



CONTENTS

1. The Institute's main objectives.....	5
2. People.....	6
3. Collaboration agreements	31
4. Acknowledgments	32
5. Institutional information.....	36
6. Publications	41
7. Research and economic studies	58
8. Databases and indicator systems.....	89
9. Scientific meetings.....	103
10. Dissemination	112

1. THE INSTITUTE'S MAIN OBJECTIVES

The Valencian Institute of Economic Research (Instituto Valenciano de Investigaciones Económicas, **Ivie**) works to promote and conduct economic research and disseminate it in Spain and abroad.

Created in 1990 by the Department of Economy and Finance of the Generalitat Valenciana (Valencian Regional Government), the **Ivie** is supported by Bankia, Ford Spain, the BBVA Foundation, the Caja Mediterráneo Foundation, the Cañada Blanch Foundation and Funcas (Fundación de las Cajas de Ahorros).

The **Ivie** has two main aims: to create stable teams of specialists capable of producing a steady output of research in certain areas of general interest; and to help build bridges between research and the decisions made by economic agents. Many of those decisions require careful analysis of the available options, taking research findings, statistical information and the experience of specialists into account. The **Ivie** therefore also offers technical assistance in economic matters to institutions and companies that request it.

To achieve its goals, the **Ivie** organizes its work in lines of theoretical and applied research, with the support of various shared services. The research activity is carried out by the Institute's research associates, who have extensive academic experience, and its staff of economists and subject specialists.

To carry out its activities and execute its projects, the **Ivie** has built relationships with large numbers of researchers and has entered into collaboration agreements with various universities. It supports the economic research groups in carrying out and disseminating their activities and promotes the exploitation of their research efforts for the benefit of society.

The **Ivie** started its activities in November 1990. Throughout this period it has been sponsored by the Valencian Regional Government's Ministry of Finance, which has allowed it to foster economic research. The rest of its activities are financed through partnership agreements and contracts with various public and private sector institutions in Spain, Europe and the Americas.

2. PEOPLE

2.1. Board of Directors

President

Vicent Soler i Marco

Regional Minister of Finance and Economic Model

Secretary

Cañada Blanch Foundation: Antonio Lleó García

Trustee of the Cañada Blanch Foundation

Members

Ford Spain: Juan Fernando Acebrón Rodicio

Director of Institutional Relations

Inmogestión y Patrimonios, S.A.: Carlos Aguilera Aguilera

Corporate Business Director for the Valencian and Murcia Regions, Bankia

Valoración y Control, S.L.: Isabel Rubio León

Communication and External Relations Manager for the Valencian, Murcia and Balearic Regions, Bankia

BBVA Foundation: Vicente Gutiérrez Hernando

Deputy Director of the BBVA Foundation

Carlos Ocaña y Pérez de Tudela

General Manager of the Cajas de Ahorros Foundation

Luis Manuel Boyer Cantó

President of Mediterráneo Foundation

Eva Martínez Ruíz

Director General for Budgets of the Valencian Ministry of Finance and 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 (*Center for Economic Policy Research*)

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 Research Fellow at the Center for Economic Policy Research (London). He has been Full Professor at the Economic Analysis Department of the University of Murcia, Visiting Lecturer at the Pompeu Fabra University (Barcelona) and at the CIDE (Mexico) and Visiting Scholar for over a total of six years at the Universities of California (Berkeley), Harvard, New York and Columbia. He has been a member of the Board of Directors of the Spanish Economic Association and economic advisor for social and governmental institutions. His specialist fields are economic growth, international trade and industrial organization, topics on which he has directed several National R&D Plan projects and published articles in some of the most prestigious international academic journals and written a number of books and book chapters. (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 main research fields are quantitative methods in marketing research. He has published his research in specialized journals such as *European Journal of Marketing*, *Journal of Services Marketing*, *Online Information Review*, *Journal of Business Ethics*, *Journal of Interactive Marketing* and *Tourism Management*. He is co-author of the books *Análisis Multivariante Aplicado* (Thomson, 2005) and *Análisis Multivariante Aplicado con R* (Paraninfo, 2017). Since 2018, he is Vice-Chancellor of Strategy, Quality and Information Technologies at the Universitat de València. (Personal webpage: <https://www.uv.es/persona/aldas>).



Santiago Carbó (*Universidad de Granada*)

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 Economic Analysis at the University of Granada. In addition he is Head of the Financial Studies Division and Executive Director of the Observatory of Financial Digitalisation of the Cajas de Ahorros Foundation (Funcas). He has been Professor of Economics and Finance at CUNEF (University School for Financial Studies, Madrid) and at Bangor University (UK). He is independent advisor for Cecabank and President of its Audit Committee. He is Past-President (2017) of IBEFA (the International Banking, Economics and Finance Association). He was member of the Group of Economic Advisors of ESMA (European Securities and Market Authority) from 2014 to 2018. 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 Chief Editor of the *Journal of Financial Management, markets and Institutions*. 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 Días*, among 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*, among others). (Personal webpage: www.santiagocarbo.com, Twitter: @scarboval).



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. In 2018 he was awarded the 'Premio Catalunya Economía' and in 2019 the King Jaume I Prize in Economics. He was former Director of the Department of Economics and Business of the UPF and currently is Vice-Rector of Science Strategy at the same university. He is consultant to OECD, World Bank, European Union and Inter-American Development Bank. His research is concentrated on the areas of 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 one year as a researcher in the Technology and Economic Policy Program of the Kennedy School of Government (1995). He has published 17 books and more than 140 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: <http://jgmontalvo.com/>).



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 currently 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 Professor Emeritus 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 King Jaume I Prize in Economics. She is Past-President of ASSET (Association of Southern-European Economic Theorists), and of the Spanish Economic Association. 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 Visiting Resident at IMÉRA Institute for Advanced Study of Aix-Marseille University (AMU). She 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 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 also 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, recent ones have appeared in *European Journal of Operational Research*, *Applied Energy*, *Social Indicators Research*, *Journal of Informetrics*, *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, Director of International Projects of the **Ivie**, graduated and took a PhD in Economics at the Universitat de València, where she is Professor of Economic Analysis. Currently, she has obtained five six-year periods (sexennials) of research activity and one of knowledge transfer. Her specialized fields are the knowledge economy, analysis of public capital, new technologies and intangible assets. She is currently Director of the DIGITES (Digital Technologies Segment Data) Project commissioned by the European Commission's Joint Research Centre, Directorate B. She has been coordinator of the SPINTAN (Smart Public Intangibles) Project funded by the 7th Framework Programme of the European Union and has participated in other EU projects (EU KLEMS, INDICSER, ICTNET, DICTA and PREDICT). Also, she has been advisor to the LA KLEMS Project for Latin America. She is co-author of 81 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*, member of the Advisory Board of *Ekonomiaz* and member of the Scientific Board of *Cuadernos Económicos* of ICE. In 2020 she was awarded by the General Council of Economists of Spain with the Grand Cross of Merit in Service to the Economy. In July of that same year, she was appointed Member of the Advisory Council for Economic Affairs of the Spanish Ministry of Economic Affairs and Digital Transformation. She regularly discusses economic issues in the news media and is member of Cotec's Top 100 Experts. Also, she has been appointed expert advisor to the Economic and Social Council (CES) of Spain. (Personal webpage: www.uv.es/masm).



Joaquín Maudos (*Universitat de València and CUNEF*)

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 30 books and 140 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 Director of competitive projects (Spanish Ministry of Education and Science, BBVA Foundation, etc.), as well as of projects with firms and government agencies. Citations: 8,425 in Google Scholar and 1,483 in Web of Science. H-Index= 46, i10-Index=79 in Google Scholar and H-index=19 in Web of Science. He is listed as number 2,134/76,706 in the ranking of researchers in Spain and Spaniards abroad 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 at the Universitat de València, where he is currently Dean of the Faculty of Economics. He is consultant for the Children and Youth Observatory (València City 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 of the General Foundation of the Universitat de València. In addition he is Director of the Chair for a Sustainable Economic Model of València and its Surroundings sponsored by València City Council. His fields of research are economics of education, regional economics and banking. He has been a visiting researcher at Florida State University (USA) and at the College of Business, Law, Education and Social Sciences of Bangor University (UK), as well as an external consultant to the World Bank. He has published more than 50 books in collaboration and 75 articles in specialized 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, government agencies, and several European projects within the 7th Framework Program of the EU. He is currently coordinator of an Educational Innovation Group at the University of Valencia. (Personal webpage: www.uv.es/jmpastor).



José María Peiró (*Universitat de València*)

Dr José María Peiró graduated (1975) and took his PhD (1977) in Philosophy and the Arts at the Universitat de València. He also graduated in Psychology at the Complutense University of Madrid (1976). He was awarded with an honorary degree from Maastricht University (2020), Miguel Hernández University (2017) and Universidade Metodista de São Paulo (2010). He was Professor of Organizational and Social Psychology at the Universitat de València until September 2020. Currently, he is Professor Emeritus at the Universitat de València, as well as Research Professor at the **Ivie**. He was Past-President of the International Association of Applied Psychology and former Director of the Research Institute of Psychology of Human Resources of Organizational Development and Quality of Working Life. He was awarded by Psicofundación with the 2016 *José Luis Pinillos* Prize for Excellency and Innovation in Psychology "Psychologist of the Year". He was awarded the 2015 Aristotle Prize by the European Federation of Psychologists' Associations (EFPA), honored with the European Association of Work and Organizational Psychologists (EAWOP) Lifetime Contribution Award for his scientific and professional career (2013), granted the Advanced International Research Service and Fukuhara Award of the International Council of Psychologists (ICP) (2013) and received the Gold Medal from the General Council for Industrial Relations and Work Sciences (2010). He was director of the PhD Program of Human Resources and coordinator of the European Master Erasmus Mundus of Work, Organizational and Personnel Psychology of the Universitat de València. 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 has been Professor of Economic Analysis at the Universitat de València (1986-2020) and is currently Professor Emeritus at the same university 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, public finance, economics of education (mainly associated with universities and their results). He is author or co-author of 85 books and over 200 book chapters and articles in international and Spanish specialized journals. He has obtained six research sexennials and his research has been quoted more than 5,800 times, reaching an H-index of 36. He has directed ten PhD theses and has participated in over one hundred research projects for public and private institutions. He is a regular lecturer at many institutions and has participated in scientific meetings at over 50 different universities and research centers in Spain, Europe and North and South America. He is member of the Spanish Economic Association, the Spanish Association of Regional Science, the Wolpertinger Club, the European Economic Association as well as member of the boards of trustees and scientific councils of various institutions and foundations dedicated to promoting research and its diffusion. He is Eisenhower Fellow USA since 1998. In 2010 he was awarded the 8th Societat Catalana d'Economia Prize and in 2016 he received the Francesc de Vinetea distinction, the highest recognition from the Valencian Parliament. (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, economic growth, new technologies, intangible assets and retention and attraction of talent. 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 Telefónica Foundation 2014), among 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 Visiting Scholar at Harvard University (1985-86). He is General Director of the Valencian Foundation for Advanced Studies, Executive President of the King Jaime I Awards, member of the European Academy of Science and Arts and member of the advisory council of the Príncipe Felipe Science Museum. (Personal webpage: www.uv.es/quesada).



José Ramos (*Universitat de València*)

Dr Ramos graduated (1988) and obtained his PhD in Psychology (1993) from the Universitat de València where he is currently Professor in Organizational Psychology. He is also 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 and member of the Executive Committee of the European Association of Work and Organizational Psychologists (EAWOP) from 2015 to 2019. He is coordinator of the National Referee Committee that awards the European Qualification for Psychologists (Europsy) of the European Federation of Psychologists Associations (EFPA). His specialist fields are the organizational climate and the psychological contract, analysis of managerial work, service quality, occupational stress, and employment, unemployment, psychological well-being and barriers to women's access to management positions. He has directed National R&D Plan projects and has also taken part in projects for the European Union. 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 10 PhD theses and 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 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), *Delimitación de áreas rurales y urbanas a nivel local: Demografía, coberturas del suelo y accesibilidad* (BBVA Foundation 2016) and *Las áreas urbanas funcionales en España. Economía y calidad de vida* (BBVA Foundation 2020). 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 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 National R&D Plan projects, 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 from 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 sixty books and more than 50 articles in Spanish (*Investigaciones Económicas, Moneda y Crédito, Revista Española de Economía, Revista de Economía Aplicada*, among others) as well as 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 and Transport Policy*). (Personal webpage: www.uv.es/lherrero).



Ezequiel Uriel (*Universitat de València*)

Dr Uriel, Professor Emeritus at the Universitat de València and Research Professor at the **Ivie**, he 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), *Balanzas fiscales de las comunidades autónomas con la Administración Pública Central, 1991-2005* (BBVA Foundation 2007) and *Cuentas de la Educación en España 2000-2013: Recursos, gastos y resultados* (BBVA Foundation 2016). Also he is author of over 100 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 has 6 six-year periods (sexennials) of research activity. 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 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 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 19 books and over 90 research articles. He has been Visiting Scholar at the Centre for Operation Research and Econometrics (Belgium), at the Universities of Stanford, Oxford, York and Cardiff, 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 Regional 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 for the United Nations, and has directed several projects for the Andalusian Regional Government and National R&D Plan research projects. He has been member of 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). He is currently the delegate of the Rector for Strategic Projects at the International University of Andalusia. (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 Associate Professor. His main fields of research 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 (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* and *Studies in Nonlinear Dynamics & Econometrics*, among 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 member of a Prometeo project (PROMETEOII/2019/095) funded by the Valencian Regional Government. He is also 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).



José Enrique Devesa (*Universitat de València*)

Dr Devesa graduated and obtained his PhD in Economics and Business Sciences from the Universitat de València and is a certified Actuary from the Complutense University of Madrid. He is Professor at the Department of Financial and Actuarial Economics of the Universitat de València. He is a member of the Spanish Institute of Social Welfare Policies of the Universitat de València and member of the research team "Research Group on Pensions and Social Protection (GIPPS)" and Technical Coordinator of the Research Group on Public Pensions of the Spanish Institute of Actuaries. He was proposed by the Spanish Council of Ministers as member of the Committee of Experts that developed in 2013 the sustainability factor of the public pension system in Spain. His research activity focuses on social protection systems, both public and private, related to benefits and pensions (retirement, disability, widowhood, orphanage, family care and unemployment). His main research has been published in national and international specialized journals such as *Journal of Risk and Insurance*, *Journal of Economic Policy Reform*, *Risks*, *Revista de Economía Aplicada*, *Revista de Análisis Económico* (University of Georgetown and ILADES), *Revista de Economía Financiera*, *Innovar*, *Moneda y Crédito*, *Hacienda Pública Española*, *Revista Española de Financiación y Contabilidad*, among others. He has directed several research projects obtained by public tenders such as Fipros, Instituto de Estudios Fiscales, Premio Landaburu 2013 de Eurobask, Cátedra ATA-Trabajador Autónomo and Fundación Edad&Vida. He has also participated in national and international workshops related to social protection, the sustainability of the pension system and the unemployment system.



Alejandro Escribá (*Universitat de València*)

Dr Escribá obtained his PhD in Economics and Business Studies from the Universitat de València. Currently, he is Professor of Business Administration at the said university and Director of the Universitat de València Chair of Family Business. Since 2020, he is board member of the University-Business Foundation (ADEIT). He has been Guest Lecturer at Bocconi University (Italy), HEC Montreal, Concordia University (Canada) and Universidad de Oviedo (Spain). His research interests focus on the study of business strategy and competitiveness, focusing mainly 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, among them *Long Range Planning*, *Business Research Quarterly*, *Journal of Management Studies*, *Group and Organization Management*, *British Journal of Management*, *International Small Business Journal*, *Journal of Family Business Management* and *International Marketing Review*. He has been Associate Editor of the journals *Long Range Planning* and *Business Research Quarterly* and invited editor of *Journal of Management Studies*, *International Studies of Management and Organization* and *European Journal of International Management*.



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 ICT and intangible assets in economic growth. He has been researcher in the projects INDICSER and SPINTAN, funded by the EU 7th Framework Programme, and advisor to the European Investment Bank, the European Commission and the United Nations. Currently, he takes part in a National R&D Plan Project and is author of more than 30 books and book chapters and has co-edited three books for Cambridge University Press, Palgrave MacMillan and 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 participated in numerous national and international congresses. In 2015, he received the prize for the best co-authored paper from Funcas Research Promotion Programme. (Personal webpage: www.uv.es/radoselo).



Alicia Gómez (*Universitat de València*)

Dr Gómez graduated in Economics, with special honors, from the Universitat de València (2008) and obtained her PhD in Applied Economics, with international mention and honors, from the Universitat Autònoma de Barcelona (2016). She also holds a Master's Degree in Research in Economics by the Barcelona Graduate School of Economics and the Universitat Pompeu Fabra (2010). She is currently Assistant Professor in the Department of Economic Analysis at the Universitat de València. Her fields of research are applied economy, international economics and regional economics. She has published works in specialized journals such as *Cliometrica*, *Journal of Productivity Analysis* and *Economics of Transition*. She is currently member of two research projects: "Factores de competitividad en la era del conocimiento y la economía digital" (AICO/2020/217) of the Regional Ministry of Innovation, Universities, Science and Digital Society and "Geografía, capacidad estatal y cambio económico. Una aproximación espacial al desarrollo y sus determinantes en las economías periféricas (siglos XIX-XXI)" (PGC2018-095821-B-100) of the Ministry of Science, Innovation and Universities. She has also participated in various national and international workshops and seminars. (Personal page: <https://www.uv.es/agote2/>).



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 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 is co-author of *Banca relacional y capital social en España: Competencia y confianza* (BBVA Foundation, 2006), and has published articles in national (*Investigaciones Económicas*, *Revista de Contabilidad*, *Revista Española de Financiación y Contabilidad*, *Spanish Economic Review*, among others) and international (*Applied Economics*, *Energy Economics*, *International Small Business Journal*, *Journal of Futures Markets*, *Journal of Productivity Analysis*, *Review of Finance*, among others) journals. 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), where he is currently Professor. 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 funded by the European Commission *The role of information and communication technologies in the economic growth of the Andalusian region*. (Personal webpage: www.upo.es/econ/rodriguez).



Vicente Safón (*Universitat de València*)

Dr Safón graduated in Economic and Business Sciences and holds a PhD in Business Management from the Universitat de València. Currently, he is Associate Professor at the Department of Business Administration "Juan José Renau Piqueras" of the Universitat de València. He has also been director of the former department and of the Master's Degree in Business Management (MBA) of the said university and Statutory Director of the Florida Universitaria, a center associated to the Universitat de València. His areas of interest are corporate governance, management teams, business strategy and competitiveness and strategic analysis applied to universities, on which he has published different articles in academic journals, for example, in *Academy of Management Learning and Education*, *Scientometrics*, *International Business Review*, *Corporate Reputation Review*, *Long Range Planning* among others, and is the author and co-author of several national and international books and book chapters. He has collaborated in projects for private and public institutions, in competitive projects of the public administration and the National R&D&I Plan as main researcher of the project "Roots for growth and competitiveness in Family and Non-Family SMEs. Microfoundations in the governance, management and ownership bodies" (ECO-2016-80002R). He has also presented numerous papers at national and international congresses.



Ángel Soler (*Universitat de València*)

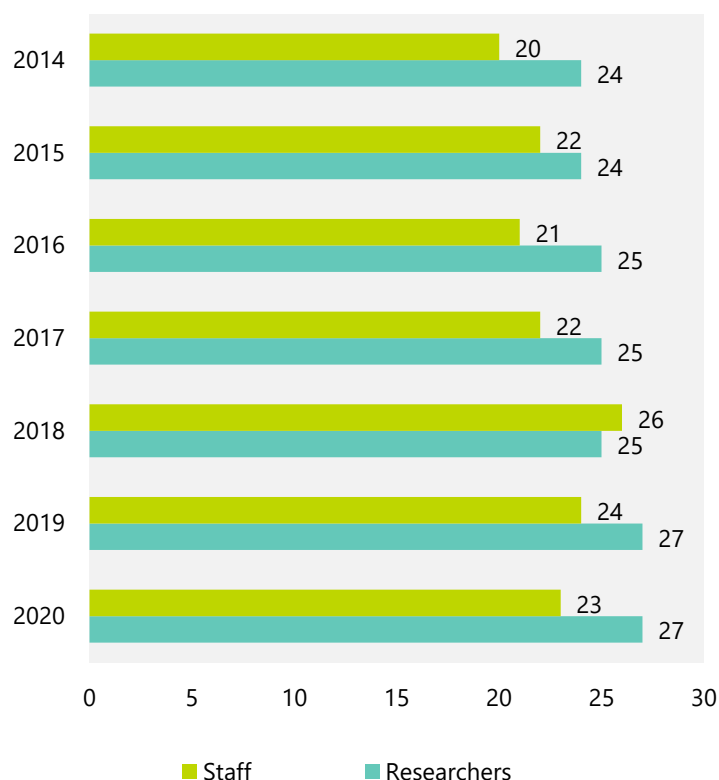
Dr Soler graduated in Economics and Business Administration from the Universitat de València, he holds a Master's Degree in Industrial Economics and a PhD in Economics from the Universitat de València. He worked as a research technician at the **Ivie** from 1996 to 2019 and is currently Assistant Professor at the Department of Applied Economics at the Universitat de València. His main fields of research are the economics of education, human development and the labor market, subjects on which he has published 84 books and book chapters, as well as 12 articles in national and international journals. He has participated in more than 95 research projects and is co-author of the database *Human Capital Series for Spain, its Regions and Provinces*, which has been the main focus of collaboration with the Bancaja Foundation for more than twenty years. He has dedicated an important part of his professional career to the design and construction of the Human Development Index (HDI) for the Spanish regions, a very relevant topic for many important institutions such as the United Nations. In addition, he has participated in international projects such as EUKLEMS and SPINTAN. He is currently the International Mobility Coordinator of the Faculty of Economics at the Universitat de València and collaborating professor of the Chair for a Sustainable Economic Model of València and its Surroundings (MESVAL) sponsored by València City Council since its creation in 2017. He was awarded by the Faculty of Economics with the IV Premi d'Igualtat in 2017, and was part of the team that developed the study "El Desarrollo del Arco Mediterráneo Español. Trajectory and perspectives", which received the VIII Premi Societat Catalana d'Economia in 2010.



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 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 and organized numerous national and international congresses and scientific meetings. (Personal webpage: www3.uji.es/~Tortosa).

Figure 1.
Staff and
researchers



2.6. Management



Pilar Chorén Rodríguez

Graduate in Economics from the Universitat de València (Extraordinary Prize, 1999), specializing in International Economics, she holds a Bachelor of Arts in European Economics from the University of Middlesex (London, 1998). She obtained her research proficiency qualification from the Universitat de València in international finance (2002). She also holds a Diploma in Public Policy and Program Evaluation from the University of Carleton (Canada, 2008). She joined the **Ivie** in 1999 and from 2006 to 2012 worked simultaneously as research technician and adjunct professor in the Department of Economic Analysis at the Universitat de València. Currently, she holds the position of Managing Director of the **Ivie**. She has taken part in over 50 economic studies and research projects, acquiring broad experience in project management and team leadership, and in dealing with clients and partner institutions. Her main fields of research are demography, foreign competition, and public policy and program evaluation for the public administration, on which she has published 13 monographs and articles in specialized journals.

2.7. Technical staff



Carlos Albert (*Economist*)

Graduate in Economics (2006), he holds a Master's Degree in Development, Institutions and Economic Integration (2008) from the Universitat de València. He obtained a collaboration scholarship in 2007 from the Department of Economic Analysis (Universitat de València) and is adjunct professor of this department since 2012. He joined the **Ivie**'s research department in 2008. He is co-author of several book chapters and reports, among which worth mentioning is *El desarrollo del Arco Mediterráneo español. Trayectoria y perspectivas: Principales resultados* (CAM, 2009).



Rodrigo Aragón (*Computer engineer*)

Graduate in Computer Science from the Polytechnic University of Valencia (1989), he is head of the IT department at the **Ivie** since 1991. He is responsible of developing information systems and databases within the **Ivie** and gives technical support to users. Also, he has actively participated in 77 research projects and in the construction of eight databases, including the first editions of *El stock y los servicios del capital en España y su distribución territorial* and the different editions of *Observatory of Young people's transition to the labor market*, and several projects based on the calculation of university indicators and the U-Ranking project.



Eva Benages (*Economist*)

Graduated in Economics from the Universitat de València with special honors in 2004, she holds a University Professional Specialization Diploma in Spanish Stock and Financial Markets (2003) and completed her postgraduate studies at the Universitat de València, majoring in Economic Integration and Development (2007). Since 2003, she is part of the **Ivie**'s technical research team. She has participated in more than 30 national and international (EU KLEMS, PREDICT, SPINTAN, etc.) projects and is co-author of numerous books, articles and specialized reports. She is adjunct professor at the Universitat de València.



Alba Catalán (*Economist, until 2 April 2020*)

Graduate in Economics from the Universitat de València (2012), she holds postgraduate studies in financial markets (2012) and applied social research and data analysis (2016). She did a research stay at the London School of Economics and also participated in several research projects at a European level in Brussels. Among her professional experience, she worked as a research assistant at the Labor Market Unit at the Bank of Spain and was also consultant in the Education division at the Inter-American Development Bank (IDB) in USA. In April 2018, she joined the **Ivie**'s technician team.



Héctor García (*Computer engineer*)

Graduate in Computer Engineering from the Polytechnic University of Valencia (1999), majoring in Computer and Software Engineering. In 2007 he obtained the 'Corporate Networks and Integrated Systems Specialist' diploma from the Polytechnic University of Valencia. He has also completed the Cisco Certified Networking Associate and Cisco Wireless LANs courses. While finishing his degree, he was granted a scholarship at the **lvie**. Since 1999 he is part of the **lvie**'s IT department where he is in charge of computer resources, several databases, the **lvie** website and other websites created by the **lvie** (ABACO, U-Ranking, SPINTAN).



Laura Hernández (*Economist*)

Graduate in Economics from the Universitat de València (2006), she obtained a Master of Research in Economics by the Barcelona Graduate School of Economics and the Pompeu Fabra University (2007-2009). Since 2007, she is a research technician at the **lvie**. Recently, she has collaborated in several projects financed by the European Union, such as PREDICT and SPINTAN, and currently participates in the DICTA Project on ICT industries in Europe. Also, she is co-author of the book *Servicios públicos, diferencias territoriales e igualdad de oportunidades* (BBVA Foundation, 2015).



Consuelo Mínguez (*Economist*)

Graduate in Economics, majoring in Economic Analysis (2016), she holds a Master's Degree in Economics, majoring in International Economics, from the Universitat de València (2017). During her studies, she did work training at the **lvie**. Since 2017, she is a research technician at the **lvie**. She has participated in several national and international (DICTA, PREDICT) projects financed by the European Union.



Silvia Mollá (*Economist*)

Graduate in Economics from the Universitat de València (2014) as top student of her class, with special honors, she holds a Master's Degree in Economic Analysis (International Doctorate in Economic Analysis Program) from the Autonomous University of Barcelona (2016). During her studies she obtained a collaboration scholarship from the Department of Economic Analysis of the Universitat de València, was research assistant at the **lvie** and teacher assistant at the Autonomous University of Barcelona. Since 2016, she is a research technician at the **lvie**.



María Moraga (*Economista, since 1 June 2020*)

Graduate in Business Administration from the University of Castilla-La Mancha with special honors (2016), she holds a Master's Degree in Economic Development and Growth from the University Carlos III of Madrid and Lund University. She previously worked as an economist in the Global Macro Scenarios Unit at BBVA Research and as a research assistant in the Structural Analysis Division of the Bank of Spain. In 2020, she joined the **Ivie**'s technical team.



Fernando Pascual Lavilla (*Economist*)

Graduate in Economics from the Universitat de València with special honors (2006), he holds a Master's degree in Economics and Finance from the Centre for Monetary and Financial Studies (2008). During his undergraduate studies, he collaborated with the Department of Economic Analysis. He has spent most of his working life at financial firms, such as Bankia and Mutua Madrileña. In March 2018, he joined the **Ivie**'s technical team.



Juan Carlos Robledo (*Economist*)

Graduate in Economic and Business Administration from the Universitat de València (1993), since 1994 he is a research technician at the **Ivie**. He has collaborated in more than 70 economic studies developed by the **Ivie**, including *El stock y los servicios del capital en España y su distribución territorial* (BBVA Foundation), *Desarrollo del Arco Mediterráneo Español* (CAM) and *Intangibles en la nueva economía* (Telefónica Foundation), as well as projects funded by the European Union: EU KLEMS, DICTA, PREDICT, INDICSER and SPINTAN. He is co-author of several books and articles published in specialized journals.



Jimena Salamanca (*Economist*)

Graduate in Economics from the Universidad Católica Boliviana, she completed her postgraduate studies at the Universitat de València (2005). She is a research technician at the **Ivie** since 2006, participating in various studies including the FIAB-Cajamar-**Ivie** Research Program (2014-2015), *Endeudamiento de las empresas españolas en el contexto europeo* (BBVA Foundation, 2014), and European projects such as INDICSER (2012). Currently, she is part of the DICTA Project research team (2015). She is co-author of several books and articles and responsible for the InnDEA Foundation reports *Valencia, ciudad del conocimiento*.



Marta Solaz *(Economist)*

Graduate in Economics (2009) and Master in International Economics (2011), majoring in economic integration, with special honors (Universitat de València), she also holds a Master's degree in Economics from Université de Nantes France, 2008). In 2017 she received her Ph.D. in International Economics from the Universitat de València, obtaining the Cum Laude distinction. During her postgraduate studies, she worked as a research technician in a Prometeo project (2009-2012). After that, she was granted an FPU scholarship from the Spanish Ministry of Education to complete her Ph.D. at the Department of Economic Analysis (Universitat de València). She joined the **Ivie's** technical team in 2015.



Irene Zaera *(Economist)*

Graduate in Business Administration (2004) and in Research and Marketing Techniques (2005) from the Universitat de València, she also holds a Bachelor's degree in International Management, majoring in Marketing from Euromed Marseille-École de Management (France, 2003). Since 2007, she is part of the **Ivie's** technical research team. She has participated in various projects developed by the **Ivie** on the socio-economic contribution of Spanish universities and is highly experienced in consultancy work and strategic planning.

2.8. General Services



Mª Cruz Ballesteros *(Design and publications)*

She holds a BA in Fine Arts (2010), specializing in graphic design. Upon completing her university studies, she worked at the Department of Culture of the Valencia City Council in the exhibition division, where she was responsible for designing the displays. In March 2018, she joined **Ivie's** Design and Editing Department as a graphic designer. Her tasks include the design and layout of reports and other dissemination documents.



Rosa Buitrago *(Secretary)*

She has been **Ivie's** management secretary since 1992. She is in charge of managing the agenda for **Ivie's** Directors and Researchers, and coordinating meetings and is responsible for the technical secretariat of scientific meetings organized by **Ivie** and collaborates with database updating.



Yolanda Jover *(Press)*

Graduate in Journalism from the CEU Cardenal Herrera University (1998), she holds a Master's Degree in Marketing and Digital Communication from the IEM Business School (2015). She is specialized in economic and corporate information and has extensive professional experience in the media and press office areas. Since 2016, she has been in charge of **Ivie's** Communication Department, her main task being to achieve the maximum dissemination of the results from the research carried out in the **Ivie**. To this end, she maintains close contact with the media, manages **Ivie's** social networks and is responsible for updating the website's contents.



Leo Marqués *(Administration)*

She holds a degree in Business Studies from the Universitat de València (1988). Since 1991, she has worked for the **Ivie** and is currently in charge of the Institute's financial, labor, and management accounting.



Belén Miravalles *(Documentation)*

She holds an honors degree in Documentation from the Polytechnic University of Valencia (2004) and a degree in Librarianship and Documentation from the Universitat de València (2001). She joined **Ivie** in 2008, where she is responsible for the Institute's library and document management. She supports research by searching for information and helping update **Ivie's** websites, the ABACO Observatory, and researcher profiles and the scientific dissemination of their work. She is also in charge of the ABACO twitter account and helps the communication area compile news and disseminate the Institute's activities.



Natalia Mora *(Administration)*

Graduate in Business Administration and Management from the Universitat de València (2005), she joined **Ivie** in 2006, and is in charge of the Institute's financial and administrative control. She is also responsible for the administrative management of **Ivie's** European projects (7th Framework Programme and Horizon 2020 Programme) and has worked on various research projects, specializing in economic and financial analysis.



Alicia Raya (*Design and publications*)

She holds an honors degree in Fine Arts (2011) and a Master's Degree in Design and Illustration from the Polytechnic University of Valencia (2012). Between the end of 2012 and 2014 she obtained professional experience at the *Muovo* and *Kokoro & Moi* design studios in Helsinki (Finland). In May 2015 she joined **Ivie**, where she is in charge of the corporate image of the Institute and its research projects. Her tasks include the design and layout of reports and the dissemination notebooks published. She also designs images for the website and prepares the presentation material for scientific meetings.



Susana Sabater (*Publications*)

Graduated as Salutatorian from Lee High School (Michigan, USA), she has a Computer Applications Certificate from Grand Rapids Community College. During her studies, she worked as a teller at First of America Bank. Since 1995, she has been part of **Ivie's** team where she is in charge of coordinating, preparing layouts and publishing the Institute's Working Paper Series, as well as the monographs and reports. She has extensive experience in preparing research articles for specialist journals and translates texts for the Institute's website and international projects.

2.9. Collaborators in research projects and other activities

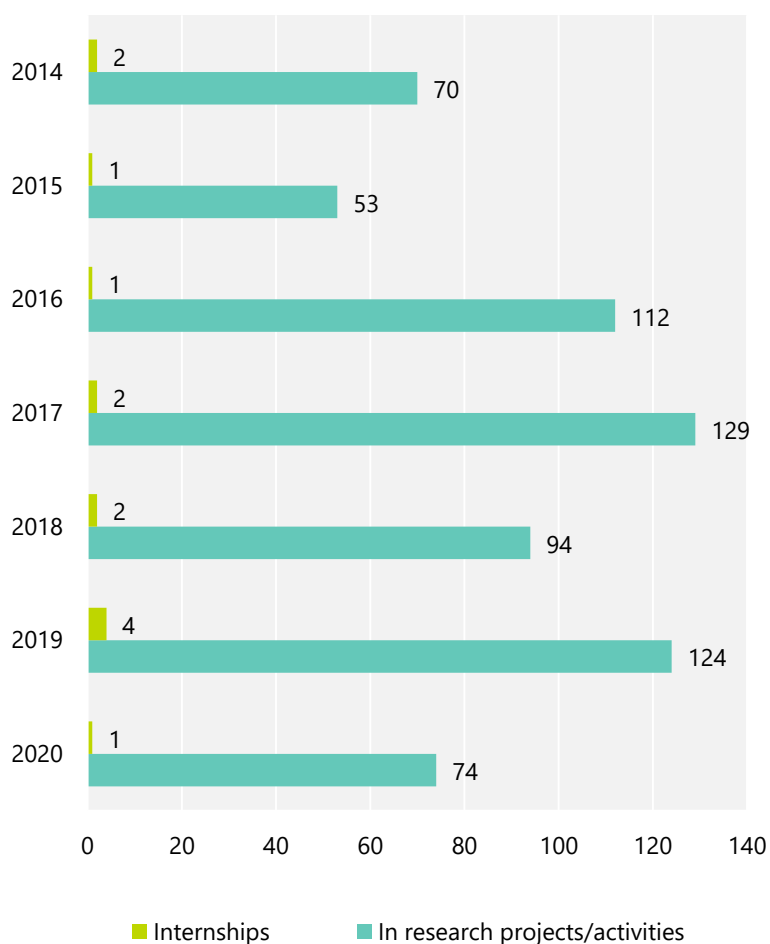
Among all the collaborators who participated in research projects and other scientific activities carried out by the **Ivie**, the following 26 researchers from 13 institutions took part in different economic studies conducted by the **Ivie** in 2020:

Javier Asensio (Universitat Autònoma de Barcelona)
Gloria Berenguer Contrí (Universitat de València)
Enrique Bernal Delgado (Instituto Aragonés de Ciencias de la Salud)
Enrique Bigné Alcáñiz (Universitat de València)
Bruno Broseta Dupré (Universidad Europea)
Javier Campos (Universidad de Las Palmas de Gran Canaria)
Pedro Cantos Sánchez (Universitat de València)
Ginés de Rus Mendoza (Universidad de Las Palmas de Gran Canaria and Fedea)
María Concepción Feo (Universitat de València)
Marta Frasquet Deltoro (Universitat de València)
Amadeo Fuenmayor Fernández (Universitat de València)
Rafael Granell Pérez (Universitat de València)
María Iborra Juan (Universitat de València)
Per-Olov Johansson (Stockholm School of Economics)
Guillermo López García (Universitat de València)
Anna Matas Prat (Universitat Autònoma de Barcelona)
Vicente Martínez Tur (Universitat de València)
Robert Meneu Gaya (Universitat de València)
Rafael Moner (Universitat de València)
Armando Ortuño (Universidad de Alicante)
Salvador Peiró Moreno (FISABIO, Generalitat valenciana)
Jordi Perdiguero García (Universitat Autònoma de Barcelona)
Manuel Ridao López (Instituto Aragonés de Ciencias de la Salud)
Jorge Sempere Moneris (Universitat de València)
María Pilar Socorro (Universidad de Las Palmas de Gran Canaria)
Jorge Valido (Universidad de Las Palmas de Gran Canaria)

2.10. Collaborators with training contracts¹

Through an agreement signed with the Universitat de València, Ana Lleó Bono did an internship at the **Ivie** while taking a Degree in Economy at the said university (September 2019 – February 2020).

Figure 2.
Collaborators
in activities
carried out by
the **Ivie** and
internships



¹ Activities related to internships within the **Ivie** are funded by the Valencian Regional Government's Ministry for Finance and the Economic Model, through a 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 **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:

- Agència Valenciana de Foment i Garantía Agraria (AVFGA)
- Authority for Fiscal Responsibility (AIReF)
- Bancaja Foundation
- Bankia
- BBVA Foundation
- Cajamar
- City of Arts and Sciences (CACSA)
- Conselleria d'Economia Sostenible, Sectors Productius, Comerç i Treball (Generalitat Valenciana)
- Conselleria d'Innovació, Universitats, Ciència i Societat Digital (Generalitat Valenciana)
- Cotec Foundation for Innovation
- Ernest Lluch Foundation
- European Commission
- European Commission (Joint Research Centre)
- Feria Valencia (Valencia Trade Fair)
- Inter-American Development Bank (IDB)
- Mercadona
- Ministerio de Educación y Formación Profesional
- Presidència (Generalitat Valenciana)
- Ramón Areces Foundation
- Sociedad Deportiva Correcaminos
- Trinidad Alfonso Foundation
- Universidad de Alicante
- Universidad de Castilla-La Mancha
- Universidad Miguel Hernández
- Universitat de València
- Universitat Jaume I
- Universitat Politècnica de València
- Valencia Basket 2000 Foundation

4. ACKNOWLEDGMENTS

The work carried out by the **Ivie** has been acknowledged both in academic circles and on a social level. During its more than two decades of existence, the Institute and its researchers have received the following awards:

- On 26 November, the General Council of Economists of Spain awarded Matilde Mas the Grand Cross of Merit in Service to the Economy in recognition of her outstanding contribution to the economy and for making economic results available to society as a whole.
- Matilde Mas and Joaquín Maudos, both **Ivie** Researchers and Professors at the University of Valencia, were appointed on 7 January and 9 September, respectively, as members of Cotec's Top 100 Experts, a network of specialists in diverse areas of knowledge which aims to promote innovation.
- On 30 January, **Ivie** Research Professor and Professor of Organizational and Social Psychology at the Universitat de València, José María Peiró, was awarded an Honorary Degree (Doctor Honoris Causa) by the Maastricht University.
- On 25 November, **Ivie** researcher, José García-Montalvo, was awarded the 2019 King Jaume I Prize in Economics for his valuable work closely linked to economic reality.
- The Spanish Regional Science Association (AEER) awarded the 5th Prize for Regional Science to the **Ivie** for "the effort it has made over the years, both as an institution that promotes and drives economic research and also on an individual level for the specific work done by its researchers". The award ceremony was held on 22 November 2018. Francisco Pérez, **Ivie** Research Director, accepted the award from the Valencian Regional Government's Minister of Finance and Economic Model, Vicent Soler.
- José María Peiró received the Scientific Award granted by the Healthier Society Fostering Healthy Organizations International Group. The award ceremony took place in Florence, at the Università degli Studi di Firenze (UniFI), on 30 August 2018.
- On 15 May 2018, the Social Board of the University of Alicante awarded its 2018 Research Award to Carmen Herrero, **Ivie** researcher and Professor of Economic Analysis. The award was given in recognition of Professor Herrero's special research achievements and record of excellence, inspired by a deep concern for social problems, in particular in relation to fairness, social welfare and health economics.
- 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 6 March 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 7 February 2018.

- **Ivie** researcher, Carmen Herrero, was awarded the 2017 Rey Jaime I Prize in Economics, one of Spain's most important scientific awards. The ceremony, presided by HM Queen Letizia, took place at the Lonja in Valencia on 30 October 2017.
- On 26 October 2017, the Spanish Economic and Social Council (ESC) awarded the **Ivie** with its XXI Research Prize. **Ivie**'s project, which was chosen from among the 17 presented, aimed to analyze the social and economic impacts of the progressive introduction of the digital economy in Spain.
- On 4 July 2017, José María Peiró, received the Honorary Degree from the Miguel Hernández University in recognition of his important role as leading expert in the field of work and organizational psychology.
- On 16 December 2016, Professor José María Peiró was awarded the *José 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 conference ceremony of the III Jornadas de Excelencia e Innovación en Psicología, in which his academic, scientific and professional career was recognized.
- On 15 December 2016 at the Simposio de la Asociación Española de Economía (Spanish Economic Association) in Bilbao, Jose García-Montalvo was granted the 2016 SERIEs Award for his article *The real estate and credit bubble: Evidence from Spain*.
- Also in 2016, José María Peiró was made member of the Spanish Academy of Psychology on 30 November. The Academy, created by the Ministry of Education, Culture and Sport, recognizes his excellent track record as **Ivie** researcher and Professor of the Universitat de València.
- On 25 November 2016, Francisco Pérez was named 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 25 April 2016. The award was presented to the committee of experts on regional funding made up by **Ivie** members, Francisco Pérez (**Ivie** Research Director) and Vicent Cucarella (**Ivie** Research technician), together with Rafael Beneyto, José Antonio Pérez, José Ismael Fernández and Vicent Peiró.
- 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 given to the **Ivie** on 27 January 2016 at The Westin Hotel in Valencia.
- Also in 2015, the Fundación de Estudios Bursátiles y Financieros (dedicated to the 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 on 29 March 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 his 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 their 2015 Aristotle Prize to José María Peiró. This 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 professors and researchers of Catalan public universities.
- In 2014, the Spanish Economic Association Award (1st edition) for the best article published in the *SERIEs*-Journal of the Spanish Economic Association in the period 2010-2013 was given to *Firm's Main Market, Human Capital, and Wages*, written 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's** Research Director and Professor at the Universitat de València, Francisco Pérez, in an event held in Barcelona on 3 November 2014.
- On 23 May 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 3 August 2013, the International Council of Psychologists (ICP) granted the Advanced International Research and Service Fukuhara Award to **Ivie** Researcher 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 the UPF Medal of Honor to Professor José García-Montalvo, Vice-Chancellor of Science Policy (2011-2013).
- 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 24 November 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 22 March 2010. The award recognizes 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 18 February 2009 the **Ivie** researcher and Professor at the Pompeu Fabra University, José García-Montalvo, received the ICREA Acadèmia Prize for his research work.
- On 21 May 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 research trajectory in human resources management and work climate.
- The **Ivie** was awarded the 2005 Research and Development Prize 'Premio Universidad-Sociedad a la Investigación y el Desarrollo' by the Universitat de València Social Council on 20 June 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 11 December 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 **lvie** has had the institutional structure of a public limited company since it was established. Although considered a public firm during its first few years, the **lvie** has been a mercantile company subject to private law following the incorporation of its shareholders in 1995.

Throughout the years, the **lvie** 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 **lvie** provides the required accounting information in the Mercantile Register.

The **lvie** 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 **lvie** created the **lvie** Foundation of the Valencian Community to increase 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 **lvie** is a research center associated to the Universitat de València, registered in the Spanish Registry of Universities, Centres and Qualifications (RUCT).

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

A los accionistas del **Instituto Valenciano de Investigaciones Económicas, S.A.**, por encargo de los administradores

Opinión

Hemos auditado las cuentas anuales abreviadas del Instituto Valenciano de Investigaciones Económicas, S.A. (la Sociedad), que comprenden el balance abreviado a 31 de diciembre de 2020, 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 la Sociedad a 31 de diciembre de 2020, así como de sus resultados correspondientes al ejercicio 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, que son 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 período 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

Descripción El importe de la cifra de negocios corresponde a los ingresos por prestaciones de servicios en concepto de proyectos de investigación económica a escala nacional e internacional, cuya duración, en determinados casos, puede ser superior al ejercicio. El reconocimiento de ingresos y los resultados de estos proyectos requiere, por tanto, un elevado grado de juicio y control de las estimaciones realizadas y de las desviaciones que se pudieran producir a lo largo de la duración de los mismos. Las estimaciones tienen en cuenta todos los ingresos y costes relacionados con los proyectos. Debido a la incertidumbre asociada a las citadas estimaciones y a que cambios en las mismas podrían dar lugar a diferencias en los ingresos registrados, se ha considerado este asunto como un aspecto relevante de la auditoría.

Nuestra respuesta Nuestros procedimientos de auditoría han consistido en evaluar los procedimientos y criterios empleados por la Sociedad para el reconocimiento de los ingresos y costes asociados a los proyectos. Seleccionamos una muestra representativa de los proyectos para evaluar las estimaciones más significativas llevadas a cabo en el reconocimiento de ingresos. Asimismo, hemos obtenido confirmaciones externas para una muestra de clientes pendientes de cobro y realizando, en su caso, procedimientos de comprobación alternativos mediante justificantes de cobro posteriores o documentación soporte justificativa de la prestación del servicio. Por último, hemos evaluado la idoneidad de la información revelada en las cuentas anuales abreviadas de acuerdo con los requerimientos del marco normativo de información financiera.

Otras cuestiones

Las cuentas anuales abreviadas de la Entidad correspondientes al ejercicio finalizado el 31 de diciembre de 2019 fueron auditadas por otro auditor que expresó una opinión favorable sobre las mismas el 27 de marzo de 2020.

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 la 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 las 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 de cuentas 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 Entidad.
- 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, los hechos o condiciones futuros pueden ser la 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 Entidad en relación con, entre otras cuestiones, el alcance y el momento de realización de la auditoría planificados y los hallazgos significativos de la auditoría, así como cualquier deficiencia significativa del control interno que identifiquemos en el transcurso de la auditoría.

Entre los riesgos significativos que han sido objeto de comunicación a los administradores de la Entidad, 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.

AUREN AUDITORES SP, S.L.P.
Inscrita en el ROAC Nº S2347



Francisco Mondragón Peña
Inscrito en el ROAC Nº 20649

12 de marzo de 2021



AUREN AUDITORES SP, S.L

2021 Núm. 30/21/01464
SELLO CORPORATIVO: 96,00 EUR
Informe de auditoría de cuentas sujeto
a la normativa de auditoría de cuentas
española o internacional

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 2020, four working papers were published.

The **Ivie** wishes to publicly thank all the referees for their collaboration. Their effort is decisive in achieving the Institute's objectives.

The publication as working papers is only the first stage in the diffusion of research activity, the final aim being their publication in scientific journals. For this reason, information about the articles published by the associates is also given. In 2020, **Ivie's** researchers produced 25 books, published or forthcoming, and 17 chapters in joint works. They also published 104 scientific articles, 76 of which were for international journals, 59 working papers and 15 other documents.

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. In 2020, the following issues have been published:

WP-AD 2020-01	«Dealing with categorical data in a multidimensional context: The Multidimensional Balanced Worth», C. Herrero and A. Villar.
WP-AD 2020-02	«A synthetic indicator on the impact of COVID-19 on community's health », C. Herrero and A. Villar.

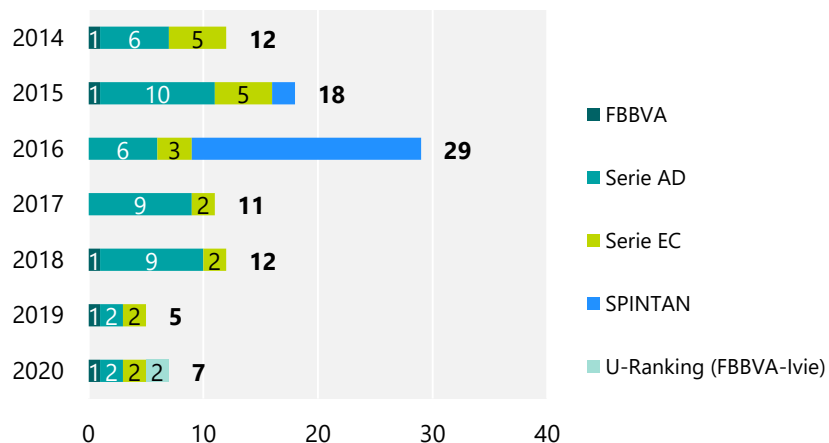
6.1.2. EC Series

Coordinated by Matilde Mas, the EC Series mainly includes applications of different analytical tools to the study of specific economic problems. In 2020, the following issues have been published:

WP-EC 2020-01	«A simple non-parametric catching-up and convergence index», F. J. Goerlich.
WP-EC 2020-02	«Productivity growth determinants of differently developed countries: comparative capital input results», T. Lankauskiene.

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 a cooperation agreement signed between both institutions to promote and consolidate the **Ivie's** basic and applied economic research activities.

Figure 3.
Ivie working
paper series



6.1.3. Referees

Pedro Albarrán Pérez (Universidad de Alicante)

Blanca del Valle Arenas (Universidad Politécnica de Madrid)

Sotiris Georganas (City University of London)

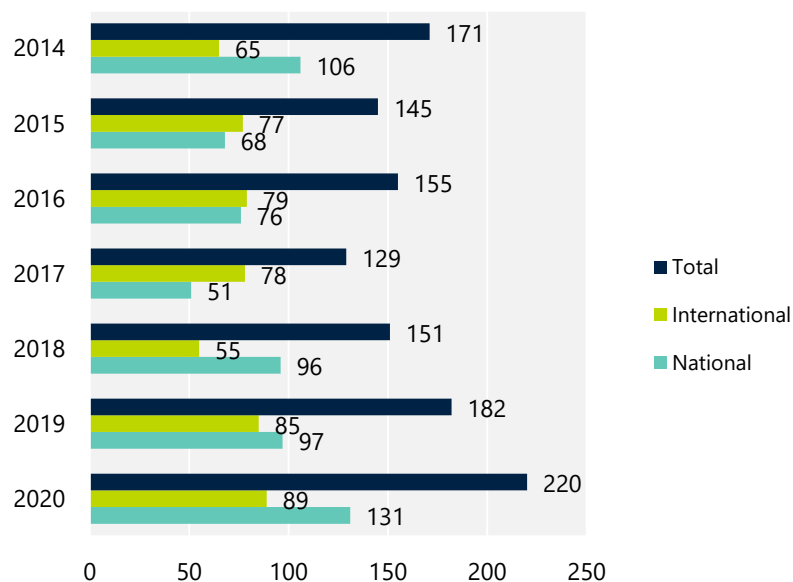
Juan Fernández de Guevara Radoselovics (Universitat de València and Ivie)

José Ramos López (Universitat de València and Ivie)

Lorenzo Serrano Martínez (Universitat de València and Ivie)

6.2. Publications by researchers and technicians

Figure 4.
Publications by
researchers and
technicians.
Books and articles



6.2.1. Books

Alcalá, F. (dir.) and **M. Solaz**: *Globalización, relocalización productiva y crecimiento*. Bilbao: BBVA Foundation.

Arribas, I. (dir.) and **J. Salamanca**: *Consumo y bienestar social. Consecuencias de la crisis*. Bilbao: BBVA Foundation, forthcoming.

Barona, S., **F. Pérez** and A. Iranzo: *El funcionamiento de la justicia en España: Estructuras, recursos y resultados*. Bilbao: BBVA Foundation, forthcoming.

Catalán, A. and **J. Maudos**: *Dimensiones económicas de la longevidad: Evidencia del caso español*. Bilbao: BBVA Foundation, forthcoming.

De Prato, G., M. López (eds.), **M. Mas**, **J. Fernández de Guevara**, **J.C. Robledo**, M. Cardona, R. Righi, S. Samoilil and D. Vázquez-Prada: *The 2020 PREDICT Report: Key Facts Report*. Luxembourg: Publications Office of the European Union. JRC Technical Report.

De Prato, G., **M. Mas**, **J. Fernández de Guevara** (eds.), **E. Benages**, **L. Hernández**, **C. Mínguez**, **F. Pascual**, **J.C. Robledo**, I. Rosell, **J. Salamanca**, **M. Solaz**, M. Cardona, M. López, R. Righi, S. Samoilil and D. Vázquez-Prada: *The 2020 PREDICT Dataset Methodology*. Sevilla: European Commission.

Devesa, J.E., M.M. Devesa, F. B. Encinas, I. Domínguez, M.A. García and R. Meneu: *Efectos de la crisis de la COVID-19 sobre el Sistema de Seguridad Social*. Madrid: Instituto Santalucía.

Escribá-Esteve, A. (coord.), F. Álvarez, A. Barroso, A. Calabró, C. Ruiz, R. Sanguino and A. Valentino: *Las empresas familiares españolas ante el reto de la sucesión: Diferentes perspectivas generacionales. Proyecto STEP 2019: Informe de resultados para España*. València: Universitat de València; Barcelona: Universitat Abat Oliba CEU; Badajoz: Universidad de Extremadura.

Fernández de Guevara, J. (dir.), **J. Maudos** and **C. Mínguez**: *Dinámica empresarial en España y digitalización: Retos ante la nueva crisis del COVID-19*. Madrid: Ramón Areces Foundation.

Ferrer, J., F. Sòria and **P. Chorén** (eds.): *En busca de la prosperidad: Los desafíos de las migraciones*. Barcelona: Ernest Lluch Foundation; València: Ivie.

Goerlich, F.J., E. Reig (dirs.), **C. Albert** and **J.C. Robledo**: *Las áreas urbanas funcionales en España: Economía y calidad de vida*. Bilbao: BBVA Foundation.

Marín, A., **J.M. Pastor** and **L. Serrano**. *La sociedad del conocimiento en la comunidad valenciana. Desarrollo, evolución y repercusiones económicas en el contexto de las regiones españolas*. València: Institució Alfons el Magnànim.

Mas, M., **J. Fernández de Guevara**, **L. Hernández**, **C. Mínguez** and **J.C. Robledo**: *Las actividades culturales y creativas y las nuevas tecnologías*. Bilbao: BBVA Foundation, forthcoming.

Maudos, J. (dir.) and **J. Salamanca**: *Observatorio sobre el sector agroalimentario español en el contexto europeo: Informe 2019*. Almería: Cajamar Caja Rural.

Maudos, J. and **J. Fernández de Guevara**: *Condiciones financieras de las empresas españolas: Efectos sobre la inversión y la productividad*. Bilbao: BBVA Foundation.

- Pérez, F.** (dir.), B. Broseta, **A. Escribá-Esteve**, **A. Gómez**, **L. Hernández**, **J. M. Peiró**, **L. Serrano** and **A. Todolí**: *Cambios tecnológicos, trabajo y actividad empresarial: El impacto socioeconómico de la economía digital*. Madrid: Consejo Económico y Social (CES) (XXI Premio de Investigación del CES).
- Pérez, F.** (dir.), B. Broseta, **A. Escribá-Esteve**, G. López, **J. Maudos** and **F. Pascual**: *Los medios de comunicación en la era digital*. Bilbao: BBVA Foundation, forthcoming.
- Pérez, F.** (dir.), **E. Benages**, **M. Solaz**, J. Pla-Barber and C. Villar: *La competitividad española en las cadenas de valor globales*. Bilbao: BBVA Foundation.
- Pérez, F.**, **E. Uriel** (dirs.), **E. Benages**, **A. Gómez** and **L. Hernández**: *Más allá del PIB. El valor de la producción doméstica y el ocio en España*. Bilbao: BBVA Foundation, forthcoming.
- Pérez, F.**, **E. Uriel** (dirs.), **E. Benages**, **L. Hernández** and **J.C. Robledo**: *El equipamiento de los hogares y las dotaciones de capital de las familias en el siglo XXI*. Bilbao: BBVA Foundation, forthcoming.
- Pérez, F.**, **J. Aldás-Manzano** (dirs.), **R. Aragón**, **F.J. Goerlich**, **I. Rosell** and **I. Zaera**: *U-Ranking 2020: Indicadores sintéticos de las universidades españolas. 8ª edición*. Bilbao: BBVA Foundation; València: **Ivie**.
- Pérez, F.**, **J. Aldás-Manzano**, **J.M. Peiró** (dirs.), **B. Miravalles**, **I. Rosell** and **I. Zaera**: *Universidades líderes en el mundo: El posicionamiento de España*. Bilbao: BBVA Foundation, forthcoming.
- Serrano, L.** (dir.), **C. Albert** and **Á. Soler**: *El valor económico del capital humano en España y sus regiones*. Bilbao: BBVA Foundation, forthcoming.
- Van Thang, N., **J. M. Peiró**, L. Q. Canh, V. González-Roma and V. Martínez-Tur: *Vietnamese graduates' labour market entry and employment: A tracer study*. Uppsala (Sweden): Uppsala University.
- Villar, A.**, S. De la Rica and L. Gorjón: *El coste social del desempleo en España. El discreto encanto de la recuperación económica*. Bilbao: BBVA Foundation, forthcoming.

6.2.2. Book chapters

- Alcalá, F.**: «¿En qué es diferente la crisis económica del coronavirus de la Gran Recesión?». In De la Fuente, Á., A. Roldán and J. Jimeno (coords.): *La economía española en tiempos de pandemia: Una primera aproximación*. Barcelona: Penguin Random House.
- Devesa, J.E.** and R. Doménech: «Pensions, Economic Growth and Welfare in Advanced Economies». In Peris, M., J. Álvarez, I. Domínguez and P. Devolder (eds.): *Economic Challenges of Pension Systems: A Sustainability and International Management Perspective*. Berlin: Springer Verlag: 81-104.
- Devesa, J.E.**, B. Rosado and J. Álvarez: «Sustainability of Public Pension Systems». In Peris, M., J. Álvarez, I. Domínguez and P. Devolder (eds.): *Economic Challenges of Pension Systems: A Sustainability and International Management Perspective*. Berlin: Springer Verlag: 125-154.
- Devesa, J.E.**, M.M. Devesa, I. Domínguez, B. Encinas and R. Meneu: «Riesgos financieros de los cotizantes próximos a su jubilación». In Rodríguez, J. M. (coord.): *El envejecimiento como riesgo empresarial*. Madrid: Wolters Kluwer: 243-268.
- García-Montalvo, J.**: «Terrorism, voting behaviour and political attitudes». In Schulze, G. G. (ed.): *Handbook of Terrorism*. Cambridge (UK): Cambridge University Press, forthcoming.

Gómez-Calvet, R., D.V. Conesa, A.R. Gómez and **E. Tortosa-Ausina**: «European Energy Efficiency Evaluation Based on the Use of Super-Efficiency Under Undesirable Outputs in SBM Models». In Aparicio, J., C.A.K. Lovell, J.T. Pastor and J. Zhu (eds.): *Advances in Efficiency and Productivity II*. Cham (Switzerland): Springer: 193-208.

Herrero, C., J. Pineda, **A. Villar** and E. Zambrano: «Green Economy Measurements and Indicators». In Sheng, F. and D. Eaton (eds.): *Textbook on Green Economy*. PAGE_ ch. 10.

Iborra, M., **V. Safón** and C. Dolz: «The Role of Family Ownership in Survival and Bouncing Back: Good and Bad News? ». In Camison, C. and T.F. González (eds.): *Competitiveness, organizational management, and governance in family firms*. Hersey (USA): Business Science Reference: ch. 11.

Mas, M., A.A. Hofman and **E. Benages**: «Economic valuation of knowledge-based capital: An International comparison». In Fraumeni, B. M. (ed.): *Measuring Economic Growth and Productivity*. San Diego: Academic Press (Elsevier): ch. 14.

Mas, M., **F. Pérez**, **S. Mollá**, **J.C. Robledo**, **J. Maudos**, **E. Reig**, P. Cantos, O. Álvarez et al.: «La inversión y el stock de infraestructuras de transporte en España». In *Infraestructuras de transporte*. Madrid: AIReF, Anexo No. 1.

Mas, M.: «El rompecabezas de la productividad y los activos intangibles». In *Informe económico y financiero*. Barcelona: Esade, 1st semester: 46-55.

Peiró, J. M., M.W. Kozusznik, I. Rodríguez and N. Tordera: «The Happy-Productive Worker Model and Beyond: Patterns of Wellbeing and Performance at Work ». In Rohlman, D. and K. Kelly (eds.): *Using Total Worker Health® to Advance Worker Health and Safety*. Basilea: MDPI: 326-345.

Peiró, J. M.: «The Contributions of IAAP to the Internationalization of the Education and Training in Psychology and a Science-Based Practice». In Carpintero, H., R. Ardila and A. M. Jacó-Vilela (eds.): *International Association of Applied Psychology: A Centennial History 1920–2020*. Oxford (UK): Wiley-Blackwell: 219-232.

Pérez, F.: «Desequilibrio vertical en la financiación autonómica: causas y remedios». In Martínez, J. and S. Lago (dirs.): *Desafíos pendientes de la descentralización en España: Suficiencia y autonomía tributaria*. Madrid: Instituto de Estudios Fiscales: ch. 2.

Rashid, F., T. Fornaciari, H. Hovy, E. Blanco and **F. Vega-Redondo**: «Helpful or Hierarchical? Predicting the Communicative Strategies of Chat Participants, and their Impact on Success». In Cohn, T., Y. He and Y. Liu (eds.): *Findings of the Association for Computational Linguistics: EMNLP 2020*. Stroudsburg (USA): Association for Computational Linguistics: 2366-2371.

Soler, Á.: «Cooperación y economía social». In Alarcón, M.J., M. Alcañiz, M^a R. Cerdá, A. Mañés and M.J. Rodríguez (coords.): *Las mujeres en la Comunitat Valenciana. Una aproximación sociológica*. València: Tirant Lo Blanch, forthcoming.

6.2.3. Articles

- Alcalá, F.:** «El contagio económico: mecanismos, incertidumbres y retos». *Ágora FGCSIC* (December). Fundación General CSIC.
- Arribas, I., J. Peiró and E. Tortosa-Ausina:** «Is full banking integration desirable?». *Journal of Banking & Finance* 112 (March).
- Arribas, I., K. Louhichi, A. Perni, J. Vila-Belda and S. Gómez:** «Modelling Agricultural Risk in a Large Scale Positive Mathematical Programming Model». *International Journal of Computational Economics and Econometrics* 10, No. 1: 2-32.
- Arribas, I., S. Bensassi and E. Tortosa-Ausina:** «Trade integration in the European Union: Openness, interconnectedness, and distance». *North American Journal of Economics and Finance* 52 (April).
- Arteaga, R. and A. Escribá-Esteve:** «Heterogeneity in family firms: contextualising the adoption of family governance mechanisms». *Journal of Family Business Management*, forthcoming.
- Balaguer, M^a T., D. Prior, I. Narbón and E. Tortosa-Ausina:** «Searching for the optimal territorial structure: The case of Spanish provincial councils». *Regional Studies*, forthcoming.
- Bayona, J.A., A. Caballer and J. M. Peiró:** «The Relationship between Knowledge Characteristics' Fit and Job Satisfaction and Job Performance: The Mediating Role of Work Engagement». *Sustainability* 12, No. 6 (March).
- Blasco, M.F., N. Recuero, J. Aldás-Manzano and J. García de Madariaga:** «Archaeological tourism: Looking for visitor loyalty drivers». *Journal of Heritage Tourism* 15, No. 1: 60-75.
- Carbó, S. and F. Rodríguez:** «Ayudas a la financiación ante el COVID -19: marco temporal y suficiencia». *Cuadernos de Información Económica* No. 276 (May): 13-31.
- ___: «Cambios en la financiación y los pagos ante el COVID-19». *Cuadernos de Información Económica* No. 277 (May-June): 55-61.
- ___: «Changes in financing trends and payments preferences under COVID-19». *SEFO - Spanish Economic and Financial Outlook* 9, No. 4 (July): 25-31.
- ___: «Concentración en el sector bancario: marco temporal y alcance». *Cuadernos de Información Económica* No. 279 (November/December): 29-34.
- ___: «Consolidation in the EU banking sector: Scope and timing». *SEFO - Spanish Economic and Financial Outlook* 9, No. 6 (November): 63-70.
- ___: «El sector bancario en 2020: afectación geopolítica». *Cuadernos de Información Económica* No. 275 (March): 9-14.
- ___: «Financial digitalization: Banks, fintech, bigtech, and consumers». *Journal of Financial Management, Markets and Institutions* 8, No. 1 (June): 1-13.
- ___: «Official financing aid in response to COVID-19: Timeliness and sufficiency». *SEFO - Spanish Economic and Financial Outlook* 9, No. 3 (May): 19-28.

___: «Sector financiero y economía real ante el COVID-19: situación y perspectivas para el otoño». *Cuadernos de Información Económica* No. 278 (September-October): 29-35.

___: «The financial sector and economy in light of COVID-19: Situation and outlook for the autumn». *SEFO - Spanish Economic and Financial Outlook* 9, No. 5 (September): 31-37.

___: «The Spanish banking sector in 2020: Renewed risks». *SEFO - Spanish Economic and Financial Outlook* 9, No. 2 (March): 13-20.

Carbó, S., J.A. Lacomba, F.M. Lagos, F. Rodríguez and J. Verdejo: «Brain Sustrates explain differences in the adoption and degree of financial digitalization». *Scientific Reports* 10 (October).

Carbó, S., P. J. Cuadros and F. Rodríguez: «A machine learning approach to the digitalization of bank customers: evidence from random and causal forests». *PLoS ONE* 15, No. 10 (October).

___: «Do bank bailouts have an impact on the underwriting business?». *Journal of Financial Stability* 49 (August).

___: «Interest rates and the banking business post pandemic». *SEFO - Spanish Economic and Financial Outlook*, forthcoming.

___: «Radiografía del sector fintech español». *Cuadernos de Información Económica* No. 274 (January): 25-31.

___: «Snapshot of the FinTech sector in Spain». *SEFO - Spanish Economic and Financial Outlook* 9, No. 1 (January): 25-31.

___: «Taxonomy of the Spanish FinTech ecosystem and the drivers of FinTechs' performance». *Revista de Estabilidad Financiera = Financial Stability Review* No. 38 (Spring): 25-51. Madrid: Banco de España.

___: «The Effect of Banks' IT Investments on the Digitalization of their Customers». *Global Policy* 11, No. S1 (special issue: Contemporary Issues in Banking): 9-17.

Cioca, I. A., **J. Ramos**, M.F. Latorre and Y. Estreder: «Psychological Contract Mutuality and Work-related Outcomes: Testing a Mediation Model». *The Spanish Journal of Psychology* 23.

Cruz-García, P. and **J. Fernández de Guevara:** «Determinants of net interest margin: the effect of capital requirements and deposit insurance scheme». *The European Journal of Finance* 26, No. 11: 1102-1123.

Cruz-García, P., **J. Fernández de Guevara** and **J. Maudos:** «Bank competition and multimarket contact intensity». *Journal of International Money and Finance*, forthcoming.

Cruz-García, P., M^a C. Dircio and **E. Tortosa-Ausina:** «Financial inclusion and exclusion across Mexican municipalities». *Regional Science Policy & Practice*, forthcoming.

Cunningham, J. A., **A. Escribá-Esteve**, M^a J. Foncubierta, F. Martín and J. L. Perea: «A gender study of principal investigator lead public R&D centres and funding». *Economics of Innovation and New Technology*, forthcoming.

Devesa, J.E., M.M. Devesa, I. Domínguez, F. B. Encinas and R. Meneu: «The Sustainability Factor: How Much Do Pension Expenditures Improve in Spain?». *Risks* 8, No. 4 (December).

Devesa, J.E.: «Los sistemas de cuentas nocionales individuales: aspectos teóricos e implicaciones para España». *Revista de Trabajo y Seguridad Social* No. 442 (January): 63-91. Madrid: Centro de Estudios Financieros.

Di Fabio, A., F. M. Cheung and **J. M. Peiró:** «Personality and individual differences and healthy organizations». *Personality and Individual Differences* 166 (November) (Editorial to special issue): 1-5.

Estreder, Y., I. Tomás, **J. Ramos** and F.J. Gracia: «It is hard to forget what comes around: Time-lagged effects of employers' non-fulfillment of psychological contract». *Human Resource Development Quarterly: Early View*, forthcoming.

Estreder, Y., T. Rigotti, I. Tomás and **J. Ramos:** «Psychological contract and organizational justice: the role of normative contract». *Employee Relations* 42, No. 1: 17-34.

Feri, F., M.A. Meléndez, G. Ponti, **F. Vega-Redondo** and H. Yu: «Pooling or Fooling? An Experiment on Signaling». *Journal of Economic Behavior & Organization* 176 (August): 582-596.

Fernández de Guevara, J., J. Maudos and C. Salvador: «Effects of the degree of financial constraint and excessive indebtedness on firms' investment decisions». *Journal of International Money and Finance*, forthcoming.

Fernández, L., A. Rubini, J.M. Soriano, **J. Aldás-Manzano** and J. Blesa: «Anthropometric Assessment of Nepali Children Institutionalized in Orphanages». *Children* 7, No. 11.

García, E., **J. M. Peiró**, M^a I. Montañez, M.W. Kozusznik and S. Ortíz: «Happy-Productive Teams and Work Units: A Systematic Review of the 'Happy-Productive Worker Thesis'». *International Journal of Environmental Research and Public Health* 17, No. 1.

García, M.P., D. Prior, **E. Tortosa-Ausina** and **M. Illueca:** «Risk-taking behavior, earnings quality, and bank performance: A profit frontier approach». *BRQ Business Research Quarterly*, forthcoming.

García-Montalvo, J. and M. Reynal: «Diversidad cultural, polarización social y crecimiento económico». *Papeles de Economía Española* No. 164 (June): 78-87.

___: «Ethnic Diversity and Growth: Revisiting the Evidence». *Review of Economics and Statistics*, forthcoming.

García-Montalvo, J., A. Piolatto and J. M. Raya: «Transaction-tax Evasion in the Housing Market». *Regional Science and Urban Economics* 81 (March).

García-Montalvo, J.: «Data science y sus aplicaciones económicas: una perspectiva personal». *Papeles de Economía Española*, forthcoming.

___: «El impacto de la introducción de subvenciones progresivas en la educación superior: el caso de Cataluña». *Papeles de Economía Española* No. 166 (special issue: El Capital Humano en la economía digital): 123-142.

___: «Financial Crisis, Regulatory Reform and the Future of the Spanish Banking Industry». *Estudios de Economía Aplicada* 32, No. 2.

Goerlich, F.J. and **E. Reig:** «Quality of life ranking of Spanish cities: A non-compensatory approach». *Cities* 109, forthcoming.

Goerlich, F.J.: «Distributionally adjusted life expectancy as a life table function». *Demographic Research* 43 (July-December): 365-400.

___: «La Encuesta de Condiciones de Vida: Evaluación de los cambios metodológicos en relación a la obtención de los ingresos». *Hacienda Pública Española = Review of Public Economics* 233 (2/2020): 85-116.

Gómez, A., M.J. Murgui and M.T. Sanchis: «Exploring the recent upsurge in productivity disparities among European regions». *Growth and change* 51, No. 4 (December): 1491-1516.

Gorjón, L., S. De la Rica and **A. Villar:** «The Cost of Unemployment from a Social Welfare Approach: The Case of Spain and Its Regions». *Social Indicators Research* 150, No. 3 (August): 955-976.

Gracia, F.J., I. Tomás, M. Martínez and **J. M. Peiró:** «Empowering leadership, mindful organizing and safety performance in a nuclear power plant: A multilevel structural equation model». *Safety Science* 123 (March).

Hernández, L., F. Pérez and **L. Serrano:** «Capital humano, digitalización y crecimiento económico en España». *Papeles de Economía Española* No. 166 (special issue: El Capital Humano en la economía digital): 18-32.

Herrero, C. and **A. Villar:** «A synthetic indicator on the impact of COVID-19 on the community's health». *PLoS ONE* 15, No. 9.

___: «Group decisions from individual rankings: The Borda-Condorcet rule». *European Journal of Operational Research*, forthcoming.

Herrero, C., J. Pineda, **A. Villar** and E. Zambrano: «Tracking progress towards accessible, green and efficient energy: The Inclusive Green Energy index». *Applied Energy* 279 (December).

Iborra, M., **V. Safón** and C. Dolz: «What explains the resilience of SMEs? Ambidexterity capability and strategic consistency». *Long Range Planning* 53, No. 6 (December).

Iwanicz-Drozdowska, M., B. Witkowski and **S. Carbó:** «“When in Rome, do as Romans”. Similarities of banks performance drivers in CESEE». *Bank i Kredyt=Bank & Credit* 51, No. 5: 467-504.

Korkmaz, G., C.J. Kuhlman, J. Goldstein and **F. Vega-Redondo:** «A computational study of homophily and diffusion of common knowledge on social networks based on a model of Facebook». *Social Network Analysis and Mining* 10, No. 5.

Latorre, M.F., **J. Ramos,** F.J. Gracia and I. Tomás: «How high-commitment HRM relates to PC violation and outcomes: The mediating role of supervisor support and PC fulfilment at individual and organizational levels». *European Management Journal* 38, No. 3 (June): 462-476.

Low, T. H., **J. Ramos** and A. Hernández: «The Changing Role of Personal Resources in Perceived Employability of Young People in Different Labor Conditions=El rol cambiante de los recursos personales en la empleabilidad percibida de los jóvenes en diferentes condiciones del mercado de trabajo». *Journal of Work and Organizational Psychology = Revista de Psicología del Trabajo y de las Organizaciones* 36, No. 2 (August): 169-179.

Máñez, J.A., **C. Mínguez**, M.E. Rochina and J.A. Sanchis Llopis: «Trading activities, productivity and markups: Evidence for Spanish manufacturing». *The World Economy* 43, No. 3 (March): 644-680.

Marín, A. and **Á. Soler**: «Percepción del estudiantado del uso de los mandos interactivos en clase: una aplicación en la comunidad universitaria». *Revista de Investigación Educativa Universitaria* 3, No. 1 (January): 41-55.

Marrero, G.A., **J. Rodríguez-López** and R.M. González: «Car usage, CO2 emissions and fuel taxes in Europe». *SERIEs: Journal of the Spanish Economic Association* 11: 203-241.

Martín, J.L., S. Sastre, **J. M. Peiró** and J. R. Hilera: «The Effects of Using a Fully Integrated Mobile Application to Access Learning Management Systems in Higher Education». *Journal of Universal Computer Science* 26, No. 9.

Martín, P., **J. Ramos**, A. Zornoza, E.M. Lira and **J. M. Peiró**: «Mindfulness and Job Control as Moderators of the Relationship between Demands and Innovative Work Behaviours=Mindfulness y autonomía en el puesto de trabajo como moderadores de la relación entre las demandas y los comportamientos innovadores». *Journal of Work and Organizational Psychology = Revista de Psicología del Trabajo y de las Organizaciones* 36, No. 2 (August): 95-101.

Martínez, M., I. Tomás, F.J. Gracia and **J.M. Peiró**: «The power of empowering team leadership over time: A multi-wave longitudinal study in nuclear power plants». *Safety Science*, forthcoming.

Martínez, R. and **A. Villar**: «Educational Achievements In The OCED According To Pisa 2018». *Advances in Social Sciences Research Journal* 7, No. 9 (September): 486-498.

Martínez-Tur, V., Y. Estreder, I. Tomás, **J. Ramos** and O. Luque: «Interaction between functional and relational service quality: Hierarchy vs. compensation». *The Services Industries Journal*, forthcoming.

Mas, M.: «El crecimiento de la productividad y los activos intangibles». *Papeles de Economía Española* No. 164 (June): 41-59.

Maudos, J.: «Per què l'economia valenciana patirà més?». *Revista Saó* No. 460 (July): 30-32.

___: «Resilience of Spanish households to the economic fallout from COVID-19». *SEFO - Spanish Economic and Financial Outlook* 9, No. 5 (September): 49-57.

___: «Resiliencia de la banca española frente a la crisis del COVID-19: comparativa europea». *Cuadernos de Información Económica* No. 276 (May): 41-49.

___: «Resiliencia de las familias españolas al impacto económico del COVID-19». *Cuadernos de Información Económica* No. 278 (September-October): 37-44.

___: «Spanish banks' preparedness for the COVID-19 crisis: A European comparison». *SEFO - Spanish Economic and Financial Outlook* 9, No. 3 (May): 45-54.

Michela, V., K. Nielsen, D. Guglielmi, M. G. Mariani, L. Patras and **J.M. Peiró**: «Design of a Safety Training Package for migrant workers in the construction industry». *Safety Science*, forthcoming.

Moraga, M. and R. Ramos: «Tendencias recientes en la edad de acceso a la jubilación». *Boletín Económico* No. 4/2020 (Artículos analíticos). Madrid: Banco de España.

___: «Una estimación del rendimiento financiero del sistema de pensiones». *Boletín Económico* No. 3/2020 (Artículos analíticos). Madrid: Banco de España.

Narbón, I., I. Arribas, M^a T. Balaguer and E. Tortosa-Ausina: «Explaining local governments' cost efficiency: controllable and uncontrollable factors». *Cities* 100 (May).

Narbón, I., M^a T. Balaguer, M. Petrovic and E. Tortosa-Ausina: «Which estimator to measure local governments' cost efficiency? An application to Spanish municipalities». *SERIEs: Journal of the Spanish Economic Association* 11 (March): 51-82.

Pastor, J.M., C. Peraita and Á. Soler: «Gender differences in the intergenerational transmission of education in Spain: the role of parents' employment status and education». *Applied Economics*, forthcoming.

Peiró, J. M. and F.J. Medina: «Retos y oportunidades tras el COVID-19». *Infocoponline - Revista de psicología* (22 de May). Madrid: Consejo General de la Psicología de España.

Peiró, J. M., J.A. Bayona, A. Caballer and A. Di Fabio: «Importance of work characteristics affects job performance: The mediating role of individual dispositions on the work design-performance relationships». *Personality and Individual Differences* 157 (April).

Peiró, J. M., K. Nielsen, M.F. Latorre, R. Shepherd and M. Vignoli: «Safety Training for Migrant Workers in the Construction Industry: A Systematic Review and Future Research Agenda». *Journal of Occupational Health Psychology* 25, nº 4: 275-295.

Peiró, J. M.: «El teletrabajo, estrategia de afrontamiento individual y colectiva ante la pandemia del COVID-19: Contribuciones desde la psicología de las organizaciones». *SIP Bulletin* No. especial COVID-19 (May): 68-73.

___: «La crisi de la COVID i els desafiaments de la digitalització: escola i treball». *Revista Saó* No. 460 (July): 43-45.

Peiró, J. and E. Tortosa-Ausina (2021). «Formal and informal institutions as drivers of life satisfaction in European regions». In Wilkes, R., A. Moreno and A. Almakaeva (eds.): *Social Capital and Subjective Well-Being: Insights from Cross-Cultural Studies*. Heidelberg (Alemania): Springer, forthcoming.

Reneclé, M., F.J. Gracia, I. Tomás and J. M. Peiró: «Developing mindful organizing in teams: a participation climate is not enough, teams need to feel safe to challenge their leaders=El desarrollo de la organización consciente en equipos: un clima de participación no basta, los equipos necesitan sentir seguridad para realizar propuestas críticas a sus líderes». *Journal of Work and Organizational Psychology = Revista de Psicología del Trabajo y de las Organizaciones* 36, No. 3 (December).

Reneclé, M., I. Tomás, F.J. Gracia and J. M. Peiró: «Spanish validation of the mindful organizing scale: A questionnaire for the assessment of collective mindfulness». *Accident Analysis & Prevention* 134 (January).

Safón, V. and D. Docampo: «Analyzing the impact of reputational bias on global university rankings based on objective research performance data: the case of the Shanghai Ranking (ARWU)». *Scientometrics* 125.

Serrano, L. and Á. Soler: «Ocupació i atur: l'impacte de la crisi en el treball». *Revista Saó* No. 460 (July): 40-42.

Serrano, L.: «Financiación de la educación y desigualdad regional». *Cuadernos de Pedagogía* No. 505 (January): 90-95.

Silla, I., F.J. Gacia and **J. M. Peiró:** «Upward Voice: Participative Decision Making, Trust in Leadership and Safety Climate Matter». *Sustainability* 12, No. 9.

Soler, A., J.C. Matallín, D.V. De Mingo and **E. Tortosa-Ausina:** «Looking for sustainable development: Socially responsible mutual funds and the low-carbon economy». *Business Strategy and the Environment*, forthcoming.

Soler, Á.: «El abandono educativo temprano. Es tiempo de plantear soluciones». *Noticias de Política Económica* No. 28 (June): 9-11.

___: «El teletrabajo despegua con fuerza en España durante el confinamiento por la COVID-19». *enEspaña* No. 41. Madrid: ICEX, España Exportación e Inversiones.

Sora, B., A. Caballer and **J.M. Peiró:** «Spillover outcomes of job insecurity: differences among men and women=Consecuencias indirectas de la inseguridad laboral: diferencias entre hombres y mujeres». *International Journal of Social Psychology=Revista de Psicología Social*, forthcoming.

Soriano, A., M.W. Kozusznik, **J. M. Peiró** and C. Mateo-Cecilia: «The Role of Employees' Work Patterns and Office Type Fit (and Misfit) in the Relationships Between Employee Well-Being and Performance». *Environment and Behavior* 52, No. 2 (February): 111-138.

Soriano, A., M.W. Kozusznik, **J. M. Peiró** and E. Demerouti: «Employees' Work Patterns-Office Type Fit and the dynamic relationship between Flow and Performance». *Applied Psychology* 0, No. 0: 1-29.

Tordera, N., **J. M. Peiró**, Y. Ayala, E. Villajos and D. M. Truxillo: «The lagged influence of organizations' human resources practices on employees' career sustainability: The moderating role of age». *Journal of Vocational Behavior* 120 (August).

Vidal, N., V. Martínez-Tur, L. Patras, E. Gracia, C. Moliner and **J. Ramos:** «Participation in collaborative projects as a precursor of trust in organizations for individuals with intellectual disability». *PLoS ONE* 15, No. 11 (November).

Villar, A.: «Formación superior y mercado laboral: la universidad española frente a la cuarta revolución industrial». *Papeles de Economía Española* No. 166 (special issue: El Capital Humano en la economía digital): 105-122.

___: «On the Wondrous Behaviour of Rats and Researchers». *Modern Economy* 11, No. 1.

6.2.4. Other documents

Escribá-Esteve, A., J. Salamanca, C. Albert and R. Aragón: *Competitividad empresarial: Análisis geográfico y sectorial*. València: **Ivie**: Bankia (Informe GECE No. 05/2020).

Fernández de Guevara, J. (dir.) and C. Mínguez: *La inteligencia artificial en la Comunitat Valenciana: medición y propuestas para su impulso*. València: Generalitat Valenciana (Informe Entregable No. 6/2020).

Herrero, C., A. Villar, H. García, F. Pérez and R. Aragón: *Propuesta para evaluar el impacto del COVID-19 en la salud de la población en España y en sus comunidades autónomas*. València: Generalitat Valenciana: Ivie. (COVID19: IvieExpress).

Maudos, J. (dir.) and C. Albert: *El sector audiovisual valenciano en el contexto regional: Análisis económico-financiero*. València: Generalitat Valenciana (Informe Entregable No. 3/2020).

—. *Impacto económico del Programa de Apoyo a competiciones deportivas de la Comunitat Valenciana (PAC CV 2019-2020)*. València: Trinidad Alfonso Foundation.

Maudos, J. (dir.) and C. Mínguez: *Especialización productiva de la Comunitat Valenciana*. València: Generalitat Valenciana (Informe Entregable No. 7/2020)

Maudos, J. (dir.) and F. Pascual: *Impacto económico y social de la Ciutat de les Arts i les Ciències en la Comunitat Valenciana 2019*. València: CACSA: Ivie.

Maudos, J. (dir.), C. Mínguez and M. Solaz: *La intensidad de las relaciones económicas entre Madrid y la Comunitat Valenciana*. Madrid: Conexus Foundation.

Maudos, J., J. Aldás-Manzano (dirs.), E. Benages and I. Zaera: *39 Maratón Valencia Trinidad Alfondos EDP 2019: Impacto económico y valoración de los corredores*. València: Trinidad Alfonso Foundation.

Pérez, F. (dir.) and L. Hernández: *Impactos de la digitalización sobre el futuro del empleo en la Comunitat Valenciana*. València: Generalitat Valenciana (Informe Entregable No. 5/2020).

Pérez, F., E. Reig (dirs.), A. Fuenmayor, R. Granell and S. Mollá: *Madrid: capitalidad, economía del conocimiento y competencia fiscal*. València: Generalitat Valenciana. (Informe Entregable No. 2/2020).

Pérez, F., J. Maudos (coords.), C. Albert, F. Alcalá, E. Benages, P. Chorén, A. Escribá-Esteve, C. Herrero, M. Mas, C. Mínguez, S. Mollá, F. Pascual, J. Quesada, E. Reig, J.C. Robledo and I. Zaera: *La superación de la crisis del COVID-19 en la Comunitat Valenciana: Una hoja de ruta de la reconstrucción de la economía*. València: Generalitat Valenciana. (Informe IvieLAB).

Reig, E. (dir.), C. Albert, S. Mollá and I. Zaera: *Análisis de la economía valenciana y el sistema valenciano de innovación: Diagnóstico en el contexto actual*. València: Generalitat Valenciana, Conselleria d'Innovació, Universitats, Ciència i Societat Digital.

Serrano, L. (dir.), Á. Soler and F. Pascual: *La calidad del empleo en la Comunitat Valenciana*. València: Generalitat Valenciana (Informe Entregable No. 4/2020)

—. *El empleo en el sector de la hostelería en la Comunitat Valenciana*. València: Generalitat Valenciana, Conselleria d'Economia Sostenible, Sectors Productius, Comerç i Treball. (Observatorio Valenciano del Trabajo Decente).

6.2.5. Working papers

Alamá, M.L., M.A. Marquez and E. Tortosa-Ausina: «Spatio-sectoral heterogeneity and population-employment dynamics: Some implications for territorial development». Working Papers No. 2020/24. Dpto. Economía, Universitat Jaume I.

Alcalá, F. and **J.C. Robledo**: «El impacto del COVID-19 en el comercio internacional y las exportaciones españolas y valencianas». COVID19: IvieExpress No. 18. València: Generalitat Valenciana, IvieLab: **Ivie**.

___: «El impacto del COVID-19 sobre las exportaciones de bienes de las comunidades autónomas». COVID19: IvieExpress No. 21. València: Generalitat Valenciana, IvieLab: **Ivie**.

Alcalá, F.: «¿En qué es diferente la crisis económica del coronavirus de la Gran Recesión?». COVID19: IvieExpress No. 5. València: Generalitat Valenciana, IvieLab: **Ivie**.

Aspachs, O., R. Durante, A. Graziano, J. Mestres, **J. García-Montalvo** and M. Reynal: «Real-Time Inequality and the Welfare State in Motion: Evidence from COVID-19 in Spain». CEPR Discussion Paper No. 15118. Londres: Centre for Economic Policy Research - CEPR.

Balaguer, M^a T., I. Narbón, J. Peiró and **E. Tortosa-Ausina**: «Quality of government and economic growth at the municipal level: Evidence from Spain». Working Papers No. 2020/04. Dpto. Economia, Universitat Jaume I.

Beltrán, F. J., A. Díez, **A. Gómez**, J. Martínez and D.A. Tirado: «Lordships, state capacity and beyond: literacy rates in mid-nineteenth-century Valencia». EHES Working Paper No. 196 (September). European Historical Economics Society.

Bonet, J. L., A. Balletbó (coords.), **F. Alcalá**, J. Bagué, N. Basí, P. Chías, J. Clos, A. Coronil et al.: «Informes del Grupo de Trabajo Mixto COVID-19. Informe de la Comisión Sectorial Segunda del Grupo Mixto de Trabajo COVID-19: Turismo, Comercio y Economía Circular». Fedea Policy Papers No. 2020/16. FEDEA (Fundación de Estudios de Economía Aplicada).

Carbó, S. (coord.), G. de Cadenas, J. C. Delrieu, J.R. Díez, A.I. Fernández, G. López, J. López, **J. Maudos** et al.: «Por la Recuperación Financiera de las Empresas tras el COVID-19». Fedea Policy Papers 2020/09. FEDEA (Fundación de Estudios de Economía Aplicada) (Informes del Grupo de Trabajo Mixto COVID-19).

Crespo, J., J. Peiró and **E. Tortosa-Ausina**: «Does university performance have an economic payoff for their home regions? Evidence for the Spanish provinces». Working Papers 2020/20. Dpto. Economia, Universitat Jaume I.

Cruz-García, P., M^a C. Dircio and **E. Tortosa-Ausina**: «What drives financial exclusion in Mexican municipalities?». Working Papers 2020/19. Dpto. Economia, Universitat Jaume I.

De la Fuente, Á. (coord.), A. Balletbó, J. L. Bonet, J.E. Boscá, **S. Carbó**, J.I. Conde, G. De Rus, J. Del Alcázar et al.: «Informe Final del Grupo de Trabajo Mixto COVID-19. Por un pacto político y social en torno a una estrategia de reactivación y crecimiento inclusivos». Fedea Policy Papers No. 2020/19. FEDEA (Fundación de Estudios de Economía Aplicada).

___: «Informe Final del Grupo de Trabajo Mixto COVID-19. Por un pacto político y social en torno a una estrategia de reactivación y crecimiento inclusivos (versión abreviada)». Fedea Policy Papers No. 2020/18. FEDEA (Fundación de Estudios de Economía Aplicada).

___: «Informe Final del Grupo de Trabajo Mixto COVID-19. The economic consequences of COVID in Spain and how to deal with them». Fedea Policy Papers No. 2020/22 (November). FEDEA (Fundación de Estudios de Economía Aplicada).

De Mingo, D.V., J.C. Matallín, A. Soler and **E. Tortosa-Ausina**: «Social responsible mutual funds and lowcarbon economy». Working Papers 2020/15. Dpto. Economía, Universitat Jaume I.

Escribá-Esteve, A. y C. Albert: «El sector de la hostelería valenciano ante la crisis del COVID-19». COVID19: IvieExpress No. 17. València: Generalitat Valenciana, Ivielab: **Ivie**.

Fernández de Guevara, J. and J. Maudos: «La importancia de las comisiones bancarias para recuperar la rentabilidad». Informe mensual (December). Orfin (Observatorio de la Realidad Financiera).

García, J.I. and **A. Villar**: «NON-WORKING WORKERS. The unequal impact of COVID-19 on the Spanish labour market». Estudios sobre la Economía Española. FEDEA (Fundación de Estudios de Economía Aplicada).

García-Montalvo, J. and M. Reynal: «Colonization, Early Settlers and Development: The Case of Latin America». Barcelona GSE Working Paper No. 1189. Barcelona Graduate School of Economics - GSE.

___: «Distributional effects of COVID-19 on spending: a first look at the evidence from Spain». Barcelona GSE Working Paper No. 1201. Barcelona Graduate School of Economics - GSE.

___: «Gender and credit risk: A view from the loan officer's desk». CEPR Discussion Paper No. DP14500. Londres: Centre for Economic Policy Research - CEPR.

García-Montalvo, J., D. Alimonti, S. Reiland and I. Vernos: «Gender Stereotype and the Scientific Career of Women: Evidence from Biomedical Research Centers». Barcelona GSE Working Paper No. 1212. Barcelona Graduate School of Economics - GSE.

Giménez, V. M., C. Thieme, D. Prior and **E. Tortosa-Ausina**: «Evaluation and determinants of pre-school effectiveness in Chile». Working Papers No. 2020/02. Dpto. Economía, Universitat Jaume I.

Goerlich, F.J.: «A simple non-parametric catching-up and convergence index». Working Papers Serie EC No. 2020-01. **Ivie** (Instituto Valenciano de Investigaciones Económicas) (January).

___: «Rankings como un Problema de Orden Lineal Generalizado: Una aplicación a U-Ranking». Documento de trabajo U-Ranking No. 2/2020. BBVA Foundation and **Ivie**.

Gómez, A. and J. Ramos: «¿Ha aumentado el COVID19 las brechas de género en el mercado de trabajo español y valenciano?». COVID19: IvieExpress No. 19. València: Generalitat Valenciana, Ivielab: **Ivie**.

Gómez, A., M.J. Murgui and M.T. Sanchis: «El repunte de la desigualdad regional en Europa: ¿Historia de unas pocas regiones?». La Riqueza de las Regiones (blog) (2 de November de 2020). Asociación Española de Ciencia Regional (AECR).

Hernández, L. and F. Pérez: «El consumo de las familias en la crisis del coronavirus». COVID19: IvieExpress No. 12. València: Generalitat Valenciana, Ivielab: **Ivie**.

___: «El equipamiento digital de los hogares valencianos y los retos del COVID-19». COVID19: IvieExpress No. 7. València: Generalitat Valenciana, Ivielab: **Ivie**.

Herrero, C. and A. Villar: «A synthetic indicator on the impact of COVID-19 on community's health ». Working Papers Serie AD No. 2020-02. **Ivie** (Instituto Valenciano de Investigaciones Económicas) (April).

___: «Dealing with categorical data in a multidimensional context: The Multidimensional Balanced Worth». Working Papers Serie AD No. 2020-01. **Ivie** (Instituto Valenciano de Investigaciones Económicas) (April).

___: «Opportunity advantage: a new approach to comparing income distributions». Working Paper Series No. 2020-516. ECINEQ (Society for the Study of Economic Inequality).

Herrero, C., A. Villar, F. Pérez and C. Albert: «Evolución del impacto del COVID-19 sobre la salud comunitaria en España y la Comunitat Valenciana». COVID19: IvieExpress No. 8. València: Generalitat Valenciana, Ivielab: **Ivie**.

Jiménez, G., K. Huremovic, E. Moral, J.L. Peydro and **F. Vega-Redondo:** «Production and financial networks in interplay: Crisis evidence from supplier-customer and credit registers». CEPR Discussion Paper No. 15277. Londres: Centre for Economic Policy Research - CEPR.

Marín, A., M. Pardo, **J.M. Pastor** and I. Vicente: «València: el entorno ideal de oportunidades para profesionales». Documento de trabajo No. 03/2020. Càtedra Model Econòmic Sostenible València i Entorn, Universitat de València.

Marrero, Á.S., G.A. Marrero, R.M. González and **J. Rodríguez-López:** «Convergence in road transport CO2 emissions in Europe». Working papers series No. 20.06. Department of Economics. Universidad Pablo de Olavide.

Mas, M., F. Pérez (dirs.), **E. Benages, J.C. Robledo** and I. Vicente: «El *stock* de capital en España y sus comunidades autónomas: Revisión metodológica y evolución reciente de la inversión y el capital 1995-2020». Documento de Trabajo. Bilbao: BBVA Foundation, forthcoming.

Mas, M., J. Quesada and J. Salamanca: «La I+D+I en la Comunitat Valenciana después del COVID-19». COVID19: IvieExpress No. 14. València: Generalitat Valenciana, Ivielab: **Ivie**.

Maudos, J. and C. Mínguez: «El equipamiento digital de las empresas valencianas y los retos del COVID-19». COVID19: IvieExpress No. 6. València: Generalitat Valenciana, Ivielab: **Ivie**.

___: «Salud financiera de las empresas valencianas: capacidad de resistir el impacto del COVID-19». COVID19: IvieExpress No. 2. València: Generalitat Valenciana, Ivielab: **Ivie**.

Maudos, J. and J. Salamanca: «La importancia del sector agroalimentario ante la crisis del COVID-19». COVID19: IvieExpress No. 10. València: Generalitat Valenciana, Ivielab: **Ivie**.

Meneu, R. and **J.E. Devesa:** «Impacto económico del COVID-19 sobre los trabajadores autónomos de la Comunitat Valenciana». COVID19: IvieExpress No. 3. València: Generalitat Valenciana, Ivielab: **Ivie**.

Núñez, C. E. (coord.), J. A. De Azcárraga, R. Baeza, J. Calero, J. Carabaña, A. Delibes, M. Esteban, **F. Pérez** et al: «Informes del Grupo de Trabajo Mixto COVID-19. Sistema educativo, formación de capital humano, ciencia e investigación tras la COVID-19». Fedea Policy Papers No. 2020/15. FEDEA (Fundación de Estudios de Economía Aplicada).

Pastor, J.M., L. Serrano, Á. Soler and I. Vicente: «Dinamismo e innovación empresarial y sectorial en València y su área urbana funcional». Documento de trabajo No. 01/2020. Càtedra Model Econòmic Sostenible València i Entorn, Universitat de València.

Peiró, J. M. and Á. Soler: «El impulso al teletrabajo durante el COVID-19 y los retos que plantea». COVID19: IvieExpress No. 11. València: Generalitat Valenciana, Ivielab: **Ivie**.

Peiró, J., A.J. Picazo and **E. Tortosa-Ausina:** «The Geography of Well-being in Colombia». Working Papers No. 2020/03. Dpto. Economía, Universitat Jaume I.

Peiró, J., W. O. Prieto-Bustos and **E. Tortosa-Ausina:** «Weighted convergence in Colombian departments: The role of geography and demography». Working Papers No. 2020/01. Dpto. Economía, Universitat Jaume I.

Pérez, F. and E. Benages: «Restringir la movilidad para combatir el COVID-19 y recuperar la actividad económica». COVID19: IvieExpress No. 4. València: Generalitat Valenciana, Ivielab: **Ivie**.

Pérez, F. and J. Maudos: «El impacto económico del coronavirus en el PIB y empleo de la economía española y valenciana». COVID19: IvieExpress No. 1. València: Generalitat Valenciana, Ivielab: **Ivie**.

Pérez, F. and L. Hernández: «Los retos del COVID-19 y los centros educativos. ¿Cuáles son los riesgos de aprovechar poco las nuevas tecnologías?». COVID19: IvieExpress No. 20. València: Generalitat Valenciana, Ivielab: **Ivie**.

Pérez, F. and S. Mollá: «¿Por qué los recursos de las comunidades autónomas para la reconstrucción son tan desiguales?». COVID19: IvieExpress No. 15. València: Generalitat Valenciana, Ivielab: **Ivie**.

Pérez, F., M. Mas (dirs.), E. Benages, J.C. Robledo and I. Vicente: «El *stock* de capital en España y sus comunidades autónomas. Ajuste de la inversión pública y reducción del déficit». Documento de Trabajo No. 1/2020. BBVA Foundation.

Ramos, J. and A. Gómez: «¿Por qué los retos de la conciliación en tiempos de COVID-19 son todavía mayores para las mujeres?». COVID19: IvieExpress No. 16. València: Generalitat Valenciana, Ivielab: **Ivie**.

Rodríguez-López, J. and M. Solís: «On the Magnitude of the Expenditure Multiplier». Working papers series No. 20.05. Department of Economics. Universidad Pablo de Olavide.

Serrano, L., Á. Soler and F. Pascual: «El impacto del coronavirus en el mercado de trabajo de las regiones españolas». COVID19: IvieExpress No. 13. València: Generalitat Valenciana, Ivielab: **Ivie**.

—: «Vulnerabilidad a corto plazo del empleo ante el coronavirus: España y la Comunitat Valenciana». COVID19: IvieExpress No. 9. València: Generalitat Valenciana, Ivielab: **Ivie**.

Villar, A. and J.I. García: «Non-working workers. The unequal impact of COVID-19 on the Spanish labour market». Working Paper Series No. ECINEQ 2020 564. ECINEQ (Society for the Study of Economic Inequality).

Villar, A.: «La inserción laboral de los egresados universitarios en España 2018». Documento de trabajo U-Ranking No. 1/2020. BBVA Foundation and **Ivie**.

Wu, M. and **E. Tortosa-Ausina:** «Bank Diversification and Focus in Disruptive Times: China, 2007–2018». Working Papers No. 2021/21. Dpto. Economía, Universitat Jaume I.

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 2020 (the financial year during which the project was developed is in brackets next to the title):

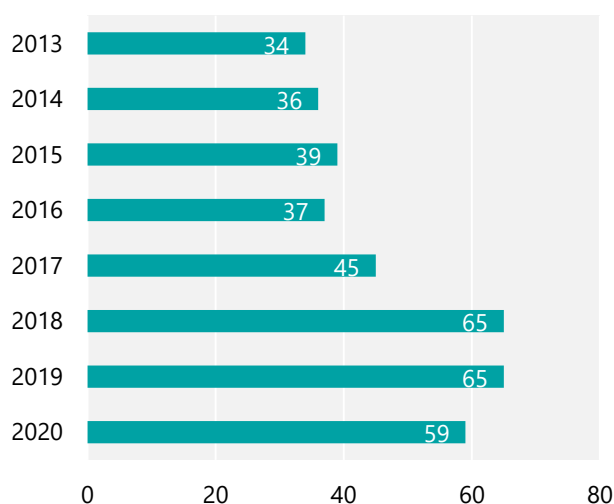
7.1. Contracts with other institutions

7.1.1. National

BBVA FOUNDATION-IVIE RESEARCH PROGRAM

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. Currently, its core lines are *Development, Productivity and Competitiveness in the Digital Age*, *Well-being and Sustainability*, and *Business, Institutions and Policy Evaluation*.

Figure 5
Studies and reports
carried out or in course



During 2020 the following studies were carried out under this Program:

Productive capital stock and investment in Spain and its autonomous communities and regions (1964-2018) (2019-2020)

New update of the capital stock and investment series for Spain that is revised annually. This database, developed jointly with the BBVA Foundation, includes data up to 2018. This edition

analyzes the evolution of public investment and capital stock at national level since the onset of the crisis. Although the sharp decline in public investment has significantly reduced public deficit, it has also reduced infrastructure stock and increased its aging. The study analyzes to which extent public infrastructure services have been adequately provided according to the evolution of their demand, as well as the consequences that a long-continued severe adjustment of investments would have during the next decade. Based on this information, the project carries out an in-depth analysis of public capital stock and investment in Spain and its effect on deficit reduction.

Research team:

Matilde Mas (dir.) (Ivie and Universitat de València)
Francisco Pérez (dir.) (Ivie and Universitat de València)
Lorenzo Serrano (Ivie and Universitat de València)
Ezequiel Uriel (Ivie and Universitat de València)
Eva Benages (Ivie and Universitat de València)
Juan Carlos Robledo (Ivie)
Iván Vicente Carrión (Universitat de València)
Héctor García (Ivie)
M^a Cruz Ballesteros (Ivie)
Susana Sabater (Ivie)
Belén Miravalles (Ivie)

Household equipment and capital stock in the 21st century (2019-2020)

This project aims to construct an investment and capital stock database of Spanish household equipment for the 21st century for each of the autonomous regions of Spain. Based on the database, the monograph will analyze the following aspects of household equipment:

- Historical evolution in household equipment (based on indicators available since the mid-20th century) in terms of penetration of major household appliances and transport goods.
- Evolution in household digital equipment, differentiating between main goods and comparing their penetration rates with non-digital goods.
- Breakdown and valuation of household equipment assets for the period 2000-2017.
- Equipment differences according to household socio-economic status.
- Determinants of household equipment by autonomous region.

Research team:

Francisco Pérez (dir.) (Ivie and Universitat de València)
Ezequiel Uriel (dir.) (Ivie and Universitat de València)
Eva Benages (Ivie and Universitat de València)
Laura Hernández (Ivie)
Juan Carlos Robledo (Ivie)
Rodrigo Aragón (Ivie)
Héctor García (Ivie)
M^a Cruz Ballesteros (Ivie)
Susana Sabater (Ivie)
Belén Miravalles (Ivie)

Socioeconomic determinants of educational results and cognitive skills in Spain. Opportunities for personal development and productive use (2020-)

The exceptional situation experienced to stop the spread of COVID-19 through social distancing and confinement measures has required an effort in the use of digitalization to avoid a complete interruption of the learning process in schools. But it has also revealed inequality gaps in the access to education, as attendance at educational centers, at all levels, has been disrupted and virtual learning options have been much more intensely implemented. In this situation, the level of digital equipment in homes -large but unequal among families of different levels of income and education- has proved decisive for taking advantage of these alternatives. The “digital qualification” of family members and the capacity of schools and teachers to offer tools and support for distance-learning is another relevant issue that is influenced by regional policies and the type of ownership of schools.

This project takes an in-depth look at the socioeconomic determinants of educational results and cognitive skills and analyzes their consequences for opportunities for personal development and productive use of knowledge. The research is proposed bearing in mind three coordinates: the acceleration of the processes of knowledge accumulation, the digital transformation, and the risk of generating digital gaps.

Research team:

José María Peiró (dir.) (**Ivie** and Universitat de València)

Lorenzo Serrano (dir.) (**Ivie** and Universitat de València)

Vicente Martínez-Tur (Universitat de València)

Laura Hernández (**Ivie**)

María Moraga (**Ivie**)

U-Ranking 2020. Synthetic indicators of Spanish universities (2020)

The aim of the ISSUE (Indicadores Sintéticos del Sistema Universitario Español – Synthetic Indicators of the Spanish University System) project, jointly developed by the **Ivie** and the BBVA Foundation, is to analyze the performance of Spanish universities and to offer comparable and synthetic images of these higher education institutions. As a result of this work, each year U-Ranking is published, based on the analysis of the teaching, research and innovation and technological development activities of the universities. The 2020 edition includes a detailed study of graduate employability and labor market results by areas of study and university.

U-Ranking working papers:

- La inserción laboral de los egresados universitarios en España 2018.
- *Rankings* como un Problema de Orden Lineal Generalizado: Una aplicación a U-Ranking.

Research team:

Joaquín Aldás-Manzano (dir.) (**Ivie** and Universitat de València)

Francisco Pérez (dir.) (**Ivie** y Universitat de València)

Rodrigo Aragón (**Ivie**)

Francisco J. Goerlich (**Ivie** y Universitat de València)
Inés Rosell (S2 Grupo)
Irene Zaera (**Ivie**)
Rosa Buitrago (**Ivie**)
Alicia Raya (**Ivie**)
Susana Sabater (**Ivie**)

Esenciales Series (2020)

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 up-to-date, the different issues in this series offer information on recent research topics.

During 2020, a total of two periodicals were published analyzing the Spanish economy in relation to questions as diverse as the evolution of population and birth rates, productivity, employment, socio-economic differences in education, rental market and gender gap in university graduates.

Research team:

Joaquín Maudos (dir.) (**Ivie**, Universitat de València and CUNEF)
Antonio Villar (**Ivie** and Universidad Pablo de Olavide)
Laura Hernández (**Ivie**)
Ángel Soler (**Ivie** and Universitat de València)
Yolanda Jover (**Ivie**)
Alicia Raya (**Ivie**)
Susana Sabater (**Ivie**)

The future of university leadership in advanced societies (2019-2020)

This project on the future of university leadership, with special reference to Spain, will study the following topics:

- Performance profiles of their functions by the most outstanding universities in Spain and worldwide.
- Leading university profiles and synergies with their settings.
- Evaluation criteria for university teaching, research and knowledge transfer performance that identify leaders.
- The transformation of the mission of universities resulting from the impact of digitalization on teaching, research and knowledge transfer activities.
- Impact of digitalization on the tasks and employment of university students.
- Impact of digitalization on university careers and career transformation consequences for expert accreditation and training criteria.
- Digital scenario horizons for linkages between leading universities and their economic and social settings.

Research team:

Joaquín Aldás (dir.) (Ivie and Universitat de València)
José María Peiró (dir.) (Ivie and Universitat de València)
Francisco Pérez (dir.) (Ivie and Universitat de València)
Belén Miravalles (Ivie)
Ines Rosell (S2 Grupo)
Irene Zaera (Ivie)
Susana Sabater (Ivie)

Media social and economic contributions in the digital era (2019-2020)

One of the areas that has been most disrupted by digitalization is that of the communications media. The technological transformations of recent decades have had an impact on both the production processes and the characteristics of the resulting products. In addition, however, there have been profound changes in the business models of media companies and in relationships with readers and audiences.

In parallel, digitalization has led to the elimination of jobs and to a profound transformation of occupational profiles in the media and, likewise, has had an extraordinary impact on the financial structures of media companies, their marketing channels and their relationships, synergies and alliances with other companies, in particular with publishing and audiovisual companies.

This study aims to analyze the role and socio-economic contributions of the communications media today.

Research team:

Francisco Pérez (dir.) (Ivie and Universitat de València)
Bruno Broseta (Universidad Europea)
Alejandro Escribá (Ivie and Universitat de València)
Guillermo López García (Universitat de València)
Joaquín Maudos (Ivie, Universitat de València and CUNEF)
Fernando Pascual (Ivie)
M^a Cruz Ballesteros (Ivie)
Belén Miravalles (Ivie)
Susana Sabater (Ivie)

Activities related to the economic impact of aging (2019-2020)

The term “ageingnomics” refers to the economic impact of longevity. An aging population poses challenges for the welfare state in its current form, but also offers opportunities for the development of specific economic activities and also for the growth of regions featured by a greater incidence of aging or especially attractive to the elderly.

This monograph will analyze these issues, in particular considering the following:

- Characteristics of older households: size, habitat, income (salaries and pensions), wealth, education level, equipment, time use.

- Consumption and expenditure breakdown for older households by age group (55-64, 65-74 and 75 years and older), per person and by consumption-equivalent unit.
- Private consumption by older individuals: direct and indirect impact on aggregate income and employment and main sectoral and occupational effects.
- Revenue and employment impact of public spending on services for the older population.
- Intensity of demand for public health and social protection services by the older population.

Research team:

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

Alba Catalán

Ana Lleó (**Ivie**)

Rodrigo Aragón (**Ivie**)

M.^a Cruz Ballesteros (**Ivie**)

Belén Miravalles (**Ivie**)

Analysis of material flows and natural capital stock (2020-)

This report includes a new objective for the BBVA Foundation-**Ivie** Research Program: to establish bridges between, first, the extensive information and analysis accumulated by the Program on the evolution of human and material assets on which income generation and welfare are based, and, second, the stocks and flows that reflect the relationship between human activities and nature. The speed with which natural resources are currently being depleted, and the impact that human activities have on the environment, such as water and soil pollution, deforestation, erosion, atmospheric emissions, etc., are damaging the capacity of nature to regenerate. For this reason, the need to reduce the negative environmental impacts derived from the massive use of natural resources and to economize their use has been stressed for years, especially within the European Union.

The aim of this report is to provide data that allows to analyze the relationship between the behaviour of the Spanish economy and the use of the resources that it demands from the natural environment. For this purpose, work will be done in two directions: the analysis of material flows and the construction of a monetary valuation of the stock of natural capital that complements those that have been developed for years through the BBVA Foundation-**Ivie** collaboration regarding the stock of public, private and human capital.

Research team:

Ernest Reig (dir.) (**Ivie** and Universitat de València)

Ezequiel Uriel (**Ivie** and Universitat de València)

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

Juan Carlos Robledo (**Ivie**)

Belén Miravalles (**Ivie**)

Consumer behavior after COVID-19 (2020-)

The end of the current crisis caused by the COVID-19 pandemic is yet unknown, thus, making it difficult to have an overview of how it is changing and will further change consumer behavior. However, some of the questions that this document seeks to answer are: How are consumers responding to the situation created by the pandemic? Will the changes that are taking place in the way consumers purchase products and services remain? How are changes in consumer behavior affecting some critical sectors that have been severely affected by the pandemic, such as retail trade or tourism? How are these sectors adapting to changes in consumer behavior in a context of social distancing, are they changing the design of their services or are they making them more accessible?

The methodology will combine a conceptual and an empirical approach, focusing mainly on Spain, although a comparative analyses will be carried out when necessary based on statistics from sources such as, the European Union or the World Tourism Organization (UNWTO), among others.

Research team:

Joaquín Aldás-Manzano (dir.) (**Ivie** and Universitat de València)

Gloria Berenguer (Universitat de València)

Enrique Bigné (Universitat de València)

Marta Frasquet (Universitat de València)

Irene Zaera (**Ivie**)

Spanish National Health System: spending, decentralization and quality (2020-)

The COVID-19 crisis has put the health system under extraordinary stress, raising questions on the amount of equipment and supplies available, as well as the organization of health and social care to meet the needs of hospitalization and intensive care units and their capacity to face emergencies of this dimension. In this context, the objectives of this project are, first, to analyze the determinants of the trajectory of healthcare spending in Spain during the recent decades. Second, to analyze the differences in health expenditure regarding primary care, specialized care, pharmacy, etc. among regions, and within the health areas of each region. And third, to study the causes and effects of regional differences on the quality of the services offered and the equality of access to them. In these three areas, the study will assess the response to the COVID-19 pandemic, particularly with regard to the capacity of the health system to resist strong stress situations resulting from specific increases in the demand for services.

Research team:

Francisco Pérez (dir.) (**Ivie** and Universitat de València)

Enrique Bernal (Instituto Aragonés de Ciencias de la Salud)

Salvador Peiró (FISABIO, Generalitat Valenciana)

Manuel Ridao (Instituto Aragonés de Ciencias de la Salud)

Silvia Mollá (**Ivie**)

Consuelo Mínguez (**Ivie**)

IVIELAB (LABORATORY FOR THE ANALYSIS AND EVALUATION OF PUBLIC POLICY) RESEARCH PROGRAM

In 2018, the **Ivie**, in collaboration with the Valencian Regional Government, started the Laboratory for the Analysis and Evaluation of Public Policy (IvieLAB) to study the action of governments and government agencies in different areas. IvieLAB serves to promote a debate, design of new methodologies and development of tools (such as databases and indicators) to foster knowledge and awareness of the state of public policy in Spain. In 2020, through the IvieLAB program, various seminars and conferences were held, methodological working papers were produced, and eight reports on diverse subjects were prepared, as detailed below.

Economic impact of the development of AI (artificial intelligence) in the Valencian Community: Scenario analysis (2020)

The objective of the report is to study the economic impact of AI (artificial intelligence) in the Valencian Community by means of two different approaches. The first procedure is carried out through the elaboration of a Delphi study in which a group of experts of the Valencian AI ecosystem evaluate the possible impact of AI on the Valencian productive sectors. Through this technique, the objective is to identify the scenarios that, according to the experts, are most likely to emerge in the future in relation to the implementation of AI in the Valencian Community, as well as the main obstacles to overcome and top policies needed. This technique is based on a constant, anonymous interaction by the experts through a structured questionnaire in which they transmit information and knowledge in order to reasonably predict future trends.

In second place, given the absence of indicators that allow to approximate the implementation of artificial intelligence in firms, the development of a methodology is necessary to identify the firms in the Valencian Community that specialize in artificial intelligence. The creation of an indicator is proposed to measure the number of firms, turnover, financial structure, etc., of companies in the Valencian Community with AI as their main activity. The SABI database will be used to obtain economic and financial information on firms. In addition, a dictionary of related terms will have to be created to facilitate the search, as well as semantic search algorithms to perform the search. The data obtained will allow to study AI firms in the Valencian Community by analyzing their characteristics and comparing them with the rest of Spain.

Research team:

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

Rodrigo Aragón (**Ivie**)

Héctor García (**Ivie**)

Consuelo Mínguez (**Ivie**)

M.^a Cruz Ballesteros (**Ivie**)

Belén Miravalles (**Ivie**)

Economic impact of the health emergency crisis (COVID-19) (2020)

The consequences of the emergency health crisis caused by the COVID-19 pandemic and the measures taken by the Government of Spain in declaring the state of emergency to protect the

population's health and safety, contain the spread and sustain the public health system are evident in both the Spanish and Valencian economy, while future impacts are also expected. Therefore, detailed studies of the impact of the COVID-19 crisis are necessary in the following areas: employment and GDP, business activity and viability, measures to support the productive fabric and people, the importance of technological opportunities and the effects on inequality. To carry out these analyses, the **Ivie** has formed a multidisciplinary group of experts to support the Presidency Office of the Valencian Regional Government through the development of several research lines.

On the one hand, the **Ivie** prepares brief documents with rigorous data on each of the topics that are relevant to diagnose problems and to guide in the design of public policies in a timely manner. On the other hand, the group of experts works on defining methodologies and data systems that help analyze and interpret information obtained from various sources. In addition, the **Ivie** strives to respond to people's concerns in the face of these uncertain and unprecedented circumstances by means of periodic short documents aimed at society in general.

Research team:

Francisco Alcalá (**Ivie** and Center for Economic Policy Research)

Alicia Gómez (**Ivie** and Universitat de València)

Carmen Herrero (**Ivie** and Universidad de Alicante)

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

Robert Meneu (Universitat de València)

José María Peiró (**Ivie** and Universitat de València)

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

José Ramos (**Ivie** and Universitat de València)

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

Antonio Villar ((**Ivie** and Universidad Pablo de Olavide)

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

Rodrigo Aragón (**Ivie**)

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

José Enrique Devesa (**Ivie** and Universitat de València)

Héctor García (**Ivie**)

Laura Hernández (**Ivie**)

Consuelo Mínguez (**Ivie**)

Fernando Pascual (**Ivie** and Universitat de València)

Juan Carlos Robledo (**Ivie**)

Jimena Salamanca (**Ivie** and Universitat de València)

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

Yolanda Jover (**Ivie**)

M.^a Cruz Ballesteros (**Ivie**)

Belén Miravalles (**Ivie**)

Alicia Raya (**Ivie**)

The Valencian Community's audiovisual industry in the regional context (2020)

This report offers an update of the information available in the IvieLAB report: "Evaluation of Economic contribution of the Valencian Community's audiovisual industry".

The report reveals the significant weaknesses of the audiovisual industry in the Valencian Community, with low productivity levels that restrain it from reaching higher profitability levels. The reduced average size of its firms may be a consequence of the sector's low competitiveness. The fact that it suffered from the 2008 crisis to a higher degree than the national industry explains why it lost relative weight in the national total. Thus, its levels are currently much smaller, both in terms of income and employment, than before the 2008 crisis with half the sales volume and 25% less employment.

Research team:

Joaquín Maudos (dir.) (Ivie, Universitat de València and CUNEF)

Carlos Albert (Ivie and Universitat de València)

M.^a Cruz Ballesteros (Ivie)

Alicia Raya (Ivie)

Susana Sabater (Ivie)

Belén Miravalles (Ivie)

Overcoming the COVID-19 crisis in the Valencian Community (2020)

The health emergency crisis caused by COVID-19 has affected most countries worldwide, including Spain and the Valencian Community, forcing them into quarantine and virtually shutting down economic activity. After two months of restrictions, now is the time to assess the impact on people, society and the economy in order to repair the damages and face the road to recovery. In this regard, the Valencian Regional Government has requested from the Ivie a report on the COVID-19 crisis that will serve as a basis to design a recovery strategy for the region.

The rebuilding strategy aims not only to obtain a fast recovery of the pre-crisis wellbeing levels, but also to reduce the weaknesses the Valencian Community had in comparison to the country as a whole prior to the outbreak of the pandemic, for example, 12% less GDP per capita than the national average.

The report includes a roadmap that considers three time horizons. In the short term, the main objective is to save lives by flattening the contagion curve, maintain employment and the productive fabric, protect the income level of those most affected by the crisis and the Valencian public administration's ability to pay. In the medium term, income must be generated and public debt should not reach unsustainable levels. In order to achieve these goals, it is necessary to increase firm competitiveness by including knowledge which, in turn, improves productivity. In addition, steps need to be taken to protect the overall health system and the elderly in nursing homes and to adapt the education system to the limitations imposed by the risk of infection.

Finally, in the long run, the report highlights actions that can be taken in the private sphere to boost R&D investment and promote firm growth and professionalization, while taking advantage of the opportunities presented by the “new normal”. In the public sphere, the document proposes actions aimed at modernizing the public administration system, streamlining the regulatory framework, strengthening public investment and eliminating the financial discrimination against the Valencian Community.

Research team:

Joaquín Maudos (dir.) (Ivie, Universitat de València and CUNEF)

Francisco Pérez (dir.) (Ivie and Universitat de València)

Carlos Albert (Ivie and Universitat de València)

Francisco Alcalá (Ivie and Center for Economic Policy Research)

Eva Benages (Ivie and Universitat de València)

Pilar Chorén (Ivie)

Alicia Gómez (Ivie and Universitat de València)

Alejandro Escribá (Ivie and Universitat de València)

Carmen Herrero (Ivie and Universidad de Alicante)

Matilde Mas (Ivie and Universitat de València)

Silvia Mollá (Ivie)

Consuelo Mínguez (Ivie)

Fernando Pascual (Ivie and Universitat de València)

Javier Quesada (Ivie and Universitat de València)

José Ramos (Ivie and Universitat de València)

Ernest Reig (Ivie and Universitat de València)

Juan Carlos Robledo (Ivie)

Irene Zaera (Ivie)

M.^a Cruz Ballesteros (Ivie)

Yolanda Jover (Ivie)

Belén Miravalles (Ivie)

Madrid: Capital city, knowledge economy and fiscal competition (2020)

This report analyzes the trajectory of Madrid as Spain’s capital city and how this status has influenced its economic dynamism. The research shows how the State public sector and Madrid’s Regional Government have contributed with their policies to the continuous increase of its population, income and wealth, strengthening the powerful mechanisms of agglomeration generated by private activity.

The report is divided in six chapters. The first four chapters focus on Madrid’s present-day economy, the bases of its dynamism as an international center of knowledge-intensive activities and of highly qualified occupations, and its power to attract human capital, firms and population. While, the last two chapters analyze the role played in the capital’s current dynamics by the State public sector, through the large number of public decision-making institutions and public sector employees located in Madrid, and by Madrid’s Regional Government, through its tax reduction policies.

Research team:

Francisco Pérez (dir.) (Ivie and Universitat de València)

Ernest Reig (Ivie and Universitat de València)

Amadeo Fuenmayor (Universitat de València)

Rafael Granell (Universitat de València)

Silvia Mollá (Ivie)

M.^a Cruz Ballesteros (Ivie)

Belén Miravalles (Ivie)

Alicia Raya (Ivie)

Observatory on the productive specialization and productivity level of the Valencian Community in the regional context (2020)

The objective of this observatory is to analyze the productive specialization and the productivity level of the Valencian economy within the regional context, offering data at a high level of disaggregation (62 productive branches). The observatory will include, in addition to a system of indicators, a descriptive card for each of the 62 productive branches containing information on the position of the Valencian Community in relation to the rest of the Spanish regions (and the national aggregate) for the following variables:

1. Relative weight of the productive branch in total Gross Value Added (GVA) and employment of each region;
2. Specialization index of each Spanish region in relation to Spain (GVA and employment);
3. Percentage distribution of GVA/employment in Spain by region;
4. Productivity per employed person of each regional and comparison with the national average;
5. Average size of each firm (in terms of GVA and employment).

The system of indicators/data cards allows to identify the productive branches in which the Valencian Community is more/less specialized and has a greater/lesser productivity level, in order to quantify the potential increase in the GVA of the Valencian economy associated with: a) productivity gain; b) changes in productive specialization.

The report will be based on data from 2018 published by the Spanish National Statistics Institute (INE) in June 2020.

Research team:

Joaquín Maudos (dir.) (Ivie, Universitat de València and CUNEF)

Consuelo Mínguez (Ivie)

Juan Carlos Robledo (Ivie)

M.^a Cruz Ballesteros (Ivie)

Alicia Raya (Ivie)

The quality of employment generated and wages in the Valencian Community (2020)

This report aims to assess the characteristics of employment generated in the Valencian Community. The employed population has increased steadily from 1.75 million at the beginning of 2014 to more than 2.1 million at the end of 2019. Nevertheless, although the maximum employment figures recorded at the start of 2008 (2.26 million) have not yet been reached; the accumulated increase over the last five years has been important. However, a proper assessment of the Valencian Community's labor market performance requires, in addition to quantitative data (number of employed persons), an analysis of the quality of employment.

Therefore, this report will analyze the relevant characteristics of employment, such as, salary, contract (indefinite, temporary or self-employment), schedule (full- or part-time), occupation, etc., all of which affect the quality and attractiveness of employment in terms of remuneration, stability and desirability. The degree of adjustment of the jobs carried out with respect to the characteristics of the people employed will also be considered (correspondence between educational level and job requirements; schedule preference in the case of part-time employment, etc.). In addition, the report will analyze data on specific groups of particular interest (young people, over 54 years of age, women, etc.). The study will be developed with the use of statistical information from various sources that offer labor market data at regional level, such as microdata from the Labour Force Survey and the Wage Structure Survey.

Although the study will focus on the aggregate behavior of the Valencian Community during the period 2014-2019, it will also include a comparison at national level and with data from benchmark regions. Finally, the study will include a chapter on the effects of COVID-19 on employment and job quality.

Research team:

Lorenzo Serrano (dir.) (Ivie and Universitat de València)

Ángel Soler (Ivie and Universitat de València)

Fernando Pascual (Ivie and Universitat de València)

Susana Sabater (Ivie)

Belén Miravalles (Ivie)

Impact of digitalization on the future of employment in the Valencian Community (2020)

First, the report will carry out an analysis of the labor market in the Valencian Community, paying special attention to digitalization and related jobs and educational training. Second, it will analyze the labor risks associated with automation and employment prospects in the Valencian Community.

Given the information available at regional level, to empirically assess the impact of automation in the workplace, jobs are valued according to their estimated risk of automation, previously assessed by international specialists in Machine Learning techniques. These risks will be evaluated taking into account the socio-demographic characteristics of employees (gender, age, nationality, educational level, field of study, continuous training), as well as employment characteristics

(employment or unemployment, length of service in the company, tele-work, employment situation, sector of activity, size of company, occupational groups, salary level).

Based on these results, the influence of the Valencian productive and occupational structure on the risks and opportunities (creation/transformation) that digitalization presents will be evaluated from an aggregate perspective, in comparison with the national average and with other developed regions.

Research team:

Francisco Pérez (dir.) (IvIE and Universitat de València)

Laura Hernández (IvIE)

M.^a Cruz Ballesteros (IvIE)

Belén Miravalles (IvIE)

Alicia Raya (IvIE)

Susana Sabater (IvIE)

RESEARCH PROGRAMS WITH OTHER INSTITUTIONS

GROWTH AND CAPITALIZATION

Assessment of the Spanish transport infrastructure. AIReF (2019-2020)

This study aims to provide a panoramic view of the Spanish transport infrastructure during the 1986–2016 period (or last year available) and to analyze the impact of transport infrastructure investment from the economic, social and environmental perspectives. The study also aims to develop a cost-benefit methodology for transport infrastructure investment and a methodology to facilitate the movement of residents in territories off the Spanish peninsula, seeking to increase connectivity and reduce mobility costs.

The study examines all types of transport infrastructure:

1. Road (distinguishing between toll motorways and roads)
2. Rail infrastructure (distinguishing between high-speed and standard rail)
3. Ports
4. Airports

Institution: Authority for Fiscal Responsibility (AIReF)

Research team:

Matilde Mas (dir.) (IvIE and Universitat de València)

Javier Asensio (Universitat Autònoma de Barcelona)

Javier Campos (Universidad de Las Palmas de Gran Canaria)

Pedro Cantos-Sánchez (Universitat de València)

Francisco J. Goerlich (IvIE and Universitat de València)

Javier Gutiérrez (Universidad Complutense de Madrid)

Dan Graham (Imperial College London)

Per-Olov Johansson (Stockholm School of Economics)
Anna Matas (Universitat Autònoma de Barcelona)
Joaquín Maudos (**Ivie**, Universitat de València and CUNEF)
Armando Ortuño (Universidad de Alicante)
Jordi Perdigueró (Universitat Autònoma de Barcelona)
Francisco Pérez (**Ivie** and Universitat de València)
Ernest Reig (**Ivie** and Universitat de València)
Ginés De Rus (Universidad de Las Palmas de Gran Canaria)
María Pilar Socorro (Universidad de Las Palmas de Gran Canaria)
Eva Benages (**Ivie** and Universitat de València)
Consuelo Mínguez (**Ivie**)
Silvia Mollá (**Ivie**)
Juan Pérez (Conselleria de Hacienda y Modelo Económico [GVA])
Juan Carlos Robledo (**Ivie**)
Iván Vicente (**Ivie**)
M.^a Cruz Ballesteros (**Ivie**)
Susana Sabater (**Ivie**)
Belén Miravalles (**Ivie**)

CAPITAL HUMANO, EDUCACIÓN Y EMPLEO

Design of a database to develop a map of the situation and outlook of vocational training in Spain (2019-2020)

The purpose of this contract is to develop a database that maps the situation and outlook of vocational training in Spain. By combining the appropriate data and computing inferential statistics, information will be obtained on the medium- and long-term aspects that will determine if education and training efforts meet the skills demand of the labor market in the productive and services sectors.

Institution: Ministerio de Educación y Formación Profesional

Research team:

Lorenzo Serrano (**Ivie** and Universitat de València)
Laura Hernández (**Ivie**)
Ana Lleó (Universitat de València)
Ángel Soler (**Ivie** and Universitat de València)
Alicia Raya (**Ivie**)
Belén Miravalles (**Ivie**)

System of indicators of the Valencian Observatory of Decent Work (2020)

The aim of the project is to design and set up a system of indicators for the Valencian Observatory of Decent Work in accordance with the functions and objectives of the current Urban Observatory, in order to promote this tool and transform it from a territorial database to an

integrated structure within the planning of policies for action of the Valencian Regional Government.

The project will include four work areas:

1. To review and conceptualize the objectives of the Observatory.
2. To analyze the public information sources available and their characteristics (territorial and sectorial disaggregation, disaggregation by groups, temporal frequency, possibility of microdata, etc.), as well as the options for improvement in terms of existing data that is not available (e.g., administrative-type information) and, finally, the possible lines of action in the longer term to cover those aspects for which the above alternatives do not apply.
3. To propose a design for the observatory with the contents that are feasible in an initial phase according to the above-mentioned analyses, as well as a provision for possible future extensions.
4. To create a specific pilot study with a relevant case to contrast the scope of the Observatory.

Institution: Conselleria de Economía Sostenible, Sectores Productivos, Comercio y Trabajo

Research team:

Lorenzo Serrano (Ivie and Universitat de València)

Ángel Soler (Ivie and Universitat de València)

Fernando Pascual (Ivie and Universitat de València)

María Moraga (Ivie)

M.^a Cruz Ballesteros (Ivie)

Susana Sabater (Ivie)

Talent attraction and retention capacity of Spanish autonomous communities (2020)

This study has two main objectives: to update the Talent Index for Spain and its regions (INSEAD Talent Competitiveness Index) provided in the study published by the Cotec Foundation "*Mapa del talento en España 2019. Cómo lo generan, atraen y retienen las comunidades autónomas*"; and to offer an alternative indicator to measure the talent attraction and retention capacity of the Spanish regions (Cotec-Ivie Talent Index). Although both indicators use the methodology proposed by INSEAD as reference, they are based on different indicators and variables.

The two main reasons that led to the revision of the INSEAD indicator are: first, the original index was designed to compare a very large number of countries, with different degrees of development, that largely conditioned the selection of the variables analyzed; and, second, due to the COVID-19 pandemic, the order of priorities in multiple dimensions changed, now focusing more on variables related to health and the environment, digitalization and resilience of companies and workers, all of which are contemplated in the new indicator.

Intitution Fundación Cotec para la Innovación

Research team:

Matilde Mas (Ivie and Universitat de València)

Javier Quesada (Ivie and Universitat de València)
Fernando Pascual (Ivie and Universitat de València)
Ángel Soler (Ivie and Universitat de València)
Héctor García (Ivie)
María Moraga (Ivie)
Alicia Raya (Ivie)
Susana Sabater (Ivie)

UNIVERSITIES

Updating and maintenance of the Valencian Public University System of Information–SIUVP (2020)

SIUVP (Valencian Public University System of Information) is a project born in 2012 from the collaboration of the five 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 five 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

The SIUVP website is updated twice a year with the latest information available.

Institution: Valencian Public Universities

Research team:

Francisco Pérez (dir.) (Ivie and Universitat de València)
Rodrigo Aragón (Ivie)
Irene Zaera (Ivie)
Héctor García (Ivie)
Yolanda Jover (Ivie)
Alicia Raya (Ivie)

Technical assistance to AIReF in evaluating work carried out on the efficiency of Andalusian public universities (2019-2020)

The purpose of the contract is to assist the Independent Authority for Fiscal Responsibility (AIReF) in selecting and subsequently developing the work of a consulting company that will provide technical assistance in evaluating specific areas of the Andalusian public universities in terms of technical strategies and procedures, efficiency and effectiveness.

Institution: Authority for Fiscal Responsibility (AIReF)

Research team:

Francisco Pérez (dir.) (Ivie and Universitat de València)

Joaquín Aldás-Manzano (Ivie and Universitat de València)

The socioeconomic contribution of the University of Castilla-La Mancha: effects on territorial development and the change in the productive model (2020-)

The aim of this project is to study the socio-economic contribution of the University of Castilla-La Mancha (UCLM), quantifying the importance that its main activities, i.e., research, human capital formation and technological development, have on its environment.

To evaluate the magnitude of the effects of such a complex institution on society requires an adequate systematization of its activities with accurate data, as well as the measurement of all the resources available and their direct and indirect impacts.

The project includes a second report that will offer an in depth look at the activities carried out by the UCLM and their contribution to the economic, innovation and social fields.

Institution: Universidad de Castilla-La Mancha

Research team:

José Manuel Pastor (dir.) (Ivie and Universitat de València)

Joaquín Aldás-Manzano (Ivie and Universitat de València)

Lorenzo Serrano (Ivie and Universitat de València)

Ángel Soler (Ivie and Universitat de València)

María Moraga (Ivie)

Fernando Pascual (Ivie and Universitat de València)

Inés Rosell (S2 Grupo)

Irene Zaera (Ivie)

M.^a Cruz Ballesteros (Ivie)

Belén Miravalles (Ivie)

Susana Sabater (Ivie)

Information system for the Strategic Plan of the University of Valencia (2020)

The University of Valencia (UV) is in the process of developing a new Strategic Plan with a four-year time horizon covering until the year 2023. Thus, the UV has commissioned the Ivie to

develop a rigorous and detailed information system, with a national and international comparative approach, on its main characteristics and results, as well as its environment and competitors.

Institution: Universitat de València

Research team:

Alejandro Escribá (dir.) (Ivie and Universitat de València)

José Manuel Pastor (dir.) (Ivie and Universitat de València)

Inés Rosell (S2 Grupo)

Irene Zaera (Ivie)

KNOWLEDGE ECONOMY AND DIGITAL TRANSFORMATION

Plan for the Digital Transformation of the Productive Fabric of the Valencian Community (2020)

This study aims to develop a Plan for the Digital Transformation of the Productive Fabric of the Valencian Community that will serve as a basis to present to the Recovery Plan of the European Union. Its objectives are:

- To develop a diagnosis of the Valencian economy, identifying primarily its weaknesses and threats posed by digitalization, allowing to focus on its development in an effective way.
- To define a intervention plan by sectors with a 3- to 5-year time horizon that allows to define the program to obtain the European economic recovery funds.
- To estimate the costs and budget needed for the management of the proposed interventions and a plan to apply for the European Union aids through the Valencian Regional Government.

Institution: Sociedad Proyectos Temáticos de la Comunidad Valenciana (SPTCV)

Research team:

Joaquín Maudos (Ivie, Universitat de València and CUNEF)

Juan Fernández de Guevara (dir.) (Ivie and Universitat de València)

Laura Hernández (Ivie)

Consuelo Mínguez (Ivie)

Jimena Salamanca (Ivie and Universitat de València)

Revision of the indicators and SWOT analysis of the socioeconomic context and the context of R&D in the Valencian Community (2020)

The aim of this work is to revise the indicators and the SWOT analysis of the socioeconomic context and the context of R&D&I in which the development of the Intelligent Specialization Strategy for Research and Innovation in the Valencian Community (RIS3-CV) is supported.

During the second half of 2019, the Ivie carried out an assessment of the RIS3-CV Strategy covering the period since its implementation until the end of 2018, which included a revision of the

general socioeconomic diagnosis and innovation system. However, as a result of the exceptional situation created by the current health crisis and given the significant consequences on the productive fabric in general and, in particular, of the Valencian Community, it is essential to reassess the new economic and social context and innovation system that will determine the development and progress of the RIS3 Strategy in the region.

This project is part of the preparatory work for the new programming period of the EU structural funds (2021-2027), which finance part of the actions included in the RIS3-CV.

Institution: Conselleria de Innovación, Universidades, Ciencia y Sociedad Digital. Generalitat Valenciana

Research team:

Ernest Reig (dir.) (Ivie and Universitat de València)

Carlos Albert (Ivie and Universitat de València)

Silvia Mollá (Ivie)

Irene Zaera (Ivie)

Susana Sabater (Ivie)

Belén Miravalles (Ivie)

Report on the situation of intangible assets in Spain, Portugal and Italy for the 2020 Summit of Heads of State and Government (2020)

The objective of this study is to develop a detailed report on the current status and progress of investments made in intangible assets by Spain, Portugal and Italy, three participating countries in the 2020 Summit of Heads of State and Government. To carry out this work, the Euklems database will be used to make a comparative analysis of the three countries, as it is more up-to-date and complete than Intaninvest which does not include information for Portugal. In this sense, the report requires the construction of a series of indicators with data on intangible assets from Euklems, including an additional year to cover the period 1995-2016.

Institution: Fundación Cotec para la Innovación

Research team:

Matilde Mas (dir.) (Ivie and Universitat de València)

Javier Quesada (dir.) (Ivie and Universitat de València)

Fernando Pascual (Ivie and Universitat de València)

The Canary Islands and the knowledge economy: talent, intangibles and digitization (2020)

The objective of this project is to carry out a detailed study of the main characteristics of the Canary Islands' economy in relation to three important aspects of the knowledge economy, namely, talent retention and attraction, investment in intangible assets and digitalization.

Institution: Fundación Cotec para la Innovación

Research team:

Matilde Mas (dir.) (Ivie and Universitat de València)

Laura Hernández (Ivie)

Fernando Pascual (Ivie and Universitat de València)

Ángel Soler (Ivie and Universitat de València)

M.^a Cruz Ballesteros (Ivie)

Digital skills and groups at risk of exclusion: changes in the 2019-2020 determinants as a result of COVID-19 (2020-)

This project aims to identify the groups that are at a greater risk of being excluded from the digital society, not only in terms of access to certain technologies or digital tools, but also in terms of management and skills related to new technologies, paying special attention to different dimensions of digital skills and the effect that the COVID-19 pandemic may have had on them. Examples of these groups are unemployed vs. employed, elderly vs. young ones, highly-educated vs. less-educated, foreigners vs. nationals, or women vs. men.

Institution: Fundación Cotec para la Innovación

Research team:

Joaquín Maudos (dir.) (Ivie, Universitat de València and CUNEF)

Laura Hernández (Ivie)

M.^a Cruz Ballesteros (Ivie)

ECONOMIC IMPACT

Economic and fiscal impact of Mercadona and its suppliers in 2019 (2020)

The objective of this study developed 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. In 2020, the research team studied the impact of the supermarket chain in 2019.

Institution: Mercadona

Research team:

Joaquín Maudos (dir.) (Ivie, Universitat de València and CUNEF)

Amadeo Fuenmayor (Universitat de València)

Rafael Granell (Universitat de València)

Carlos Albert (Ivie and Universitat de València)

M.^a Cruz Ballesteros (Ivie)

Economic impact of the 39th Valencia Trinidad Alfonso Marathon Race (2019-2020)

The objective of this study, commissioned by the Sports Club Correcaminos of Valencia—in coordination with Trinidad Alfonso Foundation and Valencia's Sports Foundation—is to (i) quantify the economic impact of the celebration of the 39th Valencia Trinidad Alfonso EDP Marathon, which took place in 2019, 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.

Institution: Sports Club Correcaminos of Valencia

Research team:

Joaquín Aldás-Manzano (dir.) (Ivie and Universitat de València)

Joaquín Maudos (dir.) (Ivie, Universitat de València and CUNEF)

Eva Benages (Ivie and Universitat de València)

Irene Zaera (Ivie)

Alicia Raya (Ivie)

Economic impact of the Trinidad Alfonso Foundation's program to support sports competitions in the Valencian Community. Fourth edition (2019-2020)

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 study estimates 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. Two reports have already been carried out and a third is being developed on the economic impact of the competitions held between 1 July 2019 and 30 June 2020. As in other economic impact studies, an input-output model will be used, and the corresponding table will be constructed for the Valencian Community.

Institution: Trinidad Alfonso Foundation

Research team:

Joaquín Maudos (dir.) (Ivie, Universitat de València and CUNEF)

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

Rosa Buitrago (**Ivie**)

M.^a Cruz Ballesteros (**Ivie**)

Economic and social impact of the annuity for 2019 of the City of Arts and Sciences (2019-2020)

This work continues with the analysis of both the economic and social impact, in terms of intellectual enrichment, of the City of Arts and Sciences of València, with data from the 2019 financial year. This study, and those referring to 2017 and 2018, allow CACSA, on the one hand, to know the tourist impact that the activity of the complex has, and on the other hand, to quantify in what way its scientific divulgation work is reaching society.

Institution: CACSA

Research team:

Joaquín Maudos (dir.) (**Ivie**, Universitat de València and CUNEF)

Fernando Pascual (**Ivie** and Universitat de València)

Alicia Raya (**Ivie**)

Economic impact of the sporting events at the L'Alqueria del Basket during the 2019-2020 season (2019-2020)

In 2017, Valencia Basket inaugurated L'Alquería del Basket, the largest basketball training facility in Europe. The project originated with the idea of being a center of talent and training in values for the development of basketball and as the main venue for the activities of all its youth teams. In addition, L'Alquería del Basket aims to host various sporting events, especially those related to basketball.

The objective of this project is to estimate the total impact of the sporting events that take place during the 2019-20 season in L' Alquería del Basket on the Valencian economy in terms of income, value added and employment, distinguishing the direct, indirect and induced impacts. The estimation is carried out by using an input-output methodology based on the latest information updated by the **Ivie** from input-output tables on the Valencian economy.

Institution: Fundació València Bàsquet 2000

Research team:

Joaquín Maudos (dir.) (**Ivie**, Universitat de València and CUNEF)

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

Rosa Buitrago (**Ivie**)

M.^a Cruz Ballesteros (**Ivie**)

Belén Miravalles (**Ivie**)

Economic impact of Feria Valencia (Valencia Trade Fair) during 2019 and main characteristics of its exhibitors (2020)

This study offers an update of the previous economic impact reports carried out by the **Ivie** with 2019 data. This edition will analyze the information in three different areas. First, the economic impact of Feria Valencia in the Valencian Community and also in the rest of Spain. In addition, it will include an estimate of the tax revenue generated by its activities. Finally, it will analyze the main features of the Valencian firms that participate at the Fair, comparing their economic and financial characteristics with those of other Valencian firms.

As with the two previous reports, the total impact (direct, indirect and induced) of the activity surrounding Feria Valencia is quantified in terms of production (sales), income (GDP) and employment.

Institution: Feria Valencia (Valencia Trade Fair)

Research team:

Joaquín Maudos (dir.) (**Ivie**, Universitat de València and CUNEF)

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

Amadeo Fuenmayor (Universitat de València)

Rafael Granell (Universitat de València)

Alicia Raya (**Ivie**)

POPULATION AND TERRITORY

Technical assistance to estimate the amount of aid needed to cover the cost of green harvesting (2020)

The aim of this project is to prepare an economic report to calculate the amount of aid needed to cover the costs of green harvesting for the 2020 vintage in the Valencian Community, in accordance with the Royal Decree 557/2020 of 9 June, which adopts exceptional measures to support the wine sector, following the coronavirus crisis and its consequences on the sector. In particular, the report refers to the calculation of the costs of green harvesting or total destruction or removal of grape bunches while still in their immature stage.

Institution: Agencia Valenciana de Fomento y Garantía Agraria

Research team:

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

Distribution of the population and access to public services (2020-)

The objective of this project is to study the concentration of the population in Spain at municipal level in relation to public services available (health and educational centers) and access to banking services, as well as other issues depending on the information available. The study is closely related to the phenomenon of depopulation known as “empty Spain”.

Institution: Fundació Ramón Areces

Research team:

Francisco J. Goerlich (dir.) (**Ivie** y Universitat de València)

Joaquín Maudos (dir.) (**Ivie**, Universitat de València y CUNEF)

Silvia Mollá (**Ivie**)

Belén Miravalles (**Ivie**)

GLOBALIZATION

LAKLEMS - Situation and recent evolution of productivity in Latin American countries (2019-2020)

Following the methodology used in WORLD KLEMS, the LAKLEMS project includes a database that collects the main economic variables of a group of Latin American countries by using a common approach in the collection and processing of the information. The objective of the project is to revise and update the information already available on five Latin American countries (Colombia, Chile, Argentina, Brazil and Mexico) and to include information on five other countries: Dominican Republic, Costa Rica, Peru, Honduras and El Salvador.

Institution: Inter-American Development Bank

Research team:

Matilde Mas (dir.) (**Ivie** and Universitat de València)

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

Data for European ICT industries analysis (PREDICT). Part 3. Digital Technologies Segment Data (DIGITES) (2020-2022)

The aim of this study is to update the data in the report developed for the European Commission's Joint Research Centre, which analyses not only the ICT sector, but also the media, e-content and retail sectors, as well as the intensity of ICT use in European industries and the EU's position in the global value chain of technology products.

Institution: European Commission

Research team:

Matilde Mas (dir.) (**Ivie** and Universitat de València)

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

Rodrigo Aragón (**Ivie**)

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

Laura Hernández (**Ivie**)

Consuelo Mínguez (**Ivie**)

Fernando Pascual (**Ivie** and Universitat de València)

Juan Carlos Robledo (**Ivie**)

Inés Rosell (S2 Grupo)

Jimena Salamanca (**Ivie** and Universitat de València)

Marta Solaz (Ivie)
Héctor García (Ivie)
Rosa Buitrago (Ivie)
Alicia Raya (Ivie)
Susana Sabater (Ivie)

SECTORAL STUDIES

The Spanish food and agriculture sector in the European context. 2019 Report (2020)

The third report on the Spanish food and agriculture sector in the European context (*Observatorio sobre el sector agroalimentario español en el contexto europeo. Informe 2019*) analyzes the behavior of the Spanish food and agriculture sector compared to other EU countries, quantifying side by side the production branches that define the sector. As in last year's edition, this study includes the analysis of a new link in the food and agricultural chain: distribution, alongside the primary sector and processing.

The document quantifies the different productive branches that define the agri-food sector in joint and examines their characteristics from six points of view: size, growth and composition; employment; productivity and competitiveness; the shopping basket; inflation and prices; foreign trade, investment effort in R&D; and the main subsectors.

Institution: Cajamar

Research team:

Joaquín Maudos (dir.) (Ivie, Universitat de València and CUNEF)
Jimena Salamanca (Ivie and Universitat de València)
Alicia Raya (Ivie)
Belén Miravalles (Ivie)

The agri-food sector in the Spanish regions (2020)

The aim of this report is to create an observatory of the agri-food sector in the Spanish regions, so as to provide a comparative view among regions and national average. Thus, an extensive system of indicators will be needed to analyze the different economic dimensions of the sector (production, employment, prices, foreign trade, productivity, competitiveness, etc.). Limited to the statistical data available, the observatory will provide information on the entire value chain of the sector, including the primary sector, the processing industry and distribution. The study will contain a summary sheet for each region offering their overall position in the ranking of Spanish regions in various areas, covering from 2008 to the last year available.

Institution: Cajamar

Research team:

Joaquín Maudos (dir.) (Ivie, Universitat de València and CUNEF)

Jimena Salamanca (Ivie and Universitat de València)

M.^a Cruz Ballesteros (Ivie)

Belén Miravalles (Ivie)

FIRM COMPETITIVENESS

Corporate Governance, Strategy and Competitiveness Observatory (GECE observatory) (2017-)

The aim of the Corporate Governance, Strategy and Competitiveness (GECE) Observatory, in the Valencian Community 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 serve as 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. The project has its own website: <https://www.observatoriogece.es/>. In addition, a group of participating firms, for which customized reports are prepared, collaborate by providing first-hand information that improves the analysis carried out by the observatory on business competitiveness and strategy.

Institution: Bankia

Research team:

Alejandro Escribá (dir.) (Ivie and Universitat de València)

Joaquín Maudos (Ivie, Universitat de València and CUNEF)

Carlos Albert (Ivie and Universitat de València)

Jimena Salamanca (Ivie and Universitat de València)

Rodrigo Aragón (Ivie)

Héctor García (Ivie)

M.^a Cruz Ballesteros (Ivie)

Alicia Raya (Ivie)

Susana Sabater (Ivie)

Belén Miravalles (Ivie)

NETWORKS

The Ivie participates in eight international networks, Competitiveness, ICTNET, World KLEMS, LA KLEMS, EU KLEMS, Wolpertinger, INDICSER and PREDICT, and two other national ones: REDEV and the network established University Carlos III of Madrid (UC3M), through the Research Institute for Higher Education and Science (INAECU).

In 2020, Afi, ISEAK, Ivie and KSNET formed the Network for Good Practices in Evaluation (REDEV), a joint project to promote public and private policy evaluation in Spain. With this new alliance,

they aim to unite their experience to support public and private institutions in their decision-making process, based on the premise that this process must be backed up by objective data and rigorous analysis. RedEV promotes a comprehensive approach to evaluation that encompasses all the essential phases to contribute to informed and evidence-based decision making, starting from the soundness of the diagnosis and reaching the final phase of evaluation of results and impacts.

The second national collaboration network is the one established, since 2013, with the Carlos III University of Madrid (UC3M), Research Institute for Higher Education and Science (INAECU), for the study and evaluation of the production and use of information in science and technology by scientific communities. UC3M is a competent contact to provide bibliometric information on the scientific activity of Spanish universities that the **Ivie** uses in its projects on the Spanish university system such as U-Ranking.

International networks

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 and the launch of ASIA KLEMS, which includes Asian countries. The latest initiative of this global network is BALTIC KLEMS, whose objective is to develop a methodology adapted to the Baltic countries to analyze the growth patterns and evolution of their productivity. The **Ivie** has actively participated in this new project through a

Marie Skłodowska-Curie grant, which has enabled the integration of a researcher to launch this new database. 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), 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**

José Enrique Devesa Carpio participates in the project *Economic violence: opening pathways across an unexplored gender-based violence issue for guaranteeing the women and children's fundamental rights*, funded by the European Commission Horizon 2020 - Research and Innovation Framework Programme (2019-2021). Main researcher: Inmaculada Domínguez Fabián.

José María Peiró is head of the Spanish team of the Project *European Safety Training and Evaluation supporting European Mobility (ESTEEM)* (2017-2020), coordinated by the University of Sheffield, with participation by the University of Bologna, IPPLE, Valora prevención and the Universitat de València, funded by KA2 Strategic Partnerships of Horizon 2020 (2017-1-UK01-KA202-036560).

Finally, José María Peiró is also head of the Spanish team that participates in the research project *Cooperation for innovation and the exchange of good practices sub-programme* (2017-2020) funded by Erasmus + European and Vietnamese Collaboration on Graduate Employment and led by the University of Uppsala in collaboration with a group of ten universities and the Ministry of Education (MOET, Vietnam).

7.2.2. **Spanish National R&D Plan**

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 2020, the Researchers and Associate Researchers participated in the following projects:

GC2018-099415-B-I00: *Digitalización financiera en un contexto de revolución digital: competencia, regulación y adopción* (2019-2021). Santiago Carbó (Main researcher). Ministerio de Ciencia, Innovación y Universidades.

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 and Vicente Safón (Main researchers).

ECO2017-82696-P: *Crisis económica y fragilidad social: el papel de las instituciones, la diversidad social, la política pública y los medios de comunicación* (2018-2020). Marta Reynal Querol (Main researcher), José García-Montalvo.

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

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 and Carolina Moliner (Main researchers), José Ramos.

PGC2018-095821-B-I00: *Geografía, capacidad estatal y cambio económico. Una aproximación espacial al desarrollo y sus determinantes en las economías periféricas (siglos XIX-XXI)* (2019-2021), funded by Ministerio de Ciencia, Innovación y Universidades. Alfonso Herranz Loncán and Julio Martínez Galarraga (Main researchers), Alicia Gómez.

PID2019-107161GB-C33: *Investigación sobre Desarrollo y Desigualdad, Innovación y Medioambiente (i-DEINNOVE)* (2020-2022), funded by Ministerio de Ciencia e Innovación. Gustavo A. Marrero and Carlos G. Bethencourt (Universidad de La Laguna) (Main researchers), Jesús Rodríguez-López.

Francisco Alcalá is member of the research team of the project *Mercados globales, calidad, innovación, longevidad y bienestar*, funded by Secretaría de Estado de Investigación, Desarrollo e Innovación, Ministerio de Ciencia, innovación y universidades (2019-2021).

7.2.3. Other projects financed by public institutions

José García-Montalvo is the main researcher on the research team 2017SGR-616 *Macroeconomia Aplicada i Mètodes Quantitatius* (2017-2020) funded by the Agència Gestió Ajuts Universitaris i Recerca.

Antonio Villar is main researcher of the project *Bienestar Social y Políticas Públicas*, funded by Junta de Andalucía.

Carmen Herrero is main researcher of the project *Economía y género* (PROMETEO 2019/037) of the Departamento de Fundamentos del Análisis Económico of the Universidad de Alicante funded by Generalitat Valenciana (2019-2022).

José Manuel Pastor is main researcher of the Project *Gasto público y resultados educativos en España en el siglo XXI: Eficiencia e igualdad de oportunidades en un estado descentralizado* (CPI-19-398). Grants from the Conselleria d'Hisenda i Model Econòmic for the support of public

economic research groups in the Valencian Community (2019-2023). Lorenzo Serrano and Joaquín Maudos are also members of the research team.

Project of the Consolidable Research Groups of the Conselleria d'Innovació, Universitats, Ciència i Societat Digital (Generalitat Valenciana) AICO/2020/217. *Factores de competitividad en la era del conocimiento y la economía digital* (2020-2021). Juan Fernández de Guevara (Main researcher), Joaquín Maudos, José Manuel Pastor, Lorenzo Serrano and Alicia Gómez.

Finally, Iván Arribas is researcher of the Prometeo project (PROMETEOII/2019/095) *Economía del Comportamiento Estratégico: privacidad y big data, estrategias de innovación e internacionalización, movilidad y redes de transporte, cambio climático, sistemas de incentivos y brecha de tiempo en el hogar entre hombres y mujeres*, funded by Generalitat Valenciana. Amparo Urbano (Main researcher) (09/2019-12/2022).

7.2.4. Other projects financed by private institutions

Alicia Gómez is member of the research group of the BBVA Foundation's "Digital Humanities" project titled *Sociedad digital, uso del tiempo y valor de la producción doméstica* (2020-2022). Daniel Tirado (Main researcher).

José García-Montalvo is member of the research group of the project "Ayudas a Equipos de Investigación Científica sobre SARS-CoV-2 y COVID-19 en Economía y Ciencias Sociales", titled *The Impact of COVID-19 on Income and Consumption Inequality in Spain: Real-Time Evidence from Big Data* (2020-2022). Rubén Durante (Main researcher).

José García-Montalvo is also main researcher of the Project *The economic recovery after COVID-19: Inequality, consumption and the fate of the Spanish economy* (ERACOV19, SR20-00386), within the «Social Research Call 2020» of "La Caixa" Foundation.

Enrique Devesa is part of the project *Estudio de costes e ingresos de los centros pertenecientes a LARES CV y análisis de la aplicación de la nueva legislación*, financed by Lares Comunidad Valenciana and developed in the Instituto Polibienestar de La Universitat Politècnica de València (febrero-septiembre de 2020).

8. DATABASES AND INDICATOR SYSTEMS³

Several **Ivie** projects have generated databases or indicator systems of interest to economic research that also facilitates decision making based on objective and up-to-date information. The **Ivie** website provides easy access to the Institute's 27 databases and indicator systems that are classified into eight areas: growth and capitalization, human capital and human development, socio-economic, globalization, international, public sector, universities, and knowledge economy. A new database was created in 2020: COVID-19 Severity and Impact Indicators (ISIC-19).

8.1. Growth and capitalization

Capital stock in housing in Spain and its territorial distribution (1990-2010)

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: www.fbbva.es/

Stock and capital services in Spain and its territorial distribution (1964-2017)

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 2017 and until 2016 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.

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 a cooperation agreement signed between both institutions to promote and consolidate the **Ivie's** basic and applied economic research activities.

At national level, the 31 industries considered are disaggregated into 19 types of assets, according to the NACE Rev. 2 classification. 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-**lvie** series.

The extensive database, that **lvie** 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. As of December 2020, over 925 published specialized works have been written based on this information.

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

Historical series on public capital in Spain and its territorial distribution (1900-2012)

Since 1995, the **lvie** 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 the **lvie** 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: 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 in intangibles assets (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 1995-2011 for the whole Spanish economy with a wide level of sectoral disaggregation (24 sectors, NACE Rev. 2 classification). 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 **lvie**'s website: www.lvie.es.

Intangible assets: database for Spain and its autonomous communities (1995-2016)

The database *Inversión en activos intangibles más allá del PIB en España y sus regiones*, developed by the **lvie** 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 1995-2016, 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 organized into two main groups: those already included in GDP (considered investment by the European System of Accounts, ESA, 2010), referred to as AIPIB, and those not yet included in the national accounts which are grouped under the name AIMAPIB (intangible 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 **lvie** in collaboration with the Bancaja Foundation improve the statistical information already available on human capital and have enabled the **lvie** 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 **lvie**'s website: www.lvie.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 the **Ivie** since 2000, a data series on human development for Spain and its autonomous communities has been built according to the 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 labor market

The *Observatory of the Transition of Young People to the labor market* is a data bank developed through the Human Capital Project sponsored by the Bancaja Foundation, which was updated every three years. 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; motive for job search, employment search methods; information on academic history.
- Data on family background (education level of parents, socio-professional position of parents, household income).
- Psychosocial 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, left the house, formed their first relationship and had 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.

Further information is available at the **Ivie** website: www.ivie.es

8.3. Socio-economic regional differences

Access to banking services

The restructuring of the Spanish banking industry has led to a drastic cutback in installed capacity, which is reflected in the closure of more than 40% of the branches that were operating in 2008, before the onset of the financial crisis. This drastic cutback has affected people's access to banking services, resulting in an increase in the percentage of the population living in towns and villages where there is no bank branch.

The aim of this database is to present the indicators of access to banking services by calculating the number and population of municipalities that do not have a bank branch. This analysis, with data from 2017, is being performed for all the regions of Spain (disaggregated at municipal level), so as to obtain a comparative picture of financial accessibility in the provinces and autonomous communities. The observatory's findings will help the Valencian Regional Government detect and remedy financial exclusion.

The database is available for download in Excel format on the **lvie** website: <http://www.lvie.es>.

Inequality in Spain, its regions and its provinces

Sponsored by 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 **lvie's** website (https://www.lvie.es/es_ES/bases-de-datos/diferencias-economicas-y-sociales-de-los-territorios/desigualdad/) and are also incorporated in the World Bank and United Nations University (WIDER) databases.

Education accounts

The BBVA Foundation and the **lvie**, within its cooperation framework program, have developed several studies on important topics such as educational training, employment and innovation. From this collaboration arises the database Spanish Education Accounts (Cuentas de la Educación en España) which addresses several key issues related to the Spanish educational system: What is

its size and how is it structured? How much is spent on education? Who are the producers of educational services and who are the beneficiaries?

The education accounts (EA) database 2000-2016 is structured into six large areas. The first (A.1) and second (A.2) areas are devoted to public and private education accounts, respectively. The third (A.3) offers information on total spending on education, while the fourth (A.4) and fifth (A.5) contain data on public and household expenditure on education. Finally, the sixth area (A.6) contains the student series.

The database is available for download in Excel format on the BBVA Foundation website: www.fbbva.es/

Homogeneous population series

For over a decade already, 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 homogenization process of the de jure resident population, taking into account the changes in 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 OECD countries, covers from 1970 until 2011, and the series for Spain (with territorial breakdown by regions and provinces) until the year 2013.

The database was published by the BBVA Foundation on 11 November 2015. Information and/or data series to date can be requested to publicaciones@lvie.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. **lvie** 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 1975-2018. 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 (complete and abridged by five-year groups up to a final open interval of 110 and over), its autonomous communities (abridged to a final open interval of 100 and over), and provinces (abridged to a final open interval of 85 years and older).

For the population data tables, information from the Spanish National Statistics Institute is used. Data on deaths are from the Vital Statistics on the natural movement of population (MNP). The microdata can be downloaded from INE's website, and is classified by age, period, generation (Lexis triangles) and groups of cause-of-death. The latest available figures correspond to 2018.

Three aspects distinguish **lvie**'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 interested public via the **lvie** website (www.lvie.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 **lvie** for the Bancaja Foundation (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 **lvie**'s website: www.lvie.es.

8.4. Globalization

INTEGRA

The INTEGRA data bank is framed within **lvie**'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 worldwide 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 provides 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

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. Some of the variables included are value added, capital stock, employment and human capital.

The **lvie** 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 Conference Board is responsible for coordinating the work of the consortium and updating the database.

The **lvie** 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 **lvie** participates actively in the development of World KLEMS that frames the rest of projects and regional KLEMS databases.

In addition to the **lvie**, more than 40 research centers and institutions from around the world participate in the KLEMS consortium. Information is available at www.euklems.net and can be accessed through **lvie**'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 EU 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 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-UnitB6), 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.

Currently, the database, regularly updated by the **lvie**, covers the period 1995 to 2017 (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 2018 and 2019. 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 on **lvie**'s website: www.lvie.es.

8.6. Public sector

COVID-19 Severity and Impact Indicators (ISIC-19)

The COVID-19 pandemic has put every country in the world on high alert. The rapid spread of the pandemic, its consequences on the health system and the strict confinement measures that disrupt economic activities have put at risk the globalized world as we know it. To assess the effects of the pandemic on population health and to try to control the negative economic effects associated with it, tools are needed to monitor its evolution in different territories. To accomplish this, the **lvie** has developed three synthetic indicators, known as COVID-19 Severity and Impact Indicators (ISIC-19), that focus on the severe cases and allow to assess the severity and impact of the pandemic and to study its evolution, giving a regional comparison of the situation.

The *scope* index measures the amount of severely affected people over total population, which can be expressed as a gross index (ratio between the cumulative number of severely affected people and the total population) and as a net index (ratio between the number of severely affected people minus recovered patients and total population). The *severity* index measures to what degree this part of the population is seriously affected based on the Balanced Worth methodology developed by Herrero and Villar (2013, 2018). The *impact* index is the result of these two components, scope and severity, which measures how many people are severely affected and to what degree, in relation to the total population.

The methodology used to construct the indicators is detailed on the **lvie** website, along with the algorithm developed by Rodrigo Aragón and Héctor García (**lvie**) that facilitates the calculation of the Balanced Worth.

This index is based on data provided daily by the Spanish Ministry of Health on the number of deaths, and hospitalized and recovered patients, for Spain as a whole and for each of the Spanish regions. The data is available from 19 March 2020 onwards.

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 to distinguish differences across regions 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** with a double objective. First, to generate new fresh information on public-sector performance in Spain and its regions. Second, to analyze the data obtained 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 of 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 offered by the Public Healthcare Expenditure Statistics (EGSP), which are produced by the Spanish Ministry of Health 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 on 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 on 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). 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.

The 8th edition of U-Ranking, developed by the BBVA Foundation and the **lvie**, presents some methodological improvements that not only confirm the robustness of its results, but also allow the analysis of a larger number of private universities. Specifically, U-Ranking 2020 analyzes a total of 70 Spanish universities, 48 public and 22 private, by monitoring 20 different indicators and constructing various synthetic indexes.

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

SIUVP

SIUVP (Valencian Public University System of Information) is a project born in 2012 from the collaboration of the five Valencian public universities – University of Valencia, Alicante University, Polytechnic University of Valencia, Jaime I University and Miguel Hernández University at Elche– with the aim of offering a complete set of indicators on their 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 five 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 (www.siuvp.es) is updated twice a year to offer the latest data available.

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 Universitat Politècnica de València 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 the user a powerful database which is regularly updated with over 200 indicators structured in five areas: New technologies, Human capital, Innovation system, Business environment, and 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).

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

Value of knowledge-based economic activities

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 and 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 classification.

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

9. SCIENTIFIC MEETINGS⁴

The Institute has taken an active part in promoting and supporting the participation of its associates in national and international meetings, and also by organizing 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 health emergency crisis suffered worldwide in 2020 as a result of COVID-19 inevitably affected **Ivie's** agenda. The confinement measures implemented in March forced the postponement or cancellation of all in-person activities (seminars, conferences, workshops). The limitations imposed by the pandemic and the important advancements in digitalization and the use of new technologies during 2020 have changed the way these types of activities are organized and promoted.

The **Ivie** adapted its calendar of events to the circumstances by making use of these technologies, allowing the **Ivie** to organize seminars, dialogues, workshops and conferences in collaboration with other entities and also individually.

Ernest Lluch Foundation-Ivie Dialogues: Sports, Economy and Health: Changing the Rules of the Game

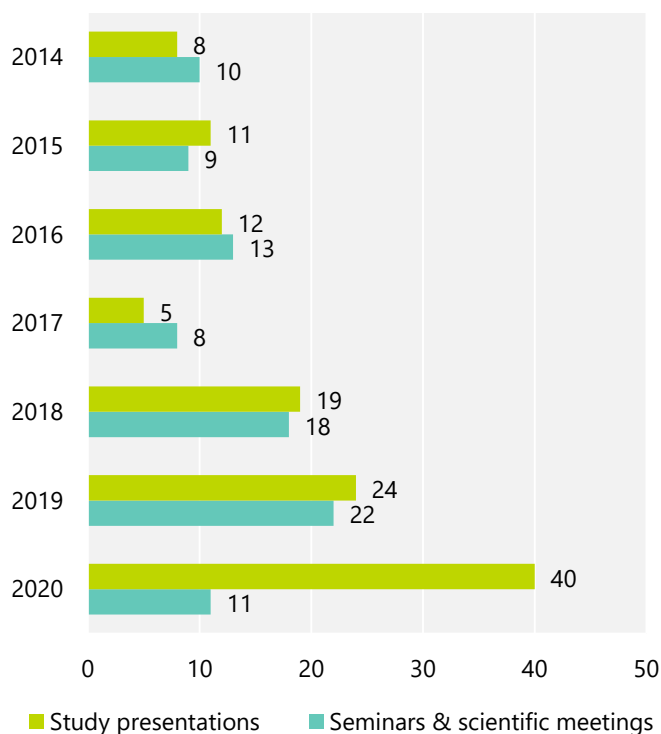
The Ernest Lluch Foundation and the **Ivie** began their collaboration in 2018 with the organization of a five part series of dialogues on INEQUALITY AND DEMOCRACY. The aim of these dialogues was to raise awareness of the problems arising from the growing inequalities in today's society. This line of collaboration continued in 2019 with a new series of dialogues entitled THE QUEST FOR PROSPERITY: CHALLENGES OF MIGRATION. Once again, ten renowned speakers contributed and shared their reflections, in this case, on migration-related problems. In 2020 this joint activity has been maintained, although adjusted to the health and safety protocols and restrictions imposed by the pandemic, with the title SPORTS, ECONOMY AND HEALTH: CHANGING THE RULES OF THE GAME, in which five dialogues were held with the participation of ten experts. Some of which had to participate remotely, via video conference, while the in-person audience capacity was reduced to one-third. All the dialogues were streamed live on the **Ivie's** YouTube channel.

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 a cooperation agreement signed between both institutions to promote and consolidate the **Ivie's** basic and applied economic research activities.

The following dialogues were organized during 2020:

- Dialogue 1. **Professional sports business models.** 16 September. **Roser Queraltó**, Chief Business Officer at Euroleague Basketball, and **Eduardo Bandrés**, FUNCAS economist and member of the Spanish Football Federation.
- Dialogue 2. **The economic impact of sporting events.** 22 September. **Carles Murillo**, Professor Emeritus at the Universitat Pompeu Fabra (UPF), Director of the Master's Degree in Sports Management at the UPF and President of the Spanish Society of Sports Economy (SEED), and **Francisco Borao**, President of S.D. Correcaminos, President of the Organizing Committee of the Royal Spanish Athletics Federation and President of the Association of International Marathons and Distance Races – AIMS.
- Dialogue 3. **Sports, quality of employment and health.** 5 October. **M^a José Suárez**, Ph.D. in Economics and Professor at the University of Oviedo, and **Nuria Garatachea**, Ph.D. in Physical Activity and Sport Sciences and Professor at the University of Zaragoza.
- Dialogue 4. **Technological challenges and innovation applied to the sports industry.** 14 October. **Iris Córdoba**, CEO of GSIC-Microsoft, and **David Rosa**, Deputy Technical Director of the Center Las Naves.
- Dialogue 5. **Strategic thinking: How do sports and economy work together?** 26 October. **Ignacio Palacios**, Professor at the London School of Economics and *senior fellow* at the Fundación Ikerbasque (UPV/EHU), and **Jaume García**, Professor at the Universitat Pompeu Fabra.

Figure 6.
Seminars,
scientific
meetings
and study
presentations



IvieLAB Conferences and Seminars

The IvieLAB (Laboratory for the Analysis and Evaluation of Public Policy) is an initiative of the **Ivie**, in collaboration with the Valencian Regional Government, with the objective to promote ideas, design methodologies and elaborate information to analyze, evaluate and improve public policies.

In 2020, through this project, the workshop **Minimum income schemes: information systems and outcome evaluation** was organized to analyze the usefulness of reviewing the minimum income schemes in order to improve their impact. The workshop, with participation by the ISEAK Foundation and SIIS Documentation and Studies Center of the Eguia Careaga Foundation, was aimed at those responsible for the autonomous administration.

9.2. Organized in collaboration with other institutions

Afi, ISEAK, **Ivie** and KSNET have joined forces to create the **Network for Good Practices in Evaluation (REDEV)** to promote public and private policy evaluation in Spain, both in the public and private sectors. On 23 June, REDEV was presented at an online conference that was broadcast live on Webex.

The presentation began with a speech by **Emilio Ontiveros**, President of Afi, who analyzed the foundations of the welfare state in Spain. In addition, the objectives of the agreement were explained in greater detail by representatives of the participating institutions: **Sara de la Rica**, Director of ISEAK; **Pilar Chorén**, **Ivie** Managing Director; **Elena Costas**, member of KSNET; and **César Cantalapiedra**, Managing Director of the Public Finance area of Afi. Finally, **Ivie's** Research Director, **Francisco Pérez**, offered the closing words.

Afi, ISEAK and the **Ivie** came together to organize on 15 July a videoconference by **Miguel Gil Tertre** (Head of Unit at the European Commission's Recovery and Resilience Task Force), titled "Fondo Europeo de Recuperación: retos y oportunidades para España y las comunidades autónomas". In this webinar, targeted especially at representatives of the autonomous administration, Miguel Gil Tertre explained the characteristics of the European funds aimed at overcoming the COVID crisis.

On 22 September, **FEDEA** and the **Olof Palme International Foundation**, along with **Cercle d'Economia**, **ESADE-EcPol**, **Ivie**, **RIFDE** and the **University of Oviedo**, organized the conference on the reform of the Spanish regional funding system presented to the Senate. The event, which was cancelled in March due to the pandemic, was structured in two parts. First, it focused on the areas of consensus presented by the participating experts on the changes needed in the funding model, while in the second part, alternative proposals were offered to revise some of the main aspects of the funding system.

On 3 November, the **Ramón Areces Foundation**, in collaboration with the **Ivie**, presented an online debate on "Business dynamics in Spain and digitization: challenges posed by the new COVID-19 crisis", with participation by **Ivie** researcher, **Juan Fernández de Guevara**; **Ivie** Research Deputy Director, **Joaquín Maudos**; Professor at the Complutense University, **Miguel Jerez**; and Professor of Applied Economics and President of Alicantec, **Andrés Pedreño**.

9.3. Participation of **Ivie** Researchers and Technicians in other scientific meetings

DECEMBER

- 18 Lecture by **Ángel Soler** *Grado de implantación y éxito de la formación profesional. Estudio de casos: Alemania y España*. Encuentro de Política Económica «Política económica comparada y estudio de países». Facultat de Economia, Universitat de València.
- 15 **Alejandro Escribá** took part in the workshop *El papel de los family office como vehículo de diversificación empresarial*, organized by Escuela de Accionistas del Fórum de AEFA- Deloitte.
- 14 **José María Peiró** took part in the online workshop *Teletrabajo: prevención de riesgos psicosociales*, organized by Universidad de Almería.
- José Manuel Pastor** took part in the meeting *Empleo posCOVID-19*, «Desayunos Levante-EMV».
- 11 Paper by Rafael Jordá, **Alejandro Escribá** and **Vicente Safón** titled *Turnaround/retrenchment strategies in family firms*. AINVEF Avances en Investigación sobre Empresa Familiar. Bilbao.
- Paper by Ana Botella, **Alejandro Escribá** and Patricia Gabaldón: *The role of women in succession processes in family Businesses*. AINVEF Avances en Investigación sobre Empresa Familiar. Bilbao.
- 2 **José María Peiró** took part in the round table discussion *La respuesta de la Psicología ante la COVID19*, in the webinar organized by Academia de Psicología de España (APE).
- Francisco Pérez** took part in *La digitalización de la empresa y de la economía*, at the «Foro Futuro Observatorio de tendencias económicas», organized by Santander, Cinco Días and El País. Madrid.

NOVEMBER

- 30 Paper by **José María Peiró** *Transformaciones en T+O y retos para los profesionales PTO. Personas, equipos y organizaciones*, presented at the online conference «FORO SPOT» presented at Col·legi Oficial de Psicologia de Catalunya.
- 28 Paper by **José María Peiró** *A century of International Applied Psychology: Opportunities and challenges ahead*, presented at the virtual conference «Centennial Congress of Applied Psychology».
- 27 **Alicia Gómez** presented the poster: *Au revoir Paris! All the Spanish regions into the bunch, none at the front*, at the «I Reunión virtual de Estudios Regionales».
- 26 **Enrique Devesa** took part in the online meeting organized by CEV and Levante, titled *¿Habrá pensión para mí?*

- 24 **Carmen Herrero** took part in the online round table discussion *Diálogo sobre los nuevos retos de la Matemática y su aplicabilidad a otras ciencias*, in the «Programa Likes a las Matemáticas». Tenerife: Universidad de La Laguna.
- 23-25 Paper by **José María Peiró** *Los retos de la psicología del trabajo y de las organizaciones en la actualidad*, presented at the online conference «VII Conferencia Internacional de Psicología». Lima (Perú).
- 18 **Alejandro Escribá** took part in the workshop *¿Cómo evitar las sucesiones tardías en la Empresa Familiar?*, organized by Universitat de València Chair of Family Business.
- Francisco Pérez** took part in the book presentation of *Sociedad digital y empleabilidad en comunicación*, at Universidad Nebrija.
- Also, he took part in *La transición a una economía verde: costes, ritmo y financiación*, at the «Foro Futuro Observatorio de tendencias económicas», organized by Santander, Cinco Días and El País. Madrid.
- 13 **Carmen Herrero** took part in the webinar *The Spanish post-COVID recovery and the outlook for Spanish Italian financial services dialogue*, organized by The Italian Banking, Insurance and Finance Federation (FEBAF).
- 11 **Alejandro Escribá** took part in the «Jornada Patrimonio Familiar Vs Patrimonio y Proyecto Empresarial: los Family Offices». II sesión de la Escuela de Accionistas y Consejeros. Deloitte.
- Francisco Pérez** took part in the workshop *La reforma del model de finançament de l'any 2009*. «Jornades El finançament autonòmic a debat», organized by Amics del País and Col·legi d'Economistes de Catalunya.
- 9 Paper by **Matilde Mas** *Pandemia y oportunidades: digitalización, intangibles y crecimiento*. «V Coloquios empresa-sociedad: Pandemias e innovación» and the award ceremony «Premio anual Empresa, Sociedad y Artes Liberales», organized by Foro Empresa Humanismo y Tecnología de la Comunidad Valenciana.
- 6 Paper by **Francisco Pérez** and **José María Peiró** *La transición digital. Retos globales, oportunidades locales*, at the «Seminario (virtual) sobre los fondos de reconstrucción europeos y su aplicación en España: una mirada sindical». CCOO Escuela del Trabajo.
- Paper by **José María Peiró** *El teletrabajo ¿necesidad u oportunidad para trabajadores y empresas? Aportaciones desde la Psicología del Trabajo y de las Organizaciones*, presented at the webinar «El teletrabajo en tiempos de la COVID-19: retos, oportunidades y aportaciones desde la Psicología del Trabajo y de las Organizaciones». Organized by UAM-IIC Cátedra de Modelos y Aplicaciones Psicométricos.
- 5 Online lecture given by **Francisco Alcalá**: *La crisis económica del COVID-19: diferencias y similitudes con crisis anteriores*. Mexico: Universidad Autónoma de Sinaloa.
- 3 **Alejandro Escribá** took part in the workshop *Patrimonio Familiar Vs Patrimonio y Proyecto Empresarial: los Family Offices*. «II Sesión de la Escuela de Accionistas y Consejeros». Deloitte.

- 2 Paper by **Francisco Pérez** *El papel de las nuevas tecnologías en la educación*, presented at the «Seminario de otoño: La administración regional ante el reto de la digitalización», organized by Conselleria d'Hisenda i Model Econòmic of the Generalitat Valenciana.

OCTOBER

- 29 **Carmen Herrero** coorganized the online PROMETEO Workshop *Applied Microeconomics and Gender*, in collaboration with the Department of Economic Analysis of the Universidad de Alicante.

Francisco Pérez took part in *Demografía e Inmigración: sus efectos sobre Mercado Laboral y Estado de Bienestar*, at the «Foro Futuro Observatorio de tendencias económicas», organized by Santander, Cinco Días and El País. Madrid.

- 27 **Enrique Devesa** and **José Manuel Pastor** took part in *Las pensiones del futuro*, online meeting organized by Expansión, BBVA and Universitat de València.

- 26 Paper by **Matilde Mas** *Digitalización e intangibles: Pilares de la estrategia de crecimiento post COVID-19*, presented at the «Seminario de otoño: La administración regional ante el reto de la digitalización», organized by la Conselleria d'Hisenda i Model Econòmic of the Generalitat Valenciana.

- 21 Online inaugural speech by **José María Peiró** *Implicaciones de la digitalización en la Gestión y Desarrollo de Recursos Humanos*, de la VII Edición del Master en Dirección, Gestión y Liderazgo en Recursos Humanos Centro Universitario Cardenal Cisneros y COP. Madrid.

- 15-18 Paper by **José María Peiró** *Are Happy Teams and Work Units More Productive Than Unhappy Ones? Empirical Evidence, Unresolved Questions and Implications for Practice*, at the «XXVI Scientific Conference, Empirical Studies in Psychology». Belgrado.

- 14 **Francisco Pérez** took part in *Qué presupuestos necesita España*, at the «Foro Futuro Observatorio de tendencias económicas», organized by Santander, Cinco Días and El País. Madrid.

- 13-16 Paper by **José María Peiró** *La Psicología en Iberoamérica ante las demandas de las crisis humanitarias*, presented at the «1er Congreso- Webinar Internacional Intervención y Retos».

- 8 **Francisco Pérez** took part in the virtual workshop *Educación en tiempos de COVID-19. Problemáticas y posibles soluciones*. «Los retos y los riesgos de las nuevas tecnologías para la educación», organized by EVALPUB, Universitat de València.

- 6 Participation by **Juan Fernández de Guevara** in the online workshop *How to estimate AI investments*, organized by Joint Research Center (JRC) of the European Commission.

Francisco Pérez took part in «Jornadas de Financiación Autonómica: Análisis de la situación actual y propuestas», at the round table discussion: *Análisis de la evolución en los Ingresos de la Administración Autonómica*, organized by Universidad Católica de Valencia.

SEPTEMBER

- 30 **José Manuel Pastor** took part in *Coloquio de reflexión y debate sobre sostenibilidad universitaria. ¿Cuál es la responsabilidad de la universidad con la sociedad?* «Coloquio y debate: Sostenibilidad social, económica y medioambiental». Organized by INAEUC. Madrid: Universidad Carlos III.
- Francisco Pérez** took part in *La educación que necesita España. La reforma nunca culminada*, at the «Foro Futuro Observatorio de tendencias económicas», organized by Santander, Cinco Días and El País. Madrid.
- 29 Paper by **José María Peiró** *Análisis y prevención de riesgos psicosociales en el trabajo: Retos y oportunidades tras el COVID-19*. Opening ceremony of the «Máster en Prevención de Riesgos Laborales», of the Universidad Complutense de Madrid.
- 25 Paper by **Ángel Soler** and Antonio Marín *Evaluación del uso de los mandos interactivos en la docencia universitaria por parte del alumnado*, presented at the IV Taller de Política Económica «La docencia en Política Económica: cuestiones pendientes para el siglo XXI» of the UNED.
- 24-25 Online speech imparted by **Alicia Gómez** titled *FDI and female entrepreneurship: fuelling local development*, at the «XXI Conferencia de Economía Internacional».
- 22 Paper by **Francisco Pérez** *Objetivos de la reforma: Un reparto de recursos más equitativo*. «Jornada sobre la reforma de la financiación territorial», presented at the Spanish Senate, organized by Fundación Fedea and Fundació Internacional Olof Palme. Madrid
- 18 **Francisco Pérez** took part in «XII Jornadas de Docencia en Economía», at the round table discussion: *Inserción laboral de graduados de Economía y ADE*, organized by Universidad de Vigo.
- 2-4 Online speech given by **José María Peiró**, K. Nielsen, R. Sheperd, M. Vignoli and F. Latorre *What is known on safety training of construction migrant workers. Main challenges for future research*. «14th European Academy of Occupational Health Psychology Conference».

JULY

- 16 **Francisco Pérez** took part in *La colaboración pública-privada para financiar la recuperación*, at the «Foro Futuro Observatorio de tendencias económicas», in collaboration with Santander, organized by Cinco Días and El País. Madrid.

JUNE

- 22 **Alejandro Escribá** took part in the workshop *¡Ahora más que nunca! El desafío de la digitalización en la Empresa Familiar*, organized by Universitat de València Chair of Family Business.
- 19 **Francisco Pérez** spoke before the «Comisión especial para la reconstrucción social, económica y sanitaria», at the Corts Valencianes, Generalitat Valenciana
- 18 **Francisco Pérez** took part in *La vuelta a la actividad. Cómo será el trabajo del futuro*, at the «Foro Futuro Observatorio de tendencias económicas», organized by Santander, Cinco Días and El País. Madrid.

- 12 **Francisco Pérez** gave an online speech before the «Comisión de Financiación Autonómica de Murcia», at the Asamblea Regional de Murcia.
- 4 Paper by **Alejandro Escribá** *Value driven action: going beyond CSR*. International webinar «How family firms can keep the moral and ethical compass in times of crisis?», organized by STEP Project.

MAY

- 30 Online speech by **José María Peiró** *How the COVID-19 has affected and changed people's life from psychological perspective? What are your reflections on the pandemic as a psychologist?*, presented at the «The virtual forum on International Psychology in Coping with COVID-19 Pandemic».
- 28 **Francisco Pérez** took part in *El turismo, atrapado entre el covid-19 y la recesión*, at the «Foro Futuro Observatorio de tendencias económicas», organized by Santander, Cinco Días and El País. Madrid.
- 20 **Matilde Mas** took part in the debate «Escenaris de futur i respostes econòmiques i socials a la crisi de la COVID-19» at the *Ciclo de debates online* organized by Centre d'Estudis de Temes Contemporanis (CETC). Barcelona
- 11 **José María Peiró** took part in the online workshop *El abordaje de los riesgos psicosociales después del COVID-19*, organized by Fundación Atlantic Copper and Universidad Internacional de Andalucía.
- 8 **José María Peiró** took part in an online conference *Líneas actuales de investigación en el Área de Psicología Social*, organized by Universidad de Navarra.
- 4 **Francisco Pérez** took part in *Las fórmulas para sacar a la economía de la recesión*, at the «Foro Futuro Observatorio de tendencias económicas», organized by Santander, Cinco Días and El País. Madrid.

APRIL

- 24 Paper by **José María Peiró** *Essential Competencies for International Engagements and Collaborations*, «Society for Industrial and Organizational Psychology (SIOP) annual conference».
- 7 **Francisco Pérez** took part in an online meeting with Conselleria d'Economia (Generalitat Valenciana) and IVACE regarding the textile industry in the Valencian Community in order to determine the actions needed to mitigate the effects of COVID-19 on the different industrial sectors of the Valencian Community.

MARCH

- 6 Lecture by **José Manuel Pastor** *Las contribuciones económicas y sociales de las universidades españolas*. Consejo Social de la Universidad de Las Palmas de Gran Canaria.

FEBRUARY

- 26 **Francisco Pérez** took part in *Guerra comercial, guerra tecnológica*, at the «Foro Futuro Observatorio de tendencias económicas», organized by Santander, Cinco Días and El País. Madrid.
- 25 Lecture by **Francisco Pérez** *Necesidades y recursos de las CC. AA. en España*, organized by Cámara de Comercio de Zaragoza.
- 12 Lecture by **José María Peiró** *Equipos MOTIVEM y competencias para la empleabilidad*, organized as part of the MOTIVEM program of Universitat de València.
- 10 «VI Foro de Economía y Empresa». Participan **José Manuel Pastor**, **Matilde Mas** and **Joaquín Maudos**. Colegio de Economistas de València and Facultat d'Economia de València.
- 6 Paper by **Enrique Devesa**: *Algunas reflexiones sobre el sistema de pensiones español*. Consejo editorial de El Economista. Madrid.
- Lecture by **José Manuel Pastor** *Las contribuciones económicas y sociales de las universidades españolas*, organized by Consejo Social de la Universidad de Las Palmas de Gran Canaria.
- 4 Participation by **Alejandro Escribá** at the workshop *Valores en las familias empresarias: ¿Cómo se asocian al éxito y perdurabilidad de la empresa?*, of the Universitat de València Chair of Family Business.
- Matilde Mas** took part in the presentation *Informe Económico y Financiero de ESADE. Productividad, innovación y activos intangibles. Medidas para garantizar la prosperidad y el bienestar*. ESADE Forum. Barcelona.

JANUARY

- 31 Lecture by **José María Peiró** *Academic Leadership – Nurturing Talent, Developing Skill* given at the investiture ceremony as doctor honoris causa at the Maastricht University.
- 30 Lecture by **José María Peiró** *Are happy workers more productive? A closer look at the 'Happy Productive Worker Hypothesis'. Do Human Resource practices matter?* Faculty of Psychology, Maastricht University.

10. DISSEMINATION

10.1. Presentation of studies

During 2020, the dissemination activities carried out by the **Ivie** and collaborating institutions were affected by the health emergency crisis and restrictions on mobility imposed globally to protect people's health. As a result of this, all in person activities were reduced to a minimum, except for during the months previous to the coronavirus outbreak, January and February. From March onwards, the results of the different research projects were mainly presented online, with only a few in person activities with reduced seating capacity, such as the third series of dialogues organized with the Ernest Lluch Foundation and the Bancaja Foundation. Despite these limitations, 20 studies developed by **Ivie** Researchers and Technicians were presented during 2020:

- On 15 January, Bankia and the **Ivie** presented the **GECE Observatory** in Alicante, at the conference organized by the Family Business Association of the province of Alicante (AEFA), *Buenas prácticas empresariales en gobierno, estrategia y competitividad*. **Alejandro Escribá** explained the main objectives and activities of the Observatory in an event in which the Regional Minister of Finance, Vicent Soler, gave the closing words.
- On 22 January, the Trinidad Alfonso Foundation released the study **Impacto económico del Programa de Apoyo a competiciones deportivas de la Comunitat Valenciana (2018-2019)**, carried out by **Ivie** Research Deputy Director, **Joaquín Maudos**, and **Ivie** technician **Carlos Albert**.
- On 23 January, the **GECE Observatory** distributed a press release with the *Keys to Competitiveness* document no. 5, included in the collection of brief informative documents on the competitiveness of Valencian firms and its relationship with corporate governance, management and strategy.
- The Trinidad Alfonso Foundation organized a press conference on 28 February to present the **2019 Valencia Marathon** economic impact study. The results were presented by two of its authors, **Ivie** Researchers **Joaquín Maudos** and **Joaquín Aldás**, with participation by **Paco Borao** and **Juan Botella**, President and Manager of the Sociedad Deportiva Correcaminos, respectively; **Elena Tejedor**, Director of the Trinidad Alfonso Foundation; **Pilar Bernabé**, Valencia City Sports Councilor; and **Emiliano García**, Valencia City Councilor for Tourism.
- For another year running, the supermarket chain, **Mercadona**, presented its annual results at a press conference held on 11 March, along with data from the **2019 economic impact report** prepared by the **Ivie**.
- After the state of emergency was declared on 13 March and the population was confined to their homes, the activities in which **Ivie** had planned to participate were temporarily postponed or suspended. However, in March, the **Ivie** launched within the framework of the **IvieLAB** project, a new series of documents titled **COVID19:IvieExpress** that focus on the

effects of the coronavirus on different socioeconomic aspects within the Valencian Community. A total of 21 documents were developed by the end of July.

- Despite the confinement, the [GECE Observatory](#) presented on 6 May its *Keys to Competitiveness* document no. 6.
- On 21 May, the report [La superación de la crisis del COVID-19 en la Comunitat Valenciana: una hoja de ruta de la reconstrucción de la economía](#), prepared for the Generalitat Valenciana through the IvieLAB collaboration program, was presented as a basis for designing the strategy for the economic recovery of the region.
- On June 23, the [Red por las Buenas Prácticas en Evaluación \(REDEV\)](#), an initiative launched in collaboration with Afi, ISEAK and KSNET, was presented online to promote policy evaluation in Spain, both in the public and private sectors.
- [U-Ranking 2020](#) was presented through Zoom to the media at a press conference on 30 June. The directors of the project, **Francisco Pérez** and **Joaquín Aldás**, along with Ivie Technicians, **Irene Zaera**, **Rodrigo Aragón** and **Inés Rosell**, explained the main results.
- On 8 July, the Ramón Areces Foundation published the study [Dinámica empresarial en España y digitalización: retos ante la nueva crisis del COVID-19](#), carried out by Ivie Researchers, **Juan Fernández de Guevara** and **Joaquín Maudos**, along with Ivie technician, **Consuelo Mínguez**, which examines the Spanish productive network prior to the lockdown in order to distinguish its strengths and weaknesses in the face of recovery.
- On 22 July, Cajamar presented the main results of the third edition of the [Observatorio del sector agroalimentario](#), developed by Ivie Research Deputy Director, **Joaquín Maudos**, in collaboration with Ivie technician, **Jimena Salamanca**. In compliance with safety measures, the speakers came in person to the Cajamar headquarters in Madrid, while the press connected online.
- On 31 July, the main conclusions of one of the four areas of analysis included in the study of the 2nd phase of the [Spending Review](#), developed by the Independent Authority for Fiscal Responsibility (AIReF) for the European Union, in which the Ivie participated, were published. Specifically, the Ivie was responsible for evaluating transport infrastructure investment in Spain between 1985 and 2018. In that period, 340,000 million euros were allocated to transport, with an investment of 7,000 million in 2018.
- On August 15, the Director of the Ciutat de les Arts i les Ciències, Enrique Vidal, offered a press conference to present the main results of the [CAC economic impact report](#) directed by **Joaquín Maudos**, which is available on the Ivie website.
- The third edition of the series of dialogues organized by the Ernest Lluch Foundation and the Ivie, in collaboration with the Bancaja Foundation, [Sports, Economy and Health: Changing the Rules of the Game](#), began on 16 September with five scheduled meetings held both face-to-face and online. The last of the dialogues took place on 26 October.

- FEDEA and the Olof Palme International Foundation, along with Cercle d'Economia, ESADE-EcPol, **Ivie**, RIFDE and the University of Oviedo, resumed on 22 September the workshop [Jornada sobre la reforma de la financiación territorial en el Senado](#), to discuss the reform of the regional funding system in Spain, which was originally scheduled for March and had to be postponed due to the coronavirus. **Francisco Pérez** was among those in charge of presenting the areas of consensus among the participating experts on the main lines that should guide the reform of the regional funding system.
- On 23 September, Ximo Puig made public reference to the report [Madrid: capitalidad, economía del conocimiento y competencia fiscal](#), included in the IvieLAB program. This document has had great media coverage and is available on the **Ivie** website.
- On 19 October, a new press release was issued with updated data from the [SIUVP](#) website on the five Valencian public universities.
- On 3 November, the Ramón Areces Foundation and the **Ivie** organized an online debate which focused on the results of the report [Dinamismo empresarial y digitalización: retos ante la crisis del COVID-19](#), with participation by **Ivie** researcher, **Juan Fernández de Guevara**; **Ivie** Research Deputy Director, **Joaquín Maudos**; Professor of the Universidad Complutense, **Miguel Jerez**; and Professor of Applied Economics and President of AicanTec, **Andrés Pedreño**.
- On 4 November, the Conexus Foundation presented the report [La intensidad de las relaciones socioeconómicas entre la Comunidad de Madrid y la Comunidad Valenciana](#), prepared by the **Ivie**. The director of the study, **Joaquín Maudos**, **Ivie** Research Deputy Director, explained the main results in an online press conference.
- On 12 November, the workshop [Programa de rentas mínimas: sistemas de información y evaluación de resultados](#), was organized online by IvieLAB and the Generalitat Valenciana, in collaboration with the Iseak Foundation and the SIIS Documentation and Studies Center of the Eguía Careaga Foundation. The conference, moderated by **Ivie** Managing Director, **Pilar Chorén**, included the participation of **Sara de la Rica**, Director of ISEAK; **Joseba Zalakain**, Director of SIIS; and **Gonzalo Romero**, research analyst at the ISEAK Foundation. **Francisco Pérez**, **Ivie** Research Director, offered the closing words, insisting on the need for an adequate evaluation of public policies.
- On 24 November, the Economic and Social Council of Spain (CES) presented its XXI Research Award, [Cambios Tecnológicos, trabajo y actividad empresarial: el impacto socioeconómico de la economía digital](#), a study developed by the **Ivie** that analyzes the impact of the digital transformation in Spain, including its main threats and opportunities. The director of the study, **Francisco Pérez**, along with one of its authors and also **Ivie** Research Professor, **José María Peiró**, presented the main results of the study in an online workshop.
- On 9 December, the Valencian Minister of Sustainable Economy, Productive Sectors, Commerce and Labour, **Rafael Climent**, inaugurated the presentation of the system of indicators for the [Valencian Observatory of Decent Work](#), in which **Ivie** researcher, **Lorenzo**

Serrano, explained the main results from the Observatory used to prepare the report on employment in the hospitality sector in the Valencian Community.

- On 17 December, despite the numerous cancellations of sports competitions included in the [Program to Support Sports Competitions in the Valencian Community \(PAC-CV\)](#) due to COVID-19 restrictions, the Trinidad Alfonso Foundation and the Spanish Olympic Committee released the results of the 4th edition of the program. In addition, the economic impact study of the program, once again developed by the **Ivie**, was released on the same day.

10.2. Brief dissemination documents

10.2.1. COVID19: IvieExpress

The health crisis caused by the COVID-19 outbreak is giving rise to present effects and future consequences for the economies of the Valencian Community, Spain and the whole world. As soon as the lockdown was ordered, the **Ivie** began to prepare a series of socioeconomic analysis documents that addressed some of these impacts. The publication of the COVID19:IvieExpress documents, within the IvieLAB project, began on 31 March with a first report on the economic impact of the coronavirus on GDP and employment in the economies of Spain and the Valencian Community. In 2020, a total of 21 COVID19:IvieExpress documents were published with data on the consequences of the pandemic:

- No. 21/2020. *El impacto del COVID-19 sobre las exportaciones de bienes de las comunidades autónomas*
- No. 20/2020. *Los retos del COVID-19 y los centros educativos ¿Cuáles son los riesgos de aprovechar poco las nuevas tecnologías?*
- No. 19/2020. *¿Ha aumentado el COVID-19 las brechas de género en el mercado de trabajo español y valenciano?*
- No. 18/2020. *El impacto del COVID-19 en el comercio internacional y las exportaciones españolas y valencianas*
- No. 17/2020. *El sector de la hostelería valenciano ante la crisis del COVID-19*
- No. 16/2020. *¿Por qué los retos de la conciliación en tiempos de COVID-19 son todavía mayores para las mujeres?*
- No. 15/2020. *¿Por qué los recursos de las comunidades autónomas para la reconstrucción son tan desiguales?*
- No. 14/2020. *La I+D+I en la Comunitat Valenciana después del COVID-19*
- No. 13/2020. *El impacto del coronavirus en el mercado de trabajo de las regiones españolas*
- No. 12/2020. *El consumo de las familias en la crisis del coronavirus*
- No. 11/2020. *El impulso al teletrabajo durante el COVID-19 y los retos que plantea*
- No. 10/2020. *La importancia del sector agroalimentario ante la crisis del COVID-19*

- No. 9/2020. *Vulnerabilidad a corto plazo del empleo ante el coronavirus: España y la Comunitat Valenciana*
- No. 8/2020. *Evolución del impacto del COVID-19 sobre la salud comunitaria en España y la Comunitat Valenciana*
- No. 7/2020. *El equipamiento digital de los hogares valencianos y los retos del COVID-19*
- No. 6/2020. *El equipamiento digital de las empresas valencianas y los retos del COVID-19*
- No. 5/2020. *¿En qué es diferente la crisis económica del coronavirus de la Gran Recesión?*
- No. 4/2020. *Restringir la movilidad para combatir el COVID-19 y recuperar la actividad económica*
- No. 3/2020. *Impacto económico del COVID-19 sobre los trabajadores autónomos de la Comunitat Valenciana*
- No. 2/2020. *Salud financiera de las empresas valencianas: capacidad de resistir el impacto del COVID-19*
- No. 1/2020. *El impacto económico del coronavirus en el PIB y empleo de la economía española y valenciana*

10.2.2. *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 up-to-date, 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. Up until 2020, the documents were released almost on a monthly basis, with approximately 10 to 11 documents published a year. However, upcoming issues have temporarily been suspended since March due to the coronavirus situation. As a result, only two were published in 2020, prior to the lockdown, corresponding to the months of January and February:

- No. 44/2020. *El desempleo de larga duración alcanza al 44,3% de los parados y las diferencias entre las regiones aumentan hasta casi duplicarse en los años de la recuperación*
- No. 43/2020. *Las regiones con menores puntuaciones PISA en matemáticas muestran también peores resultados en los indicadores de aprovechamiento y competencias digitales*

10.2.3. *Claves GECE*

The Corporate Governance, Strategy and Competitiveness Observatory (GECE Observatory) is a project launched by Bankia, in collaboration with the **Ivie**, with the goal of analyzing the competitiveness of Valencian firms over time and its relationship with internal competitiveness drivers.

One of the GECE Observatory's initiatives is the launch of the *Claves de competitividad* ('Keys to Competitiveness'), a collection of easy to read, visually attractive summaries targeted at the general public and the media, aimed at publicizing the Observatory's empirical findings.

Each document in the *Claves de competitividad* collection gives an overview of a particular aspect of the competitiveness of Valencian firms, based on the objective analyses carried out by the GECE Observatory. The aim is to encourage companies and institutions to reflect on the issues they must address in order to improve competitiveness and ensure long-term success.

This collection supplements the Observatory's reports, which offer a more in-depth analysis of the competitive position and associated drivers of firms. In 2020, two issues were published, with a total of six in the entire series:

- No. 6/2020. *Más del 30% de las empresas familiares valencianas en 4 sectores de servicios logran niveles excelentes de competitividad.*
- No. 5/2020. *Las empresas familiares valencianas más competitivas destacan por su elevada contribución relativa al empleo, pero se mantienen como las que más optan por sistemas de gobierno personalistas.*
- No. 4/2019. *Crece 1,8 puntos el porcentaje de empresas familiares valencianas que logran situarse entre las más competitivas de España.*
- No. 3/2019. *Las empresas familiares valencianas más longevas son las más activas en exportación, situándose 16 puntos por encima de sus equivalentes a nivel nacional.*
- No. 2/2019. *El uso de consejo de administración en las empresas familiares valencianas más competitivas es 14,5 puntos más alto que en las de menor competitividad.*
- No. 1/2018. *Las empresas de mayor tamaño y las de sectores más intensivos en tecnología logran mejores niveles de competitividad.*

10.3. Websites⁵

The **Ivie** website, renewed in 2018, has continued to increase its content during 2020, including updated information in relation to the effects of COVID-19. For example, a new subsection called *COVID-19*, has been added to the "Videos" section, in which researchers and technicians share their reflections on the coronavirus and its effects. In addition, a new subsection titled *COVID-19:IvieExpress* has been added to the "Research" section, with a total of 21 documents prepared specifically to respond to relevant questions on the effects of the pandemic in the Valencian Community and in Spain.

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

The "Research" section also includes publications, books, reports, dissemination documents, research articles and working papers, as well as documents developed directly in the Institute, such as those generated by **Ivie**'s team. In addition to the *COVID-19:IvieExpress* documents, this section also includes the series of informative documents titled *Essentials*, prepared for the BBVA Foundation and targeted at the media; *Regional Funding Papers*; *AVE Focus*, developed in collaboration with the Valencian Association of Entrepreneurs (AVE); and *Keys to Competitiveness*, which are informative documents produced by the Corporate Governance, Strategy and Competitiveness Observatory (GECE Observatory), a joint initiative of Bankia and the **Ivie**.

The "Database" section of the website contains information and links to the 26 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 databases, namely, *Capital Stock*, *Human Capital*, *Regional Differences in the Public Sector*, *Basic Public Services*, *Public Health Expenditure*, *Intangible Assets: national databases (1995-2011)*, *EU KLEMS*, *ICT R&D Macro data*, *Access to banking services*, *Social Capital*, *Human Development*, *Transition to the Labor Market*, *Inequality*, *Education Accounts in Spain*, *Homogenous Population Series*, *Life Tables*, *Trade Integration and Migrations*, *Intangible assets: national and regional database (1995-2014)*, *Economic value of knowledge*.

The "News" section, in "News & Events", includes 77 news items on information regarding new developments, publications, recognitions and activities carried out by the **Ivie**. Included in the section "Opinion Articles", are the links to 60 articles written by **Ivie** members in the national and regional media, 42% more than the previous year.

The **Ivie** website reached **105,124** visits in 2020, 31,611 more than in the previous year, an increase of 30%. Of these, 55% were users living in Spain, while the remaining 45% were from 141 countries, including Mexico, Colombia, United States, Peru and Argentina.

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 SIUVP (Valencian Public University System of Information) at www.siuvp.es, which offers a complete information system with more than 60 indicators for the five Valencian public universities.

10.4. Circulation in press and online⁶

The **Ivie** maintains a regular presence in the media, as a result of the attention given to publicizing its work. This year, there have been 3,698 news items in the press on the research conducted at the Institute. This represents an increase of 15% over the previous year, due in part to the information published by the **Ivie** on COVID-19. This greater dissemination has also been perceived in the 60 opinion articles published by **Ivie** Researchers and Technicians, 42% more than in 2019.

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

In 2020, the **Ivie** responded to more than 250 requests from the media, which rely on the Institute and its researchers and economists as a source of information to confirm or supplement their news stories for print, radio, television or digital media. This figure represents an increase of 50% compared to the previous year and shows how journalists' trust in the data, reflections and opinions provided by the **Ivie** has grown. The Institute has especially become a reference for assessing some fundamental socioeconomic aspects related to the COVID-19 pandemic.

The research concluded in 2019 and its activities undertaken were publicized through 36 press releases and also through 21 *COVID19:IvieExpress* documents for the Generalitat Valenciana, 2 *Essentials* and 2 *Keys to Competitiveness* of the GECE Observatory. In addition, during 2020, 77 activities and news events 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.

Among the topics that have had the most impact in the media in 2019 are: *COVID19:IvieExpress*, which generated 870 press releases; the two IvieLAB reports commissioned by the Generalitat Valenciana with 524; the 8th edition of U-Ranking with 399 news items; the different economic impact studies with 140 news items (Mercadona, Program to Support Sports Competitions, CAC, Feria Valencia, etc.); the BBVA Foundation studies with 127 news items; 120 news items on **Ivie**'s collaboration with the Generalitat Valenciana on regional financing and 77 related to **Ivie**'s database on access to banking services. In addition, the contributions made by researchers to the media, in which they offered their expert views on certain topics, led to more than 965 press clippings.

Nearly 35% of the news items issued by the **Ivie** in 2019 were published in the regional press (Valencian Community and other autonomous communities); around 15% in the digital press, 13% in the national press and 8% in economy related newspapers. The remaining 10% consists of news items broadcast on radio and television and by news agencies, sports press, international media, blogs and internet portals.

Figure 7.
Dissemination
documents

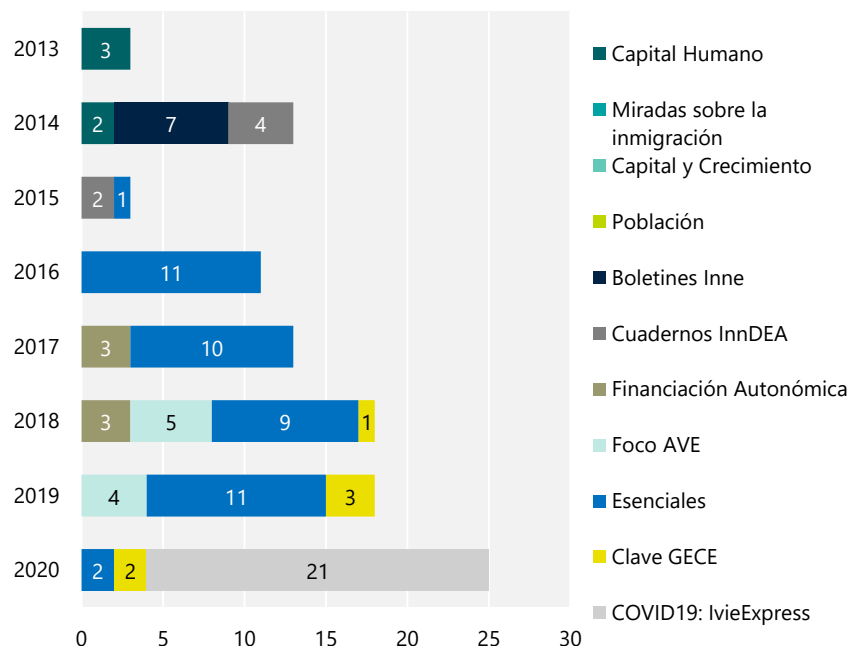
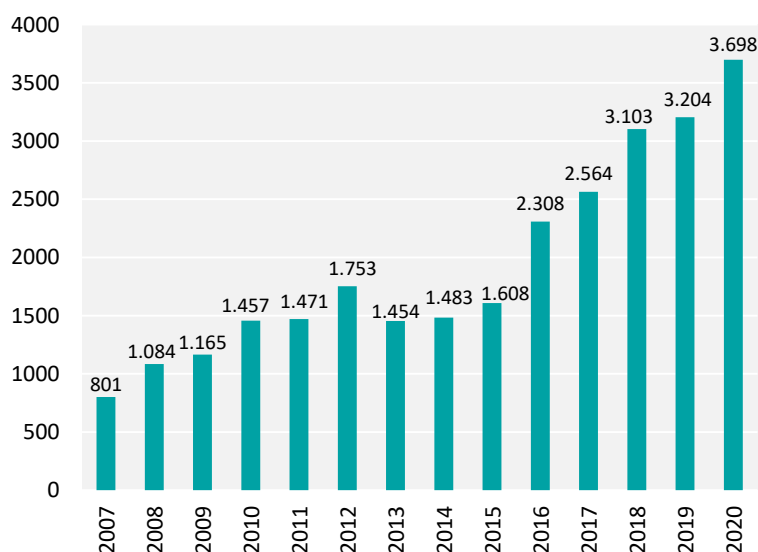


Figure 8.

News items published in the media



The newspaper *Levante*, with 207 entries, is the one that published most news items in which the **Ivie** is mentioned, followed by *La Vanguardia*, with 197 reports, and *Las Provincias*, which mentioned the **Ivie** on 116 occasions. The rest of the fifteen media outlets that mentioned the **Ivie** were the Alicante newspaper *Información* (115), *El País* (107), *ABC* (93), *20 minutos* (80), *Europa Press* (79), *Valencia Plaza* (75), *El Mundo* and *Expansión* (with 74 news items each), *Cinco Días* (68), *El Periódico Mediterráneo* (65), *El Economista* (58) and *Economía 3* with 56 news items retrieved.

Social networks have also served as a platform to publicize **Ivie**'s activity. With 1,500 published tweets, the Institute's Twitter profile has more than 3,740 followers, 11% more than in 2019. Meanwhile, U-Ranking and ABACO Twitter accounts increased their followers by 10% and 8%, respectively. The **Ivie** YouTube Channel received close to 20,800 visits in 2020, almost twice the number of visits in 2019 (11,400). This year a total of 21 new videos were published in the channel, thanks to the recording of the IvieLAB's activities, COVID-19 videos, and the Ernest Lluch Foundation's dialogues, as well as the the **Ivie** video blog.

Meanwhile, the presentations shared on Slide Share were viewed 18,196 times over the course of 2020, a year in which the cancellation of some planned activities reduced the number of new presentations published on this network to 9. The **Ivie**'s profile on the LinkedIn professional networking service, which is intended to strengthen relations with the academic and research world, has almost doubled the number of followers this year, with a total of 923 as of 31 December 2020.

The **Ivie** Newsletter, each issue of which includes the Institute's main news, the latest research, researchers' opinion articles and the events calendar, continued to be issued at monthly intervals. During 2020 this monthly digital newsletter was emailed to **Ivie**'s more than 2,600 contacts. A total of 101 new people subscribed to the Newsletter during 2020.

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

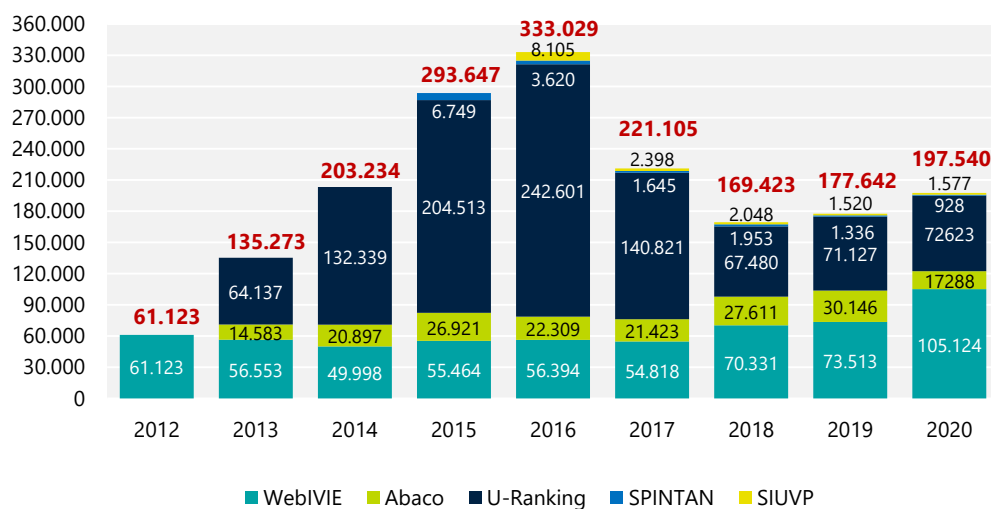
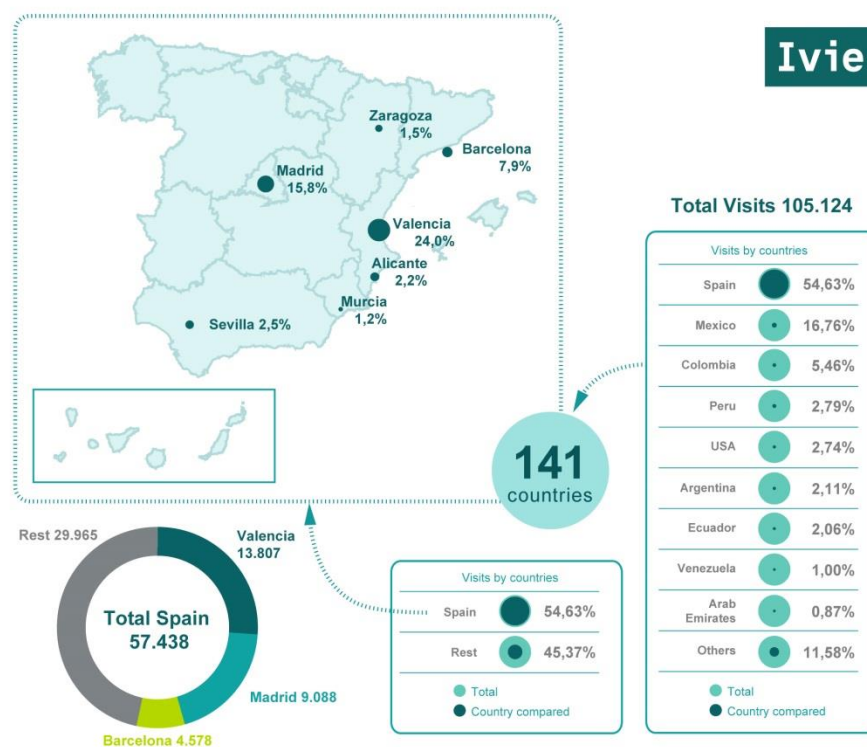


Figure 10.
Visits to **Ivie's** website by geographical region in 2020





Ivie

C/ Guardia Civil, 22 esc. 2, 1º
46020 Valencia. España

Phone +34 96 319 00 50
Fax +34 96 319 00 55

www.ivie.es - ivie@ivie.es
🐦 @Ivie_news