



ATOMIUM
CULTURE

BRINGING EUROPE TO THE FOREFRONT

European Research and Innovation - 2020:

What can the leading institutions of civil society do for Europe?

"If I had to start again with the work of bridging the gap between the European people, I would not start from coal and steel, but from science and technology"

Jean Monnet

"European Intelligence, I feel, could be at the very root of the identity of European people"

Valéry Giscard d'Estaing, Honorary President of Atomium Culture

"We cannot only ask what the European Institutions can do for society; it is important to also ask what the leading institutions of civil society can do for Europe, and thus for themselves"

Michelangelo Baracchi Bonvicini, President of Atomium Culture

A.C. ★ THE PERMANENT PLATFORM FOR EUROPEAN EXCELLENCE
UNIVERSITIES ★ NEWSPAPERS ★ BUSINESSES

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Mr V. Giscard d'Estaing, Honorary President of A.C. and
Mr M. Baracchi Bonvicini, President of A.C.



The Opening Session of the first conference held at the European Parliament on the 27th of November 2009

Preface

The Lisbon Agenda launched in 2000 aimed to make the EU “the most competitive and dynamic knowledge-based economy in the world by 2010”. In a time where Europe is facing the problems of an economic crisis and is aware of the future challenges caused by growing global population, changing demographics, climate change and need to create a more sustainable energy model, the importance of research and innovation are even more accentuated. Unfortunately, although many important steps were made in the past ten years, the ambitions of the Lisbon Agenda are far for reached.

The Permanent Platform of Atomium Culture, bringing together some of Europe’s leading universities, newspapers and businesses was founded in recognition of the problems that Europe will have to address in the coming years and with the awareness that research and innovation are the key to success. The platform operates through innovative and concrete projects to increase the interaction, communication and dissemination of the most forward looking new ideas at a European level. Certain of the potential of European creativity, the Permanent Platform of Atomium Culture aims to create a reliable and accessible tool to support the creation of a European Research Area (ERA).

In November 2009 the Permanent Platform of Atomium Culture held its public launch and first conference at the European Parliament to address the issue of European research and innovation. Together with the leaders and main representatives of the institutions engaged -universities, newspapers, and businesses- and policy makers, it looked into these issues from the angle of what can the leading institutions of civil society do for Europe.

The Vision for European Research and Innovation 2020 addresses the issue of research and innovation in Europe and outlines the results of the abovementioned debates to present what the Permanent Platform of A.C. can do to support the success of the upcoming Europe 2020 Strategy; to ensure the development of a European Research Area; to make Europe ready for the future!

Valéry Giscard d’Estaing

Michelangelo Baracchi Bonvicini

(Honorary President and President of Atomium Culture)





A T O M I U M * C U L T U R E
BRINGING EUROPE TO THE FOREFRONT

Le 9 novembre 2009

MANIFESTE EUROPEEN DE ATOMIUM CULTURE

Conscients de la nécessité de renforcer la coopération et le dialogue entre les institutions les plus influentes de l'excellence européenne dans le domaine de la recherche, du développement et de la communication ;

Certains de l'utilité de contribuer à la création du premier noyau européen - fiable, accessible et reconnaissable - dédié à la coordination, la valorisation, le partage et la divulgation du nouveau savoir issu de la recherche ;

Désireux d'exploiter l'évident potentiel d'un espace européen « uni dans la diversité », et sa culture au profit des générations présentes et futures ;

Quelques-unes parmi les universités, les quotidiens et les entreprises les plus prestigieuses d'Europe, se sont réunies autour de la première plate-forme permanente pour l'excellence européenne. Cette démarche répond au désir d'œuvrer ensemble au développement de l'Europe, en tant que *Société de la Connaissance*.

La plate-forme permanente d'Atomium Culture entend contribuer, de façon apolitique et indépendante à accélérer le passage de l'Europe des Etats vers l'Europe des citoyens.

Atomium Culture, à travers l'information fiable des quotidiens participants, rapproche et favorise le partage et la diffusion du savoir et des idées les plus novatrices provenant des principales institutions du savoir et du monde de l'entreprise.

Plus particulièrement, Atomium Culture s'est concentré et se concentrera dans les actions suivantes :

- 1) Identifier, récompenser et promouvoir le Mérite, à un niveau européen ;
- 2) Garantir une coopération et un environnement favorable au premier noyau européen pour la coordination du nouveau savoir afin de promouvoir la divulgation auprès du grand public ;
- 3) Créer un point de rencontre réel et virtuel entre les meilleurs talents européens et augmenter les opportunités d'échange avec la société ;
- 4) Promouvoir un dialogue intersectoriel et interdisciplinaire et une coopération entre les acteurs de la plate-forme ;
- 5) Ouvrir les portes de la plate-forme permanente à d'autres acteurs de l'excellence européenne dont les fins, les valeurs et les qualités coïncident ;
- 6) Soutenir concrètement le progrès scientifique, technologique, culturel et social de l'Europe, en tant qu'acteur incontournable du progrès global.

Valéry Giscard d'Estaing et Michelangelo Baracchi Bonvicini
(Président d'Honneur et Président d'Atomium Culture)





1. Vision

Atomium Culture is the first Permanent Platform for European Excellence that brings together 25 universities, over one hundred thousand researchers, over one million students, seventeen newspapers, ten million European readers per day, and some of the most important businesses in Europe; a tool that allows these actors to constantly be confronted with a new approach, interdisciplinary and intersectoral, allowing the different expertise, knowledge and needs to interact, contributing to the creation of a European Research Area and at the same time working to engage all the European citizens, in order to really foster a knowledge society in Europe: innovative, competitive and creative.

The Permanent Platform of Atomium Culture engages, for the selection, exchange and dissemination of the most innovative European research, the three core pillars of a knowledge society: this depends for its growth on the production of new knowledge and its transmission through education (**universities**), its development and use through new industrial processes (**businesses**) and its dissemination through reliable information (**newspapers**).

At the basis of the vision of the Permanent Platform of A.C. is the idea that Europe already has the practical tools to meet the great challenges that we will have to face in the near future and that what needs to be done is to use this potential in a more incisive and direct way; implementing the capacity of interaction of the different sectors engaged in the Permanent Platform of A.C. and stimulating, through a reliable information, the communication between these and society.

Interaction, communication and action are thus the key words that will allow the vision of the Permanent Platform of A.C. to translate into reality. A close collaboration between these key pillars and the dissemination of their best results to the public at large will be fundamental for Europe's near future.





The search for knowledge has always been at the heart of the European adventure. It has helped to define our identity and our values, and it is driving force behind our future competitiveness¹.

¹European Commission, *Working together for growth and jobs. A new start for the Lisbon Strategy*, COM (2005) 24, p. 23.





2. Current situation and future scenarios

The future of Europe strongly depends on our capacity to reach a real knowledge based economy and promptly solve the challenges we are facing. That means that we have to act immediately to strengthen the European Research Area, leaving from its present weaknesses.

As remarked by the European Commission, the recent economic crisis has wiped out the European steady gains in economic growth and job creation succeeded over the last decade: Eu27 GDP fell by 4% in 2009, the industrial production dropped back to the levels of the 1990s and 23 million people (the 10% of our active population) are now unemployed. In addition, the last two years of crisis erased twenty years of fiscal consolidation, leading to a deficit at 7% of GDP on average in public finances and to debts levels at over 80% of GDP².

**The crisis as an opportunity:
Strengthening the Lisbon Strategy**

The new economic and social scenario unveiled by the crisis - which put us one more time in front of the increasing process of globalisation and world economic growing interdependence -, should be seen as a wake-up call and an opportunity to develop further the Lisbon Strategy, entering "into a new sustainable social market economy, a smarter, greener economy, where our prosperity will come from innovation and from using resources better, and where the key input will be knowledge"³.

In fact, now more than ever, the role of Europe on the global scene and the well-being of present and future European generations depend on our ability to reach a real knowledge based economy and solve the grand challenges we are facing.

As the "World in 2025" foresight project illustrates, between now and 2025 the world population will increase by 20% to reach 8 billion inhabitants (6.5 today), and 97% of this growth will occur in the developing countries.

From an European point of view, the European population will only account for the 6,5% of the global one and we will count the highest proportion of people of more than 65 years old in the world (30% of the population): that means that in 2030 just over two people will be of an age to work per elderly person compared to four in 2008. Such changes in demography will imply great problems in terms of green house gas emissions, health services, communication etc., and pose great challenges that will require a major reconsideration of how our system works⁴.

**Research and Innovation are the
only tools we have to face the
challenges implied by the
demographic changes**

²European Commission, EUROPE 2020. A strategy for smart, sustainable and inclusive growth, COM (2010) 2020. • ³Commission working document, Consultation on the future of the "EU 2020", COM (2009) 647, p. 2. • ⁴DG for Research. Socio-economic Sciences and Humanities, The world in 2025. Rising Asia and socio-ecological transition, EUR 23921 EN, and J. A. Goldstone, The New Population Bomb, Foreign Affairs Volume 89 No. 1, January/February 2010, p. 32.





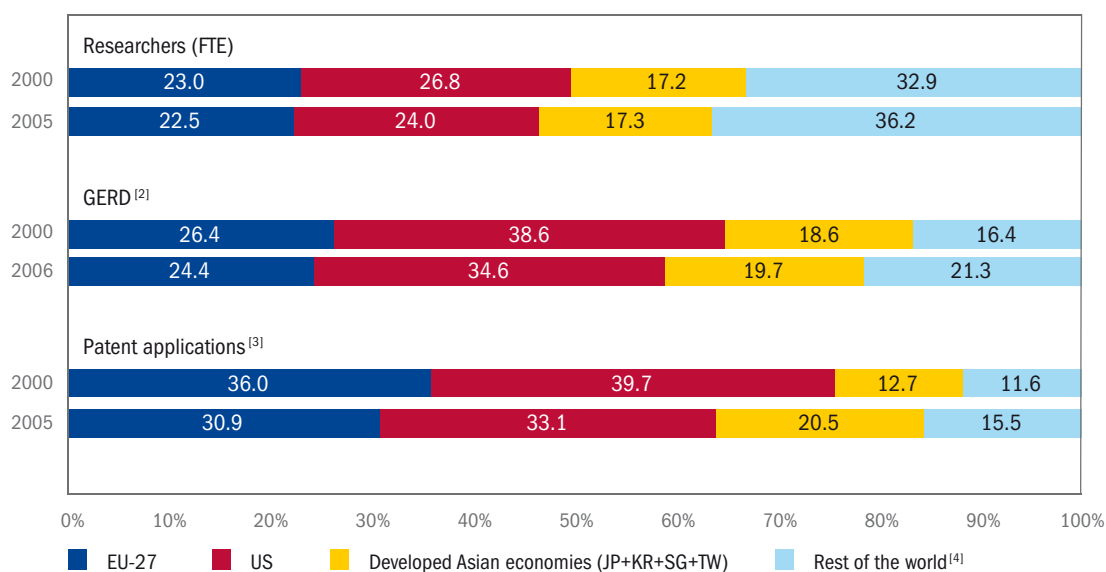
Research, Development and Innovation are the only tools we own to face these challenges, and their strengthening - which can only occur at an international and intersectoral level - is the only chance to follow being a preeminent actor on the global scene in the close future.

But we are still far to being a real knowledge based society

According to the First Report of the European Research Area Board (ERAB) "it's humbling to look at how small Europe actually is: today, 80% of researchers, 75% of research investment, and 69% patent applications happen outside the EU"⁵.

In the last decade Europe has produced more tertiary graduates and doctoral graduates than the US and Japan, but if we look at the employment figures we will find that researchers account for only 5.6 in every thousand of the work force in Eu, against 9.3 in the US and 10.7 in Japan⁶: that means that Europe still largely suffers from brain drain.

Europe is still largely suffering from brain drain



Source: DG Research

Data: Eurostat, OECD, UNESCO

Notes: [1] Elements of estimation were involved in the compilation of the data

[2] GERD: Shares were calculated from values in current PPSE

[3] Patent applications under the PCT (Patent Cooperation Treaty), at international phase, designating the EPO by country of residence of the inventor(s)

[4] The coverage of the Rest of the World is not uniform for all indicators

STC key figures report 2008

⁵European Research Area Board, *Preparing Europe for a new Renaissance. A strategic view of the European Research Area*, EUR 23905EN, 2009, p. 25. • ⁶European Commission, Directorate-General for Research, *A more research-intensive and integrated European Research Area. Science, Technology and Competitiveness key figures report 2008-2009*, EUR 23608 EN, 2008. • Graph: *Ibid.*, p. 6.





European Universities are underfunded

The ERA is not attractive enough: our research universities, though often prestigious, are underfunded: in 2006 "the EU spent 1.3% of GDP on higher education, compared with 3,3% in the US: in Euros per student, this translates into an even more staggering difference: 36.500 in the US versus 8.700 in Europe"⁷.

European researchers' salaries are considerably lower than those in the rest of the world: considering the cost of living, an Indian researcher earns more than his colleague in Europe. Furthermore, we have to consider the huge differences in European salaries (and more generally in R&D investments): to give one example, an Austrian professor earns almost double the salary of an Italian professor⁸.

We live in a fractured ERA

Even within the EU, circulation of researchers and ideas from country to country, private to public sector or between disciplines, goes against "the fractured state of the ERA today: still too much driven by inward-looking national priorities, too much centralism and suboptimal institutional and legal frameworks."⁹

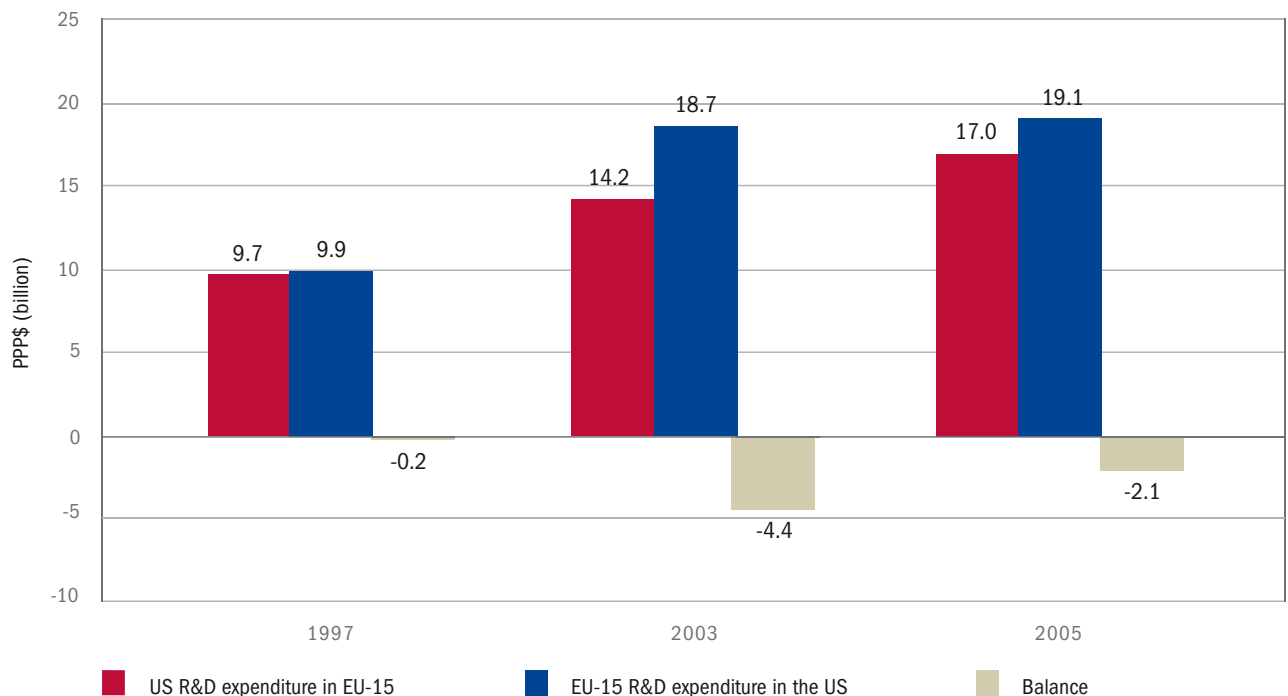
Although the Lisbon Strategy - especially after the *Relaunch* of 2005 -, "represented a step change in the importance and visibility of research and innovation policy at the EU level"¹⁰, we are still far below the goal set in Barcelona of 3% of GDP spent on R&D, mainly due to an insufficient growth in business R&D expenditure (which can be partially explained by the European lack of high-tech industry) and the fact that EU companies have invested more outside of Europe than non-European companies have invested in Europe.

As the President of the European Commission José Manuel Barroso remarked "Google spends more on information and communication technologies R&D than the EUFP7 does" and in Silicon Valley, the University of California at San Francisco alone has spawned publically traded company with a combined value of \$90 billion - three times the value of Europe's entire biotech sector"¹¹. Europe needs to act together, improving international and public-private collaborations and overcoming the rigid university structures and predominance of national priorities.

The growth in business R&D expenditure has been insufficient, as the public-private collaborations

⁷Report of an Expert Group to the European Commission, *The Role of Community Research Policy in the Knowledge-based Economy*, 2009, p. 63. • ⁸European Commission, Research Directorate-General, *Remuneration of Researchers in the Public and Private Sector*, 2007, p. 56. • ⁹European Research Area Board, *Preparing Europe for a new Renaissance. A strategic view of the European Research Area*, EUR 23905EN, 2009, p. 7. • ¹⁰Commission Staff working document, *Lisbon Strategy evaluation document*, SEC(2010) 114, p. 12. • ¹¹N. Moran, *Innovation clusters: a Charter is born*, Science/Business, 2008.





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Excellence is still too poorly rewarded

In Europe excellence in research is still too poorly rewarded, mainly due to the prevalent use of national public funding systems and centralized and standardized governments control systems which provide funds often regardless effective results. Data in this sense are quite scaring: if we look at the 386 most active research universities in the world "we find that 45% are located in Europe and 32% in the US, but of the 25 most active research universities in the world, 80% are located in the US"¹². Our share of scientific Nobel prizes has been declining over past generations, and even if EU 27 follow being the largest producer of scientific publications in the world, we contribute much less than the US to high-impact publications¹³, mainly due to the fact that we are not specialised in the fast-growing scientific disciplines (like health sciences, material sciences and environmental sciences) and that the links between publications and patents is weaker than in the US. This weakness is due both to the insufficient interaction of university and business and to the absence of a common EU patent system.

¹²European Commission, Directorate-General for Research, *A more research-intensive and integrated European Research Area. Science, Technology and Competitiveness key figures report 2008-2009*, EUR 23608 EN, 2008, p. 94. • ¹³European Research Area Board, *Preparing Europe for a new Renaissance. A strategic view of the European Research Area*, EUR 23905EN, 2009, p. 24: "In academia (...) the EU produces 33% of global research papers and has 34% of the papers most often cited by other researchers. But the US is far more influential, producing 29% of papers and earning 42% of citations." • Graph: European Commission, Directorate-General for Research, *A more research-intensive and integrated European Research Area. Science, Technology and Competitiveness key figures report 2008-2009*, EUR 23608 EN, 2008, p. 85.

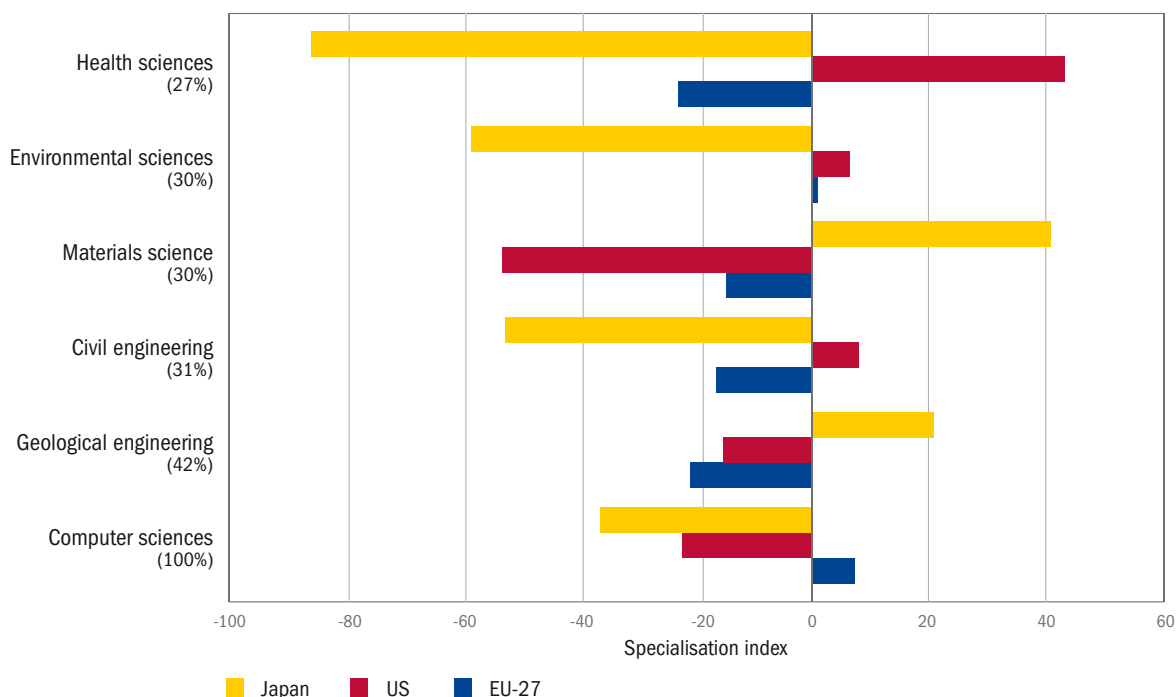




**Short-term goals still take priority
over the long-term vision for a
strong Europe**

Unfortunately the financial crisis has demonstrated once again how most of the EU27 countries do not prioritize research and innovation by cutting budgets and funding. In a time where this should be a key priority for long-term vision of a strong Europe, short-term goals take priority demonstrating how the lack of awareness of these problems with the public at large can be critical for the future of Europe.

To not act, and to not act now, to invert these trends, making the ERA a competitive reality, would mean to lose our challenge with the future.



Source: DG Research
Data: Thomson Scientific/CWTS, Leiden University

STC key figures report 2008







3. What is Europe doing and what would be needed to reach a really competitive ERA?

A new approach to research to solve the grand challenges: European, Intersectoral and Interdisciplinary

Solving the *Grand Challenges* described in the previous chapter will require the elaboration of a radically new concept of research, as concluded by the ERAB: "we must start by changing the way we do research. We must reorganize, to create a truly open European Research Area marked by free movement of people and ideas. We must rethink the way science interacts with politics and society, so our governance is based on best-available evidence"¹.

The extent and complexity of the problems we have to face need a new approach that must be at the same time:

- **European:** since both the existing research institutions and the Member States themselves do not have, separately, sufficient resources; as Bengt Samuelsson, Former Chairman of the Nobel Foundation Board says "The E.U. needs a COMMON research policy if it is going to play an important role in the future global development".
- **interdisciplinary:** cooperation across disciplines has proven to be necessary to increase the innovation potential of new ideas. Technological and scientific expertise has to be coupled with a wide range of other disciplines, such as psychology, social sciences etc.
- **intersectoral:** universities must collaborate more and more efficiently with industry, and both public and private research institutions must interact with policy makers to create the link between research and innovation.

Changing the way we conceive and do Research in Europe will be possible only if we achieve to resolve the problems highlighted in the precedent chapter, which in spite of their interconnection, can be divided into three main "areas", that need to be addressed in order to reverse these trends:

- a) Human Resources;
- b) Horizontal Institutional Cooperation;
- c) Engagement of Society.

¹European Research Area Board, *Preparing Europe for a new Renaissance. A strategic view of the European Research Area*, EUR 23905EN, 2009, p. 5.





a) Human Resources

Why aren't European Universities, RTOs and Clusters globally competitive and what must be done to move from the current situation of brain drain to one of brain gain?

Researchers are key to developing Europe as a competitive and dynamic knowledge-based economy. However, as underlined by the previous chapter, today researchers are a really small percentage of the European work force and Europe still largely suffers from brain drain.

From brain drain to brain gain

In addition to this the last decade has seen an alarming decrease in interest in mathematics, science and technology (MST). There are two main reasons for these patterns: brain drain and too little brain gain, which are of course interconnected and must be faced together.

At present the European universities are not globally competitive with those of other countries (especially the US), mainly due to the worsening under-funding, which jeopardises their capacity to keep and attract the best talents and so strengthen the excellence of their researching activities. Research careers are also generally perceived as unattractive and not very prestigious from a social point of view: we need to change this perception, giving more space to research even outside the education context, encouraging young to pursue these careers and working to ensure that research and innovation are perceived like priorities by society at large.

Why are European universities not globally competitive?

Only in this way we will make European universities more attractive both to students and researchers.

Increase funding is necessary, but not sufficient: containing brain-drain means first of all selecting and rewarding excellence in research, and facilitating researchers' mobility. For this purpose, the ERAB and the Expert Groups of the European Commission emphasized the importance, concerning R&D, of postponing the national priorities to those of Europe, giving more autonomy to the Universities and working to uniform the national regulations and tax regimes to facilitate the

What must be done? Rewarding excellence and improving researchers' mobility

mobility of researchers between public to private, creating in that way the enabling conditions to promote private funding.

The creation of the European Council of Research, the European Institute of Technology and the VII Framework Program have been important steps for the creation of a real ERA, however it is still necessary to coordinate better the European actions with the Member States. "We don't need any more tools, we need the will to use them [...] Europe needs to concentrate its efforts in a few areas that will set the difference, where our union will set the difference: research is one of those areas"².

A further recommendation widely shared by the European stakeholders consists in encouraging the agglomeration and specialization of research structures, both to reach the critical mass which would allow the development of really innovative projects (which are often very expensive) - attracting in a same place the most authoritative experts in a determinate field

²Public Launch and First Conference of the Permanent Platform of Atomium Culture, European Parliament, 27th November 2009, Javier Moreno (Editor-in-Chief of El País, Member of the Advisory Board of Atomium Culture).



of research -, and to reduce the current disparities between the different European Member States regarding their capacity to attract high level Researchers.

The same assumptions can be applied to industry, and especially to innovative small and medium-sized enterprises; as remarked by the ERAB "we have a crowd of innovation clusters - more than 2 000 - but many are too small to matter economically or scientifically at the global level"³.

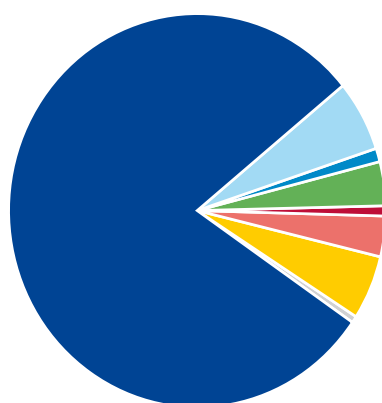
Promoting clusters and specialization both in Universities and Industries

Particular attention must then be given to a typical mentality problem, connected with the approach to risk-taking: if the American universities currently result more competitive than the European ones, this is also due to their attitude to funding

Encouraging high risk research and development

high-risk projects, which can fail, but that pursue, and often achieve, radical innovations. The same problem regards applied research developed by industry: as emphasized by the ERAB "a fundamental cultural problem holds us back: in most

of Europe, failure in research or business is seen as a badge of shame rather than a certificate of education, a step on the way to future success", on the contrary, "we will know the ERA is a place of excellence when we see 50% of EC research funding is going to frontier, high risk research and development"⁴.



Source: DG Research
Data: Eurostat
Note: [1] EU-27 does not include: DE, IE, EL, LV, LU, NL

Own country	387000 (79.5%)
Other EU country	28400 (5.8%)
Other European country	5300 (1.1%)
Africa	17900 (3.7%)
North America	4400 (0.9%)
South America	15300 (3.1%)
Asia, Middle East, Oceania	26000 (5.3%)
Unknown	2600 (0.5%)

STC key figures report 2008

Shared recommendations:

- Reward excellence and scientific innovations; to make research attractive as a career path, researchers and innovators should be rewarded according to their merits;
- Increase funding to European academic institutions, "making specific provisions for research that take into account the specificities and risks associated with it"⁵;
- Accord greater autonomy and responsibility to universities;
- Encourage a stronger differentiation among universities and RTO;
- "Focus support to collaborative research using selection criteria that emphasize research excellence, the potential for radical innovation and the capacity to operate globally"⁶;
- Realize a real single labour market for researchers;
- Support young innovative companies, especially beyond their start-up phase, facilitating their credit access through new forms of public-private funding (for instance in form of risk capital) and through the launch of "an EU-wide 'excellence through competition' scheme" that should support those industries which "undertake high-risk projects and pursue radical innovation"⁷;
- Change the perception within society at large of the importance and impact of research in order to create the enabling conditions to build a competitive ERA.

³European Research Area Board, *Preparing Europe for a New Renaissance. A strategic view of the European Research Area*, EUR 23905EN, 2009, p. 11. • ⁴Ibid., p. 24. • ⁵Report of an Expert Group to the European Commission, *The Role of Community Research Policy in the Knowledge-based Economy*, 2009, p. 34. • ⁶Ibid., p. 28. • ⁷Ibid., p. 8. • Graph: European Commission, Directorate-General for Research, *A more research-intensive and integrated European Research Area. Science, Technology and Competitiveness key figures report 2008-2009*, EUR 23608 EN, 2008, p. 121.





b) Horizontal Institutional Cooperation

Reaching a united and stronger ERA through the implementation of the horizontal links between research institutions and between academic world and industry

Excellence stems from dialogue and from the free circulation of people and ideas: until we reach a united ERA, we will never be really competitive. In order to establish European research as a world reference, it is necessary that European universities increase its collaborations with other research institutions and with industry.

We need to strengthen and implement the relationship between i) research institutions themselves and ii) universities and businesses.

Research Institutions

As already remarked, containing brain-drain, implementing researcher mobility, supporting the creation and development of international projects and making our universities more attractive (also for non-European researchers) are targets widely shared by the EU Institutions; all this implies a dramatic increase of collaborations among universities. A stronger coordination and activity of networking is needed to make up for the deficiencies of the European university system, mainly due to the high number, small size, poor specialization and strongly national character of universities, whose excellence at international level is often also compromised by the lack of internal competition.

Implementing cooperation among universities: building an ERA network on-line, encouraging multidisciplinary projects and engaging secondary education

A deeper cooperation between universities is necessary to avoid the duplication of efforts on a same subject, to speed up the solution of common problems and to increase the impact of the achieved results.

A formidable instrument for this purpose is provided by internet: as outlined by the ERAB we need to build an ERA network on-line where "the tools of e-science are deployed throughout the ERA, permitting international collaboration so that all researchers will see themselves as part of the global research system"⁸.

If research is to be driven by societal needs, aiming to the solution of the *Grand Challenges*, it will be important to train researchers specialized in different disciplines to work together, promoting at an European level multidisciplinary projects and collaborations, as already stated by the FP7.

Finally it's important to encourage the opening-up of the Academic world to the primary and secondary education, promoting the interaction between researchers and teachers.

⁸European Research Area Board, *Preparing Europe for a new Renaissance. A strategic view of the European Research Area*, EUR 23905EN, 2009, p. 16.



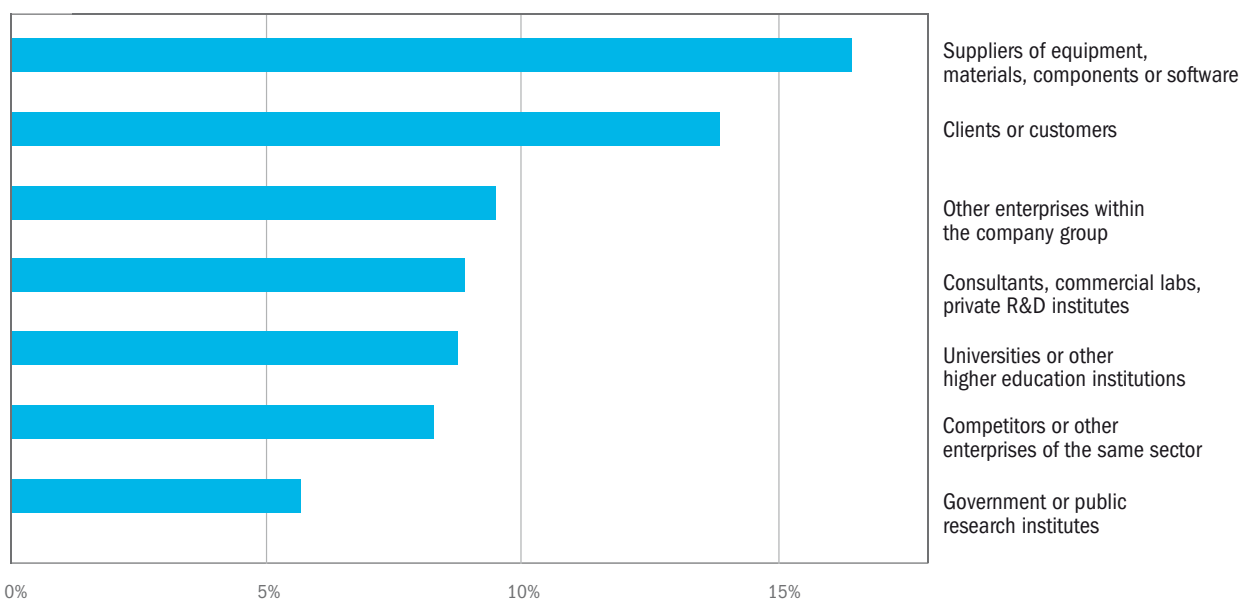


University-Industry (Research-Innovation)

Research by itself does not create money. It is in fact the opposite: research transforms money to knowledge and competence; it is innovation that transforms knowledge and competence into money and value. To make this work, you have to understand the needs from business and society⁹.

The collaboration between university and business is a fundamental aspect in the development of a knowledge economy. However in Europe the bond between research and innovation, between the academic world and the market, is too slack. As outlined by the Expert Group of the European Commission responsible for studying *The role of Community Research Policy in the Knowledge-Based Economy* "the institutional separation at the level of the European commission between research and innovation and between research and progress on the internal market, particularly in services, made the Lisbon Strategy less credible for the private sector"¹⁰.

From money to knowledge and back again: implementing the interaction between Research Institutions and Industries.



Source: DG Research
Data: Eurostat

STC key figures report 2008

⁹Public Launch and First Conference of the Permanent Platform of Atomium Culture, European Parliament, 27th November 2009, Prof. Per Eriksson (Rector of Lund University). • ¹⁰Report of an Expert Group to the European Commission, *The Role of Community Research Policy in the Knowledge-based Economy*, 2009, p. 16. • Graph: European Commission, Directorate-General for Research, *A more research-intensive and integrated European Research Area. Science, Technology and Competitiveness key figures report 2008-2009*, EUR 23608 EN, 2008, p. 132.





Promoting public-private partnerships and encouraging open innovation

Europe needs to “maximize and accelerate the practical benefits of research for Europe’s businesses and SMEs, including through major public-private partnerships”¹¹. For this purpose it is pivotal to encourage *open innovation*, and especially to maximize the productive capacities of the European SMEs: “Openness accelerates and broadens innovation processes by offering firms the potential to access a much broader variety of knowledge and ideas than could be generated by its in-house R&D capabilities alone. Technology transfer and public-private partnerships (...) can constitute a major stimulus for radical innovation. (...) The challenge is to put in place structures, networks and markets capable of supporting the development of such entrepreneurial activities”¹².

To achieve this it is important “to move quickly to the full implementation of a Community patent system and increase efforts to reduce the barriers to researchers mobility and reduce the transition costs in knowledge and technology exchanges”¹³; moreover, it is important to facilitate, especially for the SMEs, the finding of possible partners.

Realizing a Community patent system and facilitating knowledge transfer

And increasing the attractiveness of careers in MST

Universities, businesses and schools must collaborate to select and promote among the young generations the disciplines that are important for economic growth: in particular the encouragement of scientific careers will be fundamental. As outlined by the EU Institutions and stakeholders, considering the current demographic trends we will soon need to import scientists from outside the European Union if trends do not change.

Shared recommendations

- Promote cooperation between universities at a European level;
- Create an ERA network on-line;
- Focus support to multidisciplinary projects and collaborations;
- Facilitate interaction among academic research, innovation and education;
- Promote a “stronger coordination between R&D support and Lead Market instruments”¹⁴;
- Facilitate open innovation, technology transfer and public-private partnerships;
- Achieve the full implementation of a Community patent system;
- Encourage the mobility of researchers from public to private sector and vice versa;
- Increase the attractiveness of careers in MST.

¹¹Commission working document, *Consultation on the future of the “EU 2020”*, COM (2009) 647, p. 5. • ¹²Report of an Expert Group to the European Commission, *The Role of Community Research Policy in the Knowledge-based Economy*, 2009, p. 25. • ¹³*Ibid.*, p. 9. • ¹⁴*Ibid.*, p. 7.





c) Engagement of Society

“Citizens have a right - and are expected - to be involved in the crucial decisions of what their futures will look like and how science and technology can contribute to its betterment”¹⁵

Why is the engagement of society pivotal for the building of a knowledge society and what must be done to increase awareness of the importance of Research and Innovation with the public at large?

The growth of the knowledge economy and society leaves universities to become more closely involved in community life and vice versa. Academic institutions can and must increasingly become a forum of reflection on knowledge, as well as of debate and dialogue between scientists and people¹⁶.

The lack of citizens' involvement in and support for the objectives of the Lisbon Strategy is at the origin of its failures

As outlined in the *Relaunch of Lisbon Strategy* in 2005: “Establishing broad and effective ownership of the Lisbon goals is the best way to ensure words are turned into results”¹⁷. But 5 years later, in the Lisbon Strategy evaluation document, we read that “overall, there was not enough focus on communicating both the benefits of Lisbon and the implications of non-reform for the EU (or indeed the

eurozone) as a whole”¹⁸. The engagement of Society in pursuing the Lisbon targets has remained too weak, jeopardizing their achievement. This lack is particularly severe in respect to the fields of Research, Development and Innovation.

¹⁵*Ibid.*, p. 37. • ¹⁶Commission of the European Communities, *The European Research Area: providing new momentum*, COM(2002) 565 final. • ¹⁷European Commission, *Working together for growth and jobs. A new start for the Lisbon Strategy*, COM (2005) 24, p. 5. • ¹⁸Commission Staff working document, *Lisbon Strategy evaluation document*, SEC(2010) 114, p. 7.





The proven lack of understanding of the importance of research and innovation for the sustainable future of a competitive Europe demonstrates the lack of communication between research on the one side and society on the other. As emphasized by the ERAB, “both researchers and society at large need to be fully engaged with and realize the consequences of the wider challenges facing us”, for this purpose a “paradigm shift in how we think, live and interact together [will be necessary], as well as a paradigm shift in what the role and place of science should be. A new, holistic way of thinking is required as technological answers alone are not the end-solution to a given problem”¹⁹. This paradigm shift will only happen if we manage to:

Lack of communication between research and society is particularly severe

To build a real Knowledge Society we need a broadly educated citizenry; we need to train our Scientists in communicating and restore the trust between science and society.

- 1) “train a broadly educated citizenry, better able to participate in public debate on the benefits and risks of research and technology”, “and that means researchers must become better at and more eager about explaining what they do. Communication training must become part of standard research teaching”²⁰.
- 2) “restore trust between science and society, with a new social contract based on the ‘3 Rs’: rigour in decision making, political or scientific; respect for our fellowman, scientist and the environment; and responsibility for our own actions as scientist and as citizens”²¹.

Only a broadly educated and informed citizenry will allow the development of a truly knowledge based economy, aware of the necessary costs and the many benefits: as remarked by President Barroso - to give just an example - today “the 56% of households have a broadband connection, but many users have doubts about safety and financial transactions on the internet”²²; until these doubts are not solved, the development of digital industry will be definitely compromised.

¹⁹European Research Area Board, *Preparing Europe for a new Renaissance. A strategic view of the European Research Area*, EUR 23905EN, 2009, p. 9. • ²⁰*Ibid.*, p. 20. • ²¹*Ibid.*, p. 9. • ²²Europe 2020, *Presentation of J. M. Barroso to the Informal European Council*, 11 February 2010, p. 16.





We must create a large consensus for investment in research

Research, especially that oriented to solve the grand challenges, needs a huge amount of investments, and often does not lead to an immediate economically profitable outcome. In a period of financial crisis, when industry invests less in R&D, it's commonly assumed that public funding should be increased, but in a period of fiscal crisis it is difficult for the State to justify this to taxpayers (especially for basic, curiosity-driven research) by invoking uncertain or results in the long term. This is the reason why politics often abandon their purposes of investing more in research and this is also the reason why, as outlined by the EG nominated by the Commission, it's absolutely necessary to find effective strategies to engage Society in sustaining research. In particular:

- We need to highlight the democratic value of research itself, because "science itself is based on a deeply held, societal value: that of free inquiry into what is yet unknown. In this sense, science and democracy are completely aligned today. Investing into research is itself based on a profound societal value"²³.
- We need to find more convincing arguments than the economic one to feed the support of Society for public procurement in R&D; in fact "Europe has yet to develop a strategy on the rhetorical level which is sufficiently convincing to mobilise the mass of citizens to devote large resources to a long term scientific vision that transcends electoral cycles. (...) Therefore, a convincing argument for public support of research must include a visionary narrative, with goals that can be specified and credible mechanisms in place, showing how they can be achieved"²⁴.

Outlining the democratic value of research itself and creating a visionary narrative to achieve public support of research.

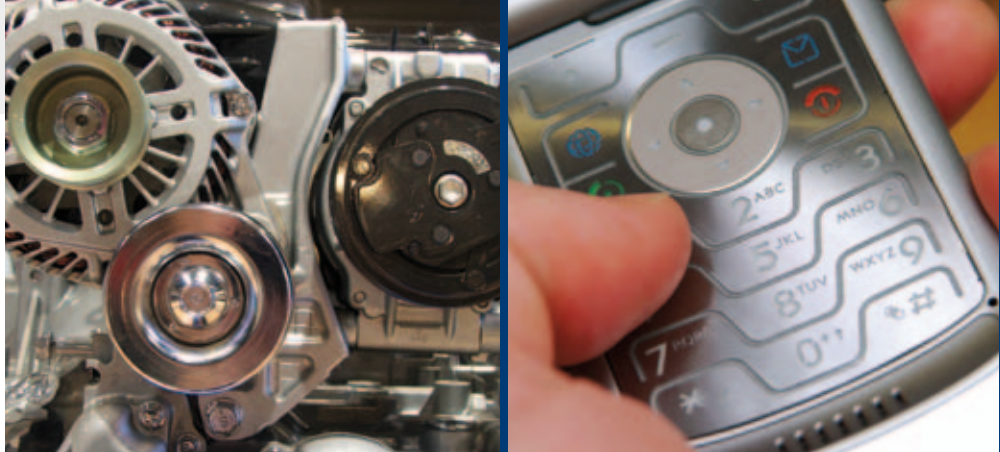
Shared recommendations

- Engage the citizenry and win support to achieve the future Europe 2020 Strategy targets;
- Promote the dissemination of the results of research;
- Provide communication training for researchers;
- Inform and educate citizenry on the current scientific debates;
- Achieve public support for research and innovation.

²³Report of an Expert Group to the European Commission, *The Role of Community Research Policy in the Knowledge-based Economy*, 2009, p. 37. • ²⁴ *Ibid.*, p. 38.







4. What can the leading institutions of civil society do for Europe?

As highlighted by the previous chapters, the concrete activities developed in the discourse of the Europe 2020 Strategy will not be enough to catalyse the deeper societal changes that have been called for, what the ERAB calls the New Renaissance.

To radically change the mentality of Europeans towards research and innovation there needs to be an attitude shift. However, so far no realistic and concrete solutions have been proposed to manage this shift at a European level.

Conscious of the depth of the problems and aware that these cannot be solved solely by a top-down approach, but require an active effort by civil society as well, some of the leading European institutions of civil society - universities, newspapers and businesses - have come together to propose and come up with concrete measures to face these challenges, using as starting point the tools of communication and interaction.

Communication and interaction are important keys to solving the difficulties European research and innovation is facing, as has been seen in the “problem areas” outlined in the previous chapter.

This chapter will outline some concrete solution that can contribute to solve these difficulties, resulting from the outcomes of the Public Launch and First Conference of the Permanent Platform of Atomium Culture, and will focus on how communication and interaction can be used to change the current lock-ins in different domains, acting at a European and intersectoral level, and engaging the public at large.

The chapter will also underline how the Permanent Platform of A.C. has been set up to create a reliable and unique coordinating body for these initiatives, in order to:

- a) Increase European and interdisciplinary communication and interaction between researchers and universities;
- b) Increase University-Business cooperation at a European level: transforming research into innovation;
- c) Engage the public at large.







a) Increasing European and interdisciplinary communication and interaction between researchers and universities

In the previous chapters we saw how lack of communication and collaborations among European research institutes and researchers creates a lack of efficiency and duplication of efforts. For instance, currently 72 research groups in Europe are doing independently the same research on the same bacteria¹.

A lack of interdisciplinary collaborations further diminishes the potential for new ideas and innovative approaches when it comes to the “grand challenges” where research is carried out in a variety of different fields.

The issue remains how do we create dynamic and interactive communication at a European level between researchers and how do we extend this communication at an interdisciplinary level?

As remarked in the previous chapters the main problems with regard to this issue are:

- Excellence in Research is too poorly known and rewarded, and researchers’ mobility is too scarce, mainly due to the high number, small size, poor specialization and strong national character of European Universities.
- The fragmentation of the ERA and the importance given to the national priorities as opposed to European ones is reflected by the multiplication of reviews and projects dealing with the same topic, with a considerable duplication of efforts and lack of efficiency.
- Mobility between the public and the private sector and within different fields of research is too low.
- The lack of researchers’ mobility within different States and from public to private sector is not compensated by a sufficient exploitation of the ICT tools.

What the actors involved in the Permanent Platform of Atomium Culture can do:

- Increase the dissemination of the most forward looking European research in all fields of research in order to make it easily accessible to researchers across the continent (see Chapter 5, box 1, 4 and 8);
- Create a recognizable and reliable space where the most innovative European research, both public and private, is collected (see box 3 and 4);
- Create real and virtual forums for interdisciplinary and European collaborations on issues of public concern (see box 2);
- Create the first global ICT tool for online collaboration between researchers that allows for easy and secure communication, the possibility to be informed about cutting edge/new research results done within your area of interest across the different disciplines (see box 4).

¹As referred by Ms Marion Dewar, member of cabinet in charge of innovation policy, in her speech on the economic potential of Europe's innovation, European Voice Innovation Forum, Tuesday 30 march 2010, Residence Palace, Brussels.





b) Increasing University-Business cooperation at a European level: transforming research into innovation

Chapter three outlined the importance of intersectoral collaborations to develop research into innovation. How does today's science become tomorrow's technology?

Innovation means "new successful products, services and processes and this means to interplay with business, university and politics"², it is an inter-domain challenge. Although linear collaborations exist today between the big European businesses and universities and research institutes this does not apply to the majority of European businesses. In order to fully implement the capacity of European discoveries we need to strengthen the collaborations between research and business, to transform research into innovation.

Recognizing the deep diversity between the academic and the business approach we must overcome the existing mutual mistrust, starting from the best practices, for instance doctors and engineers have already outlined the importance of meeting the needs of society and business, of being "very independent, but also very open-minded and take ideas from both Industry and Society"³.

However this is not as simple as it seems; 95% of European businesses are classified as small or medium enterprises (SME) and do generally not have access to universities and the latest research results, and if so this is usually limited at a regional level. The issue remains how do we create a space for interaction between research, private and public, and possible entrepreneurs, innovators and niche businesses at a European level?

As remarked in the previous chapters the main problems with regard to this issue are:

- Research pursued within universities is not easily accessible by most industries, data show that Universities are not the main collaborators of innovative European Firms: that means that academic publications rarely translate in patents;
- Private investment in R&D is too low, and the needs and expertise of businesses are not considered and exploited sufficiently by the academic world, especially with regard to the "grand challenges" that require multidisciplinary and intersectoral approaches;
- Industries, and especially SMEs, do not have direct access to cutting-edge research and projects;
- The costs and efficiency of knowledge and technology transfer are still suboptimal.

What the actors involved in the Permanent Platform of Atomium Culture can do:

- Increase the accessibility of research results and projects conducted within leading European research institutes (see Chapter 5, box 1, 3, 4 and 8);
- Create real and virtual forums for intersectoral and European collaborations on issues of public concern (see box 2);
- Create a database of the research currently conducted by the leading European research institutes, both public and private (see box 3 and 4);
- Create the first pan-European coordinating body for knowledge transfer that brings together and creates bridges between the existing knowledge transfer offices of the involved institutions (see box 6).

²Public Launch and First Conference of the Permanent Platform of Atomium Culture, European Parliament, 27th November 2009, Prof. Per Eriksson (Rector of Lund University). • ³Public Launch and First Conference of the Permanent Platform of Atomium Culture, European Parliament, 27th November 2009, Prof. Per Eriksson (Rector of Lund University).



c) Engaging the public at large

The attention given to a good idea is an indispensable part of its success⁴

The challenge for a competitive, innovative and creative Europe does not only affect universities and businesses, but it is a challenge for European society at large.

Research and innovation are at the top of the Agenda of the Commission headed by President José Manuel Barroso, but "if we are not able to go out, to communicate with people, then that will automatically block the process of making our society more modern"⁵.

The problems that Europe will have to overcome to become a real knowledge economy reside also in an attitude and state of mind of society at large. The importance of research and innovation, of science and private-public collaborations, of risk taking and new technology needs to permeate society at large.

Today society is not a bystander of innovation but is an active part in developing the new scientists, entrepreneurs, consumers and venture capitalists. Furthermore, if we want to invest heavily in creating a knowledge society, investing in research and innovation, this has to be accepted and understood by society at large⁶.

But how do we develop this consciousness? How can Europe develop a transparency and involvement of society towards something that has so far been done in closed circles?

As remarked in the previous chapters the main problems with regard to this issue are:

- Research and Innovation are perceived as very distant and not imperative; research careers are generally perceived as unattractive, mainly due to the fact that researchers and scientists are often not recognized and rewarded for their efforts and results in developing new ideas and technologies;
- There is a lack of understanding of the importance of research and innovation for the sustainable future of a competitive Europe; there is a need to share with society that "what Europe can contribute to define the world tomorrow is its intelligence"⁷;
- Areas of knowledge and the means of transmitting this have grown exponentially over the last decades, and disinformation or misinformation are as common as information: there is a general lack of trust and reliability that makes the relationship between researchers and the public at large difficult;
- Scientists are often not able to explain in an understandable language what they are doing.

What the actors involved in the Permanent Platform of Atomium Culture can do:

- Increase the dissemination of the most innovative and interesting research results and technologies to the public at large at a European level (see Chapter 5, box 1 and 8);
- Make accessible comprehensive, intersectoral and interdisciplinary debates on topics of public concern (see box 2 and 7);
- Create a reliable and accessible space where the public at large can find out the most interesting research results conducted in Europe (see box 3 and 8);
- Translate complex concepts, technologies and ideas into a language that can be understood by non-experts (see box 1 and 5);
- Create a link between Europe's leading scientists and the public at large (see box 1, 4 and 8).

⁴Public Launch and First Conference of the Permanent Platform of Atomium Culture, European Parliament, 27th November 2009, Michelangelo Baracchi Bonvicini (President of Atomium Culture). • ⁵Public Launch and First Conference of the Permanent Platform of Atomium Culture, European Parliament, 27th November 2009, Claus Sørensen (Director General of DG Communication, European Commission, Member of the Advisory Board of Atomium Culture). • ⁶The speeches held during the Public Launch and First Conference of the Permanent Platform of Atomium Culture are retrievable www.atomiumculture.eu. • ⁷Public Launch and First Conference of the Permanent Platform of Atomium Culture, European Parliament, 27th November 2009, Bruno Le Maire (French Minister, Former Secretary General and Member of the Executive Board of Atomium Culture).



5. Activities

1. The Dissemination Area of A.C.: Bridging the gap between Research and the public at large

In light of the growing importance of research, innovation and culture in giving answers to today's challenges, the engaged newspapers have come together to bring to their readers the most interesting and innovative ideas on these issues coming from the best European research. To make the research that sheds light on intricate and complex issues affecting our everyday life accessible.

Supported by the Editorial Committee of Atomium Culture, composed of five chief-science editors of the engaged newspapers (the current committee is composed of the chief-science editors of El País, Le Monde, Frankfurter Allgemeine Zeitung, Il Sole 24 Ore and The Irish Times) and the Editing Office of Atomium Culture, a team of expert science editors, the area of dissemination promotes the writing and publication of articles written by leading researchers selected by and within the universities and businesses engaged in the platform.

This allows researchers to disseminate their results and the most forward looking ideas in 16 different fields of research to the European public at large. The network of European newspapers engaged in the Permanent Platform of A.C. is currently the strongest in Europe, the only platform that brings together 17 national newspapers of reference, from 17 different countries, that together reach over 10 million Europeans daily.

2. Area of Exchange: comprehensive, interdisciplinary and intersectoral high-level workshops on issues of public concern, easily accessible by the public at large

The Area of Exchange of the Permanent Platform of Atomium Culture periodically organizes High-Level Workshops (HLW) - in cooperation with the universities, newspapers and businesses engaged in the platform and with the Government holding the Presidency of the Council of the European Union - on current topics of public interest and the challenges society will need to face.

The purpose is to create comprehensive, intersectoral and interdisciplinary debates to come up with perspectives shared by the different participating sectors and possible innovative solutions. These are transparent forums for sharing knowledge and together coming up with innovative ideas on how to concretely address the main challenges of today through sustainable collaborations. Forums that, through the actions and presence of the media engaged, have the objective of informing the public at large regarding the contents and main outcomes of the debate; creating a credible and realistic medium for the public at large to access and understand the complexities of the current issues.

The philosophy of the Area of Exchange is that in the era of the knowledge society it is not about choosing the correct vision/solution among the suggested proposals, but to bring together the knowledge, expertise and interests of ALL the stakeholders in order to create a realistic and sustainable solution pushed forward by society at large. A report that outlines the current scenarios and the outcomes of the HLW is written for each event, under the scientific guidance of the leading national university where the HLW is hosted.



3. www.atomiumculture.eu

The website of the Permanent Platform of A.C. has been created to become a reliable space to find the most forward looking researches pursued within the leading European research institutes, public and private, accessible to a non-expert audience; a database to collect articles on the most forward looking ideas in nearly all fields of research. Linked to the websites of the cooperating institutions, the website acts like a forum and source of information on leading research.

4. Researchbase.eu: the first reliable and secure network for researchers' online cooperation

Intelligence knows no borders, it knows no limits, it moves easily
(Valéry Giscard d'Estaing - Honorary President of Atomium Culture)

Researchbase.eu is the most important of the ICT projects of the Permanent Platform of A.C.: it foresees the creation of the first European network of researchers, recognizable and authoritative, reserved exclusively to the researchers of the leading universities and businesses engaged in the platform. It intends to promote and create spontaneous interactions between researchers, in an autonomous and independent way at a European level.

To meet the needs expressed by many researchers and through their individual enterprise, Researchbase.eu aims to create a flexible, dynamic and efficient tool, with three different levels of interaction, to favour:

- a) the interaction between researchers, useful to easily find colleagues working on similar topics, topics of interest and related work in other fields pursued anywhere in Europe (through the second and third level - reserved to the researchers);
- b) the creation of virtual clusters and research laboratories (third level);
- c) the creation of a database, in constant evolution, on all research pursued by the participating researchers (first and second level).
- d) the accessibility of the latest and most forward looking research results by the public at large and the interactions between researchers and society (first level - accessible to all);

Excellence and security being key aspects of Researchbase.eu, this platform will initiate with the actors engaged in the Permanent Platform who alone reach over 100.000 researchers.

5. Innovation Journalism: Learning how to communicate science

The difficulty of translating complex concepts into a language for non experts is one of the problems at the root of the gap that exists between research and society.

Supported by the Editorial Guidelines written by the Editorial Committee and with the direct help of the Science Editors of the Editing Office, the Permanent Platform of A.C. teaches the techniques of innovation journalism to over 500 leading researchers per annum.

This will increase through the seminars on innovation journalism to be organised around Europe starting from January 2011, in occasion of the national launches of Atomium Culture in all the countries where the platform is active.



6. Area of Knowledge Transfer: European Coordination Body

Atomium Culture is currently designing the area of Knowledge Transfer. The aim of this area is to create the European Coordination Body for Knowledge Transfer that will increase the communication and be a point of contact between the different technology transfer offices of the European universities and businesses engaged in the platform. This body will be a transparent flexible structure for the development of innovative ways of fostering university-business partnerships.

Currently the Innovation Committee of A. C. is being set up. This committee will be composed of representatives from industry as well as some external members, to decide on the working of the Body.

7. Area of Education: creating awareness of the challenges Europe is facing and inspiring innovative solutions

Engaging leading researchers from the cooperating universities to interact with and explain their research directly to secondary schools is imperative to increase the interest of children towards science and innovation and to explain how knowledge is at the basis for finding innovative solutions to the *grand challenges* Europe will have to face.

This development intends to run parallel and use the results of the Area of Dissemination and the Area of Exchange.

8. Europe 2020 Strategy and the Public at Large

During the Lisbon Agenda many new institutions and programs were founded by the European institutions to promote research and innovation: FP7, European Research Council, EIT.

In order to make the results of the research promoted, funded and selected by the European research institutions accessible to the public at large, and in order to showcase the results of these collaborations, the Permanent Platform of Atomium Culture intends to support the European Commission in disseminating the best results of these initiatives, opening its areas of activity to these projects and foreseeing to:

- Open the Area of Dissemination and its activities to the results of the research pursued under the support of the European Institutions;
- Include and demonstrate the most innovative EU research projects promoted by the ERC during the High-Level Workshops;
- Allow access to Researchbase.eu to all researchers and research groups working under the EU initiatives;
- Promote the research results of EU-funded projects make them easily accessible to the media engaged in the Permanent Platform;
- Inform and engage the European public at large regarding the activities supporting research and innovation created and supported by the European institutions, also in the framework of the upcoming Europe 2020 Strategy.





6. The Permanent Platform of Atomium Culture

- Bayer AG
- Comenius University in Bratislava
- Der Standard
- Ecole Normale Supérieure
- El País
- Fecyt
- Frankfurter Allgemeine Zeitung
- Humboldt-Universität zu Berlin
- Il Sole 24 Ore
- Jagiellonian University in Krakow
- Kathimerini
- Le Monde
- Le Soir
- London School of Economics (LSE)
- Ludwig-Maximilians-Universität München
- Lund University
- Luxembourger Wort
- Microsoft
- Népszabadság
- Postimees
- Pùblico
- Rzeczpospolita
- Shell
- Siemens AG
- SME
- Svenska Dagbladet
- Telekomunikacja Polska
- The Independent
- The Irish Times
- Trinity College Dublin
- Universidad Autónoma de Madrid
- Université Libre de Bruxelles
- Université Pierre et Marie Curie (Paris 6)
- University of Athens
- University of Barcelona
- University of Bologna
- University of Budapest (ELTE)
- University of Coimbra
- University of Edinburgh
- University of Lisbon
- University of Luxembourg
- University of Rome - La Sapienza
- University of Tartu
- University of Utrecht
- University of Vienna
- Vattenfall AB



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27 NOVEMBER 2009 - EUROPEAN PARLIAMENT PUBLIC LAUNCH AND FIRST CONFERENCE OF THE PERMANENT PLATFORM FOR EUROPEAN EXCELLENCE OF ATOMIUM CULTURE

Atomium Culture brings together some of the most authoritative European universities, newspapers and businesses in the first permanent platform for European excellence for a reliable, transparent, and efficient area for the dissemination and exchange of new knowledge.

An innovative solution to concretely pursue a new vision of Europe based on most forward looking ideas from research, industry and media.

The Honorary President Mr Valéry Giscard d'Estaing and the President Mr Michelangelo Baracchi Bonvicini will open the conference at 10:15

***"The Permanent Platform for European Excellence of Atomium Culture:
the need for thinking in new ways with regard to research, culture and innovation"***

Attending the public launch and first conference as speakers:

Professor Hans Stooft

*Rector of the University of Utrecht, Member of the Advisory Board of Atomium Culture,
Member of the Board of Directors of the League of European Research Universities (LERU)*

Professor Marius Rubiralta

*Secretary of State for Universities of Spain,
Former Rector of the University of Barcelona*

Mr Pawel Lisicki

Editor-in-Chief of Rzeczpospolita

Mr Wim Philippa

*Secretary General of European Round Table of Industrialists (ERT),
Member of the Advisory Board of Atomium Culture*

Professor Massimo Marchiori

*Research Scientist at MIT Laboratory for Computer Science,
World Wide Web Consortium (W3C) and the University of Padua*

Mr Joachim Müller-Jung

*Head of Science Department of Frankfurter Allgemeine Zeitung,
Member of the Editorial Committee of Atomium Culture*

Professor John Hegarty

Provost of the Trinity College Dublin

Professor José Sanz Martínez

Rector of the Universidad Autonoma de Madrid

Professor Rolf Tarrach

Rector of the University of Luxembourg

Ms Béatrice Baudet

*Chief Editor of Planète, Science section of Le Monde,
Member of the Editorial Committee of Atomium Culture*

Professor Alar Karis

Rector of the University of Tartu

Mr Claus Sørensen

*Director General of DG Communication, European Commission,
Member of the Advisory Board of Atomium Culture*

Ms Erika Widegren

Director of Institutional Relations of Atomium Culture

Professor Kevin Featherstone

*Vice-Chairman of the Advisory Board of Atomium Culture, Former Director of the
European Institute of London School of Economics*

Mr Mario Margiocco

Executive Editor of Il Sole 24 ORE

Mr Hans van der Loo

Head European Union Liaison of Royal Dutch Shell

Mr Geoff Mulgan

*Strategic Adviser of Atomium Culture, Director of Young Foundation,
Former Director of Policy at 10 Downing Street under British
Prime Minister Tony Blair*

Mr Javier Moreno

*Editor-in-Chief of El País,
Member of the Advisory Board of Atomium Culture*

Mr Bruno Le Maire

*French Minister of Agriculture, Former Secretary General of Atomium Culture,
Former French Secretary of State for European Affairs,
Member of the Advisory Board of Atomium Culture*

Professor Per Eriksson

Rector of Lund University

Professor Karol Musiol

Rector of the Jagiellonian University in Krakow

Professor Damian Chalmers

*Director of the European Institute of London School of Economics,
Member of the Advisory Board of Atomium Culture*

Mr Jean-Luc Beylat

President of Alcatel-Lucent Bell Labs France

Ms Bernadette González Harbour

*Deputy Editor-in-Chief of El País,
Responsible for Education, Science and Environment,
Member of the Editorial Committee of Atomium Culture*

Mr Björn Edlund

Vice-President Communications of Royal Dutch Shell

Ms Béatrice Delvaux

Editor-in-Chief of Le Soir

Professor Monique Canto-Sperber

Director of the Ecole Normale Supérieure - Paris

Mr Jean-Paul Peers

Vice President Energy Policy of Siemens AG

Professor Gilbert Berezziat

*Former President and currently Vice-President for Foreign Affairs of the Université
Pierre et Marie Curie - Paris 6, Member of the steering committee of the Network
of Universities from the Capitals of Europe (UNICA),
General Director of Alliance Paris Universités*

Professor Pier Ugo Calzolari

*Former Rector of the University of Bologna,
Member of the Advisory Board of Atomium Culture*

Professor M. Elisabeth Paté-Cornell

*Chair, Department of Management Science and Engineering,
Stanford University*

Ms Cecilia Stegö Chilò

Chairman of the Advisory Board of Atomium Culture

Mr Per Heister

*Spokesperson for EPP Group, European Parliament, Former Press Secretary to
Carl Bildt, Former Head of the Information Centre of Timbro, Former campaign
and information secretary of the Swedish party Moderaterna*