Institute of Public Goods and Policies (IPP)
Spanish National Research Council - CSIC
C/ Albasanz, 26-28, Office 3D24
28037 Madrid
e.mail: a.holl@csic.es

### **CURRENT POSITION**

Since Sept. 2009: Research Fellow (Cientifica Titular), CSIC – Spanish National Research

Council, Madrid.

### PAST EMPLOYMENT

Sept. 2005 – Sept. 2009: Ramón y Cajal Research Fellow, Fundación de Estudios de Economía

Aplicada (FEDEA), Madrid.

Nov. 2003 - Sept. 2005: Lecturer in Urban and Regional Economics, Department of Town and

Regional Planning, University of Sheffield, UK.

Dec. 2001 - Oct. 2003: Postdoctoral Research Fellow, Department of Town and Regional

Planning, University of Sheffield, UK.

Jan. 1997 - Oct. 1998: Research Associate, Department of Town and Regional Planning,

University of Sheffield, UK.

### **EDUCATION**

PhD, Department of Town and Regional Planning, University of Sheffield, October, 1998 – October 2001.

MSc Regional and Urban Planning Studies, London School of Economics, October 1995 – October 1996.

Magister Degree, Vienna University of Economics and Business Administration, October 1989 – October 1994.

### **HONORS AND PRIZES**

Best Referee Award – Regional Studies, Regional Science 2018.

Finalist in the UAM-Accenture Award 2015 in Economics and Management of Innovation for the paper "Persistence of innovative activities in times of crisis: The case of the Basque Country", joint with Ruth Rama.

BBVA Foundation Mid-career grant – Beca Leonardo: "Ayudas Fundación BBVA a Investigadores, Innovadores y Creadores Culturales", first edition, 2014.

Springer-Verlag Prize for best paper presented at the Western Regional Science Association Conference, 2003.

Winner of the Regional Science Association International (RSAI) Dissertation Competition, 2002.

Young Scientist Epainos Prize for best paper presented at the European Regional Science Association meeting 2002.

September 2024

### **PUBLICATIONS**

- Rural depopulation in the context of 4.0 technologies: Opportunities for sustainability and innovation Policies, with Víctor Gómez Valenzuela, *Journal of Planning Literature*, forthcoming. (Q1)
- 'COVID-19 and business digitalization: Unveiling the effects of concurrent strategies' with Ruth Rama and Hannah Hammond, *Journal of the Knowledge Economy*, forthcoming. (Q1)
- 'SME digital transformation and the COVID-19 pandemic: a case study of a hard-hit metropolitan area', with Ruth Rama, *Science and Public Policy*, forthcoming. (Q2)
- 'Service Sector Firm Death and Productivity in Urban and Rural Locations', with Sabine D'Costa and Dalila Ribaudo, *Economics Letters*, forthcoming. (Q2)
- 'Spatial patterns and drivers of SME digitalisation', with Ruth Rama, *Journal of the Knowledge Economy*, 15: 5625–5649, 2024. (Q1)
- 'Growth and decline in rural Spain: an exploratory analysis', with Víctor Gómez Valenzuela, *European Planning Studies*, 32 (2): 430-453, 2024. (Q2)
- 'Other Dimensions of Additive Manufacturing: Learning and Development of Technical Skills in Bachelor Subjects', with Camacho, A. M., Rodríguez-Prieto, A., Claver, J., Ayllón, J., Garcia, A., de Agustina, B., Rubio, E.M, Holl, A. & García, I., Advances in Science and Technology, 132, 540-548, 2023
- 'Ultrahigh-speed fixed broadband and rural development', with Andrés Arronte, Tijdschrift voor economische en sociale geografie, 114 (5): 479-500, 2023. (Q2)
- Local knowledge spillovers and innovation persistence of firms', with Bettina Peters y Christian Rammer. *Economics of Innovation and New Technology*, 32 (2): 826-850, 2023 (Q1)
- 'An empirical study of drivers for the adoption of logistics innovation', con Ilaria Mariotti (Politecnico di Milano, Italia), *Industry and Innovation*, 29 (6): 760-791, 2022. (Q1)
- 'The regional environment and firms' commitment to innovation: Empirical evidence from Spain', *Economics of Innovation and New Technology*, 30 (6): 565-584, 2021. (Q2)
- 'Local cooperation for innovation in ICT. Domestic groups with R&D collaborations abroad and foreign subsidiaries', with Ruth Rama, *Science and Public Policy*, 46 (4): 599-610, 2019. (Q3)
- 'Natural Geography and Patterns of Local Population Growth and Decline in Spain: 1960-2011, *Sustainability*, 11 (18): 4979, 2019. (Q2)
- 'Highways and firm performance in the logistics industry' with Ilaria Mariotti, *Journal of Transport Geography*, 72: 139-150, 2018. (Q1)
- 'Local employment growth patterns and the Great Recession: the case of Spain' *Journal of Regional Science*, 58 (4): 837-863, 2018. (Q1)
- 'Economic crisis and company R&D in Spain: do regional and policy factors matter?' with Laura Cruz-Castro, Luis Sanz-Menéndez, and Ruth Rama, *Industry and Innovation*, 25 (8): 729-751, 2018. (Q1)
- 'The geography of logistics firm location: the role of accessibility', with Ilaria Mariotti, Networks and Spatial Economics, 18 (2): 337-361, 2018. (Q1)
- 'Differences of Corporate Environmental Responsibility in Small and Medium Enterprises: Spain and Norway' with Elisabet Aguado, *Sustainability*, 10 (6): 1877, 2018. (Q2)
- 'Persistence of innovative activities in times of crisis: the case of the Basque Country' with Ruth Rama, *European Planning Studies*, 24 (10): 1863-1883, 2016. (Q2)

- 'Highways and productivity in manufacturing firms' *Journal of Urban Economics*, 93: 131-151, 2016. (Q1)
- 'The spatial distribution of foreign direct investment in R&D within host-countries. An empirical examination of foreign subsidiaries in Spain', with Ruth Rama, *International Journal of Multinational Corporation Strategy*, 1(1): 65-86, 2016.
- 'Suburbanization and Highways in Spain: When the Romans and the Bourbons still shape its cities', with Miquel-Angel Garcia-López and Elisabet Viladecans-Marsal, *Journal of Urban Economics*, 85: 52-67, 2015. (Q1)
- 'Foreign subsidiaries and technology sourcing in Spain', with Ruth Rama, *Industry and Innovation*, 21 (1): 43-64, 2014. (Q3)
- 'Domestic transport infrastructure and firms' export market participation', with Pedro Albarran and Raquel Carrasco, *Small Business Economics*, 40 (4): 879-898, 2013. (Q1)
- 'Spatial patterns of adoption of just-in-time manufacturing', with Ruth Rama and Rafael Pardo, *Papers in Regional Science*, 92 (1): 51-68, 2013. (Q2)
- 'Technology sourcing: Are biotechnology firms different? An exploratory study of the Spanish case', with Ruth Rama, *Science and Public Policy*, 39 (3): 304-317, 2012. (Q3)
- 'Market potential and firm-level productivity in Spain', *Journal of Economic Geography*, 12 (6): 1191–1215, 2012. (Q1)
- 'Comparing outsourcing patterns in domestic and FDI manufacturing plants: empirical evidence from Spain', with Ruth Rama and Rafael Pardo, European Planning Studies, 20 (8): 1335-1357, 2012. (Q3)
- 'Factors influencing the location of new motorways: large scale motorway building in Spain', *Journal of Transport Geography* 19 (6): 1282-1293, 2011. (Q1)
- 'Just-in-time manufacturing systems, subcontracting and geographic proximity', with Ruth Rama and Rafael Pardo, Regional Studies, 44 (5): 519-533, 2010. (Q2)
- 'The spatial patterns of networks, hierarchies and subsidiaries', with Ruth Rama, *European Planning Studies*, 17 (9): 1261-1281, 2009. (Q3)
- 'Networking and R&D in domestic and FDI plants in Spanish Electronic Clusters', with Ruth Rama, *International Journal of Strategic Business Alliances* 1, (2): 182-204, 2009.
- 'An exploratory analysis of networking, R&D and innovativeness in the Spanish electronics sector', with Ruth Rama, *International Journal of Entrepreneurship and Innovation Management* 9 (1/2): 68-83, 2009.
- 'Production Subcontracting and Location', Regional Science and Urban Economics, 38 (3): 299-309, 2008. (Q2)
- '20 years of accessibility improvements. The case of the Spanish motorway building programme', *Journal of Transport Geography* 15: 286-297, 2007.
- 'A review of the firm-level role of transport infrastructure with implications for transport project evaluation', *Journal of Planning Literature* 21 (1): 3-14, 2006. (Q1)
- 'Manufacturing location and impacts of road transport infrastructure: Empirical evidence from Spain', Regional Science and Urban Economics 34 (3): 341-363, 2004. (Q2)
- 'Transport infrastructure, agglomeration economies, and firm birth. Empirical evidence from Portugal', *Journal of Regional Science*, 44 (4): 693-712, 2004. (Q2)
- 'Start-Ups and Relocations: Manufacturing Plant Location in Portugal', *Papers in Regional Science*, 83 (4): 649-668, 2004. (Q4)
- 'The role of transport in firms' spatial organisation: Evidence from the Spanish food processing industry', *European Planning Studies*, 12 (4): 537-550, 2004. (Q2)

# Other: book chapters, book reviews, publications in Spanish journals, and reports

- 'Nuevas autopistas y autovías y desarrollo rural', *Papeles de Economía Española*, 176: 191-194, 2023.
- 'Transport Cost and Location of Firms', in Vickerman, R. (eds.) "International Encyclopedia of Transportation", vol. 1: 291-296, Elsevier Ltd, 2021.
- 'Applying the OECD functional urban area classification to local employment pattern analysis in Spain', *Mapping*, 26 (183): 30-35, 2017.
- 'Just-in-time and space', with Ruth Rama, in "Handbook on Geographies of Technology", Barny Warf (ed.), Edward Elgar, 2017.
- 'Location, accessibility and firm-level productivity in Spain', in "Accessibility and Spatial Interaction", Ana Condeço-Melhorado, Aura Reggiani, and Javier Gutiérrez (eds) Edward Elgar, 2014.
- 'Localización y productividad de la empresa española', *Investigaciones Regionales*, 25: 27-42, 2013.
- 'Subcontracting relationships', with Ruth Rama, in "Handbook of Economic Organization", Anna Grandori (ed.), Edward Elgar, 2013.
- 'Mejoras de accesibilidad viaria: un estudio retrospectivo para la España peninsular', *Papeles de Geografía*, 53-54: 171-183, 2011.
- Book review of 'Production Networks and Industrial Clusters: Integrating Economies in Southeast Asia' by Ikuo Kuroiwa and Toh Mun Heng (eds), *Journal of Regional Science*, 50 (4), 2010.
- La infraestructura de transporte y la localización de la actividad económica' en "Infraestructura de transporte, economía y territorio: 5ª jornada de reflexión y debate' INECO-TIFSA, Madrid, 2009.
- La influencia de la localización y la distancia en las pautas de subcontratación', with Ruth Rama, Consejo Económico y Social, Comunidad de Madrid, Documento de Trabajo No 8, 2009.
- 'Transport Network Development and the Location of Economic Activity'. in "Essays on Transport Economics", Vicente Inglada and Pablo Coto (eds.), pp 341-362, 2007.
- Book review of 'Principles of Transport Economics' by Émile Quinet and Roger Vickerman, *Papers in Regional Science*, 84 (1), 2005.
- Book review of 'Public Investment and Regional Economic Development' by Daniel Felsenstein, Ronald McQuaid, Philip McCann and Daniel Shefer (Eds), *Environment and Planning C*, 20 (4), 2002.
- 'The SASI Model: Model Implementation', with Franz Fürst, Roland Hackl, Hans Kramar, Carsten Schürmann, Klaus Spiekermann, Michael Wegener, Report to the European Commission. Dortmund: Institute of Spatial Planning, 1999.
- 'Data requirements and Model structure: SASI Deliverable D7', with Ian Masser and Max Craglia, Report to the European Commission. Sheffield: Department of Town and Regional Planning, 1997.

### RESEARCH FUNDING

Spanish Ministry of Science, Innovation and Universities: Careers of doctorate holders in Spain: employment destination, research and innovation performance, and local context (INNDOC), 2024-2027. (Project head: Laura Cruz and Ernest Miguelez).

BA/Leverhulme Small Research Grants SRG, UK. Firm productivity and exit during economic crisis: does the urban environment foster resilience?, 2023-2025 (Co-applicant with Sabine D'Costa, University of Westminster, UK.)

Spanish Ministry of Science and Innovation and European Union NextGenerationEU/ PRTR funds. Disrupting depopulation: Additive Manufacturing as a technological disruption to fight against rural depopulation and social and spatial inequalities, 2021-2024. (Project coordinator Iñaki García- CENIM. Project head at IPP: Adelheid Holl).

Associated Laboratory on Linkages between Innovation and Environmental Sustainability (ALLIES) CNRS, CSIC. (Project head IPP: Catalina Martínez). 2019-2023.

Autonomous Community of Madrid. ImPrYME: Grado de Innovación de las Pymes de Madrid, 2020-2023. (Project head: Ángela Ribeiro)

Autonomous Community of Madrid: Markets, Innovation and the Environment (MIMA-CM), 2020-2022. (Project head: Catalina Martínez García). Research collaboration program between CSIC-IPP (SPRI and GEA), CEMFI, UC3M and UCM.

Spanish Ministry of Economy and Competitiveness: Research Organizations' responses to crisis: universities, research institutions and firms, 2017-2021. (Project head: Luis Sanz Menéndez and Catalina Martínez García).

Spanish Ministry of Economy and Competitiveness: City challenges: urban mobility, employment, segregation and inequalities, 2017-2020. (Project head: Elisabet Viladecans-Marsal).

Spanish Ministry of Economy and Competitiveness: Open innovation networks in the Information and Communication Technology sector, 2014 – 2017. (Project head: Adelheid Holl).

Spanish Ministry of Science and Innovation: Spatial aspects of technology sourcing and technology adoption, 2010 – 2013. (Project head: Adelheid Holl).

Spanish Ministry of Science and Innovation: Accessibility and private sector performance: a microdata panel approach, 2006 – 2009. (Project head: Adelheid Holl).

Ramón Areces Foundation: Domestic Transport Cost Reductions and Firms' Export Behaviour, 2006 – 2008. (Project head: Adelheid Holl).

Economic and Social Committee of the Regional Government of Madrid (Consejo Económico y Social de la Comunidad de Madrid): The Influence of Location and Distance on Subcontracting Patterns, 2006 – 2007. (Project head: Adelheid Holl).

UK Economic and Social Research Council (ESRC): Transport Network Development and Geographic Concentration of Economic Activity, Jan. 2003 – Oct. 2003. (Project head: Adelheid Holl).

### SCHOLARSHIPS AND FELLOWSHIPS

Spanish Ministry of Education. Salvador de Madariaga Grant, 2017: research visit to the ZEW in Mannheim, Department of Economics of Innovation and Industrial Dynamics (February - August 2018)

Spanish Ministry of Science and Technology, Ramón y Cajal Fellowship: Sept. 2005 – Sept. 2009.

UK Economic and Social Research Council (ESRC) Postdoctoral Research Fellowship: Dec. 2001 – Dec. 2002.

UK Economic and Social Research Council (ESRC) Postgraduate Studies Scholarship: Oct. 1998 – Oct. 2001.

## **CONFERENCE PRESENTATIONS**

6th Geography of Innovation Conference 2022, Milan, July 2022

ALLIES workshop on economics of innovation, Bordeaux School of Economics; May 2022.

Jornada "El reto demográfico, la despoblación rural y los datos". Banco de España, Madrid, January 2022.

Regional Studies Association Winter Conference, London, November 2018.

8<sup>th</sup> European Meeting of the Urban Economics Association, Düsseldorf, May 2018.

EU-SPRI conference: Science and Innovation Policy: Dynamics, Challenges, Responsibility and Practice, Vienna, June 2017.

56th European Congress of the Regional Science Association International, Vienna, August 2016. Regional Studies Association Annual Conference, Graz, April 2016.

55th European Congress of the Regional Science Association International, Lisbon, August 2015.

EU-SPRI conference: Science and Innovation Policy: Dynamics, Challenges, Responsibility and Practice, Manchester, June 2014.

Barcelona Workshop on Regional and Urban Economies: Agglomeration Economies, Barcelona, November 2013.

53rd European Congress of the Regional Science Association International, Palermo, August 2013

52nd European Congress of the Regional Science Association International, Bratislava, August 2012.

9th World Congress of the Regional Science Association International, Timisoara, Romania, May 2012.

XXXVI Simposio de la Asociación Española de Economía, Málaga, December 2011.

51st European Congress of the Regional Science Association International, Barcelona, August 2011.

XXXV Simposio de la Asociación Española de Economía, Madrid, December 2010.

International Meeting on Regional Science - XXXVI: Reuniones de estudios regionales, Badajoz, November 2010.

12th EUNIP Conference, Rovira i Virgili University, Reus, June 2010.

Jornada sobre Infraestructuras de Transporte, Economía y Territorio, Aula Carlos Roa, INECO, Madrid, October 2008.

48th European Congress of the Regional Science Association International, Liverpool, August 2008.

Entrepreneurship, Innovation and Innovation Policy – a Look at SMEs, BI Norwegian School of Management, Department for Innovation and Economic Organization, Oslo, November 2006.

The Dynamics of Firm Location, Nethur School, University of Groningen, February 2004.

50th North American Meetings of the Regional Science Association International, Philadelphia, November 2003.

30th Annual Conference of the European Association for Research in Industrial Economics, Helsinki, August 2003.

42nd Western Regional Science Association Congress, Rio Rico, Arizona, February 2003.

42nd European Congress of the Regional Science Association International, Dortmund, August 2002.

43rd Annual Conference, Association of Collegiate Schools of Planning, Cleveland, Ohio, November 2001.

6th NECTAR (Network on European Communications and Transport Activities Research) Conference in Helsinki, May 2001.

4th NECTAR (Network on European Communications and Transport Activities Research) Conference in Tel Aviv, April 1998.

**SEMINARS** presented at: University of Glasgow, Politecnico di Milano, Barcelona Institute of Economics; Universidad Autónoma, Madrid; Universidad Complutense, Madrid; Consejo Económico y Social - Comunidad de Madrid, Universidad de Oviedo, Arizona State University, University of Arizona, University of Sheffield, Universidad Carlos III de Madrid, Universidad de Las Palmas de Gran Canaria.

### **REFEREE:**

American Economic Journal: Applied Economics, Annals of the American Association of Geographers, Asia Pacific Journal of Marketing and Logistics, Economics Bulletin, Economic Geography, Economics Letters, Economics of Innovation and New Technology, Economics of Transportation, Environmental Impact Assessment Review, Environment and Planning A, European Planning Studies, GAPP, Geographical Analysis, Geographia Polonica, Geography Compass, Growth and Change, Industry and Innovation, International Area Studies Review, International Journal of the Economics of Business, International Journal of Entrepreneurship and Small Business, International Journal of Production Research, International Journal of Services, Technology and Management, Journal of Advanced Transportation, Journal of Comparative Economics, Journal of Economic Geography, Journal of Geographical Systems, Journal of International Trade & Economic Development, Journal of Public Policy, Journal of Regional Science, Journal of Small Business Management, Journal of Transport Geography, Journal of Transport Economics and Policy, Journal of Transport and Land Use, Journal of Urban Economics, Journal of Urban Technology, Papers in Regional Science, Portuguese Economic Journal, REGION, Regional Science and Urban Economics, Regional Studies, Regional Studies-Regional Science, Review of Economics and Statistics, Review of Word Economics, Revista de Economía Aplicada, Revista Economía, Sociedad y Territorio, Small Business Economics, Spanish Economic Review, Spatial Economic Analysis, Sustainability Journal, Tijdschrift voor economische en sociale geografie, The Annals of Regional Science, The Geographical Journal, The Open Geography Journal, Transportation Transportation Research Part A: Policy and Practice, Transportation Research Part D: Transport and Environment; Transportation Research Part E: Logistics and Transportation Review, Transport Policy, Transport Reviews, Urban Geography, Urban Science, Urban Studies Research.

ANEP- Spanish National Evaluation and Foresight Agency, Ministry of Science and Innovation Fundación Ramón Areces.

## Other professional activities

Co-organiser of EU-SPRI Conference, Oslo, June 2021.

Organiser of the International Workshop: Infrastructure and the spatial organization of economic activity, FBBVA, Madrid, October 2015.

Co-organiser of European Network on the Economics of the Firm Conference, CSIC, Madrid, September 2013.

Co-organiser of EU-SPRI Early Career Researcher Conference, CSIC, Madrid, April, 2013.

## Departmental duties:

Head of Department, Dept. of Science and Innovation: April 2019-Sept. 2024

Member of the Academic Commission of the PhD Program in Law, Government and Public Policy – IPP-UAM: April 2019-April 2024

Member of the Quality Commission of the PhD Program in Law, Government and Public Policy – IPP-UAM: June 2020-April 2024

Scientific Committee Member: Symposium of the Spanish Economic Association 2009, 2010, 2011; European Regional Science Association Congress 2011, 2012; European International Business Academy Conference 2011. European Network on the Economics of the Firm Conference 2013, EU-SPRI Early Career Researcher Conference 2013, International Workshop on Urban and Regional Economics 2014, EU-SPRI Conference 2021, 2022, 2023.

PhD committee member: Daniel Liviano (University Rovira i Virgili, 2009), Juan Fernandez Sastre (Universidad Autónoma de Madrid, 2012), Mery Patricia Tamayo Plata (Universidad Complutense, 2013), Samira Barzin (Imperial College, 2017).

#### Editorial work:

Editor: Regional Studies, Regional Science: 2019 - present

Associate Editor: Regional Studies, Regional Science: 2015-2019

Member of the Editorial Advisory Board: Revista Internacional de Sociología: 2019 - 2022

**LANGUAGES:** German (mother tongue), English (fluent), Spanish (fluent), French (basic).