STRUCTURAL TRENDS FOR EUROPEAN RESEARCH AREA: CROSS-CUTTING THEMES AND CHANGING STRUCTURES FOR RESEARCH

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Abstract: *The paper provides an overview of the structural trends faced nowadays by European Research Area (ERA). These trends reflect not only societal developments, but also the changing structures of research itself. Beginning from the general context of understanding the concept of ERA as one of the core elements of the renewed Lisbon Strategy for Growth and Jobs, our paper is based on the conclusions and recommendations made by Metris Report 2009 - 'Emerging trends in Socio-economic Sciences and Humanities in Europe'. In this sense, we analyze the new complex issues approached by EU researchers and scientists, with focus on innovation issue, concluding with the challenges for ERA success and Metris Report recommendations.*

Key words: scientific research, interdisciplinary research, European Research Area, Lisbon Strategy for Growth and Jobs, globalization.

JEL Classification: I20, I23

The European Research Area (ERA) is one of the core elements of the renewed Lisbon Strategy for Growth and Jobs. In the context of a changing and dynamic world characterized by the accelerating globalization of research and technology and the emergence of new scientific and technological powers - notably China and India - the European Research Area is more than ever a key for the success of the European knowledge society.

The ERA concept combines: a European 'internal market' for research, where researchers, technology and knowledge freely circulate; effective European-level coordination of national and regional research activities, programmes and policies; and initiatives implemented and funded at European level. It is obviously that some progress has been made since the concept was endorsed at the Lisbon European Council in 2000, ERA becoming in present a key reference for research policy in Europe. However, there is still much further to go to build ERA, particularly to overcome the fragmentation of research activities, programmes and policies across Europe.

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- **General context: rethinking on the Europe role as a global actor**

The ongoing world stand requires a far-reaching reconsideration of what role Europe should be playing. Many global actors showcase an economic growth, underpinned by not only an extensible and manifold industrial base but also by a striking development of the most ahead sectors of information economics, including science and technology. As a consequence, the advantages and individuality of Europe, as well as new forms of exchange and partnership have need of well-grounded analyses. We hereby take under scrutiny the conclusions and recommendations made by the Metris Report 2009 - compiled by a group of European experts on what are the main challenges that the European Union (EU) has to face during all these years of crisis and economic recovery, of change in the value systems and knowledge on nations and people.

The survey that Gallup International, along with the European Council on Foreign Relations (ECFR), has conducted worldwide highlights a deeper and deeper individuals support for a multi-polar world, where one in three people (35%) wishes to see the EU influence on the rise. In the ECFR Report, the survey writers, Ivan Krastev -Director of Center for Liberal Strategies in Sofia and one of the founding members of ECFR- and Mark Leonard - Executive Director of ECFR, were stating that 'EU has a unique status among the four world great powers (i.e. the United States of America, China and Russia), as no one has the intention to counterpose its growth.' On the other hand, the Voice of the People 2007 issue, the largest survey in the world, involving 57,000 people in 52 countries, points out that the world citizens are in favor for a larger role of EU globally; it is only the British who act equivocally towards this matter - the Great Britain registers the lowest score of 32% respondents pro growth and 24% against it. By contrast, 65% of French wish to see the EU more involved in the world, along with 69% Greek, 56% Italians and Spaniards. Just as EU neighbors, Albania, Republic of Moldova and Kosovo had the highest scores for a better EU presence worldwide, namely 76%, 63% and 55%. Also, the survey shows predominantly negative opinions towards the Union in Turkey and Croatia - two candidate states pending accession - where 45% and 36% think that the EU should be more reserved, compared to 9% and 26% who believe otherwise.

All in all, the USA influence is best seen on the African continent (37%) and Russia (26%). In spite of this, the positive attitude in Russia is not whatsoever shared in the USA, where 34% want Russia exert less effect. Only half of the respondents in Canada (54%) and Latin America (53%) make a stand against the increase of the American influence worldwide. A percentage of 51% of the respondents in the Western Europe (from countries in the EU before the 2004 enlargement) fight back the USA rise - in the Central and Eastern European, only 37% share of the population this view. Similarly, the survey evidences that as for the United States, the countries that express a desire to see this country move

upward are Albania (71%), Kosovo (61%), Panama (45%) and United States (45%). To the opposite end, there are Bosnia-Hertzegovina (80%), Luxembourg (74%), Greece (73%), Serbia (72%) and Finland (71%).

- **New complex issues and cross-cutting themes for EU researchers and scientists**

Krastev and Leonard consider that the increase of EU influence is favored for by many of the former European colonies, thus proving that the colonial heritage of the EU member states is gradually fading. The EU place and behavior within the multilateral systems are phenomena still unclear for common citizens - therefore, this is the reason why ***EU only atract the interest of the scientists, researchers in complex issues***, such as:

1. *Energy*. EU takes into consideration, to a large extent, the use of the reusable energies for environment protection, and also for strategic rationale, in the sense of diminishing its dependency on the energy-exporting countries.

The approach that defines the measures meant to solve the environment and energy issues better inserted into the social and cultural practices has become a more important and imperative topic within the EU member states' educational practices.

2. *One Europe or more?* The integration process of the European countries into the EU reflects an invitation to reconsidering the political space and concepts, more generally compartmentalized. Europe may be perceived as an issue still building, which is never prescribed. This topic highlights the research upon the contested historic identities and research programs that bind Europe to 'the others', i.e. the post-colonial studies, the study of the imperial and regional structures in History, Sociology and Political Sciences.

3. *The European identity - a global issue.* Culture and laws are essential components of how Europe relates itself to the rest of the world. Beyond the political science and international relations, the analysis of the cultural formation, the elites in Europe, the ideas circulation or the legislative sociology may significantly contribute to our understanding of the European integration.

4. *Europe memory and memories.* The euro-centrism critisicm is a crucial trend, with positive corollaries for the European foreign affairs. The importance of memory as an object and channel for the European policies (for instance, the post-colonial memory, the memory of communism in the Eastern Europe, Holocaust) will allow a better apprehension of how the disputed-over memories behave within the ongoing social and cultural debates.

5. *Europe as information and knowledge economy.* The building of the European Research Area and the integration of the national systems of education have equipped Europe with an attractive and diversified infrastructure of

knowledge and information. Such new models of interaction with other countries are different than the old ones of the imperial imposition of the metropolitan education systems and, yet, they trigger new hierarchies. The social, cultural and economic consequences of this phenomenon are still under scrutiny.

6. ***Europe in the global cultural market.*** A quite significant trend in the social and humanitarian research is the movement at the level of global markets for cultural goods and the change in the Europe place as producer and consumer of cultural artifacts. The manner how the cultural legitimacy is built upon specific social and economic structures is a trend from literary theory to the sociology of culture.

7. ***Welfare.*** The welfare expansion and permanent progress is one of the main post-war achievements in Europe. The social model surely helps shape an European identity and contributes to the individuality of Europe in the world. The welfare condition functions serve to reaching the European social and economic objectives and, to a lesser extent, the environment goals. Thus, the role of the social welfare, a push to the increase in Europe, is a crucial role of research.

8. ***Migration.*** Besides the traditional research on the migration waves at the macro- level, there is a real need to also support the research at the micro- level, riveted on the perspectives of the migrants, on the customized experiences and cultural practices. The global economy, cultural and political changes call for a greater attention, paid to the intra-European migration, as well as the trans-national one, to its political and legal regulations, the chosen migration and the economically- or politically-motivated migration.

9. ***Innovation.*** The mechanisms that link technology to the economic growth, particularly the role of the knowledge institutions, are a top item on the research agenda in the field of the social and human sciences. For a certain number of fields, the inter-discipline research designs the institutional and territorial dimension of creativity and innovation.

10. ***The post-carbon society.*** In a context of uncertainty in terms of long-term changes in the environment and the social and economic systems, the studies on human adaptation to new relations with environment are a crucial topic and yet still not enough enquired into. The market mechanisms, their regulations and the participatory approach to the natural resources management have been and still are research priorities. The strategic and environment dimensions of the energy alternative sources, as well as the social implications have become noteworthy research directions.

11. ***The crisis of value and evaluation.*** De-industrialization and the emergence of the post-industrial economy have triggered a crisis of tools - i.e. the labor time, measuring the added value. Moreover, remuneration and the evaluation systems seem to be not effectual within a more autonomous, flexible

and intensive in knowledge labor. New theories of value and the ways to understand productivity and creativity bring hope to the research area.

12. ***Space, landscape and virtuality*****.** The concepts of space, territory and landscape (political, social, urban, natural, etc.) are redefined as an interlock between the physical space and the polical and cultural one. For the political theory, one may notice the sustained efforts to redefine space as a dynamic category, beyond the limited horizon of the traditional territories. Knowledge organization and structure of the scientific processes include the latest concept of spatiality and its definition becomes a major paradigm for the social and human sciences. The virtual perspectives of communication redefine, thus, our sense of space. Human habitat and lanscape are dramatically given another definition and the new symbolical and physical geographies need to explore them.

13. ***Time and memory*****.** For the last decades, the memory research has been playing an essential role, both in the human, social, nature sciences and also in the creative arts, more often in an inter-discipline manner. Memory is the History site, of building the individual and collective identity, of knowledge, communication, etc. The study of the discoursive framework, of memorization and of memory strategies take full advantage of the inter-discipline cooperation.

14. ***Re-technologization*****.** The last years have witnessed how the technologization of the social and human sciences, both at the level of methodological innovation (for instance, the computer-based geographic system) and also in content (i.e. human - computer interaction) has led to great inter-connection for the social, human and other sciences, as well as to re-conceptualization of the environment scientific research in terms of network structures and new interfaces between human and non-human. Such changes will spark the formulation of some pivotal questions about the role of cuantification and description in the inter-discipline research; data capturing and its applications; the legitimacy and regulation for the production information in the highly-technologized contexts, with a strong technological content, as well as in their social, economic and cultural entailments.

16. ***Iconosphere*****.** The contemporary societies may be described by an upward flow of images, while the digital technologies conduce to the revolutionization of production and images consumption. The iconosphere defines a new ecology of the visual, which postulates new theoretical and empirical research methods.

17. ***Governing and regulation*****.** Due to the current climate of financial instability and economic recession, the question to what extent the state should interfere into economy has been asked. The debates upon the proper tools of regulating the national and global economy surely open new research horizons.

18. ***The future of democracy in a globalized world***. The issue of democracy must not be whatsoever left aside, both at the national level and in the EU, as it

has a considerable impact upon the citizenship topic and the place of Europe worldwide.

For example, regarding subject 9 - *innovation issue*, we would like to point out that sustainable growth and job creation in European Union increasingly depends on excellence and innovation as the main drivers of European competitiveness. In order to compete in the global economy marked by economic and financial crisis, enterprises must become more inventive, react better to consumer needs and preferences and address challenges by innovating more. Recognizing this fact, European Union declared 2009 - The Year of Creativity and Innovation. Creativity and innovation can move society forward toward prosperity.

Having a detailed look at the most important aspects of European Union research and innovation investment and performance presented in *Key Figures 2005* report which offers an overview of the progress achieved towards the 3% objective, it is obviously the need for Europe to strengthen its research and innovation capacities. The Key Figures 2005 shows the worrying trend of R&D investment in Europe: the growth rate of R&D intensity has been declining since 2000 and is close to zero, growth of R&D investment as a % of GDP has been slowing down, from 2002 to 2003, only an increase of 0.2% being achieved.

Europe devotes a much lower share of its wealth to R&D, compared to the US, China and Japan: 1.93% of GDP in the EU in 2003, as compared to 2.59% in the US and 3.15% in Japan. As for China, which registers a lower R&D intensity than Europe (1.31%), but with a 10% increase between 1997 and 2002, it will reach by 2010 the same R&D intensity as Europe (about 2.2%). One of the reasons of this worrying trend is business funding of R&D, and one of the most worrying conclusions of the Key Figures 2005 is that Europe is becoming a less attractive place for research activities.

In this context, European Union developed new initiatives in favor of the support of innovation like Lead Market Initiative for Europe, Europe Innova, Pro Inno Europe or Enterprise Europe Network, which is part of Competitiveness and Innovation Framework Programme. For examples, *Lead Market Initiative for Europe* is aiming to unlock market potential for innovative goods and services by lifting obstacles hindering innovation in a first batch of six important markets: eHealth, protective textiles, sustainable construction, recycling, bio-based products and renewable energies. These markets are highly innovative, respond to customers' needs, have a strong technological and industrial base in Europe and depend more than other markets on the creation of favorable framework conditions through public policy actions. *Pro Inno Europe* is aiming to become the focal point for innovation policy analysis, learning and development in Europe, with the view to learning from the best and contributing to the development of new and better innovation. Pro Inno Europe supports *The Network of Innovating Regions in Europe* which provides a platform for the development

of 'Regional Innovation Strategies', the exchange of best practices for regional support to innovation and it develops methodologies to benchmark regional strategies. From projects funded by *Europe Innova* we can mention as remarkable examples The European Eco-innovation Platform with the aim to accelerate the take-up of eco-innovative solutions in Europe or Knowledge Intensive Services Innovation Platform with the aim to accelerate the take-up of services innovations in Europe, but there are more else.

Conclusions: facing the challenges for ERA

Unfortunatelly, the statistics related to the public research funds are still to be worked on, whereas the information on the funds volume and priorities from the private donors are almost non-existent. METRIS Report 2009 recommends the European Commission develop abilities of monitoring in order to get realistic statistics about the public and private funds for the scientific research. For the last years, great attention has been paid to the collective work steered to projects. The focus should go onto the permanent need of *inter-discipline studies* and *studies performed by individual researchers*. Such research methods have proven themselves quite productive and innovative, mainly for the humanistic sciences, a reason for further encouragement. Also, the institutions for advanced studies, in addition to the mechanism of granting funds to the European Council of Research, are useful tools in supporting the individual researchers.

The inter-disciplinary approach has the advantage of relying on a team of researchers. This type of research has a strong potential of coming close to the complexity of the real world questions and their solutions. The integrative approaches are confined to the distance between the discipline paradigms and the lack of inter-discipline training in many prioritized areas for the EU funds. The challenges found in the profound inter-disciplinarity should be perceived as prerequisites for the development of the entire potential of the social and human sciences. It is more imperative than ever to have a closer connection among the funds agencies, which are usually preoccupied with a single area of the scientific reality (natural sciences, social and human sciences, arts, etc.).

To provide the dissemination of research outcomes in the social sciences and humanities is to be a high priority in building the European Research Area, in a context where the latest business models capitalizes, more and more, on the imaterial values and digital technologies. The present research bodies should be more involved into the dissemination of such results and the evaluation of the scholar researches.

The assessment conducted upon the European scientific research has clearly shown the added value of knowledge derived from the regular monitorization of the European societies at a comparative scale, among various nations. The information digitization converts the role of archives and traditional libraries for

research and asks for the need to rethink their role. The rapid growth of the database requires proper computer abilities, both in infrastructure and in training. The digital projects of the universities, libraries and research institutions hold a huge potential for the latest research approaches and for the social and cultural impact. Too bad that such projects happen within the national borders of a country and there is a meaningful but under-explored potential for their europenization.

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