczalny Produkcji Materiałów Półprzewodnikowych B-21	72
Zakład Doświadczalny Produkcji Układów Hybrydowych B-31	25
Zakład Doświadczalny Produkcji Urządzeń Technicznych B-41	1,270
research total	3,304
Fabryka Półprzewodników TEWA	3,200
Zakłady Przemysłu Elektronicznego KAZEL	800
production total	4,000
total	7,304

Source: AAN 1154/73/36, 57. Kontrole niekoordynowane – Realizacja uchwały nr 47/1970 Rady Ministrów w sprawie powołania Naukowo-Produkcyjnego Centrum Półprzewodników. Naukowo-Produkcyjne Centrum Półprzewodników, Warsaw 3 April 1971.

Of course, not all staff of the ITE or PIE were employed in research, and TEWA at least also possessed an R&D department with a focus on applied research. Nevertheless, the ITE in particular, as CEMI's most important institution for basic research, almost doubled its overall workforce from 419 in 1971 to 738 in 1978. Most of these staff were white-collar workers ("pracownicy umysłowi"), and only five to fifteen percent on average were blue-collar work-

ers (“pracownicy fizyczni” or “robotnicy”)³². However, even this rather significant increase did not meet the requirements laid down in the plans, which foresaw a rise to around 800 employees in 1975. Nevertheless, the ITE was the part of CEMI with the greatest research expertise. At the beginning of the 1970s four professors, eight scientists with “habilitation” degrees, and 23 other post-doctoral scientists were employed there. These accounted for 58 percent of the total number of CEMI staff with doctoral degrees³³.

Figure 3 shows the workforce structure for CEMI. Due to the electronization programmes in the 1970s, a significant increase in the overall workforce was planned, but never achieved (dotted lines). In fact, the number of CEMI employees never passed 9,000 and began to fall in the late 1970s. The economic and political crisis made the necessary investment impossible.

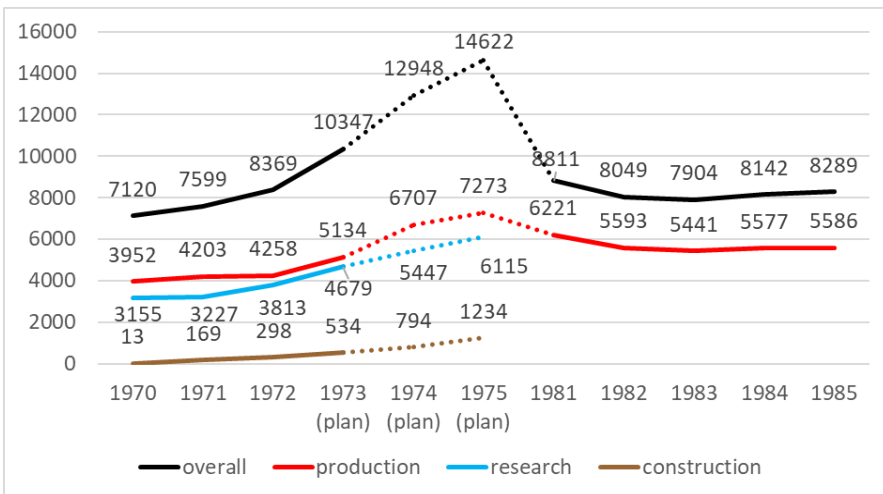


Figure 3. CEMI workforce structure, 1970–1985

Source: APW 2685/3, 180. Sprawozdanie z działalności Organizacji Partyjnej 1971–1972 (PZPR, Komitet Zakładowy NPCP), Warsaw 1972 (for 1970–1975); APW 3398/0/3/1441, 122. Zatrudnienie w NPCP i komórkach zajmujących się koordynacją realizacji prac badawczo-rozwojowych, Warsaw 20 February 1986.

³² AAN 2232/3/34, 1, 13, 53, 66. GUS: Roczne sprawozdanie o stanie i ruch zatrudnionych, Warsaw 1973–1975; AAN 2232/3/35, 7, 8, 16. GUS: Roczne sprawozdanie o stanie i ruch zatrudnionych, Warsaw 1976–1978.

³³ APW 2685/3, 211. Sprawozdanie z działalności Organizacji Partyjnej 1971–1972 (PZPR, Komitet Zakładowy NPCP), Warsaw 1972.

The proportions of production and research employees are comparable to those shown in Table 2. Again, it must be borne in mind that not all employees of research facilities like the ITE or PIE were conducting research. Unfortunately, for the 1980s there are no available data explicitly citing numbers of research staff. However, it is reasonable to suppose that the number remained close to 3,000, as at the start of the 1970s.

Patents

While the workforce structure, in particular the proportion of R&D personnel, served as an input measurement, patents are an important benchmark to measure innovation output.

In general, the number of patent applications and patent grants heavily depends not only on R&D expenditure, but also on the existence of a proper administrative infrastructure enabling researchers and work staff to register applications. In the early 1960s, however, a mere 25 patent engineers were responsible for 54,000 employees in 42 factories of the industry association UNITRA. With increasing consciousness of the importance of patenting, especially with regard to foreign trade, this number slowly increased in the 1960s³⁴. Even in the late 1970s, however, there were still complaints about the absence of knowledge about patenting among the broader CEMI workforce³⁵.

After the ITE was transferred from PAN to CEMI, complaints about diminishing research output were common. The ITE lost its own experimental workshops, publishing and patent service. Apparently, it also lost parts of its funds for new machinery, foreign business trips, and subscriptions to foreign literature. The ITE also probably lost some of its experts to other CEMI facilities after the incorporation³⁶. Due to lack of funds and growing bureau-

³⁴ AAN 1154/13/31/217, 12. Kontrola wprowadzenia do przemysłu naukowych osiągnięć w zakresie techniki w Zjednoczeniu Przemysłu Elektronicznego i Teletechnicznego, Warsaw 1962.

³⁵ K. Milewski, *Podstawy zasady ustalenia wynagrodzeń za pracownicze projekty wynalazcze*, „Biuletyn Informacyjny CEMI”, 1979, 4, p. 33.

³⁶ APW 2685/0/22, 207–216 (208–209). Raport o stanie Instytutu na dzień 1. marca 1972 r. w obszarach decydujących o realizacji programu prac badawczo-rozwojowych,

cracy, the average age of ITE's mechanical equipment rose to 12 years in the mid-1980s³⁷. There were also complaints about decreasing innovation output in relation to TEWA's R&D department³⁸.

This picture is confirmed by Figure 4, which shows the yearly numbers of registered patent applications from the ITE and TEWA that led to the granting of patents by the Polish Patent Office (Urząd Patentowy PRL)³⁹. While the ITE's numbers of registered patent applications significantly decreased in 1971 and 1972, TEWA did not register any successful patent applications at all in the 1970s, except in the year 1971, which may be related to a restructuring of the internal division of labour. The patents represented in Figure 4 partially include so-called workers' inventions (*wynalazki pracownicze*), which served to increase labour productivity. At least on patent applications, this specific type was marked with "pr."⁴⁰.

In general, the numbers of registered patent applications and the connecting trend lines (dotted lines) in Figure 4 confirm the periodization of the

Warsaw 1972; APW 2685/0/11, 182–186 (182–183). Protokoły posiedzeń plenarnych KZ PZPR NPCP 1973 r., Warsaw 1973.

³⁷ APW 3398/0/3/1440. 17, 96. Efektywność realizacji zadań badawczych w jednostkach naukowo-badawczych i rozwojowych w latach 1981–1985 – Instytut Technologii Elektronowej w Warszawie, Warsaw 1986.

³⁸ APW 1935/177, 1–3 (1–2). Protokół nr 1/6/86 z przeprowadzonej kontroli w sprawie wynalazczości i ochrony przemysłowej w Fabryce Półprzewodników „TEWA” w Warszawie, Warsaw 1986.

³⁹ These categories were chosen for the following reasons. On the one hand, it seems important to consider only successful patent applications (leading to the granting of patents). On the other, the date of the initial registration of the patent application seems to be closer to the R&D process, since the patenting procedure at the Polish Patent Office could last up to three years. The ITE and TEWA were chosen because of their significance as the most important research and production institutions in the Polish semiconductor industry, both becoming parts of CEMI in 1970.

⁴⁰ Probably, not all of the workers' inventions received patents, or they were part of another recording system outside traditional patenting. There is evidence from the late 1970s and 1980s that TEWA was generating considerable numbers of workers' inventions, falling from almost 200 to an average of 100 in the 1980s. See APW 1935/100. Roczne Sprawozdania z wynalazczości pracowniczej GUS, Warsaw 1978–1990.

development of the Polish semiconductor industry as proposed above. From the late 1950s, crucial actors such as TEWA (1958) and the ITE (1966) were established, and these existed over the entire period under study. After a short adaptation period following the establishment of CEMI, at least the ITE's research output significantly grew in the 1970s, which seems to be directly related to the state development programmes implemented at that time. In the 1980s, successful patent applications slumped and stabilized at a lower level until 1989.

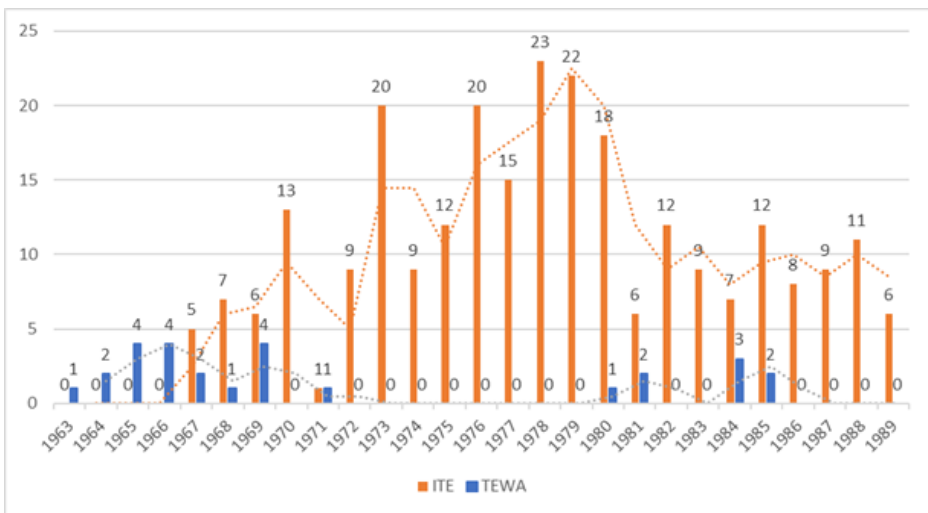


Figure 4. Yearly numbers of registered patent applications from the ITE and TEWA that led to the granting of patents by the Polish Patent Office, 1963–1989

Source: Patent descriptions at the Polish Patent Office, <https://ewyzukiwarka.pue.uprp.gov.pl/search/simple-search> (accessed: 7–10.12.2022).

The gap in successful patent applications registered by TEWA in the 1970s may be partly related to an internal restructuring of R&D processes after CEMI's establishment. In general, research and the subsequent diffusion of results at CEMI took place in three stages. First, the ITE and PIE conducted basic research. In the second stage, the results of this research were adapted to the requirements of mass production at experimental facilities (Zakłady Doświadczalne; see Table 2). The third stage was the commencement of mass production at TEWA. From the late 1970s, engineers and experts from all of the involved institutes and facilities participated in all three steps in

order to further improve this process⁴¹. According to the overall picture, however, the 1980s did not see an improvement in the situation. A study conducted in the mid-1980s by administration experts from the University of Warsaw, commissioned by CEMI's own director, identified a number of problems mostly related to ineffective administration and organization ("ogólne rozprężenie organizacyjne"), but also a lack of investment. On the other hand, the study also highlighted CEMI's assets, such as its skilled workforce⁴².

Regarding foreign patenting, which is another important measure of innovation, there is evidence that – at least in the 1980s – the ITE did not try to obtain patents abroad on a large scale. First, patent infringements in this dynamically developing sector were hard to prove and costly to fight against. Second, exports – especially to the East – were possible without the need for time- and cost-intensive patenting⁴³.

Conclusions

In this article, the theoretical approach of Sectoral Innovation System (SIS) has been applied to the case of the Polish semiconductor industry between the 1950s and 1980s. Although the approach was developed with market economies in mind, its application to case studies concerning planned economies can shed additional light on the actors as well as innovation inputs and outputs. It seems clear that the rather restricted scope of action of enterprises in planned economies with regard to innovation was at least partially compensated for by state structures such as PAN and the ITE. Besides, the use of financing mechanisms in the form of large-scale state development programmes instead of private funding based on bank

⁴¹ E. Kicińska, S. Siwek, *Współpraca Nauki z Przemysłem na przykładzie Naukowo-Produkcyjnego Centrum Półprzewodników Unitra-Cemi*, Warsaw 1984, p. 10.

⁴² APW 1935/22, 3-81 (22). Raport z pracy "Diagnoza podstawowych niesprawności organizacyjnych NPCP "CEMI", Warsaw 1986.

⁴³ APW 3398/0/3/1440, 19-21. Efektywność realizacji zadań badawczych w jednostkach naukowo-badawczych i rozwojowych w latach 1981–1985 – Instytut Technologii Elektronowej, Warsaw 1986.

loans or stocks also seems to be a relevant distinction between SIS in market and planned economies.

A periodization has been proposed here that distinguishes four periods, roughly corresponding to the decades from the 1950s to the 1980s. Despite the enormous destruction of the Second World War, the first period was marked by strong continuities, but also new beginnings. From the late 1950s, the Polish semiconductor industry was characterized by the formation of enduring industrial and administrative structures, which persisted through the following decades. The 1970s were marked by (over)ambitious government investment programmes. For political and economic reasons, the 1980s saw a significant decline in investment and production output.

This periodization is in line with findings regarding CEMI's workforce, as well as patenting by key sections of CEMI such as TEWA and the ITE. Since their establishment in 1958 and 1966, respectively, both slowly increased innovation output in the form of national patents granted. After a short slowdown at least in the case of the ITE, innovation output further increased markedly in the 1970s, but in the 1980s the number of patents granted fell on average to a half of its previous level. Figures on CEMI's workforce structure paint a similar picture. After a build-up in the first half of the 1970s, ambitious plans to double the workforce to almost 15,000 were not achieved. The 1980s saw stagnation at a level comparable to that of the early 1970s. However, there is a lack of adequate data on the number of white-collar workers, and this makes a broader analysis difficult.

In general, the development of the workforce structure and patenting in the period under study shows that the Polish semiconductor industry was capable of producing innovation in basic as well as applied research. The case of socialist Poland illustrates, however, that the general dysfunctions of the economic and political system significantly reduced the innovative potential in this field. The attempt to merge research and production under the umbrella of a single institution (CEMI) was hampered by organizational inconsistencies. Compared with technology leaders in capitalist countries such as the United States or Japan, the accelerated development of the sector was delayed by at least several years, or even by an entire decade.

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Półprzewodniki z Polskiej Rzeczypospolitej Ludowej. Branżowy system innowacji polskiego przemysłu półprzewodników, lata 1950-1980

Abstrakt

Niniejszy artykuł analizuje polski przemysł półprzewodnikowy od lat 50. do 80. XX wieku z wykorzystaniem teorii Sectoral Innovation Systems. Chociaż teoria ta opracowana została w celu analizy gospodarek rynkowych, jej zastosowanie pozwala rzucić dodatkowe światło na aktorów oraz wymiary innowacyjności, takie jak struktura siły roboczej głównych przedsiębiorstw oraz patenty, także w przypadku gospodarek planowych. Ponadto artykuł proponuje periodyzację rozróżniającą cztery okresy odnoszące się mniej więcej do poszczególnych dekad od lat 50. do 80. Na ogół rozwój struktury siły roboczej oraz patentowania w omawianym okresie wpisują się w przedstawianą periodyzację i dowodzą, że polski przemysł półprzewodników był zdolny do tworzenia innowacji nie tylko w dziedzinie nauk stosowanych, lecz także nauk podstawowych. Zwłaszcza przypadek Polski Ludowej pokazuje jednak, że podstawowe niesprawności systemu ekonomicznego i politycznego wyraźnie obniżyły potencjał innowacyjny w tej dziedzinie.

Słowa kluczowe: półprzewodniki, Polska, innowacja, gospodarka planowa, historia ekonomii

Part II. Present

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The challenges of the LEADER programme

Abstract

EU rural development programmes have not and cannot solve rural problems. They operate in an ever-changing legal environment and are not based on eternal principles. They can reinforce Member States' efforts to achieve some of their objectives, they can contribute to the success of certain measures – if they are in line with the European Union objectives – but cannot induce fundamental changes. Rural areas exist in a particular social, economic and environmental context, where the provision of support is only one of many factors that shape this context. It is the responsibility of the Member States, to provide aid for purposes that are not designed to fill a point deficit but to trigger longer-term improvement trends. Without knowledge of the past, if only because there are many lessons to be learned, both from mistakes made and from good practices that have been developed. The development of the LEADER program, its current form, had several antecedents, it was practically the result of a complex development, so the LEADER programme has undergone a number of changes and we believe that these changes have had many benefits in terms of improving the living conditions of rural people, but that the system has yet to achieve real community-building effects. We have therefore compiled a selection of the most important events and developments in the LEADER programme, with the intention of highlighting the key achievements that have been made. We would like to take stock of the less successful activities and operational anomalies whose continuation does not help the already problem-free process of community building and rural development. In many cases, unfortunately, programmes have been implemented not to build community but to serve individual interests.

Keywords: LEADER, experience, development, rural development, complex development, transformation, support, community development, regional development

Introduction

The history of LEADER may be a success story for outsiders, as it has evolved over 30 years from a small community initiative to a part of rural development policy, then to a mandatory element of rural development policy, and from 2014 onwards other funds can be designed LEADER-like. However, those who are familiar with it know that, although it has been successful in some areas (e.g. networking, exchange of best practices, active international activities), it has not become generally accepted as a support programme.

If we want to get to grips with the idea of rural development based on Community initiatives, we have to start from the basic situation that rural areas are in a difficult situation, namely that the countryside has lost its basic functions. Our analysis is therefore based on the diagnosis that has characterised rural areas in general for decades. These are: depopulation and ageing, the loss of agricultural labour, rural incomes below the central European average, and the lack of some basic infrastructure, but all this, together with the socio-economic backwardness of the countryside, is accompanied by positive elements such as a cultural and environmental wealth which, if well exploited, can diversify the activities of the area.

Grass-roots initiatives are increasingly being discussed as a solution to these problems. In rural areas, many see tourism as a socially valorised territorial resource as a starting point for such initiatives, which can help to improve economic and social problems¹. Similarly, it is often argued that tourism or agriculture as drivers of local economic development in rural areas can often be presented as a break-out option, a tool or a complex solution, but that this is generally not sufficiently established in the individual areas and that one sector alone is rarely able to solve the socio-economic problems of rural areas. This is also problematic because sector-specific solutions carry serious risks, as exposure to the sector and the difficulties it may face can lead to 'local disasters' (e.g. serious economic

¹ I. Wachtler, *Falusi turizmus* [in:] *Észak-Magyarország agrárfejlesztéseinek lehetőségei*, eds. S. Magda, S. Marselek, Gyöngyös 2003, pp. 189–200.

problems caused by the coronavirus in tourism-based areas). We agree with Hanus, who believes that tourism, as an important element of economic diversity and rural development, can contribute to economic catch-up, the conservation and sustainable use of natural and other resources, and the improvement of the quality of life of local people². It is therefore necessary to adopt a conditionality approach and to learn that there is no single solution, that individual solutions can always work, taking into account and building on local specificities. It is therefore of the utmost importance to be aware of the different characteristics of a given area, as some sectoral developments require certain preconditions that are not sufficiently present in all rural areas³.

The solution could be the so-called “un”(Figure 1). Its key element is the activation of local actors, the joint development of a vision. Community planning involves the active participation of stakeholders from the very beginning of the planning process. It is an opportunity for them to get to know each other, to share their ideas and the core values they wish to uphold. It can be seen that, compared to expert planning, there is a much higher level of engagement and active participation. The socialisation of the plan resulting from the collective reflection is quite easy, since it is created by consensus and accepted by the community⁴.

² A. Hanusz, *Turisztikai programok, mint a vidékfejlesztés lehetséges eszközei Szabolcs-Szatmár-Bereg megyében* [in:] *A turizmus szerepe a kistérségek és a régiók gazdasági felzárkóztatásában*, ed. A. Hanusz, Nyíregyháza 2008, pp. 63–79.

³ L. Dávid, G. Tóth, N. Kelemen, A. Kincses, *A vidéki turizmus szerepe az Észak–Magyarország Régióban, különös tekintettel a vidékfejlesztésre a 2007–13. évi agrár- és vidékpolitika tükrében*, *Gazdálkodás - Agrárökonómiai Tudományos Folyóirat | Scientific Journal on Agricultural Economics*, 2007, 51 (4) pp. 38–57, gazdalkodas.hu (accessed: 15.02.2022); I. Oláh, *1000 fő alatti települések vizsgálata Magyarországon*. Doktori értekezés, Szent István Egyetem, Enyedi György Regionális Tudományok Doktori Iskola, Gödöllő 2017, p. 167, [JaDoX szie.hu](http://www.jadox.szie.hu) (accessed: 15.02.2022).

⁴ P. Szaló, 2010. *Területfejlesztési füzetek 1. Segédlet a közösségi tervezéshez*, Budapest, pp. 93, [http://www.kka.hu/_Kozossegi_Adattar/Azadatt.nsf/99b0698cd023d1018525670c0080e328/723afda824078897c12576fc00212fd0/\\$FILE/TF_fuzet_\(1\)_Segedlet_a_kozossegi_tervezeshez.pdf](http://www.kka.hu/_Kozossegi_Adattar/Azadatt.nsf/99b0698cd023d1018525670c0080e328/723afda824078897c12576fc00212fd0/$FILE/TF_fuzet_(1)_Segedlet_a_kozossegi_tervezeshez.pdf) (accessed 20.03.2022).

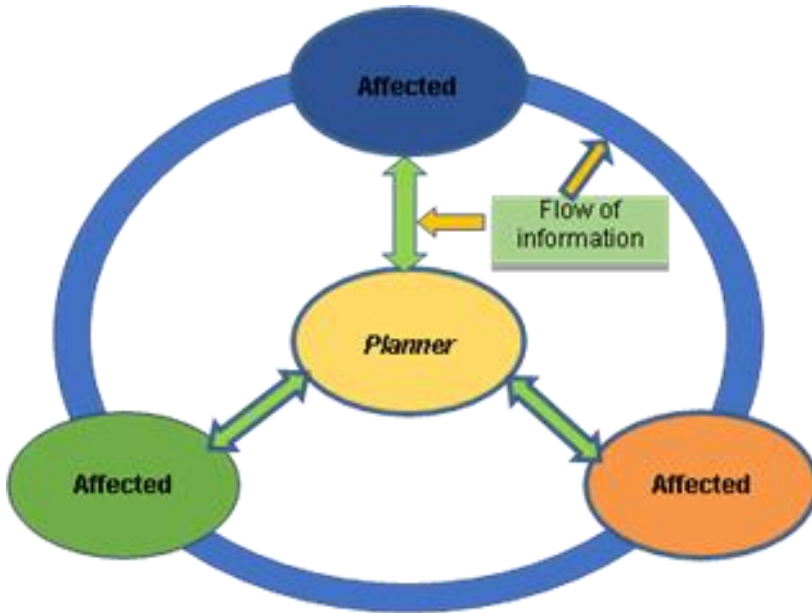


Figure 1. Internal community planning scheme

Source: Edited by the Authors based on T. Tóth, I. Oláh, *A közösségi tervezés elméleti és gyakorlati alapjai* [in:] *A filozófia párbeszéde a tudományokkal: A 70 éves Tóth Tamás professzor köszöntése*, eds. A. Farkas, C. Kollár, A. Laurinyecz, Budapest 2012, pp. 358–370.

During the preparation of the study, we synthesized the related literature and professional opinions, as there are relatively large differences in interpretation and application of the topic, both among experts and among the organizations, local governments, NGOs and groups involved in the practical application.

Our basic objective was to summarise the literature that is essential for a more detailed analysis of the knowledge identified as the subject of our study, namely a brief summary of the theoretical approach and practical implementation of LEADER initiatives and of national and international experiences.

In this study we have systematically listed the main milestones of the LEADER approach, tried to explore the processes and events that have led to the current situation and, with a view to the future, collected suggestions for observations that could lead to improvements in the programme.

The birth of rural development policy in the European Union

The fact is that the countryside has real values, but these values are under threat. There are many unresolved problems (ageing population, migration, unskilled youth, unemployment), so new methods, experiments, grass-roots Community initiatives are needed and should be supported and well integrated. In rural areas in Hungary, there is a need for cooperation that is close, lasting and based on economic interests. A given rural community can only be successful if it relies on its own resources, skills and economic potential, and does not expect others to improve its lot.

Europe in the 1950s was still recovering from the Second World War. The main concerns of the European states were reconstruction and the restarting of industry and agriculture, including the organisation of a secure food supply for the population. This was partly the reason why one of the main objectives of the emerging European Economic Community was the creation of a common agricultural policy. According to Article 39 of the Treaty of Rome, the aim of the common agricultural policy (CAP) shall be:

- to increase the productivity of agriculture by improving technical progress, rationalising agricultural production and making the best possible use of labour,
- to ensure an adequate standard of living for the agricultural population, in particular by increasing the per capita income of the agricultural community,
- stabilising the market,
- secure supplies,
- ensure that consumers are supplied at a fair price.

Rural development policy in the European Union was first introduced in the AGENDA 2000 package of measures, based on multifunctional agriculture and wider support for rural society. The question is: Why was a new rural development policy needed?

The answer can be found in a study on the CAP reform:

- Because it is important for a healthy agricultural sector;
- Because it is important for maintaining a living environment and quality of life, which the countryside has a vital role to play in shaping;

– The dynamic economic development of the Union requires social and economic cohesion⁵.

Here we would like to note that, in our opinion, Hungary needed and still needs a rural development policy, regardless of its accession to the European Union. Why? Because regional tensions in the countryside, as well as the prevention of migration and the maintenance of innovative activities, can be effectively addressed through rural development policy. However, the successful rural development policy in the European Union is an instructive example to follow.

The creation of the Rural Development Regulation was a significant step forward for the European legislative order. The Community Initiatives funded by the European Union in the period 2000–2006 were programmes that required a grassroots, local initiative to be implemented (INTERREG, EQUAL, URBAN, LEADER).

Development of LEADER

Rural areas in the EU are very different, not only in terms of environmental protection, economic development, social, cultural, political and institutional differences, but also in terms of development dynamics.

Rural areas face many problems:

1. A low population, an ageing population and an uneven demographic structure,
2. A lack of qualified young people and a growing number of disadvantaged people,
3. A strong agricultural sector, pressure from nearby urban areas,
4. Wide income disparities and increasing isolation,
5. A growing gap between the business sector and the civil sector.

Their marginalisation is exacerbated by population decline and lower income levels compared to cities. All this has led to the need for new development methods and initiatives, community interventions for complex rural development. This is why the EU Commission launched one of the most im-

⁵ B. Allan, *Towards a Common Agricultural and Rural Policy for Europe*. European Economy, Report of an expert Group, EC 1997.

portant Community initiatives, LEADER, in 1991. The acronym stands for the French name of the programme (Liason Entre Action pur le Development de Economie Rurale).

LEADER I and LEADER II: The programme was launched as LEADER I on a pilot basis in 1991–1993 with a budget of ECU 400 million. The Community Initiatives were financed by the Structural Funds. A significant change in the programme is that from 2000 it is possible for an action group to cooperate with an EU action group and an action group from outside the Member State. This is the third period of LEADER.

LEADER+: The success of the LEADER programme is demonstrated by the fact that the programme has been funded by the European Union for the third period (2000–2006). The development of rural areas has gradually become key, requiring experimentation and the search for innovative solutions.

Learning about the LEADER programme gives you the conviction that you can get EU support for almost anything that the programme's creators can make you believe is in the interest of a region, or for the benefit of the communities living in the region, or for the production of value. The LEADER method has implemented an experimental and integrated scheme for rural economic development. It was based on embracing local, grassroots initiatives because only local communities know the resources, potential and constraints of their own rural areas. The LEADER+ programme started from the perspective of sustainable development, which was defined at the 1992 Rio de Janeiro Summit as a way of development that aims to – meet the needs of the present without preventing future generations from achieving their own. It therefore seeks to take into account the internal opportunities and constraints of an area, its cultural, economic, social and environmental achievements, as well as the external opportunities and constraints that arise when different local economic enterprises emerge. Changes in rural development policy have continued into the next planning period.



Figure 2. The 7 key features of LEADER

Source: Edited by the Authors based on T. Eperjes, *Helyi gazdaságfejlesztési lehetőségek a LEADER Program keretében és a 2014–20-as programozásban*, <http://docplayer.hu/3650053-Helyi-gazdasagfejlesztési-lehetisegek-a-leader-program-kereteben-es-a-2014-2020-as-programozasban.html> (accessed: 15.03.2022).

Rural development policy 2007–2013

The European Union's new rural development policy was established and announced by Council Regulation (EC) No. 1698/2005. This rural development policy also recommended a series of measures from which Member States could choose which to include in their integrated rural development programmes and request financial support from the Community.

The policy has continued to focus on the sustainable development of rural areas, and to this end has focused on three main policy objectives, as agreed:

- improving the competitiveness of agriculture and forestry
- promoting land use and improving the quality of the environment
- and improving the quality of life and encouraging diversification of economic activity.

The three policy objectives above form the thematic strands of the rural development programmes, which are linked by the LEADER axis as the “methodological” axis (Figure 3).

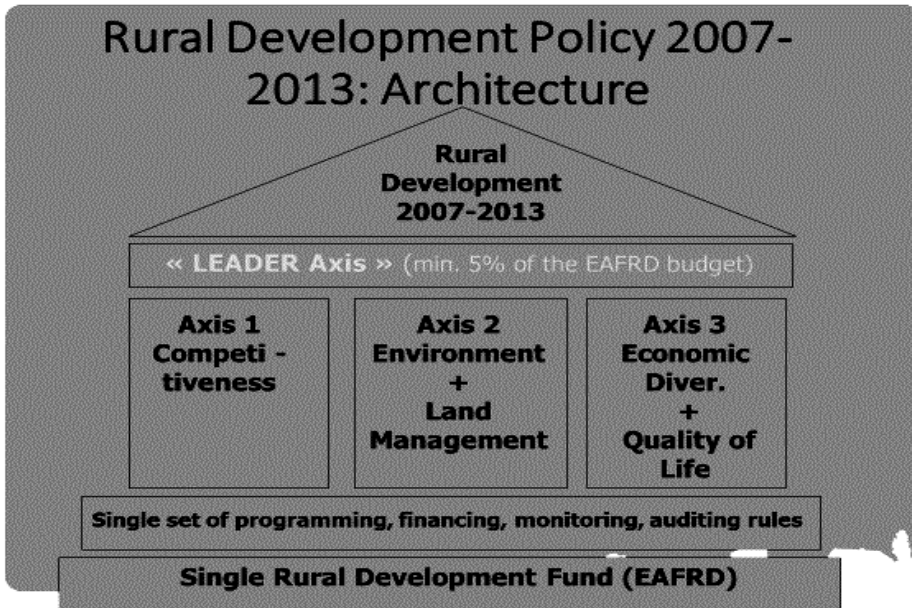


Figure 3. The architecture of the European Union's rural development policy 2007–2013
 Source: Edited by the Authors based on FVM, 2006, <http://www.fvm.hu/vidékfejlesztés/regio.html> (accessed: 22.02.2010)

General characteristics of Hungarian rural development programmes after 2000

After reviewing the programmes, the question arises whether the rural development programmes that have been implemented, are currently being implemented or are under discussion have any common features. The answer is clearly yes. The common features are the following:

- The resources of the programmes have been/are predominantly used to provide capital for the agricultural sector. This can be seen from the high share of support for agricultural investment, but even within the National Rural Development Plans (NRDP) and the New Hungary Rural Development Programme Agri-environmental support (AE) resources, the overwhelming share was accounted for by the relatively easy-to-complete In-

egrated Field Targeting Programme, which acted as a complementary source of land-based support.

- The share of funds for rural development is low and decreasing. In SAPARD, 32% was still paid out in this way, in Agricultural and Rural Development Operational Programme (AROP) 26.5%, in the New Hungary Rural Development Programme 18.48% and in the draft Rural Development Programme only 15.8%.
- The level of funding for training and advisory services is blatantly low: 1.8% in both the New Hungary Rural Development Programme and the Rural Development Programme.
- The share of environmental measures in the two seven-year programmes will therefore remain at the same level, while the share of the Agri-environmental support (AE) will decrease, but this is largely due to the absence of the above-mentioned integrated programme for arable land, which is a positive development.
- The avoidance of more complex measures, requiring more administration but better serving rural objectives, in the programming. These include, the use of financial instruments, cooperation, integrated measures and LEADER itself⁶.

A major advantage of LEADER is that it does not have to take into account the demarcation between EAFRD and other ESF funds or the demarcation from other EAFRD measures for the measures included in its strategy, and can in principle design any measure that fits in with the objectives of the EU 2020 strategy. This allows action groups to support objectives not covered by operational programmes, such as rural economic development, tackling rural poverty, promoting the integration of excluded social groups, rural employment programmes, etc. The reason why delimitation problems are an obstacle to the completion of CLLD is that for other funds than EAFRD, the need for CLLD type activities has to be justified in the operational programme, and it is this justification that, in most cases, the Commission's experience shows does not justify the involvement of other funds in the financing of rural areas.

⁶ M. Maácz, *A vidékfejlesztés fogalma az Európai Unióban* [in:] P. Halmi, *A Közös Agrárpolitika rendszere*, Budapest 2020, pp. 215–272.

LEADER has implemented its projects by bringing people together in rural areas. LEADER – a community can be made up of several adjacent municipalities in a coherent area. A Local Action Group (LAG) (made up of participating municipalities, local businesses and NGOs) draws up a development strategy for the area with the involvement of local people. The national institution decides on the amount of money available to the Action Group, which is then allocated to the final beneficiaries (i.e. the applicant organisations, institutions, businesses, etc.) through a regional call for proposals.

A new paradigm has emerged as a transition in the principles of the EU 2014–2020 programming period (which are an integral part of the established Europe 2020 strategy), the localisation theory of sustainability, which, combined with the new EU framework legislation, offers a number of opportunities for innovation for Member States. The key pillars of the EU's integrated territorial (local development) policy are multi-funding (planning across several funding funds to increase efficiency); the extension of the LEADER concept; the use of different funds by LAGs; the emergence of integrated approaches to cross-sectoral development; and more detailed local identification of problems and more effective interventions. One of these innovations is the introduction of new instruments for a spatially based approach, such as Community Led Local Development (CLLD). The approach of this old-new instrument builds fully on the previous LEADER⁷. According to the EU Council press release of 2 December 2021, The Council has decided to adopt a fairer, greener and more performance-based agricultural policy for the period 2023–2027, with the following specific objectives, which have been discussed on several occasions.

⁷ T. Eperjes, op. cit. ; J. Eisenburger, *A guide to the European Union funding funds*, http://www.greens-efa.eu/fileadmin/dam/Documents/Publications/2014_2020_UTM_UTATO_AZ_EUROPAI_UNIO_FINANSZIROZASI_ALAPJAIHOZ_.pdf. (accessed: 15.03.2021)

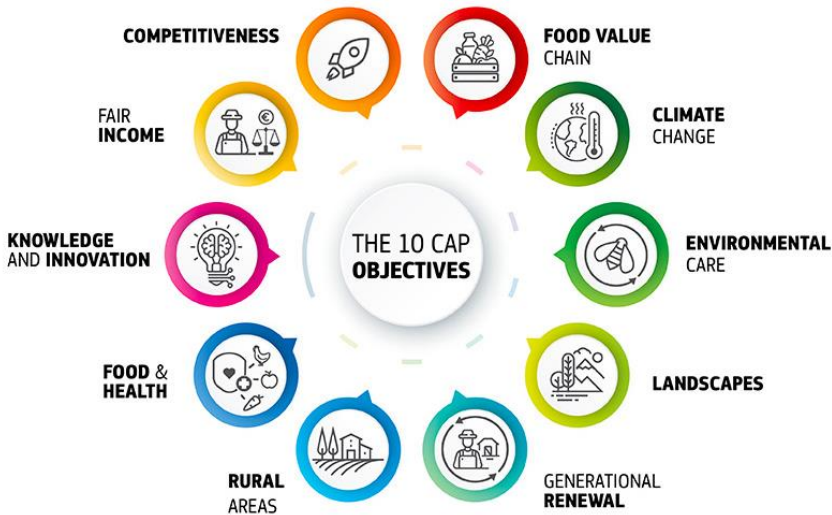


Figure 4. Specific objectives of the new CAP

Source: Edited by the Authors based on Europa.Eu 2022. *Az új közös agrárpolitika legfontosabb szakpolitikai célkitűzései*, https://ec.europa.eu/info/food-farming-fisheries/key-policies/common-agricultural-policy/new-cap-2023-27/key-policy-objectives-new-cap_hu (accessed: 05.02.2022)

For the Rural Development Programme, the resources for the 2014–2020 period are HUF 1413.18 billion under Government Decision 1152/2020, which can be cleared until 31 December 2023. Under Regulation (EU) 2020/2220 of the European Parliament and of the Council, Hungary will receive transitional funding from the European Agricultural Fund for Rural Development (EAFRD) for two more years (2021 and 2022), with the Government providing for 80% domestic co-financing. This will add an additional HUF 1 527.3 billion to the Rural Development Programme (RDP) envelope, which will be settled by 31 December 2025. This means that the total amount available for the Rural Development Programme over the period 2014–2022 will increase to HUF 2941.1 billion.

The changes to the CAP, and therefore to the new LEADER-related system that is currently due to start in 2023, are constantly being reported, showing that the idea is not yet finalised, e.g. at the Agriculture and Fisheries Council in June 2021, EU agriculture ministers confirmed the provisional

agreement with the European Parliament on the reform of the Common Agricultural Policy. The new policy:

- Strengthens Member States' commitment to social and labour rights of farm workers
- Encourages farmers to adopt more environmentally friendly farming practices
- Support small farms and younger farmers
- Better links support to farm results and performance

This means that the next step is to agree on the remaining technical elements of the proposed reform at inter-institutional level, and then formally approve the proposal by the European Parliament and the Council. According to press reports, at the Council meeting in March 2022, the Commission informed ministers of the state of play of its assessment of the strategic plans under the future CAP. So the process is not yet complete.

The seven key aspects of the LEADER method, developed in 1991, define the current LEADER approach to implementation. The CLLD is a method based on dialogue and participation, and requires a complex and coherent structure for planners to design and implement a successful Local Development Strategy (LDS). Its application aims to ensure the development of the territory by strengthening the participation, commitment and cooperation of local actors and by creatively mobilising internal resources⁸.

The CLLD focuses on sub regional areas, i.e. the integrated and sustainable development of rural areas and urban areas and neighbourhoods. This means that the LEADER concept of rural areas will be translated into urban areas. Urban spaces that meet the criteria can therefore also be the setting for grassroots development strategies, designed by local communities, and in which local decisions on the use of resources are taken. Whereas previously only a part of the EAFRD funds could be used for CLLD-based strategies, the Regulation laying down common rules for the operation of the different funds allows for the allocation of resources from several funds for the im-

⁸ *Community-led local development*, European Committee 2014, p. 6, http://ec.europa.eu/regional_policy/sources/docgener/informat/2014/community_hu.pdf (accessed: 11.03.2022).

plementation of LDS⁹. This is why it was important in 2015 for LAG to take into account and plan with the measures and sub-programmes of other Rural Development Programmes relevant to the strategy, as well as with the possibilities of other Operational Programmes and other development programmes when planning the LDS¹⁰.

One of the strategic principles of the LEADER approach is innovation, i.e. that problems or opportunities can be addressed not only by applying previous solutions, but also by new methods, since there is no general recipe for success, so we have to develop new methods until we have uniformized every single element of the space. This will never happen and should not be the aim of any development in the context of space. The ball is currently in the European Commission's court, as a uniform methodology for the design and implementation of community-led local development is not yet available¹¹.

We agree with György Áldorfai's opinion, as he believes that it has become necessary to develop a methodological approach that combines dynamic and static analyses to detect changes in the spatial resources of a given cycle. Of course, some of these changes are the result of social, market and globalisation processes, but others are the result of development, which can stabilise or change the external effects of the aforementioned processes¹². He has developed his method, but unfortunately, to our knowledge, it has not yet been applied in practice.

In the period 2014–2020, the development of small-scale infrastructure and basic services in rural areas will be addressed by sub-measures M07 (Basic services and village renewal) and M19 (LEADER local development) of the Rural Development Programme of Hungary, which are part of priority area 6B (Promotion of local development in rural areas). Measure M07 supports the development of rural infrastructure and basic services through

⁹ *Community-led local...*, op. cit.; I. Czéghér, *A 2014–2020-as fejlesztési időszak uniós forrásainak tervezése*. Planning EU resources for the 2014–2020 development period, 2013 (accessed: 23.01.2021).

¹⁰ Gy. Áldorfai, *Magyarország térbeli teljesítményértékelése*, (PhD. Értekezés), 2021.

¹¹ Gy. Áldorfai, Z. Topa, J. Káposzta, *The planning of the Hungarian local development strategies by using by using CLLD approach*, „Acta Avada”, 2015, 2, pp. 13–22; *Nemzeti LEADER kézikönyv. Leader Helyi Fejlesztési stratégia tervezési útmutató*, p. 64, http://gis.lechnerkozpont.hu/leader/HFS_tervezesi_utmutato_1007.pdf. (accessed: 23.02.2022)

¹² Gy. Áldorfai, op. cit.

small-scale improvements to built infrastructure in rural settlements and the extension and improvement of the range and quality of services available.

On the basis of the experience of LEADER in Hungary, it is therefore necessary to summarise why there is a continuing lack of confidence in such a programme, which takes the interests of the beneficiaries into account to a large extent and is perhaps best able to pursue the overall objectives of rural development. This mistrust is evidenced both by the abstention of the other funds mentioned above and by the fact that, apart from the 5% compulsory allocation, most Member States do not allocate any resources to this purpose within the EAFRD.

The answer to the reasons for this lack of confidence is perhaps best found in bottom-up implementation. The EU gives local action groups wide powers, thus emphasising local rather than central decisions, and the managing authority may feel that some of the resources are not allocated according to central expectations, but are distributed between local actors. This can of course be avoided by adopting appropriate strategies, but there is a suspicion that the method is being used.

Another problem is that the EU's financial and administrative rules do not take into account the specificities of the LEADER method, and the European Court of Auditors has repeatedly stated that the allocation of funds locally involves risks, is not sufficiently regulated, and the flow of funds cannot be fully monitored. The managing authority and the paying agency therefore introduce even stricter procedures, making the local action groups dependent and imposing structures that are alien to local implementation (for example, the local action group can only decide whether a proposal complies with its strategy, but has no other role in the selection), so that local measures are almost indistinguishable from central measures, and the local action group loses contact with its applicants.

This dependency is further reinforced by the fact that operational funds are provided by the managing authority and have to be accounted for to the paying agency, and are ex post, so that the day-to-day running of the local action group is in a state of constant uncertainty, its resources can be reduced at any time, it can be suspended for suspected irregularities, and suspected irregularities are often found in centrally funded bodies, especially when they are small and often lack accounting practice. This situation can only be resolved if the local action group has other operational resources,

but in practice it cannot borrow money, as interest costs are not eligible for EU funding. It is hoped that a move to simplified cost accounting will reduce the disadvantages of ex-post financing in the future.

As regards operating costs, action groups in Hungary are often accused of spending a large part of LEADER funds on themselves. If we look at the figures, we find that the operating costs of the 95 local action groups in Hungary for the 9 (7+2) years of the New Hungary Rural Development Programme total EUR 43.47 million, or EUR 50,845 per action group per year, about HUF 15 million, which is certainly not a wasteful budget, considering the average of three employees, the costs of office maintenance, the considerable fuel costs. 264 The Common Agricultural Policy system.

Summary

In Hungary, between 2004 and 2006, the LEADER+ programme was a period of learning, and therefore a period of experience for Local Communities/Action Groups. Since 2007, many good initiatives have been implemented. The learning period is now over, which is expected to be confirmed by the successful commitment and use of resources. Positives include the growth of local social capital and the activation of local actors in the 2007–2013 budget period. Solving funding, cutting red tape and shortening the application decision period remain priorities for the 2014–2020 programming period. We think we have to agree with Ritter's view, as we also believe that the adaptation of rural development programmes to local socio-economic needs should be supported by the promotion of grassroots initiatives, the extension and strengthening of the LEADER concept, the so-called 'LEADER' approach, and the development of a more effective and sustainable rural development policy. There is also scope for Member States to develop sub-programmes with a higher rate of support (and more are doing so) for young farmers, small farmers, mountain areas and short food chains. Instead of the previously used axes, Member States can choose from a package of measures a combination of measures that best contribute to EU priorities¹³.

¹³ K. Ritter, *A vidékbiztonság vidékgazdasági alapjai*, <https://nkerepo.uni-nke.hu/xmlui/bitstream/handle/123456789/15949/A%20videkbiztonsag%20videkgazdasagi%20alapjai.pdf?sequence=1> (accessed: 27.03.2022).

The LEADER programme has undergone a number of changes and we believe that these changes have had many benefits in terms of improving the living conditions of rural people, but the scheme has yet to deliver real community-building effects. Unfortunately, in many cases the programmes have been implemented not to build community but to serve individual interests, and the implementation of central – shall we say – control has played a major role in this. Nemes-Magócs' studies have shown that, according to the LAG working organisations, the added value of using the LEADER method in the mid-term phase of the implementation of the programme (2014–2020) has generally decreased compared to the previous programming period, due to the loss of confidence caused by the lengthy application process, the significant reduction in development funds compared to the previous period, and thus the reduction in capacity for project generation, networking and animation. As a result of all this, LEADER has lost its importance in development policy at local level and among entrepreneurs¹⁴. Unfortunately, this study also shows the opposite of the planned progress of community building, which instead of developing communities, results in a change in the opposite direction of building community trust and cooperation. As a real result, we can conclude that grant payments have made a significant contribution to the development of rural infrastructure and basic services, with investments affecting 57.7% of Hungary's population.

In addition to the above, it is our view that LEADER implementation in the recent period has been paternalistic, with central management dominating the process and LAG playing a rather weak role. According to international experience, this may yield results in the short term thanks to the rapid allocation of resources, but it cannot really support the growth of social and organisational capital in rural areas. Therefore, in our view, the aim should be to maximise the community development impact of the programme, so these elements should be improved and the programme's credibility should be avoided being undermined by questions about the legality of the use of resources or the extent to which they contribute to community interests.

¹⁴ G. Nemes, K. Magócs, *Közösségi alapú vidékfejlesztés Magyarországon – A LEADER-intézkedés eredményei a 2014–2020-as tervezési időszak félidejében*, „Gazdálkodás”, 2020, 64 évfolyam, 5. szám, http://real.mtak.hu/116314/1/Gazdalkodas_2020_5_Nemes_Magocs_416_434.pdf (accessed: 22.02.2022).

From 2023 onwards, a new LEADER development period can start, in which a new Local Development Strategy must be prepared and adopted in 2023. The Local Development Strategy provides the basis for the work of the Local Action Groups by setting out in a structured way:

- the development orientations and the content of the framework, based on the meaningful involvement of local stakeholders and adapted to the specificities and needs of the area;
- the necessary and appropriate working organisational capacities to implement the Local Development Strategy;
- the modalities of operation for facilitating development ideas, evaluating and selecting proposals, managing the partnership and communication.

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Wyzwania związane z programem LEADER

Abstrakt

Unijne programy rozwoju obszarów wiejskich nie rozwiązały i nie mogą rozwiązać problemów wsi. Funkcjonują w ciągle zmieniającym się otoczeniu prawnym i nie są oparte na uniwersalnych pryncypiach. Mogą wzmacniać wysiłki państw członkowskich w osiągnięciu niektórych celów, mogą przyczyniać się do powodzenia niektórych działań – jeśli są one zgodne z celami Unii Europejskiej – ale nie mogą wywoływać zasadniczych zmian. Obszary wiejskie istnieją w szczególnym kontekście społecznym, gospodarczym i środowiskowym, a udzielanie wsparcia jest tylko jednym z wielu czynników kształtujących ten kontekst. Obowiązkiem państw członkowskich jest świadczenie pomocy na cele, które nie będą tylko zaspokajaniem doraźnego deficytu, ale wywołaniem długofalowych trendów poprawy. Rozwój programu LEADER, jego obecnej formy, miał kilka antecedencji, był praktycznie wynikiem złożonego rozwoju, przeszedł szereg zmian i uważamy, że zmiany te przyniosły wiele korzyści w zakresie poprawy warunków życia mieszkańców wsi, ale system ten nie osiągnął jeszcze prawdziwych efektów budujących społeczność lokalną. Dlatego też przedstawiamy tu wybór najważniejszych wydarzeń i zmian w programie LEADER, z zamiarem podkreślenia jego kluczowych osiągnięć. Chcielibyśmy podsumować mniej udane działania i anomalie operacyjne, których kontynuacja nie pomaga i tak już problemowemu procesowi budowania społeczności i rozwoju obszarów wiejskich. W wielu przypadkach, niestety, programy były uruchamiane nie dla budowania wspólnoty, ale dla realizacji indywidualnych interesów.

Słowa kluczowe: LEADER, doświadczenie, rozwój, rozwój obszarów wiejskich, kompleksowy rozwój, transformacja, wsparcie, rozwój społeczności, rozwój regionalny

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The role of higher education institutions in fostering economic development of Hungarian regions

Abstract

The aim of this paper is to provide an overview on the changing role of higher education on the local economic development of the regions of Hungary especially after the change of regime, with special focus on the rural areas. The qualification of the population has always been an important factor in economic development, thus the development of the human resource must be a key issue in development policies. The higher is the share of population with tertiary education, the higher is the potential for economic growth. As being a lecturer in higher education for more decades, my aim was to see how the role and function of the higher education has changed over the years in Hungary and how important its role is nowadays by being a center for innovations, basis for spin-off and start-up businesses, by the establishment of regional research centers acting as knowledge-transfer hubs. We all know that SMEs, startups, businesses with innovative approach play a crucial role in the local economic development, not only in Hungary but in the whole European Union, so any measures targeting their development are inevitable, however, we need to see whether the human resource of the country at the moment is suitable for the establishment/development of such innovative enterprises.

Keywords: higher education institutions, start-up businesses, local economic development, innovation, research and development

Introduction

There is general consensus in the literature on innovation-oriented regional development that the utilization of a regional knowledge base, innovation potential and cooperation between businesses and research institutions continues to play an increasing role, not only with regard to business success

but also in the competitive economic performance of a region¹. In many regions, universities are viewed as the core of the knowledge base and at the heart of the knowledge economy, acting as key elements of innovation systems, supporting science and innovation-based regional growth².

Universities and research institutes as knowledge centers, extending and disseminating comprehensive scientific information, are playing increasing role in regional development thus in the development of businesses operating in the region. Despite the fact that universities always highlight their international acknowledgement and internationalization endeavors, most of the higher education institutions are embedded in their own region and significantly contribute to its economic and social development by maintaining local jobs, diversifying the local economy as well as by attracting investors to the region. Nowadays, in the globalized world, there is increasing competition to reach qualified labour force and the intellectual added values. Since nowadays the value of intellectual capital has higher priority than the physical resources, a shift towards the significance of universities can be observed, since they are the institutions where the knowledge-generation and dissemination are carried out, being the basis for the knowledge-based society. However, it has been getting more and more important how the higher education institutions' impact on the region's economy and society can be really measured³. However, it was not always the situation with universities, their primary aim was not always to live in harmony with their regions and to boost active relationship with companies. That is why we intend to provide an overview on the transformation of the Hungarian higher education after the change of regime 1989/90. It can be clearly seen how universities were reshaped to meet the market needs and to contribute to the integrated development approach.

¹ J. Lackenbauer, *Catching-up, regional disparities and EU cohesion policy; the case of Hungary*, Institutions and Policies for the New Europe International Conference, Portoroz-Koper, Slovenia, June 17–19 2004; P. Cooke, *Planet Europa: Network approaches to regional innovation and technology management*, „Technology Management”, 1995, 2, pp. 18–30.

² R. Huggins, A. Johnston, R. Steffenson, *Universities, knowledge networks and regional policy*, „Cambridge Journal of Regions, Economy and Society”, 2008, pp. 321–340.

³ G. Molnár G., B. Zuti, *Egyetemek gazdaságfejlesztési hatásainak mérése*, „Első szárnypróbálgatások”, 2015, Vol. II., No. TDK Műhelytanulmányok, pp. 52–65.

Theoretical background

The relationship between education and rural development

Since most of the territory of Hungary falls in the category of rural, we must see the most important roles of education and higher education in the development of rural areas. FAO and UNESCO emphasize that a community cannot foster development without an educated population⁴. Businesses, large or small, are unlikely to choose to invest in rural areas if skilled or trainable human resources are unavailable. Similarly, a community cannot retain educated people without an attractive economic environment. It is obvious that knowledge, skills and competencies acquired through any formal, informal and non-formal education are considered one of the most significant economic and social factors contributing to the development of the countryside. Knowledge transfer/exchange helps to continue growing a sustainable rural area and also contributes to finding more of the long-term solutions that rural residents can offer to society⁵.

According to Farheen, it is important to understand the need for good quality education in rural areas, as it helps keeping the population in the rural areas⁶. People, especially young people tend to move to urban areas for better opportunities in education and employment, thus improved rural education is one possible strategy for keeping them in the countryside. We agree with Ninh that well-educated farmers are likely to adopt new technologies early since they get distinct access to relevant information and are capable of distinguishing between promising and unpromising innovations⁷. Education is

⁴ FAO, UNESCO, *Education for rural development: towards new policy responses*, 2003, <http://www.fao.org/3/ad423e/ad423e.pdf> (accessed: 03.07.2021).

⁵ J. Greser, R. Kamiński, P. Klatta, W. Kniec, J. Martinez-Perez, A. Sitek, A. Wagstaff, *Knowledge Transfer, Knowledge Acquisition and Qualifications in the Context of Rural Development in Poland*, „European Countryside”, 2021, 13(1), pp. 56–70, <https://doi.org/10.2478/euco-2021-0004>.

⁶ S. Farheen, *The role of education in rural communities*, Rural Development Institute 2019, <https://www.brandonu.ca/rdi/> (accessed: 03.07.2021)

⁷ Le K. Ninh, *Economic role of education in agriculture: evidence from rural Vietnam*, „Journal of Economics and Development”, 2021, Vol. 23. No. 1, pp. 47–58, <https://doi.org/10.1108/JED-05-2020-0052>.

also supposed to reduce the perceived level of uncertainty and the aversion of the farmer toward endogenous risks arising from his own choice of production technology. Since some rural areas are still dominated by agricultural production, the education of people working in agriculture is a key to sustainable development. In an OECD report, it is highlighted that in order to maintain quality services in rural regions and close gaps further exposed by the pandemic, governments must develop innovative responses tailored to the specificities of rural places and the long-term challenges they face⁸. We believe that such innovative responses must also include the restructuring of higher education, meeting the requirements of the rural regions of Hungary.

The transformation of the Hungarian higher education after 1990

The first wave of the transformation of the Hungarian higher education system started with the act that was passed in 1993 exclusively on higher education – first in the history of the country. That Act made it possible to establish institutions maintained by the church or private companies in addition to the state-governed institutions. From that year, the number of state higher education institutions gradually decreased (by approx. 10% by 2000), the number of church-governed institutions tripled by the academic year 1993/94, while the number of institutions maintained by foundations or the number of private institutions has gradually increased. The largest increase in the number of the higher education institutions was during the 1992/93 academic year, when 15 new institutions were created and altogether 90 institutions existed (this situation did not change much until the millennium). However, the number of students increased only slightly, thus the institutional system has become very fragmented. At the beginning, institutions had a low number of students and their professional scope was quite limited, which resulted in an inflexible training structure that could not adapt to the socio-economic changes and cost a lot. Thus the higher education system needed further developments. Moreover, after the change of

⁸ OECD, *Delivering Quality Education and Health Care to All. Preparing Regions for Demographic Change*, OECD Rural Studies, 2021, <https://doi.org/10.1787/83025c02-en>.

regime, a normative financing scheme was introduced, meaning that colleges and universities were granted the state support based on headcount.

It means that it was a targeted approach by the institutions to increase the number of students but taking into account that all the institutions from the same professional field received the same state support per head, the institutions in the countryside, having students from only the region could operate with lower costs, compared to the large, historical institutions.

The next phase of development was in 1995 when an integration process was initiated with state financial support. The main aims were as follows:

- to modernize the institutional system in a rational way;
- to use the capacities as well as the infrastructure more efficiently;
- to stop the unnecessary parallel courses;
- to operate the institutions more efficiently;
- to improve the quality of courses;
- to transform the course structure;
- to allow easier change between courses/institutions with the establishment of the credit system and
- to expand the supply of courses.

By the end of the 1990s, the number of students in higher education basically tripled, since the act on higher education in 1996 allowed to introduce self-financing courses in addition to the formerly existing state-supported courses. Since the rate of those who graduated on self-financing courses was much higher than on state-supported courses, more students preferred those courses and the institutions also intended to attract more students to those trainings. It resulted in a depreciation of diploma received at the end of self-financing courses. Additionally, higher vocational courses have been created that operated as engines of higher education expansion.

At the millennium, several institutions opened the academic year in the form of large institutions, as a result of the integration of formerly independent universities/colleges. The law effect since 1st January 2000 ordered the transformation of the institutional system based on regional aspects, the integration of institutions with similar or the same profile located in the capital, Budapest. The aim was to create more efficient institutions with broader scope, considering the economy of scale, and to create institutions more adaptable to the job market needs. Due to this integration process, the number of institutions decreased by almost 30% by the year 2007.

Despite the fact that the integration process was the part of a financial modernization plan of the higher education system, and the concept was to establish institutions dealing with more than one disciplines and to have one higher education institution in one region, the integration – in some cases – was based on rather professional reasons and not on geographical proximity, therefore faculties of the new institutions might have been far from each other, making the efficient management, leadership and coordination more difficult. One of the aims of the integration was to force the newly integrated institutions to stop the parallel courses – formerly offered by the individual institutions – but most of the institutions did not manage to do that, since it would have meant firing lecturers who had been teaching certain topics for a long time. The management of the institutions did not want to make this decision and did not have professional reason whom to fire.

The next stage of the development of the Hungarian higher education system was around the accession to the European Union in 2004. The major aims in this phase were as follows:

- to increase the number of students in higher education
- to support lifelong learning
- to modernize the institutional system
- to develop the course contents and training forms meeting the job market needs as much as possible and
- to develop the infrastructure in line with the middle-term development plans of the institutions.

A few years later Hungary also made a lot of efforts to introduce the Bologna-system in the higher education to have a harmonized system on the international higher education market. It was the 2006/2007 academic year first starting in the framework of that system. The Hungarian higher education system faced various challenges in introducing the Bologna system, since the framework of courses was based on rather curricula and lexical knowledge rather than on competencies and skills. Therefore, at that time, Hungarian higher education was considered as a non-practice-oriented education that was not able to prepare the graduates even for the job market requirements in several aspects, like foreign language, IT skills⁹.

⁹ G. Rappai, *A Bologna-folyamat kihívásai a statisztika felsőfokú oktatása számára*, „Statisztikai Szemle”, 2005, Vol. 83, No. 6, pp. 514–532.

Based on the abovementioned, it is clear that the Hungarian higher education system has been undergoing serious transformation since the change of regime 1989/90, however, there are debates whether all the measures could be considered modernization or not.

There were significant changes in the role of higher education over the past 3 decades. The primary role, namely education, has lost its importance and additional functions (research, services to businesses) have become more important. The spatial dimension of innovation had been greatly determined by the transformation of universities during the transition years in Hungary. This involves not only the extension of their research profile, but also the transformation of the traditional university into the organizational structure of a research university¹⁰.

We could observe radical changes in the methods and nature of knowledge-transfer, serving more the knowledge-based economy. We can also see changes in the necessary knowledge required by the economy and society as well as how much the usability, functionality and employability of knowledge has been more in the focus. In addition, more and more links, relationships have been created between higher education institutions and businesses, companies, research centers, vocational training centers, SMEs etc. to use the resources more efficiently and to find solutions more-tailored to the business needs. Over the past decade, several regional research centers have been established at universities to serve as knowledge transfer hubs. Moreover, universities also strive to encourage and support their students to set up their own businesses.

Nowadays, the presence of a higher education institution creates added value in many dimensions in the region where it is located and more and more think that they play increasingly important role in local economic development. As Figure 1 shows, the territorial distribution of higher education institutions is not balanced in Hungary even if there are institutions or affiliates of institutions in each region. It has also to be mentioned that the efficiency and the innovation capacity of institutions are not balanced either.

¹⁰ Z. Gál, *The role of research universities in regional innovation: The case of South Transdanubia, Hungary* [in:] *Perspectives on learning cities and regions. Policy, practice and participation*, eds. N. Longworth, M. Osborne, MIEJSCE 2010, pp. 84–105.

As Figure 1 shows, the higher education is still concentrated in the capital (the higher is the triangle on the map, the more institutions can be found in that town). The ownership structure also shows interesting tendency, namely that many institutions at the moment are in private ownership and their number will increase gradually in the coming future due to the higher education measures of the government. Formerly state universities will become private, under the supervision of foundations (even financed by the state!).



Figure 1. The location of the headquarters of higher education institutions in Hungary, 2021
Source: based on data from Education Authority, own editing, 2021.

However, we need to mention that nowadays there are significant ongoing changes in the ownership of the higher education institutions, meaning that only 6 out of 64 will remain in state ownership soon, out of which only one is located in the countryside (Baja), the rest is in Budapest. It results that soon every third in ten students will study in institutions maintained either by foundations, private companies or church due to the government's recent measures related to higher education.

Material and method

In order to see clearly the role of higher education in the Hungarian countryside, we need to refer to the definition of 'rural' in Hungary. Hun-

garian definition in this respect followed the definitions stated in the 1305/2013/EU regulation. An area is a rural area if a city a town or village has less than 10,000 inhabitants (even if the population density is over 120 person/m²), or has more than 10,000 inhabitants but the part of the city is an outskirt and there are rural settlements. The capital of Hungary Budapest and its agglomeration are not included in the rural category and not covered in the rural development program¹¹. It means that regarding urban-rural typology, Hungary has the capital and its agglomeration as urban area and the rest of the country as the countryside. According to the general typology in the Rural Development Program of Hungary, rural is an area with population density under 120 person/m², also supports the abovementioned classification. According to the latest EU definition, rural area is an area where more than 50 % of its population lives in rural grid cells. Based on the abovementioned, we intended to highlight the discrepancies between the urban and rural areas of Hungary in terms of education.

Figure 2 helps to understand the regional and county-level statistics detailed below.

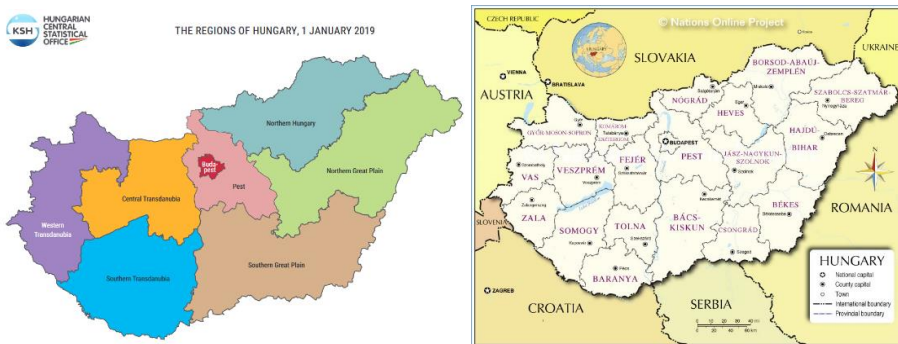


Figure 2. Regions and counties of Hungary

Source: Regional Atlas – Regions, Hungarian Central Statistical Office, https://www.ksh.hu/regionalatlas_regions (accessed: 04.07.2021) and Administrative Map of Hungary, <https://www.nationsonline.org/oneworld/map/hungary-administrative-map.htm> (accessed: 04.07.2021).

¹¹ Vidékfejlesztési Program, <https://www.palyazat.gov.hu/node/56582#> (accessed: 03.07.2021).

Regarding the national statistics, Figure 3 shows that the number of students in higher education gradually increased over the past 30 years that is a benefit for all the regions of the country even if there is still a huge gap between the regions and counties. However, in general it is beneficial that the share of those who took part in higher education has been increasing, being a good and solid basis for economic development. The more educated the population is, the better is the potential for sustainable economic development.

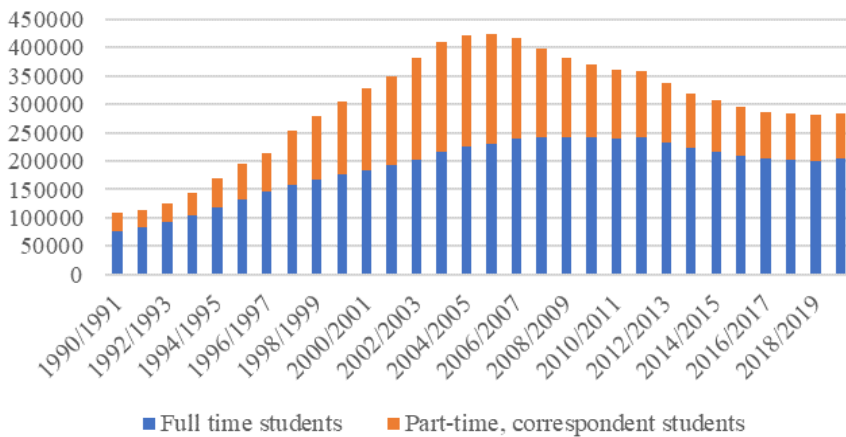


Figure 3. Number of students in higher education in Hungary

Source: Hungarian Statistical Office data, own computation, 2021.

Despite the fact that there were changes in the distribution, the share of full time students always remained dominant. Figure 4 reflects the unequal territorial distribution of full time students in higher education over the past 2 decades. Figure 4 shows that in 2001, Budapest and Pest county (the agglomeration of the capital) together represented 29% in the total full-time university students, while in 2019 it was over 34%. Even if the total number of full-time students decreased from 173,806 (2001) to 158,219 (2019) during the period. It means that the 18 rural counties altogether represented around 70%. The number of full-time students living in the most developed and most urbanized region of the country was just above 50,000 in 2001 and over 54,000 in

2019, meaning that the capital and Pest county showed increase, while the number of full-time students living in the countryside sharply decreased over the years. Therefore, the distribution of the full-time students in higher education reflects huge concentration in the center of the country, resulting in large territorial inequalities – similarly to other macroeconomic indicators.

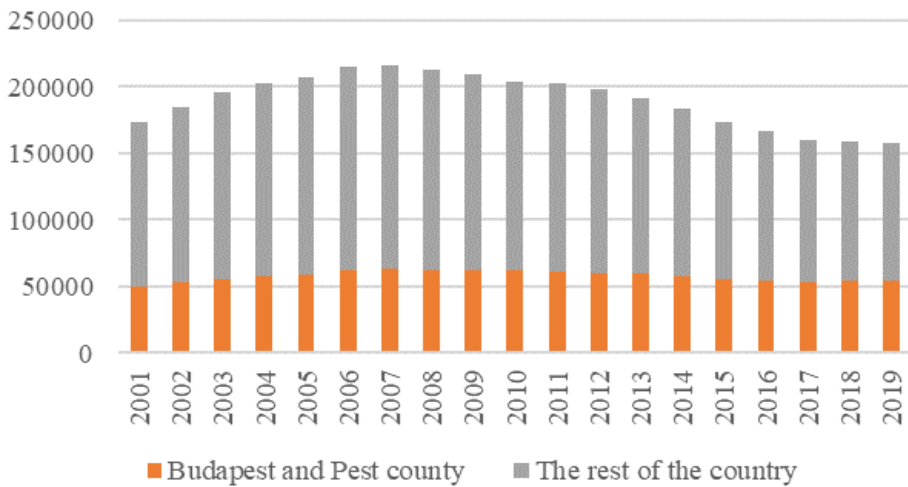


Figure 4. The number of Hungarian full-time students in higher education (according to their place of residence)

Source: Hungarian Statistical Office data, own computation, 2021.

Figure 4 shows that in 2019, just a little above 100,000 people attended bachelor or master courses at higher education institutions from the countryside which might seem to be low compared to the number of population living in the 18 counties. If we look at the share of population with tertiary attainment education in the regions, we can see territorial discrepancies, since the capital reflects high concentration – similarly to other indicators. In Budapest, over 40% of the population have university degree, while in the countryside it is around 20%. This also highlights the need to strengthen the higher education institutions in the countryside so that they could attract more people primarily from the region where they are located.

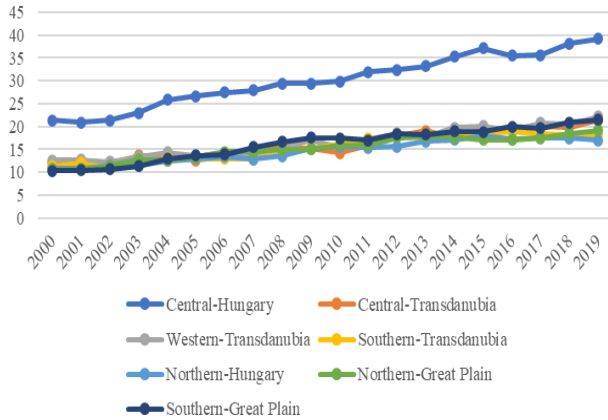


Figure 5. The share of population with tertiary attainment among the population aged 25–64 years (%)

Source: Eurostat database, own computation, 2021.

Regarding the number of people receiving diploma in the country showed increasing national tendency over the past decades (Figure 6) but Figure 5 clearly reflects that it is primarily due to the increasing data in the capital and its agglomeration and not due to the increase in the rural areas. Despite the fact that compared to the beginning of the 90s, the number of people receiving diploma doubled by the millennium years (it has been around 50,000 in every year), there are significant regional discrepancies as explained above.

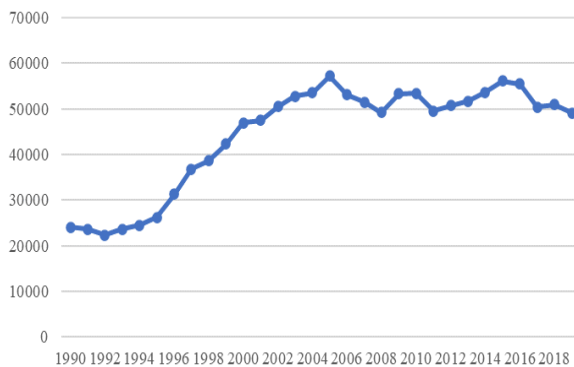


Figure 6. Number of people receiving diploma in Hungary between 1990 and 2019

Source: Hungarian Statistical Office data, own computation, 2021.

If we look at the potential in the development of human resource in the regions of Hungary, we need to see the share of young population among the people aged 20–24 years with less than primary, primary or lower secondary attainment, since that age group of the society is the mostly expected to study further and show intention to go to secondary school and university or contribute actively to the local economy be either setting up his/her own business or taking a job at a company. The situation, as Figure 7 shows, is not favourable in the countryside. Not only because of the huge regional discrepancies, but because e.g. in Northern Hungary, nearly one in four people aged 20–24 does not have sufficient education attainment to be able to complete secondary education or to get admission to university.

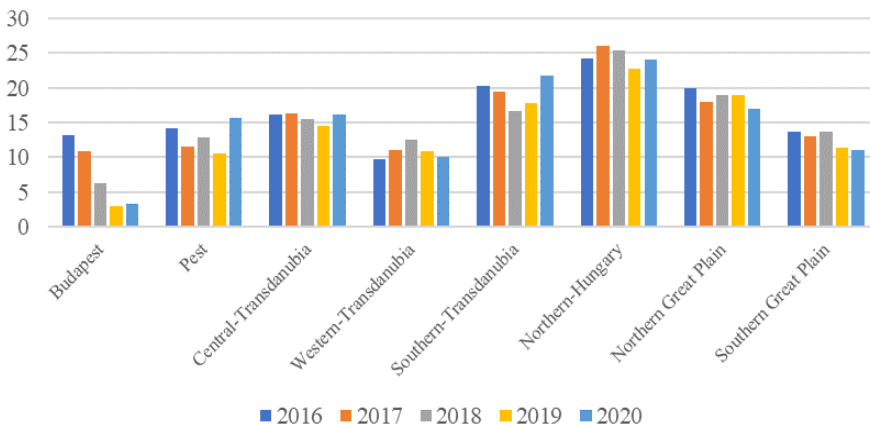


Figure 7. The share of population with less than primary, primary or lower secondary attainment among the people aged 20–24 (%)

Source: Eurostat database, own computation, 2021.

In the regions lagging behind regarding the potential applicants to higher education institutions, the problem is multidimensional, since the share of young people (18–24 years) neither in employment nor in education is also extremely high, meaning that there is no intention of young people to study if they are not successful in job search either. Figure 8 shows the dramatic situation, namely that in the regions, located to the east of the Danube, one in five young people is not employed or studies and this data did not show any spectacular improvement over the past 5 years. It means that there is

a massive group of young people, especially in the Eastern regions (which have low GDP per capita indicator as well), whom the nation cannot build on in short or middle terms if it comes to their economic contribution and development. It also means that in order to improve the local economic conditions, higher education institutions in the rural regions must focus on further trainings and other vocational short term trainings as well (in addition to the bachelor and master courses) to attract some of those young people who completed their secondary education. Higher education institutions have huge responsibility to improve the human resource of their regions in general, not limited to the university studies. Higher education institutions also have important task in developing the cooperation and the link with the businesses in the region, since they are the potential employers of the population of the region. This expectation is the highest in those regions which lag behind from economic point of view.

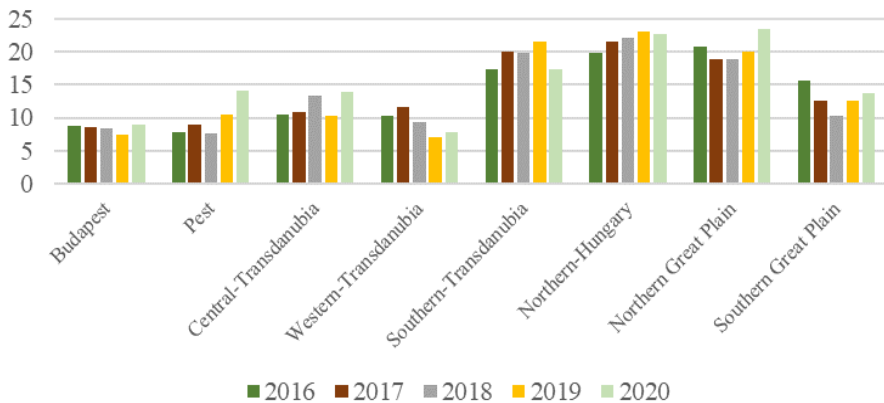


Figure 8. The share of people neither in employment, nor in education among the population aged 18–24 years (%)

Source: Eurostat database, own computation, 2021.

As it has already been mentioned above, regions located to the east of the Danube lag behind in several aspects. As it can be seen on Figure 9, there is a huge difference between the GDP per capita in the regions, reflecting significant territorial discrepancies within the country. It needs to be mentioned that spatial differences in economic development have serious impact

on the network relationship of universities and business organizations. Figure 9 also reflects that far the most developed region is Central-Hungary (including the capital and Pest county). Two regions from Transdanubia are in the middle of the rank and the rest of the regions are lagging far behind. Therefore, it would be extremely important to increase the qualifications of the human resource in those regions, since without qualified human resource, the economic development potentials are very much limited. The regions lagging behind are mainly located in the Eastern and Southern part of Hungary (near the borders), as well as areas close to the Northern border neighbouring Slovakia's least developed regions. It is obvious that the difference between the capital region and the rest of the country is apparent in the relationship between the universities and their regions.

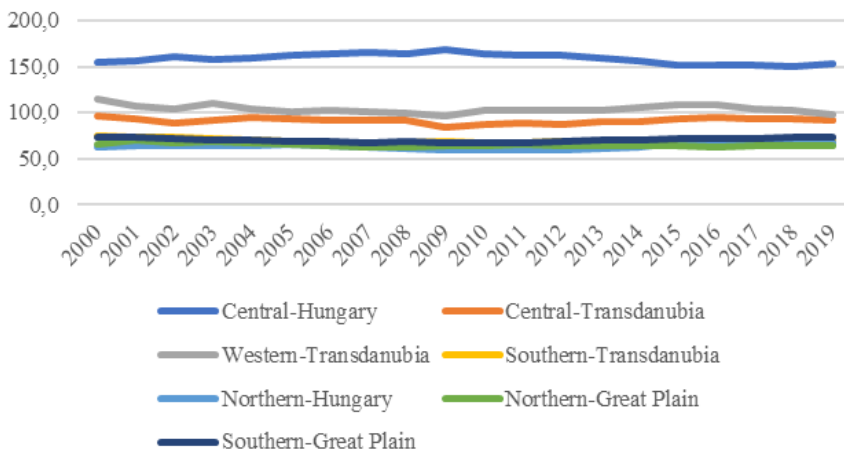


Figure 9. GDP per capita in the regions of Hungary in % of the national average
Source: Hungarian Statistical Office data, own computation, 2021.

As the economic development level of the regions of Hungary also differs, the share of active population with tertiary education attainment also varies. The number one region is the one including the capital, it is not surprising. It is favourable that the share of population with tertiary education attainment doubled after the change of regime but based on the figures above we can see where it would still be very necessary and urgent to increase further the qualification of population. It is the regions

in the countryside. The gap between the regions in this matter even increased over the past decades and the central region has shown increasingly large concentration¹².

Results and discussion

Universities can have an impact on the economic development of their own region in two ways: on the one hand, through the multiplier effect of the purchasing power of students (a so-called expenditure effect) and on the other hand, through the knowledge transfer from the university into the business sector (knowledge effect)¹³. According to Florax, there are at least eight subsystems in the analysis of the regional and local impacts of universities: political, demographical, economic, infrastructural, cultural, attractiveness, educational and social¹⁴. Higher education is an extremely attractive factor for capital development not only because it creates competitive advantage in the local labour market but also through its potential for creating innovation. It can be seen all over Europe that the development of large technology systems concentrated in metropolitan agglomeration was mostly determined by the research and development units of large companies. By contrast, the innovativeness of SMEs was, in the majority of cases, initiated by institutes of higher education, through the creation of local and regional clusters¹⁵.

The economic attractiveness of the regions and spread of knowledge depend largely on a spatially-balanced network of university-based research facilities, and especially with regard to their relationship with companies¹⁶.

¹² S. Aboelnaga, T. Tóth, Gy. I. Neszmélyi, *Land use management along urban development axis as one of urban regeneration principles*, „Engineering for Rural Development”, 2019, 18, pp. 944–953.

¹³ R. Florax, *The university: A regional booster? Economic impacts of academic knowledge infrastructure*, Aldershot, Avebury 1992; A. Varga, *Az egyetemi kutatások regionális hatásai a nemzetközi szakirodalom tükrében*, „Közgazdasági Szemle”, 2004, LI. évf. március, pp. 259–275.

¹⁴ R. Florax, op. cit.

¹⁵ Z. Gál, *The role of research....* .

¹⁶ Ibidem.

The role of higher education in the development of an area (country, region, county) can be interpreted from several aspects. Based on Gál, the universities have different functions that fundamentally affect their commitment to the regional and local development, as follows¹⁷:

1. The primary/basic function of universities is the *education*, namely giving knowledge to students that is competitive on the international and national/regional job market. However, the knowledge offered by the institutions is sometimes in disharmony with the job market forecasts and the job market changes. Courses and the profile of the institutions are difficult to change in the traditional system and the role of the state cannot be replaced. This problem varies in the regions and it seems that in the peripheral regions the state has to take more role in higher education system.
2. Traditionally, the tasks of universities are primarily the education and secondly the *research*. The role of institutions in the fundamental and applied research has gradually been determining. They have shown increasing intention to join international research networks.
3. Nowadays, universities are more likely to take the third mission, namely the *developing* role. Their role in innovation and economic development is getting more importance. Universities, especially in the peripheral regions, are determining economic actors by usually being the largest employers, attracting the purchase power of students, resulting in direct economic impacts. By supplying the regions with highly qualified human resource, they contribute to the development of various sectors.

Based on Molnár, there is a list of suggested indicators to measure the third mission of higher education institutions as follows, however it has to be highlighted that at the moment there are no statistical data collected for such activities nationwide¹⁸:

¹⁷ Z. Gál, *Egyetem és a város*, „Educatio”, 2016, 2, pp. 220–233.

¹⁸ G. Molnár, *Egyetemek gazdaságfejlesztési hatásainak számszerűsítése: a harmadik misszió mérési lehetőségei*, Szakdolgozat, Szegedi Tudományegyetem, Szeged 2015.

Table 1. Suggested indicators

Target area / Activity	Suggested indicators
Technolog transfer	Income realized by the university from the utilization of intellectual capital
	Number of joint research contracts with innovative companies
	Number/regional rate of innovation-oriented companies created at the university
Counselling	Number of economic development strategies created
	Number of enterprises resorting to counselling services
Spin-offs and start-ups	Percentage of university spin-off/start-up companies in the agglomeration
	The number of spin-offs/start-ups per 1000 university staff
	The number of spin-offs/start-ups created in the last 5 years
	The revenue of spin-offs/start-ups
	The number of employees of the spin-offs/start-ups in the last 5 years
	The number of enterprises created by students or graduates of the last 5 years
University – Industry – Government relations	Number of industrial R+D connections Number of R+D actors
	Number of joint projects carried on by university and industry in the last 5 years
	Percentage of innovative companies (as a share of all companies) cooperating with the university
	Percentage of industry-financed university R+D activities
Commercialization of academic facilities	Revenue from rent (e. g. laboratories)
	Number of public events organized by the university
Enhancement of the social engagement of the university	Number of cultural events
	Number of internal visitors
	Number of external visitors
	Number of press releases in a given time period (university staff, researchers in regional and national media)
	Number of university events promoting social responsibility (e. g. green programs)
	Number of dissemination programs (science to general public)

Source: Based on Molnár, op. cit., p. 41.

Since there are no national statistics to measure the impact of higher education institutions within their third mission (developing and innovation), we must not forget about their impact on the number of businesses. Due to

the knowledge-transfer and the innovation generating activities, universities are very much supportive and motivating environments for young students who are considering setting up their own businesses. Therefore, we can state that higher education institutions have indirect impact on business development. Several institutions have established their own startup centers within their institutions to assist the young entrepreneurs and support new innovative ideas.

As Figure 10 shows, in the past 20 years the number of operating SMEs increased by 37% compared to the year 2000, exceeding 855,000 by 2019. It can also be seen from the Figure that over 90% of the SMEs belong to the micro-enterprise category, which includes startups as well.

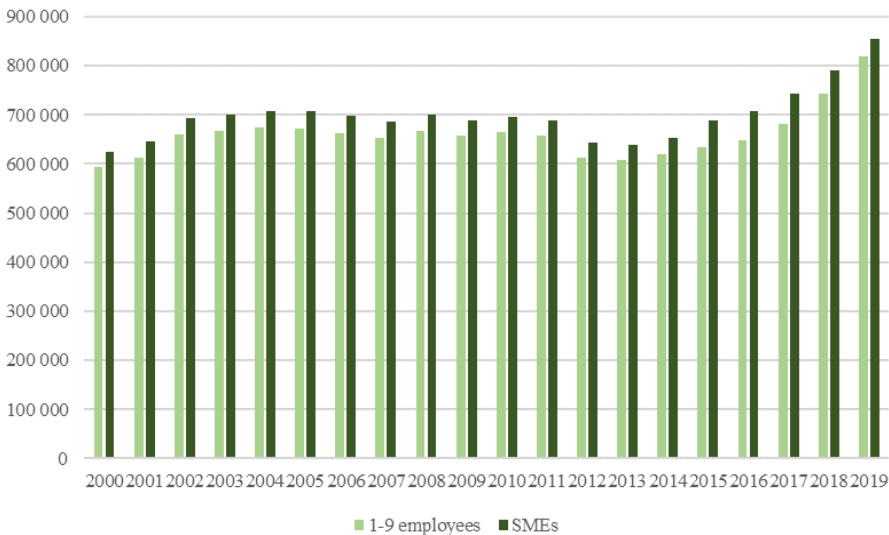


Figure 10. The number of operating SMEs and micro enterprises in Hungary between 2000 and 2019

Source: Central Statistical Office data, own editing, 2021.

Unfortunately, there is no statistics in Hungary about the startups separately, so we cannot see how the innovation influenced the establishment of new businesses in the past 2 decades but there is statistics for the newly established businesses. If we look at Figure 11, we can see that the capital and Pest county (the agglomeration of the capital) very much dominate

the business sector regarding the newly established companies. Almost every third business was set up in the capital in 2000, while it was still over 25% in 2019. Even if Figure 11 shows all the enterprises, we can see correlation between the counties where the most important higher education institutions and knowledge hubs are located and the relatively high number of newly established companies. It must be because of the presence of a university and not because of the developed economy in general, because e.g. Borsod-Abaúj-Zemplén county is one of the least developed counties of Hungary but it has the University of Miskolc as being a great center for innovation. It is the same for Hajdú-Bihar as well, where the University of Debrecen contributes a lot to the entrepreneurship development. Both are far from the most-developed center of the country, the capital, located in the rural areas.

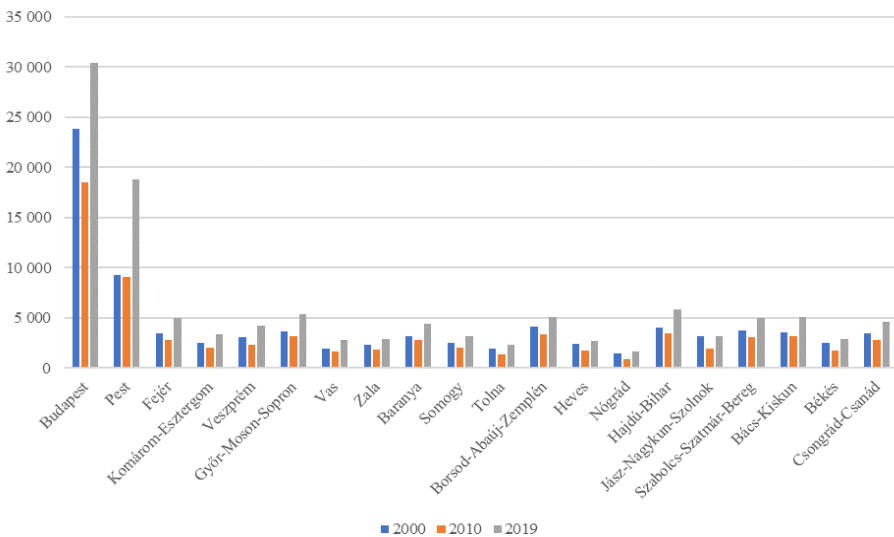


Figure 11. The distribution of newly established enterprises in the counties of Hungary

Source: Central Statistical Office data, own editing, 2021.

As it can be seen from Figure 12, the newly established micro-enterprises in Hungary showed gradual increase after 2012, exceeding 118,000 in 2019. Except 2012, 60,000–70,000 micro enterprises were set up every year on average which reflects active entrepreneurship capacities. Mi-

cro-enterprises in this aspect cover the small businesses with maximum 9 employees. If we look at the detailed data, we can see that 99% of the newly established enterprises were those with maximum 4 employees. It means that we must consider the startups in this category, since they also usually have maximum 4 employees. The National Authority of Intellectual Property was ordered first in 2017 to register the startups, thus we could not have specific statistics about them before 2017.

However, startups are not equal to new micro enterprises, but mean such businesses that have special aims. Startups are businesses that aim to enter international market in short term based on their business model or innovative product and which has the potential for such growth. In the following subchapter, some information can be read about Hungarian initiatives related to universities and innovative businesses.

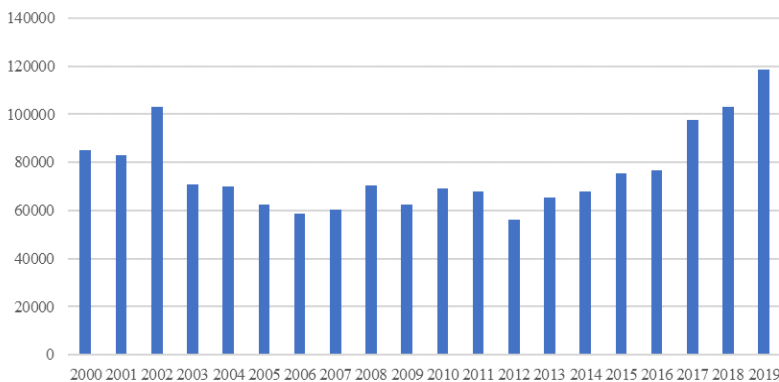


Figure 12. The number of newly established micro-enterprises in each year between 2000 and 2019 in Hungary

Source: Central Statistical Office data, own editing, 2021.

Initiatives to strengthen the innovation potentials in Hungary

Hungarian Startup University Program

The Hungarian Startup University Program (HSUP) is the first practice-oriented university-level startup course in Hungary aiming at bringing the

next generations closer to the business sphere and teaching them how to think in a solution-oriented and innovative way. The idea of such a course was born in 2019. The course is for two semesters and intends to call the attention of young people that forming innovative ideas into businesses is a good career opportunity. This course may have long-term impact on the development of the Hungarian innovation ecosystem¹⁹. In 2021, 21 higher education institutions joined the program and offer the course to the young talented students. It is not only the students but also the partner institutions who see great potential in the program. In the second semester of the program, the students have team-work and work on over 100 project ideas. Based on the feedback of partners, the course helps to gather young innovative people with creative mentality who can get useful and applicable knowledge on innovation, making them competitive on the job market. The course focuses on the learning of innovation approach, increasing the interest on innovation. Several experts from the startup sector are also involved in the course, thus the Y and Z generations are involved in innovation environment by linking the generation, resulting in an „innovational generation”. The program also offers scholarships and business mentoring activity for the participants to support the best project ideas for the real market conditions.

University Innovation Ecosystem

According to the Hungarian National Strategy of Research and Development and Innovation, one of the overall objectives is to encourage the active knowledge- and technology transfer among the members of the innovation ecosystem as well as to exploit the knowledge transfer role of higher education institutions more efficiently. In harmony with the abovementioned objective, the National Research and Development and Innovation Authority launched the program called University Innovation Ecosystem (2019–1.2.1–EGYETEMI ÖKO). The aim of this program is to establish a separate department/unit within the universities that fosters the use of the scientific results born at the university on the market, supports the cooperation between the

¹⁹ Hungarian Startup University Program, <https://hsup.nkfi.gov.hu/> (accessed: 11/04/2021).

universities and business sphere on research, development, technology and innovation, as well as encourages the universities to take active part in EU research and innovation frameworks.

One of the other aims of the program is to create an online platform where the R&D&I portfolio of universities can meet the concrete needs and inquiries from the business sphere. This match-making platform helps to contact the universities and assist in creating relationships between the academic and business sphere. In order to improve the innovation capacities and competitiveness, it is extremely important to strengthen the organizations, companies, universities, policies at regional and local level. The aim of the initiative called Territorial Innovation Platforms to create regional cooperation based on the knowledge basis of universities and to strengthen the relationship between the members of the innovation ecosystems.

The constitutional agreement has been ratified by 7 universities from the countryside and 11 universities in Budapest. Moreover, 5 national professional organizations and several members of local innovation ecosystems joined the program. The Territorial Innovation Platforms are as follows (regions are mentioned in brackets):

- University of Miskolc, Territorial Innovation Platform, Miskolc (Northern-Hungary);
- University of Debrecen, Territorial Innovation Platform, Debrecen (Northern-Great Plain);
- Széchenyi István University, Territorial Innovation Platform, Győr (Western-Transdanubia);
- University of Pécs, Territorial Innovation Platform, Pécs (Southern-Transdanubia);
- University of Szeged, Territorial Innovation Platform, Szeged (Southern-Great Plain);
- Budapest Territorial Innovation Platform;
- Pannon University, Territorial Innovation Platform, Veszprém (Central-Transdanubia);
- Hungarian University of Agriculture and Life Sciences, Gödöllő (Central-Hungary).

Conclusions

Based on the overview on the transformation of the Hungarian higher education, we can see that universities and colleges have had increasingly important role in the economic development, especially in their own regions by fostering innovation, transferring knowledge, strengthening the relationship with the business sphere. Moreover, higher education institutions – due to market needs – had to realize that they must serve the businesses with their research and development activities. This process takes time, there are regional discrepancies still existing in the country, but due to the various programs and initiatives, spectacular progress can be observed. Therefore, it is not a question that higher education institutions play and must play an important role in economic development at national, regional and local level. However, the more an institution is embedded in the local and regional economy and society, the stronger relationship it has with the business sphere, the more efficient is its multiplier activity in its region.

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Rola instytucji szkolnictwa wyższego we wspieraniu rozwoju gospodarczego regionów węgierskich

Abstrakt

Celem artykułu jest przedstawienie wpływu szkolnictwa wyższego na lokalny rozwój gospodarczy regionów Węgier, zwłaszcza po zmianie ustroju, ze szczególnym uwzględnieniem obszarów wiejskich. Kwalifikacje ludności zawsze były ważnym czynnikiem rozwoju gospodarczego, dlatego rozwój zasobów ludzkich musi być kluczową kwestią w polityce rozwoju. Im wyższy jest udział ludności z wyższym wykształceniem, tym wyższy jest potencjał wzrostu gospodarczego. Jako że wykładam w szkolnictwie wyższym od kilkadziesiąt lat, moim celem było sprawdzenie, jak rola i funkcja szkolnictwa wyższego zmieniała się na przestrzeni lat na Węgrzech i jak ważna jest obecnie jego rola jako centrum innowacji, podstawy dla firm typu spin-off i start-up, poprzez tworzenie regionalnych centrów badawczych działających jako węzły transferu wiedzy. Wszyscy wiemy, że MŚP, start-upy, przedsiębiorstwa o innowacyjnym podejściu odgrywają kluczową rolę w lokalnym rozwoju gospodarczym nie tylko na Węgrzech, ale w całej Unii Europejskiej, więc pożądane są wszelkie działania ukierunkowane na ich rozwój, jednak musimy też rozsądzić, czy zasoby ludzkie kraju w chwili obecnej są odpowiednie do zakładania/rozwoju takich innowacyjnych przedsiębiorstw.

Słowa kluczowe: instytucje szkolnictwa wyższego, przedsiębiorstwa typu start-up, lokalny rozwój gospodarczy, innowacje, badania i rozwój

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The rise of localism in the new rural space

Abstract

The economic and social changes that occurred in Eastern Europe at the end of the 20th century significantly altered the basic factors and processes of the spatial economy. Agriculture, rural areas, and settlements, as well as the people living in them, were significantly affected by these changes and found themselves in a new situation. The need, or challenge, of adapting to this new situation has created additional specific problems, tensions, and of course, new opportunities. In the case of rural space, it must be borne in mind that there is no single countryside, but only a collection of the different countrysides. An agglomeration is likely to have different characteristics from a peripheral rural area. Consequently, we can no longer speak of the traditional rural and urban, as the relationship has become two-sided¹. One of the most important elements of the fundamental changes in the strengthening and transformation of the concept of the countryside and the assumption of new roles. The changing functions of the spatial economy mean that the countryside is no longer just a place for the supply of food commodities, but also possesses qualities and dimensions (e.g. recreation, biodiversity, residential function, environmental protection) that can provide clear competitive advantages over non-rural areas. It is worth noting that, despite all this, rural areas are still defined in terms of negative value dimensions, so to speak, rural equates to negative content, while the emphasis on the new qualities and dimensions mentioned above is still included as a core value of rural areas.

Keywords: ruralism, regionalism, localism, new rural development

¹ A. Vaishar, M. Stastna, J. Zapletalova, E. Novakova, *Is the European countryside depopulating? Case study Moravia*, "Journal of Rural Studies", 2020, vol. 80, pp. 567–577, <https://doi.org/10.1016/j.jrurstud.2020.10.044>.

Introduction

More than 60% of the population of the EU Member States live in rural areas, which together account for 91% of the EU's total land area. Rural development is therefore a policy area of particular importance. It is clear that agriculture and forestry will continue to play a crucial role in land use and resource management in rural areas of the EU. Their importance is enhanced by their potential to raise the economic profile of rural communities, to influence the development of the local economy and to improve the living conditions of the population. In view of all this, I believe that strengthening European rural development policy must be a priority for the Union as a whole. I consider it important to do so in order to better understand spatial processes. Territorial development and rural development are closely linked, and in many cases the two terms are mentioned together, and the subject of sustainable development is often mentioned together with these two concepts. The term 'spatial development' is defined in Act. XXI. of 1996 on Spatial Development and Spatial Planning as 'the monitoring and evaluation of social, economic and environmental spatial processes in the country and its regions, and the definition of the necessary planned intervention directions'. The main objective is to develop the economic and social target structure. Alongside these objectives, it also sets out strategic objectives, which are²:

- reducing and mitigating inequalities: it wants to see inequalities between areas of different development reduced or mitigated,
- reducing the capital-centric spatial structure: an important strategic objective of spatial development is to reduce the dependence of territories on the capital, the excessive concentration of the country's territories in one point or their dependence on one territory,
- fostering the spatial development of innovation: innovation refers to a process from a creative idea to a process that subsequently realises the idea.

In addition to these strategic objectives, it also places great emphasis on protecting the state and quality of the natural environment and promoting

² D. Čeryová, T. Bullová, N. Turčeková, I. Adamičková, D. Moravčíková, P. Bielik, *Assessment of the Renewable Energy Sector Performance Using Selected Indicators in European Union Countries*, „Resources”, 2020, 9(9), 102, <https://doi.org/10.3390/resources9090102>.

international integration. Today, it is increasingly important to protect and preserve the environment around us so that it can be enjoyed by future generations, and this is an important objective of spatial development. Another important objective is to promote international integration. One of the important objectives of the European Union is to strengthen integration, to bring individual Member States closer to the European community. The need to develop territorial development has become inevitable over time. The two most important factors closely linked to territorial development are the transformation of the economic and social systems. In the following, I will show how the changes in society and the economy in Hungary have evolved and the relationship between these changes and spatial development. In terms of spatial structure, the most developed areas of Hungary are located in the west and north-west of the country, in the capital and its environs, while the south and east of the country are still underdeveloped. Most of these areas are stagnating or developing at a very slow pace, almost imperceptibly.

In the 1990s, as the market-based society became more widespread, disparities between regions widened, and after the change of regime, it became even more difficult for the less developed regions to catch up, if possible. The period in the early 1990s could most commonly be described as a crisis. Incomes fell, major investment declined, investment fell and the proportion of the unemployed in society increased. As a result, areas that were already in a difficult situation before this period have had to face up to their disadvantages and difficulties even more. By the end of the 1990s, these trends had improved somewhat, but not yet in a clear-cut way. Even so, there remained areas where development initiatives proved futile. The gap between the capital and the countryside continued to be marked. The capital's links were already with the world market, while the less developed areas were happy to be able to sell their goods and services in the region, to obtain the resources they needed to operate and to create the conditions for survival. What is also characteristic of this period is that the degree of dependency between the capital and the countryside has noticeably decreased. Unfortunately, this was accompanied by the fact that the rapid development of the capital was no longer matched by the development of the less developed regions, and the impact of the capital on the less developed areas was reduced. One major change that has had an impact on the development or

reduction of inequality between areas has been the accession to the European Union. With the disappearance of the borders, the previously underdeveloped western areas have started to develop, while in the western part of the country, despite the opening of the borders in the eastern areas with Romania's accession to the EU, development in these areas is less noticeable. In terms of territorial development, the different areas of the country can be grouped into different categories, the source I have used identifies the following groups. In terms of territorial development, a distinction is made between areas that are dynamically developing, developing, catching up, revitalising and stagnating.

Dynamically developing areas are characterized by high levels of foreign capital, the development of entrepreneurial activity, high income levels and low unemployment. This category includes the capital, county capitals, villages and towns in their immediate vicinity (agglomeration), cities with advanced industry and tourist attractions. The last statement may be interpreted as indicating that the areas and places of tourist attraction are. In other words, cities and towns that have some kind of attraction, cultural program or landmark. This makes the place attractive, increases the number of visitors and thus improves the economic situation of the municipality, which stimulates the development of the place. It is therefore clear that those municipalities which can exploit their potential for organizing cultural or any other type of program can gain a locational advantage.

Developing areas are somewhat separate from dynamic areas, which have only been able to grow later. This has been partly due to the arrival of foreign capital and partly to agglomeration. Dynamically developing areas develop in parallel with their own development, and in parallel with the development of the areas around them which are capable of development and have the necessary conditions for development. Catching-up areas are mainly agricultural areas, which are also developing thanks to the arrival of foreign capital. Revitalizing areas are characterized by the fact that the areas that fall into this category have had different levels of development, all of which experienced economic decline in the 1990s but are now on the road to recovery.

The stagnating areas have worse than average unemployment, minimal entrepreneurship and very little or no foreign capital. This source identifies the reasons for the stagnation as being due to the region's over-agricultural

character, its location close to the national and county borders (which means that it is outside the agglomeration), the lack of a major urban centre and the absence of a city in the area that could promote the development of the region and help it out of its difficult situation.

The rise of localism in rural space

Since the change of regime, the fundamental factors and processes of the economy have changed significantly, and agriculture, rural areas and settlements and their inhabitants have found themselves in a new situation, significantly affected by these changes. The need, or challenge, of adapting to this new situation has created additional specific problems, tensions and, of course, new opportunities. One of the most important of these fundamental changes has been the strengthening and transformation of the concept of the countryside and the new role it has taken on. This no longer simply 'degrades' this category into a place for the supply of food commodities, but also gives it characteristics and dimensions (e.g. recreation, biodiversity, residential function, environmental protection, etc.) that can provide clear competitive advantages over non-rural areas.

It is worth noting that, despite all this, the demarcation of rural areas (most of the research on this subject) is still based on negative value dimensions, so to speak, rural equals negative content, while the emphasis on the new qualities and dimensions mentioned above is still presented as a core rural value. On the other hand, the use of negative value dimensions is understandable, since, in general, it can be said that rural areas, as the main losers from the effects of territorial processes and transformation, and from the decline of agriculture, have been confronted with a number of difficult and very deep-rooted problems. In this context, the most important objectives have become the recovery from the crisis, the reduction of territorial segregation, and equal opportunities and assistance for people living in rural areas³.

³ H. Nagy, T. Tóth, I. Oláh, *The role of local markets in the sustainable economic development of Hungarian rural areas*, „Visegrad Journal on Bioeconomy and Sustainable Development”, 2012, vol. 1, no. 1, pp. 27–31, <https://vua.uniag.sk/sites/default/files/27–31.pdf>; J. Káposzta, T. Tóth, *Regionális és vidékfejlesztési ismeretek*, Gödöllő 2014.

The problem of defining and clarifying the relationship between the agricultural economy and the countryside, and between agricultural development and rural development, is also a frequent problem. Therefore, we cannot refrain from a more detailed examination of these pairs of relationships. When we look at the concepts of rural areas and rural development, we can start from international approaches, EU research and rural policy to arrive at a domestic interpretation of the concepts.

Globalization and the countryside: the role of the countryside and agriculture

Analyzing the relationship between globalization and the countryside is as multifaceted and demanding a reflection as the interpretation of globalization itself. Nor is there any consensus on the effects, their scale and consequences. In any case, it can be said that the globalization of the world economy and the accompanying changes in the fundamental factors and processes of the economy have not left rural areas untouched. Different rural areas have reacted differently to globalizing capital, international migration and trade, deregulation of national regulation and privatization⁴. As a result of globalization, which is adding a new dimension to geographical locations and distances, all rural areas have experienced unprecedented changes with an unpredictable and continuous reorganization of local interests⁵. The United States Department of Agriculture (USDA), for example, distinguishes metro-nonmetro areas in terms of population size, population density, urbanization and economic ties to major centres expressed in daily commuting, and defines rural (settlements with a population of less than 2,500) areas as the opposite of urban-rural.

⁴ G. Swinburn, S. Goga, F. Murphy, *Local economic development: a primer developing and implementing local economic development strategies and action plans*, Gütersloh, London, Washington, D.C 2004; A. M. Hersperger, M. Burgi, W. Wende, S. Bacău, S. R. Grădinaru, *Does landscape play a role in strategic spatial planning of European urban regions?*, "Landscape and Urban Planning", 2020, vol. 194, <https://doi.org/10.1016/j.landurbplan.2019.103702>.

⁵ J. Káposzta, T. Tóth, op. cit.; J. Kinal, M. Palak, *Socio-spatial dimensions of digital divide*, "Humanities and Social Sciences Quarterly", 2018, nr 4(25), <https://doi.org/10.7862/RZ.2018.HSS.73>.

The OECD defines a rural settlement as one with a population density of less than 150 inhabitants per km². On this basis:

- Predominantly Urban Region: where the proportion of people living in rural settlements is less than 15%.
- Significantly Rural Region: where the proportion of people living in rural settlements is between 15% and 50%.
- Predominantly Rural: where the proportion of people living in rural settlements is more than 50%.

A similar approach is used in England, where population density is not used as the basis, and where urban and rural settlements are distinguished, and then the larger Local Authority Districts (LADs) are categorized according to the number of inhabitants and the proportion of the population living in each type of settlement. For rural areas, globalization is both an opportunity and a threat. On the one hand, it offers new opportunities for local entrepreneurs by creating new markets and enabling the marketing of unique local products and services without the need to worry about isolation or distance (e.g. internet distribution). Moreover, in many cases, rural areas that were previously excluded from mass production can, with a well-developed infrastructure and educated population, more easily absorb new economic structures than traditional industrial areas with a difficult-to-convert workforce. On the other hand, globalization increases not only opportunities but also competition, as international competitors enter local markets. It is thus erasing the geographical, legal and identity-based community boundaries that have protected the products, local industries and cultural traditions of rural areas. In this context, it is important to point out that, in the literature, the social effects of globalisation, most of which are interpreted negatively, particularly affect rural areas. An important factor, however, is the localization linked to globalization, which has led to the valorization of rural areas and the expansion of opportunities, by emphasizing the role of local values and internal resources. Which side is stronger depends on the ability of regions linked, to a lesser or greater extent, but mostly, to the transforming national or international economy, to attract capital⁶.

⁶ A. Szeberényi, A. Papp-Váry, *Research of microregion-related renewable energy tenders for local governments*, „Engineering for Rural Development”, 2021, 10.22616/ERDev.2021.20.TF280; Gy. Áldorfai, H. Nagy, T. Tóth, *A területi egységek összetett teljesítményértékelése*, „TERÜLETI STATISZTIKA”, 2022, 62, vol. 4. pp. 405–434, <https://doi.org/10.15196/TS620402>.

The changes in the role and functions of the countryside, and the processes that have not been underway for a long time or are now gaining momentum in the countries of Central and Eastern Europe, are clearly emerging as a result of the global economic developments, especially in the more advanced market economies. These changes (e.g. rural depopulation and redevelopment, commuting and social movements, increasing demand for recreation, landscape conservation and environmental protection, new spatial organization of the economy) were already evident in the western countries of Europe in the 1970s and highlighted the need for a consistent rural development. It speaks of a 'post-productivist' countryside, where new uses of space are being discovered (e.g. tourism, recreation, conservation, etc.), where the spread of services, industry and technology is increasing, while rural areas are becoming increasingly differentiated (with the accompanying phenomenon of repopulation – or even emigration).

It emphasizes the new use of rural space, the importance of the environment and environmental awareness, and the related social demands. Local, specific resources are very important, which must be used effectively to meet/create globalized market demand and consumption, and to achieve adequate capital accumulation. The whole rural economy is integrated into the regional and national and international economy and is now much more complex and diverse than it was even half a century ago. When services, new industries and technologies are relocated to rural areas in post-industrial societies, and rural areas are thus valorized in terms of capital, we can speak of a process of 'new rurality'. In the rural areas of developed countries, although agriculture is still often a major user of space, modern industries and the service sector have also emerged⁷.

These processes are well reflected in the research and development of the role of the US agricultural sector, its rural economy and rural economic clusters, and are slowly filtering through to the EU's eastern member states'

⁷ J. Káposzta, H. Nagy, *The major relationships in economic growth of the rural space*, „EUROPEAN COUNTRYSIDE”, 2022, vol. 14, issue 1, pp. 67–86., <https://doi.org/10.2478/euco-2022-0004>; J. Káposzta, H. Nagy, *Vidékfejlesztés és környezetipar kapcsolatrendszere az endogén fejlődésben*, “Journal of Central European Green Innovation”, 2013, vol. 1, no. 1, pp. 71–83, <http://greeneconomy.karolyrobert.hu/>; Gy. Áldorfai, H. Nagy, T. Tóth, T., op. cit.

rural perceptions and development priorities, following the example of Western Europe. In the meantime, the role of agricultural production is steadily declining and agriculture is 'merely' one of the productive sectors of the economy. This is due in large part to the fact that the highly intensified agricultural sector, which has been significantly affected by the effects of globalization and technological progress, employs far fewer people and is losing its former functions that used to define rural society⁸. Among the functions and roles of the countryside (influencing the quality and reliability of the food supply through agriculture; providing natural resources; a place for recreational activities; a place of biodiversity reserves), there is now a growing identification of rural areas close to urban areas as attractive places to live, a mass migration of urban populations to the conurbations, a new wave of suburbanization. This is greatly facilitated by the development of transport and IT infrastructure and the reduction in transport and communication costs. These changes can be linked to the process of urbanization, which involves not only a steady increase in the urban population (urbanization), but also a process of social consolidation of the village and the town, and the spread of the former technical civilization and way of life throughout the whole network of settlements (urbanization). The structure of local society has also changed, as the original communities are gradually being supplemented or replaced by a layer of out-migration from the towns. We can now talk of the urbanization of village society.

New social actors are emerging in the European rural space, coming from different social sub-systems and economic areas, and their rural functioning is also very different. Thus, the social heterogeneity that characterized rural space before the advent of agricultural modernization is being reproduced. While in the more developed countries of Europe the transformation outlined above has more or less already taken place, in the countries of Central and Eastern Europe, including our own, the transformation of rural areas is likely to continue in this direction, or, I would say, to become more pronounced. After all, these social processes did not begin in our country in the recent past. The extent and intensity of the disintegration of the traditional rural

⁸ J. Kinal, *Peculiarities of e-commerce development: a case of Poland*, „Entrepreneurship and Sustainability Issues”, 2022, 9 (3), p. 50, [https://doi.org/10.9770/jesi.2022.9.3\(3\)](https://doi.org/10.9770/jesi.2022.9.3(3)).

economy and society can be characterized by the distancing of the categories of village, agriculture and peasantry from each other⁹. As a result of the increase in the share of the non-agricultural population, the disintegration of the closed, traditional agrarian society has begun: village communities, previously structured by property relations but consisting of complementary elements, have become differentiated and increasingly disparate groups have emerged within settlements, a process of transformation that has intensified with the change of regime, has acquired new elements and is far from being complete¹⁰.

There is a consensus among authors who have studied the changing functions of rural areas that, despite the emergence of new functions and economic actors, rural areas are generally lagging behind urbanized areas, and that the decline of the role of agriculture (mainly employment) as the backbone of the rural economy and the emphasis on local development based on local resources as a consequence of globalization have played an important role in these changes. Indeed, endogeneity (while the economic and social transformation of rural areas must take account of the challenges of globalization if the competitiveness of the region is to be improved) helps to formulate social and economic responses based on local assets¹¹.

In parallel with these changes, there is a reterritorialization of rural policy in developed countries. In approaches to rural development, sectoral policies are being replaced by territorially based policies that address rural areas as a whole,

⁹ M.P. Todaro, S. C. Smith, *Economic Development*, Boston 2006.

¹⁰ Ibidem; L. G. Horlings, T. K. Marsden, *Exploring the 'New Rural Paradigm' in Europe: Eco-economic strategies as a counterforce to the global competitiveness agenda*, "European Urban and Regional Studies", 2012, vol. 21, issue 1, pp. 1–17, <https://doi.org/10.1177/0969776412441934>; E. C. H. Keskitalo, G. Lidestav, K. Westin, U. Lindgren, *Understanding the multiple dynamics of the countryside – Examples from forest cases in Northern Europe*, "Journal of Rural Studies", 2020, vol. 78, pp. 59–64, <https://doi.org/10.1016/j.jrurstud.2020.06.023>.

¹¹ K. Ritter, Zs. Kassai, T. Farkas, *Importance of the LEADER programme in Hungarian rural areas facing globalization and agricultural decline*, „ANNALS OF THE POLISH ASSOCIATION OF AGRICULTURAL AND AGRIBUSINESS ECONOMISTS”, 2011, 13, 6, pp. 205–210; J. Kinal, *Nawyki komunikacyjne cyfrowych odbiorczyń zamieszkujących mniejsze miejscowości. Przyczynek do badań historyczno-medioznawczych*, „UR Journal of Humanities and Social Sciences”, 2022, nr 2(23), pp. 135–146, [bwmeta1.element.desklight-574cf131-fac1-4652-9763-ed52221300b1](https://www.bwmeta1.element.desklight-574cf131-fac1-4652-9763-ed52221300b1).

while the dimensions of rural development are expanding. The characteristics of the urban population that affect the countryside (leisure activities, food consumption, etc.) are also included. The economic dimension is important because without a viable economic base there can be no viable countryside, with the result that the functions of the countryside (landscape maintenance, environmental protection, preservation of the rural heritage, etc.) are seriously compromised. Securing the economic base, the emergence of a new economy for rural areas, is emphasized, particularly as the role of agriculture declines. The protection of natural resources and the environment is also important as a basis for rural life and as a general social expectation. The political dimension is justified by the role played by the various social and economic groups, lobbies, in decision-making, the circumstances of the enlargement of the Union and the negotiations with the WTO. The technological dimension, on the other hand, creates new opportunities and conditions for the rural population, agriculture and other sectors to expand and develop. The OECD, too, describes the need for a new territorial approach and a new rural paradigm, summarizing the main elements of social and economic change affecting rural areas. It highlights the heterogeneity of rural regions, the decline in the role of the agricultural sector in the rural economy, the inadequacy of sectoral policies and the need to rethink rural policy. On the other hand, it stresses the rise of other sectors, the increase in commuting distances due to better and faster accessibility, and the resulting increase in the influence of urban areas and migration to rural areas. Furthermore, the importance of the untapped economic potential of rural areas, the process of valorisation of natural and cultural assets, and the spread of decentralized development policies and approaches. The problem is that the lack of jobs, increased out-migration and lower population density lead to much higher unit costs and lower profitability for infrastructure investment and services, and the lack of critical mass to build and operate them. As a result, the lack of services and infrastructure, coupled with the unfavourable demographic and educational characteristics of the resident population, leads to a situation where capital and economic operators, companies and businesses leave the area. This exacerbates employment problems¹².

¹² S. Aboelnaga, T. Tóth, Gy. I. Neszemélyi, *Land use management along urban development axis as one of urban regeneration principles*, "ENGINEERING FOR RURAL DEVELOPMENT", 2019, 10.22616/ERDev2019.18. N382; <https://www.tf.llu.lv/conference/proceedings2019/Papers/N382.pdf>.

Transformation and changes in the social system

The development of territories is influenced not only by economic changes but also by changes in the social system. Just as the economic situation in the 1990s was characterized by a decline, the social system has not been particularly affected in a positive way. This period was characterized by social inequality. The determinants of this inequality were mainly material, but also manifested themselves in business and economic relations. These factors did not have a negative impact in areas where there were highly qualified professionals and people who used their existing experience and previous knowledge, and their existing network of contacts to avoid inequality¹³. Just as there were factors that clearly determined economic disparities, so too were their factors that determined social change. The factors that determine social differences are:

- the existence of the conditions necessary for the quality of life and the improvement of living conditions in the area, education, wealth, general characteristics of public safety in the area, which clearly define the division of the area,
- demographic indicators, birth-death rates and emigration rates, which have an impact on the population retention capacity of the municipality,
- the unemployment rate, the diversity of the territory.

As the role of territorial development is growing, so is the importance of rural development policy. The definition of rural development is by no means as simple as that of spatial planning, with different definitions abroad and in our country. The concept is similar to that of land and urban development. "Rural development has a common part with regional or agricultural development. The aim of regional policies is to reduce unequal development between regions. The common agricultural policy was originally designed to equalize income levels between rural and urban areas."¹⁴

It can therefore be seen that rural development has broadly the same objectives as territorial development, since its main aim is to reduce the dis-

¹³ J. Káposzta, *A regionális térszerkezet változásainak kapcsolatrendszere*, "Studia Mundi – Economica", 2019, vol. 6, no. 3, pp. 18–28, <https://doi.org/10.18531/Studia.Mundi.2019.06.03.18–28>.

¹⁴ T. Kovács, *Vidékfejlesztési politika*, Budapest 2003, p. 69.

parities between areas. Rural development policy divides the problems it seeks to solve into three categories. In this way, we can talk about economic, social and environmental challenges. The economic problem is mainly the decline in rural incomes and the ageing of the population, while the social problem is the rise in unemployment, limited access to services, depopulation and exclusion¹⁵. Sustainable development and the need for agriculture and wildlife management to contribute to sustainable development are identified as environmental issues. These problems are not only a major focus in Hungary, but are also a central issue in the European Union¹⁶. Settlement development also includes the elements already mentioned in the case of spatial development, with the difference that it is intended to be implemented in a single settlement. The primary aim is to improve the situation of the municipality, to catch up with other municipalities and to reduce gaps and disadvantages.

Community development addresses issues such as health, community well-being, poverty alleviation, job creation, housing and environmental improvement, leisure activities and the development of the arts within the life of a community¹⁷. Nowadays, almost all municipalities have a town and country development plan, in which, in addition to analyzing their current situation, they set out the possibilities for development and the means by which they can achieve it. It is clear from the above that the three areas are closely interlinked and that all three are of vital importance today. Deprived settlements must 'grow up' if they are not to disappear from the map.

¹⁵ K. Ritter, *A vidékgazdaság foglalkoztatási szerkezete Magyarországon*, "HADTUDOMÁNYI SZEMLE", 2018, vol. 11, issue 4, pp. 400–420, <https://folyoirat.ludovika.hu/index.php/hsz/article/view/3534>.

¹⁶ K. Ritter, *Special features and problems of rural society in Hungary*, "Studia Mundi-Economica", 2018, vol. 5, issue 1, pp. 98–112, <https://doi.org/10.18531/Studia.Mundi.2018.05.01.98-112>.

¹⁷ Cs. Mile, *Green Agriculture in Hungary: The Factors of Competitiveness in Organic Farming* [in:] *Sustainable Economic Development. Green Economy and Green Growth*, eds. W. L. Filho, D. M. Pociovalisteanu, A. Q. Al-Amin, Berlin 2017; T. Farkas, *The Role of the Social Capital in Rural Development. Case Study Analysis of Village Research Camps in Romania and Hungary*, "European Countryside", 2021, vol. 13, issue 3 pp. 584–598, <https://doi.org/10.2478/euco-2021-0033>.

Evolution of rural development policy in Hungary

Rural development policy in Hungary cannot be derived from EU policies alone, although there is no doubt that its real institutionalization took place in the run-up to our accession to the EU. In this process, the Hungarian institutional system – in the hope of future subsidies – has obviously tried to adapt to the expectations of the European Union and to adopt the methods used in the Community. In my opinion, this is partly the source of many of the problems of rural development in Hungary: excessive conformity, the almost slavish adoption of methodological solutions, and the long learning process have given less room for the assertion of domestic characteristics. Hungarian rural development has become more and more institution-oriented rather than problem-solving (despite the social consultations on the rural development plan). The rural economy, including agriculture, was already adversely affected by the 1980s' economic downturn. Producer cooperatives and state farms – still invisible to the outside observer – were facing increasingly serious problems and were falling deeper into debt. The state propaganda was still reporting successes (and it is true that the quantitative performance of agriculture was increasing), but the competitiveness of Hungarian products was deteriorating due to the inefficiency of production. Although the socialist countries, and especially the Soviet Union, were still buying Hungarian apples, champagne and other products that could not be sold elsewhere, the unsustainability of the situation was obvious to some of the experts. The majority of the population did not perceive much of this: the accelerating and increasing indebtedness of the state still managed to maintain and sometimes even raise the standard of living, while keeping up appearances¹⁸.

After the change of regime, after 1990, the socio-economic processes that affected the population, including those living in rural areas, very severely and were felt by them, intensified. These negative trends were very complex and, unfortunately, mutually reinforcing. The social situation of people who lost their jobs in industry and agriculture (state farms, cooperatives) deteriorated, first mentally and then physically, making it increasingly difficult (if not impossible) to return to work. This slide is now also threatening the new generations (social situation, education, health). Agriculture has ceased

¹⁸ J. Káposzta, H. Nagy, *The major...*

to be the main employer in the countryside and it is becoming increasingly clear that there is no sector in the Hungarian countryside that can replace the jobs lost (faith in rural tourism has been partly shaken by the lack of solvent demand). There are considerable variations in agricultural production, ranging from subsistence farming to farms of several thousand hectares, and the vast majority of rural households have some connection with agricultural production. However, this does not mean that agriculture can regain the role it played in rural life until 1988. Growing socio-economic problems have hit the countryside harder. Although each of the municipalities tried – to the extent of their own strength – to stop the decline and promote development, they were unable to achieve much on their own¹⁹.

Compared to individual, municipal rural development initiatives, the institutionalization of state measures and development has been delayed by a few years. The first legislation, which also aimed at rural development, was adopted in the second half of the 1990s. Programmes and target programmes financed from the national budget (e.g. VFC = Targeted Rural Development, TFC = Targeted Regional Development, or the related tenders of the Széchenyi Plan) were launched or opened only after 2000. After 1989, in order to support the transition of the former socialist countries to a market economy, the European Union set up a fund (PHARE = Poland Hungary Aid for Reconstruction of Economy, originally intended to finance programmes in Poland and Hungary, later to accelerate the integration of the Central and Eastern European countries into the EU), which supported, among other things, the restructuring of the environment and agriculture (Investment Preparation and Promotion Project, IPP), and through this rural development. Pre-accession countries, including Hungary, have had access to the so-called pre-accession funds since 2000. ISPA (Instrument for Structural Policies for PreAccession) has been used to prepare pre-accession countries to receive Structural Funds, in particular to address specific problems in the fields of infrastructure and environment that hinder accession²⁰.

SAPARD (Special Aid for Preaccession for Agriculture and Rural Development; Special Accession Programme for Agriculture and Rural Development)

¹⁹ T. Tóth, I. Oláh, *Gondolatok a hazai településfejlesztésről a legkisebbek szemszögéből*, "Studia Mundi – Economica", 2019, vol. 6, issue 1, pp. 93–103, <https://doi.org/10.18531/Studia.Mundi.2019.06.01.93–103>.

²⁰ J. Káposzta, T. Tóth, op. cit.

contributed to the sustainable development of the agricultural sector and rural areas in general, and supported the preparation for the integration of the *acquis communautaire* in the CAP and other related policies. Access to SAPARD funding was conditional on the preparation of a national rural development program to define the priorities to be supported. After 1 May 2004, rural development policy in Hungary was integrated into the EU's structural and agricultural policies²¹.

Looking at the strategic changes in rural development today, we should not lose sight of the influence of another overarching factor, globalisation. As a result of the overall changes in the world's economic and social processes, it can be said that globalisation is playing a significant role in the transformation of rural development and rural areas. For rural areas, globalisation is both an opportunity and a threat. On the one hand, it offers new opportunities for local entrepreneurs by creating new markets and by enabling the marketing of specific local products and services without the need to worry about isolation or distance (e.g. distribution via the internet). Moreover, in many cases, rural areas that were previously excluded from mass production – with a well-developed infrastructure and educated population – are more readily able to absorb new economic structures than traditional industrial areas with a hard-to-re-skill workforce²². On the other hand, globalisation not only increases opportunities but also competition, as international competition enters local markets. This erases the geographical, legal, identity-based community boundaries that have protected the products, local industries and cultural traditions of rural areas. In this context, it is important to point out that the social effects of globalisation, most of which are interpreted negatively, have been particularly felt in rural areas. An important factor, however, is the localisation linked to globalisation, which has led to the valorisation of rural areas and the expansion of opportunities, by emphasising the role of local values and internal resources²³.

²¹ National Rural Strategy, 2022. NEMZETI VIDÉKSTRATÉGIA 2012–2020. Vidékfejlesztési Minisztérium, Budapest, 2022.

²² K. Ritter, *A helyi fejlesztés esélyei – agrárfoglalkoztatási válság és területi egyenlőtlenségek Magyarországon*, „TERÜLETI STATISZTIKA”, 2008, 48:5 pp. 554–572, 19 p. https://www.ksh.hu/statszemle_archive/terstat/2008/2008_05/ts2008_05_05.pdf; Zs. Kassai, T. Farkas, *Participation in Local Rural Development Partnerships*, „Annals of The Polish Association of Agricultural And Agribusiness Economists”, 2012, 14, 6.

²³ A. M. Hersperger, M. Burgi, W. Wende, S. Bacău, S. R. Grădinaru, op. cit.

Which side is stronger depends on the ability of regions linked, to a greater or lesser extent, but mostly, to attract capital from the transforming national or international economy. There is a consensus among the research on the changing functions of rural areas that, despite the emergence of new functions and economic actors, rural areas are generally lagging behind urban areas. The decline of the role of agriculture (mainly employment) as the backbone of the rural economy and the shift towards local development based on local resources as a consequence of globalisation have played an important role in these changes. Indeed, endogeneity (while the economic and social transformation of rural areas must take account of the challenges of globalisation if the competitiveness of the area is to be improved) helps to formulate social and economic responses based on local assets.

The new use of rural space, the importance of the environment and environmental awareness, and the related social demands are emphasised. There is a growing emphasis on local endogenous resources, which need to be used efficiently to meet/create globalised market demand and consumption. New social actors are emerging in the European rural space, coming from different social sub-systems and economic areas, and their rural functioning is also very different. Thus, the social heterogeneity that characterised rural space before the advent of agricultural modernisation is being reproduced. While in the more developed countries of Europe the transformation outlined above has more or less already taken place, in the countries of Central and Eastern Europe, the transformation of rural areas is expected to continue in this direction. The extent and intensity of the disintegration of the traditional rural economy and society can be characterised by the distancing of the categories of village, agriculture and peasantry from each other. As a result of the increase in the share of non-agricultural employment, the disintegration of a closed, traditional agrarian society has begun: village communities, previously structured by property relations but composed of complementary elements forming a single system, have become differentiated, and increasingly disconnected groups have emerged within settlements (Ritter, 2008, Káposzta-Nagy, 2013, Rokicki et al. 2022)²⁴.

²⁴ K. Ritter, *A helyi...*; J. Káposzta, H. Nagy, *Vidékfejlesztés...*; T. Rokicki, G. Koszela, L. Ochnio, A. Perkowska, P. Bórawski, A. Bełdycka-Bórawska, B. Gradziuk, P. Gradziuk, A. Siedlecka, A. Szeberényi, M. Dzikuć, *Changes in the production of energy from re-*

Summary

It is clear from the above that, in considering the objectives of rural economic development, it is necessary to implement a spatial rural development program that builds on the values of people and community, cherishes traditions and preserves the values of the landscape and built environment, sustainable management of natural resources, the development of agriculture and rural non-agricultural businesses, the chance to restore the dignity and attractiveness of rural life, to improve the overall quality of life of the rural population and to bring about the rural uplift and, through this, the country's recovery. Within the framework of the development of the strategy, it becomes an important factor that rural life should be an optional and attractive way of life, that people should not be kept in villages and farms by material constraints, but that the quality of life and the security of livelihood in a rural environment should be the basis of rural life. To achieve this, it is necessary not only to level out and improve economic and physical living conditions, but also to change the attitude that associates the countryside, the village and the farm with backwardness and disadvantage. Awareness of the value of the countryside and of agriculture as a value-creating activity must be at the heart of the rural economic strategy.

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Powstanie lokalizmu w nowej przestrzeni wiejskiej

Abstrakt

Przemiany gospodarcze i społeczne, które zaszły w Europie Wschodniej pod koniec XX wieku, znacząco zmieniły podstawowe czynniki i procesy gospodarki przestrzennej.

Rolnictwo, obszary wiejskie i osady, a także ludzie je zamieszkujący zostali w znacznym stopniu dotknięci tymi zmianami i znaleźli się w nowej sytuacji. Konieczność, czy też wyzwanie, dostosowania się do tej nowej sytuacji stworzyła dodatkowe specyficzne problemy, napięcia i oczywiście nowe możliwości. W przypadku przestrzeni wiejskiej należy pamiętać, że nie istnieje jedna wieś, a jedynie zbiór różnych wsi. Aglomeracja prawdopodobnie będzie miała inne cechy niż peryferyjny obszar wiejski. W związku z tym nie możemy już mówić o tradycyjnej wsi i mieście, gdyż relacja ta stała się dwustronna. Zmieniające się funkcje gospodarki przestrzennej powodują, że wieś nie jest już tylko miejscem zaopatrzenia w towary żywnościowe, ale ma również cechy i wymiary (np. rekreacja, bioróżnorodność, funkcja mieszkaniowa, ochrona środowiska), które mogą stanowić wyraźne przewagi konkurencyjne nad obszarami pozawiejskimi. Warto zauważyć, że mimo wszystko obszary wiejskie nadal definiowane są w kategoriach negatywnych wymiarów wartości, czyli, że tak powiem, wiejski utożsamia się z negatywną treścią, natomiast podkreślanie wspomnianych nowych cech i wymiarów jest nadal ujmowane jako podstawowa wartość obszarów wiejskich.

Słowa kluczowe: wiejskość, regionalizm, lokalizm, nowy rozwój obszarów wiejskich

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Is Central Europe doomed to imitation? Models of modernizing Poland in the process of European Union integration – opportunities and threats

Abstract

The aim of the presented study is to indicate problems related to understanding the phenomenon of modernizing the Central European region, also called the Younger Europe. The analysis will be carried out from the perspective of historical sociology and organization sociology. The main research question is: to what extent is Central Europe doomed to imitate the West, and to what is there a chance for other solutions that can be treated as less invasive from the point of view of cultural continuity of the subject of modernization? The study utilizes the method of sociological and historical analysis, carried out on the basis of literary sources concerning both the field of the historical concept of Central Europe, as well as the sociological approach to modernization processes. The field of organization research methodology will provide tools for the approach based on the change management. The conclusion drawn from the presented analysis is as follows: Central Europe can choose its path of modernization, which does not only consist in simple imitation, i.e., the sole application of solutions originating from regions of Europe that are considered to be more modernized.

Keywords: Central Europe, change management, historical sociology, imitation, modernization processes.

Introduction

The issue of Central Europe is crucial from the point of view of countries and societies of the so-called Younger Europe, a term currently used for the new member states of the European Union, i.e., post-communist coun-

tries that were previously in the sphere of influence of the Soviet Union, and some even were located within its borders.

When addressing the problem of modernizing Central Europe, two key questions need to be answered: what is Central Europe and what is modernization? Both terms have recently been used extensively, both in public and scientific discourse. However, their meaning requires clarification. For this purpose, it is necessary to go deeper into the sources of concepts of both Central Europe and modernization.

In terms of Central Europe, it is necessary to take several areas of analysis into consideration. Firstly, the geographical aspect, because the spatial location has serious consequences related to e.g., military, economy or culture. Secondly, the cultural and civilizing aspect, e.g., anthropological assumptions, assumptions concerning the social order (individual–society relation), these issues also include religion and even the alphabet used (Cyrillic or Latin). Thirdly, the political aspect, i.e., an affiliation with political blocs, international organisations or spheres of influence. All these factors determine the way in which the term "Central Europe" can be understood.

The second issue addressed in this study is modernization. This term includes many connotations on the basis of several academic domains, mainly from the field of social sciences, primarily sociology and history, but also economics, cultural sciences, and even management. Moreover, this concept has its apologists as well as critics. According to some, this term properly describes the economic and civilizational differences between societies, while according to others, it carries the danger of stigmatizing societies, what constituted the legitimacy of the domination of one state over another in the past. Moreover, the term "modernization" is difficult to study from a methodological point of view. It is not only very difficult to define, but also to study, what in the language of science means a measurement. What are the measures of modernization, what are its causes, what is the result of this process? Discussions are held in this field, although the participants often speak in different languages. In extreme cases, what some consider a sign of modernization, others regard as a regression. It should be added that due to the strong connotation with valuation, the concept of modernization is very susceptible to ideologization, and as such it is used for political purposes.

In the final part of the study, an attempt will be made to answer the question of how to understand the concept of modernization in relation to the region of Central Europe, how can modernization of this region be carried out in a way that does not break its cultural continuity and whether the method of imitating solutions from the regions of the so-called "modern West" constitutes the only way of development for societies existing between the Baltic and the Adriatic?

Central Europe – time and place

The term "Central Europe" or "Central and Eastern Europe" is not easy to define not only spatially, but also historically. Jerzy Kłoczowski dates the beginning of Central Europe to the 10th and 11th centuries, when some state organisms of this area adopted Christianity¹. That was the time when countries such as the Bohemia, Poland, or Hungary joined the contemporary Western universe defined as Christian Europe with a secular authority of the Emperor and an ecclesiastical authority of the Pope. This is how Jerzy Kłoczowski presents this process: "In a way, along with the rise of what we understand as "Latin" civilization circle in the West, Christianization and the creation of four kingdoms between the Adriatic and the Baltic take place. Croatia, Hungary, Bohemia, and Poland clearly mark the eastern border of the western circle, of which they become newcomers or latecomers². At the same time, they stand in opposition to the slowly forming Slavic-Byzantine circle. It is possible to talk about a clearly separated group of "Central Eastern" countries. This so far "barbaric" world contributes to the emerging circle, much like it is almost simultaneously done by Scandinavia"³. Therefore, from the very beginning of the Christianization of the Younger Europe, it is possible to observe the cultural split of this area into the Latin part, called the Western part, and the Byzantine part, called the Eastern part. This divi-

¹ J. Kłoczowski, *Młodsza Europa. Europa Środkowo-Wschodnia w kręgu cywilizacji chrześcijańskiej średniowiecza*, Warsaw 1988.

² L. Kui-Wai, *Redefining Capitalism in Global Economic Development*, London 2017, pp. 299–320.

³ J. Kłoczowski, *Europa Środkowo-Wschodnia jako przedmiot badań*, „Kwartalnik Historyczny Rocznik CXX”, 2013, 4, p. 838.

sion will determine the future fate not only of Central Europe, but of Europe as a whole. It will be important for Central Europe because it is going to determine its cultural identity. That is because the question whether Central Europe belongs more to the West or to the East is going to appear later. This question will constitute the source of many painful problems for the peoples living within the area between the Baltic and the Adriatic.

Jerzy Kłoczowski, who introduced the term "Younger Europe" into the Polish historiography, also set the boundaries of the "younger" in relation to the "older", i.e., Western Europe, consisting of countries Christianized earlier (e.g., Kingdom of Germany, France, England, or Italian states). In the tenth century in the West, the boundary between the old and the new Christendom is marked by the Elbe, to the east of which there was an area inhabited by non-Christianized tribes of the Polabian Slavs, which were eventually defeated and incorporated into the Christian world in the twelfth century. Conversely, the eastern ranges of the Younger Europe were the eastern borders of the Kievan Rus. To the south, the border was determined by that of the Bulgarian state, and the northern border was defined by three Scandinavian states: Denmark, Norway, and Sweden. "In this context, the ultimate victory of Christianity in Central, Eastern, and Northern Europe had a lasting, even colossal, historical significance. For centuries it marked the borders of Europe that was equivalent to the Christian civilization circle. Alongside Western Christianity, incompletely united within the empire restored by Charlemagne in 800, and Byzantine Christianity (...), a Slavic-Hungarian-Scandinavian 'New Christianity' is slowly beginning to take shape, not extending beyond the main peoples involved"⁴. In the quote above, the term "New Christianity" is of particular importance. It is precisely state organisms (kingdoms and principalities) of the "New Christianity" that for the most part constitute the area called Central and Eastern Europe today. Among the Slavic peoples mentioned above, one should first of all mention the state of Mieszko I, Bohemia, Croatia, Bulgaria, and the Principality of Kiev. The first three were included in the Latin circle, the remaining ones were claimed by the Byzantine circle. The "New Christianity" understood in such a way does not coincide with the territorial scope of Central Europe. Today, no one would include Scandinavian countries in this group, as they are firmly associated with the West. A similar problem concerns the area between the Elbe and the Oder, which, although Christianized later than the

⁴ J. Kłoczowski, *Młodsza Europa ...*, p. 31.

above-mentioned countries, has been completely Germanized and now belongs to Western Europe as a part of Germany. This wasn't changed even by the 45-year period of Soviet occupation in the area (1945–1990), 41 of which coincided with the existence of a state entity called DDR (Deutsche Demokratische Republik).

A similar problem also applies to the area currently located within the borders of Ukraine. Even though Kievan Rus was the largest state of the "New Christianity" and constituted its integral part at a time when the fate of the Latin Church and the Greek Church had not yet completely diverged, until recently it was included in Eastern Europe just like Russia or Belarus. This situation has changed substantially since February 24, 2022, i.e., since the Russian aggression against Ukraine. Since then, the process of Ukraine's shift towards Western civilization can be observed. This is not a coincidence, because large areas of present-day Ukraine were located within pre-partition Poland, i.e., within the circle of Latin culture, despite the fact that its population was mostly Orthodox⁵.

The development of the European cultural circle during the Middle Ages was based on Christianity and the image of the world shaped by it, with the philosophy of man at the forefront. This philosophy has always placed the individual, understood as a person, as well as the inherent dignity and the resulting freedom, at the forefront of the hierarchy of values. "Examining the Western border of Europe, understood in this dual sense: of time-space and at the same time essentially human, i.e., ethical, we must therefore look towards the Eastern border, trying to understand all its historical and anthropological specificity"⁶. Beyond this boundary, approach to the people and the role of political power was understood differently, and the conflict between the main values of security and freedom always gave precedence to the latter. Some authors use the *Clash of Civilizations* model to describe the border between East and West, claiming that the Huntington's civilizational fault line runs along the meridian crossing Central Europe⁷.

⁵ The only Orthodox academy in Europe outside of Greece was located in Poland. This was the Mohyla Academy founded in Kiev in 1658, i.e., in the Polish-Lithuanian Commonwealth.

⁶ K. Wojtyła, *Gdzie znajduje się granica Europy?*, "Ethos", 1994, no. 28, pp. 27–34.

⁷ Z.J. Winnicki, *Europa Środkowa czy Europa Środkowo-Wschodnia? Europejskie kręgi cywilizacyjne*, „Wschodnioznawstwo”, 2017, 11, p. 19.

Younger Europe became an integral part of the Older Europe precisely thanks to Christianity. "When the Roman Empire adopted the Christian religion, the old division between the civilization and the barbarian world was replaced by a one between the Christian and pagan world"⁸. The ancient barbarian was replaced by a medieval pagan, and in some regions, also by a Saracen. The division into the barbarian east and civilized west dates back to the 5th century BCE, when the Greeks referred to Persian invaders as barbarians. At that time a barbarian meant a stranger, not necessarily a less civilized one. "From this contact (between the Greeks and the Barbarians) came the idea of 'Europe'"⁹. In later centuries, the Mongols became barbarians, who, having attempted to conquer the heart of Europe,¹⁰ stopped at Rus, which they have been occupying for more than two and a half centuries. It was the Mongols (and later the Tatars) who became synonymous with a barbarian-foreigner in Europe. Later, this function was taken over by the Ottoman Empire.

Returning to the issue of the territorial scope of the discussed part of the old continent, it should be noted that since the time of the Younger Europe, analyzed by Jerzy Kłoczowski in terms of the following centuries, the economic and political situation changed so significantly that the term 'Central Europe' took on a new meaning: "The situation of Central and Eastern Europe understood in such a way clearly changes since the 16th century, along with the creation of empires — the Habsburg Federation with Bohemia, Hungary and Croatia (partly under the Ottoman rule until the 17th-18th centuries), and since 1569, also with the stabilization of a peculiar European creation in the north that was the Polish-Lithuanian state, or The Commonwealth of the Two Nations, a very resilient federation — a union"¹¹. Therefore, it can be stated that since the sixteenth century, the term 'Central Europe' means Poland and the territories under the Habsburg rule.

Another change that took place in the discussed area of Europe was the disappearance of the First Republic from the map. Its territory of almost

⁸ N. Davies, *Europa między Wschodem a Zachodem*, Kraków 2007, p. 47.

⁹ *Ibidem*, pp. 46–47.

¹⁰ Despite the fact that European troops under the leadership of the Polish prince Henry II the Pious lost the Battle of Legnica in 1241, it halted the march of the Mongols to the west.

¹¹ J. Kłoczowski, *Europa Środkowo-Wschodnia jako...*, p. 839.

a million square kilometres has been divided between three neighbouring empires: Russia, Prussia, and Austria. Many sovereign states with centuries of history have disappeared from the entire discussed area. Apart from Poland, these were, for example, Bohemia, Hungary, and Croatia. Bulgaria was also under Ottoman rule for several centuries. "The name of Central Europe refers to the areas where the Byzantine and Latin traditions overlapped until the beginning of the 18th century. These are the areas of historical Hungary with Transylvania, Croatia, Banat and Vojvodina; the Republic of Poland-Lithuania with today's Ukraine and Belarus, as well as Wallachia and Moldova"¹².

Another form of the concept of Central Europe consisted in the idea of Mitteleuropa presented by the German author Friedrich Naumann¹³. This German political scientist presented a view of the fate of Central Europe after the planned victory of the Central Powers in the Great War, later known as the First World War¹⁴. According to Piotr Eberhardt, Nauman's concept of Mitteleuropa constituted a plan to create a German empire that would be able to oppose existing global empires, such as Britain or Russia. To achieve this goal, even successful merging of Germany and Austria-Hungary was not sufficient, as these two countries could only constitute the core territory of the future Mitteleuropa. The target area in Nauman's plans is not much different from today's European Union¹⁵.

After the German Reich lost the war and the Austro-Hungarian monarchy collapsed, the concept of Mitteleuropa was applied to the states created as a result of the Treaty of Versailles, located between the Baltic and the Adriatic. Some of these countries, such as Latvia or Estonia have never existed as independent political organisms before. On the other hand, some countries resembled makeshift structures that disintegrated along with the disappearance of the power holding them together (Versailles or Yalta), namely Czechoslovakia and Yugoslavia. During the interwar period, these states were pejoratively referred to by their large and strong neighbours either as "seasonal

¹² A. Stępień, *Jedność kulturowa Europy Środkowej — mit czy rzeczywistość?*, „Studia Politicae Universitatis Silesiensis”, 2010, no. 6, p. 12.

¹³ F. Naumann, *Mitteleuropa*, Berlin 1915.

¹⁴ P. Eberhardt, *Geneza niemieckiej koncepcji "Mitteleuropy"*, „Przegląd Geograficzny”, 2005, 77, 4, pp. 463–483.

¹⁵ *Ibidem*, map, p. 470.

states" (Germany) or "Versailles bastards" (Russia). The question that should be posed today in the context of the Fernand Braudel's concept of long-term processes is: to what extent do the current strongest European players still perceive the Central European area as a strange conglomerate of micro-states not deserving subjectivity?¹⁶

During the Cold War, the term 'Central Europe' was almost completely forgotten. Europe was divided into Eastern and Western part, with the centre of the continent completely dissolved in the Soviet area of influence. "I am convinced that the division of Europe into Western and Eastern parts, which has been going on for thirty years, has excluded the special character of what we call "Central Europe" (Mitteleuropa) from the everyday way of thinking and expression"¹⁷. During this period, Central European countries were called People's Democracy Countries and were separated from the West by the "Iron Curtain", a concept introduced by Winston Churchill in 1946¹⁸.

How was it possible that Central Europe was forgotten in the West for nearly half a century? Milan Kundera, a Czech writer, tried to answer this question. According to Timothy Garton Ash,¹⁹ revival of the concept of Central and Eastern Europe was a direct result of the publication of Kundera's essay entitled "Tragedy of Central Europe" and published in *The New York Review of Books* on April 26, 1984. In the same year it was also translated and published in Polish²⁰. Analyzing this text, Timothy Garton Ash writes, referring to intellectuals from the area of Central Europe, such as Czesław Miłosz, Vaclav Havel or Georgy Konrad,²¹ about the historical bad luck of this region, as it has been liberated from Turkish hegemony only to immediately

¹⁶ S. Ławrow said: "NATO now is a purely geopolitical project on colonizing the territory that became unclaimed after the dissolution of the Warsaw Pact", see: NATO exists as geopolitical body to colonize post-Warsaw Pact/ex-USSR nations, says Lavrov, <https://tass.com/politics/1381481> (accessed: 28.12.2022).

¹⁷ K. Wojtyła, op. cit., pp. 160–168.

¹⁸ S. Rogers, *Winston Churchill's Iron Curtain Speech—March 5, 1946*, <https://www.nationalww2museum.org/war/articles/winston-churchills-iron-curtain-speech-march-5-1946> (accessed: 30.12.2022).

¹⁹ T.G. Ash, *Pomimo i wbrew. Eseje o Europie Środkowej*, London 1990, p. 168.

²⁰ M. Kundera, *Zachód porwany albo tragedia Europy Środkowej*, „Zeszyty Literackie”, 1984, no. 5, pp. 14–31.

²¹ György Konrád (1933 – 2019) Hungarian writer and dissident.

fall under Austro-German hegemony, and then be swayed into totalitarian Soviet-Russian slavery, and that Central Europe still cannot implement the Western variant chosen a thousand years ago. Elsewhere, Ash writes: "Kundera proclaims that for Central Europe, communism is what sickness is for a patient, and this sickness is called Russia"²². Ash points out that Kundera thus excludes Russia from Europe and calls such an approach absurd. Is Kundera's opinion on the role of Russia in the centre of Europe absurd? The answer to this question goes beyond the scope of this study.

Summing up the text of the Czech author, one can attempt to present the shortest definition of Central Europe as a part of Europe that the West has forgotten and does not want to remember it as its integral part and cultural unity with it. And why did this happen? Because the West has already stopped thinking in cultural terms, and its cultural heritage is no longer relevant to the West itself. This is why the strategic choice of Younger Europe made a thousand years ago is not a viable argument for Older Europe. Kundera came to this diagnosis at a time when no one could have foreseen formation of the "Solidarity" trade union in Poland or the fall of the Berlin Wall. It remains an open question to what extent is this diagnosis valid today. A separate question: what is the aforementioned cultural heritage of the West? The answer: it is the "Greek philosophy, Christian religion, and Roman Law"²³.

What unites the culturally, religiously, and economically diverse Central Europe? It is united by a community of fate. "The countries – nations – states of Central and Eastern Europe since the Middle Ages and up to the present have experienced similar interference, generally external in nature, and their most significant experience was related to the totalitarianisms of the 20th century"²⁴.

Modernization

The issue addressed in this study concerns the modernization of Central Europe. Does the region require modernization? And if so, what should it

²² T.G. Ash, op. cit., p. 173.

²³ J. Maciejewski, *Zachód wart jest mszy*, „Teologia polityczna”, <https://teologia-polityczna.pl/jan-maciejewski-zachod-wart-jest-mszy> (accessed: 31.12.2022.).

²⁴ Z.J. Winnicki, op. cit., p. 17.

look like? Who should implement it? What should be its essence? What should be its direction and pace? These are just some of the questions that can be asked in this context. The concept of modernization has a long history in both historiography and sociology, as well as cultural anthropology. What is modernization, apart from the fact that at first glance it can be associated with terms such as "modern" or "modernism", or in short, with modernity as a feature and modernization as a process. Not going into a detailed analysis, it should only be noted that in colloquial language these concepts definitely possess positive connotations. However, it is worth making an attempt to establish a non-valuating, descriptive definition of this phenomenon.

Firstly, modernization is a change, and as such, it can be considered from the perspective of theories and models of social change. Moreover, we can indicate other concepts that are more or less strongly connected with the idea of modernization, such as: social processes, progress, modernity, development, growth. This is not a typical classification: it is neither exhaustive nor separable. Sociology offers a processual approach. It means that society is constantly "in process" or, more precisely, in many processes. From this perspective, society is a "trans-time" phenomenon, a set of multi-level, interrelated processes. It is in constant movement from the past to the future, with present being a transitional phase. All phases of the process determine each other, and understanding one phase is impossible without knowing and understanding earlier ones²⁵. Such an understanding of society is based on an important ontological assumption: society exists only in time.

The idea of progress and modernization

Another issue that needs to be addressed is the idea of progress. Piotr Sztompka, following Robert Nisbet, defines the term "progress" as an idea "according to which humanity slowly, gradually, and continuously goes from the original cultural poverty, ignorance, and sense of confusion to constantly higher civilizational levels. This trend, despite temporary complications, is ongoing and will continue into the future"²⁶. As Sztompka further analyzes

²⁵ P. Sztompka, *Socjologia zmian społecznych*, Kraków 1993, p. 68.

²⁶ *Ibidem*, p. 41.

this definition, progress is a change that is directional, irreversible, cumulative, as well as necessary and inevitable. And most importantly, this concept is not just descriptive, but also valuating. Progress always takes place due to the values that are defined as key ones, which constitute the criteria for evaluation of this process. This raises the question: progress, but for whom and in what respect?

There is also a question regarding the driving force of progress. What causes progress, or what delays it? Most of the "founding fathers" of sociology understood the history of humanity as a history of progress. For example, August Comte mentioned three stages of knowledge development: the theological, metaphysical, and scientific. On the scientific stage, knowledge is based on rationality and empirical experience. A similar approach can be seen in the works of Max Weber, who rooted his ideas in politics and pointed to rationality as the foundation of legal power in contrast to tradition or charisma. Weber's bureaucracy was to be the highest embodiment of rationality.

Since the Enlightenment, belief in progress took on the form of religious belief, gradually displacing religion from social life. It is worth mentioning that after World War II, this faith is experiencing a serious crisis. But as too many tragedies have been caused in the name of progress, we cannot abstain from asking whether something essential has not been forgotten during construction of this "modern religion", and this something might be of certain values that are absolute and not merely a result of a social contract. The crisis of belief in progress led to the crisis of the idea of modernity, which was to be its goal²⁷. In fact, one may ask, where does progress end, and does it end at all? What is progress? Is belief in science (scientism) more progressive than religious belief? "For example, scientific philosophy cannot explain existential questions"²⁸.

Apart from progress, another important concept is modernity. Piotr Sztompka distinguishes the following features of modernity: 1. individualism, 2. differentiation, 3. rationality, 4. economism, 5. expansionism²⁹. Modern society is one in which the individual is liberated from the limitations of social ties that can be freely established and dissolved (this also applies to marriage

²⁷ Z. Krasnodębski, *Upadek idei postępu*, Warszawa 1991.

²⁸ I. Bocheński, *Między logiką a wiarą*, Warszawa 1995, p. 173.

²⁹ P. Sztompka, op. cit., pp. 82–83.

and the family), in which there is a division of functions, including division of labour characterised by high specialization; in which the main principle consists in impersonal calculation without the so-called sentiments. Modern society is guided mainly by economic goals, the exchange of goods and services, and continuous accumulation of capital. Additionally, modern society is also expansive, constantly expanding the scope of its functioning, it is uninhibited in its expansion on the spatial (economic globalization) and internal (globalization of behaviour patterns) levels. In this second inner dimension, modernity penetrates into the most private spheres of life, including religion.

Since modernity understood in this way is characterized by the direction and pace of change, does it mean that it is possible to indicate the locations of the sources of new patterns and establish who is their provider and who is the recipient? This would mean that it is possible to indicate more and less modern societies. There are many questions in this context. Firstly, is everything modern in the sense presented above better than something that is non-modern? If yes, then why is it so? Secondly, how to find balance between constant change that is modernization and preservation of identity, which is something permanent and characterized by continuity. Discussing the cultural factors of change in the modern era, Anthony Giddens writes: "We are no longer willing to adopt customs and modes of action simply because they are backed by the authority of tradition. On the contrary, in terms of our life choices we are looking for a "rational basis". For example, we will not design a hospital based only on traditional models, but we will try to do it in such a way so that it can optimally fulfil its function – to provide good care for the sick"³⁰. This is obvious when it comes to hospital organization, but the problem starts to become complicated when "modern" begins to be used in reference to systems of values. Here the feature of "modernity" should not be a criterion, because values, and more broadly worldviews, are adopted a priori. Tradition in the above-mentioned approach of modernity is its opposite and can even be considered its enemy. However, rejection of a tradition means separating oneself from the roots of one's own culture. Alain Finkelkraut, a French philosopher, describes this attitude as ingratitude towards

³⁰ A. Giddens, *Socjologia*, Warszawa 2012, p. 68.

past generations³¹. In turn, a Polish philosopher, Ryszard Legutko, draws attention to the traps that a society free from absolute values sets for the people³².

The process of becoming a more modern society can be called modernization. Sztompka defines it as follows: "in the most precise sense, the term 'modernization' is only used to describe the efforts made by backward and poorly developed societies attempting to catch up with the leading, most developed states coexisting with them in the same historical period in terms of a global society. In other words, it describes the transition from the periphery to the centre of modern society"³³. One of the key issues that arise as a result of the above definition is the division into the centre and the periphery. Some also write about semi-peripheral areas. This division is also relative. It is always necessary to define the basic evaluation criteria. Unfortunately, these criteria are combined and mixed in an invalid manner, solely on the basis of coexistence. And so, for example, if some countries include better infrastructure, if they are technologically more advanced, then the negative social phenomena occurring in them, such as a much larger number of divorces, are also considered to be a manifestation of modernity.

Ending – periphery and imitation

The concept of a periphery assumes the existence of a centre characterized by a higher stage of development and constituting a model for territories characterized by insufficient development. In order to look at this phenomenon, one must return to the time when Younger Europe merged with Older Europe. Until the Eastern Schism in 1054, the differences between the "two lungs of Europe" – as these two areas were referred to by St. John Paul II³⁴

³¹ A. Finkielkraut, *L'ingratitude*, Paris 1999.

³² R. Legutko, *The Cunning of Freedom: Saving the Self in an Age of False Idols*, New York – London, 2021.

³³ *Ibidem*, p.130.

³⁴ "During the 6th World Youth Day in Częstochowa in August 1991, among the million participants there were 100,000 boys and girls from the constituent republics of the USSR (which in four months would become history...). Looking at them, the Pope said that "the Church in Europe can finally breathe freely with both lungs", M. Przeworski, *Jana Pawła II Europa dwóch płuc*, <https://www.ekai.pl/jana-pawla-ii-europa-dwoch-pluc/> (accessed: 28.12.2022).

– were not essential and thus one could speak of a single Christian civilization. The differences began to accentuate after the Schism. However, it also seems valid to raise question about economic differences (wealth differences) and technological differences (in terms of know-how). A certain indicator may be the emergence of one of the most important achievements of the Middle Ages – the university. The first academy of Older Europe has been established in Bologna in 1088, while the first academy of Younger Europe, Charles University, was established in Prague in 1348 – a difference of more than two and a half centuries³⁵. Another indicator may be the range of occurrence of the Magdeburg Law, under which cities were located in German states and in Central Europe. The easternmost monument of the Magdeburg Law is in Kiev.

On the other hand, the economic differences were not as prominent as those in modern times. "Still at the end of the 14th century, the east and west of Europe were not fundamentally different. The division of the old continent along the Elbe (once again the Elbe appears as the western border of Central Europe – author's note) formed only along with the development of the early structures of capitalist production, i.e., during a period Wallerstein calls "long sixteenth century" (1450–1620/40)³⁶.

Summing up the medieval period of integrating Younger and Older Europe, it should be stated that both parts of the European continent did not differ enough during this period to call this difference an abyss. According to Wallerstein, this distance appeared during the so-called "long sixteenth century". This was the period when Western Europe began to move away from agriculture as the foundation of the economy, in favour of the production of goods and trade. The first country to initiate this process in the area of Older Europe was England. At that time, textile production became the field of advanced technologies, initially not on an industrial scale, being based on

³⁵ It is worth noting that the first university in Scandinavia, an area now considered to be more developed than Central Europe – the Uppsala University – was founded in 1477.

³⁶ M. Starnawski, P. Wielgosz, *Kapitalizm nad przepaścią, społeczeństwa wobec wyboru. O krytycznych perspektywach analizy systemów-światów Immanuela Wallersteina* [in:] Wallerstein I., *Analiza systemów-światów – wprowadzenie*, Warszawa 2007, p. XXVI.

craft production and manufactures. As a result, there was a kind of functional division between Older and Younger Europe. The former concentrated on production requiring greater know-how, while the countries of Younger Europe, including mainly Poland, became the suppliers of raw products providing a much lower margin: grain, wood, tar, etc. "The further from the centres of the West, the more people lived in rural areas and were employed in agriculture. In the last years before 1914, 11.5% of all employed people worked in agriculture in England, 28.6% in Germany, 40.4% in France, 54.2% in Italy, 59.6% in Spain, and 65.3% in Hungary³⁷.

The countries of Central Europe became suppliers of raw materials. Since then, the economic and civilizational "shears" between the east and west of Europe began to rapidly open. The result of this process was the petrification of the feudal social structure and even its regression in the countries of Central Europe. The situation of serfs significantly deteriorated in relation to the Middle Ages, in every respect. An increase in the disproportions of Europe at that time was a process operating on the principle of connected vessels, which means that the development of Western countries would have not been possible without the underdevelopment of the central and eastern parts of the continent. To describe this phenomenon in sociology and economic history, the concept of "underdevelopment" was introduced³⁸. States characterized by underdevelopment are so not because they are stuck in archaic "non-modern" forms of thinking and acting and thus unable of keeping up with the centre, but because they are pushed there by said centre. This is the kind of social process that Kazimierz Dąbrowski called a spontaneous process³⁹, one that is in a way natural, by definition not directed by anyone, but one that can be catalysed or delayed when identified, depending on particular interests⁴⁰. Moreover, it seems that this process has been identified relatively quickly: "In countries geographically closer to the West – such as Poland – the sense of backwardness appeared almost at the same time

³⁷ A. Chwalba, *Historia Polski 1795–1918*, Kraków 2000, p. 598.

³⁸ I. Wallerstein, *Analiza systemów-światów – wprowadzenie*, Warszawa 2007, p. 27.

³⁹ K. Dobrowolski, *Teoria procesów żywiołowych w zarysie*, Wrocław 1973.

⁴⁰ P.T. Górski, *Kazimierz Dobrowolski's Integral Method as a Theoretical and Methodological Proposal of Organization and Management Research in Historical Perspective*, „Problemy Zarządzania”, 2020, 2 (88), pp. 55–68.

when modernity began to appear"⁴¹. The difference between diagnosing the phenomenon and opposing the structural forces inherent in spontaneous processes is difficult to overcome.

The definition of modernization and assessment of advancement still remains a problem. This is because the measurements can be different. Modernization might refer to the technological development, the standard of living, saturation with infrastructure, etc. In this respect, the distance between the countries of Central and Western Europe is no longer as significant as it was in the times of the "Iron Curtain", when it was a real chasm. One of the tools used to legitimize communism in the countries of Central Europe was a claim that these countries are becoming modern thanks to this new political system. It is true that before World War II said countries were actually underdeveloped in reference to the West, e.g. in terms of industrialization or urbanization. However, data show that in 1939 Poland's GDP per capita was similar to that of the poorest Western countries, such as Greece or Portugal. When communism fell in 1989, this metric for Greece and Portugal was respectively 3 and 2.5 times higher than for Poland⁴². As we can see, the distance between the two parts of Europe increased several times in less than half a century. Therefore, this actually was an anti-modernization.

When assessing the degree of modernization, we can use other measures than purely economic ones. "For example, Poland (in 1921 – author's note) adopted full voting rights for women twenty-five years earlier than France, ten years earlier than the United Kingdom, and 50 years earlier than Switzerland (...) so what is the contemporary model of modernity that we have not achieved? (...) I am in favour of completely rejecting the notion of modernization as a term that is completely outdated, a certain ideological fetish (...) In fact, modernization-emancipation understood in ideological terms can lead to de-modernization, and destruction of material achievements – because we can say that this destroys nature, destroys subsequent rights, that freedom threatens minorities, democracy (i.e. populism) emanci-

⁴¹ A., Leszczyński, *Skok w nowoczesność. Polityka wzrostu w krajach peryferyjnych 1943–1980*, Warszawa 2013, p. 19.

⁴² Z. Landau, W. Roszkowski, *Polityka gospodarcza II Rzeczypospolitej i PRL*, Warsaw 1995, p. 289.

pation, which only emancipators understand"⁴³. This is quite an extreme assessment of modernization, or at least a certain understanding of it that can be encountered quite often recently, one that introduces "modernization—emancipation" and according to which progress requires complete liberation from the past. The question is, what's left? And is it not possible to find many valuable resources in this past, without which one cannot survive in the highly competitive environment, or which have an autotelic value?⁴⁴ In the case of Central European countries, this value primarily consists in freedom⁴⁵. "What did nineteenth-century Poland bring to Europe and civilization in 1918? It brought a tradition of civil liberties and the union of free people, communities and nations. (...) Poles, together with other nations of the historical Republic of Poland, proved with their attitude that foreign states do not have the right to impose their will on others only because they are more militarily powerful at a given time"⁴⁶.

The opinion that recently gained popularity, states that Central Europe was late for modernization because it was in the East not only for almost the entire second half of the 20th century, but for much longer. These countries did not have their own statehood in the 19th century, when the West underwent modernization, because at that time they were under the rule of foreign powers, detached from Western culture (Russia or Ottoman Turkey). Even the Habsburg Empire was less developed than the Western states. So today, in order to make up for this lost time, these societies must copy Western models. This is because there is neither the money nor the need to invent own modernization, i.e., the so-called "creative adaptation". Everything has already been invented. The essence of such a rapid modernization is reflected in the term "carbon copy modernization". In other words, does the modernisation of Younger Europe have to be based on simple imitation? This

⁴³ *Zatruta humanistyka. Ludowa historia Polski – o pochvale rabacji w lewicowej publicystyce historycznej rozmawiają: B. Gancarz, H. Głębocki, A. Nowak, M. Urbanowski, A. Waśko*, „ARCANA”, 2021, no 4, p. 51.

⁴⁴ L. Cichobłaziński, *Rycerz i mieszczanin – etosy konkurencyjne czy komplementarne? Przypadek Polski*, „Rocznik Filozoficzny Ignatianum”, 2020, vol. 26, no. 1, pp. 99–117.

⁴⁵ A different approach to the characteristics of Central Europe in: G. Tokarz, *Koncepcja Mitteleuropa – historyczne i współczesne uwarunkowania*, „Wschodnioznawstwo”, 2017, 11, pp. 73–84.

⁴⁶ A. Chwalba, op. cit., p. 601.

is how Dariusz Karłowicz answers this question: "Carbon copy modernization assumes annihilation, because the deformed nature of the existing reality is not suitable for reworking; it requires to be destroyed, or at least weakened, relaxed, or dissolved in some better reality. Identity and subjectivity in its present form appear as an obstacle, a barrier that must be torn down. First annihilation, then modernization; first we destroy, then we copy"⁴⁷.

Therefore, modernization understood in such a way constitutes a break in the continuity of culture and this is why it encounters many obstacles such as an attachment to tradition and religion. However, the problem with imitation is deeper. Even if imitation is possible, it does not mean success. First of all, modernization patterns always come with a certain delay, even in the era of the Internet, social-media and television. In such a situation, imitative modernization guarantees a perpetuation of a constant distance between the centre and the peripheries. But there is one other factor determining the "development of underdevelopment" that consists in the structural forces. It is because backwardness results "not from the succession of the subsequent stages in history, but from the topology of historical systems"⁴⁸, what is a consequence of the "polarizing logic of this system's expansion"⁴⁹. Without changing this inexorable logic, Central Europe will be doomed for the so-called dependent development (medium development) and will never expand beyond the limits set by the concept of Mitteleuropa⁵⁰. Is such expansion possible? Observing some Far Eastern countries, e.g. South Korea, Japan, Singapore, or Taiwan, we can say that it indeed is. The question is, whether Western Europe is interested in such a modernization of Central Europe? Should a Younger Europe forever remain younger, not only in terms of chronology, but in terms of a peculiar type of 'immaturity' that deserves patronising treatment? And if it turns out that Older Europe wants to maintain this distance, what path needs to be taken in order to carry out modern-

⁴⁷ D. Karłowicz., *Modernizacja. Polski projekt*, „Teologia Polityczna Co Tydzień”, 2016, nr 23, <https://teologiapolityczna.pl/dariusz-karlowicz-modernizacji-nie-da-siekskerowac-tpct-23-> (accessed: 9.09.2022)

⁴⁸ M. Starnawski, P. Wielgosz, op. cit., p. XXIV.

⁴⁹ Ibidem, p. XXIV.

⁵⁰ K. Pilawa, *Powrót Mitteleuropy. Niemiecka dominacja czy polski kompleks?*, <https://klubjagiellonski.pl/2018/03/20/powrot-mitteleuropy-niemiecka-dominacja-czy-polski-kompleks/> (accessed: 21.12.2022).

ization without simple imitation⁵¹, despite the unfavourable structural forces operating within the system created today by the European Union?

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⁵¹ Examples of simple imitation can be found in: R. Legutko, *Czasy wielkiej imitacji*, Kraków 1998.

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Czy Europa Środkowa jest skazana na imitację? Modele modernizacji Polski w procesie integracji z Unią Europejską – szanse i zagrożenia

Abstrakt

Celem opracowania jest wskazanie problemów związanych z rozumieniem zjawiska modernizacji regionu Europy Środkowej, zwanej również Młodsza Europą. Analiza zostanie przeprowadzona z perspektywy socjologii historycznej i socjologii organizacji. Główne pytanie badawcze brzmi: w jakim stopniu Europa Środkowa jest skazana na naśladowanie Zachodu, a w jakim mogłaby skorzystać z innych rozwiązań, które można

traktować jako mniej inwazyjne z punktu widzenia ciągłości kulturowej podmiotu modernizacji? W opracowaniu wykorzystano metodę analizy socjologiczno-historycznej, przeprowadzonej na podstawie źródeł literackich dotyczących zarówno obszaru koncepcji historycznej Europy Środkowej, jak i socjologicznego ujęcia procesów modernizacyjnych. Obszar metodologii badań organizacji dostarczy narzędzi dla podejścia opartego na zarządzaniu zmianą. Wniosek płynący z przedstawionej analizy jest następujący: Europa Środkowa może wybrać swoją drogę modernizacji, która nie polega jedynie na prostym naśladowaniu, czyli wyłącznym stosowaniu rozwiązań pochodzących z regionów Europy uznawanych za bardziej zmodernizowane.

Słowa kluczowe: Europa Środkowa, zarządzanie zmianą, socjologia historyczna, imitacja, procesy modernizacyjne

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Environmentally conscious production – health-conscious consumption. Present and future of organic farming in Hungary

Abstract

The study aims to explore the motivations and driving forces of organic farming for both the producer and the consumer. The emphasis is primarily on the attitudes of the actors, in which economic, environmental, health and taste aspects are reflected. In addition, it explores the spread of organic farming in Europe and Hungary with factual data. In Hungary, 5,128 farmers are engaged in organic farming, the area under cultivation is more than 300,000 hectares (together with the already converted and the conversion areas). The study seeks to answer what motivates producers to participate in organic farming and what motivates consumers to consume organic products. Our research methods include questionnaires on both the producer and consumer side. With our results, we intend to strengthen the popularity and spread of organic farming.

Keywords: organic farming, permaculture, drought, sustainable development, economic challenges.

The essence and importance of organic farming

The term "bio" or "ecological" refers to crop and animal husbandry methods that avoid production processes based on industrial inputs, avoiding the use of pesticides, fertilizers, antibiotics and growth hormones. Organic farming goes beyond a simple production process, rather it is a way of looking at life, dedication, and humility towards the environment, living beings, and the future generation. Its significance is clearly shown by the fact that environmental and pollution problems, as well as increased tensions in

society, called for a more rational use of space and resources, so that their investigation was brought to the forefront¹. And when we consider what a region should look like, one of the most important factors is the livable and attractive environment². The size of the areas under organic farming shows a continuous increase, and this increase coincides with the expansion of demand, considering that the popularity of organic products is also increasing due to personal health decisions and the adoption of certain diets.

Organic farming in the world – data and trends

Organic farming can be found in 187 countries around the world, the size of the affected area is a total of 74.9 million hectares, which is 1.5 percent of the world's agricultural area (see Figure 1).

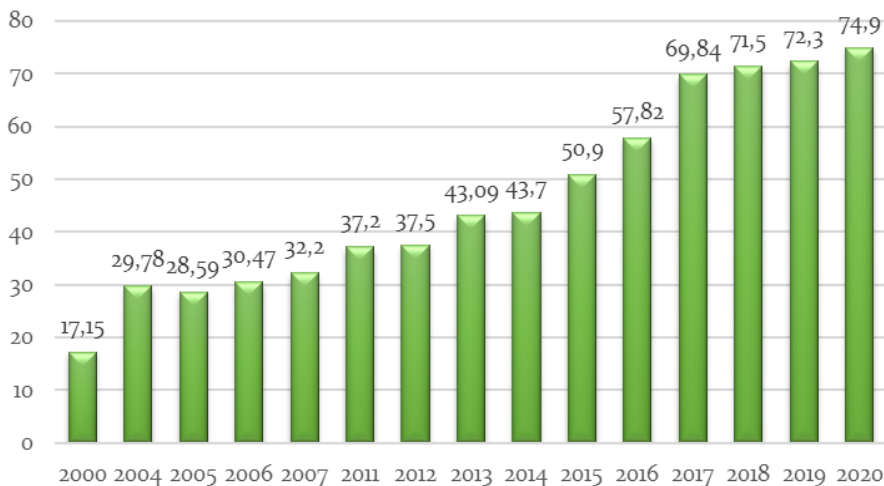


Figure 1. Size of areas under organic farming in the world, 2020 (million hectares)

Source: Statista.com in FiBL, IOFAM 2020

¹ J. Káposzta, H. Nagy, *The major relationships in economic growth of the rural space*, „EUROPEAN COUNTRYSIDE”, 2022, vol. 14, issue 1, pp. 67–86., <https://doi.org/10.2478/euco-2022-0004>.

² T. Tóth, J. Káposzta, *Successful management of settlements to boost rural development*, „EUROPEAN COUNTRYSIDE”, 2021, vol. 13, issue 4, pp. 819–833, <https://doi.org/10.2478/euco-2021-0044>.

The regional distribution of organic areas clearly shows Oceania's amazing advantage in this comparison (see Figure 2), which is clearly due to Australia, which has almost 15 million hectares (35.69 million hectares) of organic farming than the next nine countries combined. in the top 10 field (see Figure 3).

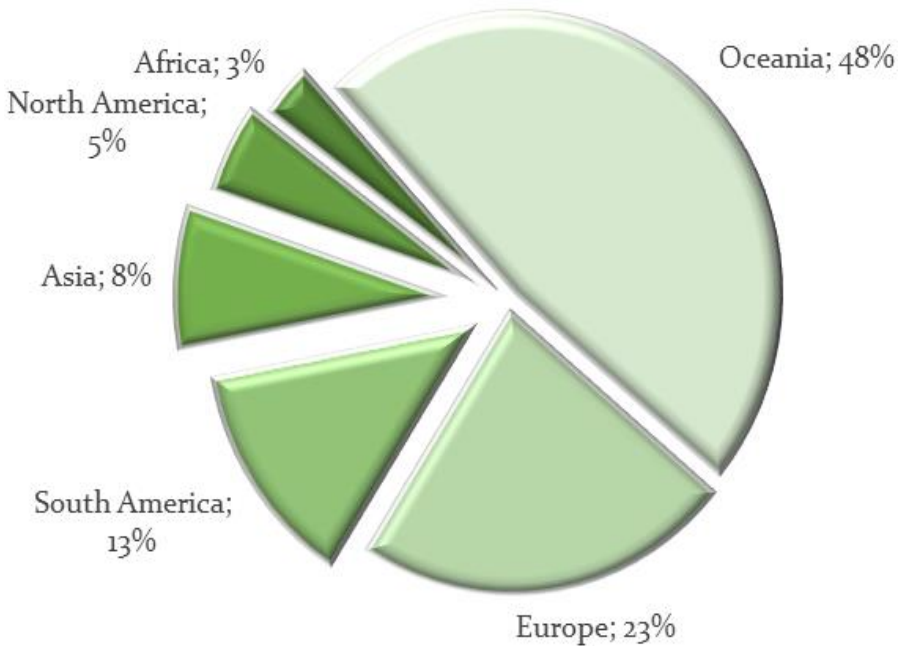


Figure 2. Regional distribution of global organic cropland, 2020

Source: Statista.com in FiBL, IOFAM 2020

Looking back at the data from eight years ago, we can see that Oceania significantly increased its advantage (from 33 percent to 48 percent), taking a 15 percent larger slice of the global pie. With the exception of Africa, which retained its share of 3 percent, this represented a decline in all other regions – of course only in proportion, since the size of ecological areas increased everywhere in the meantime³.

³ Cs. Mile, *Key to competitiveness of organic farming in Hungary*, "Managerial Challenges of the Contemporary Society", 2015, pp. 169–174.

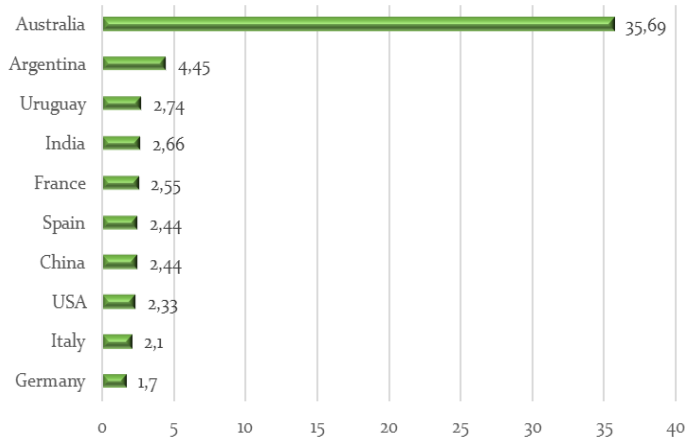


Figure 3. Ten countries with the largest ecological area, 2020 (million ha)

Source: Statista.com in FiBL, IOFAM 2020

However, we get a completely different picture when we examine the commercial circulation of organic products. About 41 percent of global trade sales can be attributed to the USA, Germany, which handles the second largest turnover, does not even reach a third of this amount (12%). In addition, only France (11%), China (8%) and Canada (4%) achieve a noteworthy share, but these countries are also far behind the leading American market. European countries together account for 43.3 percent of global traffic, China alone provides more than three-quarters of Asian traffic, but despite its huge territories, Oceania has a small fraction of retail traffic.

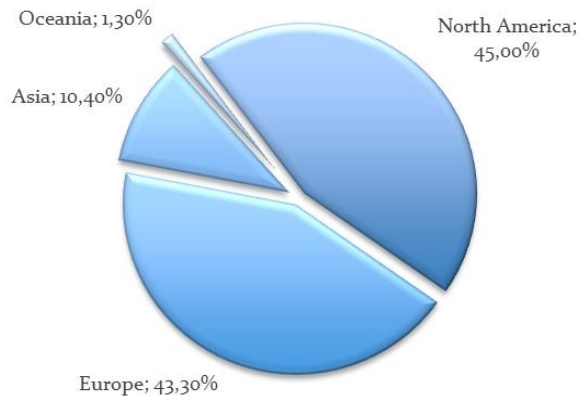


Figure 4. Regional distribution of retail sales of organic products, 2020

Source: Statista.com in FiBL, AMI, 2020

Organic farming in Europe

23 percent of global organic cropland is located in Europe. Figure 5 shows the internal distribution of this 23 percent. It can be seen that half of the organic areas are owned by four countries, the remaining 50 percent is distributed among the other countries.

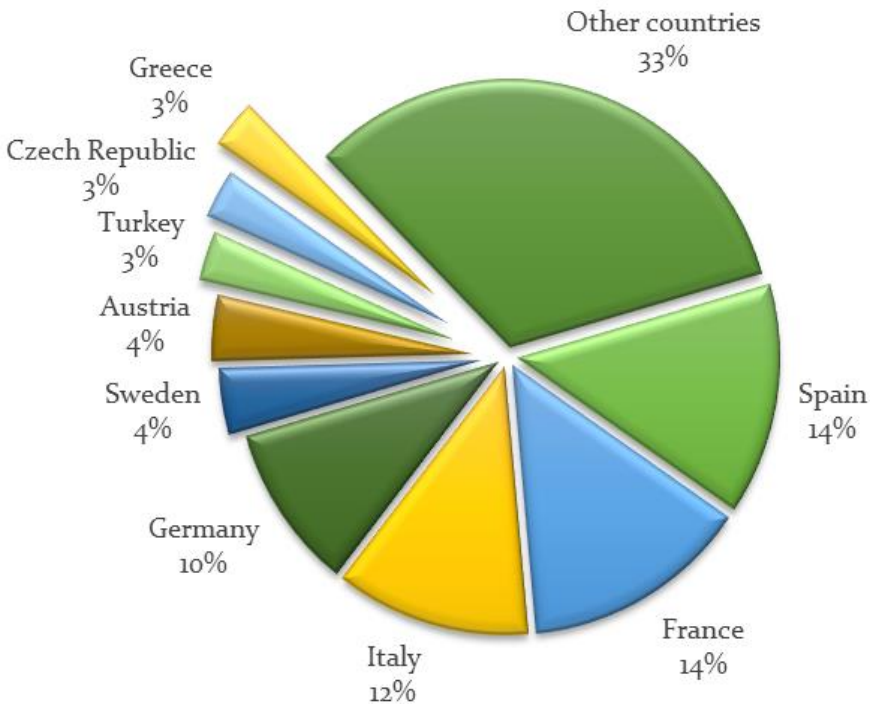


Figure 5. Distribution of areas under organic farming in Europe, 2019

Source: Statista.com in FiBL, Eurostat, 2019

The most dynamic growth is represented by France, which in 2012 was only in third place in the European comparison with one million hectares, then by 2018 it had more than doubled its ecological areas and is currently in first place in the order with more than two and a half million hectares. In the case of Spain, Italy and Germany, we can see roughly similar growth rates and area sizes, but the other European countries are far behind the leading four (see Figure 6).

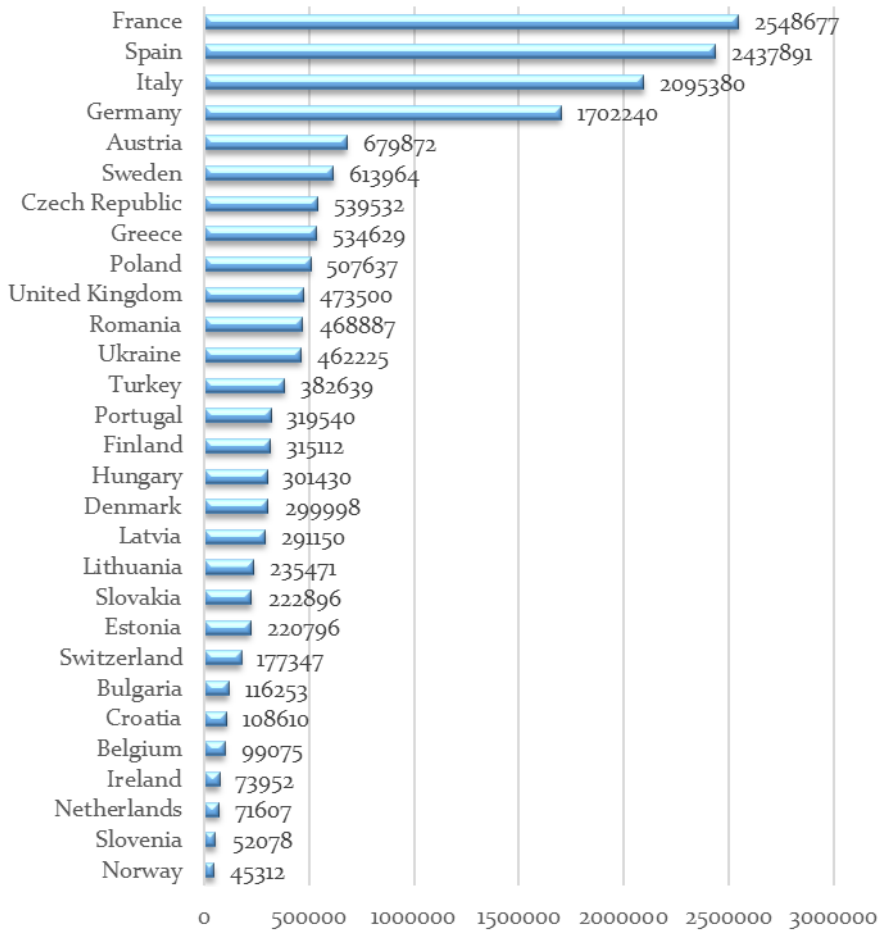


Figure 6. Size of areas under organic farming in European countries, 2020

Source: Statista.com in Europe, FiBL, AMI, 2020

Of course, the basic areas of each country differ significantly in many cases, so it is also interesting to see how the size of the areas under organic farming is proportional to the total production area of the given country. Unsurprisingly, we arrive at a completely different order (see Figure 7). In Liechtenstein, which is in the lead, the size of the ecological areas is only 1,490 hectares, but this represents 41.6 percent of the total agricultural area. In Austria, however, the area under organic farming is already significant, 679,872 hectares, which is more than a quarter of the agricultural land.

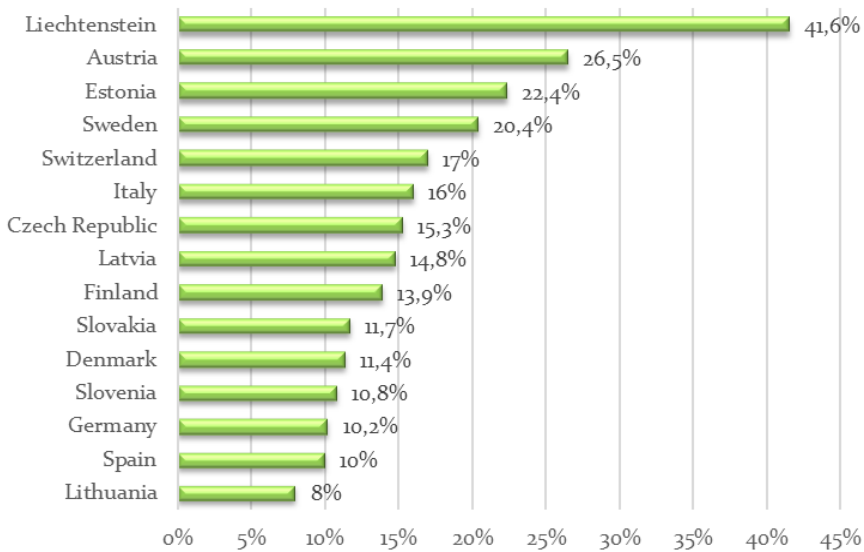


Figure 7. The size of the ecological area of European countries compared to the total agricultural area of the country, 2020

Source: Statista.com in Europe, FiBL, AMI, 2020

However, even from this we cannot draw complete conclusions. It is clear from the above data which countries do the most to protect sustainability and the environment, but the goal of organic farming is at least equally important to protect human health, which in this case means the consumption of organic products.

Consumption of organic products in Europe – trends, motivations

The following figure ranks the countries based on organic product consumption per capita. Switzerland leads the list, in 2020 an average Swiss consumer spent 418 euros on organic products, in Denmark the same amount was 384 euros. In Luxembourg, where the area covered by organic farming is only 6,118 hectares, the per capita consumption is 285 euros. This obviously also means that the country is a significant importer in the market of organic products.

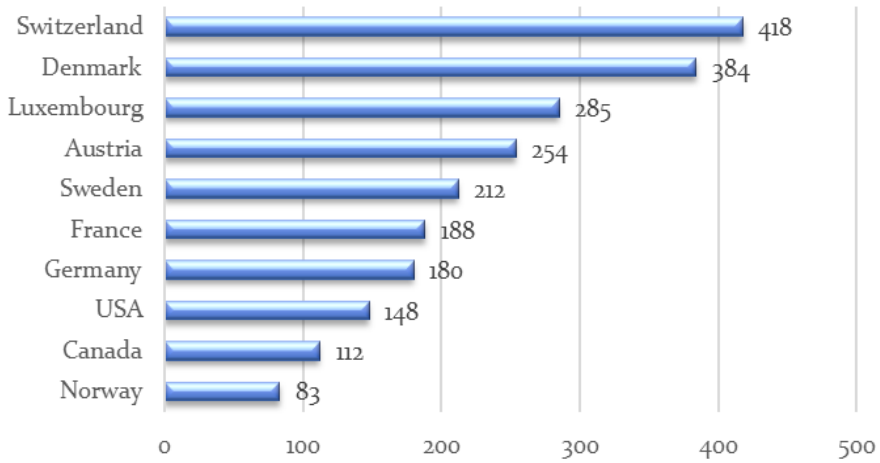


Figure 8. Per capita consumption of organic products – global ranking (€/capita), 2020
Source: Statista.com in Worldwide, FiBL, AMI, 2020

The EU average of organic product consumption per capita was 101.8 euros in 2020. If we look at the development of the indicator starting from 2005, we can see an exponential growth, which convincingly supports the wider acceptance and popularity of organic products (see Figure 9).

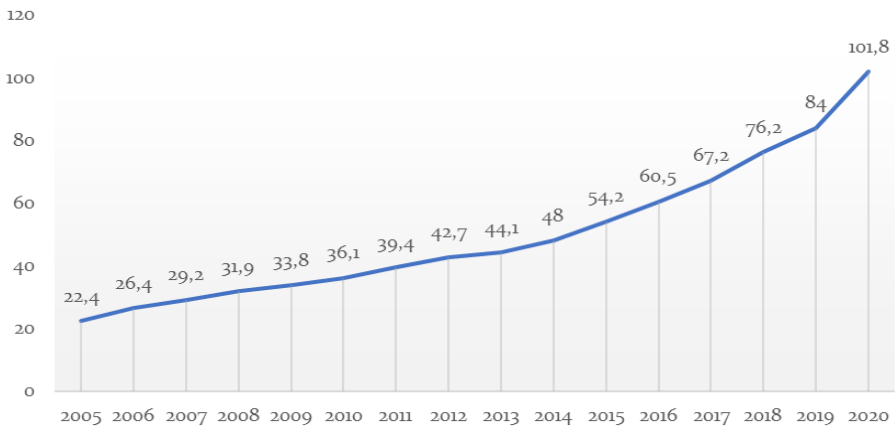


Figure 9. European Union average per capita consumption for organic products (€/capita), 2020

Source: Statista.com in Europe, FiBL, AMI, 2005–2020

Of course, this phenomenon also means a similar increase in retail value, which increased from 11 billion euros in 2005 to 44.8 billion euros in 2020 in the European Union⁴.

Consumer attitudes

According to French research (Statista.com), consumers choose organic products mainly for health reasons and for environmental reasons. Shopping is also facilitated by the fact that organic products are increasingly widely available in the usual shopping places. Many consumers also consider ethical, social, and animal welfare aspects during consumption, and the respondents with small children try to create the healthiest possible diet for their children.

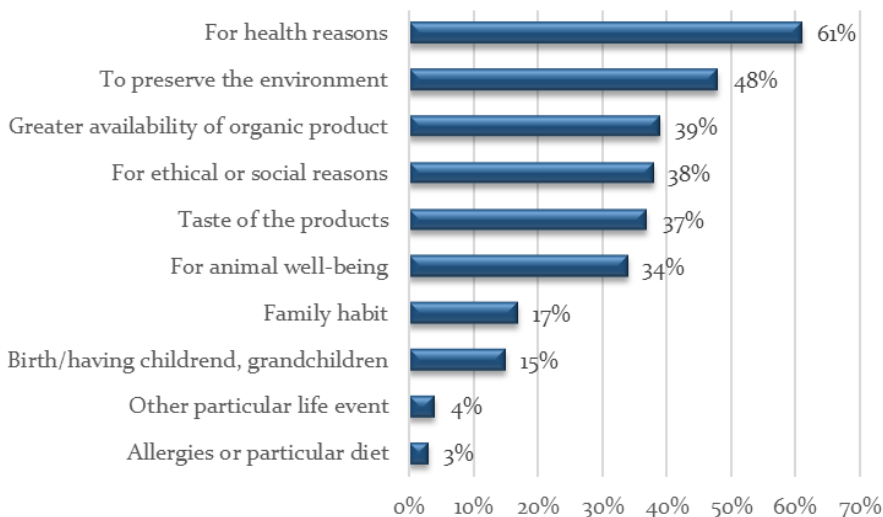


Figure 10. Reasons for consuming organic products based on the responses of French consumers, 2020⁵

Source: statista.com in France Agency Bio

⁴ F. Apáti, V. Tóth-Kurmai, T. Kicska, E. Kunkliné Kovács, *A hazai ökológiai (bio) gazdálkodás helyzete és középtávú versenyképessége*, <https://www.biokontroll.hu/a-hazai-okologiai-bio-gazdalkodas-helyzete-es-kozeptavu-versenykepessege-1/> (accessed:28.12.2022)

⁵ Sample size: 1 526 respondents over the age of 18 who consume organic products at least once a month.

It is worth comparing French attitudes with German thinking. Similar research in Germany produced completely different results, at least as far as the weighting of the individual criteria is concerned. The Germans placed much more emphasis on animal welfare aspects, marking this aspect in 92 percent – compared to 34 percent in France. Health considerations were also mentioned by many more people, 92 percent of the respondents. The most important motivation of the German respondents in consuming organic products was the support of local producers (93%), however, this did not appear in the French questionnaire.

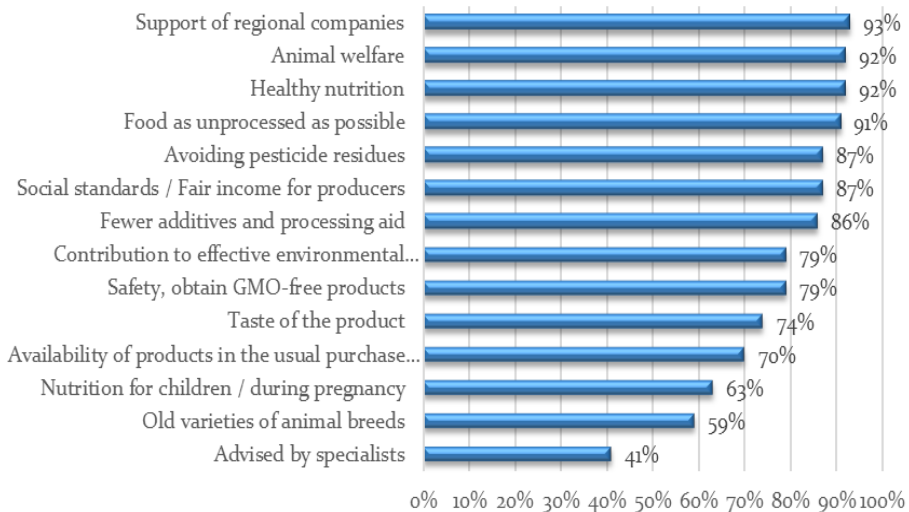


Figure 11. Reasons for consuming organic products based on the responses of German consumers, 2020⁶

Source: statista.com

After that, it is also interesting to get to know the consumers' aspects in Hungary, where the environmental awareness is also increasing⁷. The Hungarian survey assessed the most important characteristics of "sustainable

⁶ Sample size: 824 respondents over the age of 14 who consume organic products at least occasionally.

⁷ A. Szeberényi, T. Rokicki, A. Papp-Váry, *Examining the Relationship between Renewable Energy and Environmental Awareness*, "Energies", 2022, 15(19), <https://doi.org/10.3390/en15197082>.

food" from the perspective of Hungarian consumers. The criteria were weighted according to the frequency of responses, and the following opinion was formed (see Figure 12).

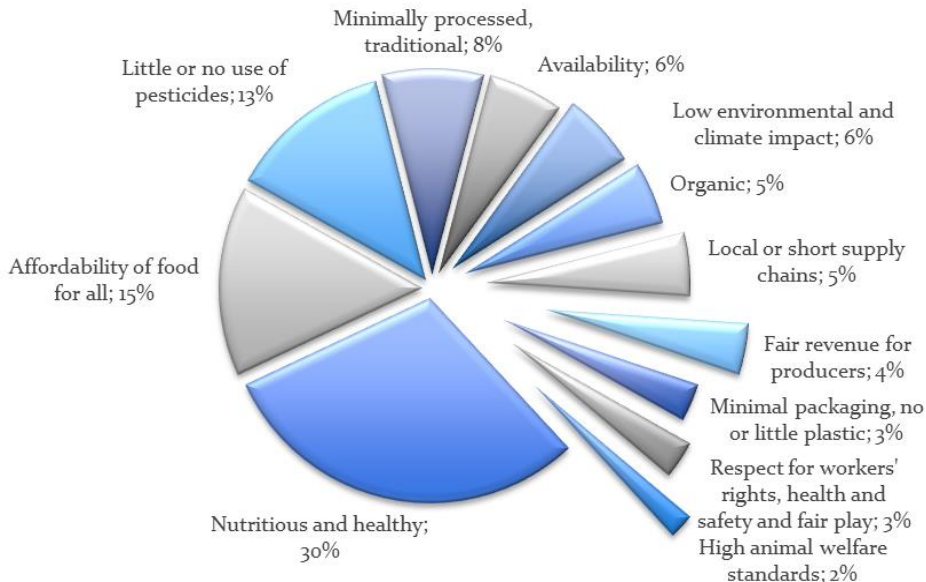


Figure 12. The most important characteristics of sustainable food according to the Hungarian respondents⁸

Source: statista.com in European Commission, 2020

It can be seen from the survey that community and animal welfare aspects take a backseat compared to the results of French and especially German research, and personal factors are emphasized, such as health preservation and easy accessibility. In addition to all this, the Hungarian respondents believe that the state should support the consumption of healthier products with tax incentives. According to another survey (2020, number of items 1,000 people) (statista.com), 85 percent of respondents agree that reducing the VAT content of organic products would be justified, since organic products are more expensive than conventional products (according to 88 percent of respondents).

⁸ The sample size is 1058 respondents, the survey took place in 2002.

Primary research on the present and future of Hungarian organic farmers

Related to the topic, I conducted primary research among organic farmers in Hungary. My presentation is about the results of a primary research that I conducted among organic farmers in Hungary. I examined the consequences of two important events, one of them was the scorching drought experienced this summer (2022), and the other one was the unfavorable inflationary and recessionary economic effects caused by international and domestic events. I wanted to know how organic farmers are experiencing this difficult period, what strategy they have and how they see the future of the sector.

Research method

I conducted the survey online and sent the questionnaire link to the respondents by e-mail. For this, I used the public list that contains the contact information of all qualified organic farmers who produce in Hungary. I did not ask those who only participate in the program with grassland, alfalfa or pastureland to fill out the questionnaire, because this output is typically used as animal feed and is not sold directly on the market. The questionnaire was filled out by 57 active organic farmers from all over the country, responses were received from all counties of the country.

100 percent of my respondents are engaged in crop cultivation, and in addition, 21 percent are engaged in livestock breeding, 14 percent in processing, and 9 percent in trade. In the crop production category, I combined field crop production, as well as vegetable and fruit production, because I was primarily interested in the attitude and strategy of the farmers, rather than the specific data of each sector.

Characteristics of the research sample

40 percent of the respondents deal exclusively with organic farming, which means that 100 percent of their annual income comes from this activity. For 20 percent of the farmers, more than half of the annual income comes

from organic farming, and for 40 percent, less than half of the annual income comes from organic farming.

There are 19 counties in Hungary, and I received responses from 16 counties, so the territorial coverage can be said to be quite good. The proportion of responses is roughly equally distributed among the counties, with only two counties standing out, from which slightly more completions were received.

The distribution of the sample according to property size is shown in the following figure:

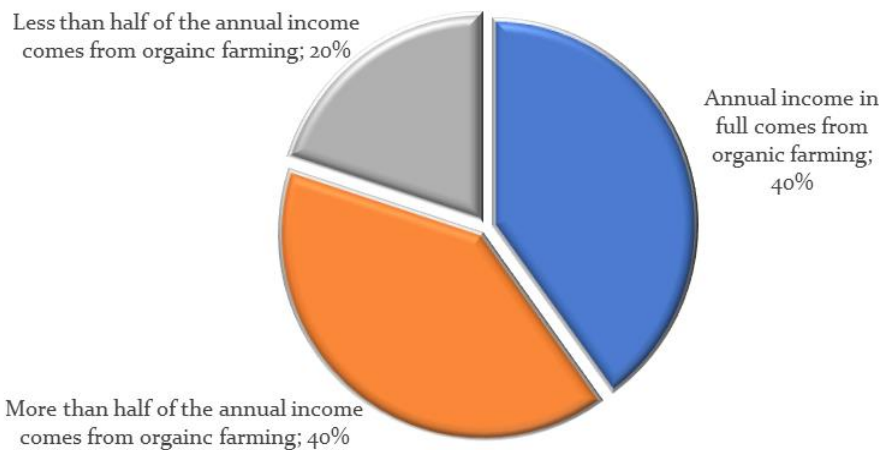


Figure 13. Distribution of annual income in the sample

Source: Own editing based on primary research data

The past summer brought a severe drought to Hungary, which caused a huge loss of yield and, with it, an extraordinary increase in the price of agricultural products. This inflationary effect, combined with the international effects, brought inflation not seen in a long time to the country.

First, I asked how much damage the drought had caused. There were only two farmers who answered that the drought did not cause a decrease in yield, both run a farm on 1–2 hectares, which allows for a higher level of care, mulching, and possibly irrigation. However, most of the respondents were forced to face a serious decrease in yield.

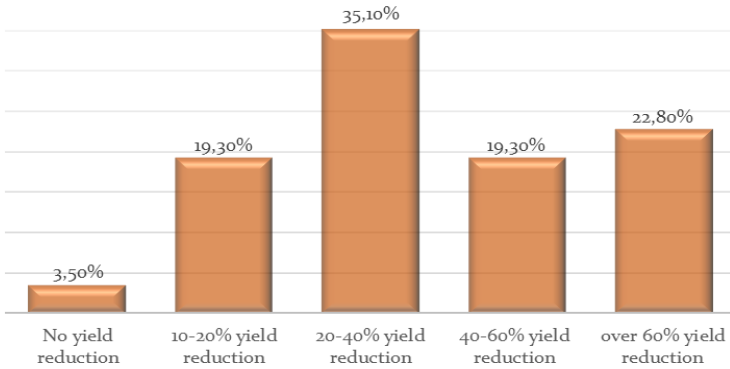


Figure 14. Yield reduction due to the drought in 2022

Source: Own editing based on primary research data

The decrease in yield was accompanied by an increase in costs, which mainly manifested itself in the increase in energy and fuel prices. It is worrying that 17.5 percent of the respondents experienced a cost increase of between 10 and 20 percent, 22.8 percent saw costs increase by 20–30 percent, 21 percent of the farmers were forced to pay a 30–40 percent increase in costs, and 10.5 percent were forced to pay a 40–50 percent increase in costs to continue its activities. 16 percent of the respondents reported a cost increase of over 50%. There were only two farmers that did not experience an increase on the expenditure side, as production is a process that relies primarily on manual labor and is free of industrial inputs.

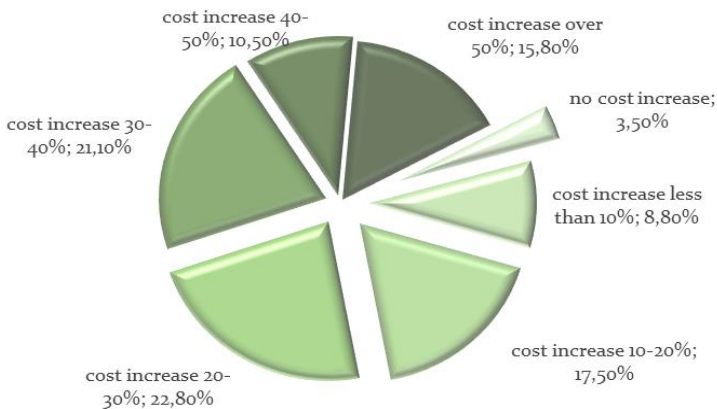


Figure 15. Cost increase due to the higher energy and fuel prices in 2022

Source: Own editing based on primary research data

This is obviously accompanied by an increase in the price of products, but this is precisely what makes the situation of organic farmers even more difficult. The price level of organic products is higher than that of conventional foods. However, inflationary pressure and the decrease in the real value of incomes turn consumers towards cheaper products. Thus, organic farmers cannot, or at least have difficulties, enforcing higher prices, while they are forced to produce at higher costs. Higher prices could be achieved by increasing the degree of processing, and I also asked the respondents in what form the products are sold. It is clear from the figure that more than 75% of the farmers sell their products in unprocessed form, and 56% of them sell to resellers, which further reduces the price and the income in the meanwhile.

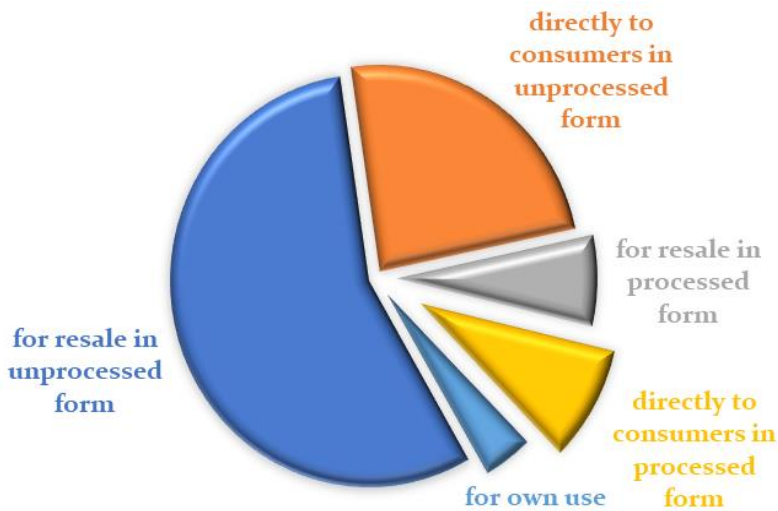


Figure 16. The degree of processing and target market of the sold products
Source: Own editing based on primary research data

Those farmers who have the intention to increase the degree of processing of their products complain that they do not have the necessary capital to do so, and that the application system is difficult, slow, and discriminatory. The evaluation of tenders is extremely lengthy and has no fixed time frame, so planning is uncertain and unpredictable. Meanwhile, the application system is opaque and corrupt.

Farmers are not satisfied with the organic market either. The most common criticisms are that the organic market is a market for a narrow group of consumers, which raises problems of economical farm size. Purchase prices are constantly changing, are unpredictable and make planning impossible. There was a farmer who was able to sell organic oats for pigeon feed, another one sold his organic elderberry at a depressed price as conventional product. Control is limited, so “fake organic” products appear and compete with real organic products. The word “bio”, for example, can be used by anyone, it is not clearly regulated.

Another criticism was that Hungarian organic product distributors prefer imported organic products over domestic suppliers. This obviously causes further difficulties for Hungarian farmers. The bargaining position could be significantly improved by the cooperation of producers, which can typically be realized as a result of decentralized initiatives. There are examples of well-functioning producer associations, but for now it is not a general phenomenon.

The need for a more predictable and plannable organic market is therefore clear, but presently neither the state nor the agricultural chambers have any intention to help – according to the respondents.

In addition to the general problems, the farmers also shared their individual problems with me, which unfortunately seem inevitable for an agricultural producer. There was a respondent who had to invest substantial sums in building a new fence because 90% of his grape crop was eaten by rabbits and deers. There were those who had no buyers for this year's crop, and there were also farmers who didn't even get to market problems because 100 percent of their crop was destroyed by frost damage.

I asked the farmers how much they feel the effects of the recession in their sales. More than two-thirds experienced a clear drop in demand. 30% of the farmers were forced to sell their products or part of their products below the market price. A further 36% sensed a drop in demand, but initially brought fewer products to the market due to the drought, so their sales went well. And those who sold their products on the basis of a precontracted price had got into a disadvantageous situation due to the high inflation rate. They reported approximately a 25 percent decrease in real yield.

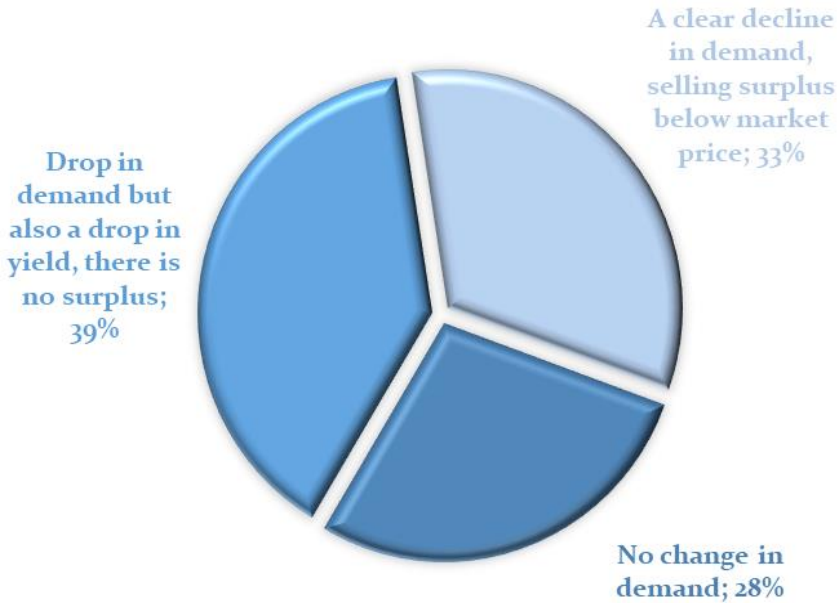


Figure 17. Inflationary and recessionary effect in sales
Source: Own editing based on primary research data

After that, I was curious as to how the respondents see the future of their farming, what strategy they follow to adapt to the changed conditions. Fortunately, only one respondent said that they would give up agricultural production, but nearly 19% of them plan to partially downsize their farms. 7% returns to conventional agricultural production instead of organic farming. Several respondents indicated that there is little difference between the subsidy amount for the two forms of production, while the costs and yield risk of organic farming are much higher.

There was no respondent who did not feel the need for change. Those who plan to stay with organic farming are either forced to rationalize costs or plan to change their production methods. 5% of the respondents are preparing for portfolio diversification in order to stand on more than one foot.

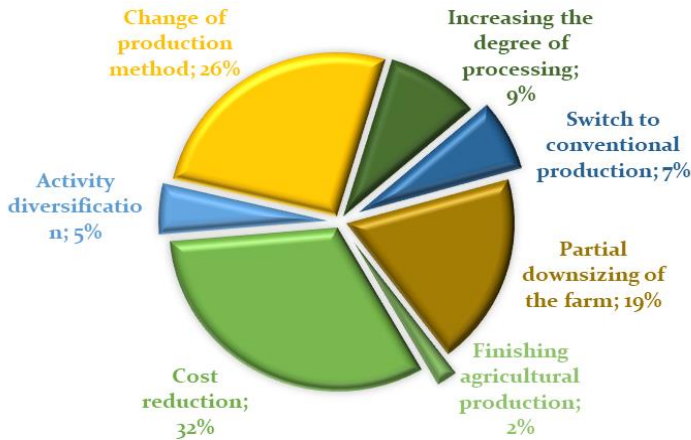


Figure 18. Inflationary and recessionary effect in sales
 Source: Own editing based on primary research data

Permaculture as a possible alternative

Permaculture farming offers a possible alternative to eliminate the adverse effects of traditional production methods such as insufficient soil life and yield reduction due to the droughts. The essence of this method is continuous mulching, which can be done with any organic mulch, such as straw, or other grass clippings or wood chips. The organic matter covering the soil prevents evaporation, thereby drying out the soil, and also increases the nutrient content of the soil through its continuous decomposition. Under the mulch, soil life revives, microorganisms and other organisms, such as earthworms, appear. The soil becomes soft and powdery, thus providing an excellent environment for crops. The farmer can forget ploughing, harrowing and other tillage processes, and what is even more important: irrigation. In permaculture, plant cultivation and animal husbandry are organically connected.

Organic manure from animal husbandry is the primary nutrient supply for crop production, but animals – concretely poultry – also play an important role in chemical-free plant protection. Permaculture farming is used only by a very narrow group of farmers, an environmentally conscious group, and I was curious to know how well organic farmers – who have a more environmentally sensitive attitude than average farmers – know this method, whether they might use it, and if not, then are they open to its introduction.

I was very pleased that 12.3% of my respondents not only know, but also use this method. Another 47.4% know it but do not use it, 25% have heard of it but do not know it, and only 16% have not even heard of it.

Those who are familiar with this production method believe that its greatest advantage is that it has a beneficial effect on soil life⁹, is maximally environmentally friendly and offers an excellent alternative in drought weather conditions. The main disadvantage mentioned is that it is not, or only difficult to apply, in the case of large holdings. It is also a problem that it is organically connected with animal husbandry, which requires systemic thinking. According to 10 percent of the respondents, the returns that can be achieved in this way are limited, but this is not necessarily the case. Precisely because of the favorable development of soil life, a much richer crop yield is available.

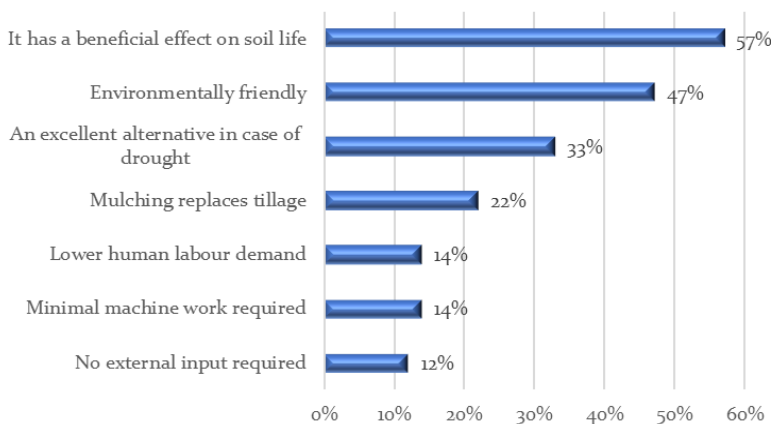


Figure 19. The main advantages of permaculture according to the respondents

Source: Own editing based on primary research data

It is certain that permaculture requires a more complex thinking and a system-level approach from the farmers, but in addition to the changed weather conditions, it offers a great alternative for the implementation of environmentally friendly, but efficient production. Only one third of the farmers said that they wouldn't switch to this production method. The others are open to try it or are already using permaculture production.

⁹ Zs. Dobó, I. Oláh, R. Farkas, Talajszenzorok mérésének felhasználása különböző hazai régiókban történő tájgazdálkodás segítésére, „TÁJÖKOLÓGIAI LAPOK / JOURNAL OF LANDSCAPE ECOLOGY”, 2017, vol. 15, issue 2, pp. 121–129.

Characteristics of organic farming

Finally, I asked the respondents about the characteristics of organic farming. There was no clear position on a few issues, for example, I would have been very interested in whether organic farming was considered suitable for mass production. But the five possible options of the scale question were chosen by the farmers in roughly the same proportion, so I did not get a clear answer to this question. It became clear that it is not true that organic farming can only be used effectively in the case of small holdings, nearly sixty percent of the respondents disagree with this statement, another 18% chose the neutral answer option. Even clearer was the agreement that organic farming in Hungary can only be profitably pursued with financial support. Here, nearly two-thirds of the farmers voted unequivocally yes, only 18% of them think that they would be profitable without subsidies as well.

However, support is not the main motivating factor for farmers to decide on organic farming. The most important motivation was clearly the environmentally friendly way of thinking as well as the human health aspects. 42 percent of the farmers were motivated by the financial support, 26 percent of them continue a family tradition.

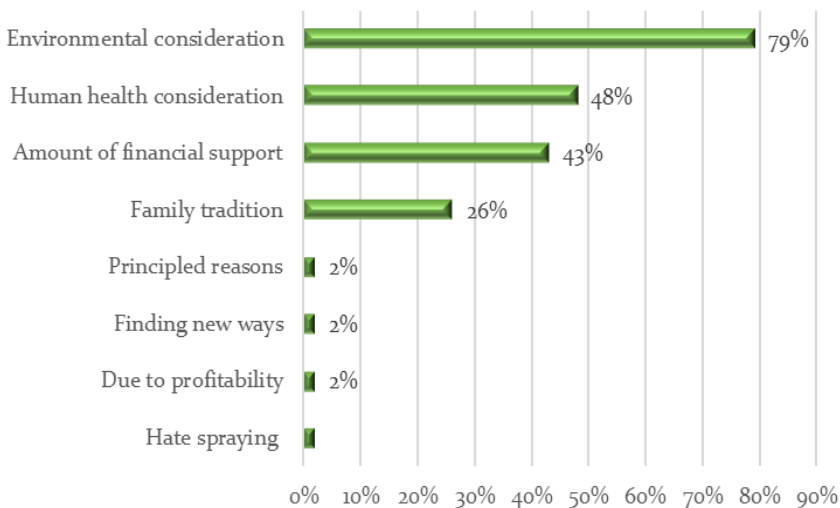


Figure 20. Reasons for organic farming according to the respondents

Source: Own editing based on primary research data

Regarding the market for organic products, they believe that consumers primarily consider their own and their family's health when they buy organic products. 88 percent of respondents selected this option. According to the farmers, other motivational factors are animal welfare aspects, some food intolerance, protection of the environment, and the better taste of the products. I marked a separate answer option for the initial feeding of small children, because in this case, parents who normally do not or only occasionally consume organic products prefer organic products.

I left the "other" answer option open for the respondents, and surprising opinions emerged as to why consumers buy organic products. Among the answers, we can find things like flaunting, snobbery, or fashion, which puts the market of organic products in a completely different light.

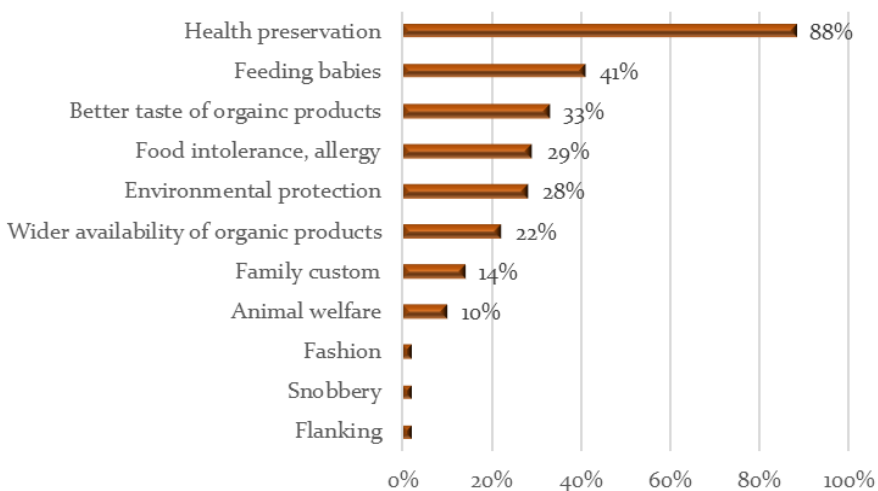


Figure 21. Consumers' motivations according to producers

Source: Own editing based on primary research data

I also asked about how to increase the popularity of organic products among consumers. According to the respondents, the most important thing to do would be to add organic farming to the school curriculum, so that children learn about the effects of this production method on the environment and the effects of organic products on human health already at school. The media is considered the second most important factor, and the role of

the family example was also highlighted. According to many farmers, enlarging the market of organic products is unthinkable without an increase in subsidy amounts.

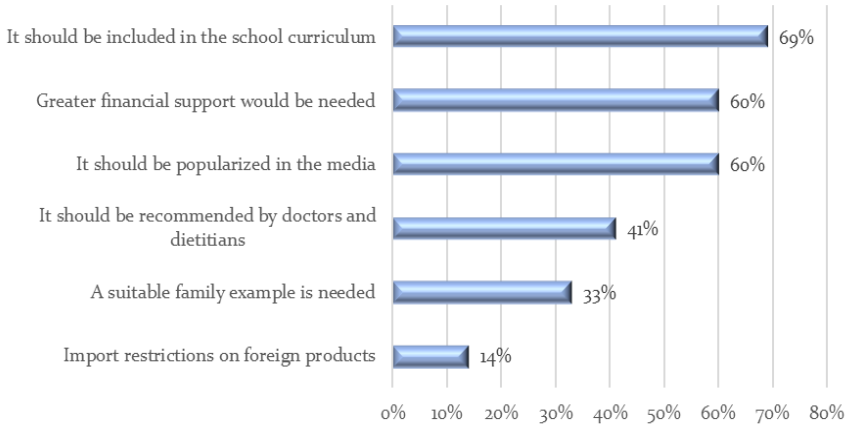


Figure 22. Expansion possibilities of the market

Source: Own editing based on primary research data

Opinions are divided regarding the future of organic farming. Approximately 10% of my respondents represent the pessimistic scenario, they are the ones who are thinking about giving up their farming. The reasons for this are mainly the insufficient market, the difficulties of enforcing the organic surcharge, the high input prices and low subsidy amounts.

However, most of the respondents are optimistic. Although they feel the difficulties, they are looking for a solution in order to maintain their farming. High input prices are tried to be eliminated by more careful selection of cultivated varieties and by changing production methods as much as possible. They try to strengthen the stability of their farm by diversifying their activities and increasing the level of processing. A stable market is considered important, both at home and abroad. In Hungary, there has been an intention of including organic products in public catering for a long time, but the regulations have not yet been established. According to the respondents, this would be a big step forward for the sector.

Several farmers urge the formation of producer-seller organizations, but this should be launched by decentralized initiatives. Collective actions and a larger volume could significantly increase the bargaining power of farmers.

Farmers also strongly criticize the domestic application system, which does not ensure equal conditions among applicants and provides special opportunities to some sources close to the government, thereby discriminating against other applicants.

However, it became clear from the answers that most of the farmers have an inner conviction in this form of farming, which is also a way of life for them. One farmer mentioned that he loves seeing the diversity of insects that has developed since switching to organic farming. Others said that being able to actively contribute to protecting the environment is reassuring in itself. Several people said that they will not give up, because they believe that this farming has a future, since only this can have a future.

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Zielona produkcja – zdrowa konsumpcja. Rolnictwo ekonomiczne teraz i w przyszłości na Węgrzech

Abstrakt

Celem pracy jest zbadanie motywacji rolnictwa ekologicznego z perspektywy producenta i konsumenta. Badanie skupia się na motywacjach i pobudkach rolnictwa ekologicznego zarówno w kontekście celów, jak i założeń podejścia ekologicznego. Analizowane są przede wszystkim postawy podmiotów, na które wpływ mają czynniki ekonomiczne, środowiskowe, zdrowotne i aspekty gastronomiczne. Badanie dostarcza również dowodów na temat upowszechniania rolnictwa ekologicznego w Europie i na Węgrzech. Na Węgrzech 5128 gospodarstw zajmuje się rolnictwem ekologicznym, przy czym ponad 300 000 hektarów jest pod uprawą (w tym obszary już przekształcone i obszary w trakcie przekształcenia). W moim badaniu szukam odpowiedzi na pytanie, co skłania rolników do udziału w rolnictwie ekologicznym, a konsumentów do spożywania bioproduktów. Częścią mojego badania była ankieta, w której zapytano o wpływ ostatnich warunków pogodowych i ekonomicznych oraz strategii adaptacyjnych rolników.

Słowa kluczowe: rolnictwo ekologiczne, permakultura, susza, zrównoważony rozwój, wyzwania ekonomiczne

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Study on the knowledge of renewable energies among the younger generation

Abstract

No one needs to be convinced that our future, and our lives, depend to a large extent on our ability to reduce the emissions of the pollutants that are constantly destroying the Earth. Not only the European Union, but almost all countries, have now realised that faster and more effective action is needed if we want to preserve a liveable planet for future generations. However, to make this possible, we also need to ensure that the younger generations now growing up are clearly given the kind of knowledge that will allow them to protect our planet. For this reason, a deeper understanding of sustainability, environmental protection and renewable energies as key modern words becomes really important, as they will be the solution to environmental problems on a global scale. The main purpose of this study is to investigate, with the help of hypotheses, the opinions and attitudes of university students on when they were first introduced to the concept of environmental awareness, how important they consider environmental protection to be in today's world, whether they are more aware of buying organically grown products, and to what extent they consider themselves to be environmentally aware consumers.

Keywords: sustainability, renewable energy, environmental awareness, younger students, university students' attitude

Introduction

The desire to protect our environment is roughly contemporaneous with humanity. In general, it can also be said that environmental problems have always existed – for example, natural disasters – so this is not a new topic. However, by the end of the 20th century and the beginning of the 21st century, the effects of human activities had reached a level where environmental problems (such as water, air, and soil pollution caused by human activities,

the strengthening of the greenhouse effect, the thinning of the ozone layer, the use of CFC gases, industrial and biological pollution, environmental stress caused by scientific and technical development, accelerated population growth, etc.) had become global¹. To make it more apparent, lots of scientists are trying to deal with these issues; for example, according to a study published by Mori and other authors “*the global impacts of biodiversity loss and climate change are interlinked, but the feedbacks between them are rarely assessed*”, furthermore, human activities are responsible for more than 70% of the observed increase in global temperatures since the mid-20th century². Another report by Jorgenson and other authors states that the burning of fossil fuels is the primary driver of climate change, and that the continued use of these fuels will result in increasingly severe impacts on global temperatures, sea levels, and weather patterns. They are also mentioning the issue of an “*increase in energy-intensive practices, such as greater use of heating and cooling or a shift to daily showering, tends to increase emissions, but modifying these practices or adopting others, such as choosing public transportation over driving, can reduce emissions*”³. Air pollution is another major environmental cause of morbidity and mortality worldwide. In this case, air pollution from human activities – particulate matter (PM) with diameter less than or equal to 2.5 µm (PM_{2.5}) – was responsible for an estimated 4.5 million deaths (16% of all deaths globally) in 2015, ranking PM_{2.5} as the fifth greatest risk factor for global mortality⁴. Four years later, air pollution re-

¹ Gy. Bándi, *Környezetvédelmi kézikönyv*, Budapest 2002, 358 p.; Sz. Farkas, L. Z. Kucséber, *The cryptocurrencies' carbon footprint* [in:] *12th IEEE International Conference on Cognitive Infocommunications (CogInfoCom)*: Proceedings, eds. J. Nikodem, R. Klempos, IEEE 2021, 1098 p.; H. Nagy, S. Nene, *Blue Gold: Advancing Blue Economy Governance in Africa*, „Sustainability”, 2021, 13(13), <https://doi.org/10.3390/su13137153>.

² A. S. Mori, L. E. Dee, A. Gonzalez, et al., *Biodiversity–productivity relationships are key to nature-based climate solutions*, „Nature Climate Change”, 2021, 11, p. 1; pp. 543–550, <https://doi.org/10.1038/s41558-021-01062-1>.

³ K. A. Jorgenson, S. Fiske, K. Hubacek, et al., *Social science perspectives on drivers of and responses to global climate change*, „Wiley Interdisciplinary Reviews: Climate Change”, 2019, 10(1), 10.1002/wcc.554, p. 3–4.

⁴ B. J. Lee, B. Kim, K. Lee, *Air Pollution Exposure and Cardiovascular Disease*, „Toxicological research”, 2014, 30, pp. 71–75; S. Khomenko, M. Cirach, E. Pereira-Barboza, N. Mueller, J. Barrera-Gómez, D. Rojas-Rueda, K. de Hoogh, G. Hoek, M. Nieu-

mains responsible for the greatest number of deaths, causing 6.7 million deaths in 2019⁵.

In order to tackle the global problems mentioned above, we need to get the fundamentals right first. For example, to contribute to sustainability, we first need to understand why we need to become 'green consumers' and how we can learn the 'eco-friendly nature'⁶. Basics like reducing waste by reusing and recycling products; conserving energy and water through practices such as turning off lights and using low-flow showerheads; using public transportation, carpooling, or biking instead of driving alone; purchasing products made from sustainable materials and supporting companies with environmentally-friendly practices; planting trees and supporting reforestation efforts or supporting policies and initiatives that promote sustainability and protect the environment are all understandable, and applicable⁷. But the question will arise, how can we support eco-friendly attitude (or behaviour) if we buy products marked with eco-emblems? In this study I focused not only on why the university students consider environmental protection important, but I was also interested in whether they pay attention to buying products from local or organic farming, which they know well.

In this research, two different hypotheses were formulated that are closely related to the themes of sustainability, environmental awareness, and organic farming:

wenhuijsen, *Premature mortality due to air pollution in European cities: a health impact assessment*, „The Lancet Planetary Health”, 2021, vol. 5, issue 3, p. e121–e134, [https://doi.org/10.1016/S2542-5196\(20\)30272-2](https://doi.org/10.1016/S2542-5196(20)30272-2)

⁵ R. Fuller, P. J. Landrigan, K. Balakrishnan, G. Bathan, S. Bose-O'Reilly, M. Brauer, et. al., *Pollution and health: a progress update*, „The Lancet Planetary Health”, 2022, 6, e535–e547, [https://doi.org/10.1016/S2542-5196\(22\)00090-0](https://doi.org/10.1016/S2542-5196(22)00090-0).

⁶ S. A. Narula, A. Desore, *Framing green consumer behaviour research: opportunities and challenges*, „Social Responsibility Journal”, 2016, 12(1), pp. 1–21; P. Kumar, M. J. Polonsky, *An analysis of the green consumer domain within sustainability research: 1975 to 2014*, „Australasian Marketing Journal”, 2017, 25(2), pp. 85–96.

⁷ Cs. Mile, *Key to competitiveness of organic farming in Hungary*, „Managerial Challenges of the Contemporary Society”, 2015, 8(2), pp. 169–174; G. Baranyai, L. Benczõ, Zs. Gáspár Pintér, T. Tóth, Z. Bujdosó, *Combining green energy production with hazardous waste recycling: Railway sleepers as support of photovoltaic systems*, „Ecocycles”, 2022, 8(2), pp. 58–63.

Hypothesis 1. University students consider environmental protection to be very important in today's world and consider using recyclable, environmentally friendly products as one of the main solutions to reducing environmentally harmful activities.

Hypothesis 2. Students generally pay attention to buying products from local or organic farming, which they know well. For them, the most important product feature is environmental friendliness.

The interpretation of sustainability

By the 1960s and 1970s, it had become increasingly clear to many researchers that the global population, the level of resource consumption, and environmental degradation were growing at such a rapid pace that this growth would soon collide with the finite productivity of the global ecosystem, as well as the geological availability of mineral and fossil fuel resources⁸. The reality of these limits has been supported by several specific computer simulation results presented in publications, one of the most significant of which is the book "Limits to Growth." The simulation described in the book captured five parameters of the world economy (specifically: population, agricultural production, natural resources, industrial production, and pollution) between 1900 and 1970, and then projected the computer-generated results forward for the period between 1970 and 2100. The results, in addition to a sort of admiration, also elicited a sense of shock among scientists and environmental experts accustomed to quantitative analysis, as it was the first time that they had truly realised that humanity has limits after all.

Although the aim of the present research is mainly to present the aspects of environmentally conscious behaviour, it is worth briefly mentioning the concept of sustainability – and thus its interpretation – as it is closely related to environmental protection, environmental awareness, and environmental sustainability.

According to the definition of sustainability in the UN World Commission on Environment and Development report, "*Sustainable development is a process of development that meets the needs of the present without compromising the*

⁸ A. A. Bartlett, *The meaning of sustainability*, „Teachers Clearinghouse for Science and Society Education Newsletter”, 2012, 31(1), pp. 1–14.

*ability of future generations to meet their own needs*⁹. In the case of non-expert opinions, the meanings of sustainable development and sustainable growth are often misunderstood or confused, and it is therefore important to underline that sustainable growth usually implies overconsumption of resources due to quantitative expansion, while sustainable development implies some qualitative improvement, such as increased use of renewable energy for environmental protection¹⁰. This is also related to the traditional three pillars of sustainability: environmental, social, and economic sustainability¹¹.

In the context of the study, the definition of environmental factors is particularly relevant, as the term '*sustainable development*' not only encompasses sustainable production functions in the short and long-term, but also significantly affects the contradictions of environmental management that ensure adequate living conditions for future generations¹².

The interpretation of environmental awareness

Compared to the meaning of sustainability, the concept of environmental awareness is much more understandable to most people. However, there is no generally accepted definition or even a clear terminology for understanding

⁹ Report of the World Commission on Environment and Development: Our Common Future, from A/42/427. Our Common Future: Report of the World Commission on Environment and Development, Brundtland report 1987, p. 37.

¹⁰ R. Goodland, H. Daly, *Environmental sustainability: universal and non-negotiable*, „Ecological applications”, 1996, 6(4), pp. 1002–1017; I. Oláh, *Methodological Challenges in the Small Villages, Hamlets and Pigmy Villages of Hungary* [in:] *Changes as a social process*, eds. W. Jedynak, J. Káposzta, J. Kinal, Rzeszów 2017, pp. 93–101.

¹¹ J. P. Boussemart, H. Leleu, Z. Shen, V. Valdmanis, *Performance analysis for three pillars of sustainability*, „Journal of Productivity Analysis”, 2020, 53(3), pp. 305–320; Gy. K. Takácsné, *A fenntartható gazdálkodás és a méretgazdaságosság kölcsönhatásai*, „Gazdálkodás”, 2020, 64(5), pp. 365–386; J. Káposzta, H. Nagy H., *The major relationships in economic growth of the rural space*, „European Countryside”, 2022, 14(1), pp. 67–86; F. Bakó, I. Ercsey, „Ami az enyém, az a miénk is” *A megosztásos gazdaság jövőképe fogyasztói szemmel*. „Mine is ours” *How consumers thinking about sharing economy*, "Kulturális gazdaság". Kautz Gyula Emlékkonferencia – Konferenciakötet, Széchenyi István Egyetem, Győr 2018, pp 1–7.

¹² Gy. K. Takácsné, op. cit.; A. Szeberényi, *Examining the main areas of environmental awareness, sustainability and clean energy* [in:] *Sustainable Development Goals*, eds. D. Guce, H. Uygun, R. Gujrati, Southampton, UK 2021, pp. 258–274.

environmental sustainability. This is why different variants of the same concept can be found in the English literature, such as '*environmental awareness*', '*environmental consciousness*' or '*environmental concern*'¹³. In some cases, these terms do not clearly distinguish between attitudes and behaviours and equate the aforementioned concepts with terms such as environmental responsibility and environmental behaviour. This is why the methods we use to communicate, for example, environmental attitudes and the medium or platform in which we do so – whether online or offline – become really important¹⁴.

However, environmental consciousness can also be defined in a broader sense, as an attitude towards the environmental consequences of human behaviour. Based on the definition of typical behaviour, environmental consciousness mostly represents a tendency to react to environmental problems¹⁵. There is a two-dimensional approach, however, that relates to two natural concerns (or, interpreted differently, motives) that help to understand environmental consciousness more accurately. If we want to specify, one motive is that there are so-called ecocentric individuals who respect and appreciate nature for its own beauty, and therefore think that nature is too valuable to not receive all attention and protection. The other motive is the so-called anthropocentric individuals who believe that nature should be protected mainly for the value of maintaining and improving the quality of human life. This is how the primary sources of environmental protection can be characterised briefly¹⁶.

¹³ M. Ham, D. Mrčela, M. Horvat, *Insights for measuring environmental awareness*, „*Ekonomski vjesnik: Review of Contemporary Entrepreneurship, Business, and Economic Issues*”, 2016, vol. 29, no. 1, pp. 159–176; I. M. Bakos, A. Khademi-Vidra, *Empirical experiences of the hungarian alternative food buying communities*, „*Deturope: Central European Journal of Tourism and Regional Development*”, 2019, 11(1), pp. 55–73.

¹⁴ A. Szeberényi, K. Ritter, *Opportunities for online communication in strengthening environmental awareness* [in:] *4th International Management, Quality and Marketing Conference Chetvertaya Mezhdunarodnaya konferentsiya po menedzhmentu, kachestvu i marketingu*, 15–16.04.2021r., eds. K. Dióssi, S. Ovsianikova, A. Mikáczó, Moskva 2021, pp. 83–97.

¹⁵ B. Culiberg, I. Rojšek, *Understanding environmental consciousness: a multidimensional perspective* [in:] *Vrijednost za potrošače u dinamičnom okruženju*, eds. B. Grbac, M. Meler, Rijeka 2008, pp. 131–139.

¹⁶ S. C. G. Thompson, M. A. Barton, *Ecocentric and anthropocentric attitudes toward the environment*, „*Journal of environmental Psychology*”, 1994, 14(2), pp. 149–157; H. Kopnina, *Testing ecocentric and anthropocentric attitudes toward the sustainable development (EAATSD) scale with bachelor students*, „*REBRAE*”, 2017, 10(3), pp. 457–477.

In their research, Carlson and Van Staden report on the essential importance of distinguishing between environmental awareness and environmentally conscious behaviour (also known as '*green consumption*'), as environmental awareness can typically precede environmentally conscious (consumer) behaviour¹⁷. This means that just because someone is environmentally aware, it does not necessarily mean they will automatically behave in an environmentally friendly way, and they cannot be considered as a '*green consumer*'¹⁸. To become a green consumer, a person must first set specific goals for themselves, after which they must take several, often not easy, additional steps. Environmental awareness is only the first step towards becoming such an individual. From a scientific perspective, it can be said that environmental awareness is most operationalised in environmentally motivated, or environmentally friendly consumer behaviour, when environmentally relevant attitude is supported by actual environmentally friendly behaviour.

With the main concepts understood, the primary goal of our research is to use the two hypotheses mentioned at the beginning of the study to show and analyse whether the university students participating in the study can only be theoretically considered environmentally aware or whether they are also characterised by environmentally friendly consumer behaviour in practice. The context and details of the research are presented in detail in the chapter of Material and Methods.

Material and Methods

As for the methodological context, this is a very complex research conducted among students at the Budapest Metropolitan University. Prior to the

¹⁷ D. H. Carlson, F. Van Staden, *Environmental concern in South Africa: The development of a measurement scale*, „New Voices in Psychology”, 2006, 2(1), pp. 3–30.

¹⁸ S. A. Wagner, *Understanding green consumer behaviour: A qualitative cognitive approach*, London 2003, 304 p.; W. Leal Filho, A. Finisterra Do Paco, M.L.B. Raposo, *Identifying the green consumer: A segmentation study*, „Journal of Targeting, Measurement and Analysis for Marketing”, 2009, 17(1), pp. 17–25; Cs. J. Kovács, *Termékmárkázás Komlósán*, „Acta Regionis Rurum”, 2018, 12, pp. 68–77; R. Machová, T. Zsigmond, F. Bakó, Z. Šeben, *Az organikus termékekkel kapcsolatos fogyasztói szokások a dunaszerdahelyi lakosok körében Consumer habits related to organic products among the residents of Dunaszerdahely*, „Tér Gazdaság Ember”, 2022/2, 10, pp. 33–52.

research, several hypotheses were formulated and a total of 58 questions were asked of the students in the primary research questionnaire. A total of 307 students completed the online questionnaire between April and June 2021, with a gender distribution of 120 males and 187 females.

In the study, statistical methods were used to examine the results in more detail. Of these, only those that show results relevant for statistical correlation analysis are presented in this study. For the correlation coefficient, it is considered a level of less than 0.05 to be significant¹⁹, and briefly the indicators of the strength of the identifiable relationships are discussed, which for the results presented are as follows:

$ r = 0$	no detectable relationship;
$0 < r < 0.1$	a value in this interval indicates a negligible weak relationship between the two variables;
$0.1 \leq r < 0.3$	a value in this interval indicates a weak relationship;
$0.3 \leq r < 0.5$	a value in this interval indicates a moderate relationship;
$0.5 \leq r < 1$	a value in this interval indicates a strong relationship.

Results

As previously mentioned, in this research only that results will be presented that are closely related to the hypotheses formulated.

Hypothesis 1. University students consider environmental protection to be very important in today's world and consider using recyclable, environmentally friendly products as one of the main solutions to reducing environmentally harmful activities.

In relation to the examination of the first hypothesis, two specific questions were asked to the students. In the first question, I was interested in how important they consider environmental protection in today's world. They were asked to indicate their answers on a scale of 1 to 5, where "1 = I do not consider it important at all, ... 5 = I consider it very important." According to the results, 67.4% of the respondents consider it very important,

¹⁹ C. D. Gray, P. R. Kinnear, *IBM SPSS Statistics 19 made simple*, „Psychology Press”, 2012, 671 p.; M. Kupi, F. Bakó, *The possibilities of AI applicability in tourism*, „Extraction”, 2021, 3(156), 357.

27.4% consider it moderately important, and about 5.2% of the respondents belong to the group who consider it less or not important at all. The average score on the 5–point scale was 4.61, which can be considered a higher result compared to the results obtained in previous research²⁰. The median and mode values also took on the maximum value of 5, so based on the statistical results, it can be concluded that the respondents do indeed consider the issue of environmental protection important.

However, in order to confirm this hypothesis, it was necessary to examine the second question as well. From the four statements provided, the students had to select the one according to which the most environmentally harmful activities could be reduced (Figure 1).

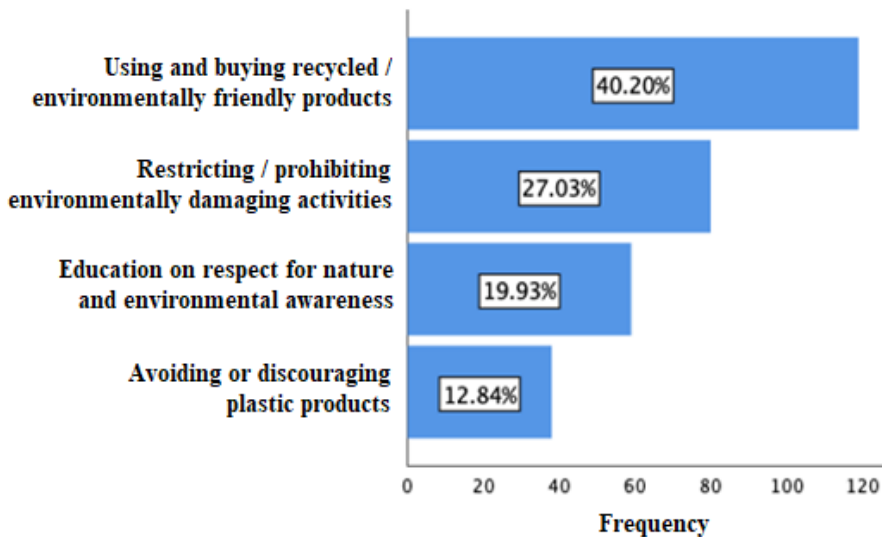


Figure 1. Distribution of student opinions on the most effective ways to reduce environmentally damaging activities

Source: Own edited figure based on primary research, n= 307

According to the results of Figure 1, a significant portion of respondents (40.2%) believe that environmental pollution can be most effectively reduced

²⁰ A. Szeberényi, *Összehasonlító elemzés a gyöngyösi diákok körében környezettudatossági aspektusból* [in:] *SMART tényezők vizsgálata a hazai megyei jogú városokban a Modern Városok Program tükrében: konferenciakiadvány*, eds. K. Némediné Kollár, P. László, Gödöllő 2018, pp. 45–50.

through the use and purchase of recycled or environmentally friendly products. The second most preferred option, which would require more drastic intervention but is considered more effective, is "*Restricting/prohibiting environmentally damaging activities*", which was chosen by 27.03% of the students. It is worth noting that among the options listed, this method is probably the fastest. As example, it can be mentioned the sudden clearing of air and water in countries like Bangladesh, India, and China due to the Covid-19 pandemic-induced global shutdown²¹. 19.93% of the respondents believe that the third option, which is related to the respect for nature and the education of various methods of environmental awareness, would be the best solution. In this regard, it should be mentioned that among the options listed, this method is the one that most requires long-term thinking, as education levels already show more generational differences (e.g. nursery, primary and secondary school, university). The fourth and final option, the avoidance and discouragement of plastic products, was chosen by 12.84% of university students.

The first hypothesis, therefore, has been confirmed based on the presented results, as university students do indeed consider environmental protection to be very important, and the use of recyclable and environmentally friendly products (40.2%) is considered one of the main solutions to reducing environmental pollution.

Hypothesis 2. Students generally pay attention to buying products from local or organic farming, which they know well. For them, the most important product feature is environmental friendliness.

The second hypothesis concerns the extent to which students pay attention to purchasing locally and/or ecologically produced products, as well as how familiar they are with the system of such products. Additionally, in this study it has been hypothesised that when the students purchasing such products, the degree to which they are environmentally friendly plays a role in their decision-making and how important this product feature is to them.

To investigate this hypothesis, it was necessary to ask how much attention university students pay to purchasing local food products when shopping. Similarly, to before (and in later questions as well), they had to indicate

²¹ IQAir (2022), *Air quality and pollution city ranking*, <https://www.iqair.com/world-air-quality-ranking> (accessed: 25.11.2022).

their answers on a scale from 1 to 5, where "1 = I do not pay attention at all, ... 5 = I always pay attention".

When purchasing food, the domestic product aspect is moderately relevant, as only 7.5% of respondents always pay attention to buying domestic food. A significant portion (30.3%) regularly pays attention to this, but it rarely happens that they don't; 35.4% pay attention to buying domestic food as much as they don't; 14.7% rarely pay attention to this factor; and about 12.1% are those who don't pay attention to this factor at all. The average value of 3.07 on a 5-point scale also shows that this is not a relevant consideration for the students.

The situation is even worse when it comes to purchasing food from organic farming, as only 5.2% of students pay attention to this aspect and 33.8% don't pay attention to buying that kind of foods at all. Their lack of interest is mainly due to the fact that they are often not aware of the meaning and types of foods from organic farming, so categorising those type of foods is not an easy task for them. Another reason which is very crucial that these students do not have independent income, so they are more price sensitive. The average of 2.88 on a 5-point scale shows that this is an even less important consideration than the factor of buying domestic products.

Figure 2 relates to the topic of organic farming, as I was interested in whether the students were familiar with the system of eco-emblems (environmentally friendly certification marks).

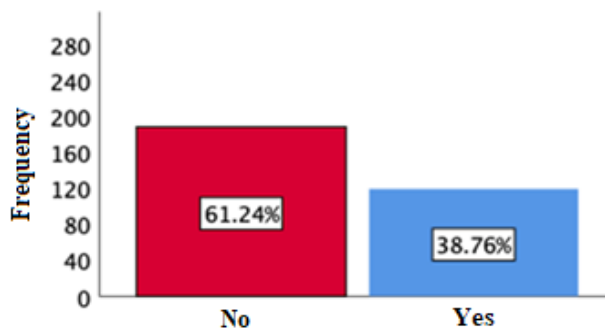


Figure 2. Distribution of students' opinions on whether they are familiar with the eco-emblem system (%)

Source: Own edited figure based on primary research, n= 307

The results of Figure 2 shown that the detailed presentation of this topic should be an integral part of environmental education in the future, as a significant portion of the students (61.24%) are not familiar with the system of eco-emblems at all.

In the statistical correlation analysis, however, it was proven that there is a moderate, significant relationship between the knowledge of the system of eco-emblems and the extent to which the participants in the research take into account whether the food they purchase is produced through organic farming. It can be clearly inferred from the results that those who are familiar with the system of eco-emblems give significantly higher ratings (at least 4) to this purchasing criterion than those who are not familiar.

The final question related to the second hypothesis was to determine which of the product characteristics – namely "Price", "Brand", "Quality" and "Eco-friendly nature" – are considered important by the university students participating in the research. The four characteristics were also rated on a scale of 1–5, where "1 = I do not consider it important at all, ... 5 = I consider it very important" categories were represented.

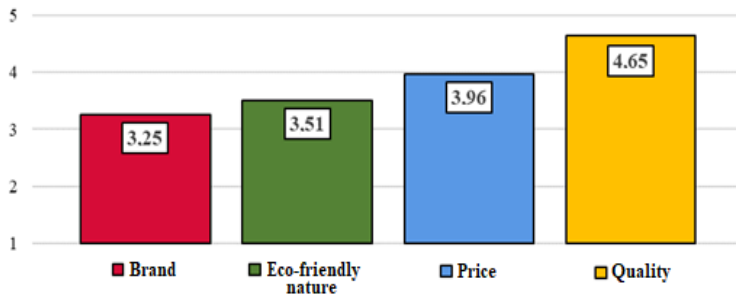


Figure 3. Increasing average of the product attributes studied according to how students consider them important

Source: Own edited figure based on primary research, n= 307

In relation to Figure 3, the following key results should be noted: 11.1% of the participants consider brand to be the most important product feature, while 5.5% consider it to be unimportant. Among the features studied, brand achieved the lowest average, with a value of 3.25. The most important feature from the perspective of the study and hypothesis, i.e. the environmental feature, is considered the most important feature by only 13.7% of the re-

sponding university students, while 3.3% consider it to be unimportant. This preference has an average of 3.51, which is significantly lower than quality but still higher than price. Based on the average of 3.96, price is the second most important feature for the students. Specifically, 34.2% of them think that this feature is the most important, while 1.6% think it is unimportant. The fourth and last feature is quality, which has an average of 4.65. This clearly shows that quality is significantly higher than the other three features for university students, with 70% of them considering it the most important feature when purchasing a product. As an additional interesting fact, this was the only feature for which no student marked a value of 1, meaning that no one considered it unimportant.

The second hypothesis – which related to products from organic farming, knowledge of their systems, and emphasis on the environmentally friendly nature of product features – was clearly disproved by the results obtained. Only a small percentage of students (7.5%) pay attention to purchasing organic products, a significant portion of them do not know eco-emblems, and the environmentally friendly nature was not found to be important to them.

Conclusions

One of the main objectives of the study was to present the results of the own made primary research using statistical results and figures, after introducing a brief definition of sustainability and environmental awareness.

In order to make this more transparent and easier to understand, two hypotheses have been formulated, the first of which focused on the opinions of university students on whether they consider environmental protection to be important and how they view the use of reusable and environmentally friendly products as a sustainable solution. This hypothesis was confirmed, as 67.4% of the students participating in the research consider environmental protection to be truly important and more than 40% believe that the use of reusable and environmentally friendly products can provide a solution in the long-term for humanity.

To verify the second hypothesis, it was necessary to use more relevant questions and apply correlation analyses to understand more specific statistical associations and relationships. The assumption in this direction was that stu-

dents generally try to pay attention to buying domestic or eco-farming products, they know the system well, and when they buy such products, the environmental aspect is the most important product characteristic for them in relation to price, brand and quality. The results obtained were surprising, as they completely disproved this hypothesis in all respects. Among the specific results in this regard, it is worth highlighting that only a very small percentage (7.5%) of students pay attention to buying eco-products, 61.24% do not know the system of eco-emblems and the environmental aspect is not among the most preferred characteristics, as price and quality are more important to them.

In answering the question raised in the study, it can be stated that the university students who participated in the research represent the level of environmentally conscious individuals in theory – that is, they have a basic level of knowledge on the topic – but they do not reach the level of "green consumer" behaviour, characterised by environmental friendliness, due to the lack of specific goals and their practical implementation and limited financial opportunities. Therefore, the continuation of this research in this regard is recommended.

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Badanie dotyczące wiedzy na temat odnawialnych źródeł energii wśród młodego pokolenia

Abstrakt

Nikogo nie trzeba przekonywać, że nasza przyszłość, a także nasze życie zależą w dużej mierze od zdolności do ograniczenia emisji zanieczyszczeń, które nieustannie niszczą Ziemię. Nie tylko Unia Europejska, ale prawie wszystkie kraje zdały sobie sprawę, że konieczne są szybsze i skuteczniejsze działania, jeśli chcemy zachować zdolną do życia planetę dla przyszłych pokoleń. Aby jednak było to możliwe, musimy również zadbać, aby dorastające obecnie młode pokolenia otrzymały wiedzę, która pozwoli im chronić naszą planetę. Z tego powodu głębsze zrozumienie zrównoważonego rozwoju, ochrony środowiska i energii odnawialnych jako kluczowych współczesnych słów staje się naprawdę ważne, ponieważ to one będą rozwiązaniem problemów środowiskowych w skali globalnej. Głównym celem niniejszej pracy jest zbadanie za pomocą hipotez, opinii i analizy postaw studentów uniwersytetu tego, kiedy po raz pierwszy zapoznali się z pojęciem świadomości ekologicznej, jak ważna jest ich zdaniem ochrona środowiska w dzisiejszym świecie, czy są bardziej świadomi kupowania produktów uprawianych ekologicznie i w jakim stopniu uważają się za świadomych ekologicznie konsumentów.

Słowa kluczowe: zrównoważony rozwój, energia odnawialna, świadomość ekologiczna, młodzi studenci, postawa studentów uczelni wyższych

