

(Re)Inventing Galati-Braila Urban Agglomeration with the Support of HEIs

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Abstract: The local development potential of the Galati-Braila urban agglomeration is bigger than if we were thinking about the socio-economic development at each city level. A renewed design of spatial development strategies are required in order to overcome the local limiting factors and to create the necessary local consensus for policies targeting institutional reforms mainly on labour market, capital mobility and some basic infrastructure and accessibility policies. This research paper is an inventory of needs and resources of Galati-Braila urban agglomeration from the perspective of HEIs which provide a creative environment able to foster cooperation and collective action of a wide range of actors, from public sector institutions to civil society, incorporating private sector actors and moreover research institution from abroad, ensuring in this way that the knowledge is decisively transferred from the scientific literature into institutional work-frame. The paper concludes that territorial development policies should first and foremost help Galati-Braila urban agglomeration to develop its territorial capital, the role of HEIs being fundamental, especially because superior education aims to increase competences and human capital endowment.

Keywords: iGeneration; quality of governance; regional settings; (Re)New University

JEL Classification: R58; I23; I25.

1. Introduction

Building a shared European future for the next generation was the main concern of the 8th edition of the European Summit of Regions and Cities which was held in Bucharest on 14 and 15 March 2019 under the title "(Re)New Europe". The Declaration adopted at the end of the Summit, entitled "Building the EU from the ground up with our regions and cities", emphasized that "Europe is being transformed at an unprecedented speed by globalisation, by the digital revolution, climate, and demographic change."

In order to face these transformations, which may materialize in the increase of social, economic and territorial inequalities, prejudicing in this way the process of European integration, a concerted effort of all levels of government is required, especially because one third of all public expenditure and more than half of public investment is carried out at the sub-national level.

This research is a case-study of the challenges and opportunities that Galati-Braila urban agglomeration faces, loyal cooperation between all relevant stakeholders in local and regional development being essential for this conurbation to be able to deliver on its objective of economic and social progress for its citizens.

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The paper is structured in five main sections, being organized as follows. The debate on *demographic profile* of the Galati-Braila conurbation from HEIs' perspective is illustrated in the second section together with a reflection on demographic projections at the horizon of 2060 and their implications. The *economic profile* of the Galati-Braila conurbation is presented in the third section, followed by an analysis on the *labour market* profile of the Galati-Braila conurbation (section 4). Section 5 is devoted to a HEIs radiography of Galati-Braila urban agglomeration, emphasising the educational offer, leading to some concluding remarks on how to redesign territorial capital settings of Galati-Braila urban agglomeration through the support of academia and the involvement of iGeneration (6 section).

2. Demographic Profile of the Galati-Braila Conurbation from HEIs' Perspective

From HEIs' perspective, significant age group includes people aged between 20-24 years, but the rapid pace of technological change generated mainly by globalization and the advancement of Information and Communication Technologies (ICT) require the development of new skills among staff and operators of all age groups, in order to meet the demands of the labour market, and in some cases even professional reconversion.

In this context, higher education through post-graduate courses provide training and continuous staff training, according to the European principle of "life-long-learning". Therefore, we also consider the age groups between 25-29 years and 30-64 years of age. Therefore we also consider the age groups between 25-29 years, respectively 30-64 years.

On the other hand, the phenomenon of aging population that characterizes the European space, correlated with decreasing birth rates, leads to the need to capitalize on the experience and expertise of the retired persons. Ensuring intergenerational dialogue, valuing and capitalizing on human potential regardless of biological age, social inclusion are just a few aspects that various universities in the European Union have understood to promote in order to ensure a sustainable development of European society. An example of good practice is also in our conurbation, in Galați County, where "Dunarea de Jos" University initiated in 2016, according to a model of French origin adapted to the cultural and academic space of Galați, "University of the Third Age", a project dedicated to senior citizens. In this context, we consider of interest to HEIs, also the age group over 65 years.

2.1. Structure by Age Groups

On July 1, 2017, at the level of the urban agglomeration Galati-Braila, the total population in the age group 20-24 years numbered 52882 persons, representing 35% of the total population of the South-East region of the age group mentioned above. Compared with the level of 2008, the South-East region recorded a significant negative trend of -35.22%, which exceeded the national average of -32.31%. The demographic decline was also felt at level of Galati-Braila conurbation (-34.43%), more acutely in Brăila (-38.36%) compared to Galați (-32.25%).

In absolute terms, the largest decreases in young population (20-24 years) were recorded in the county of Galati, where in 2017 the population decreased by 16 726 persons compared to 2008. It is worrying that in the period 2010-2017 none of the two counties recorded increases in the young population aged 20-24.



Figure 1. The evolution of the age group 20-24 years between 2008 and 2017

Source: NIS, TEMPO database, June 2018, POP106A

On July 1, 2017, the population of the Galati-Braila conurbation in the age group **25-29 years** numbered 70212 persons, representing 34.62% of the total population of the South-East region, for the mentioned age group, Galati county with 45658 inhabitants (22.51% of the total population of the region), and Braila county, with 24554 inhabitants (12.10% of the total population of the region).

In 2008-2017, the population of Galati-Braila conurbation in the age group 25-29 years, on July 1, recorded fluctuating evolutions. Thus, between 2008 and 2011, there is a negative trend, in the period 2012 - 2014, there is a positive evolution, and in the last three years (2015-2017) to register again a negative evolution. Comparing the situation at July 1, 2017 to the situation on July 1, 2008 it is noticed that the population Galati-Braila conurbation decreased by 10459 people. The most significant decrease was recorded in Galaţi, where in 2017 the population decreased by 7025 persons compared to 2008, while in Braila, the differences recorded in absolute values were 3434 persons. In percentage, the highest decreases were recorded in the analysed period in the county of Galati (13.33%), compared to Braila (12.27%), at the level of the conurbation, the percentage being of 12.97%.

On July 1, 2017, the population of the Galati-Braila conurbation in the age group **30-64 years** numbered 513889 persons, representing 34.82% of the total population of the South-East region, for the mentioned age group, Galati county with 330244 inhabitants (22.38% of the total population of the region), and Braila county, with 183645 inhabitants (12.44% of the total population of the region).

In 2008-2017, Galati-Braila conurbations population in the age group 30-64 years experienced an increase of 3.65%, the total number of population increasing with 18101 persons. Thus, until 2013 there is a population increase in both counties, and in the period 2014-2017 there will be a decrease in Braila County, and in Galati, variations from one year to the other. Comparing the situation at July 1, 2017 to the situation on July 1, 2008 it is noticed that the population Galati-Braila conurbation increased with 18101 people. Galati recorded a population growth by 5.96%, in 2017 the population increasing with 18581 persons compared to 2008, while in Braila, the differences recorded in absolute values were -480 persons, the population decreasing by 0.26%.

On July 1, 2017, the population of the Galati-Braila conurbation in the age group of **65 years and over** numbered 159421 persons, representing 34.48% of the total population of the South-East region, for the mentioned age group, Galati county with 95964 inhabitants (20.75% of the total population of the region), and Braila county, with 63457 inhabitants (13.72% of the total population of the region).

In the period 2013-2017, the population of the Galati-Braila conurbation in the age group of 65 years and over, on 1 July, recorded steady increases. Comparing the situation at July 1, 2017 to the situation on July 1, 2008 it is noticed that the population Galati-Braila conurbation increased by 9.76, with 14177 people. Galati recorded a population growth by 14.38%, in 2017 the population increasing with 12064 persons compared to 2008, while in Braila, the differences recorded in absolute values were 2113 persons, the population increasing by 3.44%.

2.2. Demographic Projections at the Horizon of 2060

Analysing the 19-23-year-old school-age population, projected on the horizon of the 2030s and 2060s, we can see a significant decrease in both counties of conurbation.

In 2030, the Galati-Braila conurbation will record a decrease in students' population of 4138 people (the age group 19-23 years). Looking ahead to 2060, the Galati-Braila conurbation development, there will be a reduction in the school population by 12542 persons, the school population related to the school year 2014-2015, for the above mentioned age group.

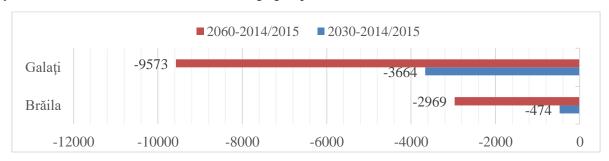


Figure 2. Projection of school population aged 19-23 years at the horizon of 2030 and 2060

Source:

http://www.insse.ro/cms/sites/default/files/field/publicatii/proiectarea_populatiei_romaniei_in_profil_teritorial_la_orizontul_2060.pdf

2.3. The Implications of Demographic Trends and Forecasts for HEIs

At the level of the Galati-Braila conurbation there is a continuous decrease of the school population in higher education (table no.1), as well as of the number of graduates with higher education diplomas (table no.2), which requires the adoption of urgent measures of promoting the relevance of higher education for both the labour market and society.

Table 2. School population in higher education (ISCED levels 6, 7, 8)

	Academic year 2014/2015	Academic year 2015/2016
South-East region	40516	40052
Galati-Braila conurbation	15604	15555
Brăila	857	765
Galaţi	14747	14790

Source: NIS, Regional Economic and Social Indicators: Territorial Statistics, 2017

Table 2. Number of graduates with higher education diploma (ISCED levels 6, 7, 8)

	Academic year 2014/2015	Academic year 2015/2016
South-East region	9198	8840
Galati-Braila conurbation	3760	3641
Brăila	243	210
Galați	3517	3431

Source: NIS, Regional Economic and Social Indicators: Territorial Statistics, 2017

In this context, the analysis of trends and demographic projections becomes compulsory for HEIs in the identification of specific issues that must be addressed by policy-makers and other relevant stakeholders in local and regional development, with the support of the academia, in order to achieve socio-economic growth.

3. Economic Profile of the Galati-Braila Conurbation a Landmark for HEIs

In the 2012-2015 timeframe, GDP per capita recorded a slightly positive trend in both counties, following the trend from regional level. For HEIs, this information reflects the fact that the Galati-Braila conurbation has undergone a period of economic recovery, this period of economic revival being favourable to professional and personal development.

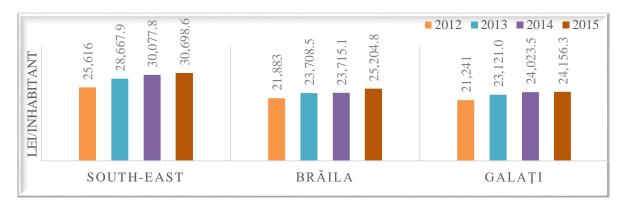


Figure 3. Evolution of GDP per capita at current prices

Source: NIS, National Regional Accounts 2014-2015; Regional National Accounts 2010-2014 http://www.insse.ro/cms/ro/tags/conturi-nationale-regionale

In terms of gross value added by sector of economic activity we see that the sectors with the largest contribution to GVA formation in 2015 were industry, followed by wholesale, retail, transport, activities, lodging and restaurants and the smallest contribution to the gross value added were the financial and insurance intermediation and information and communication.

¹ A01 Agriculture, forestry and fishing.

A02 Extractive industry; manufacturing industry; production and supply of electricity and heat, gas, hot water and air conditioning; water distribution; sanitation, waste management, decontamination activities. A03 Construction.

A04 Wholesale and retail trade; repair of motor vehicles and motorcycles; transport and storage; hotels and restaurants.

A05 Information and communications.

A06 Financial intermediation and insurance.

A07 Real estate transactions.

A08 Professional, scientific and technical activities; administrative service activities and support service activities.

A09 Public administration and defense; social security in the public system; education; health and social care.

A10 Performing, cultural and recreational activities; repair of household products and other services.

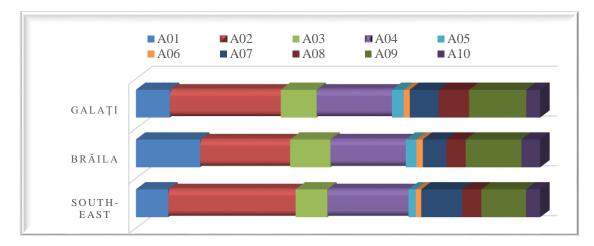


Figure 4. GVA by branch of activity in 2015

Source: NIS, National Regional Accounts 2014-2015; Regional National Accounts 2010-2014 http://www.insse.ro/cms/ro/tags/conturi-nationale-regionale

From the perspective of the sectors of activity developed by the business environment in the South-East region, corresponding to the NACE Rev.2 classification, the situation in the analysed area is presented as follows: A - Agriculture, forestry and fishing: Braila (15.77%), Galati (14.47%); B - Extractive Industries: Galati (10.07%), Braila (3.1%); C - Manufacturing: Galati (17.45%), Braila (11.12%); D -Production and supply of electric and thermal energy, gas, hot water and air conditioning: Braila (11.18%), Galați (7.69%); E - Water distribution; sanitation, waste management, decontamination activities: Galati (23.17%), Braila (4.72%); F - Constructions: Galati (23.63%), Braila (8.77%); G -Wholesale and retail trade; repair of motor vehicles and motorcycles: Galati (23.16%), Braila (11.45%); H - Transport and storage: Galati (15.74%), Braila (10%); I - Hotels and restaurants: Galati (15.44%), Braila (8.32%); J - Information and communications: Galati (21.46%), Braila (10.32%); K - Financial intermediation and insurance: Galati (23.73%), Braila (12.55%); L - Real estate transactions: Galati (18.92%), Braila (10.61%); M - Professional, scientific and technical activities: Galati (17.79%), Braila (8.32%); N - Administrative and support service activities: Galați (19.62%), Brăila (9.36%); P -Education: Galati (21.74%), Braila (8.52%); Q - Health and social assistance: Galati (16.72%), Braila (9.45%); R - Performing, cultural and recreational activities: Galati (19.58%), Braila (7.74%); S - Other service activities: Galati (20.07%), Braila (10.25%).

Since the largest share in the GVA have the *industry* and *trade and services* sector, universities should orient their educational offer to the training of professionals in these two major sectors and to adapt the advisory services to the specialization model of the Galati-Braila metropolitan area profile.

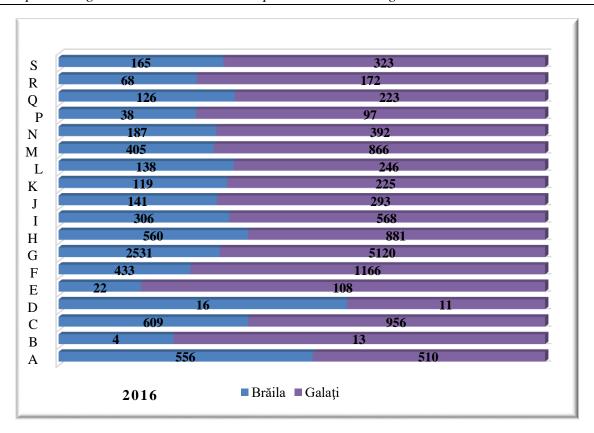


Figure 5. Distribution of active local units, by branches of the national economy, at NACE Rev. 2 section

Source: NIS. TEMPO database, June 2018, INT101R

4. Mapping the Labour Market of the Galati-Braila Conurbation from HEIs' Perspective

The economic performance of an area is to a large extent determined by the efficient and productive use of local labour. If a person in the active population is economically under-utilized, it means that he/she does not produce to their real potential, and if this person is unemployed, he/she becomes a consumer and not a contributor to the local budget. Therefore, it is important to carefully observe the *labour market* from Galati-Braila conurbation in order to identify those factors that generate the suboptimal situation and to identify the possible solutions that HEIs can provide.

The main elements that characterize the labour market generally include aspects of employment, unemployment, quality of work, productivity, earnings and labour cost.

The number of unemployed within university graduates may indicate, on the one hand, that the education system is not linked to the needs of the labour market but, on the other hand, may reflect a different perspective on labour. Young graduates generally prefer some breathing space to find a job that meets expectations (motivating salary, working conditions, environment, additional benefits, etc.), and this period is reflected in unemployment. There is also a category of higher education graduates who face the phenomenon of de-professionalization, either because of long periods of inactivity or as a result of the technological revolution that outstrips the adaptability of the university environment.

At the level of 2017, the share of the unemployed with higher education was 2.8% in Braila and 2.4% in Galati, below the regional average of 3.2% and national average, of 4.7%.

Evolution of the number of unemployed, graduates of university studies, during the period 2007-2017 is shown in table 3.

Table 3. Evolution of the number of unemployed with higher education degree

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Brăila	159	267	754	891	578	561	542	474	314	252	178
Galați	307	535	1521	1381	1116	1037	883	715	462	363	365
South-East region	1354	1819	5282	5636	4282	4081	3685	3006	2194	1916	1821
	maximum number of unemployed with higher education										
	minimum number of unemployed with higher education										

Source: NIS, TEMPO database, June 2018, SOM101B

The analysis of the labour market dynamic gives us information on the premises of the Galati-Braila conurbation development, from the perspective of human capital. According to the study "Projection of the main economic and social indicators at territorial level by 2021" published by the National Commission for Strategy and Prognosis in May 2018, the labour market will have the following characteristics: the average civilian employment will have an ascending trend in the period 2018 - 2021, the values projected for 2021 being presented in figure 6; on the horizon of 2021, the average number of employees from the total number of employees at regional level, will represent 21% in Galati and 12% in Braila; in 2021, the unemployment rate will be around 7.4% in Galati and 4.7% in Braila; the average net monthly earnings has a positive evolution during the analysed period, reaching the value of 3922 lei in Braila and 4142 lei in Galati, at the horizon of 2021 (see figure 7).

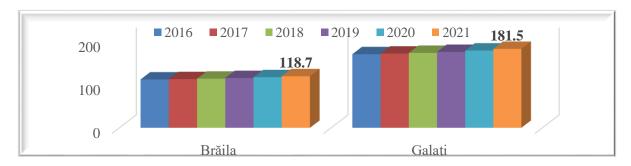


Figure 6. Average employed population (thousands of people)

Source: Commission for Prognosis

From the perspective of higher education, the *salary situation* at the county level is also important because it provides information on the ability of employees to finance training courses, university and post-graduate studies, and etcetera. As can be seen from the following table, average wage levels in Brăila is well below national and even regional averages is recorded (-20.88% from the national average, -8.19% compared to the average of the South-East region). Consequently, the educational offer should be rethought also from the point of view of ensuring funding through the European human resource development programs.

Table 4. Distribution of employment contracts by wage intervals 01.10.2017

County	Brăila	Galați
under 350 €, %	58,79	50,51
350-400 €, %	10,26	12,15
400-500 €, %	10,65	13,78
500-600 €, %	6,32	7,21
600-700 €, %	5,47	5,57
700-1000 €, %	5,86	7,27
1.000-2000 €, %	2,35	3,12
over 2000 €, %	0,28	0,39
Deviation from the regional average %	-8,19	2,39
Deviation from the national average %	-20,88	-11,76

Source: PIAROM, Labour market dynamics survey of the main employing industries in Romania in the period 2016-2017

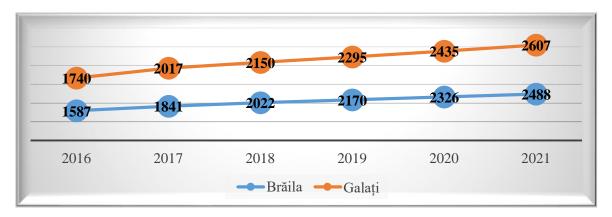


Figure 7. Evolution of net average monthly earnings (lei)

Source: Commission for Prognosis

Another important aspect is related to the *staff of the R&D organizations*, as well as their dynamics, which directly influence the capacity of these organizations to implement research projects and to absorb investment funds for R&D innovation activity. "Labour market dynamics survey of the main employers industries in Romania in the period 2016-2017" conducted by PIAROM shows that at the level of Galati-Braila metropolitan area, the density of the staff involved in research and development activities is very low. Thus, the number of employees in the Major Group 2 of the Classification of Occupations in Romania - Specialists in various fields of activity, integrating the highly qualified employees in the year 2017, was as follows: 26 in Brăila and 58 in Galați. In terms of the number of research work contracts per 1,000 employment contracts, Brăila has the lowest potential for innovation (0.82), the national average being 2.91.

Under these circumstances, we can conclude that there is no doubt that the academic field plays a leading role in shaping the skills needed for local and regional development, but national settings remain a challenge for HEIs. In a society where universities are kept under a chronic underfunding regime, being restricted in entrepreneurial behaviour through a rigid and super-centralized financial system, they cannot be key-elements in generating knowledge. Therefore, the success or failure of the university to become an active, dynamic and innovative promoter of the information society and knowledge society at local and regional level is largely determined by the national framework in which it operates.

5. University Education in Galati-Braila Urban Agglomeration

The state of HEIs in Galati-Braila urban agglomeration influences the extent of the value added by the university environment to this conurbation development. University education in the urban agglomeration Galati-Braila is carried out in *public* and *private* HEIs. Thus, in Galati, higher education is represented in the *public sector* by the "Dunarea de Jos" University, which has 14 faculties, but at the Trans-frontier Faculty the didactic activities take place in Moldova Republic, and at the Faculty of Engineering and Agronomy, didactic activities take place in Braila. Also, at the Faculty of Medicine and Pharmacy there are two specializations, provisionally authorized (General Health Care and Medicine), where the didactic activity takes place in Italy. Higher education in Galati is represented in the *private sector* by the "Danubius" University of Galati, which has 3 faculties. So, in Braila there are only two faculties: the Faculty of Engineering and Agronomy under the aegis of "Dunarea de Jos" University, previously mentioned and the Faculty of Management and Marketing in Economic Business under the aegis of "Constantin Brâncoveanu" University of Pitești. In Galati, there are no branches of other universities.

For the current academic year (2018-2019), the size of the *tuition capacity* of each *bachelor degree program*, usual determined by ARACIS (The Romanian Agency for Quality Assurance in Higher Education), shows that in Braila there are 860 seats available, out of which 350 in the public system and 510 in the private system; 660 seats are allocated to the frequency form of education and 200 seats for low-frequency education; distance learning is not represented at the county level; meanwhile, in Galati, there are 5855 seats available, out of which 4695 in the public system and 1160 in the private system; 5145 seats are allocated to the form of education with a frequency, 210 seats for low-frequency education and 500 for distance learning. In other words, in Galati-Braila urban agglomeration, for this academic year, there are 5045 seats available in *public sector*, at "Dunarea de Jos" University, and 1670 seats in *private sector*, out of which 1160 seats at "Danubius" University and 510 seats at "Constantin Brâncoveanu" University of Pitești.

From the perspective of the *master programmes* available in Galati-Braila urban agglomeration for 2018-2019 academic year, most of them are found in Galati with 88 specializations which have a *capacity of tuition* for this academic year of 3480 students (out of which 2780 in the public system and 700 in the private system), whilst in Braila there are only 5 master degree programs, with a total of 250 seats (out of which 100 in the public system and 150 in the private system).

Advanced research is provided only in Galati, by the public university "Dunarea de Jos", where doctoral studies are conducted within 3 multidisciplinary doctoral schools: *Doctoral School of Mechanical and Industrial Engineering*, with the fields of Mechanical Engineering and Industrial Engineering; *Doctoral School of Fundamental and Engineering Sciences*, with the fields of Food Engineering, Biotechnologies, Systems Engineering, Electrical Engineering, Computers and Information Technology, Materials Engineering, Engineering and Management in Agriculture and Rural Development and Chemistry; and *Doctoral School of Socio-Human Sciences* with the following fields: Economics, Management, Philology and History.

6. (Re)New University for iGeneration – the key for (Re)Inventing Galati-Braila urban agglomeration

In the light of the research results, it can be stated that renewing the University mission in accordance with regional settings and also as a respond of the new iGeneration needs represent the fundamental pillar for reinventing Galati-Braila conurbation.

Therefore, in the forthcoming years it will be necessary to figure how HEIs from Galati-Braila conurbation should respond to the pressure of demographic negative evolution which affects the economic growth of this area. Moreover, the role of knowledge in promoting local and regional development is an undeniable fact, so an appropriate governance framework can be constructed only if people involved in the process of designing and implementing different development policy are well trained in the field of *European economy* and have the capacity to understand, to an enlarged extent, the possible trajectories of development and the risk of various kinds, as well as, how to respond to different development alternatives and multiple vulnerabilities of the future. As administrators of territorial planning instruments, the policy-decision makers, should have the competences and knowledge to incorporate smart policies devoted to maximize efficiency and efficacy of returns of investments. So, reconsidering the academic curricula in order to meet this needs represent a feasible solution, but, in order to have a real impact, this measure should be consolidated with the obligation to follow these courses by the wide range of actors that works in public sector institutions, at different level of governance.

Additional reflections are required on how <u>territorial capital</u>, intended as the ensemble of *geographical* (accessibility, agglomeration economies, natural resources), *economic* (factor endowments, competences), *cognitive* (knowledge, human capital, networking), *social* (solidarity, trust, civic involvement), and *mentality pattern* (cultural assets) can be used by iGeneration, as a driving force, in an integrated context, to reduce the gap between the rhetoric and reality of Galati-Braila urban agglomeration development.

To achieve the aim of Galati-Braila urban agglomeration development, in the forthcoming years it will be necessary to take into account the catalysing of all stakeholders in the community development process by increasing the **visibility** of universities within the local and regional community as they play a key role in regional transformation through the services offered, which contribute to raising the skills and competences of the workforce, and moreover, the business environment should be aware of the **importance** and **relevance** of HEIs in promoting socio-economic development of Galati-Braila conurbation, so as to support the necessary investment in education and training.

Another important aspect is to improve the cooperation between public authorities and the academia in order to find solutions for promoting lifelong learning participation and to implement active aging strategies that allow to prolong working life, countering in this way the aging phenomenon and the demographical decline effect over the labour market.

Withal, making the most of the digital era in education and training process at the level of higher education institutions in the Galati-Braila urban agglomeration is possible only through **adequate** funding.

Summarizing, (Re)New University is a premise but not a certainty for local development of Galati-Braila urban agglomeration, national policy having a great impact on local performance, and moreover the active involvement of all stakeholders is essential in order to achieve the socio-economic growth.

7. Acknowledgement

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