

Smart City Cluj, from Provincial Hotspot to Transnational Hub: The Adventures of a Would-Be Post-Industrial City in Romania

Smart City Cluj, vom provinziellen Hotspot zum transnationalen Knotenpunkt:
Die Abenteuer einer rumänischen Möchtegern- Post-Industriestadt

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Abstract

The focus of this essay is, first, to see if the Transylvanian city of Cluj can really be counted amongst post-industrial cities—or, at least, if its strategies of development would really allow it to be listed as a post-industrial city in the foreseeable future. Secondly, the essay will try to find the set of factors that determines the city's current—as it will unfold—ambitious development and, future—no less ambitious—projects. Thirdly, the link between the post-industrial spin and the emergence of an important creative industries scene will be considered, as the essay will try to explain the role of creative industries in the new post-industrial economic dynamic of the city.

Dieser Essay analysiert zunächst, ob die transsilvanische Stadt Cluj tatsächlich als „post-industrielle“ Stadt charakterisiert werden kann, oder ob ihre Weiterentwicklungsstrategien eine solche Einordnung zumindest in absehbarer Zukunft erlauben. Anschließend werden einige Faktoren herausgestellt, die aktuellen ambitionierten und zukünftigen, nicht weniger ambitionierten Stadtentwicklungsprojekten zugrunde liegen. Zuletzt wird der Zusammenhang zwischen Post-industrialismus und der Entstehung relevanter Kreativindustrien erläutert, um die Rolle der Kreativindustrien in der neuen post-industriellen Wirtschaftsdynamik von Cluj zu erklären.

Keywords

creativity studies, diversity, internet creativity

As the title indicates, the intention of this essay is not to simply analyze the digitization of the city of Cluj-Napoca (or, by its shorter name, Cluj), or the transformation of Cluj into a smart city *stricto sensu*, by this, meaning the use of information and communication technologies in order to improve, to optimize the functioning of a city and the life of its citizens. That is because our intention is to employ the phrase smart city as a synecdoche for a larger process, which is the multifaceted process of

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stepping into the post-industrial age as described by Daniel Bell's seminal work *The Coming of Post-Industrial Society*, first published in 1973 (BELL 1999). This, of course, does not mean that the phenomenon of turning Cluj into a smart city *stricto sensu* will not be illustrated. At the same time, the essay intends to foray into the life of the creative industries of Cluj-Napoca. Important phenomena of creative industries significant for the life of the city will be identified, described, and analyzed. Also, the connection of these industries to a bigger picture, that of the smart city dynamic, will be commented upon. The suggestion is that these creative industries are part of the network of activities involved in the current shaping of the city as a future post-industrial hub.

Smart City Cluj: description

Smart City Cluj is a new trend (SMART 2017a; SMART 2017b). I am referring at this point to the efforts of transforming Cluj into a smart city. Cluj is now dubbed the Silicon Valley of Transylvania—the historical province of the former Austro-Hungarian Empire and the North-Western region of present day Romania. According to a 2018 Vegacomp Report (VEGACOMP 2018), entitled *Smart City Romania*, Cluj-Napoca, or, by its shorter name, Cluj (also the county town of Cluj County), is the “second most important city” in Romania following Bucharest (PETROVICI 2014: 2), and the fastest in terms of economic growth. At least according to some indicators (BENEDEK/CRISTEA 2014: 131), Cluj is listed third, following Alba Iulia and Oradea (two other middle-size Transylvanian cities), in a competition regarding smart city implemented projects. This smart city project competition took six aspects into account, all referring to the informational transformation of a city's life: economy, mobility, environment, people, living, governance (VEGACOMP 2018). As for the creative industries, they are already organized (TCIC 2020; CREAT 2020) into what has been named the Transylvania Creative Industries Cluster, located in Cluj. One of the initial objectives of this cluster, set up in 2016, was the

increasing [of the] competitiveness of enterprises in the field of creative industries, based on the intensive use of knowledge, as well as [the] supporting and promoting [of] projects of common interest, including big projects, cross-border, through the creation of collaborative mechanisms. (TCIC 2020)

In *Colliers International Romania Research & Forecast Report 2019* (COLLIERS 2019), Cluj was mentioned amongst other regional cities in

Romania (with Timișoara, Iași and Brașov) where the business environment becomes more and more favourable to internal and external economic migration, due to “the increased living standards [...], alongside wages not too far below (or at all) to those in Bucharest” (COLLIERS 2019).

The report also cites a World Bank study where Cluj is mentioned as the “number one town in the country Romanians would move to [...], even ahead of Bucharest” (COLLIERS 2019). In addition to this, Cluj possesses a very lively creative class comprising artists, media artists, architects, curators, IT experts, advertisers, and a wide range of creative industry offerings. I will analyze this in the second part of the essay.

In terms of the so-called tertiary economy, represented by “call centres, accounting, marketing, audit, consultancy, judicial services and so on” (COLLIERS 2019), which has the highest rate of growth, especially due to outsourcing, the capital, Bucharest is the “absolute leader.” However, the next on the list is “Cluj-Napoca and the entire Cluj county,” as this city and its county “have become a case study about the development of the business, investments, hiring activity, office and residential spaces and about the general market growth” (COLLIERS 2019). According to the same report, Cluj is listed as being the second city in the country in terms of net wages. With this expansion, the office development business is also high, with Cluj situated as the second biggest in terms of modern office stock.

Transportation, meaning passenger air traffic, alone, has increased almost doubling its size in four years, at Cluj airport—from 1.48 million passengers in 2015 to 2.78 million in 2018 (COLLIERS 2019). Cluj is also placed third amongst Romanian cities in terms of foreign capital investments (FORBES 2019). There are strong investments in creative industries as well, with foreign and local capital, primarily in software development industries, as I will illustrate. In addition to that, the gaming industry is present with a set of companies that base much of their business models not just on games, but on a combination of services. Evozon is the best example of a multiservicing business, but there are others listed as well: Zynk Software, Idea Studios, Oves Enterprise. Indie companies such as Firebyte Games, Tractor Set GO, Stuck in Attic, Rikodu, are mostly focused on game and interactive media development. One only has to take a look at several hiring sites that list the profile of software and gaming companies in Cluj to realize that there is a lot going on in these small companies in terms of their services: for example, one company put “full cycle game development, mobile games, AR/VR,

interactive apps, serious games, 3D modeling, animations, VFX, sound and music production, level design” (TRACTOR 2020)—on its list of services.

CEE Investment Report 2019 – Thriving Metropolitan Cities (CEE 2019) lists Cluj as the 7 on a list of the “20 fastest growing cities in the European Union” (CEE 2019: 8). This ranking had three main factors in view: “productivity growth,” “connectivity growth,” “human capital growth” (CEE 2019: 9). Wheels are in motion. A 2019 report announcing a Smart Transformation Forum held last year in Bucharest and bringing together the most important, governmental as well as private, actors involved in the “Smart City” initiative (PURICE 2019) began its argument by stating that

major metropolitan areas are expected to implement technologies that could bring urban living into the digital age. Successful and sustainable Smart Cities are not built solely upon the technology mainframe, but on the support and engagement of the broader community, by prioritizing and practicing people-centered urban design and providing multi-modal pathways for all citizens to join-in and meaningfully participate in the co-creation of their Smart City. By meaningfully and continuously engaging the public in all Smart City planning processes, city leadership, urban & private sector partners are ensuring the systems, projects & plans they create are grounded in real community needs. It’s time for our community to start turning towards smart technologies. (PURICE 2019)

The Forum considered implementation of four major strategies, all of them considering the link between community and technology, with an emphasis on involving the city communities as partners in the fashioning of these smart cities. These strategies were: *Smart energy*, *Smart mobility*, *Smart infrastructure*, and *Smart public services* (PURICE 2019). The current mayor of Cluj-Napoca, Emil Boc, addressed this issue in 2019, when speaking of the future strategies for a Smart City Cluj (CĂTĂLIN 2019). Amongst other projects—free wifi, smart parking, EV charging stations, online payment for taxes, electric buses, Boc spoke about the most important one, in his view: *Cluj Innovation City*, a 500 million Euro future investment. He then added: “Our goal is to shift from ‘made in Cluj’ to ‘invented in Cluj’” (CĂTĂLIN 2019). On the site dedicated to the project, this investment is described as,

a planned high technology business area to be built in and around Cluj [...]. The site aims to be a highly modern complex created to encourage companies that are part of the recently established Cluj IT Innovation Cluster and also other science and technology companies from Romania and abroad to establish their base of operations and research here. (CIC 2020)

This is not out of the blue, however. Cluj already hosts powerful IT, as well as IT-related and engineering industries run by giants such as Google, Emerson, Endava, Bosch, Siemens, and Microsoft. Cluj also founded the *Cluj IT Cluster* in 2012, a conglomerate of

16 gold members, 6 regional universities, 23 silver members, and 10 catalyst organizations, including the Regional Development Agency, the City Hall of Cluj-Napoca and county-level institutions in Cluj, as well as Steinbeis Europa-Zentrum in Stuttgart (CLUSTER 2020),

as promoted by the site of the European Commission.

A lot of IT businesses in Cluj are dependent on outsourcing on a very competitive, global, market, as “the prevailing segment remains for the time being in the software outsourcing service area” (DRAGAN 2018). Yet this outsourcing is constantly growing and, at the same time, a constant source of economic boom. So much so that, according to some of the latest data, provided by the site of the software development company Softech,

one out of eleven employees works in the IT sector in Cluj-Napoca ... there are 1235 IT companies in Cluj-Napoca, employing about 14,000 persons—that is the equivalent of 8.7 % of the city’s total employees. When counting the total number of free-lance and start-ups, the number of people professionally involved in IT reaches over 20,000 persons. (SOFTECH 2017)

Softech also emphasizes that 20,000 out of the total of 100,000 IT professionals in Romania work in Cluj. Szélyes Levente, the Hungarian speaking CEO of the Cluj company Codespring, quoted by Softech, states that the advantage of Cluj, in comparison to Bucharest, is that Cluj, as it lacks the necessary business connections to work with the internal, national, IT clients, is mostly oriented towards the global market. Cluj is thus more global-oriented than the capital city of Romania in terms of establishing long-term business connections with major clients (SOFTECH 2017).

The high-tech and IT industry in Cluj therefore contributes heavily to the growth of a more cosmopolitan city. Global business connections mean more foreigners working or doing business in the city. This sparks a thriving social life hosted by a growing number of chic cafés, restaurants, so-called creative bars, such as Joben Bistro, Enigma, Insomnia, BooHa Bar, and other pubs and clubs. A 2020 article in the *Guardian* (2020) lists these as part of the main attractions of the city. The inflow of tourists also contributes to this cosmopolitanizing trend, leading to an increase in the number of hotels, hostels, and other accommodations. The IT industry also has a very good relationship with the municipality of Cluj. The article has already noted the support of the Smart City Cluj

project provided by the mayor. In support of the idea of IT connected with urban development in Cluj the municipality created an Innovation and IT Consultative Council, its task being the development of the Innovation and Information Technology Strategy for 2014-2020 (SOFTECH 2017).

Besides IT, there are other investments currently running in high-tech and engineering. The Tetarom Industrial Park, built at Jucu, near Cluj, has the mission, according to the Industry Section of the European Commission's page on Internal Market, Industry, Entrepreneurship & SMEs, to

build and to develop high tech industries that are in need of qualified work force such as information technology, electronics & telecommunication industry, automation, robotics; to stimulate research activities in high tech department; to set up, at a fast pace, new available jobs especially for the graduates from Cluj Napoca Universities; to bring non pollutant technologies in accordance with the environmental legislation; and to set up specific industrial park infrastructures, local and regional expansion 'engines'. (TETAROM 2020)

According to the data previously shown, it is by now obvious that new capital flows have unleashed the force of local businesses and initiatives, with major cities (Cluj, Timișoara, Iași, Brașov) as major competitors on the external and internal markets against the hegemony of the capital city, Bucharest.

In the new office development business, there is constant and substantial growth, with big office buildings being raised in the areas formerly occupied by Socialist-era warehouses and factories. In Cluj, there is Liberty Technology Park, The Office, Mainstream Office, and other venues. All are new, inspiring locations, populated mostly by high-tech and IT companies occupying the new business environment in Cluj (OFFICE 2020). The banking business is also well personified by the Cluj-based *Banca Transilvania* (Transylvania Bank), currently running as the largest bank in Romania.

As others areas of high-tech & IT industries have already experienced, the working life of these professionals is generally driven by a "centrality of work" ethos, "entrepreneurialism," "extreme individualism," "aggressive competition" spirit, but also "technostress" diffused by "compensatory consumption" generated by high incomes, which determines "affluence" and a certain lifestyle (CASTELLS/HALL 1994: 21–24). This consumption is hosted in Cluj by a large network of malls, restaurants, clubs, cafés, pubs, bars, and clubs which have become a part of the local culture. Of the creative bars already mentioned, Casa TIFF, is unique: it has been directly linked to one local cultural event happening each year

in the city from 2002 onwards, the TIFF (Transylvania International Film Festival). Casa TIFF is the venue that hosts the TIFF offices, not just during the festival, but throughout the year. Located in the city centre, the bar also hosts numerous other cultural events, a lot of them related to film. Another bar, “Insomnia,” is a venue very familiar to literati, artists, and especially poets, as it hosts a well-known local independent poetry club, called *Nepotul lui Thoreau* [*Thoreau’s Nephew*]. However, in terms of creative industries networking and organizing, there is more than the independent niche. There is also mainstream organizing. The *Transylvania Creative Industries Cluster* (TCIC) mentioned above is an important alliance of institutions such as the University of Art and Design (whose former rector is also the cluster’s president), The Technical University of Cluj-Napoca, and business actors such as Aries Transylvania, Cluj Innovation Park, Vitrina Advertising, and Transylvania Bank. The cluster also enjoys support from the mayor’s office. The TCIC is, according to its site, Romania’s first Creative Industries Cluster (TCIC 2020). There is also the *The Regional Center of Excellence for Creative Industries*, an initiative started and implemented by the municipality in 2013, with support from the European Regional Development Fund. The building which hosts the Centre, covering an area of over 13,000 sqm, which is already up and running and located near Cluj Innovation Park, offers services to all kinds of creative industries, such as office space for creative businesses and working space for creative workshops and audio-video productions, for example, a film studio. The Centre also provides operational space for various events such as conferences, exhibitions and shows. The Centre includes a Green Amphitheater, an outdoor amphitheater providing location for open-air events (CREICa 2020). According to the description of the venue,

CREIC is a building with four different units—A, B, C and D, three underground levels, ground floor and four stories. There are more than 2,300 sqm dedicated to office and coworking spaces, 966 sqm for the micro production spaces, 1,056 sqm for the event spaces and 629 sqm for the film studio. Our outdoor amphitheater and green terraces of CREIC are dedicated to formal and informal, artistic, social or business events. (CREICb 2020)

It is, indeed, a real, life-size, factory dedicated to creative industries.

Another initiative, which is NGO-level and dedicated to the support of creative industries in Cluj, is the *Cluj Cultural Centre*, a “non-governmental organization for culture and urban development” (CCC 2020), according to its online description. The projects of this centre focus on

contemporary art, well-being, cultural and artistic education, urban re-generation, community connection, social inclusion, cultural industries, rural development, ethnography of imagined worlds, cultural sector's capacity-building, social and urban innovation, international cooperation, research, and policies. (CCC 2020)

The Centre struggles to promote the development of “the city of Cluj as a strategic European city in the field of art and culture” (CCC 2020). Its mission is “to mobilize culture, in partnership with other sectors, in order to contribute to the social transformation and urban development” (CCC 2020).

Sporting events and entertainment (of all sorts) are well represented, with classical music festivals, countless smaller-scale events, big summer music festivals (Untold, Electric Castle, Form Days, Jazz in the Park), as well as important film festivals (TIFF). There is also a newly built sports infrastructure area located in the city centre comprising a new stadium (Cluj Arena) and a new sports hall nearby that is already functioning. This entertainment industry attracts a lot of internal and external tourism (especially in the summer, during the major festivals). As a result, there is also a booming tourist industry.

Another two important elements in this highly complex puzzle—besides IT and high-tech companies, air travel, office development, industrial parks, technological parks, banking industry, entertainment and sports industry, retail, smart city, and community projects—are, first, the new urban and extra-urban transport infrastructure developed or upgraded or waiting to be developed and upgraded. And, second, the new residential areas built in the city and in its vicinities, creating a large metropolitan residential area adding roughly 100.000 to the already 325.000 people living in Cluj. This also encouraged the real estate business and the insurance business. The municipality is looking to upgrade the existing transport infrastructure with new major investments such as a city beltway, a Cluj Metropolitan Train, a Cluj Metro Line in order to make possible a demographic boom of up to 1,000,000 people in the Cluj Metropolitan Area in the next 15 years (CĂTĂLIN 2019). A lot has been invested in new public transportation vehicles as well. A bike rental system and a smart parking system have been implemented. Also, an investment in upgrading the airport infrastructure is partially functional; more is underway.

Last, but not least are the universities and their connection to the creative industries—the latter comprising nine sectors, such as arts and culture, IT, software and computer services included, according to a British DCMP analysis from 2015 (DCMP 2015: 10). University life in

Cluj, counting on almost 100,000 students from all the higher education institutions in the city, is the biggest and most important human capital provider, a capital which is the most precious resource for the IT, high-tech, engineering, and other informational industries.

These university graduates are the most valuable current and future workforce for these industries. The creative industries, on the other hand, are also well represented due to the presence of institutions providing the education necessary to develop special skills for jobs in the sector: an independent University of Art and Design, an independent Music Academy, and other specializations offered by other institutions, necessary for these kinds of jobs.

An interesting case is the Paintbrush Factory project. Located on the site and in the buildings of a former paintbrush factory, its presence helped forge a stronger sense of community among the different artists and artists' cohorts in the city.

Art Cities of the Future: 21st Century Avant-Gardes (BYRD et al. 2013: 64–83) published by Phaidon Press, analyzed twelve prospective cities that would influence the art world in the 21st century. Cluj was included on a short-list of cities, along with Beirut, Bogotá, Lagos, New Delhi, Istanbul, and others relevant to the contemporary art world. The “Cluj” section is authored by Jane Neal. The author notes, right from the start, the multi-cultural history of the city and also its high cosmopolitan potential, including the struggle of local artists to become more internationally acknowledged. This quest for international acknowledgement was, and is, higher in the Cluj artist community for two reasons, she argues: first, because of the simple fact that Cluj is the “provincial” (BYRD et al. 2013: 64) element or center, less important politically or administratively, in comparison to the capital, the metropolis, and, therefore, the chance for the artist acquiring a “national recognition” (BYRD et al. 2013: 64) is less palpable than in Bucharest; second, because—due to its centuries-old historical and symbolic ties to Western Europe, especially through its Habsburg imperial history—Cluj was constantly driven towards Western Europe. Western, particularly German, art influences are the result of direct historical liaisons with Vienna and Budapest (BYRD et al. 2013: 64).

The Paintbrush Factory is significant to the artistic development of Cluj. Several art galleries, such as Plan B, Bazis and Sabot, were quick to locate, and to exhibit on the site of the former factory, which became a “centre for the arts, with artists' studios, workshops and galleries on site” (BYRD et al. 2013: 65). The activities fostered by the Paintbrush Factory

project only helped catalyze the image of what international newspapers called the “Cluj Scene” (BYRD et al. 2013: 67). The Phaidon Press publication includes mention of several artists from Cluj who are part of its art scene, and who have achieved global recognition and fame: Marius Bercea, Mihai Boşcu Kafchin, Răzvan Botiş, Adrian Ghenie, Victor Man, Alex Mirutziu, Ciprian Mureşan, Serban Savu. In addition to these, Mircea Cantor, another world-famous Romanian contemporary artist, now living in Paris, but who continues to collaborate with the Cluj art world, was himself a graduate of the Cluj Art School.

According to BRANIŞTE (2019), the Paintbrush Factory projects the city of Cluj into the post-industrial age, yet on a somewhat different path: the creative/artistic path. In other words, the Paintbrush Factory, which was a project managed by artists and creative industries entrepreneurs, a project that changed a former Socialist factory into a post-Socialist and post-industrial arts enterprise, putting the spotlight on Cluj as a new world-class site of artistic production and community-focused creative industries, marked a crossing into the “post-industrial age” through the shift from “industrial production” to “symbolic production” (BRANIŞTE 2019: 76). Thus, “cultural provincialism” (BRANIŞTE 2019: 76) alchemized into global cultural/artistic fame through a symbolic maneuver operated by the efforts of an entire “creative class” (RĂŢIU 2013: 126ff.) of artists from Cluj, Bucharest, and elsewhere, for that matter. The local was miraculously alchemized into the global. This is a perfect example of a crossing from an industrial to a post-industrial age by the hand of artistic creativity:

Cluj-Napoca joins the pattern of the post-industrial town that is eager to establish a new narrative to rid itself from a haunting past failure of economical anonymity and cultural provincialism. (BRANIŞTE 2019: 76)

Smart City Cluj: analysis

Before going into the analysis, I would like to emphasize some of the economic and cultural history of this city. Cluj has always been a part of Transylvania, the centuries-old historical province populated by various ethnic groups, such as Germans, Romanians, Hungarians, Jews, Roma, and others. This multi-ethnic and multi-cultural atmosphere has left its mark on the culture and history of its cities and territories. Although a lot of this multi-ethnicity has been lost, the province still remains multi-ethnic and multi-cultural. Nowadays, there are two major ethnic groups

living in Transylvania: Romanians and Hungarians. Cluj/ Kolószvár/ Klausenburg are the three names (Romanian, Hungarian, German) of this city. Cluj has always been, since the Middle Ages, a flourishing city of trade and crafts. It was also inhabited for centuries by the Hungarian nobility. There is a long tradition first of craftsmanship, then of various industries, with the arrival of the Modern Age. The post-war arrival of Communism and then the Ceaușescu era turned Cluj into an industrialized city. The regime built large residential areas around the old city of Cluj to host the new workforce needed for industrial work. After the 1989 collapse of the regime, the old Communist economy collapsed as well, and the industrial workforce became economically disenfranchised. In the 1990's, working-class anger towards the economic debacle was channeled into a rhetoric of "neo-nationalism" by a populist mayor (PETROVICI 2011). On the other hand, "everyday practice" showed that "multicultural life simply went on [...] as if little had happened" (PETROVICI 2011: 59). This period, from 1992 to 2004, was marked by a sort of "protectionism" towards the local economy (PETROVICI/SIMIONCA 2011: 140). Cluj remained a provincial, albeit still historically important and culturally effervescent city. After 2004, with the election of a new mayor, Cluj emerged as a "regional center for the transnationalization of the Romanian economy" (PETROVICI 2011: 72).

Now, looking over the scheme sketched by Bell (1999: lxxxv) in his 1973 *opus*, we may consider the basic elements by which he defined the

"post-industrial": the "mode of production"—of the "post-industrial"—is "processing, information;" the "economic sector" is "services;" the "transforming resource" is basically "information;" the "strategic resource" is "human capital"(in comparison to the "financial capital" of the "industrial age"); its "technology" is "intellectual;" its "skilled base" is the "professional," in comparison to the "engineer" or "semi-skilled worker" from the "industrial age;" its "mode of work" is "networking;" its "time perspective" is the "future;" its "design" is the "game between persons" and not "game against nature," as in the earlier ages; finally, its "axial principle" is not "productivity," but the "codification of theoretical knowledge". (Bell 1999: lxxxv)

Examining the economic sectors of the post-industrial economy reveals at least some of the aforementioned elements identified in the description of the new investments in Cluj reflected by Bell's distribution of services:

(BELL 1999: lxxxv)	(BELL 1999: lxxxv)	(BELL 1999: lxxxv)
<i>Tertiary</i> (economic sector) Transportation Utilities	<i>Quaternary</i> (economic sector) Trade Finance Insurance Real estate	<i>Quinary</i> (economic sector) Health, education Research, government Recreation, entertainment
Cluj major investments	Cluj major investments	Cluj major investments
Upgrading transport infra-structure “Smart” vehicles	Retail Insurance business Real estate business Banking industry	Universities Creative industries Industrial parks Technological parks Entertainment & sports industry Tourism industry

Table 1: Comparison between the post-industrial economic development sketched by Bell (1999: lxxxv) and major post-industrial investments in Cluj and in Cluj metropolitan area from 2004 onwards.

The answer to the question whether Cluj can really be counted amongst post-industrial cities is that there are many post-industrial investments recently made by the private sector or by the government. However, Cluj is, at this point, neither a fully-fledged post-industrial city as it has a lot of catching up to do with respect to urban planning, both in the city and in its surrounding areas. Nor is it a technopole, an actual Silicon Valley, futuristic global hub of creativity, cutting-edge engineering, and innovation, as these purebred “technopoles” are rather rare (CASTELLS/HALL 1994: 10ff.). At the same time Castells and Hall argue that for a city or a location to become a technopole, it has to produce self-standing innovation, and also, that innovation must be absorbed into the societal and infrastructural schemes of the city. This is why so few locations or areas can truly be labeled technopoles.

Nevertheless, portraying Cluj as a Silicon Valley means good “image making,” as this “has become a central basis for successful competition in our latter-day economy and culture” (CASTELLS/HALL 1994: 8). The post-industrial economy also favours the local above the national—at the same time turning towards the global, precisely because of its “transforming resource,” information, and of its tendency to expand: “regions and cities are more flexible in adapting to the changing conditions of markets, technology and culture” (CASTELLS/HALL 1994: 7).

The post-industrial local trend, however, will improve in the future, as new developments will follow. One can observe a tendency of the new Cluj industries to value human capital at least equally to the financial

one. Also, one may remark that the focus is on favoring intellectual technology over machine technology in terms of production, innovation over industrial era production. The most desired and advertised jobs on the market are not engineering or semi-skilled jobs. The most favored is the IT professional. The IT profession becomes a source of productivity. His division of labor is the network. He works in data, information, knowledge, which are also the transforming resource—the basic source of productivity. The IT class seems to be also very close to, if not the epitome of the “creative class” (FLORIDA 2012: 38–83). He is the “creative” individual *par excellence*. This has, apparently, already been made clear by Richard Florida, who talks about “creative capital” (FLORIDA 2012: 120) including engineering and data management, and not in a metaphorical sense: “creativity—the ability to create meaningful new forms [...]—is now the decisive source of competitive advantage” (Florida, quoted in RAȚIU 2013: 126). The “new growth theory” is also very close to the idea that, as knowledge is the “transforming source,” it is also “sustainable,” as it is virtually infinite in terms of productivity (RAȚIU 2013: 126).

Of course, there are downsides to this “creativity” spin, and these downsides include the well-documented emergence of new social and labor divisions through the rise of this new, elitist, so-called creative, superclass. This almost makes the creative class narrative a mark of the ideological or, at best, of the imaginary. In addition to that, there are intrinsic, conceptual difficulties with the operationalizing of the idea of creative class. This is why phrases such as *creative city* are very difficult to grasp as well. Thus, the creative industries are well represented in the new economic and cultural life of the city as part of the cluster of elements involved in the current development of Cluj as a would-be, post-industrial hub.

Finally, with respect to the reasons behind the favoring of Cluj over other cities in this high-tech, IT, and engineering investment competition, I would propose a few, and list them into two major sets of advantages: obvious and discrete. Amongst the obvious advantages, are: the location (situated near the West of Romania, rather close to the border with Hungary), the road and aerial connections (an expanding city international airport, connection to a highway that leads directly to the border), the size (a medium-size city), the educated, highly-skilled workforce; the city’s developed and developing infrastructure. Amongst the discrete advantages, which tilt the balance a lot in favor of the city, in my view, one counts: the city’s major historical significance to both communities, Romanian and Hungarian, which creates a powerful sense

of local identity in these communities; the city's economic tradition of trade, manufacturing and industries, which also feeds into the local business ethos, creating a sense of local economic identity; the city's embedded multiculturalism and multilingualism, which is more discrete and more pervasive than usually expected—the cultural contact between two communities always creates an advantage; and, finally, as observed by Petrovici and Simionca (2011), the discrete, informal business ties amongst powerful actors on the local business scene, a thing which forges a very powerful competitive advantage.

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