

TSE Mag #5 - Spring 2014



#### HORIZON EUROPE

#### > SPECIAL EDITION

ERC projects at TSE

Launch of COEURE network

Exclusive interviews with J.P. Bourguignon, ERC President & Andreu Mas-Colell, former ERC Secretary General

#### THE BIG INTERVIEW

Stéphane Richard, Orange CEO

#### **PARTNERSHIPS**

Focus on the SCOR chair

## editors' message

#### Dear friends,

he European Union launches in 2014 its "Horizon 2020" funding programme for research and innovation; the financial instrument implementing the "Innovation Union", a flagship initiative aimed at securing Europe's global competitiveness. In the light of this exciting prospect, it seemed timely to us to dedicate the first 2014 edition of the TSE Mag to the considerable support the EU provides to our research teams - a key factor driving our members to carry out ambitious and innovative collaborative projects at the international scale.

This support comes largely from the European Research Council (ERC). We are proud today to hold a total of ten research grants awarded by the ERC for pioneering, high-performing research, placing us in second position Europe-wise for the number of grants awarded in the field of economics. In

the research highlights section here (see page 4), you can catch an overview focus on three projects at different stages of progression in the fields of macroeconomic information frictions, delighted to have exclusive interviews with Jean-Pierre Bourguignon, the new ERC President, and Andreu Mas-Colell, former ERC Secretary General and current Catalan Minister of Economy and Knowledge (Higher Education and Research), on the role of such funding bodies in times of increasing international pages 20-27).

Significant funding also comes from the European Commission for collaborative research networks and researcher mobility worldwide. This month we are excited to launch the COEURE project, a mission led by TSE to bring together the key EU stakeholders in order to build an agenda for research funding for economics in Europe. Marc Ivaldi, TSE professor and COEURE Project Coordinator, talks to us further about this mission via the Hot Topic (see page 8).

As always, the Big Interview feature of the Mag reaches out to our close partners in industry or academia. In the edition, we are very grateful to Stéphane Richard, CEO of Orange, for taking the time to share his views on current affairs in the telecoms sector.

Happy reading, and see you in Toulouse on 2-6 June for an exciting edition of our annual TIGER Forum!

■ Jean Tirole Christian Gollier

#### > TSE RESEARCH

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TSE's 10 ERC grants

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Firm networks, trade and growth

#### **Christian Hellwig**

Understanding the importance of information

#### Thomas Mariotti

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#### **2014 Jean-Jacques Laffont Prize**

Goes to Joseph Stiglitz

> THE RIG INTERVIEW

#### Stéphane Richard

Talking to the Orange CEO about current affairs in the telecoms sector

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JEAN TIROLE TSE CHAIRMAN



**CHRISTIAN GOLLIER** TSE DIRECTOR

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Jean-Pierre Bourguignon, **ERC President** 

Andreu Mas-Colell, former ERC SG

#### > TSE RESEARCH





**European Research Council** 

Established by the European Commission



#### **FACTS & FIGURES**

#### TSE is:

- $> 2^{nd}$  highest ERC grant beneficiary in France, after the CNRS.
- > Holder of 50% of France's total ERC grants in economics.
- > In the field of economics, 2<sup>nd</sup> highest grantholder behind UCL, with 8% of all total grants Europe-wide.

TSE receives significant support for its research from the European Research Council (ERC), whose goal is to encourage high-quality frontier research and support European leadership in world-class research.

Grants are determined on the basis of calls for proposals and a peer review process, which are highly competitive. TSE currently holds 10 grants:

ERC STARTING GRANTS support up-andcoming research leaders who are about to establish or consolidate a proper research team and to start conducting independent research in Europe. The scheme targets promising researchers who have the proven potential of becoming independent research leaders. It supports the creation of excellent new research teams and strengthens others that have been recently created.

- Thomas CHANEY: FINET "Firm Networks Trade and Growth" => see page 5.
- Christian HELLWIG: InfoMacro "Information Heterogeneity and Frictions in the Macroeconomy" => see page 6.
- Augustin LANDIER: SOLSYS "Systemic Risk and Financial Vulnerabilities: Diagnosis and Solutions".
- Thomas MARIOTTI: ACAP "Agency costs and Asset Pricing" => see page 7.
- Guillaume PLANTIN: RIFIFI "Risk Incentives in Financial Institutions and Financial Instability".

ERC ADVANCED GRANTS allow exceptional established research leaders of any nationality and any age to pursue ground-breaking, high-risk projects that open new directions in their respective research fields or other domains. The ERC Advanced Grant funding targets researchers who have already established themselves as independent research leaders in their own right.

- Bruno BIAIS: TAP "Trading and Post-trading".
- Christian GOLLIER: Long-Term-Risks "Evaluation and management of collective long-term risks".
- Thierry MAGNAC: DYSMOIA "Dynamic Structural Economic Models: Identification and Estimation".
- Patrick REY: COOPETITION "Cooperation and competition in vertical relations: the business strategies and industry oversight of supply agreements and buying patterns".



• Jean TIROLE: COGNITION - "Cognition and Decision-Making: Laws, Norms and Contracts".



### Thomas **Chaney**

## Firm networks, trade and growth

The FiNet project introduces the notion of large-scale economic networks into the mainstream of economics, in particular in macroeconomics and international trade.



Economic agents do not always have access to all the relevant information they may need: who they know and who they interact with represents a small fraction of all possible interactions. Through FiNet, Thomas Chaney is modelling this limited set of interactions as a network: agents are nodes, and they only interact with other agents they have formed a link with. What is the shape of this network of linkages between agents, and how does it evolve? More importantly, what are the aggregate implications of the shape of this network?



#### A TIMELY PROJECT...

The financial crisis of 2008 renewed interest in the notion of networks in economics. How did a shock that hit prices of one specific type of financial instrument (mortgage backed securities) spread to all financial assets? How did a shock to one relatively small investment bank (the collapse of Lehman Brothers) affect all financial institutions? How did a shock to

a few specific sectors of the economy of one country (housing and finance in the US) propagate to the entire world economy? The answer to these questions lies in part to the fact that banks, firms, sectors, and economic agents in general are linked to each other by a complex network of linkages. This network is neither a complete network as in classical economics where all agents have access to information about all the others, nor a purely random network where agents randomly bump into each other. It is somewhere inbetween, with some agents well connected to others, while some are relatively isolated. Understanding and analyzing the properties of this network of linkages between economic agents on a macro-economic scale is the only way to answer important questions such as those triggered by the financial crisis.

#### ... OF HIGH POTENTIAL IMPACT

The study of networks in economics, and in particular large-scale networks, is relatively new in economics. FiNet brings together a team of international researchers recognised as leaders in IO and international trade to work together on pioneering questions using innovative new methods. The project aims to build one of the strongest clusters of research on networks in economics in the world. Moreover, the project makes use of the EU's unique institutional setting by collecting data from the statistical agencies of many different countries. This collected data will not only inform the decisions of European policy makers and firms, but it will also foster new research on European data, both within and beyond the frontiers of Europe.

#### **PROFILE**

> Thomas began his studies in France (ENS Paris) before carrying out his PhD in economics (2005) at MIT.



He then held an assistant professor position at Chicago before joining TSE in 2012 as professor of economics.

Full CV >>





- Firm networks in international trade
- Social networks in international trade
- Idiosyncratic and aggregate volatility in an input-output network of plants
- A different view on firms: bottom-up production clusters
- A model of endogenous "networked" growth
- Human capital accumulation in a "networked" growth model



## Christian Hellwig

## Understanding the importance of information

It is rare for economic agents, whether they are firms, households or investors, to have access to all the information relevant to a particular decision, such as the identity of a rival bidder and the amount they're willing to pay for a given asset. The main objective of InfoMacro is to gain a better understanding of how lack of information about aggregate economic conditions influences economic outcomes.

#### Reconciling Keynes and Hayek

Christian Hellwig. Whether dispersed information matters for market outcomes and efficiency has been a theme of contention for a long time. Hayek, for example, affirmed in 1945 that markets are particularly apt at coordinating economic decisions on an efficient outcome with parsimonious information - i.e. it's sufficient for individuals to see the prices at which they are transacting to reach efficient market allocations. In contrast, the Keynesian beauty contest paradigm claims that markets are inefficient precisely when agents have to form forecasts of the behaviour of others, and therefore become more likely to engage in herd behaviour. With Venky Venkateswaran (NYU), I am exploring these Hayekian and Keynesian ideas within a common macroeconomic model, identifying the assumptions that give validity to each of these arguments and exploring how they can be validated empirically. Hayek's argument turns out to be very powerful when individual decision horizons are fairly short, while the Keynesian argument becomes powerful for forward-looking decisions over longer horizons (such as investment or hiring decisions).

through prices. This model implies a departure from the efficient markets benchmark that is consistent with a number of empirical regularities that are difficult to reconcile with efficient markets, such as the high excess returns on high quality corporate bonds, the high level of volatility in asset markets and price movements that often seem disconnected from economic fundamentals. We are currently testing whether our model also offers a quantitatively plausible explanation for these phenomena.

#### Policy links

**CH.** The project addresses important policy questions – for example, how private companies as well as policy institutions like the central banks can influence outcomes by providing information to others. I am also studying how the frictions in financial markets affect incentives inside firms for example how financial institutions can exploit informational and arbitrage frictions for rent-seeking purposes by taking on excessive risks - and what regulatory measures or market interventions should be taken to rein in such behaviour.







> PhD from LSE
in 2002, Christian
Hellwig was
Associate Professor
at UCLA before joining
TSE as Professor in 2010.

Full CV >>





FIND OUT MORE...

Read an extended article here:



#### Beyond efficient asset markets

**CH.** The benchmark of efficient financial markets is central to modern macro and finance. Yet at the micro level we have documented numerous limits and costs to the arbitrage process that is required to sustain market efficiency, and numerous departures from this benchmark in practice. Yet we are still missing tools to comprehensively assess the impact of such departures in the aggregate. In a series of papers with Elias Albagli (Bank of Chile) and Aleh Tsyvinski (Yale), we are developing an alternative formulation of financial markets that embeds informational and arbitrage frictions, and allows for some information to emerge endogenously

#### Thomas Mariotti

# Modelling informational frictions and asset pricing

Looking back with Thomas Mariotti on the development of his "Agency costs and asset pricing" (ACAP) project, underway since 2008 with the support of an ERC starting grant.

#### How would you describe vour research project?

Thomas Mariotti. The initial aim was to bridge the gap between corporate finance and asset pricing. These two aspects of financial theory tend to be studied separately, whereas it is my firm belief that they should and can be researched together within a shared framework. Via ACAP, I have brought together the two approaches in order to construct theoretical models allowing one to analyse the design and issuance of financial securities, as well as the dynamics of their valuations. Examples of the framework I developed include a model of the dynamic management of large risks in a context where risk management decisions are delegated over time to an agent whose risk prevention efforts are unobservable to third parties, and a dynamic corporate finance model in a context where firms face external financing costs as well as internal agency costs.

#### Your project has been running now for almost six years. How has it evolved?

TM. In the wake of the financial crisis, the project was oriented towards the impact of asymmetric information on the efficiency of financial markets. The two main focuses have been on the so-called adverse selection problem, which accounts for the dry-up in liquidity provision over the 2007-2009 period, and also on the nonexclusivity of financial transactions. This is particularly relevant for over-the-counter markets, where one finds poor information on the trading volumes or on the net positions of traders, at the expense of information release. These two features, adverse selection and nonexclusivity, are at the heart of my current research on the project, and they nicely contribute to my research agenda on the interaction between financial contracting and financial markets.

#### What has been the main benefit for you of the ERC grant and what future do you foresee for this research?

TM. The grant has allowed my colleagues and I to make good progress in the field, leading to a series of publications. The project has been extended into 2014 and I am still working with colleagues on further articles which should (hopefully!) be published shortly.



#### **PROFILE**

> PhD from the University of Toulouse (1998), Thomas Mariotti previously held a reader position at the London School of Economics (LSE) and joined TSE in 2000 as a CNRS research associate.



#### **FURTHER READING**

#### "Large risks, limited liability, and dynamic moral

hazard" Econometrica, 78 (2010), 73-118, with Bruno Biais, Jean-Charles Rochet, and Stéphane Villeneuve.

#### "Free cash flow, issuance costs, and stock prices"

Journal of Finance, 66 (2011), 1501-1544, with Jean-Paul Décamps, Jean-Charles Rochet, and Stéphane Villeneuve.

#### "Nonexclusive competition in the market for lemons"

Econometrica, 79 (2011), 1869-1918, with Andrea Attar and François Salanié.

#### "Nonexclusive competition under adverse selection"

Theoretical Economics, vol (2014), 1-40, with Andrea Attar and François Salanié.



## COEURE: an economic research agenda for Europe

Marc Ivaldi, TSE researcher at the heart of "COEURE", brings us a quick insight into this exciting new collaborative network led by TSE.





#### What are the major obstacles to overcome in order to develop such an agenda?

MI. Developing a competitive and open European research area (ERA) is essential for growth and to the process of European integration. However, different languages, a diversity of academic traditions and a variety of informal barriers often inhibit the free flow of research funding, the mobility of academic talent and, as a result, the efficient allocation of R&D funding. In times of financial restraint the latter becomes particularly important.

#### In your opinion, what is the key to success?

MI. The relationship between openness and successful research funding is reciprocal and internationalisation can benefit national and regional funding, e.g. by permitting the inflow of foreign resources. In this context, research grants, in particular if they are allocated across national borders (e.g., by the European Research Council - ERC), can provide a viable tool to circumvent limits to integration and consequently to enhance the exchange of ideas.



#### **HIGHLIGHTS**

#### 27 February 2014

**COEURE Executive Committee Meeting** in Florence.

TSE & FP7

In addition to COEURE, TSE is also involved in two ongoing collaborative research networks funded by the 7th Framework Programme:



## "Impacts Quantification of Global changes"

www.global-ig.eu



#### "Transparency of **Food Pricing**

www.transfop.eu



> Marc Ivaldi completed PhDs in economics at the University of Toulouse

in 1982 and the University of Pennsylvania in 1990. In 1990, he became Research Director of the Institut d'Economie Industrielle (IDEI). Since 1998, he is professor of economic sciences both at TSE and the École des Hautes Études en Sciences Sociales (EHESS). He specialises in Industrial Economics, Regulation and Competition Analysis, mostly in the transport sector. He is also the heart and brains behind TSE's annual TIGER Forum (see pages 10-11).



www.coeure.eu





TIGER Forum 2014



#### Save the date: 2-6 June 2014

More days, more conferences, more participants! In 2014, the TIGER Forum is on its way to become one of the key economic events in Europe.

#### TIGER 2014 highlights

#### scientific conferences

- AGEING "Long Term Care"
- DEVELOPMENT "From frontier research to policy"
- ENERGY "Energy industry at a crossroads: preparing the low carbon future"
- HEALTH "Economics and Policy in healthcare and pharmaceuticals"
- MILITARY "Military in politics in the 21st century"
- RELIGION "Economics & religion workshop"
- TRANSPORT "Annual conference of the International Transportation Economics Association (ITEA)"

#### schools

- CYBER-CRIMINALITY
- TRANSPORT

#### Ropen, policy-oriented sessions

#### THE TIGER INSIGHTS

- Cyber-criminality
- News stances on globalization
- Reforms and challenges of the Chinese economy
- The causes of modern wars: economics or religion?



#### THE ROARING DEBATES

- Pharmaceutical Industry Challenges
- Welfare State Crisis in the Western World
- Industrial Policy for Sustainable Mobility & Energy
- Secularism in the company: which frontiers?



## 2014 Jean-Jacques Laffont Prize Winner

Joseph Stiglitz (2001 Nobel Prize in Economic Sciences)

Considered as one of the top economists in the world, Joseph Stiglitz is mainly known for his research on screening and his contribution to the theory of information asymmetry for which he shared a Nobel Prize in Economics with George A. Akerlof and A. Michael Spence in 2001. His work has helped explain the circumstances in which markets do not work well, and how selective government intervention can improve their performance. Stiglitz is currently a University Professor at the Columbia Business School.

During the JJL Prize Ceremony, Joseph Stiglitz will give a lecture on "Creating a Learning Society: A New Approach to Growth, Development, and Social Progress"

# 2014 Steering Committee



#### Michel Pébereau

> Former BNP CEO, Committee chair

Former CEO (1993 - 2003) and Chairman (2003 - 2011) of the French bank BNP Paribas, Pébereau is often considered as the man behind the development of one of the largest banks in the world. In 1993 he organized the privatization of BNP and in 2000 orchestrated the merging of the company with another French bank, Paribas. As of 2013, BNP Paribas is the 5th biggest bank in the world in assets value.

#### TIGER registrations are now open via the Website



For latest updates & video highlights

www.tiger-forum.com #TIGERForum





#### André Chieng

> AEC Director

Born in 1953 in Marseille from Chinese parents, André Chieng is the current president of the AEC, a counselling company helping European companies to strengthen their presence in China. He is also the Vice-President of the French-Chinese Economic committee and counsellor of the French Foreign Exchanges in China. After having lived in France for most of his life, he moved to Beijing in 2001.



#### Thomas Enders

> Airbus Group (ex EADS) CEO

Thomas ("Tom") Enders was appointed Chief Executive Officer of Airbus Group (EADS until January 1, 2014) on June 1st 2012, after having been CEO of Airbus since 2007. Prior to joining the aerospace industry in 1991, he worked, inter alia, as a Member of the Planning Staff of the German Minister of Defence.



#### **UPCOMING EVENTS**

#### 3-4 April 2014

Eighth bi-annual Postal Economics conference on E-commerce, Digital **Economy and Delivery services** 

#### 10-11 April 2014

**Elections and Electoral Institutions** 

#### 18 April 2014

TSE Student Workshop

#### 16-17 May 2014

13th Joint Workshop on Industrial Organization

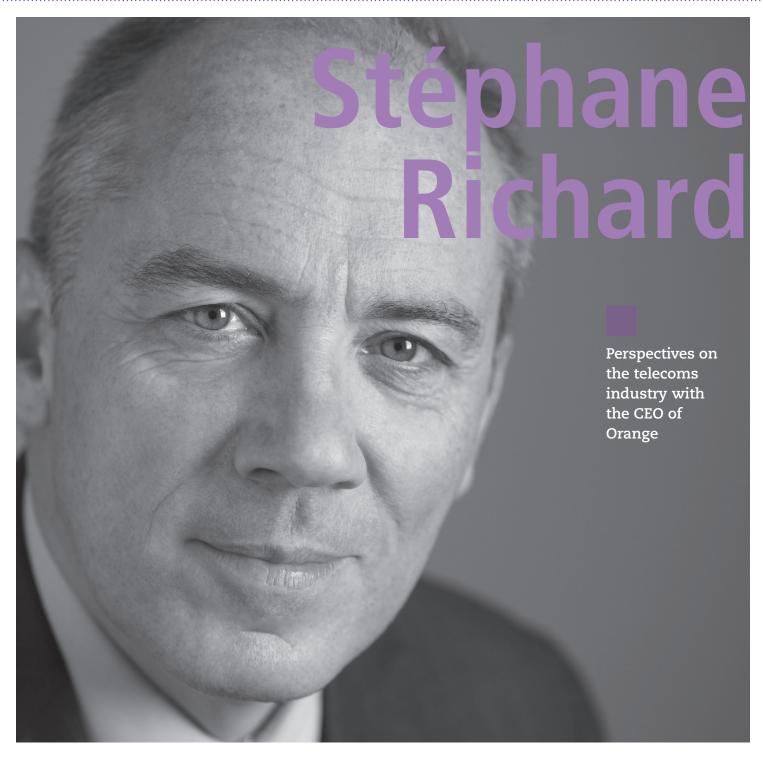
Financial Econometrics Conference

#### 22-23 May 2014

2<sup>nd</sup> Toulouse Economics and Biology Workshop

#### 2-6 June 2014

**TIGER 2014** 



#### **About Orange**

Orange is one of the world's leading telecommunications operators with sales of 41 billion euros in 2013 and has 165,000 employees worldwide at 31 December 2013, including 102,000 employees in France. Present in 30 countries, the Group has a total customer base of more than 236 million customers at 31 December 2013, including 178 million mobile customers and 15 million fixed broadband customers worldwide. Orange is also a leading provider of global IT and telecommunication services to multinational companies, under the brand Orange Business Services.



#### > THE BIG INTERVIEW

TSE Foundation as a Founder?

Stéphane Richard. The links between Orange and Toulouse School of Economics go back a long way, since France Télécom was one of the founding partners of the Institute of Industrial Economics (IDEI) created by Jean Jacques Laffont in the early 1990s.

When Orange was approached to become involved in the Foundation at the time when TSE was created, it seemed to us that it was the company's responsibility – and in its best interests - to support the project. In fact, I consider the emergence in France of a centre of excellence for economic analysis with a global reputation, especially in the field of industrial economics, as a boon for French business.

It is clear that we need to find the right balance, starting with applying the same regulations for all the players in the digital ecosystem, operators and 'Over the top' companies alike.

#### What do you consider to be the mutual benefits of this Orange - TSE partnership?

SR. For us, the research agreements with IDEI are an opportunity for the company to acquire a better understanding of the advances made in the field of economic research and also make it possible for us to challenge what we are doing using the analyses and critiques provided by the economists in Toulouse.

The other side of the coin is that the researchers in Toulouse can find food for thought in their exchanges with practitioners, with us but also with the many other players involved in the numerous and exciting debates going on in our industry, identify emerging issues and produce innovative research.

#### Why does the telecoms industry need economists?

SR. Our industry is facing a broad range of economic and also social and cultural development issues, and it is the scene of significant interaction between the public and private sectors, not to mention users and civil society. Economic analysis makes it possible to address all these issues in a rational way by clarifying the challenges, the role of each of the stakeholders and how the interests of society at large and those of the various players fit together.

Why did Orange decide to get involved in the creation of the What is your view on current debate about ethics and conflicts of interest concerning economists? How can economists' freedom of research be guaranteed when they work so closely with business?

> **SR.** TSE is a public research body and, as such, the constitutional principle of the independence of researchers applies.

> The research undertaken at TSE also meets the highest standards in terms of scientific evaluation and must be closely examined and judged by peers according to criteria over which neither big business nor public authorities have any influence, which is a good thing, in order to be published in the economic literature.

> Finally, the scientific independence of TSE is also preserved by the financial independence provided by the Foundation's own funds.

#### Facebook has just acquired Whatsapp for 14 billion dollars, 80 times its estimated turnover: are we seeing another speculative bubble for the internet?

SR. I don't know if it is a new speculative bubble, but it is a reflection of the fact that the so-called 'Over the Top' companies, which are not subject to the same regulations, taxes and laws of competition as the operators, tend to capture the lion's share of the value generated by new digital uses. This is at a time when the investments necessary for the deployment and maintenance of the networks, which are key to supporting OTT offers, are borne solely by operators. It is clear that we need to find the right balance, starting with applying the same regulations for all the players in the digital ecosystem, operators and 'Over the top' companies alike.

#### Will there still be 4 mobile operators in France in 2015?

SR. It's too early to say. We welcome the idea of consolidation projects that would provide a solution to the market destabilisation the sector has been threatened with over recent months. This kind of consolidation is needed to even out competition conditions and balance the heavy investments the four operators have had to make. In this context, the acquisition of SFR by Numericable raises serious competition concerns and makes structural remedies necessary. It does not solve the situation of the French mobile market.

The acquisition of SFR by Numericable raises serious competition concerns and makes structural remedies necessary.

#### Stéphane Richard in brief

- > 2009 Present Deputy Chief Executive Officer responsible for French operations then Managing Director then CEO of Orange since March 1, 2011
- > 2007 2009 Chief of Staff to the French Ministry of Economy, **Industry and Employment**
- > 2003 2007 Deputy Chief Executive Officer Veolia Environment CEO - Veolia Transport Director of France Télécom - Orange

> 1992 - 2003 - Deputy to the Chief Financial Officer - Compagnie

Chief Executive Officer - Phénix (Real-Estate Company) Chairman - CGIS (now Nexity)

Stéphane Richard is a graduate of the École Des Hautes Études Commerciales and the École Nationale d'Administration.

## **SCOR**: the risk-sharing attitude

SCOR, global reinsurance company with worldwide operations, supports the work of a team of TSE researchers in the field of risk-sharing mechanisms. The partnership is carried out within the framework of the "SCOR-IDEI" research chair, under the Aegis of the Louis Bachelier Foundation.

Stéphane Villeneuve, Professor of Applied mathematics at TSE, leads the team of researchers involved in the chair.









#### INTERVIEW WITH STÉPHANE VILLENEUVE

How was this partnership born and what are the main focus areas of the Chair?

**Stéphane Villeneuve.** The SCOR-IDEI Chair was created in 2007 with the aim of supporting theoretical and applied research on risk-sharing mechanisms. The chair combines methodologies from financial economics, industrial organisation and econometrics.

Today in its seventh year of partnership, the research work carried out within this Chair covers a broad range of themes:

- > Risk-sharing mechanisms: regulation, liquidity and solvency risks, asset pricing to understand the impact of regulatory liquidity and solvency requirement on the insurance market.
- > Risk attitude: ambiguity and psychological bias to study the risk attitude towards ambiguity when the quantification of the distribution of losses is uncertain.
- > Extreme risks and interdependence to study original econometric methods for quantifying extreme risks and correlation between events.
- > Longevity risk, long term care and (social) insurance to study the various aspects of social insurance relating to the increasing importance of longevity, including its long term



A word from Philippe Trainar, Chief Risk Officer - SCOR Group



Established in 2007 50+ publications

10+ prizes & research grants



SCOR is firmly convinced that the ability to rapidly incorporate and disseminate the findings of the most advanced academic research is an undeniable competitive advantage within the field of reinsurance.

This is particularly true when such research focuses on risk and optimal decision-making in uncertain situations, as is the case within the two chairs co-funded with the Risk Foundation-IDEI and TSE respectively.

care dimension by using tools from risk theory, microeconomics analysis, macroeconomic dynamics, optimal taxation, political economy, public economics and/or insurance theory.

#### What activities are carried out within the SCOR-IDEI Chair?

SV. Both academic and non-academic activities are organised at regular intervals, including workshops, conferences, seminars, research publications, etc.

The principal aim of the Chair is to provide quality research and publications in top economic journals.

Over the last seven years, the Chair has led to over fifty publications, eight of which have been published in top economics reviews such as Econometrica, the American Economic Review, the Royal Econometric Society, and the Journal of Finance. Over ten of them have been awarded a prize and/or a research grant. Consult the list of publications >>



#### How often do the members come together?

SV. Fairly often, mainly at the various workshops and meetings planned through the Chair. Thematic workshops are an integral part of the Chair, where the researchers present their work and exchange with other members about the evolution of their research project. Such workshops are held twice a year. For instance, earlier this year, a team of IDEI researchers presented their work on "Long term care, longevity and social insurance" to the SCOR team & insurance company representatives at the SCOR headquarters in Paris. There is also an annual IDEI-SCOR **conference** held at the SCOR headquarters in Paris. Furthermore, at least once a year, IDEI projects leaders meet with representatives of SCOR during a steering committee. This committee is an opportunity for IDEI researchers to present their research results and enables the SCOR representatives to express their needs in terms of research. It also determines the direction applied research should take in order to meet the needs expressed by the SCOR management.

#### Upcoming highlights

SV. This year, the SCOR Chair is to be directly involved in TSE's annual TIGER Forum through a workshop dedicated to ageing and longterm care. There will be an interesting array of topics discussed at the event with researchers presenting their latest publications in the field. Editors note: see pages 10-11 for full information!





TSE was delighted to welcome 35 companies to the 2nd edition of its Business Networking Day (BND) in November, a whole day dedicated to the career path of our graduates.

The main objective of this annual event is to allow the school's students to interact with companies in order to prospect for future internships and jobs. It's also a chance for TSE Alumni

to present their professional experience to those following in their footsteps, and in general for companies to learn more about the school and discover the skills of our students.

I extend my warm thanks to all the partners who attended and invite them back to TSE for next year's edition which will take place on Friday 28 November from 9am to 5pm in Toulouse. We're aiming toward an even bigger event for 2014, with more companies, students and alumni. Should you have any questions, please contact our partnership team.

In the meantime, here are a few testimonies from this year's attendees to give you a flavour of the event!

> JEAN-PHILIPPE LESNE SCHOOL DIRECTOR

## Want to get involved?



Contact Lorna Briot, the school's **Business & International Relations** Manager 00 33(0) 5 67 73 27 79

lorna.briot@ut-capitole.fr

## 'BND 2013": feedback



#### **NERA Economic Consulting**

#### Reeva Lakhani

The Business Networking day at Toulouse School of Economics was a very well organised and structured day. We met lots of economists from an array of backgrounds who had the potential to be a good fit with the culture at NERA. The personal approach and style of the event provided an enjoyable and practical forum to talk to the students and gave them an insight into the work we do at NERA. We have received many strong applications as a result and we hope to attend the event again next year.



#### Audrey Berthomieu

The Business Networking Day is a real networking event allowing alumni to stay connected with the TSE network. It's an opportunity to meet other graduates, professors, students and TSE business partners who attend this event. I have really appreciated sharing my own experience with the current students and other alumni, as we are all linked to the school although we take different directions. The added value of this event is the diversity of the professional paths chosen after graduating combined with the new school management and business relationships. I hope that the Business Networking Day will be just as successful next edition and will grow over the years so that I can continue to be connected to such an interesting and strong international network.



### oxera

#### Alison Gomm

Oxera Consulting was delighted to be invited to TSE's second Business Networking Day last November. We appreciated the format that allowed us to talk to students individually, encouraging them to expand on their CVs and to answer some of our initial questions. The students were striking in their ability to talk compellingly about economics. Our contacts felt like preliminary interviews and we left Toulouse with firm impressions of the students that we had met and from whom we hoped to receive applications. I'm delighted to say that we have received a good number of applications from TSE and are at second interview stage with several candidates.



#### Olivia Manning

As a current student in M2 Statistics and Econometrics, the Business Networking Day really helped me to find a six month internship at Softcomputing in marketing consultancy. It was an excellent opportunity to learn more about different companies and make contact with professionals from various industries. The conferences gave me a clear insight into each firm's activity and speciality while the individual stalls provided an opportunity for me to present myself and find out more about the companies. This event was a very important first step and really helped me finding interviews in Paris which ultimately resulted in my being offered an internship with the possibility of permanent employment afterwards, which I am really excited about.





#### Philippe Lazzarotto

As a representative of the GDF SUEZ HR department I was very happy to take part in the last Business Networking Day in TSE. This was for me, and my colleague representing our regional Business units, the opportunity to meet the TSE students and exchange about their studies, internships or jobs expectations. During a formal presentation I talked to TSE students about GDF SUEZ and highlighted how our company was different from our competitors. I was really surprised how much the students knew about our Group, its activities and issues and the maturity of their questions and professional projects. I came with some interesting internship offers and even a permanent position opening for young graduates in economics. I'd like to thank all the team that organized the event for the quality and comfort of the layout and I'll be really happy to come back in November 2014.



#### Aurore Archimbaud

I had the opportunity to attend the Business Networking Day's two previous editions. These meetings with alumni and professionals were very inspiring. Thanks to these events, I had the chance last year to be called back by Ippon Innovation director, and this year by Airbus for an internship starting April 2014.

## Appointments

Two strategic appointments by the French Minister of Research and Higher Education.



## **Franck Portier**

**Economics** expert panel

Genevieve Fioraso, French Minister of Research and Higher Education, has created a new Economics Expert Panel, involving Franck Portier, professor of economics at TSE. This committee will develop and propose recommendations for the role of economic science in higher education. Reports are expected by March 2014.



#### Jean Tirole Strategic research council

Jean Tirole, TSE Chairman, has been appointed member of Genevieve Fioraso's new Strategic research council. This advisory board will support the Minister in identifying a number of major scientific and technological priorities to prepare and build France's research agenda for tomorrow.



#### **Bruno Biais** Scientific Council of the AMF

Bruno Biais, TSE Research Director (CNRS), has been appointed to the Scientific council of the French Financial markets authority (AMF). Since its creation in 2004, the AMF has been regulating participants and products in France's financial markets.



## **Stefan Ambec**

Co-editor "Environmental and Resource Economics" journal

The journal publishes papers about the application of economic principles to decisionmaking in environmental protection, natural resources and ecosystem management. Stefan Ambec is a TSE-INRA Research director at INRA.



## Grants

#### Jérôme Bolte Air Force Grant



Professor of economics at TSE, Jérôme Bolte has been awarded a new "Air Force» Grant by the American government for his research project on "Forwardbackward splitting for non-convex optimization problems". This three-year Grant starts in February 2014.



## Fany Declerck & Frédéric Cherbonnier

**Europlace Finance Institute Grants** 

TSE researchers Fany Declerck and Frédéric Cherbonnier have both been awarded EIF (Europlace Institute of Finance) research grants. Fany for her research project on proprietary trading within the finance sector, and Frédéric for his work on informational rents and real estate markets.

## **Awards**



## **Christian** Gollier

Édouard Bonnefous Prize

Christian Gollier received the 2013 Institute of France "Édouard Bonnefous Foundation" Prize. This distinguished prize is awarded in recognition of his overall contribution

to economic sciences. According to the Institute, "Through his scientific work, Christian Gollier helps inspire the current generation to take responsibility for future generations".



#### Jean Tirole Northwestern Nemmers Prize

Jean Tirole is the recipient of the 2014 Erwin Plein Nemmers Prize in Economics, among the major awards in the United States for outstanding achievements in economics. Six out

of past ten Nemmers economics prize winners have gone on to win a Nobel Prize. Tirole's award of the 2014 Nemmers Prize is "based on his various contributions to economic theory and its application to finance, industrial organization and behavioral economics."





Created in 2007, the ERC was the first institution to provide funding for frontier research Europe-wide. Following a philosophy of competitive funding based solely on excellence, the ERC is today regarded as one of the biggest successes of the European Union.

To discover and understand the ERC, its history and its future, we met with its newly appointed President Jean-Pierre **Bourguignon and one of its former Secretary** Generals Andreu Mas-Colell.





#### FIND OUT MORE

See pages 4-7 for a focus on TSE's 10 ERC research grants Website: erc.europa.eu



## FACTS AND FIGURES

- > Created in 2007
- > Budget €13.1 billion (2014 to 2020, 17% of the Horizon 2020 budget)
- > Over **4,000** researchers funded
- > 40,000 applications received
- > Each ERC grantee employs on average 6 team members, thus contributing to training a new generation of excellent researchers.



#### > HORIZON ERC



#### What are the main challenges that European research faces on the international stage?

**Jean-Pierre Bourguignon (JPB).** Both in Europe and elsewhere, research is increasingly presented as a key lever for growth, competitiveness and innovation. Just take a look at the budget of the EU's new programme for research and innovation. Horizon 2020, which was set at around €80 billion for 2014-2020. This unprecedented amount shows that the EU is trying to stimulate science and innovation in Europe at a time when America and certain Asian countries are taking the lion's share.

European research is at a turning point. It needs to face the challenge of the increasing power of emerging economies that have chosen to invest heavily in research. Structurally speaking, Europe needs to facilitate the transition between academic research and industry. Europe still needs to catch up with its rivals on the other continents in this area.

And yet this expenditure, spread over seven years, accounts for only a small part of the funds set aside for research in Europe. But when you step back and take a broader look, the news is less positive; for many public and private

players, research funding is shrinking. The same can be said of jobs and job stability for young researchers – leading to fears that we may lose a generation of researchers.

European research, however healthy it may be, is at a turning point. It needs to face the challenge of the increasing power of emerging economies like China, India and Brazil, or more established economies like Korea, that have chosen to invest heavily in research. Structurally speaking, Europe needs to facilitate the transition between academic research and industry. Europe still needs to catch up with its rivals on the other continents in this area.

With certain national research and innovation budgets decreasing, Europe cannot afford to rest on its laurels. It needs to react. At EU level, we need to continue to support research, in particular basic research, and work together with everyone involved, at the national, European and international levels, to come up with the best scientific strategy possible.

#### What is the ERC's role in this environment?

JPB. The ERC was founded just seven years ago, so it is still a young European research funding institution, with a rather unique structure. Its agenda is effectively determined by a Scientific Council of 22 members, which I have the honour of chairing. I think we can safely say that the ERC is extremely successful with scientists in Europe and more broadly, since more scientists apply every year. The determining factor in the rapid success of the ERC is that it attracts researchers, in particular the most talented young researchers, by allowing them to submit projects with no thematic restrictions. The selection by fellow researchers is also unique, and is a part of the ERC's appeal. ERC grants are awarded by eminent scientists on sole





The role of the ERC in funding frontier research Europe, allowing researchers of all nationalities. ages and from all disciplines to apply for funding of up to  $\leq$  3.5 million over five years.

# Bourduignon

criterion of scientific quality of the research presented. Finally, the ERC operates through a highly professional agency set up by the European Commission.

The role of the ERC in funding frontier research has become essential both within and outside Europe, allowing researchers of all nationalities, ages and from all disciplines to apply for funding of up to € 3.5 million over five years. The only condition is that researchers must be based in an EU Member State or an Associated Country. Many European countries now look at the results obtained by the ERC with envy; some, like Poland, have even been inspired to restructure their own national research systems accordingly.

#### France receives the third most ERC grants, behind the UK and Germany. Is this the right position for France?

JPB. It is true that France holds the third position with 570 grants, behind two other large countries that make significant investments in research - the UK (well ahead with 962 grants) and Germany (614). We can also look at other indicators such as the success rate of researchers based in a particular country, where France has the highest rate in the EU (16%). If you take into account the population of the country, the level of its economy or its investment in research, French researchers receive more than their German counterparts. That said, smaller countries with more intense research programmes, such as Israel, the Netherlands, Switzerland, Belgium, Sweden and Austria, receive a higher proportion of ERC grants relative to the size of the country. France can still do more to improve the situation. There are also concerns that researchers working in France do not receive the same institutional support when putting together applications that other countries offer their researchers.

For France, the dual structure of research funding by entities and universities makes the list harder to interpret. The CNRS is the leading European institution in terms of the number of ERC contracts awarded, but some universities also appear on the ERC list. When you look at successful French research you need to take into consideration the sites where the ERC contracts can be found.

We can also look at other indicators such as the success rate of researchers based in a particular country, where France has the highest rate in the EU (16%).

#### In France, the ANR is raising questions about long-term research projects. What role should entities like the ANR, the IUF and the ERC play in determining research priorities?

JPB. First, let me remind you that the ERC does not set any particular research priorities when funding frontier research. No one area of research is given preference over the others under consideration.

This means the applicants set their own research priorities, as part of a bottom-up approach. At its plenary session in early February, the ERC's Scientific Council reiterated its support for this completely non-directive approach.



## President of the European Research Council from the 1st of January 2014

Jean-Pierre Bourguignon was the Director of the Institut des Hautes Études Scientifiques (IHÉS, Institute for Advanced Scientific Research) from 1994 to 2013. The international institute located near Paris, France, is the European counterpart of the Institute for Advanced Study in Princeton, United States. Jean-Pierre Bourguignon also presided over the ERC's first mathematics panel for Starting Grants (young applicants).

Mathematician, Bourguignon spent his entire career at the French Centre for Scientific Research (CNRS) while teaching maths at the École Polytechnique from 1986 to 2012. From 1990 to 1992, he was President of the Mathematical Society of France and the European Mathematical Society from 1995 to 1998. He is a former board member of EuroScience (2002-2006) and a member of steering committees for the EuroScience Open Forum (ESOF) since 2004.

In 1987, he was awarded the Paul Langevin prize, and in 1997, the Prix du Rayonnement français in **Mathematical Sciences and Physics** from the Académie des Sciences de Paris.

I feel that at a national level, we have already gone too far in guiding the work of researchers, by only giving funding in priority areas, which, furthermore are not always clearly defined. The balance between recurrent funding and project funding has been upset in France. After a period during which almost no project funding was available, we then started exclusively funding projects, which is having perverse effects that were analysed by the CNRS ethics committee in 2011, while I was chairing it.

I feel that at a national level, we have already gone too far in guiding the work of researchers, by only giving funding in priority areas, which, furthermore are not always clearly defined.

The Scientific Council, which defines the ERC scientific strategy, needs to work on long-term objectives of another kind, focusing on the structural imbalances highlighted by the distribution of ERC grants. One of the projects we are working on deals with the lack of ERC grants awarded to countries in Central and Eastern Europe, and even Southern Europe. In the latest call for applications from researchers with 7 to 12 years of experience after defending their thesis (Consolidator Grants), the results of which were published in January, only four grants (out of 312) were awarded to researchers in those countries. This is, of course, a long-term project which will require working with the national and regional authorities and the European Commission, and finding new ways of cooperating to encourage a new generation of researchers to emerge.

The same can be said of the lack of women on the list. The ERC is carefully analysing the hurdles that women come up against, since despite being every bit as competent as their male counterparts they are less successful with their ERC applications, or quite simply don't limit their ambitions.

Europe is currently facing complex issues to which researchers may have the answer. How can we better link research with the decisions of European institutions?

JPB. In my opinion, it is not so much a question of linking research to the decisions made by national, European or international institutions as it is a question of ensuring that the soundest research results are taken into account when making decisions, and developing and coordinating research in the fields which are most likely to influence decisions. This implies the involvement of researchers in the process. As is often the case, there are considerable economic and political issues behind such decisions and it is surprising how much effort lobbyists make to prevent the process from functioning.

Take for instance the massive attempts to discredit the work of the IPCC on climate change. Yet the creation of the IPCC by the United Nations required a remarkable effort. At a European level, there is still a lot to be done. In some ways, the creation of the ERC in 2007 with its unique structure based on the two

> The aim is (...) to ensure that the soundest research results are taken into account when making decisions, and develop and coordinate research in the fields most likely to influence decisions.

pillars of the Scientific Council and an executive agency, which covers the logistics of assessing and managing the contracts, is a major step forward in that direction, since it brings the scientific community closer to the European institutions. The ERC's change of governance, which gives its President based in Brussels responsibility for the Scientific Council and a position of "special advisor" without any supervision other than that of the EU Commissioner for Research, Innovation and Science, is a further step in this direction. I am frequently asked to meet with ministers, members of the European Parliament and people in similar



positions of power. In some ways, the appointment of my counterpart Anne Glover, as scientific advisor in 2012 by President of the European Commission, José Manuel Barroso, can also be seen as a move in the same direction.

You were director of the IHÉS from 1994 to 2013, during which time you built up a leading international research centre for mathematics. The model is inspiring for TSE. What is the secret of your success?

JPB. First, let me correct you on two points: I wasn't responsible for 'building up' the IHÉS, which was founded in 1958 and was home to some of the world's best researchers when I became director. The IHÉS runs on a model which is very similar to the ERC's, and allows complete freedom for researchers. The research conducted there does not only relate to the field

The IHÉS runs on a model which is very similar to the ERC's, and allows complete freedom for researchers. of mathematics, but also theoretical physics and, for the past 10 years, the interface with biology and more recently certain aspects in the field of advanced technology. Some the Institute's finest successes were achieved at these interfaces.

At the risk of disappointing your readers, I don't really have a secret formula. It has a lot to do with meeting the right people at the right time. I also had the support of some unique individuals who shared the same mission and ethics as the institution. I won't go into too much detail here, but for those who are interested, I paid tribute to them at the Institute's party on the 1st of July 2013, just before I left. It all started when I realised that the Institute was unable to rely on French public financial support at that stage of its development, even though that support still contributes around half of its budget. Secondly, I became aware that as a largely international institution, we needed to embrace our international dimension and seek funding abroad more actively. Thirdly, following one of my luckier encounters I mentioned above, we introduced a professional communications and development division, requiring considerable human and financial

resources, and for the director, a substantial change of timetable, given the commitment required.

That sort of goal can only be achieved in the long term, with the close cooperation of the researchers, and more generally speaking the entire staff, without making any concessions on the institution's values and objectives. You have to make the most of every chance you get. Some of the projects I contributed to as director of the IHÉS appeared a little crazy at first glance, like the book "The Unravelers", with photos of researchers at work accompanied by some of their thoughts, which was published in 15,000 copies and in 5 languages, or the accompanying photo exhibition which was shown in more than 150 locations around the world. Or the exhibition "Mathématiques, un dépaysement soudain" (Mathematics, a Beautiful Elsewhere) at the Fondation Cartier for contemporary art.

Researchers need to be more aware of their place in society and defend the values which underpin their vocation without losing sight of the impact that science has on how society is organised.

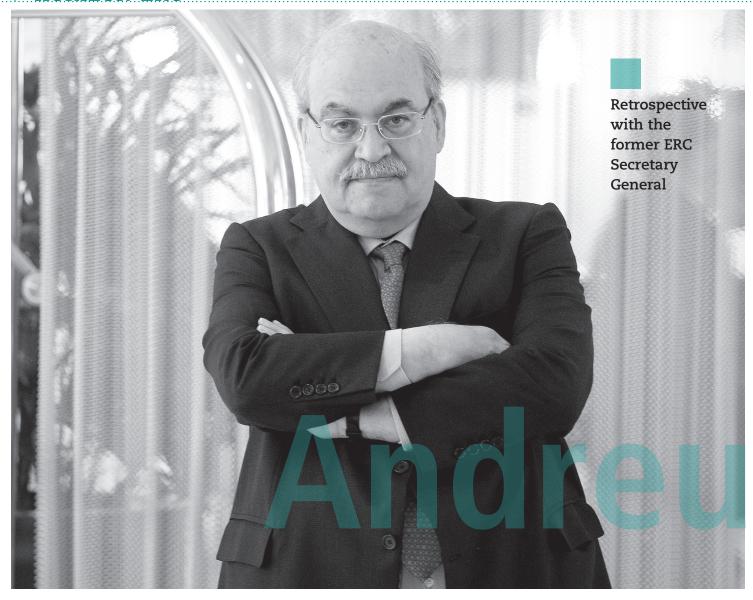
Underlying all this, researchers need to be more aware of their place in society and defend the values which underpin their vocation without losing sight of the impact that science has on how society is organised. This transformation has been more rapid in recent decades and this creates new responsibilities for researchers.

- 1- See my speech in the second part of the video from that day available at www.ihes.fr
- 2- The Unravelers, Jean-François Dars, Annick Lesne, Anne Papillault, Editions A.K. Peters.





#### > HORIZON ERC



The process of creating the ERC seems to have been very long (at least from 2002 until 2007), despite the real need for such an institution at the European level: why?

Andreu Mas-Colell. For a massive and innovative program five years is not a lot. When the National Science Foundation (NSF) was launched in the USA it also took 5 years of political maneuvering. It should not be underestimated how unlikely the ERC was. For example, two of its key features (to my mind the key features): evaluation panels totally appointed by a (distinguished) Scientific Council and individual grants (no networks and no theme or geographical prerequisites), were quite at odds with the practice of European research funding. Why did it happen? It was a deal, that has turned out to be very successful, between two collectivities that did not quite trust each other: the European scientific

community and the European Union. The first Nowadays, it is usual to connect recognized that only the EU had the capacity (administrative and financial) to develop a powerful European wide program and adopted an

It should not be underestimated how unlikely the ERC was.

attitude of vigilant flexibility in the early negotiations, and the second recognized that its own credibility required building up as a key stakeholder, to complement the weight of the large research-intensive corporations, the elite of European academic science. The result has been a spectacular success.

"research" to "industry" or "economic development", but was it the case at the beginning of the ERC?

**AMC.** The connection has always been made. But there are two variations, one wrong and the other correct. The wrong one sees research and innovation as alternatives. Money for research is money potentially detracted from innovation. The correct one, with which I feel comfortable and is now more prevalent (although not yet completely hegemonic), thanks in part to the ERC, views «innovation» as the overall economic drive and (frontier) research as one of the pillars of innovation. Not the only one (availability of capital or good intellectual property frameworks would be others) but an indispensable one: you are not going to have an innovative Europe if you do not have first-class research in Europe.

A related point: I believe it is understood, and the



You are not going to have an innovative Europe if you do not have first-class research in Europe.

ERC has contributed to solidify that, that the fostering of frontier research requires the kind of curiosity driven academic environments that tradition has developed and fine-tuned (even if the funding of science has always had an ultimate practical ambition, be it defense, industrial might or public health,...).

#### After 7 years, do you think ERC Grants have been able to make new fields of excellence emerge in Europe?

**AMC.** What is sure is that they have contributed decisively to fix, consolidate and expand the research excellence we have in Europe. Without it we would have regressed.

#### TSE and other European institutions are trying to establish a "reverse brain drain" to attract future "stars" to Europe: how can the ERC help them to succeed?

AMC. This is part of the remit of the ERC. I would not say, however, that as yet the performance in this respect has been exceptional. The ERC can help providing certification and a solid financial landing pad. But the leadership of universities, research institutions and member state research policies in this front is indispensable. Certainly the ERC has stirred the institutional research landscape in the right direction but my impression is that there is still ground to cover.

#### The EU is launching its new "Horizon 2020" programme: what are the new research challenges for Europe?

**AMC.** Horizon 2020 (the continuation, under a different name, of the Framework Programs) represents a substantial opportunity for European science, not the least because in times of austerity in many member states budgets the EU research and innovation budget (Horizon 2020) increases considerably (and so does the ERC budget). Hence the increased competitiveness has a chance of being met in an orderly fashion, especially if the program rises to the challenge of operating through first-rate evaluation.

Here the ERC procedures can offer benchmarking and good practices. Another interesting development, beyond the Horizon 2020 program, that hopefully will bear fruits, is the establishment of a new linkage between innovation and structural funds policies (the so-called RIS3 agenda).

Today the Catalan minister of economy, you were previously Catalan minister of higher education and research, general secretary of the ERC and researcher at Berkeley and Harvard before launching one of the best research centres in economics in Europe (Barcelona Graduate School of Economics): in the field of research and higher education in economics, what are the assets of Europe vs. emerging zones such as Asia or vs. leading countries such as

**AMC.** For research in general I have to believe in a good future - bright future perspective for Europe. Science (with democracy) is one of the great contributions of Europe to civilization and I do not want to believe that we will let ourselves slide dramatically in this dimension. Economics is a bit special here. The same logic applies but the initial condition is, in some contrast to many of the natural and biological sciences, very lopsided in favor of the USA. Still, the effort is worthwhile and there is progress. Something we must strive for (another good lesson from the USA) is stability. Europe should do better at guaranteeing that the positions acquired (often under the initiative of an enthusiastic group of scholars) are not undone by time. The key is understanding that achieving and maintaining quality is primarily the responsibility of the institutions, not of the individual researchers in them, however good and prominent they are at a given time.

The key is understanding that achieving and maintaining quality is primarily the responsibility of the institutions.

#### Former ERC Secretary General

Andreu Mas-Colell is the Catalonian Minister of Economy and Knowledge and Professor of Economics at the Universitat Pompeu Fabra, Barcelona (currently on leave). Formerly he was Professor of Economics and Mathematics at the University of California, Berkeley (1972-80), Professor of Economics at Harvard University (1981-95), and Chairman of the Barcelona Graduate School of Economics (2006-2010). He has served as main Editor of the Journal of Mathematical Economics (1985-88), and of Econometrica (1988-92). He was ERC Secretary General from 2009 to 2010.





21, allée de Brienne - 31015 Toulouse Cedex 6 - Tel: +33 (0)5 67 73 27 68

www.tse-fr.eu

mag@tse-fr.eu







