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GENERAL INFORMATION

1. THE INSTITUTE'S MAIN OBJECTIVES

The *Instituto Valenciano de Investigaciones Económicas (Ivie)* —Valencian Institute of Economic Research— was created in 1990 by the *Generalitat Valenciana* —The Valencian Regional Government— as a public institution, in order to promote and develop economic research and to project it at a national and international level.

The **Ivie** was founded in 1990 by the *Generalitat Valenciana* (Valencian Regional Government) and now enjoys company status with the participation of capital from *Bankia*, *Ford-Spain*, *BBVA Foundation*, *Caja Mediterráneo Foundation*, *Cañada Blanch Foundation*, and *Cajas de Ahorros Foundation* (Funcas).

The **Ivie** has two main aims. The first is the consolidation of teams of specialists who are able to ensure continued production in lines of economic research of general interest. The second is to contribute to the establishment of links between research work and the decisions of economic agents. Many of these decisions require careful analysis of the available alternatives, based on the results of research, the quality of the statistical information and the experience of specialists as evaluators of such alternatives. For this reason, the **Ivie** also offers technical advice on economic matters to any private institution or company that requests it.

To achieve its aims, the **Ivie** is organized into various lines of theoretical and applied research with the support of a general services area. Their development rests mainly on the work of the Institute's researchers, all of whom have wide academic experience.

Furthermore, in order to carry out its projects, the **Ivie** develops links with researchers from Valencian Universities by signing collaboration agreements with them, supporting the Economic Research Teams of the University Departments in the achievement of their activities and promoting the social use of the research effort.

The **Ivie** started its activities in November 1990. Since then it has received sponsorship from the collaboration agreement signed with the *Conselleria d'Economia i Hisenda* (Regional Government Department of Economy and Finance), thanks to which it carries out activities for the promotion of economic research, both theoretical and applied. The **Ivie's** activities are also financed through the relevant partnership agreements or contracts with various public and private institutions in Spain, Europe and America.

2. PEOPLE

2.1. BOARD OF DIRECTORS

President:

Vicent Soler i Marco
Regional Minister of Finance and Economic Model

Secretary:

Ford Spain: José Abargues Morán
Human Resources Director of Ford Spain

Members:

Inmogestión y Patrimonios, S.A.: José Manuel García Trany
Corporate Business Director for the Valencian, Murcia and Balearic Regions, Bankia

Sector de Participaciones Integrales, S.L.: Isabel Rubio León
Communication and External Relations Manager for the Valencian, Murcia and Balearic Regions, Bankia

BBVA Foundation: Rafael Pardo Avellaneda
Director of the BBVA Foundation

Carlos Ocaña y Pérez de Tudela
General Manager of the Cajas de Ahorros Foundation

Fundación Cañada Blanch: Antonio Lleó García
Trustee of the Cañada Blanch Foundation

Luis Manuel Boyer Cantó
President of Caja Mediterráneo Foundation

Eva Martínez Ruiz
Sub Secretary at the Department of Finance and the Economic Model

2.2. ADVISORY COUNCIL

Francesco Giavazzi
Innocenzo Gasparini Institute for Economic Research, Milan

Emilio Ontiveros
Autonomous University of Madrid and AFI (Analistas Financieros Internacionales)

Vicente Salas
University of Zaragoza

Joaquim Silvestre
University of California-Davis

José Viñals
Standard Chartered Bank

2.3. MANAGEMENT

Research director:

Francisco Pérez (*Universitat de València*)

Research Deputy Director:

Joaquín Maudos (*Universitat de València*)

Director of International Projects:

Matilde Mas (*Universitat de València*)

Managing director:

Pilar Chorén

2.4. RESEARCH PROFESSORS

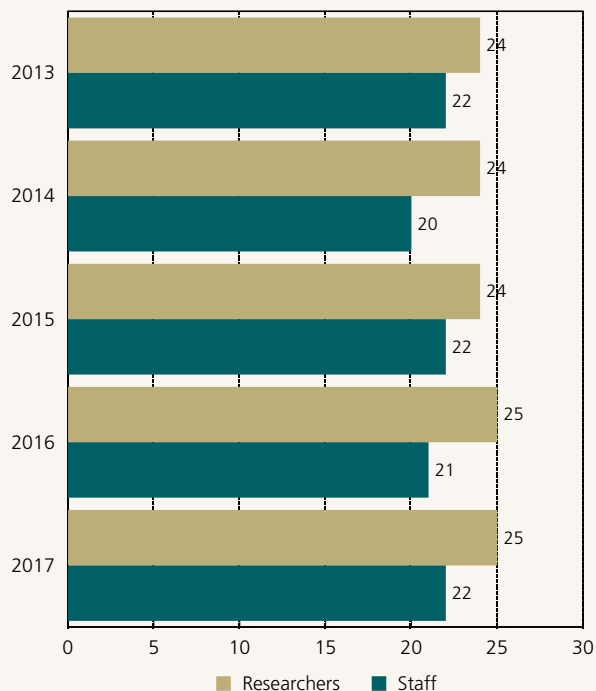
Francisco Alcalá (University of Murcia)

Dr Alcalá is a graduate in Economics with special honors (1980), holds a Master in Economics from CIDE (Center for Research and Teaching in Economics, Mexico, 1983) and has a PhD from the Universitat de València (1985). At present he is Professor in the Economic Analysis Department at the University of Murcia and Research Fellow at the Centre for Economic Policy Research (London). He has been Director of the said department, Member of the Executive Committee of the Spanish Economic Association and Visiting Lecturer at the CIDE (Mexico) and at the Universitat Pompeu Fabra (Barcelona). He has also been Visiting Scholar at the Universities of California (Berkeley), Harvard, New York and Columbia. His specialist fields are economic growth, international trade and industrial organization, of which he has published numerous books, book chapters and articles in high-level national and international specialist journals, such as *The Quarterly Journal of Economics*, *Journal of International Economics*, *Journal of Economics and Management Strategy*, *International Journal of Industrial Organization*, *Information Economics and Policy*, *Economics Letters* and *SERIEs-Journal of the Spanish Economic Association*. He has directed many National R&D Plan projects and several competitive projects funded by the Seneca Foundation (Murcia) and he has been advisor on economic matters to social and governmental institutions. (Personal webpage: sites.google.com/site/alcalapaco).

Joaquín Aldás (Universitat de València)

Dr Aldás graduated (1993) and obtained his PhD (1998) in Economics and Business Studies from the Universitat de València, where he is Professor in Marketing and Market Research. He has been Visiting Research Fellow at the University of Glasgow. His research interests are consumer behavior and quantitative methods in marketing research. He is co-author of 20 books and book chapters and has published more than 50 articles in specialized journals such as *Equal Opportunities International*, *European Journal of Innovation Management*, *European Journal of Marketing*, *Industrial Management & Data Systems*, *International Journal of Bank Marketing*, *International Journal of Electronic Business*, *International Journal of Internet Marketing and Advertising*, *Journal of Air Transport Management*, *Journal of Interactive Marketing*, *Journal of Product and Brand Management*, *Journal of Services Marketing*, *Neural Computing and Applications*, *Online Information Review*, *Qualitative Marketing Research*, *Services Industries Journal*, *Sex Roles* and *Tourism Management*, and in the most important refereed Spanish journals. He has participated in more than 30 studies for private and public institutions, public competitive projects and National R&D Plan projects, and has been main researcher of the European Project *Consumer Behavior Erasmus Network* (2009-2011). He has attended numerous conferences organized by the Academy of Marketing, the European Marketing Academy and the Academy of Marketing Science. (Personal webpage: www.uv.es/aldas)

Figure 1. Staff and researchers



Santiago Carbó (CUNEF)

Dr Carbó graduated in Economics from the Universitat de València (1989) and took his PhD in Economics (1993) and Master in Banking and Finance at the University of Wales (1990). He is currently Professor of Economics at CUNEF (University School for Financial Studies, Madrid), Professor of Economics and Finance at Bangor University (UK) and Head of Financial Studies of the Cajas de Ahorros Foundation (Funcas). He has been Professor of Economic Analysis at the University of Granada. He is independent advisor for Cecabank and President of IBEFA (the International Banking, Economics and Finance Association). He is member of the Group of Economic Advisors of ESMA (European Securities and Market Authority). He has been, and still is, consultant and collaborator for public institutions such as the European Central Bank (ECB) and the Federal Reserve Bank of Chicago, as well as to financial institutions and international consulting firms. He is author of more than two-hundred articles and publications on the financial system, among others, in journals such as *The Review of Economics and Statistics*, *European Economic Review*, *Review of Finance*, *Journal of Money, Credit and Banking*, *Journal of Corporate Finance*, *Journal of International Money and Finance* and *Journal of Banking and Finance*. He also frequently collaborates with the written press, at present being regular columnist in *El País* and stating his views in other Spanish national dailies (El Mundo, ABC, Cinco Dias, amongst others), radio and television (TVE, Cadena SER, Radio Nacional de España, etc.) in Spain, as well as in foreign newspapers (Financial Times, BBC, Business Week, International Herald Tribune, amongst others). (Personal webpage: www.santiagocarbo.com)

José García Montalvo (Pompeu Fabra University)

Dr García Montalvo is Professor of Applied Economics at the Pompeu Fabra University (UPF). He graduated in Economics from the Universitat de València in 1987 with special honors. He received the First National Graduation Prize (1988, Ministry of Education and Science), followed by a PhD in Economics from Harvard University (1993). In 2008 and 2013 he was awarded the ICREA Acadèmia distinction prize for his research work. In 2010 he received the Knowledge Transfer Award of the Board of Trustees of the UPF and in 2013 the Rector of the UPF awarded him the Medal of the Pompeu Fabra University. He has been Vice-rector of Science Policy of the UPF and Director of the Department of Economics and Business. He is consultant to the OECD,

the World Bank and the Inter-American Development Bank. His research is concentrated on themes connected with econometrics, economic development, the labor market for youth and the economy of the housing market. He was Guest Lecturer at the Department of Economics at Harvard (1996) and worked for a year as a researcher in the Technology and Economic Policy Program of the Kennedy School of Government (1995). He has published 15 books and more than 100 articles in *American Economic Review*, *Review of Economics and Statistics*, *Economic Journal*, *Journal of Business and Economic Statistics*, *Journal of Development Economics*, *Journal of Economic Growth* and *Applied Psychology*, among others. (Personal webpage: www.econ.upf.edu/~montalvo).

Francisco J. Goerlich (Universitat de València)

Dr Goerlich graduated and obtained a PhD in Economics from the Universitat de València. He also holds a M.Sc. in Economics from the London School of Economics & Political Science (University of London). At present, he is a Professor at the Department of Economic Analysis at the Universitat de València. His research fields are macroeconomics, income distribution, demographics, regional economics and applied econometrics. He is co-author of several books, among which worth mentioning are those for the BBVA Foundation, *Una grid de densidad de población para España*, *Zonas de morfología urbana: Coberturas del suelo y demografía*, *Cambios en la estructura y localización de la población*, *Distribución de la renta, crisis económica y políticas redistributivas* and *Delimitación de áreas rurales y urbanas a nivel local: Demografía, coberturas del suelo y accesibilidad*. He has published his work in specialized journals such as *Applied Economics*, *Econometric Theory*, *Economics Letters*, *International Journal of Geographical Information Science*, *Social Indicators Research*, *Empirical Economics*, *Regional Studies* and *Review of Income and Wealth*, among others. He has participated in various national and international congresses, both on his own initiative and as a guest. He has taken part in the SPINTAN research project on smart public intangibles funded by the EU 7th Framework Programme. He is currently associate researcher of the Spanish R&D Plan Project ECO2015-70632-R, *El desarrollo en la era de la economía digital y sus condicionantes: aspectos metodológicos y análisis empírico*, and also participates in DICTA (Data for European ICT Industries Analysis), a study commissioned by the European Commission's Joint Research Centre, Directorate B. (Personal webpage: www.uv.es/goerlich).

Carmen Herrero (University of Alicante)

Awarded with an honorary degree from the University of Granada, Dr Herrero graduated from the Complutense University of Madrid and obtained her PhD in Mathematics from the Universitat de València. She is currently Professor of Economics at the University of Alicante. Her latest research focuses on the application of axiomatic techniques to the analysis of distributive problems, particularly justice and equity issues related to health. She was awarded with the 2017 Rey Jaime I Prize in Economics. She is President of ASSET (Association of Southern-European Economic Theorists), and member of the Council of the Game Theory Society and of ArbolMat ('The Math Tree'), a joint initiative of the Spanish Royal Mathematical Society and Universia. She has been Visiting Lecturer at the Universities of Vienna, LUISS Guido Carli (Rome), California (Davis) and Rochester and at the Institute for Economic Analysis (IAE, Barcelona), and has taught courses at the Barcelona Graduate School of Economics, the University of Paris X (Nanterre) and at the Institute of Advanced Studies in Vienna. She has been a member of the Editorial Board of the *Social Choice and Welfare* review and the Managers Board of the Spanish Science and Technology Foundation. She has also been a consultant to the Scientific Policy Secretary General of the Spanish Ministry of Education and Science, Spanish coordinator of the TMR Network Cooperation and Information (FMRX-CT96-0055), as well as the Spanish representative for the EC Marie Curie Project PMD-CT-2000-00010 *Topics on Quantitative Economics*. Among her more than 70 articles, her recent ones have appeared in *Economics of Education Review*, *Health Economics*, *Journal of Health Economics*, *Journal of Human Development and Capabilities*, *PLOS ONE* and *Social Choice and Welfare*. (Personal webpage: <http://fae.ua.es/FAEX/herrero-blancocarmen/>)

Matilde Mas (Universitat de València)

Dr Mas graduated and took a PhD in Economics at the Universitat de València where she is Professor of Economic Analysis and Director of International Projects of the **Ivie**. Currently, she has obtained five research sexennials. Her specialized fields are the knowledge economy, analysis of public capital (focusing on infrastructures), regional economy, new information technologies and intangible assets. She is currently director of the Project DICTA (Data for European ICT Industries Analysis) commissioned by the European Commission's Joint Research Centre, Directorate B, and advisor to the LA KLEMS Project for Latin America. She has been coordinator of the Project SPINTAN (Smart Public Intangibles) funded by the 7th Framework Programme of the

European Union and also has participated in other EU projects (EU KLEMS, INDICSER, ICTNET and PREDICT). She is associate researcher of the National R&D Plan Project ECO2015-70632-R: *El desarrollo en la era de la economía digital y sus condicionantes: aspectos metodológicos y análisis empírico*. She is co-author of 74 books and book chapters, co-editor of *Industrial Productivity in Europe. Growth and Crisis* [Edward Elgar, 2011] and has published more than 80 articles in specialist journals such as *Journal of Productivity Analysis*, *NBER*, *Journal of Regional Science*, *Regional Studies* and *Review of Income and Wealth*, among others. She is member of the Editorial Board of the journal *Hacienda Pública Española*. She has participated in more than a hundred Spanish and international congresses and has given lectures as guest speaker in Spanish and foreign institutions. She regularly discusses economic issues on the radio program *No es un día cualquiera*. (Personal webpage: www.uv.es/masm).

Joaquín Maudos (Universitat de València)

Dr Maudos graduated (1989) and obtained his PhD (with special honors) in Economics from the Universitat de València (1995), where he is currently Professor in Economic Analysis. He is also Research Deputy Director of the **Ivie** and collaborator at the CUNEF. His specialist fields are banking and regional economics. He was Visiting Researcher in 1995-96 at the Florida State University Finance Department, at the College of Business at Bangor University (UK) in 2008-2009, and at the School of Business of the University of Glasgow, in addition to being consultant to the European Commission, the European Investment Bank and the United Nations. He has jointly published 21 books and 120 articles in specialized journals, both national and international (*Annals of Regional Science*, *Growth and Change*, *Economics Letters*, *Entrepreneurship and Regional Development*, *International Journal of Transport Economics*, *Journal of Banking and Finance*, *Journal of Business Economics and Management*, *Journal of Comparative Economics*, *Journal of Financial Services Research*, *Journal of International Financial Markets, Institutions and Money*, *Journal of International Money and Finance*, *Regional Studies*, *Review of Income and Wealth* and *Transportation Research*, among others), and has also taken part in various joint works. He is member of the Editorial Board of the journal *Inversión & Finanzas*. He is director of competitive projects (Spanish Ministry of Education and Science, BBVA Foundation, etc.), as well as of projects with firms and government agencies. Citations: 6.387 in Google Scholar and 1.021 in Web of Science. H-Index= 40, i10-Index=67 in Google Scholar and h-index=16 in Web of Science. He is listed as number 1252/39950 in the Ranking of scientists in Spain by Cybermetrics Lab-Scimago Group, IPP-CSIC. (Personal webpage: www.uv.es/maudosj)

José Manuel Pastor (Universitat de València)

Dr Pastor graduated in Economics in 1990 and received his PhD with special honors from the Universitat de València in 1996, where he is Professor of Economic Analysis. Former Vice-Dean for Internships, Business and Economy Relations and Vice-Dean for Communication and Business Relations (2011-2015), he is currently Dean of the Faculty of Economics at this university. He is consultant for the Children and Youth Observatory (Valencia Town Council) and member of the cross-departmental committee of Valencia's Youth Programme and of the Board of Administration of Universitat de València's Language Center. He is also member of the Chair of Business Culture and director of the MODEVAL Chair of the Universitat de València. He specializes in economics of education, regional economics and banking. He has been a Visiting Researcher at the Florida State University and at the College of Business, Law, Education and Social Sciences of the University of Bangor (Wales, UK), and an external consultant for the World Bank. He is co-author of more than fifty books and has published over seventy-five articles in Spanish and international academic journals (*Journal of International Financial Markets, Institutions and Money*, *Regional Studies*, *Scientometrics*, *Transportation*, etc.). He has been the main researcher of various competitive projects, as well as of projects with firms and government agencies, and has participated in the SPINTAN Project on intangible assets in the public sector (EU 7th Framework Programme). He is currently the main researcher of the National R&D Plan Project *El desarrollo en la era de la economía digital y sus condicionantes: aspectos metodológicos y análisis empírico* (ECO2015-70632-R). Also, he is director of an educational innovation project of the Universitat de València. (Personal webpage: www.uv.es/jmpastor)

José María Peiró (Universitat de València)

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Psychology of Human Resources of Organizational Development and Quality of Working Life. Awarded by Psicofundación with the *José Luis Pinillos* Prize to Excellency and Innovation in Psychology. He has been winner of the Aristotle Prize 2015 given by EFPA, honored with the EAWOP Lifetime Contribution Award for his scientific and professional career (2013), granted the Advanced International Research Service and Fukuhara Award of the ICP (2013) and received the Gold Medal from the General Council for Industrial Relations and Work Sciences (2010). He is director of the PhD Program of Human Resources and is coordinator of the European Master Erasmus Mundus of Work, Organizational and Personnel Psychology. He was Director of the Observatory for Employment Access and Vocational Guidance of the Universitat de València (2003-2009). Author of more than 50 books and book chapters and 200 articles published in *Computers in Human Behavior*, *European Journal of Work and Organizational Psychology*, *International Journal of Hospitality Management*, *Journal of Applied Psychology*, *Journal of Occupational Health Psychology*, *Social Science & Medicine* and *Work & Stress*, among others. His research fields are transition of youth to the labor market, the prevention of psychosocial risks, human and social capital, quality of service, climate and culture in organizations, work teams, psychosocial aspects of ICT, management and development of the human resources. (Personal webpage: www.uv.es/jmpeiro)

Francisco Pérez (Universitat de València)

Dr Pérez graduated (1973, with special honors and National Graduation Award) and obtained his PhD in Economics at the Universitat de València (1977). He is Professor of Economic Analysis at the Universitat de València (1986) and Research Director of the *Ivie* (since 1990). He has carried out and directed various studies on economic growth and international integration, competitiveness, regional economics, economics of education (mainly associated with universities), public finance and policy assessment. He has published 70 books in collaboration with others, and over 180 book chapters and articles in international and Spanish specialized journals. His research has been quoted more than 4,500 times, reaching an h-index of 31. He has directed ten PhD theses and has visited numerous universities and research centers in Spain, Europe and North and South America. Eisenhower Fellow USA since 1998, he is also main researcher on a project for excellence in research groups (Prometeo) funded by the Valencian Government and has directed more than one hundred research projects for public and private institutions. He is member of the Spanish Economic Association, the Wolpertinger Club and the European Economic Association. In November 2010 he was awarded the 8th *Societat Catalana d'Economia* Prize and in 2016 he received the *Francesc de Vinatea* distinction, the highest recognition from the Valencian Parliament. He is a member of several scientific societies and foundations. (Personal webpage: www.uv.es/perezgar)

Javier Quesada (Universitat de València)

Dr Quesada graduated in Economics from the Universitat de València and took his PhD in Economics at the University of Cincinnati (Ohio). He is currently a Professor of Economic Analysis at the Universitat de València. He was Director General of the Economy (1995-98) and Director of the Science and Technology Office of the Valencian regional government (1999-2003). His fields of research are financial and monetary economics, and the economics of new technologies and growth. He has jointly published 13 books —*Infraestructuras, inversión privada e intangibles* (CAM, 2009), *BBVA Foundation-Ivie Reports on Growth and Competitiveness* (2011, 2012, 2013 and 2014), *Activos intangibles: Una inversión necesaria para el crecimiento económico en España* (Ariel and Fundación Telefónica 2014), amongst others— and articles in E. Gardener *et al.* (eds.) *Banking in the New Europe* (Palgrave Macmillan 2003), in J.R. Cuadrado (ed.) *Regional policy, economic growth and convergence: Lessons from the Spanish case* (Springer 2009) and in F. Fiordelisi *et al.* (eds.) *New Issues in Financial and Credit Markets* (Palgrave Macmillan, 2010), as well as in specialized journals such as *Applied Economics*, *European Journal of Finance*, *European Journal of Operational Research*, *Journal of International Financial Markets* and *Institutions and Money*. He was a Visiting Scholar at Harvard University (1985-86). He is associate researcher of the National R&D Plan Project *El desarrollo en la era de la economía digital y sus condicionantes: aspectos metodológicos y análisis empírico* (ECO2015-70632-R). He is member of the European Academy of Science and Arts, and Executive President of the Rey Jaime I prizes. (Personal webpage: www.uv.es/quesada)

José Ramos (Universitat de València)

Dr Ramos graduated (1988) and obtained a PhD in Psychology (1993) from the Universitat de València where he is currently Professor in Organizational Psychology and Work and member of IDOCAL (Research Institute of Personnel Psychology, Organizational Development and Quality of Working Life). From 2006 to 2012, he was Dean of the Faculty of Psychology. His specialist fields are the organizational climate and the psychological contract, analysis of managerial work, service quality, occupational stress, and employment, unemployment

and psychological well-being. He has directed National R&D Plan projects and has also taken part in projects for the European Union. He is coordinator of the National Referee Committee that awards the European Qualification for Psychologists (Europsy) of the European Federation of Psychologists Associations. Since May 2015, he is member of the Executive Committee of the European Association of Work and Organizational Psychologists (EAWOP). He has attended numerous national and international congresses, and has published over fifty works in national and international journals such as *Applied Psychology: An International Review*, *European Journal of Work and Organizational Psychology*, *International Journal of Stress Management*, *Psychological Reports*, *Psicothema*, *Total Quality Management & Business Excellence*, *Stress & Health* and *Work & Stress*. He has directed 9 PhD theses and he is co-author of 20 books and book chapters, among which worth mentioning are *Productividad y gestión de recursos humanos en las Administraciones Públicas* (Funcas, 2010), *Psicología de las Organizaciones* (Editorial Síntesis, 2015) and *Creativity and Innovation in Organizations: Current Research and Recent Trends in Management* (Routledge, 2017).

Ernest Reig (Universitat de València)

Dr Reig graduated and obtained his PhD in Economics from the Universitat de València, where he is Professor of Applied Economics. He is specialized in regional and agricultural economics and in the analysis of efficiency and productivity. At present, he is studying the calculation of sustainability indexes and the agricultural eco-efficiency. He has published several books and reports, among them *La multifuncionalidad de la agricultura en España* (Ministry of Agriculture-EUDEMA 2007), *La sostenibilidad del crecimiento económico en España* (Funcas 2011), *La sostenibilidad de la agricultura en España* (Cajamar, 2013) and *Delimitación de áreas rurales y urbanas a nivel local: Demografía, coberturas del suelo y accesibilidad* (BBVA Foundation, 2016). He is author of over 40 articles in various specialized journals such as *Agricultural Economics*, *Applied Economics*, *Economic Modelling*, *Environmental and Resources Economics*, *Investigaciones Económicas*, *Journal of Productivity Analysis*, *Land Use Policy*, *Resource and Energy Economics*, *Revista de Economía Aplicada* and *Social Indicators Research*. He is member of the Editorial Board of the journal *Investigaciones Regionales*. He was Research Scholar at the London School of Economics (1983-84), Director of the Instituto Valenciano de Economía (1986-1991) and Director General of the Economy of the Valencian regional government (1991-95). He has been main researcher of several projects of the National R&D Plan, the most recent one titled *Indicadores sintéticos de sostenibilidad para la mejora de la gobernanza del sector agrario* (AGL2010-17560-C02-02). In 1997, he was awarded the 6th *Premi Catalunya d'Economia* (Prize in Economics of Catalonia) by the Societat Catalana d'Economia. (Personal webpage: www.uv.es/ereig)

Lorenzo Serrano (Universitat de València)

Dr Serrano is Professor at the Universitat de València where he graduated in Economics in 1991 (with special honors) and received his PhD in 1998 (with special honors). He also obtained a degree in Monetary Economics at the Centre of Financial and Monetary Studies in Madrid (1993). His work covers topics such as growth, human capital and regional economics. He has had scholarships at the Bank of Spain (1991-1993) and the Council of Education of the Valencian Regional Government (2001). He has also been Research Fellow at the SOM Research School of the University of Groningen (2000-2001). He has jointly published more than fifty books and more than 40 articles in Spanish (*Investigaciones Económicas*, *Moneda y Crédito*, *Revista Española de Economía*, *Revista de Economía Aplicada*, among others) as well as in international reviews (*Applied Economics*, *Economics Letters*, *Journal of Productivity Analysis*, *Journal of Transport, Economics and Policy*, *Regional Studies*, *Review of Income and Wealth*, *Review of International Economics*, *Transportation*, *Transport Policy*, among others). He is main researcher of the National R&D Plan Project *El desarrollo en la era de la economía digital y sus condicionantes: aspectos metodológicos y análisis empírico* (ECO2015-70632-R). (Personal webpage: www.uv.es/lserrano)

Ezequiel Uriel (Universitat de València)

Dr Uriel, Professor Emeritus at the Universitat de València, took degrees in Law (1960) and Economics (1963) and did his PhD (1972) at the Complutense University of Madrid. His specialized fields are the labor market, statistical information systems and forecasting techniques. He has published fifty books individually and in collaboration with others, on the social accounting matrix and national accounting, statistical and econometric methods, regional analysis, statistical information systems and the labor market —*El stock y los servicios de capital en España y su distribución territorial (1964-2002)*. *Nueva metodología* (BBVA Foundation, 2005) y *Balanzas fiscales de las comunidades autónomas con la Administración Pública Central, 1991-2005* (BBVA Foundation, 2007) y *Cuentas de la Educación en España 2000-2013: Recursos, gastos y resultados* (BBVA Foundation, 2016), amongst others—. Also he is author of twenty-six book chapters and over seventy articles in

specialized journals such as *Estadística Española*, *Entrepreneurship and Regional Development*, *Investigaciones Económicas*, *Cuadernos del ICE*, *Anales de Economía*, *Moneda y Crédito*, *Revista de Economía Aplicada*, *Applied Economic Letters*, *Review of Income and Wealth*, *International Review of Law and Economics* and *Papeles de Economía Española*. He has participated in over 40 studies for public and private institutions, and directed 11 doctoral theses. He was a Visiting Fellow at Warwick University in 1988-1989, Guest Lecturer at the Harvard School of Business in 1979 and Visiting Professor at the University of Berkeley (2000-2001). (Personal webpage: www.uv.es/=uriel).

Fernando Vega-Redondo (Bocconi University, Italy)

Dr Vega-Redondo has a degree in Economics from the Complutense University of Madrid and a PhD in Economics from the University of Minnesota. He is currently Professor at the Department of Decision Sciences of Bocconi University in Milan, Italy. His research interests are focused on the field of networks, game theory, learning, and their applications to evolutionary processes such as growth and institutional change. His more than 90 published articles can be found in journals such as *Econometrica*, *Review of Economics Studies*, *Science*, *Journal of Economic Theory*, *Games and Economic Behavior*, *International Economic Review*, *International Journal of Economic Theory*, *International Journal of Game Theory*, *Journal of Economic Dynamics and Control*, *Journal of Evolutionary Economics*, *Journal of Theoretical Biology*, *Physical Review Letters*, *Proceedings of the National Academy of Sciences USA*, *Social Choice and Welfare* and *Theory and Decision*. He is the author of several books such as *Complex Social Networks* published as an Econometric Society Monograph, *Economics and Theory of Games* published by Cambridge University Press, and *Evolution Games and Economic Behavior* published by Oxford University Press. He has directed over twenty doctoral theses and has taught at the Universities of Alicante, Pompeu Fabra, Essex, and the European University Institute in Florence. He has also been a Visiting Professor at the Indian Statistical Institute, the Institute for Advanced Studies in Vienna, the Hebrew University of Jerusalem and the Universities of Harvard, California-San Diego, Boston and Cornell. In 2011 he received the FUE Research Diversity Prize awarded by the Urrutia Elejalde Foundation. (Personal webpage: www.igier.unibocconi.it/vegaredondo)

Antonio Villar (Pablo de Olavide University, Seville)

Dr Villar has a degree in Economics from the Universitat de València and holds PhDs from the University of Alicante and the University of Oxford. Regarded as a researcher worthy of his reputation, he is at present Professor at Pablo Olavide University in Seville. He was awarded the XVI Andalusian Prize for Research in Social Sciences and Humanities. His specialized fields cover subjects of general equilibrium and welfare economics. He is the author of 18 books and over 70 articles, published in journals such as *Economic Theory*, *Journal of Public Economics* and *Review of Income and Wealth*, among others. He has been Visiting Scholar at the Centre for Operation Research and Econometrics (Belgium), at the Universities of Stanford, Oxford and York, the Institute for Advanced Studies (Vienna) and the European University Institute (Florence). He was head of the Economics and Law Division of the National Evaluation and Prospective Agency (1989-91), and in charge of the Evaluation Unit of the Science and Technology Office of the Valencian government (2002-2003), of the 2010 Consolider-Ingenio Program for the Spanish Ministry of Education and Science and Vice-Rector of Research and Technological Transference and First Vice-Rector of the Pablo Olavide University (2007-2010). He has participated in the revision of the criteria for preparing human development indices of the United Nations, and has directed several projects for the Andalusian Regional Government and in research projects of the National R&D Plan. Currently, he participates in the Advisory Commission for Special Research Infrastructures of the Ministry of Science and Innovation, and has been named Thomas J. Alexander Fellow (OECD 2015) and Fernand Braudel Fellow (European University Institute 2015). (Personal webpage: sites.google.com/site/avillarupo)

2.5. ASSOCIATE RESEARCHERS

Iván Arribas (Universitat de València)

Dr Arribas graduated in Mathematics with special honors (1991) and obtained his PhD in Economy from the Universitat de València (2002), where he is currently an Associate Professor. His specialist fields are techniques of quantitative analysis, time series analysis, game theory and international integration. He is co-author of the book *La medición de la integración comercial en una economía globalizada* published by the BBVA Foundation

in 2010, and has published numerous articles in specialized journals, such as *World Development*, *Economic Geography*, *Empirical Economics*, *Management Decision*, *Journal of Policy Modeling*, *Mathematical Social Sciences* y *Studies in Nonlinear Dynamics & Econometrics*, amongst others. He has participated in several studies for public and private entities (Iberdrola, Central Bank of the Dominican Republic) and competitive projects of the National R&D Plan and Eurostat. Currently, he is the main researcher of the Project *Public Procurement Initiative* financed by the European Commission and member of the Research Group ERI-CES (Estructura de Recerca Interdisciplinar-Comportament Econòmic i Social). He has given courses at the Central Bank of the Dominican Republic and the University Mar del Plata (Argentina), and has taken part in numerous international scientific meetings. (Personal webpage: www.uv.es/iarribas).

Alejandro Escribá (Universitat de València)

Dr Escribá obtained his PhD in Economics and Business Studies from the Universitat de València. Currently, he is an Associate Professor of Business Administration at the said university and director of the Universitat de València Chair of Family Business. He has been Guest Lecturer at Bocconi University (Italy), HEC Montreal and Concordia University (Canada). His research interests focus on the study of business strategy and competitiveness, as well as on the role of management teams and of corporate governance in this area. His work also addresses the strategic analysis of university systems and of academic performance. He has published more than thirty articles on these issues in several Spanish and international journals, amongst them *Long Range Planning*, *Business Research Quarterly*, *Journal of Management Studies*, *Group and Organization Management*, *British Journal of Management*, *International Small Business Journal* and *International Marketing Review*. Currently he is Associate Editor of the journal *Long Range Planning*.

Juan Fernández de Guevara (Universitat de València)

Dr Fernández de Guevara graduated and obtained his PhD (with special honors) in Economics from the Universitat de València, where he is currently Assistant Professor of Economic Analysis. His specialized fields are banking, social capital, productivity analysis and the role of the ICT and the intangible assets in economic growth. He has been researcher in the projects funded by the EU 7th Framework Programme, INDICSER and SPINTAN, and advisor to the European Investment Bank and the UN. Currently, he is participating in the National R&D Plan Project *Factores de competitividad: hacia una nueva sociedad del conocimiento*, and in DICTA (Data for European ICT Industries Analysis), research funded by the European Commission (Joint Research Centre, Directorate B). He has authored more than 30 books and book chapters and has co-edited three books for Palgrave MacMillan and the BBVA Foundation. Also, he has published more than 30 articles in specialized journals such as *Journal of Banking and Finance*, *The Manchester School*, *The European Journal of Finance*, *Journal of International Money and Finance*, *Revista de Economía Aplicada*, *Regional Studies*, *Applied Economics Letters*, *Journal of Higher Education* and *Journal of Financial Stability*, among others, and has taken part in numerous national and international congresses. In 2015, he received the prize for the best co-authored paper from Funcas in its Research Promotion Programme. (Personal webpage: www.uv.es/radoselo).

Belén Gill de Albornoz (Universitat Jaume I)

Dr Gill de Albornoz graduated in Economics and Business Studies from the University of Zaragoza (1995) and obtained a PhD from the Universitat Jaume I (2002), where she is Associate Professor of Financial Economy and Accountancy. She has taken part in projects for the National R&D Plan, the AECA (Spanish Association for Accounting and Business Administration) and the European Commission. Her specialist areas are financial economy and public finances, the quality of accounting data and corporate government. She stayed several years at the University of Lancaster (UK) and has participated in various national and international congresses. She has contributed to the collective works *La feminización de las profesiones sanitarias* (BBVA Foundation, 2010) and *Las empresas del sector de la construcción e inmobiliario en España* (Funcas, 2010), and has published numerous articles in national and international journals, such as *Abacus*, *Corporate Governance*, *Energy Economics*, *Investigaciones Económicas*, *Papeles de Economía Española*, *Revista Española de Financiación y Contabilidad*, *The European Accounting Review* and *Universia Business Review*. She has received several research awards: from the Spanish Stock Market Commission (2015), the AECA (2004, 2005, 2014), the Centro de Estudios Financieros (2003, 2004, 2007) and the Accounting and Auditing Institute & the Spanish Association of University Teachers of Accounting (2003). Furthermore, in 2012 she received a Prize from the Fundación de Estudios Financieros for her research work *Income smoothing and idiosyncratic volatility*.

Manuel Illueca (Universitat Jaume I)

Dr Illueca graduated in Economics and Business Studies from the Universitat de València (1993) and obtained a PhD in Business Administration and Management from the Universitat Jaume I in Castellón (2001), where he is Associate Professor in Financial Economics and Accounting (on leave). Currently he is Director of the Valencian Institute of Finance. In 2007 he was a Visiting Scholar in the Finance Department of the University of Indiana (US). His research fields are financial statement analysis, the economics of banking, and financial derivatives. He contributed to the collective work *Banca relacional y capital social en España: Competencia y confianza* (BBVA Foundation, 2006), and his articles have been published in national journals (*Investigaciones Económicas*, *Revista de Contabilidad*, *Revista Española de Financiación y Contabilidad*, *Spanish Economic Review*, among others) and international ones (*Applied Economics*, *Energy Economics*, *International Small Business Journal*, *Journal of Futures Markets*, *Journal of Productivity Analysis*, *Review of Finance*, among others). He has been member of the editorial boards of *PYME-Revista Internacional de la Pequeña y Mediana Empresa* and *Revista Valenciana de Economía y Hacienda*, editor of the *Revista de Contabilidad-Spanish Accounting Review*, and referee for leading Spanish and international journals. He has taught several courses and seminars, and participated in numerous national and international conferences and scientific meetings.

Jesús Rodríguez López (Pablo de Olavide University, Seville)

Dr Rodríguez graduated in Economics from the University of Seville (1992), holds a Master in Economics from the Pompeu Fabra University of Barcelona (1997) and obtained his PhD in Economics from the Pablo de Olavide University of Seville (2003). He is currently Professor at this university and since March 2011 he is collaborator of the UNICAJA Financial Education Platform (eduFInet). He has been Visiting Researcher at the University of Minnesota (2009, 2010 and 2011) and at the European University Institute of Florence (2004). He has also been Assistant Professor in specialized courses for Professor Dr. Albert Marcet on Bayesian Econometrics (2002) and Time Series Analysis: SVAR (1998), organized by the International Menéndez y Pelayo University. His research fields are economic growth, progress in investment-specific technology, analysis of exchange rate regimes and international economy. He has published several book chapters and articles in indexed journals: *Macroeconomic Dynamics*, *Open Economies Review*, *Information Economics and Policy*, *Journal of Macroeconomics*, *Eastern European Economics*, *Papers in Regional Science*, *Review of International Economics*, *Telecommunications Policy* and *The Berkeley Electronic Press Journal of Macroeconomics*. He has been a researcher of various competitive projects with government agencies, and main researcher for the Project *The role of information and communication technologies in the economic growth of the Andalusian region* funded by the European Commission. (Personal webpage: www.upo.es/econ/rodriguez)

Emili Tortosa-Ausina (Universitat Jaume I)

Dr Tortosa graduated in Economics and Business Studies from the Universitat de València and obtained his PhD with special honors from the Universitat Jaume I in Castellón, where he is currently a Professor in Applied Economics. He has also lectured in the Economic Analysis Department at the University of Alicante and has held scholarships at various institutions. He has been a guest researcher at the Business Economics Department at the Autonomous University of Barcelona, the School of Economics at the University of New South Wales (Sydney, Australia), the Economics Department at Oregon State University (USA), the School of Management at the University of Leicester (UK), and the Faculty of Business and Economics at the Diego Portales University (Chile). His specialist research areas are economic measurement, in particular, the analysis of efficiency and productivity. He has published various books in collaboration with others, and his articles have appeared in specialized journals such as *Annals of Regional Science*, *Applied Economics*, *Economic Geography*, *Economics Letters*, *Economics of Education Review*, *Empirical Economics*, *Environment and Planning A*, *European Economic Review*, *Journal of Business Economics and Management*, *Journal of Policy Modeling*, *Journal of Productivity Analysis*, *Journal of Regional Science*, *Papers in Regional Science*, *Review of Industrial Organization* and *World Development*, among others. He has participated in and organized numerous national and international congresses and scientific meetings. (Personal webpage: www3.uji.es/~Tortosa)

2.6. TECHNICAL STAFF

Carlos Albert	Economist
Rodrigo Aragón	Computer engineer
Eva Benages	Economist
Héctor García	Computer engineer
Laura Hernández	Economist
Consuelo Mínguez	Economist (since 20 June 2017)
Silvia Mollá	Economist
Juan Pérez	Economist
Juan Carlos Robledo	Economist
Jimena Salamanca	Economist
Marta Solaz	Economist
Ángel Soler	Economist
Irene Zaera	Economist

2.7. GENERAL SERVICES

Rosa Buitrago	Secretary
Yolanda Jover	Press
Leonor Marqués	Administration
Belén Miravalles	Documentation
Natalia Mora	Administration
Alicia Raya	Design and publications
Susana Sabater	Publications
Julia Teschendorff	Publications

2.8. COLLABORATORS IN RESEARCH PROJECTS AND OTHER ACTIVITIES

Among all the collaborators who participated in research projects and other scientific activities carried out by the Ivie, the following 18 researchers from 8 institutions took part in different economic studies conducted by the Ivie in 2017:

Silvia Barona (Universitat de València)
Rafael Beneyto (Financial Analyst)
Vicent Cucarella (Regional Audit Office of the Valencian Community)
José Ismael Fernández (Universitat de València)
Amadeo Fuenmayor (Universitat de València)
Rafael Granell (Universitat de València)
María Iborra (Universitat de València)
Andreu Iranzo (Valencian Regional Government Department of Financing and European Funds)
Fernando Jiménez Sánchez (University of Murcia and Carlos III-Juan March Institute)
Toma Lankauskiene (Vilnius Gediminas Technical University)
Montserrat López-Cobo (European Commission, Joint Research Centre – JRC)
Eusebio Monzó (Universitat Politècnica de València)

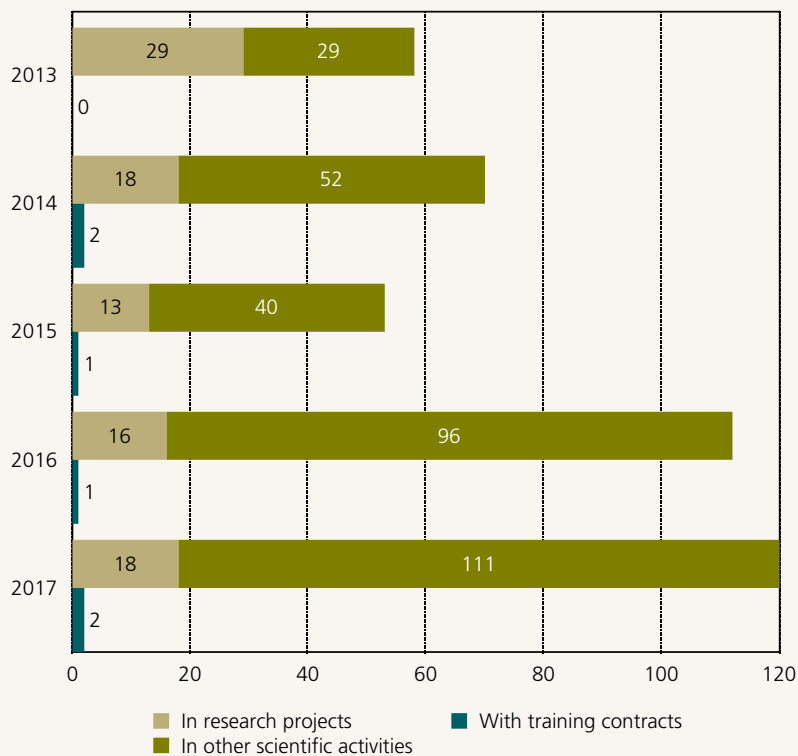
José Antonio Pérez (Universitat Politècnica de València)
 Giuditta De Prato (European Commission, Joint Research Centre – JRC)
 Fiammetta Rossetti (European Commission, Joint Research Centre – JRC)
 Vicente Safón (Universitat de València)
 Sofia Samoilí (European Commission, Joint Research Centre – JRC)
 Adrián Todolí (Universitat de València)

2.9. COLLABORATORS WITH TRAINING CONTRACTS¹

Through an agreement signed with the Universitat de València, Consuelo Mínguez did work training at the **Ivie** while taking a Master's Degree in Economics at the said University.

Also, Clara Villarroya did work training while taking a Master's Degree at the Universitat Jaume I through an agreement signed between both institutions.

Figure 2. Collaborators in research projects and other activities carried out by the **Ivie**



¹ The activities related with work training of collaborators within the **Ivie** is funded by the Valencian Regional Government's Ministry for Finance and the Economic Model, through the cooperation agreement signed between both institutions to promote and consolidate the **Ivie**'s basic and applied economic research activities.

3. COLLABORATION AGREEMENTS

The Institute's initiatives are possible thanks to the financial support of the institutions which sponsor the **Ivie's** lines of research and share the Institute's aims. Likewise, all research undertaken by the **Ivie** is based mainly on the initiatives and projects of the university professors who are associated with the Institute as researchers and, in general, on the research potential of the Valencian Universities. To favor this relationship, cooperation agreements have been signed with:

AVE (Valencian Association of Entrepreneurs)
AVFGA (Agencia Valenciana de Fomento y Garantía Agraria)
Bankia
European Commission
Economic and Social Council (CES)
Regional Ministry of Finance and Economic Model (Valencian Government)
CRUE (Conference of Rectors of Spanish Universities)
Provincial Council of Valencia (Diputación de Valencia)
BBVA Foundation
COTEC Foundation
Ramón Areces Foundation
Trinidad Alfonso Foundation
Tourist Foundation Valencia
Institute for Prospective Technological Studies (IPTS)
IVACE
Mercadona
NIESR – European Commission
Ibero-American General Secretariat
Correcaminos Sports Society
SPTCV (Sociedad de Proyectos Temáticos de la Comunitat Valenciana)
Universidad de Alicante
Universidad de Córdoba
Harvard University
Universidad de Murcia
Universidad Miguel Hernández
Universitat de València
Universitat Jaume I
Universitat Politècnica de València

4. ACKNOWLEDGMENTS

The effort made by the **Ivie** in all the directions mentioned has been acknowledged both in academic circles and on a social level. During the two decades of its existence the Institute and its researchers have received the following awards:

- The paper *The Impact of Lending Relationships on the Choice and Structure of Bond Underwriting Syndicates* by Santiago Carbó (co-author with P.J. Cuadros and F. Rodríguez) was awarded the “Premio Accésit” of the FEF Antonio Dionis Soler 2017 Research Awards and delivered on March 6th, 2018.
- The Societat Catalana d'Economia, affiliate of Institut d'Estudis Catalans, awarded José García Montalvo the XV Catalunya d'Economia 2017 Prize for the research study *Política de precios públicos y eficiencia del sistema de becas de Catalunya*. The prize was given on February 7, 2018.
- **Ivie** Researcher, Carmen Herrero, was awarded the 2017 Rey Jaime I Award in Economics, considered one of Spain's most important scientific awards. The ceremony took place at the Lonja in Valencia on October 30, 2017 in an event presided by HM Queen Letizia.
- On October 26, 2017, the Spanish Economic and Social Council (ESC) awarded the **Ivie** with its XXI Research Prize. **Ivie's** project, which was chosen from among 17 presented, aims to analyze the social and economic impacts of the progressive introduction of the digital economy in Spain.
- On July 4, 2017, José María Peiró, received the Honorary Degree from the Miguel Hernández University in recognition of the important role he plays as leading expert in the field of work and organizational psychology.
- On December 16, 2016, Professor José María Peiró was awarded the *Jose Luis Pinillos Prize* for Excellence and Innovation in Psychology, in the category of 'Psychologist of the Year', by Psicofundación (the Spanish Foundation for the Scientific and Professional Promotion of Psychology). The **Ivie** researcher received the award at the closing ceremony of the conference III Jornadas de Excelencia e Innovación en Psicología, in which the academic, scientific and professional career of the psychologist was recognized.
- On December 15, at the Simposio de la Asociación Española de Economía (Spanish Economic Association) in Bilbao, Jose García Montalvo was granted the SERIEs Award 2016 for the article «*The real estate and credit bubble: evidence from Spain*».
- Also in 2016, José María Peiró was made a member of the Spanish Academy of Psychology on November 30. The Academy, created by the Ministry of Education, Culture and Sport, recognized the research work of the **Ivie** researcher and Professor of the Universitat de València.
- On November 25, 2016, Francisco Pérez was made an honorary member of the Colegio Mayor San Juan de Ribera. The event was held during the Closing Ceremony of the Institute's Centenary, which took place in the auditorium of the Universitat de València.
- The prize-giving ceremony of the Valencian Parliament *Alta Distinción Parlamentaria de Corts Francesc de Vinatea* was held at the Borgia Palace in Valencia on April 25, 2016. The award was presented to the committee of experts made up of Francisco Pérez (**Ivie** research director), Vicent Cucarella (**Ivie** research technician), together with Rafael Beneyto, José Antonio Pérez, José Ismael Fernández and Vicent Peiró, who have analyzed the financial problems of the Valencian Government.
- In 2015, the journal *Economía 3* presented the **Ivie** with the Economía 3 Research Career Award for the work carried out over its 25-year trajectory. The prize was delivered to the **Ivie** at The Westin Hotel in Valencia, on January 27, 2016.

- Also in 2015, the Fundación de Estudios Bursátiles y Financieros (dedicated to stock market and financial studies) awarded the prize for Financial Dissemination to the **Ivie** for its «outstanding work in this area since its inception 25 years ago». The award was presented to the **Ivie** at the headquarters of the Presidency of the Valencian Government, in Valencia, on March 29, 2016.
- On 18 December 2015, **Ivie** researchers Juan Fernández de Guevara and José Manuel Pastor received the 2014 Research Promotion Award by Funcas for their working paper «The adjustment of bank ratings in the financial crisis: International evidence» written in collaboration with Carlos Salvador (Universitat de València).
- On 12 November 2015, José M. Peiró received the award 'Profesionalidad y Compromiso' (for professionalism and commitment) by the Fundación Diagrama in Villena (Alicante).
- On 7 July 2015, during the XIV European Congress of Psychology in Milan, the European Federation of psychologists' associations (EFPA) awarded José María Peiró the 2015 Aristotle Prize. The award is granted to European psychologists who are internationally recognized for their contributions to psychology in research or in the professional area.
- On 2 September 2014, José García Montalvo was awarded the ICREA Academia prize aimed at promoting research excellence among the professors and researchers of public Catalan universities.
- In 2014, the Spanish Economic Association Award (1st edition) for the best article published in the *SERIEs*-Journal of the Spanish Economic Association throughout the period of 2010-2013 was given to «Firm's Main Market, Human Capital, and Wages», a research article by **Ivie** researcher and professor at the University of Murcia, Francisco Alcalá in collaboration with Pedro J. Hernández.
- Also in 2014, the Institute of Financial Studies granted the **Ivie** the 7th IEF Award for Financial Excellence 2014 in the dissemination category for “its brilliant career and contribution to the knowledge society in general and, in particular, to the economy.” The award was presented to **Ivie** research director and professor at the Universitat de València, Francisco Pérez, in an event which was held in Barcelona on 3 November 2014.
- On May 23, 2014, **Ivie** researcher and professor at the University of Alicante Carmen Herrero was awarded with an honorary degree from the University of Granada.
- During the LXXI Annual ICP Conference in Honolulu (Hawaii) on August 3, 2013, the International Council of Psychologists (ICP) granted the *Advanced International Research and Service Fukuhara Award* to the **Ivie** research professor and professor at the Universitat de València, José María Peiró.
- Also during 2013, the European Association of Work and Organizational Psychology (EAWOP) honored Jose María Peiró with the EAWOP Lifetime Contribution Award for his scientific and professional career during the 16th Congress of the European Association of Work and Organizational Psychology held in Münster (Germany) on 22 May.
- Furthermore, in 2013 the Governing Body of the Pompeu Fabra University awarded Professor José García Montalvo, Vice-chancellor of Science Policy (2011-2013), UPF Medal of Honor.
- In 2012, **Ivie** associate researcher Belén Gill de Albornoz received a prize from the Fundación de Estudios Financieros for her research work *Income smoothing and idiosyncratic volatility*.
- On November 24, 2010, the President of the Institut d'Estudis Catalans, Salvador Giner, awarded the **Ivie** Research Director, Francisco Pérez, the *VIII Societat Catalana d'Economia 2010 Prize* for the study carried out at the **Ivie** *El Desarrollo del Arco Mediterráneo Español. Trayectoria y perspectivas*, published in 2010.
- The Andalusian Regional Government awarded the **Ivie** researcher and professor at the Pablo de Olavide University, Antonio Villar, the *XVI Premio Andalucía de Investigación Ibn al Jatib* (Prize in Research of Andalusia) in the areas of humanities, law and social sciences on March 22, 2010. This prize aims to acknowledge and encourage outstanding researchers in science, as well as organizations, institutions or

firms which have distinguished themselves by their commitment to promoting scientific research. The award recognized the theoretical relevance of Antonio Villar's research, in addition to his institutional involvement in the development of economics in Andalusia.

- In July 2010, **Ivie** research professor José María Peiró was awarded an Honorary Degree by the Metodista de São Paulo University.
- In 2010, the Social Advisory Board of the Pompeu Fabra University granted José García-Montalvo the Knowledge Transfer Award.
- In November 2009, professors Matilde Mas and Francisco Pérez were appointed Honorary Members of the Argentinian Association of Public Economics.
- On February 18, 2009 the **Ivie** researcher and professor at the Pompeu Fabra University, José García-Montalvo, received the *ICREA Acadèmia* Prize for his research work.
- On May 21, 2008 José María Peiró, **Ivie** researcher and professor at the Universitat de València, was given the Research and Development Award by the Universitat de València Social Council. This recognition values Peiró's long line of research in human resources management and work climate.
- The **Ivie** was awarded the Research and Development Prize *Premio Universidad-Sociedad a la Investigación y el Desarrollo 2005* by the Universitat de València Social Council on June 20, 2005. This prize distinguishes those institutions and members of the university community whose work and efforts have helped to strengthen ties between the Universitat de València and its cultural, social and economic environment.
- The journal *Economía 3* presented the **Ivie** with the *Premio Centro Investigador* (Research Centre Award) on December 11, 2003.
- In 1997 **Ivie** research professor Ernest Reig received the *Premio d'Economia de Catalunya* (Prize in Economics of Catalonia) from the Societat Catalana d'Economia for the study *Capitalización y Crecimiento de la Economía Catalana 1955-1995*.

5. INSTITUTIONAL INFORMATION

The **Ivie** has had the institutional structure of a public limited company since it was set up. Although it was considered a public firm during the first few years, the **Ivie** has been a mercantile company subject to private law following the incorporation of its shareholders in 1995.

Throughout the years the **Ivie** has always complied with current legislation so as to ensure the good of the public and private resources entrusted by different institutions for the development of its activities. In addition, the **Ivie** provides the required accounting information, which is in the Mercantile Register.

The **Ivie** is annually controlled by independent auditors with the aim of receiving opinions regarding the quality of the financial data which the Administration Board develops.

In 2011, the **Ivie** created the **Ivie** Foundation of the Valencian Community, in order to intensify the development of economic research and education activities of general interest and to strengthen the collaboration with other institutions in this area.

Since 2013, the **Ivie** is a research center associated to the Universitat de València, registered with the Spanish Registry of Universities, Centres and Qualifications (RUCT).

INFORME DE AUDITORÍA DE CUENTAS ANUALES ABREVIADAS EMITIDO POR UN AUDITOR INDEPENDIENTE

A los accionistas de Instituto Valenciano de Investigaciones Económicas, S.A. (IVIE)

Opinión

Hemos auditado las cuentas anuales abreviadas de Instituto Valenciano de Investigaciones Económicas, S.A., que comprenden el balance abreviado a 31 de diciembre de 2017, la cuenta de pérdidas y ganancias abreviada, el estado abreviado de cambios en el patrimonio neto y la memoria abreviada correspondientes al ejercicio terminado en dicha fecha.

En nuestra opinión, las cuentas anuales abreviadas adjuntas expresan, en todos los aspectos significativos, la imagen fiel del patrimonio y de la situación financiera de Instituto Valenciano de Investigaciones Económicas, S.A. a 31 de diciembre de 2017, así como de sus resultados correspondientes al ejercicio anual terminado en dicha fecha, de conformidad con el marco normativo de información financiera que resulta de aplicación (que se identifica en la nota 2 de la memoria abreviada) y, en particular, con los principios y criterios contables contenidos en el mismo.

Fundamento de la opinión

Hemos llevado a cabo nuestra auditoría de conformidad con la normativa reguladora de la actividad de auditoría de cuentas vigente en España. Nuestras responsabilidades de acuerdo con dichas normas se describen más adelante en la sección *Responsabilidades del auditor en relación con la auditoría de las cuentas anuales abreviadas* de nuestro informe.

Somos independientes de la Sociedad de conformidad con los requerimientos de ética, incluidos los de independencia, aplicables a nuestra auditoría de las cuentas anuales abreviadas en España según lo exigido por la normativa reguladora de la actividad de auditoría de cuentas. En este sentido, no hemos prestado servicios distintos a los de la auditoría de cuentas ni han concurrido situaciones o circunstancias que, de acuerdo con lo establecido en la citada normativa reguladora, hayan afectado a la necesaria independencia de modo que se haya visto comprometida.

Consideramos que la evidencia de auditoría que hemos obtenido proporciona una base suficiente y adecuada para nuestra opinión.

Aspectos más relevantes de la auditoría

Los aspectos más relevantes de la auditoría son aquellos que, según nuestro juicio profesional, han sido considerados como los riesgos de incorrección material más significativos en nuestra auditoría de las cuentas anuales abreviadas del periodo actual. Estos riesgos han sido tratados en el contexto de nuestra auditoría de las cuentas anuales abreviadas en su conjunto, y en la formación de nuestra opinión sobre éstas, y no expresamos una opinión por separado sobre esos riesgos.

Reconocimiento de ingresos por prestaciones de servicios

Los ingresos por prestaciones de servicios correspondientes a investigaciones y estudios económicos suponen la totalidad del importe neto de la cifra de negocios de la Sociedad correspondiente al ejercicio 2017. El reconocimiento de estos ingresos, si bien no resulta complejo, dando lugar a cuentas a cobrar convertibles en efectivo, implica una casuística específica conforme a las condiciones y términos establecidos en los contratos concertados por la Sociedad. Identificamos esta área como aspecto relevante a considerar en la auditoría de la Sociedad, de forma que identificamos como riesgo de incorrección material de nuestra auditoría el adecuado registro de los ingresos, conforme a la normativa aplicable.

Nuestros procedimientos de auditoría han consistido en evaluar los procedimientos y criterios empleados por la Sociedad en la determinación, cálculo, contabilización, facturación y cobro de estos servicios a sus clientes, en consonancia con los contratos correspondientes. Asimismo, hemos realizado confirmaciones de los saldos y operaciones sobre una muestra de clientes, y evaluado la adecuación de la información desglosada en la nota 10.f de la memoria abreviada a los requerimientos del marco normativo de información financiera aplicable a la Sociedad.

Responsabilidad de los administradores en relación con las cuentas anuales abreviadas

Los administradores son responsables de formular las cuentas anuales abreviadas adjuntas, de forma que expresen la imagen fiel del patrimonio, de la situación financiera y de los resultados de la Sociedad, de conformidad con el marco normativo de información financiera aplicable a la entidad en España, y del control interno que consideren necesario para permitir la preparación de cuentas anuales abreviadas libres de incorrección material, debida a fraude o error.

En la preparación de las cuentas anuales abreviadas, los administradores son responsables de la valoración de la capacidad de la Sociedad para continuar como empresa en funcionamiento, revelando, según corresponda, las cuestiones relacionadas con la empresa en funcionamiento y utilizando el principio contable de empresa en funcionamiento excepto si los administradores tienen intención de liquidar la Sociedad o de cesar sus operaciones, o bien no exista otra alternativa realista.

Responsabilidades del auditor en relación con la auditoría de cuentas anuales abreviadas

Nuestros objetivos son obtener una seguridad razonable de que las cuentas anuales abreviadas en su conjunto están libres de incorrección material, debida a fraude o error, y emitir un informe de auditoría que contiene nuestra opinión. Seguridad razonable es un alto grado de seguridad pero no garantiza que una auditoría realizada de conformidad con la normativa reguladora de la actividad de auditoría vigente en España siempre detecte una incorrección material cuando existe. Las incorrecciones pueden deberse a fraude o error y se consideran materiales si, individualmente o de forma agregada, puede preverse razonablemente que influyan en las decisiones económicas que los usuarios toman basándose en las cuentas anuales abreviadas.

Como parte de una auditoría de conformidad con la normativa reguladora de la actividad de auditoría de cuentas vigente en España, aplicamos nuestro juicio profesional y mantenemos una actitud de escepticismo profesional durante toda la auditoría. También:

- Identificamos y valoramos los riesgos de incorrección material en las cuentas anuales abreviadas, debida a fraude o error, diseñamos y aplicamos procedimientos de auditoría para responder a dichos riesgos y obtenemos evidencia de auditoría suficiente y adecuada para proporcionar una base para nuestra opinión. El riesgo de no detectar una incorrección material debida a fraude es más elevado que en el caso de una incorrección material debida a error, ya que el fraude puede implicar colusión, falsificación, omisiones deliberadas, manifestaciones intencionadamente erróneas, o la elusión del control interno.
- Obtenemos conocimiento del control interno relevante para la auditoría con el fin de diseñar procedimientos de auditoría que sean adecuados en función de las circunstancias, y no con la finalidad de expresar una opinión sobre la eficacia del control interno de la Sociedad.
- Evaluamos si las políticas contables aplicadas son adecuadas y la razonabilidad de las estimaciones contables y la correspondiente información revelada por los administradores.
- Concluimos sobre si es adecuada la utilización, por los administradores, del principio contable de empresa en funcionamiento y, basándonos en la evidencia de auditoría obtenida, concluimos sobre si existe o no una incertidumbre material relacionada con hechos o con condiciones que pueden generar dudas significativas sobre la capacidad de la Sociedad para continuar como empresa en funcionamiento. Si concluimos que existe una incertidumbre material, se requiere que llamemos la atención en nuestro informe de auditoría sobre la correspondiente información revelada en las cuentas anuales abreviadas o, si dichas revelaciones no son adecuadas, que expresemos una opinión modificada. Nuestras conclusiones se basan en la evidencia de auditoría obtenida hasta la fecha de nuestro informe de auditoría. Sin embargo, hechos o condiciones futuros pueden ser causa de que la Sociedad deje de ser una empresa en funcionamiento.
- Evaluamos la presentación global, la estructura y el contenido de las cuentas anuales abreviadas, incluida la información revelada, y si las cuentas anuales abreviadas representan las transacciones y hechos subyacentes de un modo que logran expresar la imagen fiel.

Nos comunicamos con los administradores de la Sociedad en relación con, entre otras cuestiones, el alcance y el momento de realización de la auditoría planificada y los hallazgos significativos de la auditoría, así como cualquier deficiencia significativa del control interno que identificamos en el transcurso de la auditoría.

Entre los riesgos significativos que han sido objeto de comunicación a los administradores de la Sociedad, determinamos los que han sido de la mayor significatividad en la auditoría de las cuentas anuales abreviadas del período actual y que son, en consecuencia, los riesgos considerados más significativos.

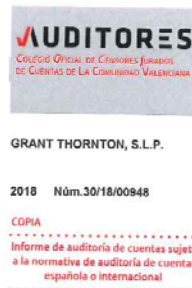
Describimos esos riesgos en nuestro informe de auditoría salvo que las disposiciones legales o reglamentarias prohíban revelar públicamente la cuestión.

Grant Thornton, S.L.P. Sociedad Unipersonal


José Enrique Contell García

ROAC nº 2468

14 de marzo de 2018



2017 ACTIVITIES

6. PUBLICATIONS

One of the Institute's aims is to foster the dissemination of quality economic research. Since it was founded, the **Ivie** has been publishing two series of working papers which are first submitted to an evaluation process, where highly qualified anonymous referees evaluate the papers before they are accepted for publication. In 2017, 11 working papers were published.

The **Ivie** wishes to publicly express its thanks for their collaboration to all the referees who are listed in this Annual Report. Their effort is decisive for the achievement of the Institute's objectives.

The publication of working papers is only the first stage in the diffusion of research activity, the final aim being publication in scientific journals. For this reason, information about the articles published by the associates is also given. In 2017, the **Ivie**'s researchers produced 24 books, published or forthcoming, and 20 chapters in joint works. They also published 85 scientific articles, 58 of which were for international journals.

6.1. IVIE WORKING PAPERS²

6.1.1. AD SERIES

The AD series, coordinated by Carmen Herrero, is a continuation of the work initiated by the Department of Economic Analysis of the University of Alicante in its collection *A DISCUSIÓN*. This series provides and distributes papers marked by their theoretical content.

2017 Issues:

WP-AD 2017-09	"Schooling and adult health: Can education overcome bad early-life conditions?", Albarran, P., Hidalgo, M. and Iturbe-Ormaetxe, I.
WP-AD 2017-08	"Some (Mis)facts about 2D:4D, Preferences and Personality", Alonso, J., Di Paolo, R., Ponti, G. and Sartarelli, M.
WP-AD 2017-07	"Optimistic and stubborn: An experimental analysis of the disposition effect", Cueva, C., Iturbe-Ormaetxe, I., Ponti, G. and Tomás, J.
WP-AD 2017-06	"Boys will (still) be boys: Gender differences in trading activity are not due to differences in confidence", Cueva, C., Iturbe-Ormaetxe, I., Ponti, G. and Tomás, J.
WP-AD 2017-05	"Can Talented Pupils with Low Socio-economic Status Shine? Evidence from a Boarding School", Foliano, F., Green, F. and Sartarelli, M.
WP-AD 2017-04	"Population Structure and the Human Development Index", Herrero, C., Martínez, R. and Villar, A.
WP-AD 2017-03	"Public good provision and social loss under polarization", Torregrosa, R.J.
WP-AD 2017-02	"Vertical Foreign Direct Investment: Make, Sell and (Not) Buy", Milliou, C. and Sandonís, J.
WP-AD 2017-01	"Homeownership and entrepreneurship", Lisi, G.

² The editing and dissemination process of **Ivie** working papers is funded by the Valencian Regional Government's Ministry for Finance and the Economic Model, through the cooperation agreement signed between both institutions to promote and consolidate the **Ivie**'s basic and applied economic research activities.

Figure 3. Working papers



6.1.2. SERIE EC

Coordinated by Matilde Mas, the EC Series mainly includes applications of different analytical tools to the study of specific economic problems.

2017 Issues:

- WP-EC 2017-02 “Foreign ownership and financial reporting quality in private subsidiaries”, Gill de Albornoz, B. and Rusanescu, S.
- WP-EC 2017-01 “Hedging spark spread risk with futures”, Martínez, B. and Torró, H.

6.1.3. REFEREES

Pedro Albarrán (Universidad de Alicante)
 Natália Barbosa (Universidade de Minho)
 Estíbaliz Biedma (Universidad de Cádiz)
 Pablo Branas (Middlesex University London)
 Alvaro Capitan (Comisión Nacional de los Mercados y de la Competencia, CNMC)
 Ignacio Duque (Instituto Nacional de Estadística - INE)
 María Paz Espinosa (Universidad del País Vasco/Euskal Herriko Unibertsitatea)
 Esther Gordo (Banco de España)
 Carmen Herrero (Universidad de Alicante, Ivie)
 Javier Mateo López Cuñat (Universidad de Alicante)
 Juan Miguel Nave (Universidad de Castilla-La Mancha)
 José María Raya Vilchez (Universitat Pompeu Fabra)

Ismael Rodríguez Lara (Middlesex University London)
 Esther Ruiz (Universidad Carlos III de Madrid)
 Santiago Sánchez Alegría (Universidad Pública de Navarra)
 Joel Sardonís (Universidad de Alicante)
 Anna Sanz de Galdeano (Universidad de Alicante)
 José J. Sempere (Universitat de València)
 Marco Serena (Max Planck Institute for Tax Law and Public Finance)
 Josefa Tomás (Universidad de Alicante)

6.2. PUBLICATIONS BY RESEARCHERS AND TECHNICIANS

6.2.1. BOOKS

Alcalá, F. (dir.) and M. Solaz:

Globalización, relocalización productiva y crecimiento. Bilbao: BBVA Foundation, forthcoming.

Alcalá, F. and F. Jiménez:

Los costes económicos del déficit de calidad institucional y la corrupción en España. Bilbao: BBVA Foundation, forthcoming.

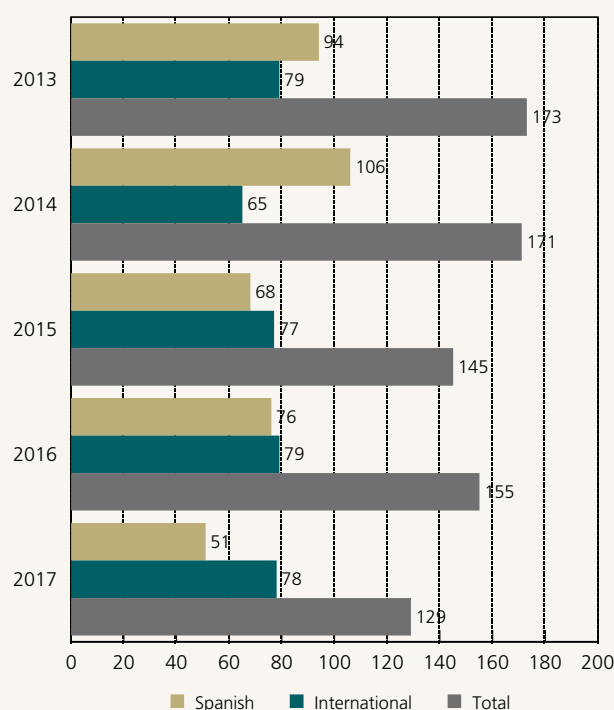
Aldás-Manzano, J. and E. Uriel:

Análisis multivariante aplicado con R. 2ª ed. Madrid: Paraninfo, 678 pp.

Barona, S., F. Pérez and A. Iranzo:

El funcionamiento de la justicia en España: Estructuras, recursos y resultados. Bilbao: BBVA Foundation, forthcoming.

Figure 4. Researchers' and technicians' publications. Books and articles



Escribá, A., M. Iborra and V. Safón:

Modelos de universidades con desempeño excelente: Referentes para los grupos estratégicos del sistema universitario español. Bilbao: BBVA Foundation, forthcoming.

Fernández, R., S. Lago, A. Cuenca, L.A. Hierro, J. Martínez, C.A. Monasterio, F. Pérez and E. Del Pino:

La nivelación interterritorial y la estimación de las necesidades de gasto. Ourense: Facultad de Ciencias Empresariales y Turismo, Universidade de Vigo, 57 pp. GEN + Reports, 2/2017.

García-Montalvo, J.:

Algunas consideraciones sobre la nueva ley hipotecaria. Madrid: IEE (Instituto de Estudios Económicos), 46 pp.

Política de precios públicos y eficacia del sistema de becas en Catalunya. Barcelona: Observatori de l'Estudiant, Universitat de Barcelona, 79 pp.

Goerlich, F.J.:

El empobrecimiento valenciano: La renta y su distribución, pobreza y exclusión social en la Comunitat Valenciana. València: Ed. Alfons el Magnànim, forthcoming.

Herrero, C., A. Villar and Á. Soler:

Las facetas del bienestar: Una aproximación multidimensional a la calidad de vida en España y sus comunidades autónomas (2006-2015). Bilbao: BBVA Foundation, forthcoming.

Lago, S. (coord.), J. Artés, R. Fernández, E. Chuliá, I. Lago, G. López, J. López, J. Martínez, E. De la Nuez, F. Pérez, J.J. Pérez and M. Vilalta:

Coherencia económica de los programas electorales. Madrid: Fundación Transforma España, 166 pp.

Mas, M., J. Fernández de Guevara and J.C. Robledo:

The 2017 PREDICT Key Facts Report: An Analysis of ICT R&D in the EU. Luxemburgo: Publications Office of the European Union, 117 pp. Online edition.

Mas, M., J. Quesada (dirs.), E. Uriel, J. Fernández de Guevara, C. Albert, E. Benages, L. Hernández, C. Mínguez and J.C. Robledo:

La economía intangible en España: Evolución y distribución por territorios y sectores (1995-2014). Madrid; València: Cotec: Ivie, 77 pp.

Maudos, J. (coord.):

Mediterráneo Económico: "El futuro del sector bancario español tras la reestructuración". Vol. 29 (March). Almería: Cajamar Caja Rural, 404 pp.

Maudos, J., E. Benages and L. Hernández:

El valor económico de las actividades basadas en el conocimiento en España y sus regiones. Madrid: Ramón Areces Foundation, 139 pp.

Maudos, J. and J. Fernández de Guevara:

Condiciones financieras de las empresas españolas: Efectos sobre la inversión y la productividad. Bilbao: BBVA Foundation, forthcoming.

Pastor, J.M. (dir.), J. Aldás-Manzano, L. Serrano, Á. Soler and I. Zaera:

La contribución socioeconómica de la Universidad de Valladolid. Valladolid: Universidad de Valladolid, forthcoming.

Pérez, F. (dir.), J. Aldás-Manzano, J.M. Peiró, L. Serrano, B. Miravalles, Á. Soler and I. Zaera:

Itinerarios de inserción laboral y factores determinantes de la empleabilidad: Formación universitaria versus entorno. Bilbao: BBVA Foundation, forthcoming.

Pérez, F., J. Aldás-Manzano (dirs.), R. Aragón and I. Zaera:

U-Ranking 2017: Indicadores sintéticos de las universidades españolas. 5ª edición. València: BBVA Foundation and Ivie, 140 pp.

Ramos, J., N. Anderson, J.M. Peiró and F. Zijlstra (eds.):

Creativity and Innovation in Organizations: Current Research and Recent Trends in Management. London: Routledge, 140 pp.

Reig, E. (dir.), F. Pérez, J. Quesada, L. Serrano, C. Albert, E. Benages, J. Pérez and J. Salamanca:

La competitividad de las regiones españolas ante la economía del conocimiento. Bilbao: BBVA Foundation, 349 pp.

Samoili, S., G. De Prato, M. Mas, J. Fernández de Guevara (eds.), E. Benages, L. Hernández, C. Mínguez, J. Pérez, J.C. Robledo, J. Salamanca, M. Solaz, M. López and F. Rossetti:

The 2017 PREDICT Dataset Methodology. Luxembourg: Publications Office of the European Union, 140 pp.

Serrano, L., F. Pérez, M. Mas, E. Uriel (dirs.), E. Benages and J.C. Robledo:

Acumulación y productividad del capital en España y sus comunidades autónomas en el siglo XXI. Bilbao: BBVA Foundation, 182 pp.

Villar, A.:

Lectures on Inequality, Poverty and Welfare. Cham (Switzerland): Springer International Publishing.

6.2.2. BOOK CHAPTERS

Arribas, I., K. Louhichi, A. Perni, J.E. Vila and S. Gómez:

"Modelling Farmers' Behaviour Toward Risk in a Large Scale Positive Mathematical Programming (PMP) Model", in Tsounis, N. and A. Vlachvei (eds.): *Advances in Applied Economic Research. Proceedings of the 2016 International Conference on Applied Economics (ICOAE).* Cham (Switzerland): Springer International Publishing, pp. 625-643.

Burguet, R., J.J. Ganuza and J. García-Montalvo:

"The microeconomics of corruption", en Corchón, L. and M.A. Marini (eds.): *Handbook of Game Theory and Industrial Organization.* Cheltenham (UK): Edward Elgar Publishing Ltd., forthcoming.

Carbó, S.:

"El reto de la financiación en tiempos de consolidación fiscal", in de la Cámara, G., J.C. Díez and F. Lombardo (coord.): *Libro blanco de la economía del agua.* Madrid: McGraw-Hill Education, ch. 16, pp. 209-222.

"Prólogo", in Deprés, M., R. Villegas and J. Ayora (eds.): *Manual de regulación bancaria en España.* Madrid: Fundación de las Cajas de Ahorros - FUNCAS, pp. 17-20.

Cruz, P., J. Fernández de Guevara and J. Maudos:

"Interest rates and net interest margins: the impact of monetary policy", en Chesini, G., E. Giarretta and A. Paltrinieri (eds.): *The Business of Banking: Models, Risk and Regulation.* Basingstoke (UK): Palgrave Macmillan, pp. 5-33.

Escribá, A., M. Iborra, V. Safón and I. Zaera:

"Higher Education in Management: The Case of Spain", in Dameron, S. and T. Durand (eds.): *The Future of Management Education. Volume 1: Challenges facing Business Schools around the World*. London: Palgrave Macmillan, ch. 5, pp. 139-180.

Fernández de Guevara, J. and J. Maudos:

"Competition in the European banking markets in the aftermath of the financial crisis", in Bikker, J.A. and L. Spierdijk (eds.): *Handbook of Competition in Banking and Finance*. Cheltenham (UK): Edward Elgar Publishing Ltd., ch. 7, pp. 118-138.

García, E., V. Martínez, S. Ortiz and J.M. Peiró:

"Engaged teams deliver better service performance in innovation climates", in Ramos, J., N. Anderson, J.M. Peiró and F. Zijlstra (eds.): *Creativity and Innovation in Organizations: Current Research and Recent Trends in Management*. London: Routledge, ch. 9.

García-Montalvo, J. and M. Reynal:

"Civil Wars", in Moghaddam, F.M. (ed.): *The SAGE Encyclopedia of Political Behavior*. London: Sage Publications, pp. 98-102.

Goerlich, F.J.:

"Crecimiento y distribución: Desigualdad, pobreza y condiciones de vida", in Ariño, A. and J. Romero (eds.): *Estructura Social Valenciana*. València: Ed. Alfons el Magnànim, forthcoming.

Gracia, E., J. Ramos, C. Moliner and V. Martínez:

"Gestión y manejo del trabajo emocional para la prevención de riesgos laborales", in García, A.L. (ed.): *Manual de Ergonomía y Psicosociología para la Prevención de Riesgos Laborales*. Oviedo: Universidad de Oviedo, pp. 483-509.

Henao, D. and J.M. Peiró:

"The Importance of Empowerment in Entrepreneurship", in Tur, A. and D.E. Ribeiro (eds.): *Inside the Mind of the Entrepreneur: Cognition, Personality Traits, Intention, and Gender Behavior*. Cham (Switzerland): Springer International Publishing, forthcoming.

Martí, J., E. Méndez and J. Aldás-Manzano:

"The motivational effects of educational video games: An experimental design", in Gómez, L. (ed.): *ICERI2017 Proceedings: 10th International Conference of Education, Research and Innovation*. València: IATED Academy, pp. 7204-7211.

Peiró, J.M.:

"Liderazgo y salud laboral", in García, A.L. (ed.): *Manual de Ergonomía y Psicosociología para la Prevención de Riesgos Laborales*. Oviedo: Universidad de Oviedo, pp. 545-572.

Ramos, J., N. Anderson, J.M. Peiró and F. Zijlstra:

"Introduction – Studying innovation in organizations: a dialectic perspective", in Ramos, J., N. Anderson, J.M. Peiró and F. Zijlstra (eds.): *Creativity and Innovation in Organizations: Current Research and Recent Trends in Management*. London: Routledge, pp. 1-4.

Recuero, N., M.F. Blasco, J. García de Madariaga and J. Aldás-Manzano:

"The impact of market oriented strategies in sustainable tourism of archaeological sites", in Flavián, C. (ed.): *22nd International Conference on Corporate and Marketing Communications: Challenges of Marketing Communications in a Globalized World. Proceedings Book*. Zaragoza: Universidad de Zaragoza, Session IV(a), pp. 310-313.

Schreyer, P. and **M. Mas**:

"Measuring health services in the National Accounts: An international perspective", in Aizcorbe, A., C. Baker, E. Berndt and D. Cutler (eds.): *Measuring and modeling health care costs*. Chicago: University of Chicago Press, forthcoming.

Seth, S. and **A. Villar**:

"Human Development, Inequality and Poverty: Empirical Findings", in D'Ambrosio, C. (ed.): *Handbook of Research on Economic and Social Well-being*. Cheltenham (UK): Edward Elgar Publishing Ltd., forthcoming.

"The Measurement of Human Development and Poverty", in D'Ambrosio, C. (ed.): *Handbook of Research on Economic and Social Well-being*. Cheltenham (UK): Edward Elgar Publishing Ltd., forthcoming.

6.2.3. ARTICLES

REFEREED JOURNALS:

Abdelsalam, O., M. Duygun, J.C. Matallín and **E. Tortosa-Ausina**:

"Is Ethical Money Sensitive to Past Returns? The Case of Portfolio Constraints and Persistence in Islamic Funds", *Journal of Financial Services Research*, forthcoming.

Albarran, P., **C. Herrero**, J. Ruiz-Castillo and **A. Villar**:

"The Herrero-Villar approach to citation impact", *Journal of Informetrics*, 11(2), May, pp. 625-640.

Alvarado, A., J.E. Bigné, **J. Aldás-Manzano** and R. Currás:

"A scale for measuring consumer perceptions of corporate social responsibility following the sustainable development paradigm", *Journal of Business Ethics*, 140(2), January, pp. 243-262.

Arribas, I., J. Peiró and **E. Tortosa-Ausina**:

"Is full banking integration desirable?", *Journal of Banking & Finance*, forthcoming.

Arribas, I., K. Louhichi, A. Perni, J.E. Vila and S. Gómez:

"Modelling Farmers' Behaviour toward Risk in a Large Scale Positive Mathematical Programming (PMP) Model", *International Journal of Computational Economics and Econometrics*, forthcoming.

Arribas, I. and A. Urbano:

"Multiproduct trading with a common agent under complete information: Existence and characterization of Nash equilibrium", *Journal of Economic Theory*, 167, January, pp. 14-38.

Ayala, Y., **J.M. Peiró**, N. Tordera, L. Lorente and J. Yeves:

"Job Satisfaction and Innovative Performance in Young Spanish Employees: Testing New Patterns in the Happy-Productive Worker Thesis-A Discriminant Study", *Journal of Happiness Studies*, 18(5), October, pp. 1377-1401.

Beltrán, M., **E. Reig** and V. Estruch:

"Assessing eco-efficiency: A metafrontier directional distance function approach using life cycle analysis", *Environmental Impact Assessment Review*, 63, March, pp. 116-127.

Cabral, A., P. Gottardi and **F. Vega-Redondo**:

"Risk sharing and contagion in networks", *The Review of Financial Studies*, 30(9), September, pp. 3086-3127.

Carbó, S., J.M. Mansilla and F. Rodríguez:

“Monetary policy, implicit interest rate, and relative net trade credit”, *Revista de Economía Aplicada*, XXV(73), Spring (primavera), pp. 21-54.

“The effects of bank market power in short-term and long-term firm credit availability and investment”, *Spanish Journal of Finance and Accounting = Revista Española de Financiación y Contabilidad*, 46(1), pp. 1-27.

Carbó, S., P.J. Cuadros and F. Rodríguez:

“Do banks and industrial companies have equal access to reputable underwriters in debt markets?”, *Journal of Corporate Finance*, 45, August, pp. 176-202.

Carbó, S., R. J. Rosen and F. Rodríguez:

“Are covered bonds a substitute for mortgage-backed securities?”, *Journal of Economic Policy Reform*, 20(3), pp. 238-253.

Carbó, S., S. Mayordomo and F. Rodríguez:

“Disentangling the effects of household financial constraints and risk profile on mortgage rates”, *The Journal of Real Estate Finance and Economics*, forthcoming.

Cruz, P., J. Fernández de Guevara and J. Maudos:

“Determinants of bank’s interest margin in the aftermath of the crisis: the effect of interest rates and the yield curve slope”, *Empirical Economics*, forthcoming.

“The evolution of market power in European banking”, *Finance Research Letters*, 23, November, pp. 257-262.

Duernecker, G. and F. Vega-Redondo:

“Social Networks and the Process of Globalization”, *The Review of Economic Studies*, forthcoming.

Gill de Albornoz, B. and S. Rusanescu:

“Foreign ownership and financial reporting quality in private subsidiaries”, *Spanish Journal of Finance and Accounting = Revista Española de Financiación y Contabilidad*, forthcoming.

Giménez, V. M., C. Thieme, D. Prior and E. Tortosa-Ausina:

“An international comparison of educational systems: a temporal analysis in presence of bad outputs”, *Journal of Productivity Analysis*, 47(1), February, pp. 83-101.

Goerlich, F.J.:

“Typology and representation of alterations in territorial units: A proposal”, *Journal of Official Statistics (JOS)*, forthcoming.

Goerlich, F.J. and I. Cantarino:

“Grid poblacional 2011 para España: Evaluación metodológica de diversas posibilidades de elaboración”, *Estudios Geográficos*, Instituto de Economía, Geografía y Demografía - Iegd - CSIC, LXXVIII (282), January-June, pp. 135-163.

Goerlich, F.J., I. Cantarino and E. Gielen:

“Clustering cities through urban metrics analysis”, *Journal of Urban Design*, 22(5), July, pp. 689-708.

González, V., J.P. Gamboa and J.M. Peiró:

“University Graduates’ Employability, Employment Status, and Job Quality”, *Journal of Career Development*, forthcoming.

Hernández, B., **J. Aldás-Manzano**, C. Ruiz and S. Sanz:

“Perceived value of advanced mobile messaging services. A cross cultural comparison of Greek and Spanish users”, *Information Technology & People*, 30(2), pp. 104-112.

Herrero, C. and **A. Villar**:

“The Balanced Worth: A Procedure to Evaluate Performance in Terms of Ordered Attributes”, *Social Indicators Research*, forthcoming.

Hofman, A.A., M. Mas, C. Aravena and **J. Fernández de Guevara**:

“Crecimiento económico y productividad en Latinoamérica. El proyecto LA-KLEMS”, *El Trimestre Económico*, 84(334), April-June, pp. 259-306.

Korkmaz, G., C.J. Kuhlman, S.S. Ravi and **F. Vega-Redondo**:

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6.2.4. OTHER PUBLICATIONS

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7. RESEARCH AND ECONOMIC STUDIES

The Institute conducts research and economic studies not only to further its own areas of specialization, but also in response to demands by other institutions and firms with which the **Ivie** has contracts. The following projects were carried out during 2016 (the financial year during which the project was developed is in brackets next to the title):

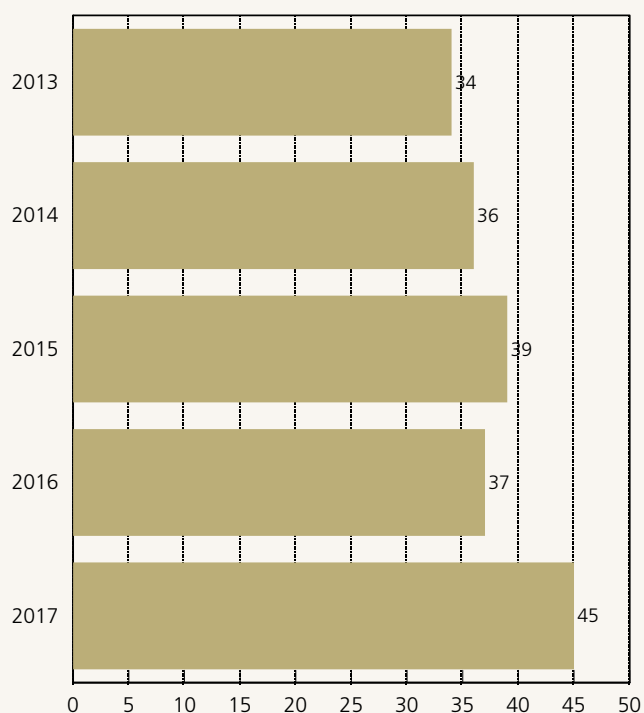
7.1. CONTRACTS WITH OTHER INSTITUTIONS

7.1.1. NATIONAL

BBVA FOUNDATION-IVIE RESEARCH PROGRAMME

The BBVA Foundation and the **Ivie** have been regularly pursuing various joint lines of research since 1995. The current program is designed to continue this partnership, consolidating priority research areas, and taking into account the strengths of accumulated experience and the new challenges facing Spanish society. Its core lines are *Development, productivity and competitiveness in the digital era*, *Welfare and sustainability*, and *Firms, institutions and policy evaluation*.

Figure 5. Studies and reports carried out or in course of preparation



During 2017 the following studies were carried out under this Programme:

■ CAPITAL STOCK IN THE SPANISH ECONOMY (2016-2017)

The objective of this project for the BBVA Foundation is to consolidate statistics on the physical capital stock in Spain, adapted to the new 2009 OECD methodology and the new European System of Accounts (ESA 2010). In 2017, the new series of wealth capital and productive capital (or volume indices of capital services) were updated based on the aforementioned methodology. The national series, corresponding to the period 1964-2015, presents a disaggregation of 19 types of assets for each of the 31 industries considered (CNAE 2009). The disaggregation allows two assets of particular importance to be analyzed: infrastructures and assets associated with new technologies (hardware, software and telecommunications), as well as the distinction between tangible and intangible assets, following the guidelines of ESA-2010.

The same methodology was used for estimating the territorial series for the magnitudes mentioned above, covering the period 1964-2014. In this case, information is available for 19 types of assets and by industries: 25 for the autonomous communities and 15 for the provinces.

As well as the territorial information they provide, another valuable feature of the series is the disaggregation of private and public sector investment; in the latter sector, investment is also broken down into six types of infrastructure. The wealth of estimations they contain enables the study of capitalization to be approached from multiple perspectives, making the data bank an essential tool for research on sources of growth in Spain.

In addition, 2017 saw the publication of the report *Ciclo económico, acumulación de capital en España y crecimiento regional (en el siglo XXI)*, (Economic cycle, capital accumulation in Spain and regional growth in the 21st century), which presents the main results of the latest estimations for investment and capital stock in the Spanish economy. This analysis centers on the evolution of investment and capital stock since 1995, covering the most recent complete cycle of the Spanish economy from the expansion initiated in the mid-1990s until the end of the recent crisis. The report also examines the contribution of capital accumulation to growth in the autonomous communities during the 21st century.

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■ U-RANKING PROJECT: PERFORMANCE INDICATORS OF SPANISH UNIVERSITIES (2017)

The purpose of this project financed by the BBVA Foundation is to build a system of performance indicators of Spanish universities of wide coverage, rigorous in its approach and properly framed in the international initiatives in this area: the Programme on Institutional Management in Higher Education (IMHE) led by the OECD, the International Ranking Expert Group (IREG) founded by the UNESCO European Centre for Higher Education (UNESCO-CEPES) and the EUA Rankings Review Report.

The research is approached from the careful analysis of the information provided by the simple and synthetic indices used, assessing the criteria for aggregation of simple indicators, the sensitivity of the synthetic indices and the rankings resulting from changes in the aggregation procedures. The project focuses on four types of university rankings based on different approaches and levels of aggregation. The first is U-Ranking, which analyzes the performance of the university system and sums up in a single index its achievements in teaching, research, and innovation and technological development. The second general ranking, U-Ranking Volume, takes into account the combined effect of outcomes and size, ordering universities according to their overall contribution to the mission entrusted to the university system. In addition to these general rankings, two more specific ones are considered. U-Ranking Dimensions focuses on ranking universities in each specific dimension of their mission—teaching, research, and innovation and technological development—while U-Ranking Degrees ranks the bachelor's degrees offered by universities, providing information that is highly relevant for students in the process of deciding what university to study at.

In June 2017, the results of the fifth edition of this project were presented, with current data uploaded to the U-Ranking website for a total of 61 universities (48 public and 13 private). This edition includes an analysis of graduates' employability based on data from the Ministry for Education, Culture and Sport on the employment integration process between 2010 and 2014 among graduates in the academic year 2009-2010. The study uses the rate of Social Security registrations for these graduates to construct a homogenous employability indicator that corrects the effect of regional variations in unemployment rates.

U-Ranking results are published on the website www.u-ranking.es, which is organized into two main sections. The section *U-Ranking of Spanish Universities* presents the results for general rankings. The site also offers partial indexes for the 2014-2017 editions and a summary of the methodological approach used. The second main section, *Select a University*, offers an interactive tool that allows students and other interested parties to construct their own customized ranking of bachelor's degree courses based on their preferred area(s) of study, geographical preferences and academic orientation. The tool provides information on more than 2,312 official bachelor's degrees from 1,007 schools and faculties in 61 public and private universities.

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■ **ESENCIALES SERIES (2017)**

In 2015, the **Ivie** and the BBVA Foundation launched Esenciales [Essentials], a new series of periodicals designed to disseminate the main results of the Research Program carried out by the two institutions over the last twenty years. Brief, accessible and with the latest data available, the different issues in this series will examine questions dealt with in recent research, always in connection with the present.

During 2017, a total of 10 periodicals were published analyzing the Spanish economy in relation to questions as diverse as income distribution inequality, R&D investment, public investment, the knowledge economy, regional competitiveness, unemployment post-crisis, trade integration, and the Spanish university system.

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■ MODELS OF UNIVERSITY EXCELLENCE. BENCHMARKS FOR STRATEGIC GROUPS IN THE SPANISH UNIVERSITY SYSTEM (2015-2017)

The aim of this research project for the BBVA Foundation is to identify experiences of university excellence in Spain, in the various areas of activity in higher education institutions (teaching, research and transfer). The study examines their particular characteristics and identifies the contributing factors which could be adopted, imitated or adapted by other institutions with similar characteristics (benchmarking).

The development of this analysis and proposals for improvement were grounded on the definition of strategic groups identified in the previous project undertaken for the BBVA Foundation, *La universidad española: grupos estratégicos y desempeño* (The Spanish university: *strategic groups and performance*). After identifying the strategic groups and explaining the heterogeneity of inter- and intragroup results, a sample of cases of excellence will be defined with representations from each group and examples of outstanding practices in each of the universities' missions. The study will identify organizational routines and systems, use of resources, and the capabilities and strategies that underpin performance excellence, to outline behavior patterns that may form the basis for improvement proposals which other universities can adopt.

The alignment of six factors has been identified as particularly relevant for achieving good performance:

1. Clear and consistent strategic positioning
2. Organizational structure
3. Resource development
4. Decision making and analysis
5. Governance
6. Culture and climate

The alignment of these six factors is the most noteworthy and consistent pattern in all the cases analyzed. Although each university may pursue a different positioning, its success will depend on the robust, consistent and lasting adjustment of this positioning with the other factors.

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■ FINANCIAL CONDITIONS OF SPANISH COMPANIES: EFFECTS ON INVESTMENT AND PRODUCTIVITY (2016-2017)

The recent international financial crisis has sparked renewed interest in the impact conditions of access to financing have on investment, employment and productivity. This study for the BBVA Foundation analyzes the way lending behavior at different stages of the cycle affects the level and composition of investment in the medium-term productivity of companies, economic sectors and economies. These questions are especially relevant given Spain's poor track record for productivity, which conditions its growth potential. The Spanish case also provides a good testing ground for analysis because of its high number of SMEs, which are heavily dependent on bank financing, and because of the magnitude of the banking crisis and the subsequent tightening of the conditions of access to financing. Some of the specific questions analyzed in this research project are:

- the impact on productivity of the intense accumulation of investment financed by the credit boom, the criteria underlying the banking decisions that led to the boom, and the anticipated duration of its effects,
- the significance of levels of company and sector dependence on banks for financing in explaining the evolution of their productivity,
- the determinants of productivity at sector and aggregate level, taking the role of financial variables into account,
- and a microanalysis of two variables —investment and productivity— at sector and aggregate level.

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■ ASPECTS OF WELL-BEING: A MULTIDIMENSIONAL APPROACH TO MEASURING THE QUALITY OF LIFE IN SPAIN AND ITS REGIONS (2016-2017)

The misuse of GDP as a measure of development or well-being has led many researchers and institutions to propose alternatives that reflect the goal of improving the living conditions of citizens and peoples, and some of these new approaches have gradually been gaining ground in the international arena. The Human Development Report (HDR), launched by the United Nations in 1990, was an important step in this direction because it linked human development to variables related to health and education. Also, since the publication in 2009 of a report by Stiglitz, Sen and Fitoussi that proposed 30 measures for improving measurement of development, well-being and progress, significant advances have been made in developing well-being metrics that go beyond economic variables.

When it comes to assessing different policies, the idea of well-being, or quality of life, is one that has economic, ethical and political dimensions. Measuring the progress of a society means assessing the well-being of individuals, taking into account the options open to them, their achievements, and their level of satisfaction. Purely economic variables are not the only determinants of well-being. The concerns of individuals are not limited to their wealth or ability to consume material goods: they also care about their health, the quality of their work, their social relations, the environment and their children's future. Other aspects of human well-being include social integration, political participation and legal certainty.

The purpose of this research, conducted for the BBVA Foundation, is to offer an insight into the current situation as regards well-being in Spain, the situation in the country's autonomous communities, and how this has evolved in recent years. To this end, the researchers involved have adopted the methodology of the OECD Better Life Initiative. Subject to statistical limitations related to the availability of regional data, they analyze the

aspects and variables identified in the initiative for Spain and its autonomous communities in the period 2006-2014.

The authors of the study begin by comparing Spain, the OECD as a whole, and several European countries (Germany, the United Kingdom, the Netherlands, Italy and Portugal) in the period 2009-2014. This comparison serves as a means of analyzing the Spanish situation and its evolution in this limited context, which is compared with that of the OECD as a whole and the selected countries in particular. The study offers a schematic overview of Spain's evolution in this context, based on a limited number of variables.

The authors go on to offer an in-depth analysis of the evolution of Spain and its autonomous communities with respect to the variables selected by the OECD, grouping them into dimensions that differ slightly from those proposed by the OECD, and using additional variables in some cases to offer a clearer picture of how well-being has evolved. The variables are grouped into five major blocks: population and work, inequality and poverty, health, education, and social relations. Finally, the situation in each region is summed up in relation to a group of selected variables, and the level of life satisfaction is analyzed in each case.

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■ **PATHWAYS TO LABOR MARKET INTEGRATION AND DETERMINANTS OF EMPLOYABILITY: UNIVERSITY TRAINING VS. ENVIRONMENT (2016-2017)**

The main purpose of university rankings is to order the universities in a geographical area (national or international) based on their teaching, research and transfer outcomes. Depending on the methodological approach, some rankings focus exclusively on research results, offering a rather partial view of university missions. Others, such as U-Ranking, take into account the three dimensions indicated, offering a much fuller picture of the university system (within Spain in the case of U-Ranking). However, there is broad agreement that one aspect of university performance—the employability of graduates—is barely addressed. Generally, this is because until now there has been practically no reliable and comparable information available concerning employment rates and the fit between the competences of graduates of specific universities and the positions they occupy. In Spain, this situation changed very recently. Data on the employability of university graduates, broken down by degree and university, is now available thanks to information made public by the Ministry of Economy and Competitiveness and the National Statistics Institute in 2015. This data makes it possible to tackle a range of significant issues in this area.

This research project for the BBVA Foundation seeks to characterize pathways to labor market integration for graduates and identify determinants of employability in relation to specific degrees, branches of study and universities. The analysis of integration pathways will take into account the level and quality of employment in each case, the correspondence between training and the profile of positions held, stages of labor market integration, and changes in the job-qualification fit over these stages. In short, taking as its point of departure a known and significant fact in our economic context—higher unemployment rates among university graduates—the ultimate aim of this monograph is to examine the role of various types of determinants of employability, taking into account, as far as possible, environmental factors and factors related to the good practices of university institutions.

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■ GLOBALIZATION, LOCATION OF PRODUCTION, AND GROWTH (2016-2017)

Economic globalization in recent decades has had a major impact on the location of production processes, generating greater fragmentation and internationalization of production chains, many instances of offshoring of activities from advanced to developing countries, and a certain tendency towards reduction of income inequality between countries. These changes are explained by several factors, including lower transport costs, the information and communication technology revolution, advances in models of business management and organization, and the possibility of fragmenting production processes into a series of tasks that have different factor content and are carried out at different locations, which is facilitated by better functioning of markets. International relocation of production raises many questions related to the characteristics of this process and its consequences for the growth and well-being of countries.

The aim of this research project is to study the dynamics of international relocation of production and its impact on the economic growth of countries (Spain in particular) in the context of globalization and growth in international trade over the last half century and of the evolution of inequality in income distribution across countries. The following issues will be studied:

- The dynamics of international relocation of production, particularly how the intensity of this process has evolved in recent decades. Highly disaggregated data will be used to identify the sectors, industries and products that have been central to this process in different periods.
- The impact of relocation on the growth of countries, determined by performing an econometric analysis within the analytical framework of growth and convergence equations. An analysis by world regions and countries of the winners and losers in the international relocation process in different periods will also be performed, and the industries whose relocation accounts for the most significant impacts will be identified.
- The position of the Spanish economy in the process of international relocation of production and the consequences of this for the country's development. The study will focus on how Spain has participated in this process (in which sectors and industries, and with what degree of intensity) over its various stages, and how this has affected its economic growth dynamics.

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■ THE ECONOMIC COSTS OF THE INSTITUTIONAL QUALITY DEFICIT AND CORRUPTION IN SPAIN (2016-2017)

A country's economic development depends crucially on the quality of its government institutions, and the costs of corruption go well beyond the value of misappropriated public funds. Poor governance and corruption undermine key elements in the functioning of an economy and result in lower productivity, higher unemployment, and wages that are lower than would otherwise be possible with the technology and human capital available.

This report produced for the BBVA Foundation has two main objectives: first, to compare institutional quality and perceived levels of corruption in Spain with those in other countries around the world, particularly the main European economies; and second, to make a rough estimate of the cost of the country's institutional quality deficit in terms of economic development. The analysis also includes a review of some of the main challenges related to the institutional framework and governance in Spain and sets out lines of action that could lead to improvements in these areas. Based on scientific literature that focuses on the key determinants of productivity and economic growth, the report makes intensive use of the institutional quality indicators developed within the framework of the *Worldwide Governance Indicators* project. It also includes a summary of the data and information generated in this area for over 200 countries, by 31 public, private and nongovernmental organizations.

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Fernando Jiménez (Universidad de Murcia and Inst. Carlos III-Juan March de Estudios e Investigaciones)

■ GLOBAL CHAINS OF PRODUCTION, KNOWLEDGE SPECIALIZATION AND VALUE ADDED (2017)

The fragmentation of global production chains has highlighted the relevance of specialization in tasks or links in these chains, rather than in products or branches. Different tasks imply the use of different factors, particularly in jobs of varying qualities, in other words, how much human and technological capital they entail. The extent to which companies, sectors and economies have the capacity to generate value added, productivity, and competitiveness will depend on the levels of knowledge intensity involved in their activities.

This research project, carried out for the BBVA Foundation, analyzes two issues jointly: productive specialization in Spain in the use of knowledge, and positioning in the international marketplace (Solaz, 2016). The point at which these two issues are connected is in the study of foreign trade in terms of value added, drawing on new foreign trade data banks. This research will assess which production factors are incorporated in imports and exports, to further understanding on the relevance of these two knowledge flows, particularly the significance of unqualified labor and human capital to trade flows.

The project has two stages:

1. The first will analyze the added value and knowledge included in production, Spanish exports and imports in the recent period, and will evaluate the competitiveness of the Spanish economy from this new perspective.
2. In the second stage, the trade balance will be broken down and evaluated in terms of knowledge, and compared with other economies for which appropriate information is available.

The study will analyze the evolution of the Spanish economy from this perspective before and after the crisis.

Research team:

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Eva Benages (**Ivie**, Universitat de València)

Marta Solaz (**Ivie**)

■ NEW TECHNOLOGIES AND THE CULTURAL AND CREATIVE INDUSTRIES (2017)

The cultural and creative industries (CCI) represent a new sector of the economy that is destined to play an important role in advanced economies in the 21st century. The European Union has recognized the profound transformations information and communication technologies (ICT) have brought to this sector, and in its Strategy 2020 has committed to ensuring that the cultural sector contributes to employment and growth in Europe.

The study aims to analyze the evolution of ICT and the cultural and creative industries in Spain since 1995, disaggregated as extensively as possible with the available information, from a three-way perspective:

1. The industry perspective: aims to provide the main macro magnitudes from National Accounts to measure the size of these industries in value added and/or employment terms.
2. The employment perspective: in line with the national classification of occupations (CNO).
3. The investment perspective: analyzing expenditure on CCI-related activities that can be considered as investment, for all economic sectors.

Research team:

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■ FUNCTIONAL URBAN AREAS, SUSTAINABILITY, AND QUALITY OF LIFE (2017)

The large urban agglomerations, home to most of the Spanish population, are extremely heterogeneous: neither populations nor activities are uniformly distributed across urban centers, and wealth and poverty are concentrated in certain neighborhoods characterized by factors such as high/low quality housing, plentiful/scarce green spaces, or better/worse accessibility to public services for richer/poorer areas. Immigrants also frequently settle in clusters by nationalities or geographical areas. Despite this, cities have attracted much less systematic attention than regions as a field for socio-economic research. Moreover, there is very little statistical information available on the internal characteristics of cities with which to make comparisons. In contrast to this traditional scarcity of statistical data, however, increasingly abundant geographical information is available in digital formats, largely motivated by EU institutions.

This monograph, firstly, sets out to compile information with which to compare the present situation and the dynamic followed in recent years by most Functional Urban Areas (FUA) in Spain, defined by the Spanish National Statistics Institute (INE) according to DG-Regio and Eurostat criteria. Each of these agglomerations contains a varying number of municipalities, which are analyzed in line with methodology set out in the EU's Urban Audit and Urban Atlas projects.

Secondly, the project will study and compare the internal structure of some of the largest FUA (Madrid and Valencia, for example) by analyzing the internal spatial distribution of population, income and employment, as well as pockets of localized poverty and the differences in citizens' access to basic public services and green zones depending on the locality.

As well as assigning the total population, other methods will also be tested to break it down by gender, age groups and nationality. Compilation and geo-referencing of other complementary variables for quality of urban life will also enable the research team to construct aggregated indicators of social sustainability at the large urban agglomeration level.

Research team:

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■ EDUCATIONAL RESOURCES, OPPORTUNITIES AND RESULTS: HOUSEHOLD AND REGIONAL DIFFERENCES (2017)

The data bank generated with the Education Accounts in Spain 2000-2013 provides practically all the information broken down by region, but was not used in the monograph presented in March 2016 which already contained over 300 pages devoted to the case study of Spain and international comparisons.

The data available at the regional level is, however, extremely valuable, in part because of the considerable differences between autonomous communities in terms of educational resources and policies. Likewise, differences in household income and educational level also have a notable territorial dimension that enhances the possibilities for analysis when regional information is considered.

A third enlightening reference is the new wave of results from the 2015 PISA Report, published at the end of 2016, and which for the first time provides regionalized data for all the autonomous communities.

This set of circumstances offers a valuable opportunity to analyze the differences in educational resources and outcomes and their influence on equality of opportunities by combining regional and territorial perspectives. This is the aim of the present project, which follows a similar approach to that used in the monograph on Spain.

The information will first be updated to include 2015; a comparative analysis of the regional education systems for the period 2000-2015 will then be conducted from three perspectives: structure and resources, content of the available offer, and educational outcomes.

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RESEARCH PROGRAMS WITH OTHER INSTITUTIONS

■ THE ECONOMIC VALUE OF KNOWLEDGE-BASED ACTIVITIES IN SPAIN AND ITS REGIONS (2016-2017)

In the context of Spain's recovery from a severe economic and financial crisis, knowledge-based activities have had a substantial impact on productivity, economic development and income generation in the country's regions, and this continues to be the case. This is a cross-cutting issue that affects the production system, the education system and the labor market, and one that may have a huge influence on shaping Spain in the 21st century. In this research, the aim of the Ramón Areces Foundation and the **Ivie** was to help lay the foundations for the promotion of policies that facilitate the development of knowledge and its more effective use to benefit society as a whole.

The research was structured in two parts. First, a methodology for building a database that quantifies the value of knowledge-based economic activities in Spain and its autonomous communities was developed. This database was then used to assess how the intensity of knowledge use has evolved in Spain and examine regional differences in this area. The researchers analyzed the importance of production specialization and the intra-sectoral effect when it comes to explaining these differences, and their effects on productivity and gross domestic product (GDP) per capita.

The database offers a high degree of sectoral disaggregation (27 sectors at the national level and 21 at the regional level) and also provides disaggregated information for the factors of production (capital and labor) that contribute to knowledge.

Research team:

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■ **EMPLOYMENT AND INCOME OPPORTUNITIES IN SPAIN 2007-2016. THE IMPACT OF THE CRISIS (2017)**

In this study, the Ramón Areces Foundation and the **Ivie** analyze the distribution of material welfare in Spain, taking into account the way social groups and the autonomous communities have evolved. The authors first carry out a disaggregated analysis, and then formulate a synthetic evaluation to facilitate comparison. The study centers on the most recent available data, but also makes a comparison with the situation in 2008 in order to estimate the impact the crisis has had on the distribution of material welfare. The base reference for the study is the Spanish autonomous communities, although Spain's situation is also framed within its surrounding context (European Union and OECD).

Research team:

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Ángel Soler (**Ivie**, Universitat de València)

■ **INTANGIBLE ASSETS IN SPAIN. EVOLUTION AND DISTRIBUTION BY REGIONS AND SECTORS 1995-2014 (2016-2017)**

This research, carried out for the Cotec Foundation for Innovation, aims to estimate investment in intangible assets “beyond GDP” (i.e., those which have not yet been included in GDP by systems of national accounts) for Spain's autonomous communities. As a result of this research, Spain has become the first country in the European Union for which this regional-level information is available. The estimates also offer a high degree of sectoral disaggregation in order to supplement other information already available on sources of growth in Spanish regions during the period 1995-2014. To provide as complete a picture as possible, both the database and the accompanying report present information for intangible assets already included in the definition of gross domestic product (GDP) by the National Accounts of Spain. This information is based on estimates made by BBVA Foundation–**Ivie** annually.

Intangible assets (also called knowledge-based assets by the Organization for Economic Cooperation and Development, OECD) can be classified in the two blocks referred to in the previous paragraph. The assets that have already been recognized as such by national accountants (and therefore included in GDP) are software and databases, mineral exploration and evaluation, and artistic and cultural originals. More recently, R&D has also been included, having gone from being considered intermediate consumption to being treated as part of investment. Intangible assets “beyond GDP” include those that contribute to increasing value added by enhancing brand image (such as design, advertising and market research), expenditure to increase human capital by training employees to take up jobs or perform job functions, and expenditure to improve the internal organization of companies.

The report that accompanies the database presents the main features of approaches to investment in intangible assets in Spain and its autonomous communities in the period 1995-2014. The definition of intangible assets, the methodology and the statistical sources used are compatible with those used at the international level, and series are compatible with those provided by BBVA Foundation–**Ivie** for investment in tangible assets and the intangible assets already included in the National Accounts of Spain that provide GDP information.

Research team:

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■ **CORPORATE GOVERNANCE, STRATEGY AND COMPETITIVENESS OBSERVATORY (GECE OBSERVATORY) (2017)**

The aim of the Corporate Governance, Strategy and Competitiveness Observatory in the Valencian Community (GECE) is to study levels of competitiveness in Valencian firms, and the factors and internal criteria that facilitate it. The agreement between the **Ivie** and Bankia to create the observatory also stipulates the publication of quarterly reports on its main conclusions, together with a collection of short informative notes (Keys to competitiveness) and descriptions of successful firms in the Valencian Community that can provide a benchmark for other companies.

The GECE Observatory will combine macroeconomic information (breakdown by sector) with new databases providing detailed information about firms, such as their financial statements, shareholders, capital structure, internal governance, etc.

Research team:

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■ **TECHNOLOGICAL CHANGES, WORK AND BUSINESS ACTIVITY (2017)**

This research project for the Economic and Social Council (CES) aims to take stock of the social and economic impacts resulting from the gradual introduction of the digital economy Spain, both in its most distinctive activities —providing services based on digital platforms— and in its permeation in other areas to modify processes in numerous ways.

The project has a four-fold aim. First, to identify the main impacts of these changes in two major spheres: employment and job content, and organization of work and companies. Second, to assess the implications of these impacts on the labor market, labor relations, business activity organization, and value chains. Third, to empirically evaluate these effects on the Spanish production system from the employment and business perspectives. And fourth, to analyze the factors conditioning the penetration of the digital economy, its probable scenarios, the barriers and levers that condition the take up of the opportunities it offers, and how to avoid the threats it poses. The project's interdisciplinary approach is reflected in a research team of specialists from various areas of the social sciences, and it is empirically oriented to the situation in Spain from a European perspective.

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■ PROMOTION, SOCIO-ECONOMIC DEVELOPMENT AND TERRITORIAL INTEGRATION OF THE VALENCIAN COMMUNITY (2017)

The aim of this collection of documents, developed for the Valencian Association of Entrepreneurs (AVE), is to provide information and analysis on relevant socio-economic questions related to the Mediterranean Corridor. The AVE champions the construction of the corridor as part of its mission to defend the interests of the Valencian Community, and also includes initiatives calling for rectification of the lower levels of resources, investment and public funding allocated to the region. The construction of the Mediterranean Corridor is framed within this context, as it is not being implemented at the rate nor in accordance with the terms agreed by the EU and to which the Spanish government has committed.

The AVE-Ivie partnership will develop two types of document and provide technical support for the dissemination of relevant figures

- a) *Corredor Mediterráneo* Documents. This series is designed to strengthen the statistical content of the Mediterranean Corridor support network, enhancing the information available for interventions promoting the importance and impact of the Corridor, and lending support to the six-monthly public presentations that monitor the corridor's progress.
- b) *Foco AVE* Documents. The project will publish regular brief documents describing the current evolution and position of the Valencian economy in the national context, providing a diagnosis of its strengths and weaknesses in terms of the future convergence toward a more knowledge-based economy with correspondingly higher levels of productivity and GDP per capita.

Research team:

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■ TECHNICAL ASSISTANCE FOR THE FAMILY BUSINESS CHAIR AT THE UNIVERSITAT DE VALÈNCIA (2017)

This project provides technical assistance to the Chair of Family Business of the Universitat de València (CEFUV) in areas of research and communication. Tasks undertaken include the gathering and analysis of secondary data, support in the integration and exploitation of databases, statistical consultancy and support, document layout, and help with maintenance of the CEFUV website.

Research team:

Carlos Albert (Ivie, Universitat de València)

■ EVALUATION REPORT ON THE RURAL DEVELOPMENT PROGRAM IN THE VALENCIAN COMMUNITY 2014-2020 (2017)

The aim of this project is to provide technical backing for the Valencian Agency for Agricultural Support and Guarantee (AVFGA) in evaluation tasks for the Rural Development Program (PDR) of the Valencian Community 2014-2020 for the year 2017. This support is divided into four main task blocks corresponding to the detail of interventions provided for in the PDR CV 2014-2020 Extended Evaluation Plan:

- Review and evaluation of the PDR objectives achieved and horizontal principles. This block is designed to evaluate the progress of the PDR-CV 2014-2020 and discover the extent of its implementation and the advances made toward achieving its targets. Evaluation of horizontal principles also falls within this block, namely, the achievements as regards equality of opportunities, members' participation, and sustainable development and climate change.
- Review and analysis of the Evaluation Questions to respond to the evaluation requirements set by the Commission and identification of further information needs. This analysis will be used to make recommendations regarding the progress of the rural development policy.
- Review and analysis of the environmental indicators included in the PDR CV 2014-2020 environmental report. Progress in these indicators will give some illustrations of the environmental impact the PDR had up to the end of 2016.
- Evaluation of the Communication Strategy and the communication objectives achieved by the PDR-CV 2014-2020. This study will calculate and analyze the indicators measuring the degree of dissemination or knowledge about the PDR among the Valencian general public.

Research team:

Pilar Chorén (**Ivie**)

Carlos Albert (**Ivie**, Universitat de València)

■ TECHNICAL ASSISTANCE FOR THE FINE TUNING OF AREAS WITH NATURAL CONSTRAINTS OF THE VALENCIAN COMMUNITY (2017)

This project aims to develop and apply a methodology for fine tuning of mountainous areas with natural constraints at the municipal level (LAU2) within the framework of the Rural Development Program of the Valencian Community 2014-2020. The study, commissioned by the Valencian Agency for Agricultural Support and Guarantee (AVFGA), will be carried out in accordance with European Commission guidelines.

Research team:

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Carlos Albert (**Ivie**, Universitat de València)

■ AUTONOMOUS COMMUNITY FUNDING: A NEW MODEL (2016-2018)

This research, undertaken by the **Ivie** for the Regional Ministry of Finance and Economic Model, addresses the Valencian Regional Government's need to analyze, argue and disseminate, based on solid technical and rigorous academic foundations, the Valencian Community's positions in the negotiations over the new regional funding model taking place between 2016 and 2018. The studies carried out during 2017 are classified in the following areas:

- Quantification of the effects of regional funding on welfare state provision. Three reports were prepared to evaluate expenditure on basic public services in the Valencian Community compared with other autonomous communities, and their relation to regional funding: *Gasto en educación y acceso a los servicios educativos*; *Gasto en sanidad y acceso a los servicios sanitarios*; and *Gasto en protección*

social y acceso a los servicios sociales (Education expenditure and access to educational services; Health expenditure and access to health services; and Social protection expenditure and access to social services).

- Calculation of the effects of regional funding on regional development in the Valencian Community. Three reports were prepared to identify the impact of underfunding on accessibility to public services, its effect on regional debt, and the region's position in the fiscal balances: *Superficie, dispersión y accesibilidad a los servicios públicos*; *El endeudamiento de las comunidades autónomas españolas: criterios y propuesta de condonación*; and *Los saldos de las balanzas fiscales: el caso de la Comunitat Valenciana en perspectiva comparada* (Surface area, spread and accessibility of public services; Debt in the Spanish autonomous regions: criteria and proposal for cancellation; and The bottom line in fiscal balances: the case of the Valencian Community from a comparative perspective).
- Development of a Valencian proposal for the new Funding Model. In the first stage, three documents provide the foundations for the new model: *Un modelo de financiación basado en la suficiencia global y la garantía de los Servicios Públicos Fundamentales*; *Recaudación Normativa: problemática y propuestas*; e *Ingresos fiscales: alternativas para aumentar los recursos de las comunidades autónomas* (A funding model based on overall sufficiency and guaranteed basic public services; Normative Revenue: questions and proposals; and Tax revenue: alternatives for increasing resources in the autonomous communities). The final report will be entitled *Propuesta de la Comunitat Valenciana para la financiación autonómica: el modelo valenciano de financiación autonómica* (Valencian Community proposal for regional funding: the Valencian regional funding model).
- Participation in the process to inform public opinion about the new model. The **Ivie** team has taken part in numerous meetings with experts from other autonomous communities on the question of regional funding, and organized two seminars to debate the characteristics of the new funding model and present the Valencian model: *Financiación autonómica, estabilidad presupuestaria y bienestar*; y *Una lectura coral del Informe de la Comisión de Expertos para la revisión de la Financiación Autonómica* (Regional funding, budgetary stability and welfare; and A joint reading of the expert commission report for the review of regional funding). Several other documents were also prepared for general dissemination, most notably the collection *Papeles de Financiación Autonómica* (Regional Funding Papers).

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■ STRATEGIC PLAN TO ATTRACT FOREIGN INVESTMENT TO THE VALENCIAN COMMUNITY 2017-2019 (2017)

The Strategic Plan to attract foreign investment into the Valencian Community, commissioned by the Valencian Institute of Business Competitiveness, covers the following issues:

1. Diagnosis of the Foreign Direct Investment (FDI) market. The different types of investment and their economic impact on the territory are analyzed, and the processes followed to invest abroad are explored from the business perspective.
2. Audit of FDI in the region. The recent evolution of FDI in the Valencian Community is examined through quantifiable figures in order to situate such investment in a global, national and regional context.
3. Analysis of competitors and SWOT (strengths, weaknesses, opportunities, and threats) analysis to identify the regions in strong competition with the Valencian Community.
4. Action plan: instruments for implementation and evaluation policies. This final point covers the policies, strategies and specific interventions that the Valencian Community should adopt in the short, medium and long term.

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■ TECHNICAL ASSISTANCE AND CONSULTATION IN THE FEASIBILITY ANALYSIS FOR THE ACTION PLAN PROPOSAL FOR THE TRANSFORMATION OF THE ECONOMIC MODEL (2017)

In line with its technical specifications, this contract will provide technical support and consultation to the Regional Ministry of Finance and Economic Model, through the Sub-Directorate General for the Economic Model, to analyze the feasibility of the Action Plan proposal for the transformation of the economic model in the Valencian Community, derived from internal deployment and with the necessary adjustments, harmonizing and structuring the available information, and ordering and prioritizing distinct options and variations.

The report covers eight activity types:

1. Review and update of the Economic Diagnosis that forms the basis for the strategic objectives and initiatives set out in the Action Plan for the transformation of the Valencian Community economic model.
2. Review and update of the corresponding SWOT scorecard, and the ordering and prioritization of the needs for action that will determine the priority and strategic initiatives of the Action Plan.
3. Validation and rationale of the strategic objectives of the Action Plan for each of the ten strategic lines set out in the Elche document.
4. Design of the intervention rationale. A scorecard with the lines of action and measures established to implement the strategic aims of each strategic line of the Action Plan.
5. Identify and create a synergy chart for the Action Plan to measure the effects and interactions among interventions.
6. Design a monitoring and evaluation system comprising execution, outcome and impact indicators. Set targets for the indicators up to 2027 and the values for the objectives in intermediate stages.
7. Timetable for the Action Plan, identifying intermediate and final milestones, and the rate of progress in each of the action lines.

8. Estimate the cost of implementing the priority actions in line with the estimated budget needed to put them into effect, and the difficulty associated with their implementation.

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ECONOMIC IMPACT ANALYSIS

■ ECONOMIC IMPACT OF THE 37TH VALENCIA TRINIDAD ALFONSO EDP MARATHON RACE (2017)

The objective of this study, commissioned by the Sports Club Correcaminos of Valencia—in coordination with Trinidad Alfonso Foundation and Valencia's Sports Foundation, was to (i) quantify the economic impact of the celebration of the 37th Valencia Trinidad Alfonso EDP Marathon, which took place in 2017, in terms of production, income (value added) and employment of the Valencian economy; and (ii) to analyze the runners' satisfaction with this sport event. In relation to the first aim, the expenditure required to host the event as well as the tourist expenditure made by the participants during their stay in Valencia have been estimated. Once the full direct costs associated to the marathon are computed, the overall impact is estimated using the input-output methodology. With respect to the second objective of the study, fieldwork was carried out, including a satisfaction survey of runners who took part in the race.

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■ ECONOMIC IMPACT OF THE TRINIDAD ALFONSO FOUNDATION'S PROGRAM TO SUPPORT SPORTS COMPETITIONS IN THE VALENCIAN COMMUNITY (2016-2018)

The Trinidad Alfonso Foundation has presented the rules governing its Competition Support Program, which is aimed at promoting and supporting the organization of official sports competitions in the Valencian Community. To be eligible for support, sports events must be official competitions (national or international), and funding recipients must be Spanish federations or universities that organize official sports competitions hosted in the region. In addition to raising the national and international profile of the Valencian Community, the aim is to encourage wealth creation in the regional economy, given that it is the spending by participants from outside the region that is most significant when it comes to generating economic impacts.

In this context, the aim of the study is to estimate the economic impact in terms of income (GDP) and employment associated with the Competition Support Program, taking into consideration all the competitions that will be funded during the period covered by the program. The estimated impacts are generated both by tourist spending (by participants from outside the Valencian Community) and expenditure on the organization of events. The report will provide an aggregate estimate of the economic impact of the program as a whole, and specific estimates for the competitions with the most significant impact. As in other economic impact studies, an input-output model will be used, and the corresponding table will be constructed for the Valencian Community.

In 2017, the second edition of this study will focus on the sports competitions in general with no individual reports per competition as in previous editions.

Research team:

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■ **THE ECONOMIC IMPACT OF MERCADONA (2015-2017)**

The objective of this study conducted for Mercadona is to estimate the economic impact the company has had on the Spanish economy in terms of employment and income (value added). To this end, three types of impacts are estimated: a) direct, deriving from the final sale of products in their stores; b) indirect, deriving from Mercadona's activity throughout the different sectors of the economy as a result of purchases from their suppliers and hiring various types of services; and c) induced, deriving from the consumption of income generated through direct and indirect impacts. The study began in 2015, and in early 2016 the first results concerning the impact of Mercadona's activity in 2015 were presented. In 2017, the research team studied the impact of the supermarket chain in 2016.

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■ **THE ECONOMIC IMPACT OF MERCADONA IN ANDALUCÍA (2017)**

The objective of the report is to estimate the total economic impact of Mercadona, specifically in the Spanish region of Andalusia, in terms of output, value added and employment. Considering that Mercadona's supermarkets in Andalusia also generate impacts in the rest of Spain via purchases from suppliers from other regions, the report quantifies these impacts, that, although not directly produced in Andalusia, they are generated by the activity of the supermarkets in Andalusia. The impacts are estimated using an input-output methodology with the latest information available from the input-output tables for Andalusia and Spain.

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Eva Benages (**Ivie**, Universitat de València)

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■ **ECONOMIC IMPACT ANALYSIS OF TOURISM IN THE CITY OF VALENCIA (2017)**

Tourism activities in the city of Valencia have increased considerably in recent years. In 2016, the number of overnight stays in tourist accommodation in the city was 3.9 million, with a notable economic impact on income and employment in the Valencian Community.

This study for the Valencia Tourism Foundation aims to analyze the economic impact of visitors to the city of Valencia on production (sales value), income (value added/gross domestic product) and employment in the Valencian economy, according to reasons for the visit. The impacts estimated include total direct, indirect, and induced impacts. The study will also provide an estimate of the fiscal impact for the public administration in tax revenue associated with tourism activity in Valencia.

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■ ASSESSMENT OF THE USE OF THE VALENCIA 5K CIRCUIT (2017)

During October and December 2015 studies were carried out to accurately estimate the number of uses of the 5k Circuit prior to the half-marathon and marathon races held in Valencia and after the sporting events. The numbers indicate that during the week prior to the race competition, 3,700 runners made use of the circuit and it was used a total of 11,000 times.

In February 2016, another study was made to estimate the use of the Circuit during a typical or standard week, obtaining, as a result, the following numbers: 5,200 runners and 16,200 uses.

The increase observed when comparing the different studies is due to various factors such as a greater awareness and use of the 5k Circuit over time, an improvement in the method used to count, and the effects that the half-marathon and marathon races have on a runners' workout routine.

This new study follows the methodology of the first studies to determine the evolution in the number of users and uses of the 5K Circuit pre- and post- half-marathon and marathon races, according to the time of day and day of the week, comparing the results with those obtained in 2015.

Research team:

Iván Arribas (**Ivie**, Universitat de València)

Alicia Raya (**Ivie**)

■ ECONOMIC IMPACT OF THE VOLVO OCEAN RACE START IN ALICANTE 2017-2018 (2017)

The aim of this study, carried out for the *Sociedad de Proyectos Temáticos de la Comunitat Valenciana*, is to estimate the economic impact of the start of the fourth Volvo Ocean Race (VOR) —*Alicante 2017 Puerto de salida de la vuelta al mundo a vela*— in the Valencian Community and the rest of Spain in terms of income (value added or contribution to GDP) and employment. The report will also provide qualitative aspects of interest on the appraisal of the event through the opinions of visitors to Alicante.

Research team:

Joaquín Maudos (**Ivie**, Universitat de València)

Eva Benages (**Ivie**, Universitat de València)

Alicia Raya (**Ivie**)

■ ECONOMIC IMPACT OF THE PROVINCIAL COUNCIL OF VALENCIA'S FINANCIALLY SUSTAINABLE INVESTMENTS PLAN (2017)

The objective of this project is to assess the economic impact of the Financially Sustainable Investments Plan of the Provincial Council of Valencia, corresponding to 2015, carried out during 2016. The term *economic impact* refers to the increase in GDP and employment produced in the Valencian economy as a result of the investments financed by this Plan.

As in similar studies, the economic impact is estimated by using an input-output methodology. In this case, the input-output table developed by the Valencian Statistics Institute (IVE) for the Valencian regional economy is used. The information contains a detailed description of each of the approximately 1,600 projects funded and carried out by 1,300 firms.

The detailed breakdown by type of expenditure allows classifying each activity according to its industry sector, thus, also offering the economic impact by industry branch.

In addition to estimating the impacts in terms of income and employment, the study contains a description of the investment plan financed by the Provincial Council of Valencia and the participating firms.

Research team:

Joaquín Maudos (**Ivie**, Universitat de València)

Eva Benages (**Ivie**, Universitat de València)

Belén Miravalles (**Ivie**)

Natalia Mora (**Ivie**)

Alicia Raya (**Ivie**)

UNIVERSITIES

■ ABACO (2017)

ABACO (Knowledge-Based Activities) is a project that was launched in 2011 under the umbrella of the Campus of International Excellence (VLC/Campus), in collaboration with the COTEC Foundation, which aims to become a national benchmark for the measurement and analysis of knowledge-based activities and to promote the recognition of its importance for Spain's economic growth. In 2017, the Universitat de València and the Polytechnic University of Valencia have taken the commitment to support this initiative which they consider of utmost interest. The project has been commissioned by VLC/Campus and is organized around three elements: (i) the creation, through the ABACO website, of an open and accessible information system on all the relevant dimensions of knowledge-based activities, from a global and national perspective; (ii) the production, storage and dissemination of documents, reports, briefing notes, maps, and other audiovisual materials that analyze the trajectory of these activities in Spain, from multiple perspectives; (iii) and the encouragement of initiatives that aim to share opinions and views on the situation of the knowledge-based activities and, through them, promote knowledge-based competitiveness, growth and well-being.

The update of the 2016-2017 ABACO System of Indicators includes the management and maintenance of the contents of ABACO's website, as well as the following tasks:

1. Definition, revision and increase in the number of indicators
2. Data update at international, national and regional level, based on the available data from statistical sources
3. Development of specific technical files for each indicator
4. Development of graphs representing the results of the indicators
5. Upload of indicators in pc-axis file format to easily access and download information

Research team:

Carlos Albert (**Ivie**, Universitat de València)

Jimena Salamanca (**Ivie**)

Belén Miravalles (**Ivie**)

Consuelo Mínguez (**Ivie**)

Héctor García (**Ivie**)

Alicia Raya (**Ivie**)

Yolanda Jover (**Ivie**)

■ UPDATING AND MAINTENANCE OF THE VALENCIAN PUBLIC UNIVERSITY SYSTEM OF INFORMATION (2017)

SIUVP (Valencian Public University System of Information) is a project born in 2012 from the collaboration of the 5 Valencian public universities with the aim of offering a complete set of indicators on its activity and results.

SIUVP is a window to the Valencian university activity, through which universities account in a transparent manner to society, for the effectiveness and efficiency achieved in their performance. This website offers a complete information system with more than 60 indicators.

The information in this platform allows the user to know the situation and development of the 5 universities in areas related to the supply and demand of degrees, the academic performance of their students, internationalization, research activity, knowledge transfer to society and economic results of its activity.

The indicators are structured in seven different areas:

1. Admission
2. Students
3. Academic results
4. Internationalization
5. Human resources
6. Research and tech transfer
7. Economic data

In 2017, the SIUVP website has been updated with the latest information available.

Research team:

Francisco Pérez (**Ivie**, Universitat de València)

Rodrigo Aragón (**Ivie**)

Héctor García (**Ivie**)

Irene Zaera (**Ivie**)

Alicia Raya (**Ivie**)

■ LA CONTRIBUCIÓN SOCIOECONÓMICA DE LA UNIVERSIDAD DE CÓRDOBA (2017)

This project aims to analyze and quantify the socio-economic contribution of the University of Córdoba. It will highlight the contributions made through the socially responsible practices of an institution that, although with its own independent governance, is largely financed from public funds. In the current climate of financial restrictions it is important to present the results of the university's activities to the general public.

The project aims to show the general public and all levels of government that the University of Córdoba makes substantial contributions in both economic and social spheres, and therefore merits continued support. To this end, it is important to bear in mind that the university's contributions are felt in all the socio-economic areas, and will be quantified in the spheres of research, training human capital, technological innovation and development activities, and the relationship with its surrounding environment.

Research team:

José Manuel Pastor (**Ivie**, Universitat de València)

Joaquín Aldás (**Ivie**, Universitat de València)

Lorenzo Serrano (**Ivie**, Universitat de València)

Eva Benages (**Ivie**, Universitat de València)

Ángel Soler (**Ivie**, Universitat de València)

Susana Sabater (**Ivie**)

■ TECHNICAL ASSISTANCE TO DESIGN THE IBERO-AMERICAN INFORMATION SYSTEM FOR HIGHER EDUCATION AND PILOT EXPERIENCE (2017)

The **Ivie** will provide technical assistance to design the Ibero-American Information System for Higher Education and plan the launch of a pilot experience in a limited number of countries, and includes the following nine objectives:

1. Define the methodological criteria with which to create the higher education information systems
2. Evaluate areas of higher education with particular relevance to the objectives of the Ibero-American Knowledge Space (EIC)
3. Perform an initial evaluation of higher education information systems already in place, their data availability, and previous experiences
4. Undertake a preliminary assessment of the potential availability of information about the institutions and the quality of this information
5. Define a metrics to construct summary indicators for the development of information on higher education in the countries
6. Identify the basic, intermediate and advanced aims for the development of the Ibero-American Information System
7. Identify the countries where minimum but also varied information is available in which a worthwhile pilot experience could be carried out
8. Design a proposal around which to focus the pilot experience
9. Identify the main conclusions and proposals

This project was commissioned by the Ibero-American General Secretariat.

Research team:

Joaquín Aldás (**Ivie**, Universitat de València)

Laura Hernández (**Ivie**)

Silvia Molla (**Ivie**)

Consuelo Mínguez (**Ivie**)

Irene Zaera (**Ivie**)

Susana Sabater (**Ivie**)

■ STRATEGY FOR ATTRACTING BACHELOR'S AND MASTER'S DEGREE STUDENTS TO THE POLYTECHNIC UNIVERSITY OF VALENCIA (2016-2017)

The Polytechnic University of Valencia (UPV) requested that the **Ivie** designs a study encompassing information collection and analysis with a view to improving its strategy for attracting students to its various campuses. The study is divided into two parts that deal with two types of students: bachelor's degree students who enter the UPV from post-compulsory secondary education, and master's students, particularly those from Latin America.

The analysis is structured around three main objectives:

1. To assess the current strategy for attracting students and identify more efficient alternatives by studying the processes students follow to gather information and make decisions about the studies they wish to undertake; and to identify obstacles and motivating factors related to these processes.
2. To identify the UPV's image and positioning in relation to its competitors from the perspective of potential consumers/customers; and to analyze the effect of obstacles to mobility and determine what action can be taken in this regard.
3. To quantify the potential for attracting students to the UPV in the future, with specific reference to their geographic origin.

Research team:

Joaquín Aldás (**Ivie**, Universitat de València)

Irene Zaera (**Ivie**)

Susana Sabater (**Ivie**)

■ SYSTEM OF INDICATORS TO MEASURE KNOWLEDGE TRANSFER IN THE SPANISH UNIVERSITY SYSTEM (2017)

Among its objectives, the CRUE (Conference of Spanish University Rectors) endeavors to ensure that universities' knowledge transfer activities are duly recognized.

A system was designed to place value on the transfer of knowledge, measuring the activities carried out by university faculty and researchers, on which they can be evaluated, and establishing a six-year period of knowledge transfer recognition that is compatible with and complementary to the existing six-year research recognition periods. To put this evaluation and recognition system into practice, various actions are needed:

1. Provide an accurate definition of knowledge transfer, reached through consensus.
2. Clearly delimit the knowledge transfer activities undertaken by universities.
3. Identify the university stakeholders affected by knowledge transfer activities.
4. Measure this impact to evaluate the influence of knowledge transferred by each university at an institutional level, and by each lecturer at an individual level, thus enabling assessments to be made in global (institution) and six-yearly recognition (individual) terms.

Research team:

Joaquín Aldás (**Ivie**, Universitat de València)

Laura Hernández (**Ivie**)

Irene Zaera (**Ivie**)

Susana Sabater (**Ivie**)

7.1.2. INTERNATIONAL

The **Ivie's** growing participation in international projects funded by the European Commission has given rise to collaborations with many other institutions and research centers, and the Institution has taken part in and led research projects at a European and international level as a result. The **Ivie** undertakes a wide range of projects and is involved in international research networks that, through their contributions, aim to further world economic development.

PROJECTS

■ DATA FOR EUROPEAN ICT INDUSTRIES ANALYSIS (PREDICT) (2015-2017)

The Digital Single Market is the second priority area defined by the current Presidency of the European Commission for the period 2014-2019. The advancement of the information society is therefore one of the focal points of economic policy measures at the European level. The Directorate General for Communications Networks, Content & Technology (DG CONNECT) and the Joint Research Centre Directorate B (both European Commission bodies) jointly carry out the PREDICT project, which aims to analyze the situation of the information and communication technology (ICT) sector and ICT R&D investment in Europe. Since 2013, the **Ivie** has collaborated on the PREDICT project by developing a database that can be used to track various aspects of the ICT sector, including its ability to generate added value and employment, its labor productivity,

and the intensity of investment in R&D in the sector. This database is used by the European Commission in various indicators and reports, including the Digital Scoreboard, the Digital Economy and Society Index, and the European Digital Progress Report.

In 2016, the **Ivie**'s contribution to PREDICT was broadened to include the media and electronic content sector and the online retail sales sector in addition to the ICT sector. The range of information provided has also been expanded to include predictions for the most recent years, international trade indicators for the ICT sector, and measures aimed at integrating the sector with the rest of the economy.

More specifically, this project focuses on the following points:

- The size of ICT and media and electronic content (MC) industries in the EU and in a sample of relevant countries of the world.
- The performance of the ICT and MC industries during the period of crisis and the differences in productivity between them.
- The capacity of these sectors to create jobs.
- The behavior of public funding in R&D on ICT assets during the crisis and its consequences in different countries and their industries.
- The importance of e-commerce firms to retailers and what is expected of this sector.
- A detailed analysis of data on international trade of ICT products.
- The interlinkages between the ICT sector and the remaining economic sectors of each European country.

The agreement was renewed in 2017 with the aim of updating the information in the report prepared for the European Commission's Institute for Prospective Technological Studies, Joint Research Centre, which analyzes not only the ITC sector, but also the media, electronic content and retail sectors, the extent of ITC use in European industries, and the EU's position in the global value chain of technological products.

Research team:

Matilde Mas (**Ivie**, Universitat de València)

Juan Fernández de Guevara (**Ivie**, Universitat de València)

Carlos Albert (**Ivie**, Universitat de València)

Rodrigo Aragón (**Ivie**)

Eva Benages (**Ivie**, Universitat de València)

Héctor García (**Ivie**)

Laura Hernández (**Ivie**)

Consuelo Mínguez (**Ivie**)

Juan Pérez (**Ivie**)

Juan Carlos Robledo (**Ivie**)

Jimena Salamanca (**Ivie**)

Marta Solaz (**Ivie**)

Belén Miravalles (**Ivie**)

Susana Sabater (**Ivie**)

■ COMPETITIVENESS OF THE EUROPEAN CEMENT AND LIME SECTORS (2017)

The **Ivie** has taken part in the study *Competitiveness of the European Cement and Lime Sectors* for the European Commission (DG GROW –Internal Market, Industry, Entrepreneurship, SMEs), led by Ecorys, and in which the NIESR is also a partner. The main aim of the study is to assess current competitiveness of the cement and lime sectors in European countries and to analyze the outlook for the coming years, providing sufficient elements of analysis to guide the European Commission in its economic policy decisions.

Research team:

Juan Fernández de Guevara (**Ivie**, Universitat de València)

Juan Carlos Robledo (**Ivie**)

Jimena Salamanca (**Ivie**)

Rodrigo Aragón (**Ivie**)

Héctor García (**Ivie**)

■ BALTIC COUNTRIES CAPITAL, LABOUR, ENERGY, MATERIAL AND SERVICE INPUTS (2017-2019)

Through a Marie Skłodowska-Curie grant, the European Commission is funding the project *Baltic Countries Capital, Labour, Energy, Material and Service Inputs*, which will extend the research for the EU KLEMS project to the Baltic countries. The aim of BALTIC KLEMS is to develop a specific methodology adapted to these countries to analyze patterns of productivity growth and evolution.

Research team:

Matilde Mas (**Ivie**, Universitat de València)

Toma Lankauskiene (Vilnius Gediminas Technical University)

NETWORKS

The **Ivie** collaborates in 9 international networks: SPINTAN, Competitividad, ICTNET, World KLEMS, LA KLEMS, EU KLEMS, Wolpertinger, INDICSER and PREDICT.

One of the networks, SPINTAN, is a project coordinated by **Ivie**, with support of 12 research institutes and European universities. Promoted and financed by the 7th Framework Programme of the European Commission, this project aims to analyze the impact of public sector intangibles on innovation, well-being and “smart” growth (including the role of education, R&D and innovation, and the construction of a digital society).

The **Ivie** participates in the European project in charge of conducting studies that lay the basis for the Annual European Report on Competitiveness. Promoting public debate on aspects related to competitiveness and making recommendations related to the Lisbon strategy and future business policies are some of the objectives of this report. Some of the projects developed by the **Ivie** along this line of collaboration are *Competitiveness of the European cement and lime sectors* and *Study on total factor productivity growth: drivers, components and frontiers firms*.

The **Ivie** is also one of the 31 European institutes that participated in the ICTNET project (European Network for the Research on the Economic Impact of ICTs), a research funded by the European Commission through DG CONNECT (Directorate General for Communications Networks, Content & Technology) which aim was to coordinate research in ICT economics in Europe increasing the relevance of the research on this topic.

The KLEMS (Kapital Labour Energy Material Services) international network aims to promote and facilitate the analysis of growth patterns and the evolution of productivity around the world, based on a growth accounting framework. At the heart of the initiative is the creation of new databases with the necessary variables to carry out these analyses. Through harmonizing concepts, common standards and classifications, the data is comparable across countries. **Ivie** has participated in this project since its beginning, with the setting up of EU

KLEMS, which gathers information about the EU countries, the United States, Canada, South Korea, Australia and Japan. The **Ivie** has also supported the creation and development of LA KLEMS, which is the extension of this study of productivity to several Latin American countries. The latest initiative of this global network is ASIA KLEMS, which includes the Asian countries. In the same way, the **Ivie** participates actively in the development of World KLEMS that frames the rest of projects and regional KLEMS databases.

The Institute also participates in PREDICT (Prospective Insights on R&D in ICT) is a project jointly funded by the European Commission's DG Communications Networks, Content and Technology (DG CONNECT) and the Joint Research Center (JRC). The objective of this project is to analyze the importance of ICT, its productivity and R&D spending in the European Union (EU) and 12 relevant countries within the global ICT market.

Finally, several **Ivie** Researchers are members of the 'Wolpertinger Club', an association of university academics with a common interest in the economics of financial systems and financial institutions. They meet once a year to discuss their research, exchange ideas and develop ways to cooperate in the research and teaching of banking, financial institutions and the economics of financial systems.

7.2. IVIE PROFESSORS AND ASSOCIATE RESEARCHERS' COMPETITIVE RESEARCH PROJECTS

7.2.1. INTERNATIONAL PROJECTS

Ivie researchers Francisco Pérez, Matilde Mas, Javier Quesada and Juan Fernández de Guevara take part in the WORLD KLEMS Project on productivity, a continuation of the EU KLEMS Project in which the **Ivie** also participated. From this project involving 41 institutions from all over the world, research from the KLEMS framework has extended to the major developing economies and those in transition such as Argentina, Brazil, Chile, China, India, Indonesia, Mexico, Russia, Turkey and Taiwan.

José García Montalvo is researcher of the Projects ERC Grant PERSISTDEBT (2015-2019), *Debt and persistence of financial shocks*, and ERC Grant HISTROOTS (2015-2019), *Historical roots of conflict and development: from prehistory to the colonization*, funded by the European Research Council.

Professor José María Peiró is the director of the Universitat de València research team which collaborates with the European Institute of Innovation and Technology (Climate-KIC) and the Provaldis School of International Management and Technology in the project "*Certified Professional. European Certification Framework for Postgraduate Professional Education* (2014-2019)".

José María Peiró also coordinates the Universitat de València research team for the *Innovative Involvement* project (*Methodological approach. People's behaviour2 pull technology*), belonging to the *Research Flagship Project on Building Technology Accelerator (BTA)* (2014–2018) and funded by the European Institute of Innovation and Technology (Climate-KIC). Miriam Navarro is the main researcher.

In addition, José María Peiró is head of the Spanish team in the research project EVENT, *European and Vietnamese collaboration on graduate employment* (2016-2019), under the European initiative Erasmus + Capacity Building for Higher Education, No. 573903-EPP-1-2016-1- SE-EPPKA2-CBHE-SP, funded by the Education, Audiovisual and Culture Executive Agency of the European Commission and led by the University of Uppsala in collaboration with Hue University (Vietnam).

7.2.2. SPANISH NATIONAL R&D PLAN

The **Ivie** researchers are closely involved in the activities of the National Research, Technological Development and Innovation Program, in which they participate not only by carrying out projects, but also by taking part in their evaluation process. During 2017, the researchers and associate researchers participated in the following projects:

ECO2013-43959-R: *Factores de competitividad: hacia una nueva sociedad del conocimiento* (2014-2017). Joaquín Maudos (Director), Juan Fernández de Guevara.

ECO2014-53419-R: *Comercio, diferenciación del producto, crecimiento y bienestar* (2015-2017). Francisco Alcalá (Director).

ECO2015-65820: *LATEX 2020: Microeconomía “made in Alicante”* (2016-2018). Carmen Herrero (Director).

ECO2015-67656-P: *Digitalización y servicios financieros: efectos en el sector bancario, medios de pago e inclusión financiera* (2015-2017). Santiago Carbó (Director).

ECO2015-70632-R: *El desarrollo de la era de la economía digital y sus condicionantes: Aspectos metodológicos y análisis empíricos* (2016-2018). José Manuel Pastor y Lorenzo Serrano (Directors), Francisco Goerlich, Matilde Mas, Francisco Pérez y Javier Quesada.

ECO2016-77579-C3-3-P: *Sobre la estrategia corporativa de comunicación Financiero-contable: Elecciones y objetivos* (2017-2019). Beatriz García Osma y Encarna Guillamón Saorín (Directors), Belén Gill de Albornoz.

ECO2016-80002-R: *Roots for growth and competitiveness in Family and Non-Family SMEs. Microfoundations in the governance, management and ownership bodies* (2017-2020). Alejandro Escribá Esteve (Director).

ECO2017-84828-R: *Factores de competitividad en la economía digital y del conocimiento* (2018-2021). Joaquín Maudos (Director), Juan Fernández de Guevara.

PSI2015-64862-R: *New challenges in the study of occupational well-being in the context of the crisis aftermath. An international study of the employment quality* (2016-2018). José María Peiró (Director).

PSI2016-78158-R: *Cooperación entre profesionales y familiares en centros de atención a personas con discapacidad intelectual y su impacto sobre la calidad de vida (COPDICA)* (2017-2020). Vicente Martínez Tur y Carolina Moliner (Directors), José Ramos.

7.2.3. OTHER PROJECTS FINANCED BY PUBLIC INSTITUTIONS

Iván Arribas participates in the Project Prometeo II/2014/054 *Grupo de Investigación en Economía del Comportamiento Estratégico* (2014-2017) conducted by Amparo Urbano, Professor of the Universitat de València. The Prometeo projects for excellent teams from research communities and universities are funded by the Valencian Government.

José García-Montalvo is the main researcher on the Project 2014 SGR 546, *Applied macroeconomics and quantitative methods* (2015-2017), carried out by the consolidated research group of the same name for the Regional Government of Catalonia.

In addition, José García Montalvo is researcher of the Projects ERC Grant PERSISTDEBT (2015-2019) *Debt and persistence of financial shocks* and ERC Grant HISTROOTS (2015-2019) *Historical roots of conflict and development: from prehistory to the colonization* funded by the European Research Council.

Carmen Herrero is the main researcher of the Project Prometeo/2013/037 *Salud y problemas socioeconómicos: Un enfoque cuantitativo y multidisciplinar* (periodo 2013-2017) funded by the Valencian Government.

Also, Francisco Pérez is the main researcher on the Prometeo II/2014/046 Project *Integración económica y financiera: efectos sobre el crecimiento económico* (2014-2018), funded by the Valencian Regional Government. Researchers Joaquín Maudos and Emili Tortosa also take part at the project.

José María Peiró is director of the *Nuevos desafíos en el estudio del bienestar laboral en el escenario de salida de la crisis. Estudio internacional de la calidad del empleo, factores personales, generacionales y socio-culturales. (EMPQUAL)* (2017-2019) financed by the Spanish Ministry of Economics and Competitiveness and FEDER (European Regional Development Fund).

Finally, José María Peiró is main researcher of the Project Prometeo 2016/138, *Dynamics of subjective wellbeing and its dimensions: A study from the adaptation theory* (2016-2019) funded by the Valencian Government. **Ivie** Researcher José Ramos also takes part in the project.

7.2.4. OTHER PROJECTS FINANCED BY PRIVATE INSTITUTIONS

José Ramos is the main researcher for the Project *Colaboración en el Análisis y Evaluación del II Plan de Igualdad entre Hombres y Mujeres 2015-2018* (2016-2018) funded by Banco de Crédito Social Cooperativo/Cajamar.

8. DATABASES AND INDICATOR SYSTEMS³

Several **Ivie** projects have generated databases or indicator systems of interest to economic research, and to facilitate decision making based on appropriate up-to-date information. The new **Ivie website**, launched in November 2017, provides access to the Institute's databases and indicator systems classified into eight subject blocks: growth and capitalization, human capital and human development, socio-economic, globalization, international, public sector, universities, and knowledge economy.

8.1. GROWTH AND CAPITALIZATION

■ CAPITAL STOCK IN HOUSING IN SPAIN AND ITS TERRITORIAL DISTRIBUTION

The database *Capital stock in housing in Spain and its territorial distribution (1990-2010)* offers data on the capital stock in housing series from 1990 until 2010, land value included. Information is also provided on the changes of total stock in housing and its prices.

Data is broken down by autonomous community, province and population status, distinguishing between municipalities according to the number of inhabitants and whether they are on the coast or inland.

Among the results provided are house prices and total land area of the housing stock, as well as their changes over time. Data are also included on the value of housing stock and land capital stock. The results are classified by industry and region, with the latest information published in 2015.

The database is available on the BBVA Foundation website: <https://www.fbbva.es/>

■ STOCK AND CAPITAL SERVICES IN SPAIN AND ITS TERRITORIAL DISTRIBUTION

Since 1995, the **Ivie** and the BBVA Foundation have been conducting a research program on capital stock which includes a database with information on capital accumulation in Spain over the last five decades. Specifically, this database examines the series at national level for the period 1964 to 2015 and until 2014 for the Spanish regions and provinces. In addition, the database updates the contribution of productive capital and offers information of the assets invested in, including R&D expenditure. For this purpose, net capital stock (wealth) and capital services (productive capital) are measured.

At national level, the 31 industries considered are disaggregated into 19 types of assets, according to the NACE Rev. 2 classification. The 2016 update of the BBVA Foundation-**Ivie** series has been adapted to the new European System of Accounts (ESA 2010) defined by Regulation (EU) No. 549/2013 of the European Parliament and of the Council of 21 May 2013. The classification distinguishes between tangible and intangible assets, including R&D expenditure for the first time. In addition, this classification includes three information and communication technology (ICT) assets (software, hardware and communications) and offers a great asset breakdown in public infrastructure which is a distinctive characteristic of the BBVA Foundation-**Ivie** series.

The extensive database, that **Ivie** and BBVA Foundation have made public, is accompanied by numerous dynamic graphs that facilitate the analysis of the evolution and composition of capital endowments in Spain and its regions. Over 800 published specialized works have been based on this information, as of December 2017.

The database is available on the BBVA Foundation website: <https://www.fbbva.es/>

³ The maintenance and updating process of **Ivie's** databases is funded by the Valencian Regional Government's Ministry for Finance and the Economic Model, through the cooperation agreement signed between both institutions to promote and consolidate the **Ivie's** basic and applied economic research activities.

■ HISTORICAL SERIES ON PUBLIC CAPITAL IN SPAIN AND ITS TERRITORIAL DISTRIBUTION (1900-2012)

Since 1995, **Ivie** and BBVA Foundation have developed a broad research program on Spanish economic growth. One of the fundamental parts of the program is the development of databases on capital stock in Spain which are updated regularly. One of the main characteristics of this series is the importance given to public capital endowments. The continuous analysis of public sector investment carried out by **Ivie** and BBVA Foundation has enabled the development of this database covering more than a century.

The study measures investment in the public sector from a long-term perspective with a detailed look at distribution by autonomous communities and provinces, thus allowing the territorial evolution of public capital to be analyzed for more than a century. In addition, the study facilitates both a better evaluation of public policies, as well as an analysis of the impact of public capital on regional or provincial growth and convergence.

The database spans more than a century of Spain's history and is detailed according to autonomous community and province, thus facilitating the analysis of the impact of public capital on growth and convergence among regions. Detailed information is also provided on the public sector's investment strategy in areas key to growth and welfare, such as infrastructures, health, and education.

The database is available on the BBVA Foundation website: <https://www.fbbva.es/>

■ INTANGIBLE ASSETS: NATIONAL DATABASE (1995-2011)

Given the growing importance of activities based on knowledge in the economic development of the most advanced countries, investment on intangibles assets (the Information and communications technology (ICT), research and development (R&D), innovation, design, creativity, image and brand, organization and specific human capital training) are assets in which investment is needed to modernize and strengthen the productive structure of a country.

This project developed for the Telefonica Foundation follows the methodology accepted worldwide (Corrado, Hulten and Siches [2005] *Measuring Capital and Technology: An Expanded Framework*) which is in line with the INTAN-Invest project (www.intan-invest.net) that measures intangible investments for a group of European countries.

The database offers the first annual database of the value of investment in intangible assets and its capitalization for the period 1995 to 2011 for the whole Spanish economy with a wide level of sectoral disaggregation (24 sectors, NACE Rev.2). The intangible assets used in the database are: computerized information, innovative property (R&D, mineral exploration and spending on the production of entertainment and artistic originals, new products/systems in financial services, design and other new products/systems) and economic competencies (advertising, market research, employer-provided training, organizational capital).

The database is available in Excel and PcAxis on **Ivie's** website: www.ivie.es.

■ INTANGIBLE ASSETS: DATABASE FOR SPAIN AND ITS AUTONOMOUS COMMUNITIES (1995-2014)

The database *Inversión en activos intangibles más allá del PIB en España y sus regiones*, developed by the **Ivie** in collaboration with the Cotec Foundation for Innovation, offers information on the gross fixed capital formation (GFCF) in intangible assets in Spain and its autonomous communities by sectors. Data is available for the period 1995-2014, in both current and constant euros for 2010. The database offers a sectoral breakdown of 27 sectors according to the NACE 2009.

The intangible assets are organised into two main groups: those already included in GDP (considered investment by the European System of Accounts, ESA, 2010), referred to as AIPB, and those not yet included in the national accounts which are grouped under the name AIMAPIB (intangibles assets "beyond GDP"). These two major groups are classified in nine individual intangible assets.

The database is available on the COTEC website: <http://informecotec.es/activos-intangibles/>.

8.2. HUMAN CAPITAL AND HUMAN DEVELOPMENT

■ HUMAN CAPITAL IN SPAIN AND ITS REGIONAL DISTRIBUTION

The results obtained from the Human Capital Project undertaken by the **Ivie** in collaboration with the Bancaja Foundation improve the statistical information already available on human capital and have enabled the **Ivie** to create a database that contains abundant information on the evolution of the Spanish population's educational levels.

The period covered in the database is from 1964 until 2013. The series are structured by educational levels, population groups, regions, provinces and sectors and can be accessed through the **Ivie**'s website: www.ivie.es.

■ HUMAN DEVELOPMENT IN SPAIN

The Human Development Index is an indicator that measures a country's degree of economic development and combines health, education and income measures. It was first published in 1990, as part of the United Nations Development Program, and quickly became more popular than the simple comparison by per capita income, it being a more informative indicator.

Within the Human Capital research framework developed by Bancaja and Ivie since 2000, a data series on human development for Spain and its autonomous communities has been built according to the new methodology proposed by the UN. Furthermore, an alternative methodology is proposed to correct the major deficiencies of the UN index. The data currently covers the period 1980-2010.

The database contains the Human Development Index and the New Human Development Index, which both have health, education and income components.

Data concerning all these indexes are available on **Ivie**'s website: www.ivie.es.

■ OBSERVATORY OF YOUNG PEOPLE'S TRANSITION TO THE LABOUR MARKET

The Observatory of the Transition of Young People to the labor market is a data bank developed through the Human Capital Project, which is updated every three years and is sponsored by the Bancaja Foundation. The data from the Observatory's six surveys, 1996, 1999, 2002, 2005, 2008 and 2011 have been homogenized and categorized, the following factors being taken into account:

- Basic data on survey participants: age, level of education, gender, work experience, employment situation, nationality; reasons for looking for a job, employment search methods; information on academic history.
- Data on family background (education level of parents, socio-professional position of parents, household income).
- Psycho-social data which include attitudes, behavior and experiences of young people in the labor market: initiative, passivity, self-effectiveness, different elements of employment stress, centrality, satisfaction with life, one's economic situation and employment, extrinsic, intrinsic and social aspects of employment, and "justice at work".
- Data on the educational background, work and life experience of those polled, time spent studying, at what age they begin looking for work, leave home, form their first relationship and have their first child.
- Employment: duration, type of contract, commitment, salary, type of employer and sector, reasons for leaving the job and contractual flexibility.
- Aspects related to the health and the general well-being of the young people.

All the information is available on the **Ivie** website: <http://www.ivie.es>.

8.3. SOCIO-ECONOMIC REGIONAL DIFFERENCES

■ INEQUALITY IN SPAIN, ITS REGIONS AND ITS PROVINCES

Sponsored by the Caixa Galicia Foundation, the aim of this study is to analyze the evolution of household consumption and income distribution in Spain from both a territorial and temporal perspective.

The database covers the period 1973/74-2005, with annual intervals from 1998 to 2005. Among the data provided is in-depth information on autonomous communities regarding their total expenditure per person and per household, according to the social class or studies of the main breadwinner. The expenditure is detailed in a total of twelve groups (education, housing, health, and leisure, among others).

Basic data were used from the Household Budget Surveys for the periods 1973/74, 1980/81 and 1990/91, and the Continuous Household Budget Surveys, published by the INE, for the period 1998 to 2005, with autonomous community disaggregation.

The data are available on the **Ivie's** website, www.ivie.es, and are also incorporated in the World Bank and United Nations University (WIDER) databases.

■ EDUCATION ACCOUNTS

The new Education Accounts in Spain 2000-2013 database was developed by the **Ivie** for the BBVA Foundation and was set up in March 2016. This database allows us to address fundamental issues related to the education system in Spain and its regions, such as its size and structure, how much is spent on education, who the producers of educational services are, as well as the beneficiaries.

Information is provided for Spain and its regions by educational levels and is divided into four large areas: 1) Public non-university and university Education Accounts, 2) Regulated private non-university and university Education Accounts, 3) Family expenditure on education (total expenses per household and per capita), and 4) Series of non-university and university students for both private and public education

These series are available on the BBVA Foundation website, www.fbbva.es, through fifteen files in Excel spreadsheet format.

■ HOMOGENEOUS POPULATION SERIES

It is for more than one decade now that the BBVA Foundation and the **Ivie**, under their cooperation framework agreement, have put the focus on demographic analysis, from a more aggregate level to municipal or lower scale. The information offered by the population censuses available and comparable since the end of the 19th century has made it possible to build the Homogenous population series.

The process of homogenization of the de jure resident population, taking into account the changes in the municipalities' borders for more than one century, has been very strenuous. The disappearance of municipalities, their creation, division, merging or changes of name have been tracked for each one of the more than 8,000 municipalities during the eleven censuses taken.

This Spanish population database is based on the municipal structure of the 2011 Census. Reference data is the de jure population and is dated for each one of the twelve censuses prepared by INE since the beginning of the 20th century, allowing a detailed analysis of the changes in location of population patterns during the period 1900-2011.

The database is accessible on the BBVA Foundation website, www.fbbva.es, and contains information for the 8,116 Spanish municipalities existing in 2011. The series are classified in accordance with the code associated with each municipal area and grouped by the 52 Spanish provinces, also offering the area in square miles of each municipality.

■ SOCIAL CAPITAL

Social capital is a concept that for over a decade has attracted the attention of all social sciences and international institutions because of its outstanding potential in the processes of development. The term social capital highlights the role of cooperation and trust in achieving collective or economic results. The **Ivie** carries out a joint project with the BBVA Foundation for the study of social capital. During 2013, the social capital database, built within the framework of this project, was updated. The international database, which includes the OECD countries, covers from 1970 until 2011, and the series for Spain (with territorial breakdown by regions and provinces) until the year 2013.

The new database was published by the BBVA Foundation November 11th, 2015. Information and/or data series to date can be requested to publicaciones@ivie.es.

■ LIFE TABLES FOR SPAIN AND ITS REGIONS

Life tables are fundamental in providing a numerical representation of the status changes occurring within a population over time. **Ivie** researcher Francisco J. Goerlich and Rafael Pinilla have calculated the classic biometric functions of the Life Tables for Spain and its regions, covering the period 1975-2013. The data bank also contains four demographic indicators for each year and geographic area: average age of population, average-age life expectancy, life potential and life potential per capita.

The database contains period life tables with annual periods for Spain, its autonomous communities, and provinces. It consists of 22 PC-Axis files which contain biometric functions and demographic indicators cited for the same geographic areas and periods.

For the population data tables, intercensal estimates are used. In 2015, data for the 2002-2012 period was updated taking into account the intercensal estimates published by the 2011 Census for this period.

Three aspects distinguish **Ivie's** Life Table database from INE's: data is homogenous since 1975; it is disaggregated by large groups of cause of death; and includes an additional demographic indicator: life potential.

The data is available to researchers and the interested public via the **Ivie** website (www.ivie.es), with the possibility of obtaining the information in map format.

■ MIGRATION IN THE VALENCIA REGION

The *Examination of Migration in the Valencia Region*, is undertaken by the **Ivie** for the Bancaja Foundation and was previously included in the Observatory on Immigration in the Valencian Region of the CeiMigra Foundation, sponsored by Bancaja. Its objective is two-fold: first, to provide a comprehensive view of the immigration phenomenon with its many social and economic profiles, through the compilation and systematization of available information, while also detecting gaps in this information. Second, to provide access to adequate statistical material for subsequent detailed analysis of the various aspects of immigration.

The last edition, dated December 2011, includes comparative data on the situation of emigration and immigration in OECD countries, and also information on the remittances sent and received from the immigrants of nationalities most represented in Spain, the employment situation of immigrants in their country of origin or the reason for their moving to Spain.

The data of Migration in the Valencia Region are available on **Ivie's** website: www.ivie.es.

8.4. GLOBALIZATION

■ INTEGRA

The Integra data bank is framed within **Ivie's** research program with the BBVA Foundation and under the International economic integration research area, and consists of a wide range of indicators to measure the evolution of economies' integration on a world-wide scale.

The INTEGRA database has three different indicators (degree of openness, connection and integration) which have been developed with a broad level of geographical and temporal disaggregation. A total of eighty-five countries are covered (representing 97% of world GDP in 2007), spanning the period 1985-2007. It also provide indicators of total trade in goods, indicators corrected by the distance between countries and indicators disaggregated by industries according to the ISIC-3 classification (Revision 2), with a distinction between the two directions of trade flows: exports and imports.

8.5. INTERNATIONAL

■ EU KLEMS

The **Ivie** has participated in the EU KLEMS Project, funded by the 6th Framework Programme of the European Commission, which aim was to analyze the productivity in the European Union (UE-25), the United States, South Korea, Australia, Japan and Canada. Eighteen research institutions and universities from all over Europe worked on this project.

Within this project, a database was elaborated with information on productivity, value added, intermediate consumption, labor, capital and growth accounting for these 30 countries. After its last update in May 2011, information is provided for the period 1970-2007 for seventy-two sectors of activity (NACE Rev. 1.1). The series allows the different economies to be compared in terms of industry, distinguishing between market versus non-market, goods versus services and ICT production.

In 2012 a new data bank for 10 European countries (Austria, Belgium, Finland, France, Germany, Italy, the Netherlands, Spain, Sweden and the UK) and 2 non-European countries (US and Japan) was constructed according to the NACE Rev. 2 classification.

Data on the EU KLEMS Project is available on the Consortium's website (www.euklems.net), which can be accessed through the **Ivie's** website.

■ SPINTAN

The SPINTAN Project (Smart Public Intangibles), directed by the **Ivie** for the European Commission, aims to define the theoretical and empirical characteristics of public intangible policies. The Project is carried out by academic researchers from diverse European institutes and universities.

The database contains information on public intangible assets for 22 European Union countries, United States, China and Brazil covering the period 1995-2015. It provides information on the investment and the capital stock in intangible assets such as brands, design, entertainment and artistic originals, organizational capital, employer-provided training, as well as expenditure on R&D and software which are now included in the national accounts of each country.

The new database, which is available on the SPINTAN website (www.spintan.net), includes information on the following industries: scientific research and development; public administration and defense; compulsory social security; education; human health and social work activities; and arts, entertainment and recreation.

This information allows us to analyze the impact of public sector intangibles on innovation, well-being and *smart* growth (including education, R&D and the construction of a digital society).

■ ICT SECTOR AND ITS R&D (PREDICT)

The **Ivie** has developed for the European Commission a wide database on the Information and Communication Technologies (ICT) and Audiovisual Content sectors, within the framework of the Prospective Insights on (R&D) in ICT (PREDICT) Project. The PREDICT project, jointly funded by the European Commission's DG Communications Networks, Content and Technology (DG CONNECT) and the Joint Research Center (JRC), analyzes the importance of ICT, its productivity and R&D spending in the European Union (EU) and 12 relevant countries within the global ICT market. This database is one of the tools used by the European Commission to monitor the progress of the Digital Single Market, one of its key strategic areas.

The databank offers information for 12 variables; value added, employment (hours worked and number of employed persons), productivity, labor productivity, Business Enterprise R&D expenditures (BERD), number of personnel and of researchers, ICT R&D public funding, as well as its deflators, PPP and currency exchange rates. The data is available for the ICT sector, following the OECD classification (2007) of ICT industries, which comprises 12 ICT manufacturing and services sub-sectors and some selected non-ICT producing high-tech sectors.

The data is available for the EU and all its Member States, Australia, Brazil, Canada, China, India, United States, South Korea, Japan, Norway, Russia, Switzerland and Taiwan. Data on ICT R&D public funding is offered at the aggregate level, by NABS (NABS – Nomenclature for the Analysis and Comparison of Scientific Programmes and Budgets) and by industry sector (NACE Rev.2) for the EU, United States and Japan. In addition to ICT sector data, the PREDICT 2017 database includes information from official sources (Eurostat, OECD, and National Statistics Institutes, among others) on the following sectors: Media and content (publishing of books and journals, audiovisual and broadcasting activities and news agency activities) and Retail sale via mail order houses or via internet. The database, regularly updated by the **Ivie**, covers the period 1995 to 2014 (last year with official data). Provisional estimates on the evolution of the main ICT sectors and the Media and content and Retail sale via mail order houses or via internet sectors are available for 2015 and 2016. The PREDICT initiative aims to compare the evolution of the EU ICT sector with its R&D and its major competitors. To this end, in addition to the database, annual reports are drawn up that analyze the available information and synthesize the main trends in the ICT sector of the countries included in the database.

Also, together with the JRC, meetings in Brussels aimed at policy-makers and international experts are organized to present the results of the project. The main conclusions of the research carried out are summarized in Policy Briefs, which include economic policy recommendations.

The database is available since 2017 on the **Ivie**'s website: www.ivie.es.

8.6. PUBLIC SECTOR

■ BASIC PUBLIC SERVICES EXPENDITURE IN SPAIN AND ITS REGIONS

Education, health and social protection, known as basic public services (BPS), are particularly relevant activities of the public sector: due to the importance of the resources allocated to them and the activities carried out. In fact, they represent more than half of public spending and are needed to reach the equity goals pursued by public interventions, especially the principle of equal opportunities.

This database includes information on public sector activities related to the provision and management of services: health (primary, specialist and hospital care, public health, clinical research); education (pre-school, primary, secondary, post-secondary and higher, scholarships, education services); and social services (retirements, disease and disability, advanced age, family protection, unemployment, housing, social exclusion).

The study examines the trajectory of BPS expenditure in Spain and its autonomous communities over the course of the 21st century in order to provide objective data which can be referred to in assessments and decision making. The period covered allows differences between regions to be distinguished before and during the crisis.

■ REGIONAL DIFFERENCES IN THE SPANISH PUBLIC SECTOR

The database Regional differences in the Spanish public sector is part of a research project carried out by the BBVA Foundation and the **Ivie** which has a double objective. First, to generate new fresh information on the public-sector performance in Spain and its regions. Second, to analyze the data obtained in order to gain a more detailed picture of the extent of its performance, the reasons underlying regional differences and their effect on inter-territorial solidarity and economic efficiency.

The database, available at the BBVA Foundation website (www.fbbva.es), contains regionalized data for the period 2000-2008 and covers information on the size the public sector in each region and its territorial distribution by levels of government, by functions and by revenue and expenditure items.

■ PUBLIC HEALTH EXPENDITURE IN SPAIN

The *Public Health Expenditure in Spain* database contains statistical information on public health spending in Spain by regions for the 1991-2010 period.

It is a homogeneous territorial database that supplements those so far offered by the Public Healthcare Expenditure Statistics (EGSP), which are produced by the current Spanish Ministry of Health, Social Services and Equality in collaboration with the autonomous communities. In addition to starting in 1991, this database offers more detailed regional information than the EGSP, reaches 94% of total public health spending and provides information by public stakeholders. Also, a homogeneous series for the whole period has been constructed.

The databank, which is available at the BBVA Foundation website, www.fbbva.es, contains information on public health expenditure by region covering the period 1991-2010 in Spain, with specific data for the autonomous communities. Supplementary tables are also provided on GDP deflators and prices, population projections by region and age, health expenditure profiles and health expenditure evolution.

8.7. UNIVERSITIES

■ U-RANKING

U-Ranking is a set of Synthetic Indicators of the Spanish University System (ISSUE), available at www.u-ranking.es, which offers the user two products. First it provides a set of synthetic indicators on public and private universities in Spain, allowing them to be ranked according to their performance (U-Ranking) and their volume of results (U-Ranking Volume). U-Ranking takes into account the three missions of university activity (teaching, research, and innovation and technological development), which are assessed through 25 indicators grouped into four different areas: resources, output, quality and internationalization. The website offers the global synthetic indicators obtained by each university, as well as the indicators in each activity and area, thus allowing each institution to be compared from different points of view.

Furthermore, the U-Ranking website provides an accurate and easy-to-use tool, allowing the user to build their own personalized ranking with their chosen degree and make a comparison of what each university has to offer, expressing their preferences about what to study and where, as well as the importance given to different university activities. Along with the personalized listing, other information of interest is provided, such as the last cut-off mark, the price of credits and details about the university surroundings.

U-Ranking 2017 analyzes 61 universities which represent more than 93% of the students registered and more than 98% of their research output, including 48 public and 13 private universities.

This information is available on the U-Ranking project's website: <http://www.u-ranking.es/>.

■ SIUVP

SIUVP (Valencian Public University System of Information) is a project born in 2012 from the collaboration of the 5 Valencian public universities with the aim of offering a complete set of indicators on its activity and results.

SIUVP is a window to the Valencian university activity, a tool by which universities account in a transparent manner to society, for the effectiveness and efficiency achieved in their performance. Through the website, users have access to a comprehensive information system that consists of more than 60 indicators.

The information in this platform allows the user to know the situation and development of the 5 universities in areas related to the supply and demand of degrees, the academic performance of their students, internationalization, research activity, knowledge transfer to society and economic results of its activity.

The SIUVP database provides information on 60 indicators that are structured in seven different areas: Admission, Students, Academic results, Internationalization, Human resources, Research and tech transfer and Economic data.

The SIUVP website (<http://www.siuvp.es/>) is updated twice a year based on the latest available data.

8.8. KNOWLEDGE ECONOMY

■ ABACO

ABACO (Observatory of Knowledge-Based Activities) rises as a joint project of the **Ivie**, the Universitat de València and the Polytechnic University of Valencia, in collaboration with the COTEC Foundation with the aim of measuring and analyzing the knowledge-based activities

One of the pillars of ABACO is the generation of its own information system, available on the ABACO website, which facilitates the analysis and diagnosis of the current situation and recent evolution of knowledge-based activities in Spain, as well as comparison with other countries.

ABACO offers users a powerful database which is regularly updated with over 200 indicators structured in five areas: New technologies, Human capital, Innovation system, Business environment, Socio-economic impact.

ABACO also offers extensive detailed information on knowledge intensive GDP. The database contains information about the weight that knowledge-based factors have in the gross value added (GVA) of each of the eighteen countries studied (Australia, Austria, Czech Republic, Denmark, Finland, France, Germany, Ireland, Italy, Japan, Netherlands, Portugal, Slovenia, Spain, South Korea, Sweden, United Kingdom, and USA). The results are also presented by sector of activity (according to the NACE Rev.1 classification) and are available for the period 1980-2007. In the case of Spain, data are provided until 2010.

This information is available on the project's website: www.observatorioabaco.es.

■ ECONOMIC VALUE OF KNOWLEDGE

The aim of this database, developed by the **Ivie** in collaboration with the Ramon Areces Foundation, is to quantify the value of knowledge-based economic activities in Spain and its autonomous communities. With this purpose, the database assesses the market value of the contributions of productive factors that add more knowledge to the production system (skilled work, ICT, intangible assets and machinery and equipment), an exercise based on the methodology of growth accounting. The database follows the methodology found in the report The database provides information on the total and regional GVA in Spain, as well as its disaggregation into two parts: GVA based on knowledge (knowledge-based activities) and GVA with no knowledge-based activities or based on productivity factors with low knowledge content.

The database, which covers the period 2000-2014 (2013 for regional data), presents a high industry-level breakdown: 27 sectors at national level and 21 at regional level, defined according to the CNAE 2009/NACE Rev. 2.

The database is available since 2017 on the **Ivie**'s website.

9. SCIENTIFIC MEETINGS⁴

The Institute has taken an active part in this field through the participation of its associates in national and international meetings, and also by organizing and supporting seminars, workshops and courses in different places. Through these activities, the **Ivie** hopes to make its head office, and the university departments and institutions with which it collaborates, a regular meeting point for researchers, other specialists and social institutions.

9.1. ORGANIZED BY THE IVIE

- The seminar **FINANCIACIÓN AUTONÓMICA, ESTABILIDAD PRESUPUESTARIA Y BIENESTAR** (regional funding, budgetary stability and welfare), held at the Fundación Universidad-Empresa, ADEIT (Valencia) on 30 January, brought together experts on regional financing from public administrations and from academic and research fields. Organized by the Instituto Valenciano de Investigaciones Económicas (**Ivie**) in collaboration with the Valencian Regional Government, attendees discussed some of the essential issues to be addressed in negotiations for the new regional funding system.

Participants included the President of AiRef, **José Luis Escrivá**, and experts from several regional governments (Galicia, Castile and Leon, and Andalusia) as well as universities, all of whom gave their viewpoints on the questions. In his opening speech, President of the Regional Government **Ximo Puig**, highlighted the need for a funding system able to protect health, education and social protection services in equal conditions for all citizens, regardless of where they live.

The event was also the setting for the presentation of *Suficiencia financiera de las CC. AA. y Estado del bienestar*, (regional financial sufficiency and the welfare state), a report analyzing the causes of current financial imbalances among autonomous regions in the common system during the years of the current financing system (SFA), approved in 2009. The study was carried out by **Francisco Pérez**, Universitat de València professor, director of research at the **Ivie**, and regional government representative on the technical commission tasked with analyzing changes in the SFA, together with **Silvia Mollá** and **Juan Pérez**, also from the **Ivie**, and **José A. Pérez**, of the Universitat Politècnica de València.

The seminar consisted of two presentations, a roundtable session, and a debate among all the participants. The two presentations were:

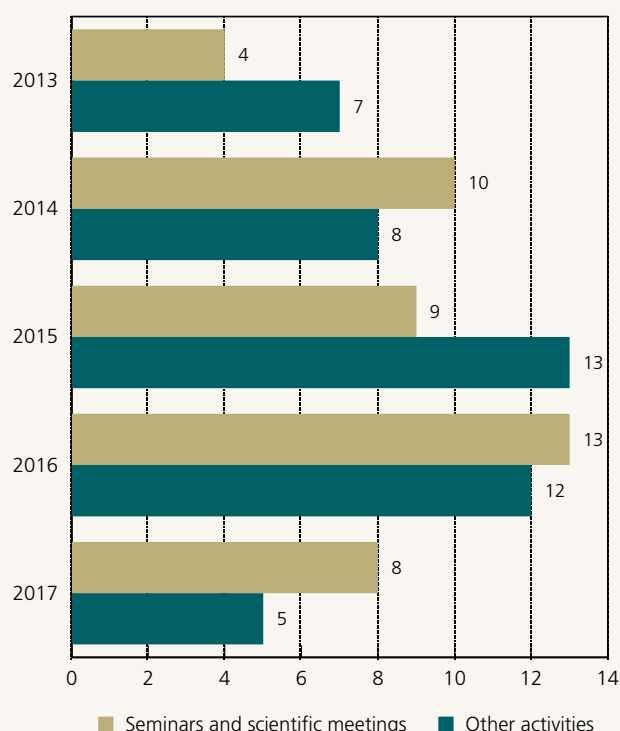
Francisco Pérez, Universitat de València and Ivie: *Suficiencia financiera de las CC. AA. y Estado de Bienestar* (Regional financial sufficiency and the welfare state)

José Luis Escrivá, AiRef: *Estabilidad presupuestaria y sostenibilidad financiera de las CC. AA.* (Budgetary stability and regional financial sustainability)

Participants in the roundtable session were **Miguel Corgos**, Director General for Planning and Budgets in the Galician Regional Government; **Agustín Manzano**, Director General for Taxation and Regional Financing in the Castile and Leon Regional Government; **Diego Martínez**, Director General for Financing and Taxation at the Andalusia Regional Government's Tax and Public Administration Department; and **Maite Vilalta**, Universidad de Barcelona professor and IEB researcher.

⁴ Support given to **Ivie** researchers in activities related with presenting and disseminating their research results is funded by the Valencian Regional Government's Ministry for Finance and the Economic Model, through the cooperation agreement signed between both institutions to promote and consolidate the **Ivie**'s basic and applied economic research activities.

Figure 6. Seminars, scientific meetings and other activities



- The Seminar **TOWARDS A GEO-REFERENCED STATISTICAL FUTURE: THE POWER OF 'WHERE'**, was organized by the **Ivie** and the BBVA Foundation on May 4th of 2017 in Valencia. The Seminar put forth the importance of associating geographical information and statistics. Since in the future, every statistic will include geographic coordinates, adding countless advantages to the management and use of information and easing, among other things, the risk analysis and decision making to provide public services or to build infrastructures.

The seminar, developed by the Professor of the University of Valencia and **Ivie** Researcher, Francisco Goerlich, counted with the participation of experts on statistical and geographic information who presented the following papers:

Ignacio Duque, responsible of spatial data infrastructure of the Subdirectorato General of Information and Communications Technology of INE. *Datos geoespaciales y producción estadística: contexto, resultados y proyectos.*

Eduardo Núñez, head of the Subdirectorato General for Geodesy and Cartography of IGN. *Los asentamientos de la población.*

Ignacio García Rodríguez, Deputy Director General of Studies and Information Systems of the Cadastre was made clear at the Seminar. *Información estadística georreferenciada en el Catastro*

Diego Puga, Professor at CEMFI. *Learning by working in big cities.*

Juan Carlos Duque, Professor of Economics at the University of EAFIT in Colombia and Director of RiSE Group (Research in Spatial Economics). *Fuentes de información alternativas para el análisis socioeconómico aplicado: la agenda de RiSE-group con respecto al uso de imágenes satelitales, Google Street View, Google Maps, OSM, Flickr y textos no estructurado.*

Luis Ángel Ruiz Fernández, Professor of the Department of Cartographic Engineering, Geodesy and Photogrammetry of the Polytechnic University of Valencia. *Teledetección, cartografía de usos del suelo y variables socio-económicas*

- The **VIII CONFERENCE ON THE SPANISH BANKING SECTOR**, organized by the **Ivie** in collaboration with the University of Valencia, which was held at University-Enterprise Foundation ADEIT in Valencia on June 22, analyzed the changes needed in the banking sector to regain profitability and to face future challenges.

The strong negative impact of the economic crisis on the banking sector has forced it through an intense restructuring process with major adjustments in size and a large public funds' injection. However, despite the efforts made, the banking sector still has a problem of viability, as its current profitability does not reach the minimum required by investors

Joaquín Maudos, Professor of Economics at the University of Valencia and **Ivie** Deputy Research Director, introduced the conference by analyzing the current situation of the sector. The following experts participated in the first part of the conference with a discussion on the transformation of the banking sector: Angel Berges (Vice-President of AFI), Santiago Carbo (Professor at Bangor University and CUNEF and **Ivie** Researcher) and José Luis Martínez Campuzano (Spokesman of the Spanish Banking Association, AEB). In the second session of the conference, Bernabé Sanchez-Minguet, Executive Adviser of Cajamar, and Antonio Martínez, Chief Financial Officer and Deputy Director-General of Ibercaja, shared their view of the future of banking in Spain.

- On September 20, the Seminar **UNA LECTURA CORAL DEL INFORME DE LA COMISIÓN DE EXPERTOS PARA LA REVISIÓN DE LA FINANCIACIÓN AUTONÓMICA** was held at University-Enterprise Foundation ADEIT in Valencia. The event was organized by the **Ivie**, in collaboration with the Valencian Regional Government, to carry out an in-depth analysis of the report presented in July by the Committee of Experts for the design of the new Spanish regional funding system and to assess the possible implementation of the proposals made.

The seminar, attended by over 100 people including government representatives of several regions, was inaugurated by the Valencian Regional Minister for Finance and the Economic Model, Vicent Soler. Leading experts in regional funding who are members of the Committee and authors of similar reports also took part in the Seminar.

The Seminar was opened by Francisco Pérez, **Ivie** Research Director and member of the Committee of Experts in representation of the Valencian Community, with a diagnosis of the report carried out by the Committee. Following there were two round table discussions. The first one focused on the issues of sufficiency, equity and autonomy with the participation of Carlos Monasterio, Santiago Lago, María Antonia Monés and Francisco Adame. In the second discussion, Alain Cuenca, Maite Vilalta, Francisco Pedraja and Jorge Onrubia analyzed the structure of the new model, the Inter-territorial Compensation Fund (FCI) and debt. Finally, the President of the Valencian Regional Government, Ximo Puig, gave the closing speech.

On October 30, the **Ivie** and BBVA Foundation organized, in collaboration with the University of Valencia, the Workshop **MEASURES TO ENHANCE PRODUCTIVITY GROWTH. NEW DEVELOPMENTS**. The slowdown in productivity since the onset of the crisis is a phenomenon that generates much debate among international economists. The workshop analyzed the factors that determine productivity weaknesses, as well as the measures needed to boost its growth.

Over a hundred people attended the Workshop which was organized in three parts carried out by international experts from prestigious institutions such as the OECD, the European Commission, and various European universities.

The seminar analyzed productivity in the aftermath of the crisis, the role of intangible assets and human capital, the problem of resource distribution, global value chains, as well as the challenges of measuring in the new economy.

Ivie's Director of International Projects, Matilde Mas, expressed in her presentation the need to invest in intangible assets to improve productivity. Also, she insisted that Spain is behind in terms of investment in intangible assets with respect to other advanced economies.

The following speakers also participated in the Workshop: Cecilia Jona-Lasinio (LUISS Guido Carli University and Istat), Flavio Calvin and Daniel Ker (OECD), Bart Los (University of Groningen), Montserrat López-Cobo (European Commission) and Enrique Bigné (University of Valencia).

- The seminar **LOS RANKINGS COMO INSTRUMENTO PARA LA MEJORA Y LA DIRECCIÓN ESTRATÉGICA DE LAS UNIVERSIDADES**, organized by the BBVA Foundation and **Ivie** on November 24, gathered nearly 100 people interested in the possibility of using rankings as a tool to improve the management and performance of universities. In total, representatives of more than 30 Spanish universities attended the seminar.

In his opening speech, **Ivie** Research Director, Francisco Pérez, highlighted the importance of universities in adapting and integrating in the knowledge economy. In addition, he stressed that, although Spain is improving in capital endowment, it faces difficulties to efficiently use that capital. Therefore, it is important for universities to contribute optimally to human capital formation.

The seminar was organized in two debate sessions. The first focused on the current situation of rankings in Spain, their improvements, limitations and possible uses. The second sessions addressed the practicality of introducing data on graduate employability in the rankings. The following experts participated:

Domingo Docampo (Universidad de Vigo): *¿Cómo podemos saber qué miden los rankings de universidades?*

Teodoro Luque (Universidad de Granada): *Rankings, meta-rankings y posicionamiento de universidades. O dime con quién andas, que te conozca*

Joaquín Aldás (Universitat de València e Ivie): *Rankings en sistemas universitarios heterogéneos. El caso español y U-Ranking*

Alejandro Escribá (Universitat de València): *Rasgos y orientación estratégica en universidades con resultados excelentes*

José María Peiró (Universitat de València and Ivie): *Desarrollos actuales y retos de las universidades en la promoción de la empleabilidad*

Lorenzo Serrano (Universitat de València and Ivie): *Factores determinantes de la empleabilidad de los universitarios en España*

Martí Casadesús (AQU Catalunya y Universitat de Girona): *Herramientas para el seguimiento y análisis de la empleabilidad en el sistema universitario catalán*

José Millet Roig (Universitat Politècnica de València): *Seguir innovando en la gestión de la empleabilidad sin morir en el intento: El caso de la UPV*

9.2. ORGANIZED BY OTHER INSTITUTIONS IN COLLABORATION WITH THE IVIE

- The city of Valencia hosted this year the workshop on international trade, which is organized annually by the Center for Economic Policy Research (CEPR), based in London. This year the workshop was organized with the collaboration of the **Ivie**. During three days, from May 31 to June 2, more than 60 economists from some of the most renowned world-wide universities and research centers gathered at the **EUROPEAN RESEARCH WORKSHOP IN INTERNATIONAL TRADE 2017 (ERWIT)** to analyze the trends in international trade that will determine the future of the world economy.

The experts presented their research on the effects of international trade on well-being, productivity and technological innovation, within the context of the new policies on trade protectionism that are being imposed by some countries and could negatively affect the world economy. Among the issues analyzed during the workshop were Brexit and its historical background, bureaucratic barriers to free trade, the economic effects of immigration on the structural change in Europe, the impact of globalization on family firms and the relationship between financial markets and trade. Some of the conclusions reached at the workshop were the strong positive consumer benefits of China's rise in the global economy, despite its impact on certain groups in terms of employment and wages, and the pressure that increased globalization has exerted on many family-owned firms which, in turn, have responded favorably by improving their management and productivity.

Some well-known economists that participated in ERWIT 2017 are Peter Schott (Yale University), David Weinstein (Columbia University), Mary Amity (Federal Reserve Bank of New York), Kevin H. O'Rourke (Oxford University), Thierry Mayer (Sciences Po, Paris University), Jonathan Eaton (Pennsylvania State University), David Dorn (Universität Zurich), Cheng Chen (University of Hong Kong) and Maartin Bosker (Tinbergen Institute).

- The University of Valencia, in collaboration with the **Ivie**, organized on September 26, the Round table **MÁS EUROPA, BENEFICIOS DE LA PERTENENCIA A LA UE**, in which the following experts participated: Joan Calabuig (Valencian Government Delegate for the European Union and Foreign Relations), Manuel Sanchis (Professor at the University of Valencia), Javier Quesada (**Ivie** Research Professor and Professor at the University of Valencia), Cecilio Tamarit (Director of the European Documentation Center at the FGUV, General Foundation of the University of Valencia), and José Manuel Pastor (Dean of the Faculty of Economics of the University of Valencia).

In relation to this event, the exhibition *Más Europa, más futuro* was set up in the main hall of the Faculty of Economics during September 15-30. The exhibition, composed of 14 posters, was part of a project based on accurate data analysis designed to visually expose in a comprehensive manner to society, particularly younger generations, some of the benefits that the European Union offers its citizens.

Each of the 14 images included in the exhibition combined design with clear and concise messages to convey some of the most important contributions of the EU to the socio-economic improvement of our country. In addition, all the posters, designed by the Valencian firm Dataly, feature a QR code that allowed access to more detailed statistical information on the subject.

Beyond the numbers, the exhibition also focused on the social transformations experienced by our country thanks to its integration into the European Union.

This activity was co-financed by the Secretary of State for the European Union of the Spanish Ministry of Foreign Affairs and Cooperation, within the framework of a call for proposals to promote communication and disseminating activities related to the European Union.

9.3. PARTICIPATION OF IVIE RESEARCHERS AND TECHNICIANS IN OTHER SCIENTIFIC MEETINGS

DECEMBER

- 15 **José María Peiró** presented the paper “Trabajo, flexibilidad y carrera de los jóvenes: un enfoque psicosocial” at the *IV Jornada de Excelencia e Innovación en Psicología* (Madrid)
- 14-16 **Francisco Alcalá** (“Growth Sustainability and the Quality Dimension of Consumption”) and **Carmen Herrero** (“Population structure and the Human Development Index”) presented their papers at the *42 Simposio de la Asociación Española de Economía* (Barcelona)
- 12 **Francisco Pérez** participated in the presentation of the book “El final del desconcierto” by Antón Costas. Museo L’Iber (València)
- 11-12 **Matilde Mas** took part in the *2º Taller de LA KLEMS*. Inter-American Development Bank (Washington D.C.)
- 5 **Antonio Villar** presented the paper “The labour market from a different perspective” at the Workshop *The Role of Education in Social Mobility. The European Commission’s Community of Practice on Fairness* (Brussels)

NOVEMBER

- 29 **José María Peiró** presented the paper “Contributions from psychology to promote graduates employability” at the *First Southeast Asia Regional Conference of Psychology* (Hanoi, Vietnam)
- 28 **Carmen Herrero** presented the paper “Equality of Opportunity in Health: Theory and Applications” at the *III Workshop sobre Economía de la Salud*, Universidad de Zaragoza.

Joaquín Maudos presented the paper “Los bancos tras la crisis inmobiliaria” at the *Jornada Los Bancos y las cicatrices de la crisis inmobiliaria*, Colegio de Economistas (Madrid).

José María Peiró and A.M. Di Fabio presented the paper “Intrapreneurial Self-Capital as a key resource for life satisfaction and flourishing in the 21st century” at the *First Southeast Asia Regional Conference of Psychology* (Hanoi, Vietnam)
- 24 **Joaquín Maudos** took part in the roundtable discussion “Presente y futuro del sector bancario español” at the *Cátedra de finanzas internacionales Banco Santander*, Universitat de València.

Marta Solaz and **Francisco Alcalá** presented the paper “International relocation of production and growth” at the *XIV INTECO Workshop on Economic Integration*, Universitat de València.
- 17 **Ernest Reig** and **Francisco J. Goerlich** presented the paper “Factores socioeconómicos de escala en las Áreas Urbanas Funcionales españolas” at the *Conferencia Internacional de Ciencia Regional de la AEER*, Universidad Pablo de Olavide (Seville)

Francisco Pérez participated in the *Charla-coloquio sobre la reforma de la financiación autonómica*. Club de Líderes, Sartori Comunicación (València)
- 16-18 **Joaquín Aldás**, J. Martí and E. Méndez presented the paper “The motivational effects of educational video games: An experimental design” at the *ICERI 2017 - 10th annual International Conference of Education, Research and Innovation* (Seville)
- 15 **Francisco Pérez** gave the conference “La inserción laboral de los universitarios y el futuro del empleo”. Universidad de Castilla-La Mancha (Toledo)

- 14 **Lorenzo Serrano** and **Ángel Soler** (“Formación y capital humano en Valencia”) and **Javier Quesada** and **Ángel Soler** (“Recursos de conocimiento, ciencia y tecnología en la Comunitat Valenciana”) presented their papers at the *I Congreso Valencia y su economía: un modelo sostenible es posible*, Facultat d'Economia de València.
- Francisco Pérez**: gave the conference “La financiación valenciana” at UGT País Valencià, Casa del Pueblo de Valencia.
- 10 **José María Peiró**, E. Villajos and N. Tordera presented the paper “HR practices and sustainable well-being and performance at work. Differences among social, public and for-profit organizations” at the *HRM and the alignment of employee well-being and organisational performance track*, Radboud University (Nijmegen, The Netherlands)
- 9 **Francisco Pérez** was a moderator in the debate “El impacto del corredor mediterráneo en la Comunidad Valenciana” at the *IV Foro de Economía y Empresa*, Universitat de València
- 8 **Matilde Mas** and **Javier Quesada** participated in the roundtable meeting “Hay vida más allá de Cataluña. Problemas pendientes (y urgentes) de la economía española” at the *IV Foro de Economía y Empresa*, Universitat de València
- 6 **Francisco Alcalá** presented the paper “International relocation of production and growth” at the *Campus de la Universidad de New York en Abu Dhabi* (United Arab Emirates)

OCTOBER

- 30 **Francisco Pérez** took part in *Propuestas de la Comisión de Expertos para la reforma del sistema de financiación autonómica*. Fundación Olof Palme and Círculo de Economía (Barcelona)
- 27-29 **Carmen Herrero** presented the paper “Population Structure and the Human Development Index” at the Association of Southern European Economic Theorists (ASSET) (Algeria)
- 26-28 **Joaquín Aldás**, J. Martí and E. Méndez presented the paper “Effectiveness of educational video games in knowledge acquisition: an experimental design” at the *WCLTA-2017 - 8th World Conference on Learning, Teaching and Educational Leadership*, Universidade Aberta (Lisbon)
- 20 **Emilio Tortosa-Ausina** presented the paper “Eficiencia y crecimiento económico en Latinoamérica: el caso de Colombia” at the *XIV Seminario de la Edición Especial de la Revista ESPE “Desafíos de la Política Fiscal frente a la Reciente Incertidumbre Macroeconómica”*, Banco Central de Colombia (Bogotá)
- Francisco Pérez** took part in the roundtable “Financiación autonómica” at the *Pabellón Comunitat Valenciana*, Sociedad de Proyectos Temáticos de la Comunitat Valenciana (Alicante)
- 19-20 **José María Peiró** presented the keynote lecture “Multilevel analysis of stress in organizations” at the *EAWOP Small Group Meeting, Fostering healthy organizations: A cross-cultural perspective*, Universidad de Florencia
- 19 **Joaquín Maudos** took part in the roundtable “Impacto económico de la Volvo Ocean Race”. Pabellón Comunitat Valenciana (Alicante)
- 17 **Francisco Pérez** presented the paper “Las claves de la infrafinanciación valenciana” at the *Jornada Financiación y Autogobierno*, Fundación Valenciana de Estudios Avanzados (València)
- 15 **Santiago Carbó** gave the conference “Financial digitalisation” at the *The Annual Conference of the Northern Area Group of the British Accounting and Finance Association (BAFA)*, Bangor University (UK)

SEPTEMBER

- 26 **Javier Quesada** took part in the roundtable “Más Europa: beneficios de la pertenencia a la Unión Europea”. Facultat d'Economia de València
- 19 **Ernest Reig** presented the paper “Economía del conocimiento y competitividad de las regiones españolas” at the *Observatorio Económico de Andalucía* (Seville)
- 14 **José María Peiró** gave the conference “Happy productive work units: whats matters?”. Illinois Institute of Technology (Chicago)
- 12 **Joaquín Maudos** presented the paper “Situación actual del sector bancario” at the Jornada *La banca y sus retos más inmediatos*, Colegio de Economistas de Valencia – COEV
- 7-8 **José María Peiró**, D. Henao and M. Frese presented the paper “Empoderamiento emprendedor: Medición y validación” at the *VII Jornadas Científicas de investigación en Psicología de los RRHH*, Universitat de València

AUGUST

- 31 **Juan Fernández de Guevara**, **Joaquín Maudos** and **Javier Quesada** took part in the *Wolpertinger Conference 2017* (Santander, Cantabria)

JULY

- 23-27 **José María Peiró** took part in the *XXXVI Congreso Interamericano de Psicología*. (Yucatán, Mexico)
- 17-21 **José María Peiró** gave the conference “¿Trabajadores felices y productivos? ¿En qué sentido y desde qué perspectiva?” at the *Curso de verano Claves para la implantación de un modelo de felicidad en el trabajo*, Universidad Internacional de Andalucía.
- 11-14 **José María Peiró**, S. Yang and Y. Ayala presented the paper “How self-efficacy moderates the relationship between over-qualification, job dissatisfaction, and innovation” at the *15th European Congress of Psychology* (Amsterdam)
- 10-11 **Joaquín Aldás-Manzano** took part in the roundtable “El compromiso social en la universidad española. ¿Qué no miden los *rankings* universitarios?”. *Seminario Universidad y sociedad: la respuesta a los grandes retos sociales*, Universidad Complutense de Madrid.
- 6-7 Participación de **Francisco Pérez** and **Juan Pérez** en los workshops “Estabilidad Fiscal” and “Política Regional” *RIFDE-GEN+ 2017. Red de Investigadores en Financiación autonómica y Descentralización financiera en España (RIFDE)* Santiago de Compostela (La Coruña)
- 3-7 **José María Peiró** presented the paper “Factores organizacionales y personales que promueven equipos felices y productivos en las empresas” at the *III Congreso Nacional de Psicología* (Oviedo)
- 3-4 **Francisco Pérez** presented the paper “Financiación autonómica y gasto sanitario público: experiencia reciente y perspectivas” at the *Encuentro “Ernest Lluch”. Crisis económica, austeridad y salud. Estrategias de salida de la crisis*, UIMP (Santander)

JUNE

- 29-30 **Ángel Soler** presented the paper “Estimating the long-term socioeconomic contributions of the European higher education institutions” (co-author with **José Manuel Pastor**, **Lorenzo Serrano** and Carlos Peraita) at the *XXVI Jornadas de la Asociación de Economía de la Educación* (Murcia)
- 25-29 **Santiago Carbó** presented the papers “Non-Pricing Drivers of Underwriters' Reputation in Corporate Bond Markets during the Crisis” (co-author with P. J. Cuadros and F. Rodríguez)

and “The Impact of Lending Relationships on the Choice and Structure of Bond Underwriting Syndicates” (co-author with P.J. Cuadros and F. Rodríguez) and was *session chair* of “Risk management” at the *92nd Annual Conference*, Western Economic Association International (San Diego)

- 22-23 **José Manuel Pastor** and R. Escarré gave the conference “Los aportes de las universidades a sus territorios” at the *I Encuentro de Gestores Financieros de Educación Superior de Argentina - GEFINES-AR*, Universidad Nacional Litoral (Santa Fe, Mexico)

Francisco Pérez presented the paper “Impactos socio-económicos de la actividad universitaria en España. Crisis económica, financiación y gasto en las universidades públicas españolas” at the *Cursos de Verano*, Universidad Castilla-La Mancha

- 21-24 **Alejandro Escribá** took part as co-chair in the session “Track on Top Management Teams and Business Elites” and with the paper “Success factors in competitive R&D funding for public research institutions” (co-author with J. Ferrús and P. Fidel) at the *XVII Conference of the European Academy of Management – EURAM* (Glasgow, Scotland)

- 19-23 **Jose García-Montalvo** (“Early Human Capital and Development: the case of Latin America”, co-author with M. Reynal Querol) and **Francisco Alcalá** and **Marta Solaz** (“International Relocation of Production and Growth”) presented their papers at the *18th Congress of the International Economic Association* (Santa Fe, México)

- 19 **José Manuel Pastor** and R. Escarré gave the conference “Valoración del impacto socio económico de las universidades en las economías regionales. El caso de las comunidades autónomas de España” at the *Seminario Contribución de las Universidades a las Economías Regionales. Experiencia Internacional y Regional*, Universidad Austral de Chile (Valdivia)

- 12-14 **Santiago Carbo**, F. Rodríguez and A. Saunders presented the paper “Underwriting as certification of bank bonds” at the *International Risk Management Conference – 10th Edition of the Annual Meeting of The Risk, Banking and Finance Society* (Florenzia, Italia)

- 8-9 **Iván Arribas**, **Emili Tortosa-Ausina**, I. Narbón and M.T. Balaguer presented the paper “Explaining Differences in Local Governments’ Cost Efficiency: A Instrumental Variable Quantile Regression Approach” at the *XX Encuentro de Economía Aplicada*, ALDE - Asociación Libre de Economía (València)

Emili Tortosa-Ausina, M.I. Brun and M. Balaguer presented the paper “The Socio-Economic, Political and Budgetary Determinants of Spanish Local Government Transparency” at the *XX Encuentro de Economía Aplicada*, ALDE - Asociación Libre de Economía (València)

José Ramos (“La Creatividad y la Cooperación Social como Procesos Impulsores de la Autodeterminación: Un Experimento Longitudinal de Campo” with E. Gracia, V. Martínez-Tur, C. Moliner, Y. Estreder and L. Patras) and **José María Peiró** (“Las esencias del Desarrollo Organizacional en las organizaciones del siglo xxi”) presented their papers at the *Congreso en Desarrollo Humano y Organizacional - DHO* (Valladolid)

- 2 **José Manuel Pastor** presented the paper “Estudio sobre el impacto de las universidades en la economía: el caso de las universidades públicas valencianas” at the *CONFED - Conferencia Española de Decanos y Decanas de Economía y Empresa*, Facultat d’Economia de València.

MAY

- 26-27 **José García-Montalvo** was member of the organizing committee of the *1st Catalan Economic Society Conference* (Barcelona)

José María Peiró presented the paper “Assessing stress at work from psychobiological and psychosocial perspectives” at the *Workshop the First International Conference on Healthier societies fostering healthy organizations. A cross-cultural perspective*, Universidad de Florenzia

- 24-27 **Emili Tortosa-Ausina** presented the paper “Ethical Strategy Focus and SRI Mutual Fund Performance” at the MIC - *Management International Conference* (Venice)
- 22 **José María Peiró** gave the conference “Estrés Laboral. Desarrollos recientes en su investigación y sus implicaciones para el análisis y prevención de los riesgos psicosociales”. Colegio Oficial de Psicólogos de Bizkaia (Bilbao)
- 20-21 **José García-Montalvo** co-organised the Workshop *The Political Economy of Development and Conflict V* (Barcelona)
- 19 **José Manuel Pastor** presented the paper “The Socioeconomic contributions of the universities: the case of the Valencian public University System (Spain)” at the *Conference-session Public Administration and Development of Russia: Choosing Priorities* (Moscow)
- 17-20 **José María Peiró** and **José Ramos** participated with several papers and poster presentations in the *18th European Congress of Work and Organizational Psychology* (Dublin).
- 9 **Alejandro Escribá** presented the paper “Características diferenciadoras de las Empresas Familiares que más crecen” at the Workshop *Las fórmulas para crecer en sectores maduros* Improven-Asivalco (València)
- 4 **Joaquín Aldás**, Nuria Recuero Virto, M^a Francisca Blasco López and Jesús García Madariaga presented the paper “The impact of market oriented strategies in sustainable tourism of archaeological sites” at the *22nd International Conference on Corporate and Marketing Communications*, Universidad de Zaragoza.
- 3 **José María Peiró** gave the conference “The Happy productive model and beyond”. Department of Psychology, University of Guelph (Canada)

APRIL

- 27-28 **Joaquín Aldás** presented the paper “Sistema de información de la educación superior” at the *XV Pleno del Consejo Universitario Iberoamericano*, Universidad Nacional Autónoma de Honduras (Tegucigalpa, Honduras)
- 27 **Carmen Herrero** presented the paper “Una aproximación probabilística a la evaluación y comparación de distribuciones basadas en atributos ordinales y aplicaciones” at the *Workshop on Equality of Opportunities*, Universidad de Valladolid
- 4 **Ángel Soler** was awarded by the Universitat de València the IV Premi d'Igualtat: *La lluita per la igualtat de gènere: persona, empresa o institució a la Comunitat Valenciana*, for his analysis on the law firm Broseta Abogados.

MARCH

- 30-31 **Francisco Pérez** took part in the *2ª edición del Congreso Building Universities' Reputation* (Pamplona)
- 23-24 **Alejandro Escribá** and J. Villagrasa presented the paper “Financial strength of family firms during non-munificent periods: the effects of TMT's orientations” at the *8th Workshop on Top Management Teams and Business Strategy Research*, EIASM - European Institute for Advanced Studies in Management (Seville)
- 23 **Francisco Pérez** presented the paper “El fracaso de los instrumentos financieros de la solidaridad” at the *Ciclo de conferencias de la RAVJL 2017*, Ilustre Colegio de Abogados de València.
- 15 **Juan Fernández de Guevara**, **Matilde Mas** and **Eva Benages** presented the paper “A proposal for disentangling of public funded R&D (GBARD) by industries” at the *New Techniques and Technologies for Statistics 2017*, Eurostat (Brussels)

- 9 **José Manuel Pastor** took part in the roundtable “Perspectivas económicas 2017” at the *Forum Forinvest*, Feria Valencia.
- 6-8 **José Manuel Pastor** presented the paper “Using Blogs as a tool to connect different levels of education” at the *INTED2017 - 11th International Technology, Education and Development Conference* (València)
- 2-3 **José María Peiró** gave the conference “Bienestar de los trabajadores y desempeño eficaz: ¿Sinergia o antagonismo?” at the *1ª Conferencia Ibérica em Gestão Estratégica de Capital Humano (CIGECH)*, Instituto Politécnico de Tomar (Portugal)
- 2 **Francisco Pérez** participated in the Seminar *L'hora de les decisions. Infraestructures, finançament i sectors econòmics*, Institut d'Economia i Empresa Ignasi Villalonga (València)
- 1-4 **Santiago Carbó** and H. Pérez presented the paper “The Pricing of Financial Products in Retail Banking: Competition, Geographic Proximity and Credit Limits” and was *session chair* of “Topics in Banking” at the *66th Annual Meeting of the Midwest Finance Association* (Chicago).

FEBRUARY

- 18 **Carmen Herrero, Matilde Mas, Joaquín Maudos** and **Francisco Pérez** took part in the several roundtable discussions at the *Convenció d'idees. La via valenciana*, Universitat Politècnica de València.
- 1-4 **Joaquín Aldás**, Eduard Amorós Kern and Inés Küster Boluda presented the paper “Socialización, influencia de los grupos primarios y secundarios y efectos sobre el comportamiento de voto: Un análisis desde el marketing político” at the *XXVII Jornadas Hispano-Lusas de Gestión Científica*, Universidad de Alicante.

JANUARY

- 20 **Francisco Pérez** gave the conference “Financiación de la investigación, atracción de capital humano y resultados universitarios” at the *Seminario sobre la situación de la investigación universitaria analizada desde España y desde Europa* (Madrid)
- 6-8 **Santiago Carbó** participated as speaker, discussant and session chair at *The 2017 Annual Meeting*, American Economic Association (Chicago).

10. DISSEMINATION

10.1. PRESENTATION OF STUDIES

During 2017, five studies by the **Ivie** researchers and technicians were presented:

- The report on capital accumulation and productivity in Spain and its regions in the 21st century, *Acumulación y productividad del capital en España y sus comunidades autónomas en el siglo XXI*, was presented on 10 April 2017 at the head office of the BBVA Foundation in Madrid. The report falls within the BBVA Foundation-**Ivie** economic research program and was led by **Ivie** researchers and Universitat de València professors Lorenzo Serrano, Francisco Pérez, Matilde Mas and Ezequiel Uriel, together with Eva Benages and Juan Carlos Robledo, research technicians at the Institute.
- The public presentation of the report *La economía intangible en España. Evolución y distribución por territorios y sectores (1995-2014)*, (Spain's intangible economy. Evolution and distribution by territories and sectors) took place on 25 April 2017 at the head office of the Cotec Foundation for Innovation in Madrid. The authors of the report, Matilde Mas and Javier Quesada, both professors of economic analysis and **Ivie** research professors, presented the most relevant points of the research. The general director of Cotec, Jorge Barrero, highlighted the need to include intangible assets in accounting records.
- The ADEIT Foundation of Valencia hosted the presentation of the report *El valor económico de las actividades basadas en el conocimiento en España y sus regiones*, (The economic value of knowledge-based activities in Spain and its regions) on 9 May 2017, prepared by the **Ivie** for the Ramón Areces Foundation. The study, led by Universitat de València professor and **Ivie** deputy research director, Joaquín Maudos, together with researchers Eva Benages and Laura Hernández, includes a new regional database that can be used to quantify knowledge-based GAV in the 17 Spanish autonomous communities.
- The results of the fifth edition of the U-Ranking project, undertaken by the BBVA Foundation and the **Ivie**, were presented on 1 June at the BBVA Foundation head office in Madrid. The report entitled *U-Ranking 2017. Synthetic Indicators of Spanish Universities*, was led by **Ivie** Research Director Francisco Pérez and **Ivie** Research Professor Joaquín Aldás, both of whom are Universitat de València professors, with the collaboration of **Ivie** research technicians Irene Zaera and Rodrigo Aragón. The U-Ranking project began in 2012 and has had the support of evaluation experts in university activities and quality from 15 Spanish universities.
- A multidimensional study on welfare and quality of life in Spain, *Las facetas del bienestar: una aproximación multidimensional a la calidad de vida en España y sus comunidades autónomas 2006-2015*, was presented on 30 November at the BBVA Foundation head office in Madrid. Prepared by researchers Carmen Herrero and Antonio Villar in collaboration with **Ivie** research technician Ángel Soler, the monograph analyzes the evolution of welfare between 2006 and 2015 through a multidimensional lens at national and regional level.

10.2. ESENCIALES SERIES

Esenciales [Essentials] is a series of periodicals designed to disseminate the main results of the Research Program carried out by the BBVA Foundation and the **Ivie**.

Brief, accessible and updated with the latest data available, these periodicals examine the issues dealt with in the main areas of research conducted by the BBVA Foundation and the **Ivie**: growth and competitiveness;

human capital and knowledge; the productive structure; welfare and social capital, and regional development and demographics. In 2017, ten issues were published:

- No. 13/2017. *La recuperación frena el crecimiento de la desigualdad, pero las rentas de los hogares se mantienen todavía un 20% por debajo de los niveles previos a la crisis*
- No. 14/2017. *Las diferencias regionales en esfuerzo inversor en I+D se reducen un 9% durante los años de crisis, pero en lo que llevamos de siglo han aumentado casi un 40%*
- No. 15/2017. *La inversión pública en España ha caído casi un 60% desde 2009 y en algunas regiones la reducción ha sido tan intensa que no se ha podido reponer el capital depreciado*
- No. 16/2017. *Nueve provincias españolas concentran el 71% de la población ocupada en sectores TIC y el 60% de las patentes*
- No. 17/2017. *Todas las regiones españolas retroceden en el índice europeo de competitividad y solo Madrid se sitúa entre las 100 mejores*
- No. 18/2017. *El 39,2% de los parados mayores de 50 años lleva buscando empleo más de 4 años, frente al 10,6% de la población joven*
- No. 19/2017. *España eleva el peso de las exportaciones de bienes en el PIB un 53% en cinco años hasta igualar la media mundial*
- No. 20/2017. *El número de universidades privadas se ha multiplicado por cinco en 20 años y ya forman al 16,4% de los estudiantes*
- No. 21/2017. *Navarra y La Rioja son las regiones españolas que mejor han resistido los efectos de la crisis en el empleo, pero solo Illes Balears ha logrado recuperar los niveles del año 2007*
- No. 22/2017. *La inversión pública en infraestructuras educativas ha caído a la mitad desde 2009 y en sanitarias se ha reducido un 37%*

10.3. WEBSITES⁵

The **Ivie website** (www.ivie.es) was completely renovated in 2007 with a new more visual and attractive design, yet still retaining its focus on disseminating the Institute's research and databases to stimulate and enhance economic research. The new website streamlines the previous structure in four main sections: About us, Research, Databases, and News & Events. The first section provides all the information about the Institute itself, its members, partner institutions and people involved in it. A section on transparency is also included with information about all the Institute's public contracts and its annual accounts.

The Research section provides descriptions of all the **Ivie's** completed and ongoing projects, classified by research lines. This section also includes publications, articles, working papers and reports developed by the Institute, and others by **Ivie team** researchers. This section also includes the *Esenciales* (Essentials) series of periodicals designed to disseminate the Institute's work, prepared for the BBVA Foundation and addressed to the mass media. In 2007, ten of these documents were disseminated, following the concise, direct press release format and covering subjects of social and economic interest. A series with a similar format was also launched in 2017, in this case for the Regional Ministry of Finance, entitled *Papeles de Financiación Autonómica* (Regional Funding Papers) also designed for general dissemination through the media. To date, four such reports have been published, aimed to highlight the problems resulting from the present regional funding model.

The third section of the new website contains information and links to the 25 databases created by the **Ivie that are** available for consultation. This section provides access to a large amount of statistical information prepared by the Institute in the form of data banks. Along with those already available in 2016 —*Capital Stock, Human Capital, Regional Differences in the Public Sector, Basic Public Services, Public Health Expenditure, Intangible*

⁵ Activity funded by the Valencian Regional Government's Ministry for Finance and the Economic Model, through the cooperation agreement signed with the **Ivie** to promote and consolidate its basic and applied economic research activities.

Assets: national databases (1995-2011), EU KLEMS, ICT R&D Macro data, Social Capital, Human Development, Transition to the Labor Market, Inequality, Education Accounts in Spain, Homogenous Population Series, Life Tables, Trade Integration and Migrations— two new databases were added in 2017: *Intangible assets: national and regional database (1995-2014)* and *Economic value of knowledge*, developed for the Ramón Areces Foundation.

Finally, the News & Events section gathers information aimed at the general public on the **Ivie's** lines of research and activities. The content of these sections is also addressed to journalists who want to report on the Institute's work. As well as news and press releases about the **Ivie's** activities, this section also covers information on its seminars, its researchers' activities and their opinion articles and interviews in the media. A total of 51 articles were published in 2017 analyzing current general issues and monographs or papers published by the Institute.

The development of the new website also included a new audiovisual section in News & Events for our researchers and research technicians. The Video blog contains a series of three- to five-minute long videos where **Ivie** experts give evidence-based information and opinions on current socio-economic questions. To date, six such videos have been uploaded on subjects such as school dropout, regional funding and the knowledge economy.

The new website format has also been adapted for social media to make it more interactive for visitors, who can now share its content on their social media profiles. At the top of the homepage, direct access is also provided to the **Ivie's** Twitter, LinkedIn, YouTube and SlideShare accounts.

A sliding banner now appears on the homepage, capturing the visitor's attention and showing some of the Institute's most recent and notable activities. Current news, upcoming events and the three latest opinion articles appear below the slider. Direct links to the Publications, Videoblog, and International sections are given at the bottom of the page. All the content on the new website is accompanied by images, making it more visual and attractive.

The **Ivie** website reached 54,800 visits in 2017, in which 72% were from users in Spain, while the remaining 28% came from 144 countries, of which Russia, Mexico, Colombia, Peru and the United States stand out.

The **Ivie** also manages and maintains the following websites: ABACO (Observatory of Knowledge-Based Activities) at www.observatorioabaco.es, U-Ranking at www.u-ranking.es and SPINTAN at www.spintan.net, the website of the European project of which the **Ivie** has been the coordinator, and the website of the Valencian Public University System of Information (SIUVP), which offers a complete information system with more than 63 indicators for the 5 Valencian public universities.

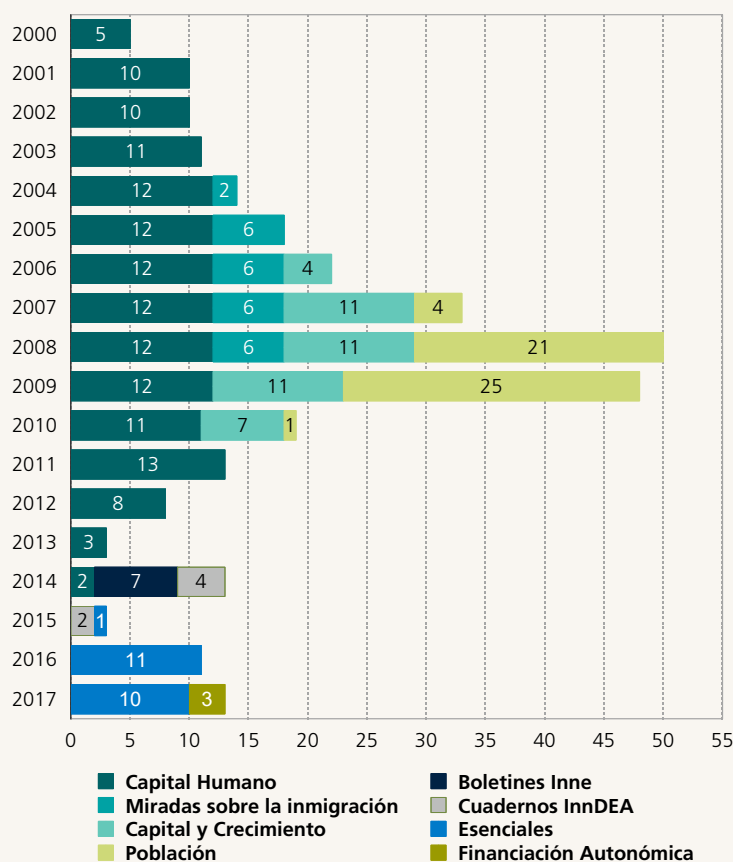
10.4. CIRCULATION IN PRESS AND ONLINE⁶

The **Ivie** has continued increasing its presence in the media, as a result of the attention given to publicizing its work. This progress is clearly shown by the 2,564 news items that appeared in the press in 2017 on the research conducted at the Institute and by the 51 opinion articles written the **Ivie** researchers.

The research concluded in 2017 and its activities undertaken were publicized through 14 press releases and also through 10 *Esenciales* releases and 3 *Regional Funding Papers*. In 2017, 172 activities by the **Ivie** researchers were reported in the agenda and news section of the Institute's website, including the publication of articles by researchers and technicians in scientific journals, and the presentation of papers at different congresses.

⁶ Activity funded by the Valencian Regional Government's Ministry for Finance and the Economic Model, through the cooperation agreement signed with the **Ivie** to promote and consolidate its basic and applied economic research activities.

Figure 7. Dissemination documents



Among the topics that have had the most impact in the media in 2017 are: *Esenciales* which have generated 530 news items; the 5th edition of U-Ranking, with 468 items; information related to region funding; the update of the capital stock database and the book *Las facetas del bienestar: Una aproximación multidimensional a la calidad de vida en España y sus comunidades autónomas (2006-2015)*. In addition, the contributions made by researchers to the media, in which they offered their expert views on certain topics, led to more than 442 press clippings.

Roughly 46% of the information disseminated about the **Ivie** in 2017 was published in the regional press (Valencian Community and other regions), around 15% in the national press, while 11.2% in the financial press. Levante was the newspaper with the most articles (133) that made reference to the **Ivie**; followed by El Economista, with 117 news articles; and La Vanguardia, which mentioned the **Ivie** 94 times. The other top ten newspapers which have also mentioned the **Ivie** are Las Provincias, Expansión, Cinco Días, ABC, El Mundo, El País and Valencia Plaza.

In 2017 the **Ivie** received more than 80 requests from the media, who turn to the Institute and its researchers and technicians as a source of reliable information on which to base or supplement their forthcoming news items in print, radio, television, or digital media format.

Social networks have also served as a platform to publicize the activity carried out by the **Ivie**. With 1,000 published tweets, the Institute's Twitter profile has more than 2,380 followers, 19% more than 2016. Meanwhile, U-Ranking and ABACO Twitter accounts increased their followers by 20% and 4%, respectively. Regarding the **Ivie** YouTube Channel, it received more than 6,000 visits, while the presentations on the SlideShare platform were viewed on 25,378 occasions throughout 2017. In 2016, the **Ivie** profile on LinkedIn

(network aimed at the professional field) was created with the aim of strengthening relations with the academic and research world.

In 2016, a monthly newsletter was launched in which each issue contains the main current news about the Institute, the latest research, opinion articles by the researchers and important events on the agenda. This newsletter is sent monthly by e-mail to more than 7,000 contacts, registering 7,651 visits to **Ivie's** website on those days.

Figure 8. News items published in the media

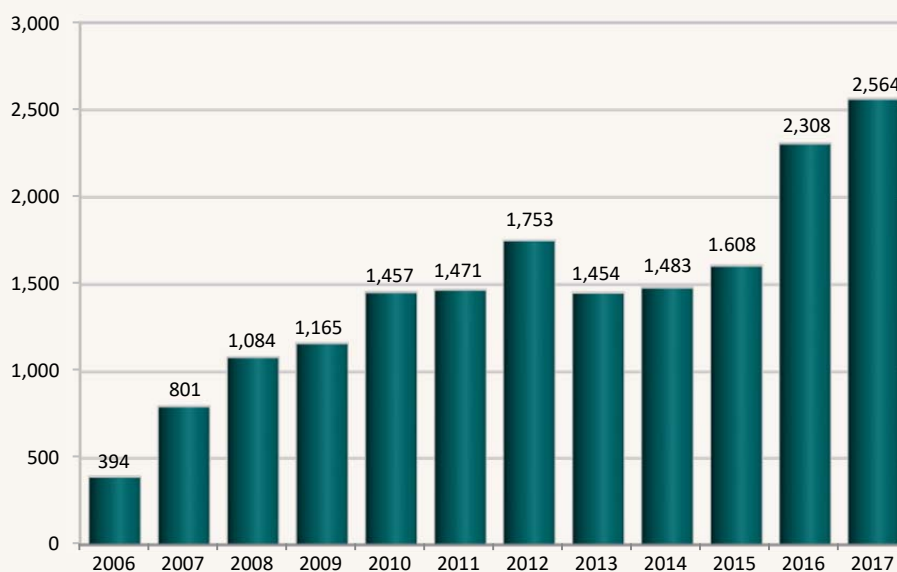


Figure 9. Number of visits to the **Ivie's** websites

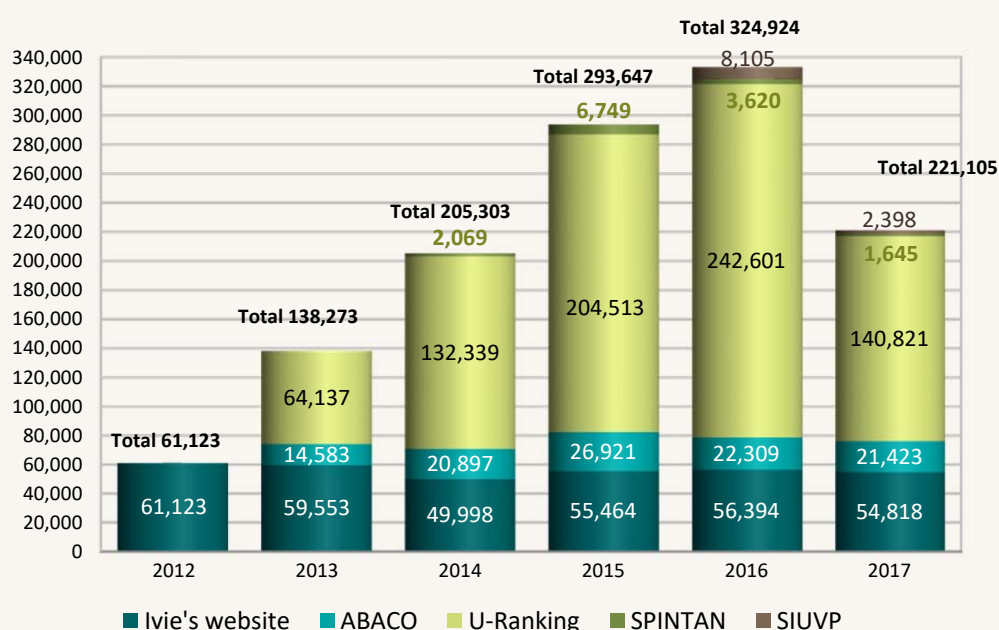
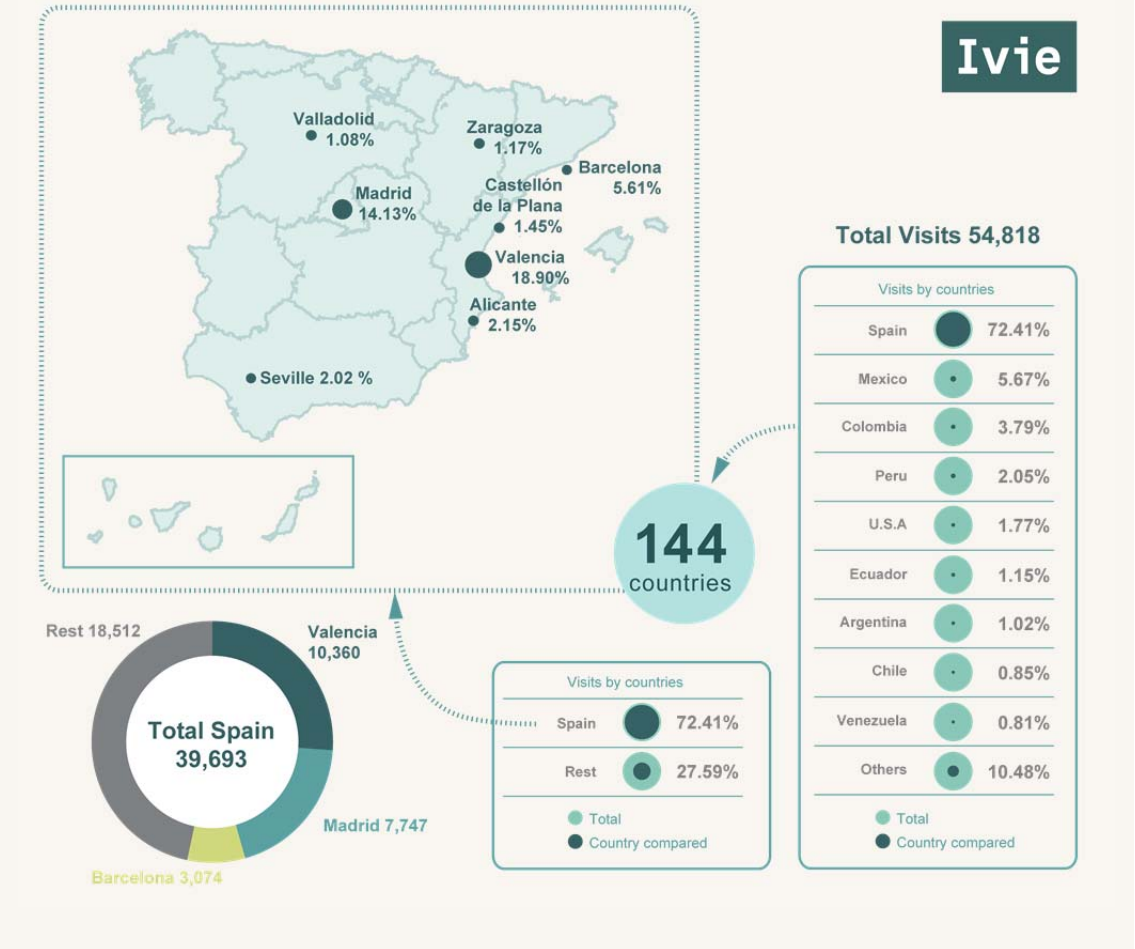


Figure 10. Visits to Ivie's website by geographical region in 2017





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