

CURRICULUM VITAE

PERSONAL INFORMATION

Name **FRANCESCA MEDDA**
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WORK EXPERIENCE

- Dates **2006- to present**
- Name and address of employer University College London
- Type of business or sector Education/Research
- Occupation or position held Full Professor in Infrastructure and Transport Studies and Applied Economics and Finance
Director of the UCL QASER (Quantitative and Applied Spatial Economic Research) Laboratory.
- Main activities and responsibilities Her research focuses on project finance, financial engineering and financial mechanisms for investments in different infrastructure sectors such as: the maritime industry, public transport, energy and water innovation and new technologies, urban investments (smart cities), supply chain provision and optimisation, airport efficiency. Her work is published in leading academic and practitioner journals. At present she holds several grants, two of which pertain to the application of complexity analysis in the real world. She is Co-Investigator in the £6.2m EPSRC Programme Grant "Liveable Cities" and the £5.8m grant "New Business for Infrastructure Investments".
From October 2016, she is the Research Director of the Department of Civil, Environmental and Geomatics Engineering

- Dates **2017**
- Name and address of employer G7 Presidency 2017- Italian Government
- Type of business or sector Public Sector
- Occupation or position held Expert member
- Main activities and responsibilities Member of the team of experts aims to prepare the main documents related to transport and infrastructure investments. The main topic chosen by the Italian Presidency was: Rediscovering the social value of infrastructures. The developed documents had shared conclusions among G7 Member States.

- Dates **2016**
- Name and address of employer EPSRC
- Type of business or sector Public Sector
- Occupation or position held Member of the Strategic Advisory Network (SAN)
- Main activities and responsibilities The EPSRC Strategic Advisory Network provides the EPSRC with strategic advice to assist in developing and modifying plans and to make appropriate recommendations to Council.

<ul style="list-style-type: none"> • Dates • Name and address of employer <ul style="list-style-type: none"> • Type of business or sector • Occupation or position held • Main activities and responsibilities 	<p>2014-2016 HM Treasury UK Government Economic Advisor Member of the committee Infrastructure UK dedicated to the plan of UK investment in infrastructures and interdependency</p>
<ul style="list-style-type: none"> • Dates • Name and address of employer <ul style="list-style-type: none"> • Type of business or sector • Occupation or position held • Main activities and responsibilities 	<p>2013-2014 The World Bank Investment Bank Project Director/Team Leader The Assignment aimed to find solutions for the obstructions to trade, not only from an economic point of view, but also in relation to food insecurity, poverty, and exacerbate population displacement and conflict. The Assignment undertook the analysis of two lagging regions: (1) How to improve maritime trade in the South Pacific Islands; and (2) How to increase the operation and efficiency of the logistics supply chain of agricultural goods in Uganda (East Africa).</p>
<ul style="list-style-type: none"> • Dates • Name and address of employer <ul style="list-style-type: none"> • Type of business or sector • Occupation or position held • Main activities and responsibilities 	<p>2013- to present UK Department for Environment, Food and Rural Affairs (DEFRA) Government Economic Adviser Member of the Economic Advisory Group for DEFRA</p>
<ul style="list-style-type: none"> • Dates • Name and address of employer <ul style="list-style-type: none"> • Type of business or sector • Occupation or position held • Main activities and responsibilities 	<p>2012-2013 European Investment Bank Investment Bank Project Director/Team Leader The objective of the assignment was to deliver strategic tools to capitalize the knowledge base of JESSICA Evaluation and Horizontal Studies, and the know-how developed by the EIB. We proposed an innovative measure of Economic Risk Rating (<i>ERR</i>) and Financial Risk Rating (<i>FRR</i>) through urban portfolio analysis and the benchmarking frontier analysis to account for positive and negative externalities.</p>
<ul style="list-style-type: none"> • Dates • Name and address of employer <ul style="list-style-type: none"> • Type of business or sector • Occupation or position held • Main activities and responsibilities 	<p>2009- 2012 European Investment Bank Investment Bank Principal Investigator/ Supervisor Assessment of municipal bonds and land value capture as funding mechanisms urban and transport investments</p>
<ul style="list-style-type: none"> • Dates • Name and address of employer <ul style="list-style-type: none"> • Type of business or sector • Occupation or position held • Main activities and responsibilities 	<p>2011 The World Bank Investment Bank Principal Investigator Study on Innovative Financial Mechanisms for Urban Cultural and Environmental Heritage Redevelopment</p>
<ul style="list-style-type: none"> • Dates • Name and address of employer <ul style="list-style-type: none"> • Type of business or sector • Occupation or position held • Main activities and responsibilities 	<p>2009- 2011 Ernst & Young Financial Consultancy Principal Investigator Assessment of land value finance mechanisms as a funding source for urban investment, with an application on the new Warsaw metro system.</p>

- Dates
 - Name and address of employer
 - Type of business or sector
 - Occupation or position held
 - Main activities and responsibilities
- 2007-2011**
ARST-FdS-FMS (Italy)
Local Transport Companies Sardinia
Board of Directors
Financial recapitalisation of the company, merger and acquisition process of three companies.
Main task: definition of the Business Plan and Investment Plan of the new company created after having merged the three companies. Structural re-organization.
- Dates
 - Name and address of employer
 - Type of business or sector
 - Occupation or position held
 - Main activities and responsibilities
- 2004- 2007**
European Commission
Government
Project Evaluator
Assessments of projects under EU DG Regio
- Dates
 - Name and address of employer
 - Type of business or sector
 - Occupation or position held
 - Main activities and responsibilities
- 2002- 2004**
Lord Chancellor Department (UK)
Government
Principal Investigator
Developed multi-criteria appraisal for the tribunal reform system.
- Dates
 - Name and address of employer
 - Type of business or sector
 - Occupation or position held
 - Main activities and responsibilities
- 2000- 2006**
London School of Economics
Education
Lecturer
Mathematical Economics and Regional and Urban Economics

EDUCATION AND TRAINING

- Dates
 - Name and type of organisation
 - Principal subjects/occupational skills covered
 - Title of qualification awarded
- 1996-2000
Tinbergen Institute, Free University of Amsterdam
Economics
PhD in Economics
- Dates
 - Name and type of organisation
 - Principal subjects/occupational skills covered
 - Title of qualification awarded
- 1994-1995
London School of Economics
Economics
Econometrics and Mathematical Economics
Master in Science (MSc) in Economics
- Dates
 - Name and type of organisation
 - Principal subjects/occupational skills covered
 - Title of qualification awarded
- 1993
Ordine degli Ingegneri Civili, Cagliari
Ingegneria Civile
Abilitazione alla Professione (Chartered Engineer)
Member of Ordine degli Ingegneri from 1994
- Dates
 - Name and type of organisation
 - Principal subjects/occupational skills covered
 - Title of qualification awarded
- 1987-1992
Universita degli Studi di Cagliari, Department of Civil Engineering
Civil engineering, specialization in Transport Engineering and Operational Research
Degree in Civil Engineering, specialization Transport

Projects QASER Laboratory (over £5 million on research grants)

Sector & Project Title	Client	Date	Tasks & Objective
Liveable Cities (Smart and Sustainable Cities)	UK Research Council (EPSRC)	2012-2017	To identify innovative financial tools for urban investment under Public and Private Partnership
New Business for Infrastructure	UK Research Council (EPSRC)	2013-2017	The development and implementation of innovative business models and aims to support UK firms wishing to exploit them in international markets.
INFRARISK	European Union	2012-2016	To define new engineering indicators for identifying infrastructure risk from natural hazards
Strategic Urban Development Fund Investing and Project Structuring	Mazars and The European Investment Bank	2013-2015	To produce a modular and insightful guidance framework for Member States. To accelerate the deployment of Financial Instruments for urban development and regeneration over the period 2014-2020.
Land value finance as a tool to diminish municipality bond risk STAREBEI Programme	The European Investment Bank	2013	To analyse land value finance as a tool to diminish municipality bond risk, application in two London cases
ENFOLD project (Explaining, Modelling and Forecasting Global Dynamics)	UK Research Council (EPSRC)	2010-2015	To develop new tools based on path dependence processes and dynamic transitions in order to study global networks and spatial interactions
Urban Sustainability and Resilience EngD Programme	HALCROW-CH2M Hill	2012-2014	To design and implement new financial tools for critical infrastructure investments
Assessing the Volatility and Resilience to Extreme Events of Critical Infrastructure Investment Approaches EngD Programme	WILLIS Re	2011-2013	To assess and design a software program for the evaluation of financial risks
PPPs in Tourism	The World Bank/IFC	2013	The application of public and private partnerships in the development of tourism
SCALE project (Small Changes Lead to Large Effects)	UK Research Council (EPSRC)	2009-2013	To study how to reduce through market mechanisms the energy consumption in urban transport
Adaptive Network Transport Systems (ANTS)	UCL FuturICT Grant: Big Data in the City	2011- 2013	To develop a financial adaptive system to improve the resilience of the London transport network
Economics of Uniqueness	The World Bank	2011	Innovative financial mechanisms for urban heritage redevelopment
Boom and Bust in the Real Estate Market STAREBEI Programme	The European Investment Bank	2010	To estimate the application of Land Value Capture for transport Infrastructure in Estonia
NEARCTIS EU Joint Programme Grant Network of Excellence	European Union (EU FPVII)	2011-2013	To design an analytical advanced ICT Road Co-operative Traffic Management for European cities
Better Government Programme (Urban Investment Tools)	Ernst & Young (Poland)	2009-2011	To assess the feasibility (financial and regulatory) of land value capture as a funding source of urban investment in Poland

Esteems

Honour/Prize	Awarding Body	Country	Year
Fellow Institution of Civil Engineers	Institution of Civil Engineering (ICE)	UK	2015
Prize Winner of the Commended Paper Award	Korean Association of Shipping and Logistics KMTC	Korea	2014
Prize for the Winner of the Best Paper Award	Hanjin Shipping	International	2013
ULI Fellowship in Infrastructure	Urban Land Institute	International	2013

Highlighted

Title	Organisation	Start Date
Member	The UCL Centre for Blockchain Technologies(CBT)	2017
Vice-President	Parliamentary and Scientific Committee, House of Commons, UK	2015
Member	Transport Commission of The Institution of Engineering and Technology (IET)	2015
Member	Institution of Civil Engineering (ICE) Air Quality Taskforce	2015
Member	Social Impact Agenda (UN)	2015
TED Speaker	TED X Lecce, Money for Good: Impact Finance, Teatro Paisiello, Lecce	2015
Member	UCL Policy Commission on the Green Economy and UCL Policy Commission on Industrial Policy	2012
Member	UCL Europe Advisory Group	2009
Member	Port Operations Research and Technology Centre (PORTeC), Imperial College London	2007
Member	Global Land Tool Network Secretariat, United Nations	2007
Member	Economic Commission of UITP (International Association of Public Transport)	2005

Recent Publications

- 1) Medda, F. (2017). A portfolio approach for urban investments. *URBANET*.
- 2) Martinez-Oviedo, R., & Medda, F. (2017). Assessing the effects of adding Timberland and Farmland into resource-based Sovereign Wealth Fund portfolios. *Journal of Economics and Business*.
- 3) Medda, F., Caravelli, F., Caschili, S., & Wilson, A. (2017). Collaborative Approach to Trade: Enhancing connectivity in sea- and land-locked countries. *Advances in Spatial Science*. Berlin: Springer.
- 4) Banwo, O., Caccioli, F., Harrald, P., & Medda, F. (2017). The Effect of Heterogeneity on Financial Contagion Due to Overlapping Portfolios. *Advances in Complex Systems*. doi:10.1142/S0219525916500168
- 5) Carbonaro, G., Leanza, E., McCann, P., & Medda, F. (2017). Demographic Decline, Population Ageing and Modern Financial Approaches to Urban Policy. *International Regional Science Review*.
- 6) Park, Y. A., & Medda, F. (2017). Development of Korea-China trade (shipping routes) and effects on container port construction (or port industries) in Korea. *International Journal of Shipping and Transport Logistics*.
- 7) Panayitou A. and Medda, F. (2016). Portfolio of Infrastructure Investments: Analysis of European Infrastructure. *Jurnal of Infrastructure Systems*, DOI: 10.1061/ASCE IS.1943-555X
- 8) Medda, F., Partridge, C. & Carbonaro, G. (2015). Energy Investment in Smart Cities. Unlocking Financial Instrument in Europe. In *Handbook on Social, Economic and Environmental Sustainability in the Development of Smart Cities*. IGI Global:USA. doi: 10.4818/978-1-4666-8282-5
- 9) Medda, F. & Caschili, S. (2015). Private Finance in Port Investment: The South Pacific Islands. In *Dynamics Shipping and Port Development in the Globalized Economy*. Palgrave Macmillan.
- 10) L'Lima M., & Medda, F. (2015). A New Measure of Resilience: An Application to the London Underground. *Transportation Research A: Policy and Practice*. doi:10.1016/j.tra.2015.05.017
- 11) Caravelli F., & Medda, F. (2015). An Agent-Based Model for Agricultural Supply Chains: The Case of Uganda. *Proceedings of ECCS 2014*, Springer: Berlin.
- 12) Caschili, S., Medda, F. R., & Wilson, A. (2015). An Interdependent Multi-Layer Model: Resilience of International Networks. *Networks and Spatial Economics*. 14 (2), 313-335. doi:10.1007/s11067-014-9274-2
- 13) Caschili, S., Medda, F., Parola, F., & Ferrari, C. (2014). An Analysis of Shipping Agreements: The Cooperative Container Network. *Networks and Spatial Economics*, 2014 on-line. doi:10.1007/s11067-014-9230-1
- 14) Caschile, S. & Medda, F. (2015). The Port Attractiveness Index: Application on African Ports. *Region et Developpment (International Journal)*, 41. ISSN 2117-0843
- 15) Roukouni, A., Medda, F., Giannopoulou, M., & Vavatsikos, A. (2015). A multi-attribute comparative evaluation of value capture financing mechanisms: A case study. *Place-Based Evaluation for Integrated Land-Use Management* (pp. 75-95).
- 16) Caschili, S., Reggiani, A., & Medda, F. (2015). Resilience and Vulnerability of Spatial Economic Networks. *Networks and Spatial Economics*, 15 (2), 205-210. doi:10.1007/s11067-015-9283-9
- 17) Park, Y-A, & Medda, F. (2015). Hub Status and Indexation of Container Ports. *The Asian Journal of Shipping and Logistics*, 31 (2), 191-318. doi:10.1016/j.ajsl.2015.06.005
- 18) Caschili, S., Reggiani, A. & Medda, F. (2015). Resilience and Vulnerability of Spatial Economic and Vulnerability Networks. *Networks and Spatial Economics*. 15(2), 205-210. doi: 10.1007/511067-015-9283-9
- 19) Panayiotou, A., & Medda, F. (2014). Attracting private sector participation in infrastructure investment: the UK case. *PUBLIC MONEY & MANAGEMENT*, 34 (6), 425-431. doi:10.1080/09540962.2014.962369
- 20) Suarez-Aleman, A., Trujillo, L., & Medda, F. (2014). Short sea shipping as intermodal competitor: a theoretical analysis of European transport policies. *Maritime Policy and Management: an international journal of shipping and port research*.
- 21) Ekins, P., Baddeley, M., Medda, F., Nesheim, L., & Radosevic, S. (2014). *Greening the recovery: the report of the UCL Green Economy Commission*. University College London: OVPR/UCL Public Policy.
- 22) Caschili S., Medda F., Parola F. & Ferrari C. (2014) An Analysis of Shipping Agreements: The Cooperative Container Network. *Networks and Spatial Economics*. Springer. Number: on-line 2014
- 23) Medda F., Liu Q. (2013) Determinants and strategies for the development of container terminals. *Journal of Productivity Analysis*. DOI 10.1007/s11123-012-0291-1.
- 24) Medda F., Nijkamp P., Rietveld P. (2013) Urban Land Use for Transport Systems and City Shapes. Chapter 33, In: *Urban Form and Transport Accessibility*, Mulley, C. (ed.) Series: Classics in Transport and Environmental Valuation. Edward Elgar.
- 25) Cocconcelli L., Medda F. (2013) Boom and bust in the Estonian real estate market and the role of land tax as a buffer. *Land Use Policy* 30, 392-400.