



CV date	17/09/2025
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Part A. PERSONAL INFORMATION

First name	FRANCISCO MANUEL		
Family name	SOMOHANO RODRÍGUEZ		
Professional category	Profesor Titular de Universidad (Full Professor)		
Institution	Universidad de Cantabria (UC)		

A.1. Current position

Resarcher (Full Time)
Universidad Carlos III de Madrid

A.3. Education

PhD, Licensed, Graduate	University/Country	Year
Doctor en CC. Económicas y Empresariales (Empresariales)	UC/Spain	2000

Part B. CV SUMMARY (*max. 5000 characters, including spaces*)

I am contracted researcher in the Knowledge Reuse Research Group at the Universidad Carlos III de Madrid (Spain). Associate Professor of Accounting at the University of Cantabria. Co-Director of the Fundación para el Análisis Estratégico de la Pyme (FAEDPYME). Researcher at the Santander Financial Institute (SANFI). Visiting Researcher at the Department of Informatics at the University Carlos III de Madrid from September 2024 to August 2025. Reviewer for the National Science Centre – Ministry of Science and Higher Education to support Research in Poland (2020,2021, and 2023).

My main research line is focused on Constructive System Engineering Cost Model (COSYSMO), sustainability and digitalization, with an orientation on SMEs, aimed at determining the causes and effects of digitalization and Industry 4.0 on firm performance.

I have granted with 1 six-year research periods and published 15 articles in indexed journals, which have received 700 citations in Google Scholar (H-Index: 11). I have published papers in top journals ranked with a high JCR impact factor, such as Technology in Society, Sustainable Development, Journal of Small Business Management, Journal of Environmental Management, Administrative Sciences, Sustainability, and Papers in Regional Science. My works have been presented at more than 60 national and international congresses.

Another indicator that reflects my contribution to Academia is the fact that my research has been awarded the accesit of UC Best Doctoral Dissertation in Business and Economics in 2020, and the Best Paper Award by XIX Encuentro Internacional de la Asociación Española de Profesores Universitarios de Contabilidad.

Since 1998 I have collaborated and signed 33 contracts with large companies and SMES of different sectors and also public institutions. My contribution is especially remarkable in the management accounting systems with actual design and implementations in companies manufacturing apparel, textiles, yarns, electrical wires, plastic bags, and yogurts. Also, I developed the Cantabrian Institute of Statistics companies directorate in 2005. I have participated in two investigations about Industry 4.0 and Bioeconomy as principal researcher for the Dirección General de Innovación, Desarrollo Tecnológico y Emprendimiento Industrial Consejería de Industria, Turismo, Innovación, Transporte y Comercio of Government of Cantabria. Also, in the renewable technologies field I participated as a researcher in the project Enroad: Supporting the Implementation by National Road Authorities of Renewable Energy Technologies in the Road Infrastructure of nine European countries (Austria, Belgium-Flanders, Germany, Ireland, Netherlands, Norway, Sweden, United Kingdom and Denmark)

funded by the Conference of European Directors of Roads (CEDR) / VEJDIREKTORATET (Danish Road Directorate, DRD). Transnational Road Research Programme under Call 2019: Renewable Energy in Roads, contributed by University of Cantabria, Arup, SINTEF Energy Research and SINTEF AS.

I have directed/co-directed 2 doctoral theses, both qualified with the highest score, and currently, I am the advisor of another thesis project about digitalization, sustainability and performance in SMEs.

From 2019 to 2024, I was responsible for overseeing the Strategic Plan of the University of Cantabria, reporting directly to the Rector.

Part C. RELEVANT MERITS (*sorted by year*)

C.1. Publications (*other references that have not included in the research proposal*)

Hernández, S. M., Subirats Alcoverro, X., Aibar Guzmán, B., Aibar Guzmán, C., Salas, A. I., Antón Renart, M., ... & Urrea Sandoval, M. D. (2024). Sostenibilidad: NEIS y guías de Implantación. *Sostenibilidad: NEIS y guías de Implantación*.

Final Programme Report: CEDR Call 2019 Renewable Energy in Road Infrastructure. CEDR Contractor Report 2025-01

Trueba-Castañeda, L., Somohano-Rodríguez, F. M., & Torre-Olmo, B. (2024). Does digitalisation enable small and medium-sized enterprises to become more sustainable?. *Corporate Social Responsibility and Environmental Management*, 31(5), 4893-4909.

Sainz-Ortiz, E., Somohano-Rodríguez, F. M., Pascual-Muñoz, P., Arroyo, A., & Manana, M. (2024). Dynamic web-based GIS tool for pre-feasibility evaluation of renewable energy projects. *Energy Conversion and Management*, 322, 119162.

Somohano-Rodríguez, F. M., David, F., & Azevedo, T. C. (2023). Spanish business commitment to the 2030 Agenda in uncertain times. *AIMS Environmental Science*, 10(2), 246-266.

Aibar-Guzmán, B., Monteiro, S., David, F., & Somohano-Rodríguez, F. M. (2023). The Waste Hierarchy at the Business Level: An International Outlook. *Mathematics*, 11(22), 4574.

Somohano-Rodríguez, F. M., Madrid-Guijarro, A., & López-Fernández, J. M. (2022). Does Industry 4.0 really matter for SME innovation? *Journal of Small Business Management*, 60(4), 1001-1028.

García-Sánchez, I. M., Aibar-Guzmán, B., Aibar-Guzmán, C., & Somohano-Rodríguez, F. M. (2022). The drivers of the integration of the sustainable development goals into the non-financial information system: Individual and joint analysis of their influence. *Sustainable Development*, 30(4) 513-524.

García-Sánchez, I. M., Somohano-Rodríguez, F. M., Amor-Esteban, V., & Frías-Aceituno, J. V. (2021). Which region and which sector leads the circular economy? CEBIX, a multivariant index based on business actions. *Journal of Environmental Management*, 297, 113299.

Aibar-Guzmán, C., & Somohano-Rodríguez, F. M. (2021). Do Consumers Value Environmental Innovation in Product? *Administrative Sciences*, 11(1), 33.

Somohano-Rodríguez, F. M. y Madrid-Guijarro, A. (2022). Do industry 4.0 technologies improve Cantabrian manufacturing smes performance? The role played by industry competition. *Technology in Society*, 70, 102019.

López-Fernández, J. M., Maté-Sánchez-Val, M., & Somohano-Rodríguez, F. M. (2021). The effect of micro-territorial networks on industrial small and medium enterprises' innovation: A case study in the Spanish region of Cantabria. *Papers in Regional Science*, 100(1), 51-77.

C.2. Congress

Sáinz-Ortiz, E., Somohano-Rodríguez, F. M., Pascual-Muñoz, P., Arroyo, A., Barrera-Cardenas, R., & Vignisdottir, H. R. (2024, April). Application of ENROAD Tool for Pre-feasibility Evaluation of Renewable Energy Projects Within the Road Environment. In *Transport Research Arena Conference* (pp. 680-686). Cham: Springer Nature Switzerland.

Innovación frente a eco-innovación: análisis de los resultados de las pymes "Industria 4.0 en la Pyme: Management & Technology". UAH Santiago de Chile. Francisco Somohano-Rodríguez, Laura Trueba-Castañeda, Francisco Javier Martínez-García. 17/10/2023.

Relationship between digitalization and sustainability, its effect on small and medium-sized enterprises performance. II International Conference on Sustainable Finance (ICSF23). Laura Trueba-Castañeda; Francisco Somohano-Rodríguez; Begoña Torre-Olmo. 29/9/2023.

Does the waste hierarchy work at the corporate level? An international perspective. II International Conference on Sustainable Finance (ICSF23). Beatriz Aibar Guzmán; Sónia Monteiro; Fátima David; Francisco M. Somohano Rodríguez. 28/9/2023.

The Impact of the Circular Economy Initiatives on the MNCs Textile Firm's Performance, Nature Conferences: Waste Management and Valorisation for a Sustainable Future. Poster. Francisco Manuel Somohano Rodríguez; Isabel María García Sánchez; Víctor Amor Esteban. 26/10/2021.

Which region and which industry lead the circular economy? The Cebix, a multivariant index based on business actions. CRRRC Conference 2021. Francisco Manuel Somohano Rodríguez; Víctor Amor Esteban; José Valeriano Frías Aceituno; Isabel María García Sánchez. 12/10/2021.

Industria 4.0 e Innovación en la Pyme. Workshop Innovation and Sustainability. Francisco Manuel Somohano Rodríguez; Antonia Madrid Guijarro; José Manuel Lopez Fernandez. 10/09/2021.

The Drivers of the Integration of the Sustainable Development Goals Into the Non-financial Information System: Individual and Joint Analysis of their Influence. 13th CSEAR. Isabel María García Sánchez; Beatriz Aibar Guzman; Cristina Aibar Guzmán; Francisco Manuel Somohano Rodríguez. 08/09/2021.

Una Aproximación Contable a los Motivos para Implantar Industria 4.0. XIX Encuentro Internacional de la Asociación Espyearla de Profesores Universitarios de Contabilidad (ASEPUC) Salamanca, España. Francisco Manuel Somohano Rodríguez; Jose Manuel Lopez Fernandez. 15/09/2020.

Estrategias de Vinculación de la Cuádruple Hélice. IX Congresso Internacional de Conhecimento e Inovação. Porto Alegre, Brasil. Francisco Manuel Somohano Rodríguez. 07/11/2019.

Industry 4.0 and SME Innovation. XX Congreso Internacional AECA. Ciudad de realización: Málaga, España. Francisco Manuel Somohano Rodríguez; Antonia Madrid Guijarro; Jose Manuel Lopez Fernandez.

Industry 4.0 and SME Innovation XX Congreso AECA Francisco Manuel Somohano Rodríguez; Antonia Madrid Guijarro; José Manuel Lopez Fernández. 25/09/2019.

C.3. Research projects

Project title: Enroad: Supporting The Implementation By NRAS Of Renewable Energy Technologies In The Road Infrastructure; Funded entity: UNIVERSIDAD DE CANTABRIA; PR: PABLO PASCUAL MUÑOZ; Number of researchers: 16; Funding entity: VEJDIREKTORATET (Danish Road Directorate, DRD); Starting date: 01/10/2020 Duration: 2 years - 7months - 1 day.

Project title: Estudio del Sector de la Bioeconomía en Cantabria; Funded entity: Universidad de Cantabria; PR: Francisco Manuel Somohano Rodríguez; Number of researchers: 2; Funding entity: Consejería de Innovación, Industria, Transporte y Comercio; Starting date: 09/10/2019 Duration: 7months - 23 days.

Project title: Aplicación de Inteligencia Artificial Al Estudio de la Innovación en las Pyme Europeas; Funded entity: Universidad de Cantabria; PR: Francisco Manuel Somohano Rodríguez; Number of researchers: 4; Funding entity: Universidad de Cantabria; Starting date: 30/11/2018 Duration: 4 years - 1 day

Project title: Programa Apoyo a la Dinamización de La Innovación en Cantabria; Funded entity: Universidad de Cantabria; PR: Javier Leon Serrano; Number of researchers: 9; Funding entity: Gobierno de Cantabria; Consejería de Innovacion, Industria, Transporte y Comercio
Starting date: 01/01/2017 Duration: 1 year - 6months - 1 day.

Project title: Análisis Semántico de Información sobre Innovación Publicada por las Pymes En sus Páginas Web; Funded entity: Universidad de Cantabria; PR: Francisco Manuel Somohano Rodriguez; Number of researchers: 3; Funding entity: Universidad de Cantabria; Starting date: 30/11/2016 Duration: 2 years - 1 day.

Project title: Desarrollo de una Plataforma On-Line para Analisis Contable Sectorial; Funded entity: Universidad de Cantabria; PR: Francisco Javier Martinez Garcia; Number of researchers: 3; Funding entity: Universidad de Cantabria; Starting date: 29/11/2012 Duration: 6 years - 1 day.

C.4. Contracts, technological or transfer merits

Project title: Diseño de un Modelo para el Cálculo de los Costes en Tejasa TC SL bajo la perspectiva del gobierno del dato; Role: researcher; PR: Francisco Manuel Somohano Rodriguez; Number of researchers: 3; Funding entity: Tejasa TC SL; Starting date: 9/6/2023 Duration: 6 months.

Project title: Modelos de Estimación de Los Costes de las Actividades de Empresas de los Sectores Comercial y de Servicios; Role: researcher; PR: Francisco Manuel Somohano Rodriguez; Number of researchers: 1; Funding entity: BDR Consultores Tributarios y Empresariales S.L.; Starting date: 14/11/2022 Duration: 1 year - 1 mes - 18 days.

Project title: Efecto del Confinamiento en la Situación Económica y Financiera de las Empresas del Sector del Entretenimiento Privado (CNAE 92); Role: researcher; PR: Francisco Manuel Somohano Rodriguez; Number of researchers: 4; Funding entity: BDR Consultores Tributarios y Empresariales S.L.; Starting date: 30/06/2022 Duration: 17 days.

Project title: Mejora Del Sistema Informático de Gestión de La Fundación Leonardo Torres Quevedo; Role: researcher; PR: Francisco Manuel Somohano Rodriguez; Number of researchers: 1; Funding entity: Fundacion Leonardo Torres Quevedo; ; tating date: 01/07/2020 Duration: 9 months - 1 day.

Project title: “Plan de Negocio Para Una Empresa de E-Commerce 2019”; Role: researcher; PR: Francisco Manuel Somohano Rodriguez; Number of researchers: 1; Funding entity: Textil Santanderina, S.A.; Starting date: 12/06/2019 Duration: 1 year - 6months - 12 days.

Project title: Plan de Negocio para una Empresa de E-Commerce 2019; Role: researcher; PR: Francisco Manuel Somohano Rodriguez; Number of researchers: 1; Funding entity: Textil Santanderina, S.A.; Starting date: 12/06/2019 Duration: 6 months - 20 days.

Project title: Actualización del Sistema Contable y de Control de Gestión de la Fundación Leonardo Torres Quevedo; Role: researcher; PR: Francisco Manuel Somohano Rodriguez; Number of researchers: 1; Funding entity: Fundación Leonardo Torres Quevedo; Starting date: 12/04/2019 Duration: 1 year - 1 day.

Project title: Actualización del Sistema Contable y de Control de Gestión de la Fundación Leonardo Torres Quevedo; Role: researcher; PR: Francisco Manuel Somohano Rodriguez; Number of researchers: 1; Funding entity: Fundacion Leonardo Torres Quevedo; Starting date: 12/04/2019 Duration: 1 year - 1 day.

Project title: Plan de Negocio para una Empresa de E-Commerce; Role: researcher; PR: Francisco Manuel Somohano Rodriguez; Number of researchers: 1; Funding entity: Textil Santanderina, S.A.; Starting date: 29/10/2018 Duration: 2 months - 3 days.

Project title: Diseño de un Modelo de Cálculos de Costes para la Agrupación de Cooperativas Lácteas, S.L. (CLESA); Role: researcher; PR: Francisco Manuel Somohano Rodriguez; Number of researchers: 1; Funding entity: Agrupacion de Cooperativas Lacteas SL.; Starting date: 05/11/2015 Duration: 2 months - 28 days.

Project title: Diseño y Desarrollo del Sistema Gestor de Bases de Datos para la Integración de Conceptos Económicos y Financieros y Desarrollos de Plataformas Web Del Proyecto - Finanzas Para Mortales; Role: researcher; PR:Francisco Manuel Somohano Rodriguez; Number of researchers: 2; Funding entity: Fundacion de La Uc Para El Estudio y La Investigacion Del Sector Financiero (UCEIF); Starting date: 05/02/2014 Duration: 1 year – 10 months - 27 days.

Project title: Analisis de las Caracteristicas Diferenciadoras de las Pymes del Sector de la Carpintería Metálica en España; Role: researcher; PR:Francisco Manuel Somohano Rodriguez; Number of researchers: 3; Funding entity: BDR Auditores,S.L.; Starting date: 30/03/2013 Duration: 2 months - 1 day.