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Culture and Urban Development  
(The Case of Pécs)

**CENTRE FOR REGIONAL STUDIES  
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**No. 16**

**Culture and Urban Development**

**(The Case of Pécs)**

**by**

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## INTRODUCTION

Similarly to a number of problematical regions (where various phenomena of the crisis prevail in a concentrated form) of Hungary, the development of Baranya county and the city of Pécs has reached a turning point (*Figure 1*). It is no longer possible to proceed on the road of regional and settlement development that has been followed up till now. The key to overcome the crisis is the establishment of a modern economy and the transformation of the economic structure. A precondition to this is a thorough examination and systematization of the endowments of Pécs and the priorities of a long-term social and economic policy.

In order to define the intersections of the regional factors and the forecast county, national, and international level courses it is necessary to select new guiding principles.

A structural transformation needs, in lieu of the traditional sectorial factors of regional and settlement development, a thorough examination of "functional" elements (status and tendency of spatial division of labor, organizational-economic structure, development means), which are more able to manifest the complexity of socio-economic movements. The market economy will need a settlement policy different from the present one, too (*Enyedi 1990*).

Restructuring and the elaboration of a new urban development strategy, therefore, must be considered as simultaneous and interdependent tasks. International experience verifies that, in order to revitalize declining regions, it is inevitable to use new guiding principles to connect the regional movements, their actors, and the spatial organization of the economy; and new criteria are necessary to evaluate the relationship of these to the altered conditions.

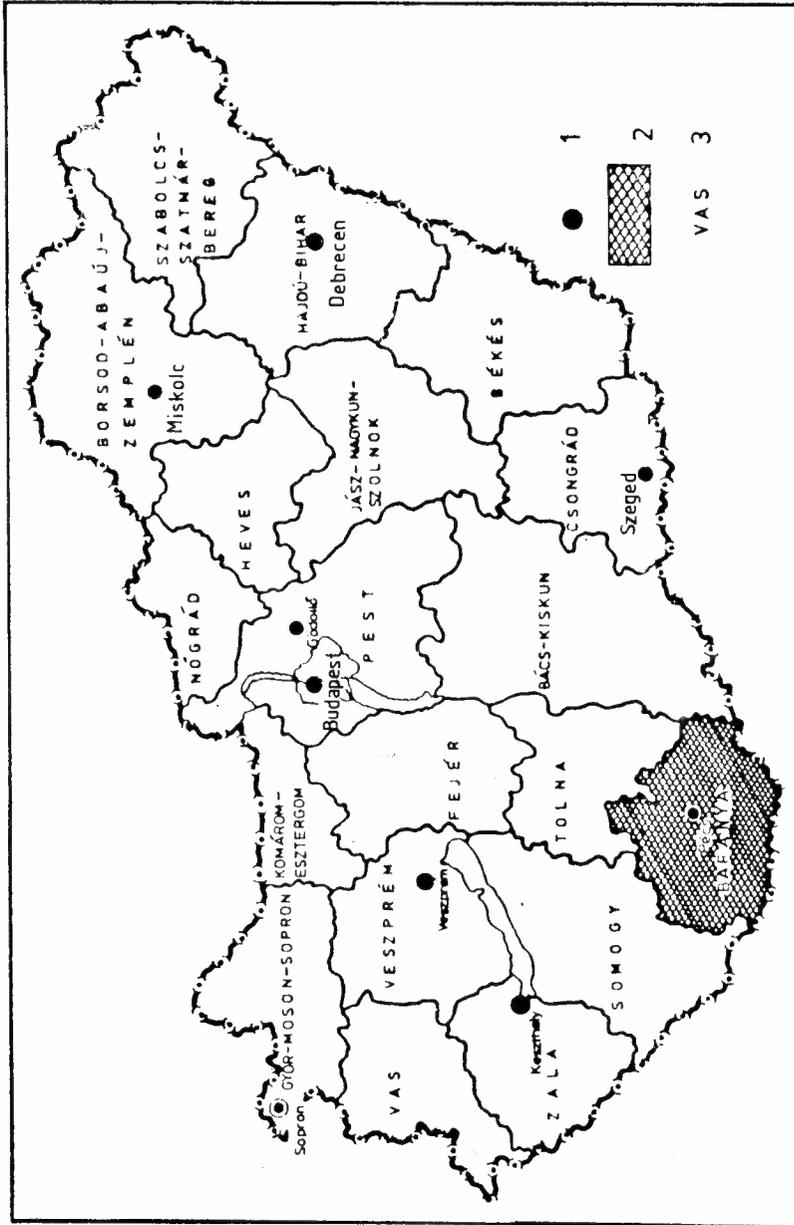
The common basic principle of the international revitalization programs is that *long-term perspective of recovering from a social and economic crisis of a city is based not only on the well established sectorial decisions and financial sources, but it is also dependent on – what may be the most impulsive power in the future – the success of settlement development endeavors of the local social, political, and economic powers being realized in consistent programs; that is, on a successful realization and organization of an innovative urban development strategy* (*Bennett-Krebs 1991, Castells 1987, Smith-Feagin 1987*).

The major effective factors of solving local crisis situations in Hungary (besides the institutional and ownership aspects, such as privatization, small and medium business development, etc.) have been linked to the traditional regional development concepts: saving enterprises in financial difficulty, restructuring, starting new production plants within the industry.

These solutions can, in the case of the city of Pécs, bring about partial success only. Primarily, because these measures can not exceed the narrow conceptual framework that in the past decades, besides some objective conditions, have limited the direction and possibilities of development of the city (*Horváth – Hrubí 1992*). More precisely, in addition to the existence of coal and uranium deposits, *ideological and political considerations* played role in forming the character of the city, too. Among

Figure 1

Baranya county and city of Pécs, located in southern Hungary



Key: 1—University cities, 2—Baranya county, 3—counties.

these was especially the vulgar-Marxist theorem, and the practice that tried to realize it, that claims that industry, and particularly heavy industry, is the key element of the economy; with even more emphasis on the primary resource exploitation in an economy oriented to autarchy. These factors, together with some other components resulted in the exaggerated industrialization policy that often did not account for actual needs and possibilities. The role of cities in the social division of labor was misinterpreted, i.e. that their function as industrial centres was over-emphasized. This policy artificially, though not always intentionally, increased the economic and political contrasts among cities and villages; while in a healthy society the two types of settlements live together not in rivalry but in symbiosis, assisting each other.

Some important historical facts and observations in connection with the development of the cities and their functions seem to have been forgotten. First of all, that the city is the main location not only for the *industry* that has been separated from the agriculture (although often profitably utilizes it); but it is a similarly important *commercial, administrative, cultural (including educational), religious, military, health care, etc.* central place, too.

These areas of social activity are not only *urban functions* carried by central settlements of smaller or greater regions in the interests of the settlements within their gravity zones, too, as a service; but these have been, since the medieval ages, *urban development and city forming factors* as well.

Although there has not been much said about complex development concepts of *regional centers of intellectual life* in Hungary yet; some movements into the direction of regionalizing intellectual life have been observed already, while the most important characteristic in this debate is the increase of objections. Opposition and objections have various background sources.

Administrative and institutional interest groups have emphasized primarily the illusory nature of forming such regional centres. Nevertheless, the hardest obstacle seems to have been the county political interests, which strived for having higher and public educational institutions in each county. Diverging county interests did not aim at creating regional cultural centers but rather at dissipating resources which could have been used for concentrated development. The frittered resources have been made even less significant by the fact that the future or desirable intellectual centers have not been playing any role of political or administrative centers in their wider gravity zones. This conceptional course of the 1970s and 1980s has to be considered an unfavorable line of development; it caused the institutionalizing of administrative levels that are not suitable for creating a national network of higher educational, academic, and art institutions.

The present problems of Pécs, one of the regional intellectual centres of the country prove that not only industry, or certain sectors of industry, are in crisis but the whole economy. Not only the industrial structure was one-sided and disproportionate but the financing and structure of the various urban functions, too. Therefore, if we want to overcome the present troubles, the future must be thought and planned as a complexity, seeing the healthy urban life as one unity. Furthermore, the interdependency and the links between the city and its surroundings must be taken into consideration in every step. It is impossible to carry out the changes and the creation of a city that is developing dynamically in the long term without *the complex development of the intellectual infrastructure closely connected to the economy*. If the future economic functions of Pécs will be connected to technological innovation, industrial restructuring, and marketable

production, the capacity and institutional structure of the intellectual potential will play a determinant role. In the social and economic development of the city such courses will need to have happened by the turn of the century that result in: (a) that a decreasing, but highly skilled labor force of manufacturing industries will produce an output value higher than the present one; and (b) the major part of employees will be found in the value-producing tertiary sectors.

This longer term future image of the city makes it very important to *examine the cultural resources of Pécs from the viewpoint of urban development, too*. A number of examples of revitalization of depression areas in developed countries prove that the intellectual life, culture, cultural services mean important forces of urban development, and take part in the re-organization of the socio-economic structure of the city in economic crisis as pulling sectors.

First, these sectors, as *value transmitters*, satisfied the increasing intellectual needs; assisted the change of identity linked with traditional economic bases to new local identity. Second, as *value producers*, contributed to the expansion of the economic basis of the city. Third, *they attracted capital* carrying the prestige generating function of cultural elements.

This triple urban development function of culture has not yet been taken into account in Hungarian settlement development policy. Culture, as economic sector, has been approached with the traditional fiscal attitude, thus the above complexity has not been realized in urban development. Therefore, it can be an important new model if a city can base its cultural development on the above approach, that is, the direct and indirect impacts of culture on the economic structure can be demonstrated in a wider social and economic environment; and if new objective needs for the expansion of cultural services can be revealed.

## 1. SPATIAL DEVELOPMENT OF INTELLECTUAL POTENTIAL IN HUNGARY

The present spatial structure of the intellectual resources of Hungary is a result of long historical development.

Apart from the University of Pécs which was founded in 1367 (during the Western European big wave of founding Universities) and operated through near a hundred years, there was no higher education institution in Hungary till the middle of the 17th century. Hungarian intellectuals studied at Italian, Dutch, Swiss, German, Polish and Czech Universities (*Farkas – Tamás* 1981). The new University founded in 1635 in the territory of the present day Slovakia (and moved to Buda in 1777) was the only higher education institute for near two hundred years. After the establishment of the Hungarian Academy of Sciences (1828) a number of scientific societies were founded in the country, and in 1872 the University of Kolozsvár began to work (presently Cluj, Rumania). The idea of a third University was raised around the millennium of the Hungarian state. Finally, the government founded, in 1912, two universities (one in Debrecen and one in the present day Slovak capital, Pozsony). In this time there can be found as many as 60 colleges in the area of historical Hungary.

After the Trianon Peace Treaty the universities and colleges outside of the new Hungarian borders moved to the mother country, although this usually meant moving people while the majority of equipment remained beyond the borders. In the early 1920s the University of Pécs and, in the North-Western part of the country, the Sopron University of Mining and Forestry were formed.

By this time higher education had been concentrated in the capital. While in the early 1880s 33.6 per cent of the students of higher education studied in Budapest, in 1903 this number was already 57.9 per cent, and in 1934 53.1 per cent. Similar tendency of concentration can be observed in other sectors of research infrastructure (libraries, book- and periodical publishers), following the increased strengthening of the role of the capital in the administration and economy of the country.

After World War II the country can be characterized fundamentally by the differentiation of intellectual potential, while quantitative index numbers were improved significantly. In the whole territory of the country the bases of elementary, secondary, and vocational education were built. The Hungarian Academy of Sciences formed its own research institute network; the various ministries and central authorities organized their own research and development centres, too. Development of research institutes was almost entirely limited to the capital (*Table 1*).

The Hungarian research and development sector has been broken down into a number of separate parts. The independent research and development institutes have the highest level of budget, followed by industrial R + D centres, and then higher education institutions. However, on the basis of the number of professional employees (researchers) the order is reversed (*Table 2*).

The spatial concentration of research and development preserved the pre-World War II level in Hungary. This is characteristic for all types of R + D organizations. Ratios similar to the concentration of research institutions in the capital can be observed in the case of industrial research centres (59.1 per cent of their employees and 48.5 per cent of their budget is in the capital), and in the case of higher education institutions the weight of the capital is slightly smaller (46.0 per cent of employees, 48.5 per cent of budget).

This concentration should be regarded as an alarming situation. It is well known that research is always situated in a concentrated way, and finds its intellectual infrastructure in big cities. (Apart from agricultural research the important bases of which are in the countryside.) However, this extreme concentration makes Budapest the only many-sided research centre in the country, a single island of intellectual renewal and modernization. (This hinders modernization further, because e.g. more than 50 per cent of modern small business can be found in the capital, 42 percent of industrial exports come from Budapest, while only 21 percent of the population of the country and of the industrial employees live in the capital.) *Modernization of a country can not be limited to one area* – as it is demonstrated by the case of developed market economies.

The predominance of the capital is not the only spatial disproportion. Near two third of the countryside research capacity is limited to six counties (*Table 3*). Principally the core region of the country, i.e. Pest county around the capital, furthermore, the counties of the large university centers (Pécs, Debrecen, Szeged, Miskolc, and Veszprém) show outstanding data. However, the weight of these compared to the capital is still slight.

Table 1

Change of the regional structure of research institutions, 1960–1990

	Number of employees at research institutions			Percentage share		
	1960	1970	1990	1960	1970	1990
Budapest	13,118	24,941	11,826	85.5	89.2	76.1
Countryside	2,227	3,859	3,710	14.5	10.8	23.9
Total	15,345	28,800	15,536	100.0	100.0	100.0

Source: *Farkas–Tamás 1981. p. 107.; Tudományos kutatás és kísérleti fejlesztés*  
 1990. p. 17.

Table 2

Data of R + D organisations, 1990

	Number of R + D places	Per cent	Number of employees	Per cent	Expenditure Million Ft	Per cent
R + D institutions	69	5.4	15,536	26.0	12,578	43.9
Higher education	940	74.9	22,787	38.2	5,071	17.7
Business R + D places	174	13.9	17,134	28.7	9,528	33.3
Other organizations	73	5.8	4,266	7.1	1,442	5.1
Total	1,256	100.0	59,723	100.0	28,619	100.0

Source: *Tudományos kutatás és kísérleti fejlesztés. 1990. p. 17., 21.*

Table 3

Data of R + D places by counties, 1987

County	Total number of R + D employees	Per cent of total	R + D expendi- ture		Percentage share of expendi- ture	Expenditure per one researcher	
			Million Ft	Rank		Thou- sand Ft	Rank
Budapest	50,839	65.5	18,730	1	70.5	741	9
Baranya	1,944	2.5	223	12	0.8	185	20
Bács-Kiskun	678	0.9	132	13	0.5	422	11
Békés	756	1.0	246	10	0.9	1,319	4
Borsod-Abaúj-Zemplén	2,322	3.0	720	6	2.7	725	10
Csongrád	3,656	4.7	747	5	2.8	412	13
Fejér	2,455	3.2	1,250	2	4.7	1,577	2
Győr-Moson-Sopron	1,449	1.9	579	8	2.2	808	8
Hajdú-Bihar	3,225	4.1	631	7	2.4	362	16
Heves	570	0.7	73	16	0.4	226	19
Komárom-Esztergom	624	0.8	233	11	0.9	1,137	6
Nógrád	241	0.3	38	19	0.1	421	12
Pest	4,050	5.2	1,226	3	4.6	899	7
Somogy	220	0.3	44	18	0.2	340	17
Szabolcs-Szatmár-Bereg	745	1.0	120	14	0.4	369	15
Szolnok	711	0.9	260	9	1.0	1,227	5
Tolna	247	0.3	88	15	0.4	1,655	1
Vas	162	0.2	19	20	0.0	243	18
Veszprém	2,414	3.1	1,150	4	4.3	1,345	3
Zala	355	0.4	65	17	0.2	409	14
Total	77,663	100,0	26,574	-	100.0	986	-

Source: *Tudományos Kutatás és Fejlesztés*. 1987. p. 48.

The disproportionate development of R + D basis is demonstrated by the spatial separation of industrial research centers and institutions of basic research (academic research institutes and universities). In the northern industrial zones industrial research centers are more dominant while basic research is insufficient. Only one tenth of industrial research institutions can be found in university towns. This spatial disproportion puts a constraint on technological modernization and the establishment of its necessary regional organizational forms (industrial and innovation parks, technological centers, etc.) (Enyedi, 1987).

It was pointed out above that, although there is a high concentration of *higher education* in the capital, its indices are still more favorable than those of the R + D network. Besides the deformed spatial structure the quantitative underdevelopment of higher education is an obstacle to Hungarian economic recovery. Hungary has a rather unfavorable position among European countries considering the number of university and college students per one hundred thousand people (Table 4).

The internal structure of higher education is not modern either. 54.4 percent of students study at universities, and the rest at independent colleges giving shorter and lower level high education.

The spatially scattered countryside high education network can not balance the outstanding position of the capital (Table 5). There has not been formed large, competitive universities in Hungary that could easily be able to connect into the European research and education networks. Countryside high education bases are small even from the European point of view (the number of their students is between 500 and 10,000). This is a result of the inadequately considered development policy, as a consequence of which in 33 settlements of the county can higher education institution be found (the average number of students per institution is, without the data of Budapest, 1,726, which is much less than the European average) (Figure 2).

It is a principal, not only cultural but regional development, task that regional intellectual centers should be reinforced. University towns have the best opportunity for this. Larger cities with many-sided intellectual potential – Debrecen, Pécs, and Szeged – are situated in the less industrialized Eastern and Southern peripheries of the country with their deficient technological training background; whereas the academic research basis of the industrialized North is weak and one-sided. Outside of Budapest in Northern Hungary there is university only in Miskolc, but its industrial engineering profile has fallen into deep crisis. Therefore, the capital is not only quantitatively predominant but this is the only area of the country where industry, developed service sector, and research and development capacity have met each other. This way, at the entrance to the innovative economic development that needs highly intensive research the advantages of Budapest are much greater than they were ever in the era of extensive industry development. This is alarming because if research and production is separated spatially to this extent then diffusion of modern industries, business forms, and innovation will be difficult, and even the up-to-date "enclave" will not be able to expand but it will rather waste away.

Table 4

Number of students in higher education in European countries, 1980–1985

Country	Number of students, 1,000		Change in per cent	Number of students per 100 thousand inhabitants		Change in per cent
	1980	1985		1980	1985	
Belgium	196.2	247.5	26.1	2,111	2,499	18.4
Denmark	106.2	114.6	7.9	2,074	2,236	7.8
Germany	1,223.2	1,550.2	26.7	1,987	2,546	28.1
Greece	121.1	148.5	22.6	1,256	1,518	20.9
Spain	681.0	787.9	15.7	1,819	2,067	13.6
France	1,076.7	1,255.5	16.6	2,005	2,310	15.2
Ireland	54.7	67.4	23.2	1,610	1,888	17.3
Italy	1,117.7	1,182.0	5.7	1,959	2,065	5.4
Netherlands	360.0	390.2	8.3	2,544	2,704	6.3
Portugal	92.2	101.3	9.8	932	1,005	7.8
United Kingdom	827.1	1,007.0	21.7	1,478	1,795	21.4
Austria	136.8	173.2	26.6	1,822	2,309	26.7
Finland	123.2	128.0	3.6	2,577	2,616	1.5
Norway	79.1	94.1	19.0	1,936	2,278	17.7
Sweden	203.7	220.9	8.4	2,451	2,650	8.1
Switzerland	85.1	110.1	29.3	1,346	1,790	33.0
Bulgaria	101.4	113.8	12.2	1,144	1,255	9.7
Czechoslovakia	197.0	169.3	– 14.1	1,287	1,087	– 15.5
Yugoslavia	412.0	360.4	– 12.6	1,848	1,571	– 15.0
Romania	192.8	159.8	– 17.1	868	694	– 20.1
Poland	589.1	454.2	– 22.9	1,656	1,221	– 26.0
Hungary (1990)	101.2	102.4	1.2	944	989	4.8

Source: *Nemzetközi Statisztikai Évkönyv*. 1989. p. 334.

Table 5

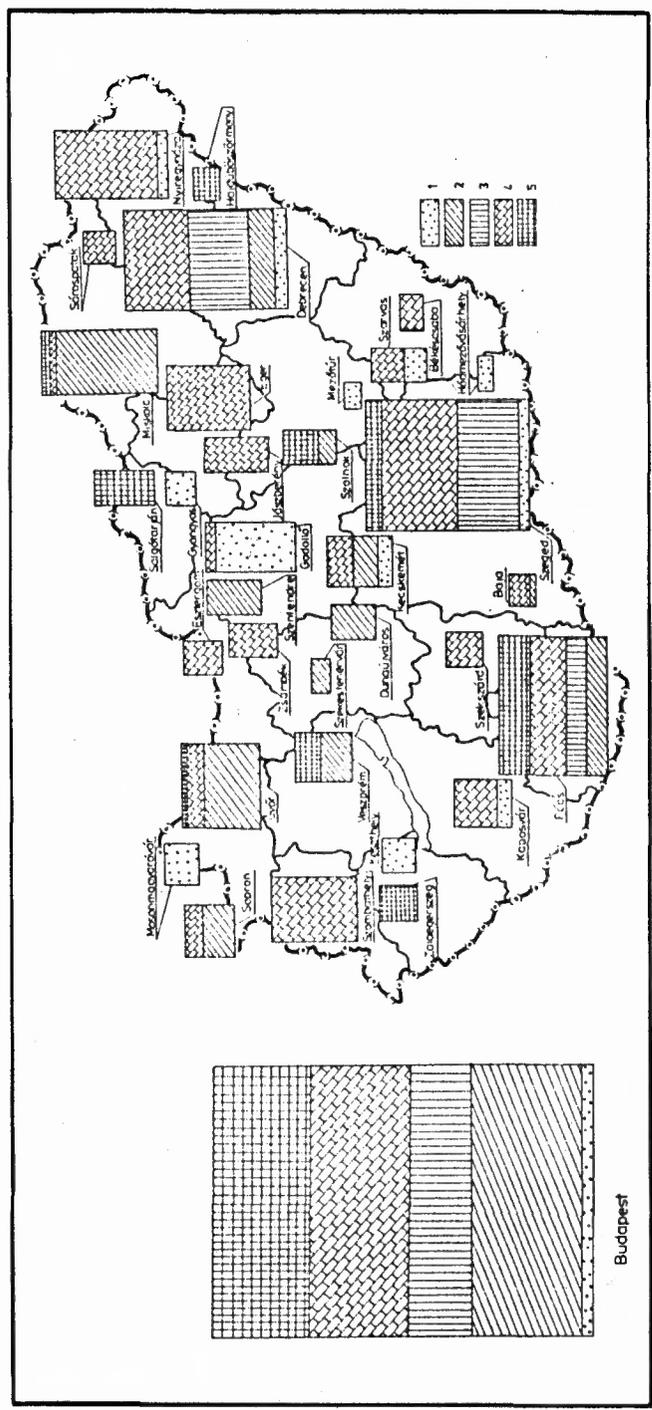
Number of students in higher education by counties, 1980–1990

County	Number of students		Percentage change	Share in per cent 1990
	1980	1990		
Budapest	47,836	45,417	– 5.1	44.4
Baranya	7,446	5,309	– 15.3	6.2
Bács-Kiskun	2,959	2,359	– 20.3	2.3
Békés	903	1,178	+ 30.5	1.2
Borsod-Abaúj-Zemplén	3,837	4,226	+ 10.1	4.1
Csongrád	8,582	10,041	+ 16.9	9.8
Fejér	1,945	1,128	– 42.1	1.1
Győr-Moson-Sopron	4,987	4,633	– 7.1	4.5
Hajdú-Bihar	6,904	7,922	+ 14.7	7.7
Heves	2,297	3,038	+ 32.2	3.0
Komárom-Esztergom	950	726	– 23.6	0.7
Nógrád	726	558	– 23.2	0.5
Pest	1,979	3,378	+ 70.8	3.3
Somogy	1,375	1,286	– 6.5	1.3
Szabolcs-Szatmár-Bereg	3,188	3,192	+ 0.1	3.1
Szolnok	1,379	1,541	+ 11.7	1.5
Tolna	259	552	+ 113.1	0.5
Vas	1,489	2,288	+ 53.6	2.3
Veszprém	887	1,248	+ 40.7	1.2
Zala	1,238	1,367	+ 10.4	1.3
Total	101,166	102,387	+ 1.2	100.0

Source: *Területi Statisztikai Évkönyv*. 1980. p. 232.; 1990. pp. 190–194.

Figure 2

Higher education institutions in Hungary



Key: Type of institutions: 1–Agricultural, 2–Technical, 3–Natural sciences, 4–Humanities, 5–Economics and law,  
 1 cm<sup>2</sup> = 2,600 students

## 2. INTELLECTUAL AND CULTURAL RESOURCES OF PÉCS

The number one element of intellectual resources is *population*, with its composition, level of education, employment structure.

Not considering now the demographic and educational composition of the city, let us demonstrate the importance of the cultural resources of Pécs by the *sectorial distribution of active wage-earners*. Similarly to other large cities and county seats of the country, the ratio and number of people employed in cultural and academic services is higher than the national average. On the basis of the data of the censuses in 1970 and 1980 the structural change and modification of the proportion of this sector can be demonstrated (Tables 6 and 7). Between 1970 and 1980 the number of active employees in all of the city's tertiary sectors showed greater rate of growth than the average of 12.9 per cent. Behind science and academic services (being still insignificant sector in terms of number of employees), and personal and business services, educational and cultural services take the third place in terms of growth rate. This above-average growth rate has accelerated the weight of the sector, too. As opposed to 1970 when 7.1 per cent of the active wage-earners worked in the sectors of culture and science, this number was 9.5 per cent in 1980. Because of the nature of this sector, this ratio is much higher (35.2 per cent) within the population having higher education degree.

*Secondary school education* is a fundamental element of the appearance, level, and quality of intellectual resources. Its characteristics are influenced by the urban economic structure, the traditions of educational institutions, and the administrative status of Pécs. In the case of the first factor the network and capacity of the vocational training school system is determinant; institutions are bound to basic settlement functions; and the last factor is related to the regional role of Pécs.

Various qualitative and quantitative indexes can demonstrate the development of vocational training and secondary education. This time the qualitative analysis (the structure, equipment, etc., of secondary education) has to be disregarded, we can only quantitatively outline the position of the city - primarily compared to settlements of similar status (county seats).

Data of Table 8 show an unfavorable picture of the position of Pécs from the point of view of intellectual potential. The last column, which is best representing the quantity of resources (secondary school students per one thousand inhabitants in the city), is rather unfavorable. Pécs takes the 15th place among the 19 county seats, which can not be explained by the demographic structure of the city, since - as it is shown by Table 9 - according to the number of primary school students per one thousand people Pécs takes the 6th place. Analyzing the data it must be concluded that the city of Pécs - as an effect of the educational financing system of the normative regulation of the Hungarian secondary education network - has fallen into the trap of regional equalization. The favorable - although, monopolistic - position of the city that used to be characteristic before World War II has disappeared, and Pécs can not be considered as a nationally outstanding secondary educational center any more.

Further important components of the intellectual resources of the city are the size and structure of *higher education and academic potential*.

Table 6

Distribution of active wage-earners by sectors in Pécs, 1970

Sector	Active wage-earners		With university/ college degree	
	number	per cent	number	per cent
Manufacturing	32,562	45.0	1,196	19.4
Construction	5,295	7.3	310	5.1
Agriculture and forestry	4,220	5.8	377	6.1
Transportation and communication	5,939	8.2	253	4.1
Commerce	7,716	10.7	253	4.1
Services	2,950	4.1	81	1.3
Health and social services	3,822	5.3	769	12.5
<i>Cultural services</i>	5,154	7.0	1,997	32.5
<i>Science</i>	42	0.1	22	0.4
Public administration and other services	4,715	6.5	895	14.6
Total	72,415	100.0	6,153	100.0

Source: *Népszámlálási adatok, Pécs város. 1970.* p. 229.

Table 7

Distribution of active wage-earners by sectors in Pécs, 1980

Sector	Active wage-earners		Change 1980/1970 per cent	With university or college degree	
	number	per cent		number	per cent
Manufacturing	32,821	40.1	100.7	1,672	17.3
Construction	6,882	8.4	129.9	587	6.1
Agriculture and forestry	3,057	3.7	72.4	469	4.9
Transportation and communication	7,087	8.7	119.3	436	4.5
Commerce	9,584	11.7	124.2	394	4.0
Services	4,847	5.9	164.3	248	2.6
Health and social services	5,450	6.7	142.6	1,286	13.3
Education	6,394	7.8		3,036	31.4
			147.8		
<i>Cultural services</i>	1,222	1.5		331	3.3
<i>Science</i>	137	0.2	326.2	50	0.5
Public admin. and other services	4,303	5.1	91.2	1,169	12.1
Total	81,784	100.0	112.9	9,678	100.0

Source: *Népszámlálási adatok, Pécs város*. 1980. p. 198.

Table 8

Data of secondary education and vocational training schools, county seats, 1980–90

County seat	Number of classrooms		Number of students					
			per one teacher		per one classroom		per 1,000 inhabitants	
	1980	1990	1980	1990	1980	1990	1980	1990
Budapest	1,526	2,148	12.4	12.8	31.9	35.8	23.6	38.1
Békéscsaba	86	134	14.0	11.9	33.0	31.3	42.2	61.9
Debrecen	200	322	13.7	13.2	37.7	37.1	39.0	55.9
Eger	98	145	15.2	13.8	36.8	38.7	58.9	89.8
Győr	161	234	14.0	12.7	35.5	37.9	45.9	68.4
Kaposvár	87	123	12.9	12.6	31.5	32.3	37.2	55.6
Kecskemét	68	145	14.8	13.3	33.6	32.7	24.9	45.8
Miskolc	295	339	14.9	13.5	31.5	33.6	44.8	58.7
Nyíregyháza	138	192	14.8	13.9	31.4	35.1	40.1	58.8
PÉCS	175	237	12.5	12.0	33.2	34.0	34.3	47.4
Salgótarján	59	75	12.3	11.1	31.9	36.4	38.2	57.5
Szeged	182	262	13.2	13.4	32.7	35.2	34.6	52.3
Szekszárd	62	65	13.1	12.8	31.5	35.9	56.5	70.1
Székesfehérvár	130	196	14.7	15.5	35.8	38.9	45.1	59.9
Szolnok	87	154	14.1	13.6	36.9	32.2	42.6	63.1
Szombathely	107	132	14.5	13.6	33.9	40.0	43.8	61.6
Tatabánya	82	91	14.0	13.3	27.1	31.7	29.3	39.1
Veszprém	70	109	14.2	12.5	33.5	36.8	42.7	62.4
Zalaegerszeg	95	119	13.3	12.8	31.5	34.3	54.1	65.5
Hungarian cities total	5,686	8,356	13.3	12.8	31.3	33.9	44.5	44.1

Source: *Területi Statisztikai Évkönyv*. 1980. p. 178.; 1990. p. 184.

Table 9

Elementary school data by county seats, 1980–90

County seat	Number of students					
	per one classroom		per one teacher		per 1,000 inhabitants	
	1980	1990	1980	1990	1980	1990
Budapest	34.7	25.2	14.6	12.7	83.8	91.8
Békéscsaba	31.4	25.3	14.9	10.6	99.8	106.5
Debrecen	38.1	30.1	16.5	13.5	101.5	113.1
Eger	33.6	26.7	17.5	11.4	100.9	116.8
Győr	36.4	26.8	15.3	13.3	114.1	116.7
Kaposvár	37.6	27.7	16.5	12.3	105.0	118.6
Kecskemét	37.9	29.0	16.3	13.2	108.0	117.1
Miskolc	44.2	29.5	14.6	12.4	106.5	115.8
Nyíregyháza	33.7	27.0	14.6	11.6	116.5	125.5
PÉCS	37.7	27.4	14.6	11.0	104.1	103.6
Salgótarján	30.7	25.5	14.4	12.2	109.6	118.1
Szeged	33.7	26.3	15.6	12.1	96.4	104.4
Szekszárd	33.6	28.5	15.0	12.6	107.0	120.5
Székesfehérvár	40.8	29.6	18.5	15.1	110.4	125.3
Szolnok	41.4	27.7	14.9	11.6	110.0	121.2
Szombathely	34.4	27.1	16.6	12.4	114.3	115.7
Tatabánya	37.4	26.4	16.5	13.6	108.8	113.1
Veszprém	36.2	26.0	17.3	12.8	127.2	131.9
Zalaegerszeg	38.8	27.7	16.5	12.7	117.6	123.9
Hungarian cities total	36.0	26.7	15.7	12.8	100.8	109.9

Source: *Területi Statisztikai Évkönyv*. 1980. p. 176.; 1990. p. 182.

Pécs is still an important academic and research basis of Hungary. However, the relative weight of the city has decreased since 1945. As a result of the relative – rather moderate, in international comparison – extension of higher education to masses presently each county seat, with the exception of Tatabánya, has its own higher education institute. While up to the end of the 1960s Pécs was the only higher education center of South-Transdanubia, today 66.7 per cent of the students of the same region studies in this city. As a consequence of the vicissitudinous development of the University of Pécs and the reformation of teacher training the proportion of Pécs students in the country has decreased from 7.4 per cent to 6.2 per cent between 1980 and 1990 (*Table 10*). In this period Budapest's proportion has decreased besides that of Pécs, while the proportion of the other three regional academic centers has increased.

Can Pécs be considered as an school town upon these data? It must be remembered, first of all, that this type of city, as a result of the ideological and political practice of Socialism, has vanished from Hungary, despite the significant traditions. Real educational cities with peculiar intellectual characteristics on the basis of secondary and higher education can not be observed today. In the traditional educational cities (Sopron, Keszthely, Szarvas, Gödöllő, Sáropatak) the number and ratio of students in the population is similar to the same indexes of other cities.

*Table 11* illustrates that the position of Pécs is the least favorable among the Transdanubian and Great Plain regional centres. This demonstrates that, from the point of view of the future of the city, a comprehensive school development plan is needed.

Finally, it must be pointed out, as one of intellectual resources, that both in the city and in the county there is a *rather weak research and development background* which could make the basis of a future market diversification - opposed to the general public opinion. Some data can illustrate this. In 1987 2 per cent (1,975 people) of the active wage-earners of the city worked in R + D institutions (universities, colleges, full time researchers at institutions and enterprises) (*Table 12*). The same number is nationally 1.8, in Szeged 4.0, and in Debrecen 3.4 per cent.

### **3. THE BASIS OF ADAPTATION STRATEGY OF THE CITY OF PÉCS: DEVELOPING INNOVATION AND PROFESSIONAL CULTURE**

The goal of economic restructuring of Pécs is to decrease the weight of material and energy intensive, often heavy polluting, sectors; furthermore, to diminish or eliminate production with deficit, and to increase the revenue productivity of the economy by introducing efficient production forms. Economic restructuring is motivated by the flexible accommodation to the needs of (internal and external) market. If restructuring is missed, that results in the long run that the industries of the city may be squeezed out of the markets.

The change of structure inevitably results in the transformation of the structure of employment, too. An efficient production structure needs a different volume and quality of labor force: it assumes and increased mobility of the labor force. Since the

Table 10

Number of students\* in higher education, 1980–1990

City	1980		1990	
	number	per cent	number	per cent
PÉCS	7,446	7.4	6,309	6.2
Janus Pannonius Univ.	4,420	.	3,791	.
Univ. of Medical Sciences	1,302	.	1,239	.
Pollack M. Engineering Col.	1,655	.	1,168	.
College of Music	69	.	111	.
Budapest	47,836	47.3	45,417	44.4
Debrecen	6,319	6.2	7,513	7.2
Szeged	8,582	8.5	9,692	9.4
Győr	3,331	3.3	2,966	2.8
Miskolc	2,588	2.5	3,619	3.6
Other cities	25,064	24.8	27,012	26.4
Total	101,166	100.0	102,387	100.0

\* Including all full-time, part-time, and evening school students.

Source: *Területi Statisztikai Évkönyv*. 1980. p. 180.; 1990. p. 186.

Table 11

"School towns" in Hungary, 1990

Rank	Settlement	Number of higher-than-elementary school students per one thousand people
1.	Eger	95.2
2.	Fehérgyarmat	86.9
3.	Esztergom	79.2
4.	Tokaj	78.2
5.	Sárospatak	76.1
6.	Szeged	73.5
7.	Mátészalka	72.8
8.	Keszthely	70.9
9.	Debrecen	70.6
10.	Győr	70.2
11.	Vác	70.1
12.	Kisvárd	68.2
13.	Szombathely	68.1
14.	PÉCS	64.9
15.	Baja	64.4
16.	Gödöllő	62.4
17.	Veszprém	61.7
18.	Szekszárd	61.2
19.	Sopron	60.4
20.	Miskolc	58.2
21.	Balassagyarmat	57.7
22.	Kaposvár	56.8
23.	Sátoraljaújhely	56.2
24.	Csorna	55.9
25.	Kőszeg	54.3
26.	Veszprém	54.3
27.	Salgótarján	53.7
28.	Szarvas	53.2
29.	Székesfehérvár	52.5
30.	Szolnok	52.1
31.	Békéscsaba	51.4
32.	Berettyóújfalu	50.6
33.	Pápa	50.6

Source: The author's calculations, on the basis of *Területi Statisztikai Évkönyv*.

Table 12

R + D places in regional centres, 1987

County and city	Number of R + D places	Total number of employees		Of this, researchers		Researchers, with academic degree	Expenditure Million Ft.
		number	per cent	number	per cent of intellectuals with degrees		
BARANYA	83	1,975	1.2	1,263	7.7	249	258.4
Of this: PÉCS	82	1,961	2.0	1,255	12.6	249	252.1
Borsod-Abaúj-Zemplén	50	2,322	0.9	1,073	4.9	156	794.1
Of this: Miskolc	39	1,727	1.5	841	10.5	147	427.4
Csongrád	130	3,623	2.3	1,963	11.4	532	892.3
Of this: Szeged	120	3,212	4.0	1,837	17.8	522	796.9
Győr-Sopron	53	1,528	0.9	738	4.3	98	583.5
Of this: Győr	10	773	0.9	398	4.5	13	413.3
Hajdú-Bihar	78	3,304	1.8	1,770	9.4	447	818.0
Of this: Debrecen	76	3,145	3.4	1,698	17.0	446	740.1
Country total	1,310	75,429	1.8	36,453	8.2	5,583	30,908.0

Source: *Tudományos Kutatás és Fejlesztés*. 1987. p. 53.

structural transformation almost necessarily induces unemployment, rationalization of economic systems faces a significant social opposition, regardless to the type of the system.

An accommodation to the changing market needs can be defined as a continuous adjustment. If this is successful, then the competitiveness of the city or its business firms will be improved. Therefore, a continuous observation of the changing needs, supplying products and services that fulfill these needs at a high level, and a permanent adjustment are essential conditions of the competitiveness of the city. The ideas of some interest groups that emphasize shifting costs, instead of adjustment, as a reaction to market changes, are naive, because it would lead to further position loss which can bring serious consequences.

The goal of the adaptation strategy is increasing the value-added which is realized in the region. This requirement can be met by such a concept of structural policy that decreases the dependence on the factor conversion organized on the basis of traditional endowment of resources. This concept, naturally, needs to include the comparative infrastructural endowments, regional administration system, and other factors that influence the adaptation ability of the city.

Emphasizing the development of manufacturing as a center of industrial strategy means a policy, *especially R + D policy*, that is fundamentally different from the previous one. Introduction of value-increasing industrial cultures can be feasible with speeding up technological development and establishing innovation-oriented environment in the county. (Not mentioning other, well known macroeconomic and policy issues without which it is impossible to raise the Hungarian industry to the international level.)

In the restructuring of the region of Pécs a *technological development*, in the broad sense, must be taken into account as an independent, complex political element in the county. In the region the underdevelopment of the innovation culture (technological resources, organizational and management patterns) can be demonstrated. As it was shown above, there is a low volume of expenses on, and small number of places of, R + D activities; furthermore, the signs of the innovation chain (research–development–production–marketing) can hardly be observed in the economy. New product appear only slowly in the industrial sectors of the city.

Incidentally, it must be pointed out that a technological development being speeded up will itself necessarily induce a reorganization of the economy. Economic restructuring results in changes of the weights (decrease of their influence and their role in interest conflicts) of a number of producers in the county. Previous relative stability and slow technical development will be replaced by a reorganization of the positions of individuals and communities, which, in the long run, should be regarded a normal way of development similarly to the former slow and mostly safe development period producing a quantitative growth of goods and services. Naturally, the institutions of the county administration, which have been installed under different conditions of development, are not sufficient to solve the social conflicts already having been emerged. The publicity of the central, *local*, and office decisions, and the establishment of the *methods and institutions of representation and reconciliation of interests* have a much larger importance.

Here is a list of some of the basics of the agenda in connection with *the complex system of requirements of accommodating the technological renewal*, the new knowledge and forms of activities:

- a rational transformation of the structure of production resources, in consequence of which the emphasis will be shifted to new technology as opposed to technology-replacing labor, when choosing between the two,
- in order to exploit new resources the loss-producing activities must be eliminated, and misallocated factors of production must be withdrawn and allocated properly,
- increasing the mobility and flexibility of the factors of production, strengthening the connections between factor markets, increasing the role of innovation centers, establishing capital market, and elimination of the rigidity in the labor market.

The requirement that the complex agenda of technological innovation should be an element of the regional policy inevitably raises the question of division of labor among the various actors of the economy and the administration. This obvious especially because there has not been found such role among the traditional functions of the local and regional governments.

Clearly, business sphere has the rights to and tasks of the appropriate strategical decisions of the major lines of development. In the same time, economic restructuring (especially when its economic and social environment shows the signs of depression), and the determination of the directions of development must not be restricted to the enterprises. The system of technological development at enterprises is rather sensitive to regulations than to the consequences of international competition. International observations prove that the changing philosophy of industrial policy, which connects technological development with management expertise, entrepreneurship, and marketing, will widen the channels of encouraging innovation, and create a broad scale of local and regional support (Borlenghi 1990). Besides the forms of traditional central financial participation, which are usually related to large special development programs, there can be found non-project types of regional support in a number of countries. In addition to government subsidies to certain enterprises or R + D cooperation programs, significant financial support is supplied to the development of consultative and information services, too. (For example, in Great Britain in the years 1987–88 a quarter of the financial support for innovation, of the Department of Trade and Industry, was spent on non-technological development.)

The necessity of the establishment of a decentralized, regional innovation support system in Hungary is explained by the transformation of the economic structure and the structure of business organizations. Obtaining information and expertise for special technological tasks, and the search for markets and partners will mean a serious problem for the small- and medium sized business firms (as long as these are considered the organizational engine of structural changes). In general, creating the export-oriented and growth-oriented business behavior needs a well operating market system, without regard to the size of the firm. Strongly cost-sensitive small enterprises cannot even think about maintain self-sufficiently an efficient organization of marketing, design, quality-control, business planning, financial, and information system (Coleman – Jacek 1989, Sweeney 1991). To solve this problem appropriate organizations will be required in the Pécs area, too; and the utilization of their services must be incited by financial supports based on strict criteria.

Regional and local governments should assume important role in the creation of modern infrastructure, and of the *physical, economic, and intellectual environment* of technological development and competitiveness. Let us not mention here the electronic

and telecommunication aspects that fundamentally influence productivity, cooperation, and division of labor.

The necessity to create intellectual infrastructure results from the level of expertise of the new technological culture, its overall social influence, and the tasks of a radical transformation of the practice of the executive management of enterprises.

*The priorities of speeding up technological development* in the city of Pécs might be the following ones:

- quantitative and qualitative development of R + D bases, establishment of an entrepreneurial and innovation industrial park,
- development of the innovation chain in the selected fields,
- organizing and extending post-graduate education in order to meet the future demand for experts with higher education after the economic restructuring (including the above mentioned education of engineers, experts in tourism, professionals of complex regional socio-economic development, manager training, development of foreign trade culture),
- training and retraining of skilled workers.

Personality quality of *enterprise management* should be respected as a factor of speeding up the innovation, resulting in technological development, similarly to technological and economic conditions. Further investigations are necessary to find out the role of enterprise management in technological innovation in the county. Presently our knowledge is not sufficient to prove the relevance of the findings of a nationwide research to the county, i. e. that management actually slows down innovation. Nevertheless, some county-wide investigations, limited to the engineering professionals in the county, provide some guidance to the launch of such an inquiry: currently there can be found a number of medium- and top-level managers who has not been selected on the basis of their professional expertise, initiative, and managerial skills; that is, a part of the managers do not comply with the requirements of economic restructuring. Therefore, it can be assumed that, in the future, a rapid rejuvenation of enterprise management will come along.

#### 4. POSSIBILITIES OF DEVELOPING SCIENTIFIC AND PROFESSIONAL TOURISM

Although the tourism strategy and developments of Baranya county are fundamentally based on recreational tourism, there are good chances to develop professional tourism, too. The institutions of scientific potential of the county – and primarily the city of Pécs –, its business firms, the international relations of the members and organizations of local branches of scientific associations, and the domestic programs (of traditionally high international interests) of scientific societies form the foundation for building a determined long term development strategy of professional tourism.

The peculiarity of the Hungarian tourism industry, that incoming tourists spend two or three times less than on the average in Europe, is characteristic to Baranya county,

too. One of the reasons for this is that from developed market economies the less wealthy people tend to come to this region, there is an important role of tourism of relatives and families, and that the inadequate supply of programs and services does not stimulate higher spending, there are only few attractiveness for tourism.

Strengthening qualitative characteristics should be part of a program task in this region just like on the national scale. Professional and scientific tourism can be turned into a development sector of qualitative tourism, and considering its endowments, it can be successful, too.

The present day endowments of the city of Pécs and the county offer primarily the possibilities to develop or expand scientific and professional, or shortly: conference tourism. This sector of tourism should be focused upon when developing professional tourism and establishing the physical, organizational and human conditions.

This endeavor fits the international and domestic development directions, too.

*International tendencies of tourism* unanimously indicate the profitability of the congress sector. It is estimated that for a long time this sector will remain one of the most dynamically developing market segment for a number of reasons, such as: the number of international organizations and the independence of branches of sciences are increasing; the differentiation of branches of science is speeding up because of the appearance of new fields of science. Because of the increasingly specialized sessions, congresses, the number of sessions is rising faster than the number of their participants.

*Domestic qualitative tourism* seems to be one of the best founded ideas among the restructuring concepts of the development of the Hungarian economy, too. The examples of all of the successful European small countries demonstrate that in the past ten-fifteen years service sector, and within this health, congress, and educational tourism gained a great impulse.

The Hungarian tourism policy soon will have to count on the formation of intellectual, cultural, tourism centres in the country outside of Budapest, too. If we have the appropriate development program, and if Baranya county and the city of Pécs will declare professional and scientific tourism as a part of their development policy objectives, then here we could have the first conference city of the countryside in Hungary.

Currently several objective and subjective conditions for the development of the city of Pécs to professional and scientific tourism centre exist.

The most important of the subjective conditions is the *scientific potential* that has evolved in the city in almost every field of natural, engineering, and social sciences. Pécs is an important intellectual centre of the countryside. The structure of scientific potential, however, is the most complex here. Of the 1,900 researchers and developers in the county 380 people have academic degrees.

The work on one third of the approximately 150 scientific projects going on at the research and development places in the county is being done in international cooperation with Western European and American partners. The joint projects are today primarily bilateral, but in the future the expansion of many-sided cooperation can be expected. This, on the other hand, will result in the increase of the number of scientific programs, international conferences and project meetings.

It can also be an orienting element in the supply of scientific and professional tourism that several researchers of Pécs are leaders of various respectable international organizations and associations. They and the local members of international societies

play a significant role in choosing the site of international congresses and compiling the programs.

While it can be argued, this way, that the subjective resources for the intensive development of professional and scientific tourism in Pécs are abundant, the quality and quantity of *receiving infrastructure* fall behind the requirements which mean the solid foundation of a dynamic development.

Before the analysis of the present state of the conference infrastructure it should be pointed out that the *geographical position and accessibility* of the city of Pécs fail to meet the international standards of siting and organizing an international conference. Foreign guests arriving by airplane to Budapest need twice the international time standard to get to Pécs using public transportation, and there is a similar difference – in the lack of speedways – driving a rented car, too. Therefore, from strategic point of view it is important to utilize again the former local airport for tourism purposes.

The volume and qualitative structure of *accommodation* possibilities, and the services offered by hotels of various levels, play important role in organizing conferences.

Neither the number of hotel beds nor the structure of accommodation possibilities are sufficient for the dynamic development of this sector of tourism.

The necessary, perhaps most important, element of infrastructure for the development of professional and scientific tourism into business is the availability of *places, congress halls* with their (personal comfort and technical) equipment.

Currently in Pécs the university halls and auditoriums, conference rooms of hotels, and halls of cultural centers serve as *sites* for conference programs. It is a big problem that for large programs (even if thinking only about domestic conferences) only the aula of the Pécs Medical University can be considered. Most of the present conference rooms are not appropriate for international programs because of their insufficient technical equipment. On the other hand, the utilization of university and college halls is restricted by school terms and their regular programs.

On the basis of our case analysis and the known long term plans of scientific research institutions in the county, the following points summarize the conclusions of the study of the development possibilities of professional and scientific tourism in Baranya county.

1) The endowments necessary for the development of this sector are at the disposal of the city of Pécs. The international relations and the international positions of the professionals of the city form a solid basis for turning Pécs into an international conference city in long term. It should be remembered, too, that this sector of tourism has the spillover effect of settlement development, and the power of developing innovative regional development policy. Its direct effect of job creation in services and commerce can be demonstrated, and new types of jobs can be introduced in conference cities. These jobs all need a high work culture.

2) The international acknowledgement of its tourist endowments that represent intellectual values and production culture (the City of Grape and Wine, a model city of the "Healthy City" movement of the WHO world program, a city to be expected on the World Heritage list of the UNESCO, its art traditions, art and cultural programs, etc.) can supply tourist attraction to scientific programs. Producing the objective and organizational conditions, and the international and domestic introduction of conference tourism can create favorable circumstances for Pécs and Baranya to be a country subcenter of the 1996 Budapest World Expo.

3) In the future it must be accounted for that 50 per cent of the tourism market of the city should be occupied by programs of local scientific institutions, and the other half by external organizations on the basis of business enterprise.

However, in order to increase the latter part significantly, and to turn conferences into basis of tourism – based on economic efficiency and hard currency production –, further *development efforts are necessary*.

## SUMMARY

The need for modernization in Hungary, so far, has been limited to the reform of the system of economy, politics, and administration, that is, to the fields which can be integrated functionally according to the goal-rationality: technical modernization, productive efficiency, restructuring of production, economic independence, political pluralism. In the meantime, it is hardly ever mentioned that the modernization of the economy is not possible without the modernization of culture; and, on the other hand, that a big price, expressed in social tensions, may be paid for minor or partial success.

The most important and general conclusion of this paper is that solving the economic problems of the city of Pécs does not only mean, can not be restricted to, economic modernization: *cultural modernization is not only the scenery of the stage or decoration of economic modernization*. Modern technology, institutions, democratic management and control forms can be adapted, however, without a modern cultural background these can hardly be integrated in the operational system of the city. Partial success can only preserve the fundamentally unchanged totality and may create new social conflicts.

The starting point of the transformation of the general conclusion to a program is *the realization of the role of culture in modernization, and having this accepted by the various interest groups of the city*.

While examining the settlement development power of culture, it must be remembered that Pécs is one of the potential regional centers of the whole country and thus the situation of a broader set of general settlement functions should be analyzed. Our investigation has proved, or more exactly has supported conclusions of some former inquiry related to other fields of the life of the city, that having hard data this city can be regarded a growth pole, or natural center of the South-Transdanubian region, in the West European political sense only with significant restrictions. Its "role" as regional center has rooted more in historical traditions (primarily religious and academic functions) and administrative centralization decisions than in regional influence of its modern functions and progressive sectors.

Cultural sectors have not provided a different picture either. The fact that, regarding index numbers of cultural life, a remarkable equalization of county seats can be observed can be attributed to, besides the results of regional development policy, the ideological and political decisions and principles of the previous era, especially the 1950s and '60s. The ideal of the age, the homogeneous society, was aimed not by the means of integration of preserved stratum- and local cultures but by eliminating and replacing these. Not only art- and science schools were eliminated at that time but those forms of the social solidarity of cultural integration which mean the real basis of repro-

duction of cultural background consciousness: various associations, societies, publishers, etc. There was even a time when a proposal was submitted at the Ministry of Culture to the abolishment of the (at that time consisting of only one school) University of Pécs.

Comparing to the other two traditional regional centres of the country, i.e. Debrecen and Szeged, Pécs starts in the competition of building intellectual regional centres from a less favorable position. The reason for this is primarily that it is less supplied with academic and research bases than its competitors; not mentioning the lack of those institutions which presently determine the prestige position of European cities. *The further development of the existing system of higher educational and research institutions of the city*, with respect to the economic transformation and potential position, in the international division of labor, of the region is an important issue of research in the future. Besides the initiative of establishing the classical "universitas", primarily the radical reform of engineering education, and – based on the various intellectual workshops existing in the city – creation of national cultural institutions that raise international interest, should be kept in mind.

The examination of the potentials and possible reception of a cultural institution for Mediterranean cultures (of countries like Italy, Spain, Greece, and Cyprus) deserves deep consideration. It would connect this city to the intellectual, and, making no secret of it, economic circles of South Europe. The establishment of this *Mediterranean Center* could be joined with organizing representations of diplomacy (consulates).

In order to develop Pécs to a modern regional intellectual centre the present system of institutions of the city should be reviewed from the aspect that whether it is capable to support equal opportunities of the intellectuals of the region in a creative participation in the cultural life; and to accept and distribute the innovations necessary for the economic and social recovery, or to elaborate entirely new methods. *The transformation of the system of institutions and introduction of new types of institutions* (for example, information centres, or gallery institutions that rely on the market relations in the world of arts, the design, marketing and PR services that are inevitable for a competitive market structure etc.) need a well determined strategy.

*Appearance of cultural sectors on the international market* must be considered as a significant urban development factor in the future. It is an economic commonplace in the developed countries that connecting a wide range of cultural activities (creative arts, theater, music) to the international division of labor is an important revenue-creating factor. It is not unlikely that in the centre of the system of values of the West European market to be unified – and therefore, of the international competition –, besides the economy, the culture and science will take place; and these will be fundamental elements of the international prestige and dynamic development of cities.

In the unified Common Market of 1993 the success will not belong to those bringing some out-of-European or uniform-European, but to those building on specialities of their own countries or regions. The relation of culture and economy will be set into an entirely other light; even now several signs demonstrate that culture must not be considered merely as an autonomous goal but as important marketing and PR way, too, e.g. way of promoting a certain industrial settlement as a desirable living place.

The conclusion, therefore, emerges from the experience of the new forces of urban development in Europe: the cultural institutions and intellectual workshops of Pécs should be developed to the direction of joining these to the system of cooperation of

European cities and international exchange of services. In the long run, Pécs should be developed to one of the cultural exchanges, important intellectual and economic meeting points of Central Europe.

A successful cultural policy can be pictured only as an integrated part of local policy. Institutions appear in the administration of the city not as objects but as intellectual elements of urban development. Therefore, the city government must consider the business organizations and the population of the city not only as consumers of cultural services but as forming and transforming power of culture, too. The reform of the foundations of economic autonomy will raise the issue of financing cultural services, too. *A variety of local possibilities and institutional forms of new types of supporting culture* can be designed.

As a part of a new cultural policy program, it is advisable to elaborate a *marketing strategy* to manage the values of the city of Pécs. Presently there is no doubt about that the traditional image of the city is not sufficient to make Pécs able to meet the requirements of the role of a tourist center and of capital attraction. The supply of complex cultural (and economic) values can be domestically and internationally realized only with a well established marketing program.

## BIBLIOGRAPHY

- BARTELS, C.P. 1987: *City Marketing – Instruments and Effects*. Paper presented at the European conference of RSA. Athens.
- BENNETT, R. - KREBS, G. 1991: *Local Economic Development Public-private Partnership Initiatives in Britain and Germany*. London, Belhaven Press.
- BLOTEVOGEL, H.H. 1983: *Kulturelle Stadtfunktionen and Urbanisierung: Interdependente Beziehungen im Rahmen der Entwicklung des deutschen Städte-systems im Industriezeitalter*. – TEUTENBERG, H.J. (Ed.): *Urbanisierung im 19. und 20. Jahrhundert*. Köln/Wien, Böhlau Verlag. pp. 386–428.
- BODENSTEDT, W. – HERBER, M. 1983: *Die kulturelle Attraktivität deutscher Städte für Image und Fremdenverkehr*. – *Die Städtetage*. 11. pp. 722–726.
- BORLENGHI, E. (a cura di) 1990: *Città e industria verso gli anni Novanta*. Torino, Edizioni della Fondazione Giovanni Agnelli.
- BRÉHIER, T. 1989: *Faut-il des régions ou des villes de taille européenne?* – *Le Monde*. 14.06.
- CASTELLS, M. 1987: *High Technology, Space, Society*. Beverly Hills, Sage.
- COLEMAN, W.D. – JACEK, H.J. (Eds.) 1989: *Regionalism, Business Interests and Public Policy*. London, Sage.
- CURDES, G. 1984: *Regionale Umstrukturierung durch weiche Politik am Beispiel der Region Aachen*. – *Raumordnung und Raumforschung*. 4. pp. 87–93.
- ENYEDI, GY. 1987: *Szellemi megújulás – a tudomány elterjedése Magyarországon (Intellectual revival – diffusion of science in Hungary)*. – *Társadalomtudományi Közlemények*. 4. pp. 506–511.
- ENYEDI, GY. 1989: *Településformáló folyamatok és településpolitika Magyarországon (Settlement-forming processes and settlement policy in Hungary)*. – *Valóság*. 8. pp. 62–72.
- ERNECO, I.M. - MCDONAGH, A. 1986: *The Future of Regions and Cities of Traditional Industry in Europe*. – *The Annals of the Academy of Political and Social Science*. pp. 177–185.
- FARAGÓ, L. – HORVÁTH, GY. – HRUBI, L. 1990: *Szerkezetátalakítás és regionális politika (Restructuring and regional policy)*. Bp., Ts 2-2 Program Iroda.

- FARKAS, J. – TAMÁS, P. 1981: *A tudomány erőforrásai. Tanulmányok a regionális kutatásszervezés és a gazdasági tervezés összefüggéseiről* (Resources of the science. Studies on the connections of the regional organization of science and economic planning). Bp., Akadémiai Kiadó.
- FRAMPTON, K. 1986: Place-form and cultural identity. – THACKARA, J. (Ed.): *Design After Modernism*. London, Pion Ltd. pp. 243–267.
- HABERLE, P. 1979: *Kulturpolitik in der Stadt – ein Verfassungsauftrag*. Heidelberg/Hamburg.
- HORN, W. 1981: *Kulturpolitik in Düsseldorf. Situationen und Neubeginn nach 1945*. Opladen.
- HORVÁTH, GY. (Ed.) 1991: *Regional Policy and Local Governments*. Pécs, Centre for Regional Studies, HAS.
- HORVÁTH, GY. – HRUBI, L. 1992: *Restructuring and Regional Policy in Hungary*. Discussion Papers 12. Pécs, Centre for Regional Studies, HAS.
- KONCZ, G. 1989: A kultúra és a kulturális fejlődés feltételeinek hosszú távú elgondolásai (Long-term concepts of possibilities of the culture and cultural development). Bp., OKK.
- KOZMA, T. 1983: Szellemi életünk regionális központjai (Regional centres of our intellectual life). – *Magyar Tudomány*. 3. pp. 181–194.
- KÓSZEGFALVI, GY. 1975: A szellemi élet szerepe a városfejlesztésben (Role of the cultural life in the urban development). – *Területi Statisztika*. 6. pp. 557–570.
- KÓSZEGFALVI, GY. 1988: A települések szellemi infrastruktúrája (Intellectual infrastructure of the settlements). – *Tervgazdasági Fórum*. 3. pp. 53–59.
- KUTI, É. 1989: A kultúra támogatásának új rendje felé!? (Towards a new order of financial assistance of the culture). – *Kultúra és Közösség*. 3. pp. 3–12.
- MANGUM, G. – MANGUM, S. 1986: Human renewal in the revitalization of the industrial city. – *The Annals of the American Academy of Political and Social Science*. pp. 257–276.
- NEMES NAGY, J. 1988: A szellemi élet térszerkezete (Spatial structure of the intellectual life). – *Tervgazdasági Fórum*. 3. pp. 60–69.
- Népszámlálási adatok. Pécs város* (Census Data. The City of Pécs). Bp., Központi Statisztikai Hivatal. 1970, 1980.

- PEPONIS, J. – LIVIERATOS, E. – HADJINIKOLAU, E. 1988: The spatial assimilation of cultural difference. – *Contemporary Issues*. 5. pp. 32–40.
- PEPONIS, J. 1989: Space, culture and urban design in late modernization and after. – *Ekistics*. 1. pp. 93–108.
- SCHAFERS, B. 1988: Stadt und Kultur. – *Kölner Zeitschrift für Soziologie und Socialpsychologie*. Sonderheft 29.
- SMITH, M.P. – FEAGIN, J.R. 1987: *The Capitalist City. Global Restructuring and Community Policies*. London, Basil Blackwell.
- SWEENEY, G.P. 1991: Technical culture and the local dimension of entrepreneurial vitality. – *Entrepreneurship and Regional Development*. 4. pp. 349–362.
- Területi Statisztikai Évkönyv* (Regional Statistical Yearbook). Bp., Központi Statisztikai Hivatal. 1980, 1990.
- Tudományos Kutatás és Fejlesztés* (Scientific Research and Development). Bp., Központi Statisztikai Hivatal. 1987.
- Tudományos Kutatás és Kísérleti fejlesztés* (Scientific research and experimental development). Bp., Központi Statisztikai Hivatal. 1990.
- VASSAL, S. 1988: Geography of universities in Western Europe. – *Ekistics*. 1. pp. 146–152.
- WHITEHAND, J.W.R. 1987: *The Changing Face of Cities*. Oxford, Oxford University Press.
- WOITRIN, M. 1982: Développement régional et université: la cas de Louvain-la-Neuve. – *Mondes en Développement*. 10. pp. 96–107.
- WOLFART, M. 1980: A szellemi élettel kapcsolatos területi problémák (Regional problems related to the intellectual life). – *Területi Statisztika*. 6. pp. 517–531.

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