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**Geofusion: Cities, Regions, Nations in the Geoeconomy  
Age. The Power of Geography**

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**Geofusion: Cities, Regions, Nations in the Geoeconomy Age.  
The Power of Geography**

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**Abstract**

The study is based on a thorough investigation regarding the recent global, social and geographical processes. Geofusion guides the reader with the help of maps in the global world of the 21st century through the quest for the winning nations, communities, leaders and powers of this age. The findings of the study include a significant recognition that the scientists who are taken as explorers geostrategists of this century, are expected to present guidelines of our connected world full of global social and economic challenges. In 2017 the author issued his book titled Geofusion: Mapping of the 21st Century. This paper presents the basic message of his book involving the following statements: We have to redraw our conventional maps replacing them with maps of questions making up objectives. Creativity and geo-knowledge is the pledge of a winning position in global economic competition. In future's economic competition, like in a race, creativity is the fuel, networks and knowledge represent the safety belt. Local resources help us to go international. We can enter international geo-fusion networks only via our local community's values. According to various research and forecasts, the main economic concentration will be in 40 megacities and global centres. Based on various competitiveness analyses and indices, global city centres and city networks are outlined, but if we look at other aspects of urban development like complexity, connectivity, creativity, technological development, viability, green cities, pedestrian and child friendly cities, creative and cultural centres, cultural spaces and knowledge centres, we get a city competitiveness index with quite new complex indicators. The research shows this result. The methodology contains the survey and analysis of many recent publications worldwide, regarding geostrategic, cultural, geographical, social and economic surveys structured into global networks. In conclusion the author presents the result of the study which is a collage of the global map of the 21st century as mentioned above.

**Keywords:** Geographic Trends, Global Urban Networks, Megacities, Sustainable growth, Geostrategy

## **Introduction: We Are Part of a Special Geo-moment**

We are part of a special “geo-moment”, where unsurpassable human values and technological innovations are redrawing the map. The global world intertwined by a thousand threads is looking for new inspirations in individual creativity, and for new partners in local networks – so forms the new centres of the future from the border areas of the past. Behind the century of the dynamic, personal maps, a dynamic and personal world is hiding, of which we can create different force fields and interest networks, and as well as idea and knowledge maps. Therefore, the explorers and geostrategists of the 21st century get directions not from the Pole Star anymore but from the innovation clusters, instead of globes they draw university hot-spot globose and beside geomorphology they measure the “curvature” of local cultures or the “projection” of global trends.

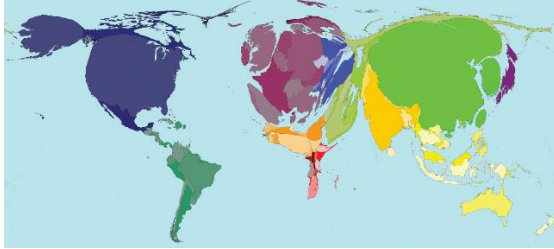
All of this is needed, because all signs point to the unipolar world once again developing to a multipolar one and a new world order being born in the 21st century. Everyone investigates in their own professional field, who will be the winner nations, communities, leaders and powers of this century. The big ones or the small ones?

The strong ones or the fast ones? The centres, or the peripheries? The economic borderlines have moved from the former centres to the peripheries, thus the border areas of the past become the new centres of the future. The global strategies are replaced by “regional” co-operations. The fight for the energy and at the same time for energy independence is happening simultaneously both abroad and inland. It is based on the new technologies, and thanks to the global 24/7 economy, talent cannot be suppressed or kept at bay: the gates of the new world are open for everyone. And as the (economic or other) mobility of the individuals has grown with the appearance of the internet, public transportation and new industries, so the mobility of nations, communities and countries has grown. The same way today a Chinese economist, an Argentinian lawyer and a Hungarian engineer can start a joint undertaking, the countries even thousands of kilometres away are connected to each other. The currency of the localized, but thousand-thread-intertwined 21st century is the unique idea, the creativity and knowledge, which easily inflates away, if we do not keep up with our competitors. In time and space, we are part of a special “geo-moment”: where the global space is fragmenting, where the countries small in size have to become great in knowledge, where creativity and well-skilled labour force become values, and where the countries situated in the former peripheries with knowledge-intensive economies could be the new points of reference.

## **The Increasing Importance of Geography in the Economy (As Reflected in the Special Literature Connected to the Status of Geography)**

By today, as a result of globalization processes, the functioning of the societies, and so that of the economies has changed significantly, it can be observed that factors, previously unknown or deemed less important, have strengthened. In the past decades we have experienced more and more accelerated that a sort of global economic integration and networking is happening. In the organization of the economy and society the role of the geographical space has also radically changed. With the decreased transportation costs and through the physical space spanning technologies, space shortens, but also “thickens” (Figure 1).

**Figure 1. *Multipolar World in the 21<sup>st</sup> Century***



Source: worldmapper.org

## **O'Brien Was Not Right**

Richard O'Brien in the beginning of the '90s published his book analysing the international financial system with the title "Global Financial Integration: The End of Geography" (O'Brien 1992). According to O'Brien even in our age tens of billions of dollars turn daily on the international financial markets, and thanks to the modern information technology, in seconds also tens of billions of dollars can be sent from one corner of the Earth to another. Even more – as O'Brien predicts – the future is not so far away, when "from an economic development standpoint, geographical location is no longer a factor". Well, today we can now safely state O'Brien was wrong. Namely, the experience is that in the past decades in the professional-scientific and the economic policy discussion regarding the global realignment, localization has become more significant. Numerous "bestseller" thinkers examining the global economic-social questions of the world write about the increasing significance of spatiality and e.g. that of cities.

Richard Florida for example in the rise of the competitiveness-defining creative class, sees the role of locations, including the cities essential, while Edward L. Glaeser, professor of economics of Harvard University outright wrote one of his main works about the (economic) triumph of the cities (2011). At the same time, it is worth paying attention to Robert D. Kaplan, geopolitical "guru", who brings the defining role of localization in the global processes into focus with the volume titled "The Revenge of Geography", which at the same time could be some kind of answer to O'Brien (O'Brien 1992).

Today the experience is that although localization appears in more and more popular disciplines in the mainstream, in all kinds of social science areas the engaging in the geography of the world and smaller regions is becoming more significant. The so called new economic geography, introduced by the 2008 Nobel laureate in economics, Paul Krugman, which created the spatial equilibrium model of growth, brought the importance of geography to the mainstream of economics.

## **What is Really Happening in the Global Economic Space?**

What we can certainly state is that with globalization, transportation costs decrease, areas far apart link up with each other, and the spatial systems of ever greater proportions of production interweave the Earth. In the knowledge-based economy at first it seems that information defying the physical space is able reach almost any point of Earth immediately thanks to the incessant development of digital technologies. However, we see that in the economy at the same time

strong locational concentration tendencies prevail, and the role of cities becomes incredibly important (Figs. 2. a. b. c.).

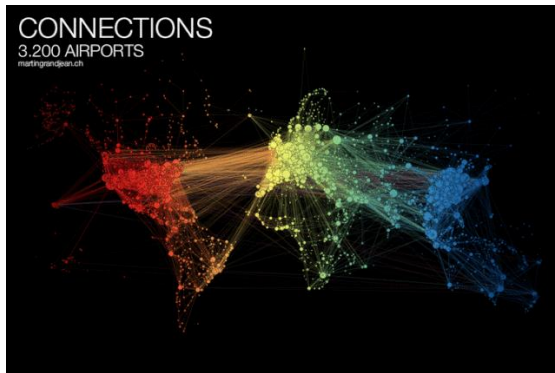
**Figure 2. a. b. c. *Network Connections of the World 2015***



a. Source: Connectiviy LAB 2015.



b. Source: Connectiviy LAB 2015.



c. Source: martingrandjean.ch

The economic role of spatial concentration becomes more important, while long-term relations between distant business partners could also become stronger. The companies of global industries plan in country-groups regarding the product market and sales, while organizing the input markets and production they think in subnational regions, usually cities and their agglomerations. The globally competing companies realized that the sources of their competitive advantages are spatially concentrated, therefore they have to act locally to strengthen these advantages. As a result of the above processes, several initial assumptions of economic science certainly have to be re-evaluated, the understanding of both the regional competition and the

closely related economic growth and development, and as well as the economic policy and developmental concepts as a response to new challenges.

### Where does Science Grow?

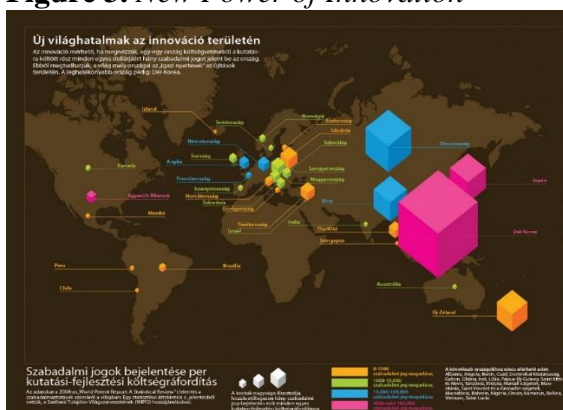
The ideal medium of innovation is the space of large cities densely woven by interactions, where the varied creative labour force can be found and where innovation is ensured by the presence of different types of activities, of companies with different profiles but which complement or even inspire and “fecundate” each other. In fact, knowledge economy becoming dominant is itself of dual nature regarding the role of geography.

Glaeser in his work “Triumph of the City”, regarding the progress (and often overvaluation) of the internet and information technology (IT), emphasises the importance of personal meetings, citing several researches which have shown that the groups which only keep contact by electronic measures dissolve sooner than those who also include personal meetings. Therefore, communication through IT tools merely complements personal meetings and makes them more effective, but does not substitute them. Since personal relationships lead to more trust, appreciation and more effective co-operation. Regarding patents, geographical proximity is also a significant factor, as it has been shown that regarding patent references, the number of patents referencing and quoting each other is twice as high in a metropolis area.

In the age of information technology and society, in contrast to the previously predicted visions, the significance of geography is not disappearing, the formation of new ideas and knowledge, their circumstances are still geographically determined, the geographical space (the geographical configuration of the developmental actors) still significantly affects innovation and productivity (Glaeser 2012).

Only a part of knowledge, the so-called digitalized knowledge can be flown with the help of information technologies globally. There is however a dimension of knowledge which can only be passed on through face-to-face relationships, even more, only this way can it be created and produced again. This is cognitive knowledge, the so-called tacit knowledge, which bears the real secrets of innovation, production technologies and successful economic operation.

**Figure 3.** *New Power of Innovation*



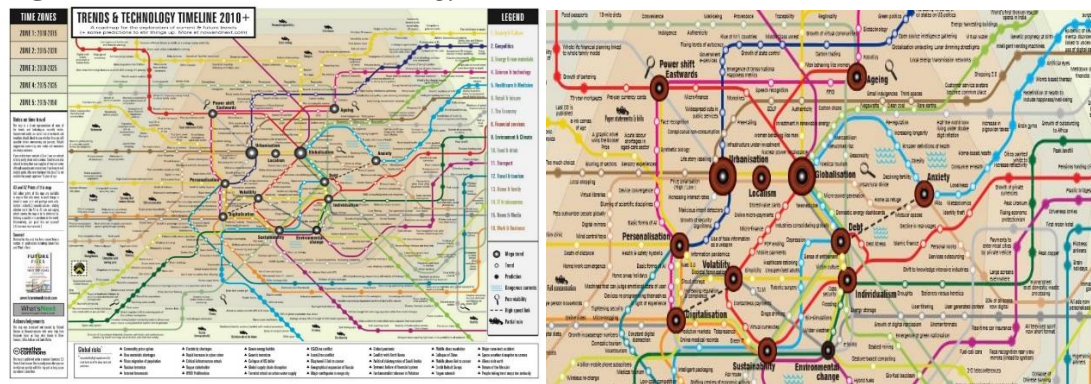
Source: Visually (www.visually.ly)



## Where to Now, 21st Century?

As we have seen above, notable efforts are aimed at incorporating the geographical dimensions, charming obvious in the economic development of countries and the world, into the economics mainstream. Although however much we extend the frames of economics, it can be seen that the essentially neoclassical economics, but even the Keynesian approach are only able to explain more and more limitedly – and predict even less – changes, such as e.g. China becoming a superpower or the economic crisis erupting in 2008, or even the Middle Eastern economic force field, restructuring through the Arab Spring, which in essence also concerns Europe, or even the rise and fall of different macro regions. Based on the realization that global development is better explained by geographical and historical contexts, new areas of science begin to take shape. To better understand the paths of development, one definitely has to count with the realizations of geography and the political events connected to space, which, sometimes not in a way explainable by the models of mainstream economic, but obviously shape our future. (Figs. 4 a. b). “If you want to know the past, look at the present, if you want to know the future, pay attention to your present deeds”. (Richard Watson 2009).

**Figure. 4a,b: Trends & Technology Timeline between 2010-2050**



Source: Richard Watson, Future files 2010.

Richard Watson in his book titled Future Files analyses two hundred trends, and from these highlights five powerful, futures shaping changes (Watson 2012). Humanity will become stronger and stronger, thanks to technologies more and more illnesses will be cured with success, more will be spent on health care, medicines, health tourism. Everyone will have closer and closer relations with everyone in the world. The information, cheap travel, migration will change the behaviour, work, mentality of people. Fifty years later everyone can reach everyone in the world. We will witness the “rise” of the machines, GRIN technology will be formed, which will be born from the marriage of genetics, robotics, internet and nanotechnology. A great shaping force is the shift of power from the West to the East, China, India are winners, Russia, Brazil, Mexico will get stronger. The environment is more and more important: the pollution, global warming, the lack of resources and energy sources. Countries will go underwater; the greatest fight will be for water.



## Geopolitics and the New World Order – Geography has not Disappeared

Geography increasingly fuels endless chaos and old-school conflicts in the 21st century – writes Robert D. Kaplan in his article *Geopolitics and the new world order*, published in *Time* magazine. The global elite – professors, intellectuals, foreign policy analysts and Western leaders – readily forget about that. However, we are currently living the vengeance of geography. Technological development has not eliminated geographical location, even more, it made it almost more suffocating.

While the West only views international relations according to simple laws and international agreements, the rest of the world is still only able to think in deserts, mountains, ports and freshwater. The world is yet again at primary school map reading, when it tries to understand history, culture, religion and ethnicity – not even mentioning the fight for the natural resources and trade routes.

The 21st century should not look like this. As John Kerry said: “19th century behaviour in the 21st century”. For that matter, the “19th century” lives on, and will live on. The world is not flat. The modern age existence of Europe in principle should be about the triumph of the European Union above nations, ethnicities, enacting a legal system from the Iberian Peninsula to the Black Sea. The drawn out financial crisis however was accompanied with the loss of its political influence, especially in the Eastern European region. The democratic line appealed to many Ukrainians, but the geographical factors are impossible to ignore, this is why the orientation toward the West is so difficult.

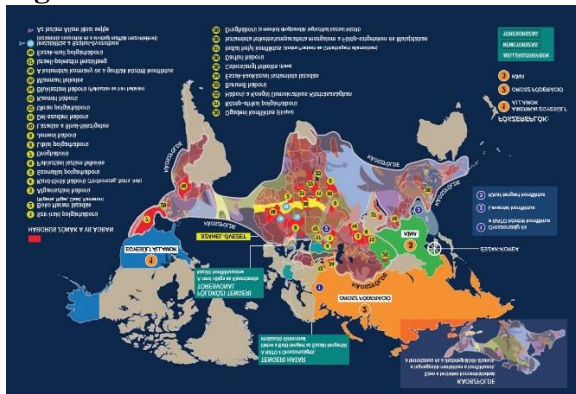
Another method of the description of events happening today around the world is the zero-sum political–power games. One of the sources of the Middle Eastern problems is a typical geographical strife between the Shiites conquering the Iranian Plateau and the Sunnis populating the Arabian Peninsula. The Eastern Saudi, Bahraini (Western Iraqi and Western Syrian territories) oppression is fuelled by this Saudi-Iranian opposition. As Iran creates the technological and scientific bases of the atomic bomb also, Israel sees the alliance in the Saudis. The most important area for the United States, Asia, is recently also restructuring according to geographical conflicts. (Figs. 5-6.).

**Figure 5.** *New Partnership and Collaboration in the Age of Geo-economy*



Source: Limes – Geopolitica 2014

**Figure 6.** *New World and Chaos Land: Collaboration in the Age of Geo-economy*



Source: Limes Geopolitica

These debates are not about morality, economy or politics, but about territories. The Chinese-Japanese disagreements because of a small island, or many conflicts characteristic between China and Vietnam and as well as the Philippines are so complex, that in principle they would be solvable, but rather balance of power between the Chinese and American navies and air forces are what will keep them at bay. The warships stationed in the Pacific region draw a map which is like what the European region was in the past centuries. War will likely not come, however South-East Asia is creating a more and more uneasy and complex world order, with territorial disputes, natural resources and trade routes in the centre.

If one looks anywhere, geography is dominant. In a world, where geography is appreciated, and not ignored, they understand what territorial limits the political leaders have. There are unbridgeable obstacles. The best head of state always acts on the border of possible. Only the human leadership paying attention to geographical limits can be successful. If there is any good news is that most of the redrawn borderlines lie within states and not between states. The great human cataclysm of the 20th century will not be repeated soon. But a world spanning civil society can only be realized taking into account the geographical capabilities. Foreign policy must be based on morals, but the analysis behind it must be made with sangfroid, placing geography in the centre. In geopolitics the past never dies, and also there is no modern world.

## Age of Geoeconomy

Who will be the winner nations, communities, leaders of the 21st century? Let us ask, who will be the winner nations, communities, leaders of the 21st century? The unipolar world develops into a multipolar one and in the 21st century a new world order is born. The phenomenon can be traced back to several well observable causes: The ageing and the migration come with different economic and social effects in the developing and the developed countries (state of refugees, new consumer strata, pensions systems, illnesses, unemployment, radicalism, terrorism). Connected to this, maritime hegemony becomes important again. The fight for the energy and at the same time for energy independence happens simultaneously both abroad and inland, while certain resources become cheaper and cheaper. Germany and Italy become renewable energy great powers, meanwhile it is e.g. Russia's and the Middle East's own best interest, to not put all eggs in one basket economy wise. Behind the struggles for markets and

energy, and as well as competitiveness, knowledge, there are geo-economic interests and economic warfare (embargoes, new international development and financial funds, e.g. China).

Between East and West an economic and ideological (value based) test of strength could commence. In the global and new technology based world, the gates of the new world are open for everyone. The knowledge flow between the developed economies and the rapidly developing ones is a dual process: it simultaneously creates relationships (new alliances, catalysts), but also the employer country more and more becomes the provider and not the producer of knowledge. The global strategies are replaced with “regional” co-operations. Between the several alliance systems of the multipolar world, often the smaller countries are the ones who can tip the scales. If the most important condition of successful economic growth will be the well-skilled labour force, the balancing between regional co-operations, crisis tolerance, then the countries located at the peripheries, with flexible and knowledge intensive economies could be the new guidance points for the world economy. After the crisis, new value systems form, where the short maximization of profit will be to secondary to the long term value creation and value preservation. The circles of responsibility will also transform and in parallel new industries will remake the markets.

The currency of the localized, but thousand-thread-intertwined 21st century is the unique idea, the creativity and knowledge, which easily inflates away, if we do not keep up with our competitors.

Those countries which are not able to produce knowledge will be forced to purchase it, will fall behind in the international competition, and will be excluded to the periphery of development, which comes together with the persistence of vulnerability.

Therefore, the countries need a vision and long term strategy which puts their own local strengths into the service of the lasting economic growth, employment and improving living standards in the global geopolitical and geoeconomical competition.

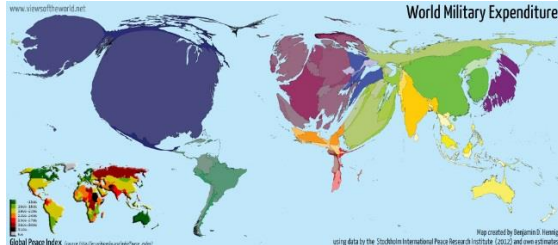
## **Multipolar World Order**

Globalization made it possible for the great powers to create a strategy incorporating the whole world, however this did not mean that they renounced their regional hegemon status. In the last years the smaller powers also group around the regional hegemons. The overdependence on each other however can as much be a sustainer of a fragile security than a cause of an outbreak of war: the too close relations, especially if they are unbalanced, can easily snap. Currently, we are witnessing the rise of geoeconomy, which can be defined as a competition, which happens in the language of commerce, but with the logic of war.

The geopolitical competition changes the global economy, global power relations and government. Before the financial-economic crisis geopolitics rather played a role only in a local level, nowadays however conflicts have erupted again between great powers as well. The most prominent of these are the conflicts between the West and Russia, China and its neighbours, and also the more and more complex crisis of the Middle East. Even though several wars are taking place today around the world from Damascus to Ukraine, economy is regarded as the most important battlefield today. The place of military strikes is taken by economic sanctions; the place of military alliances is taken by commercial systems competing with each other. Today the chance of currency wars is much higher, than that of occupation of territories, or the manipulation of the price of certain resources (e.g. oil) is much more effective, than conventional

arms race. From all this it can be seen that we are witnessing the rise of geoeconomy, which can be defined as a competition, which happens in the language of commerce, but with the logic of war.

**Figure 7. World Military Expenditure**



Source: Stockholm International Peace Research Institute (2012)

The shift of the direction of the strategic competition is shown well by the ramping up of the Indian and Chinese relations of the USA, and as well as the worldwide infrastructural investments of China, which are all motivated by obtaining markets. The winners of the process will be the countries, where the income per capita grows, and where the population is also large and is growing. Those countries and companies, which, through controlling the social economic and communication networks, are able to obtain markets, are definitely can be viewed as winners. At the same time the resource producing countries have to face the decrease of their power and economic strength (e.g. Russia, Saudi Arabia, Iran).

The moderately skilled residents of developed countries also end up worse in the process, as more and more they have to compete with the similarly skilled, but much cheaper labour force. Those countries, who are not able to create political and economic stability for the companies and foreign capital, will also lose.

### **We are Living in an Age of Fusion – Behind the Fusions there is Complexity**

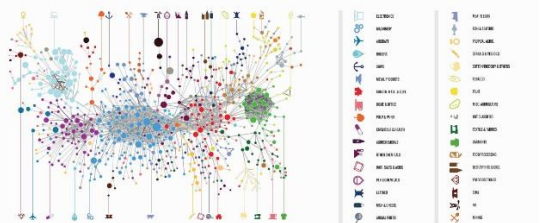
“When the East joins forces with the West, the sweet nuzzles to the salty, the bitter collaborates with the sour, the traditional starts talks with the futuristic, the conventional gets into a sensual relationship with the extreme. This is fusion”

Cesar Hidalgo (MIT) and Ricardo Hausmann (Harvard University) put the interpretation of economic development on new grounds, where in the centre of development, there is the average level of complexity of the products made in a certain country. According to the theoretical bases, the characteristics of a complex economy, apart from greater stability, is that varied (gained on a tacit, and implicit or objective basis) knowledge is available to produce various types of products, which are then able to interconnect with each other also, and with it, fuse within the frames of a person or an organization. The basis for the research of this model was first published in 2007 in the journal Science, which study was made with the collaboration of Albert-László Barabási and Bailey Klinger (Barabási 2016).

In 2014 as an extension of this they published the Atlas of Economic Complexity, which integrated the complexity index, made for a national level, of Cesar Hidalgo and Ricardo Hausmann; and as well as its analyses regarding countries. In this index, measuring economic development through complexity, inter alia, they examine the number and variety of products made and exported by a given country, and for its analysis the foreign trade statistics of 123

countries, going back 1965, provide basis; furthermore, in the value of the index the penetration of these products, and also their uniqueness plays an important role, based on how many countries produce the given product. The index is also used as a predictor for economic growth (Fig. 8).

**Figure 8.** *The Global Product Space of Economic Complexity*



Source: atlas.cid.harvard.edu

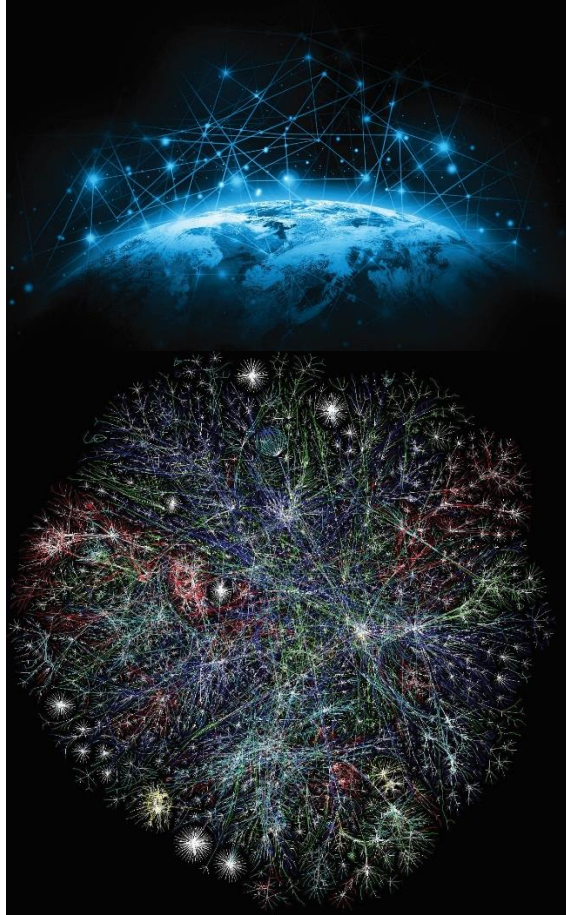
The ranking of countries is available for the period of 1995 - 2013, in which the position of Hungary is improving, in the examined rankings of 123-128 countries its position is between the 25th (1998) and 11th (2011), apart from some episodic relapses, all in all it is turning towards a better direction. During the latest publication of the ranking (2013), our country was the 14th. For the creation of more complex products and services such legal and institutional systemic foundations are needed, which make the formation of higher level co-operational skills possible, facilitate the diversification of talents and incentivize the formation of connections. On the part of the society this assumes the creation of a higher level of trust, co-operational skills and a culture of compliance to a certain degree, on the part of the economy the creation of such a framework is needed which, with higher level networking abilities, is able to organize the spread of economic co-operational forms into a real ecosystem.

### **The Role of Locations Especially Increases in the Age of Fusions**

Nowadays the human resource, the value added by knowledge is what forms the engine of economic growth. The ability of economic growth and prosperity more and more comes from the increasing complexity of products and services. Based on this, the development of such economic systems and communities becomes continuous, where the unison of social, economic and physical environmental conditions makes the continuous and rapid flow of studying, and as well as new information, and the transfer of knowledge possible and which incentivize the formation of personal connections between people. The creation of the space and time unison of these connectional conditions forms a decisive point in the creation of a lasting developmental path of a community. Coming from the nature of human perception, our environment has a great effect on our decisions, mentality, including its physical manifestation in the built environment, and as well as the sum of impulses arriving from the people around us. Therefore, in the knowledge intensive and innovations based activities the importance of the geographical space continues to be prominent, and the extent of this even as the result of technological innovation hardly decreases.



**Figures 9-10.** *Age of Fusions – and the Map of the Internet*



Source: MIT LaB

### **Data will be the new resource of the economic sphere**

The “Big Data” phenomenon means the amassing of data in great quantities in the different information systems, and the systemization and structuring of this data. The “Big Data” essentially is of the same age as the automatization of information processing: even though the companies also made their strategic decisions earlier based on accounting data, analytics, surveys, today they do not only have statistics, projections at their disposal, but minute-precise structured and unstructured data packages possible to be broken down for each individual user. (E.g. data of web searches; data generated during the use of credit cards; or even the shared information on social networks about e.g. someone sitting in their favourite café). One of the great challenges and exploitable opportunities of our age is how we use this data.

Data will be the new resource of the economic sphere: it will mean such an input which is equal to the capital and the labour force. “The data-centred economy is just nascent,” admits Craig Mundie. “You can see the outlines of it, but the technical, infrastructural and even business-model implications are not well understood right now.”

**Figure. 11.** *BIG DATA Word Clouds – Innovation and Technology*



*Source:* own

## The Personal “Experience” is the New Service of the 21<sup>st</sup> Century

The geographical and social changes – where the micro level and the individuals get to the foreground – taking place are no longer leaving no traces in the economic mechanisms. The importance of the reaction to individual needs, instead of the need of the masses; the importance of the quality (unique, handmade or limited quantity products, workshop or artisanal products), instead of quantity (mass production, industrial production), stepped to the fore, transforming the until then usual economic-production mentality and method of operation, the main element of which were the price of the product, the size of the market and the costs. Instead, the winning over the consumer (the individual) as a target group, making them committed and keeping them have become more important, to achieve which, it become indispensable on the one hand that they become part of the processes, thereby providing a unique experience in connection to the purchase or use of service. Due to the experience being directly connected to the happiness of the individual, which is for the present generation one of the most important goals. This kind of mentality is more and more ingrained in the life of the economy, planning, services, education and the business world in a wider sense, which resulted in an entirely new understanding and attitude, which regarding its end result, introduces experience as the new service of the 21st century.

## The Borders of the Borderless World

There are no limited and isolated units, but humanity still strives to keep and secure these<sup>1</sup>, even if symbolically. Of course, everyone is aware of the universally accepted view which bears the name spill-over. This process naturally is also true at areas such as the economy (financial crisis, stock and share market movements, etc.) or the society (e.g.: economic or wartime-political migration etc.), the environment (e.g.: the elimination of rainforests, the catastrophe of Chernobyl, or the Fukushima nuclear power plant accident, etc.). The different effects therefore definitely spread on, as the Earth is now functioning as such a complex and closed system, where

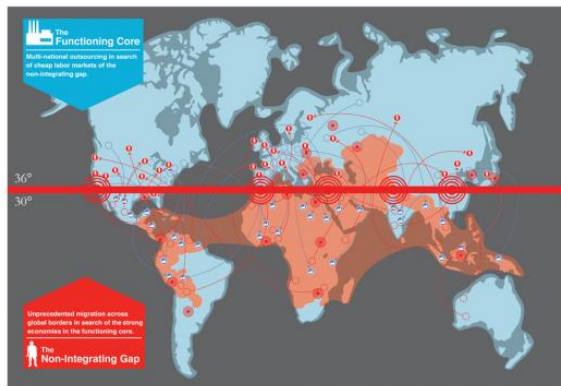
<sup>1</sup> Of course everyone according to their respective own interests, which could become one of the sources of different economic – social – environmental problems and foreign policy or armed conflicts.



it is impossible to be make ourselves “independent” of the processes within<sup>2</sup>. The economic and social systems, becoming intertwined as a result of globalization, are nowadays embedded to such a degree that any small effect can seriously upset the state of rest of the system. Therefore, due to human interventions such processes are happening which cannot be “closed” anymore and even limit with borders artificially defined and created by them, as those are most of the time not more than “invisible – imaginary lines” in the geographical space.

Borders are everywhere and they continuously reform and cease to exist. We can witness the existence of borders at several places<sup>3</sup>, however not in all cases can we determine or draw them with certainty, as we would think initially. All in all, perhaps the following statement expresses best the state of the connection with and without borders, which says “borderlessness always creates new borders and borders carry within themselves the elimination of borders”.

**Figure 12.** *Integration Gap line around the World*



Source: Leopold Lambert – Think Space

The 21st century is the century of knowledge and creativity, the currency of which is the unique and original idea.

The growth of the importance of knowledge-based and creative industries in the post-Fordist economy. As a result of the economic restructuring, following the industrialization period, with the services coming to the front, and as well as the formation of the information revolution, it is more and more the human resource, the value added by knowledge that forms the engine of economic growth. Later however several researchers, including the examiner of urban areas, Richard Florida and the creator of the theory of flow, Mihály Csíkszentmihályi, pointed out that apart from knowledge and information, creativity is the factor which increases even more the usefulness and value of knowledge (Csíkszentmihályi 1990).

The innovation ability and willingness, and creativity, which represent the new economic power, detectably create foundations for growth both in a global level and in the groups of

<sup>2</sup> From an environmental standpoint, it has always been like this. Let us just think about such global problems, as the formation of the ozone hole or the global warming, which are the combined results of more serious interferences, in spite of being at different locations from a geographical standpoint (e.g.: elimination of rainforests – South America; increased pollution of the environment – China etc.), they still influence the life of everybody.

<sup>3</sup> The existence of the borders between different scientific areas is an example of this. Initially knowledge, that is the knowledge available for humans, was comprehensible even for a single person (polyhistor), however due to its expansion, science started to fraction into parts, and areas formed, separate within a sphere, but still closely connected; among which it was not possible to draw a sharp line (disciplinary disputes), as they were interlinked since their origins.

individual national economies, and countries representing the different interest groups of the developed world. These simultaneously mean changes appearing in employment restructuring (labour market), higher rate and higher level participation in the education of society, the increase in the spend of research and development, the growth in the number of registered patents and the development of intellectual property rights, all in all the greater and greater contribution to the GDP of the cultural and creative industries.

The development of the culturally rich and creative cultural service industry has a positive effect on both the national culture and the growth of the economy. The utilization of the cultural heritage, the expansion of the industries connected to it therefore are not only the result of social-cultural movements, but it is also a national economic strategy strengthening the European competitiveness. The utilization of the cultural and spiritual heritages through the creative industries also creates value from the standpoint of the economy. In the past years (despite the economic crisis) the cultural and creative industries have become one of the fastest developing industries of Europe, thus in a lot of cases their economic growth generating effect also appears directly. The innovation engine role of the creative cultural industry prevails in the education, in telecommunication, in informatics, and also in the development of innovative products and services.

The “new explorers”  
of the 21st century possess inner compasses –  
the change of leadership values

In our changing world leading and creating visions is not enough anymore, from the part of the leaders such new (authentic) attitude and realization is needed now, who from multiple standpoints view the leadership values, the leadership mentality, problem solving, communication and communities differently (Fig. 13).

**Figure 13.** *Characteristics of the CEO and the DEO*



Source: Giudice – Ireland, 2013

In any areas of life, we meet with complex problems, which cannot be anymore answered by “turnkey” answers. Instead of final solutions, we must accommodate (adapt), improvise and build from the bottom-up in baby steps. (Harford 2012). To realize these – and for the new DEO

leadership mentality – now a new approach is needed, which bears the name “design thinking”. The design based thinking places the emphasis on the creative and co-operative problem solving, but as a process, it does build and does not adhere to the strict following of the steps, it is much more flexible than that, this is why it can be adapted to several environments. Regarding the new approach, several more effective tools<sup>4</sup> have been made, which offer a more effective solution in connection to the handling of organizational problems, as they work on the principle of co-operation (Liedtka et al. 2013).

The process of common value creation becomes much more characteristic of the new leaders, which comes back during the co-operational negotiations. In relation to this we have to rethink the basics of the win-win negotiation technique and have to approach from an entirely different viewpoint the needs and goals required by the negotiations technique. Finally, the greatest advantage and at the same time virtue of the leaders of the new age will be that they know themselves (Drucker 2008) and they are aware where they are heading, they listen to their inner compass<sup>5</sup>. Because the one who confidently follows their own path, will have the courage to make the decisions needed for it, and the image formed of them will radiate confidence and complete unison (George 2009). Let us just think about Steve Jobs, who in his person and as a leader of a company superbly demonstrates and embodies the model of the new leader of the new age of the 21st century.

### **The New Cambrian Moment – Entrepreneurial Revolution**

Nearly 540 million years ago (in the so-called Cambrian period of geological history) on Earth the conditions for life changed radically, the life forms, the organizations found in the wild started to differentiate. (Regarding the evolution of the biosphere, the Cambrian is usually referred to as Cambrian explosion.) Ludwig Siegele in his article published in the Economist in 2014, compares the explosive spread of the companies (start-ups) operating in the digital sphere to this Cambrian explosion. Because these companies with their novel services and products can refashion whole industries. The “digital madness” is happening on a global scale.

Further explanation of the usage of the Cambrian explosion expression is that by that time the most important fundamental conditions of life had already developed, the basic elements needed for the further development of organizations, which made it possible for new organizations to form and to form faster. Based on this, a similarity is that, says Josh Lerner (Harvard Business School), the basic elements of digital services and products (internet, web language, the possibility of real time sharing of different contents and services) have already formed and become developed, and also cheap and available everywhere to such a degree, that they have become combinable and continuously re-combinable (Lerner et al. 2014). The leading economist of Google also views this phenomenon as “combinational innovation”, with which the start-ups employ already existing technologies to solve new problems.

The economic and social changes, the recovery prolonged since the crisis of 2008, resulted in a hopeless situation on the labour market for many young people born in the 1980s, and for many of them there are no suitable opportunities to obtain jobs as traditional employees, thus it became clear to them that they must walk their own path and start enterprising or join a new

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<sup>4</sup>e.g.: Visualization, Journey Mapping, Value Chain Analysis, Mind mapping, Brainstorming, Concept Development, Assumption Testing, Road Prototyping, Costumer co-creation, Learning Launch (Liedtka et al. 2013).

<sup>5</sup>The expression used by the author: “True North”

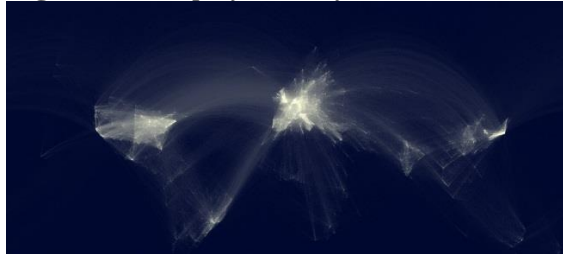
start-up. A new survey points to the shift of cultural mentality of the age-group called millennial generation in the article, in which survey of the 12 000 interviewed, aged between 18 and 30, and from 27 countries, nearly two thirds stated they saw a possibility in becoming an entrepreneur.

The start-ups furthermore form a significant part of the new movement of flowing to the cities, leaving the suburban, agglomeration areas. Instead, the varied city centres provide location and space for these emerging, new types of enterprises.

### **“The Revolutionizing of the Higher Education”**

Two high-prestige American universities Harvard and MIT launched a 60-million-dollar online program, which could redraw the presently know structure of higher education. On the virtual platform called edX created for this purpose, different interactive courses given by the world-famous lecturers of Harvard and MIT will be available, for the time being for everyone, without admission and cost requirements. Apart from this, through the initiation of Stanford and Princeton universities begins another interface offering online courses, the “Coursera”. The initiative had an enormous success, more people signed up than there are MIT graduates living today around the world. For each class, videos, an online laboratory and e-textbooks will be provided, and the work of the students will be assessed by an automated system. The online courses, according to the plans, will be as hard to complete as any class at Harvard or MIT, but as an acknowledgement of the course, the students will not receive a diploma or credits, but a “master certificate” (Fig. 14).

**Figure 14.** *Map of Scientific Network Collaboration*



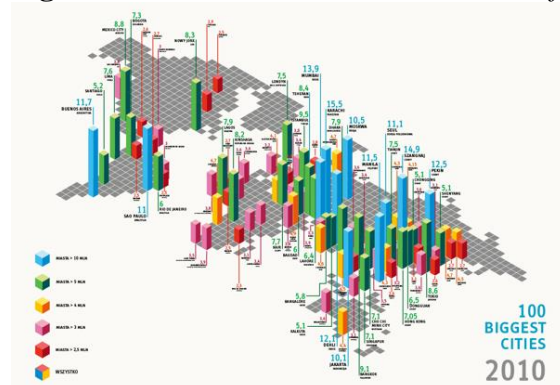
Source: Science Metrix (2009)

### **The Whole World Is Silicone Valley**

By the beginning of the 21st century, new innovation centres at several locations around the world start to compete with the previously unique Silicon Valley. These tech start-ups are starting to operate more and more easily, in the background of which, apart from the new financing solutions, the economic crisis also has a role, because with its help, from the traditional industries a great number of labour force “travelled” to the creative industries. This crowd primarily concentrates in the great cities of the world. In the last decades of the 20th century the Silicon Valley functioned as a unique hub of high-tech innovations. Other regions also tried to copy its success, but nowhere were they able to show such results. The Sophia Antipolis created near Cannes by the incentive of the French government for example never broke out from the role of a tepid technological park – despite its mystically sounding name, climate very similar to the Californian one, and the unbeatable gastro culture of the region.

However, in the 21st century multiple contenders have arisen to the Silicon Valley, which all incorporated the adjective “silicon” in their names: the Silicon Alley of New York, the Silicon Wadi of Tel Aviv, or the Silicon Sentier of Paris. Events unfolded similarly around the world. In Berlin on average every 20 minutes a new start-up launches. Paris currently works on building the largest incubator-centre of Europe, and in Tel Aviv the expression “start-up generation” has become from a political slogan, an economic reality (Fig. 15).

**Figure 15.** *Cities are the Power Centres of the 21<sup>st</sup> Century*



Source: City Lab

Richard Florida - professor of the University of Toronto, guru of the rise of the creative class, one of the most reputable thinkers of the world proves with a gigantic database that the most important decision of our life is where we live. The defining decisions of life – getting an education, job and carrier, relationship – significantly defines where we live: it is easier to make good decisions at a good place. The engines of economic growth - talent, innovation, creativity - are not spread equally among the world or in our country, but are spatially concentrated. Earlier, in cities and nation-states, now in giant regions, megaregions. 18% of the world’s population, 66% of the global GDP and 86% of innovation is concentrated in the 40 greatest integrated regions of the world economy. Of the 12 megaregions of North America, the 500-mile-long Boston - New York - Washington corridor is the greatest, in the global economy only Great-Tokyo precedes it in terms of economic power.

In Europe the Amsterdam - Brussels - Antwerp belt is the strongest, with 60 million residents and 1500 billion dollars’ worth of economic power, but it is still only the fourth in the world. It is followed by the London - Birmingham British megaregion, then the Milan-Rome axis, the Stuttgart - Frankfurt - Hamburg giant region, then the next is Great-Paris. The Vienna - Budapest belt with its 180-billion-dollar economic power precedes the region surrounding Prague with its 150 billion dollar, the great region of Lisbon with its 110-billion-dollar power, and as well as that of the Scottish, Madrid and Berlin megaregions. The global economy spatially separates into four parts: creative great regions, regions using imported innovation well, the hopeless megacities of the developing world, and agricultural regions.

Cities have their own “personalities”. If we are looking for a place where they are open for new ideas, that is we would like to live in a creative and innovative location, then our author recommends, quoting Mihály Csíkszeredi, to look for two things: the love of beauty and curiosity. Creative people are characterised the most by these two attributes: they love beauty, arts, a nice environment and objects, and they are remarkably curious of everything new. We are heading towards a digital world, where only two types of jobs will be: well-paid creative, and

low wage, traditional service activity. In the developed countries already 35-40 percent of the workplaces requires creative work - including for example R&D, the design, the media, the knowledge industry -, where rich imagination, creativity, intelligence and non-traditional thinking are the most important skills.

According to Florida, the creative class is the one which could have the opportunity to take part in shaping the world. The economics and social progression must contain three things, which he calls three Ts: must be able to technologically lead – including the institutions, universities, companies operating with concrete technological innovations, aptitude - capabilities, special talents – which are not enough to be produced, but must be able drawn in and kept as well, tolerance, open thinking - in order for men, women, minority groups to be able to bravely try and connect into the process of innovation.

The most important however is that creativity is in most people and our job is to make it surface from the people. The workers in the factories work together in groups, as a living laboratory, and the creativity and intelligence of these simple, everyday people is what brings the economy forward.

It is not technology which is making the economy great and prosperous, but the people who form and shape it. Let us look at for example the service class, which in the structure of the developed countries profusely forms 50 percent. For them it is important for their job to be more creative to know they work better, to know they are able to offer a better service.

### **Cities Have Never Had This Great Importance**

The world has not become flat, plain, as many people like to illustrate. The world, and especially the world economy concentrates in 40 megaregions, it peaks there. The cities and the megaregions between them are where the 3T can be found in one place, these are the ones where the economy and the innovation stratum, the creative class can really prevail, and bloom. Novelty is not born from seclusion in ivory towers, but from the co-existence of people, as they stimulate each other, and as the city where they live stimulate, inspire them. This way, a fourth T can join the other three: territory.

### **Conclusion: Geomanifest– Explorers of the 21st Century**

“If your life hits the bottom because of geopolitics, then geopolitics will be the one to drag you out of it.” In this century for every leader the famous quote of George Friedman becomes a maxim to follow (Fiedman 2015). The decision makers of the 21st century will be the ones who can view the world from a geopolitical perspective, and who dare to redraw the maps.

Philippe Zimbardo, father of the Stanford prison experiment said: “if one man stands against the world, then he is a madman, but if three-four do this, then that is a standpoint.” If our map is wrong, useless, and perhaps misleading, then that is not an intrinsic failure, but three-four of them is the first sign of the paradigm shift (Zimbardo 2007). The leaders of the fastest developing multinational companies, the professors of the most successful universities and the politicians with widespread international relations have already thrown away their wrong maps, and on a clean sheet, they draw a new, own interpretation and system of goals.



The leading companies of the world are building a more and more tight network with Eastern Europe, India and South-East Asia, to refresh their portfolios with the creativity of small start-ups. Meanwhile from the east, China builds the modern Silk Road through the Asian continent. The technological company giants pay more and more attention to global social issues, therefore they put pressure on international political decisions as well, such as the space race, global warming or migration.

Science has also turned towards geopolitics: in the economic and leader course of the University College London, urbanism, territoriality, sustainability and social geography all appears. Stanford launched its 700-million-dollar global leader training program in 2015, in which they are looking for answers for economic-social questions, globalization and technological challenges. At the best university of Asia, at the Faculty of Social Sciences of the National University of Singapore, economics is complemented by geography, communications theory, psychology and political sciences, and similar processes have started in Hungary at Corvinus University.

The leading economic, political and knowledge centres of the world try to redraw the maps of the world, marking them with own interpretational tools and legends. These metropolises and regions (Boston, San Francisco, Bangalore, Singapore) want to become such hubs which are inseparable from the world-influencing networks of data, knowledge and innovation.

Behind the geopolitical turning points in the end there are always people and decisions made by people. The decision-makers, economic, political, scientific and technological leaders of the 21st century, will be the ones who can overview the global contexts and gather around them the hubs of creativity and information flow. Who are brave, curious and creative enough to draw strength from the crises, and to rethink the role of spatiality in the global decision-making. Those, who are looking for fusion, new border areas, let them be physical, natural or scientific. Who build personal networks with the other creative hubs and draw strength from the exchange of experiences between cultures. They are the real explorers, the global leaders, the wanderers of dynamic maps, who, armed with the geopolitical perspective, will reform the world (Fig. 16).

**Figure 16.** *Top Fifty Container Ports of the World*



Source: radicalcartography.net, 2013



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