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Name: Paulo Jorge Sintra Almeida Partidário

Date of birth: 6th March 1958

Nationality: Portuguese

Main field of work : Strategic planning of sustainable innovation

Other: Eco-Efficiency and sustainable production-consumption chains, Constructive technology assessment, Integrated industrial pollution prevention and control, Environmental management in industrial companies.

1. University Degrees

2002 – PhD in Strategic Planning of Sustainable Innovation, TUDelft (NL)

1995 - M.Sc. in Science and Technology Management (Faculty of Economy, Technical University of Lisboa)

1993 - Post Graduation in Science and Technology Management (Faculty of Economy, Technical University of Lisboa)

1982 - Graduation in Chemical Engineering (IST, Technical University of Lisboa)

2. Professional positions

Since 2002 (Abril) – Head of Research Unit on Prevention and Recycling Technologies at (DMTP)/ INETI.

1999 to 2002 - Senior Researcher within the Materials and Production Technologies Institute (DMTP)/ INETI.

1993 to 1999- Head of Department on Environmental Technologies (DTA), in the Environmental Technologies Institute (ITA)/ INETI.

1992 to 1999- Senior Researcher in the Environmental Technologies Institute (ITA)/ INETI.

1984 to 1992 - Research Assistant in the Industrial Technologies Institute (ITI)/ LNETI.

1983 to 1985 - Lecturer in the Chemical Engineering Department, ISEL, Technical University of Lisboa.

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3. S&T Activities

3.1 Thesis

Partidário, P.J. (2002). “What-If”: From path dependency to path creation in a coatings chain; A methodology for strategies towards sustainable innovation, PhD Thesis Delft University of Technology, Druk Tan Heck, Delft, The Netherlands (ISBN 90-5155-015-4).

M.Sc. Thesis: "Innovation and Technology Development on the Portuguese Industry of Environmental Equipment" *in portuguese* (Thesis supervisor: Prof. J. Caraça, Faculty of Economy-Technical University of Lisboa), (1995).

Research Thesis: "Volatile organic matter removal in a Three-Phase Biological Packed Bubble Column Reactor" *in portuguese*, (Thesis supervisor: Prof. M.J.T. Carrondo, New University of Lisboa, TUL), (1992).

3.2 Technological R & D

Contribution to National Project Ref^a OMS/PNUD POR/RGE 001 "Atmospheric pollution abattment in industrial and urbain zones" (1981/82).

"Contribution to a reference laboratory project for gaseous and particulate atmospheric pollutants" (1983)

"Volatile organic matter removal in a three-phase biological packed bubble column reactor" (1985/89).

Contribution to EU/ CECA Project Ref. 7261/03/504/15: "Experimental assessment of soil remediation technics in coke oven sites" (1993/5).

“Portuguese Industry of Environmental Equipments - Present situation and future oportunities”, (Survey under contract for the portuguese institution: AIMMS-GAPE)(1993-94).

"Pollution minimization in portuguese iron foundry industry", under contract to General Direction of Industry - Portuguese Ministry of Industry (1994/5).

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"Process and metabolic research of a tri-phase system to biologically degrade odours", under contract to JNICT (PT) Ref. PEAM/C/TAI/282/93 (1994/6).

“ECOMOSART - Ecotoxicological Monitoring of Industrially Polluted Soils and Assessment of the Respective Remediation Techniques”, under contract to EC ENV4 - CT96 - 0343, (1997-9)

“Technological Demonstration Project on Cleaner Production and Integrated Control on a Waste Water Treatment Plant”, under contract to Matutano SA (PepsiCo Foods Int.), and financed by Pedip II/ Med. 4.6 (1996-7).

“Technological Demonstration Project on Cleaner Production”, under contract to Hovione SA, and financed by Pedip II/ Med. 4.6 (1996-7).

-Co-Chairman do FACTORY Brockerage Event, Workshop “Environmentally friendly products and production processes including energy and chemical processes/ EUREKA, Berlin 16-17 Setembro (1996).

- FACTORY/EUREKA network Portuguese delegate (1996-97).

- Contracted research for the European Science & Technology Observatory (ESTO) (1997-98):

“Factor 4 Technologies: European State of the Art”, performed together with TNO-STB (coordinator), ADEME (F), VDI and ITAS (G), SPRU and CEST (UK);

“The Innovation Potential in Selected Recycling Sectors”, including the coordination of the working group, including TNO-STB (NL), CEST (UK), VITO (B) and ADEME (F).

- Deputy Platform Manager e Technology Broker no Projecto ETTN – European Technology Transfer Network (O.T. 98/S/134 OJ 15/07/1998 - ETTN), (início:1 March’99; conclusão: 23 June 2000).

- R&D within EU project “HiCS – Highly Customerised Solutions. Solution oriented, design, production and delivery systems” (EU/5FP “Growth”, Contract Nr. G1RD-CT-2001-00487); time frame: 36 months, started in April 2001.

- Project “IMATECH”. POCTI Med. 2.3/ Prog. Eureka. Partners: Iber-Ollef, TRW (Alemanha), TRW (Espanha), INETI, Centinfe, UMinho/ PIEP. Período de Execução: 2003-2004.

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- Rapporteur of a Workshop on “Drivers & Barriers” within the Regional Stakeholder Workshop “Environment as an economic opportunity” in the preparation of the EU Informal Environmental Council, Milan 17th May 2004.
- Project PreResi – Prevenção de Resíduos Industriais (<http://preresi.ineti.pt>). POE-Prime Prog/ Public-Private Partnerships (2005-2007).
- Project INATEC – Inovação, Agilidade e Tecnologia nos Moldes, POE-Prime (2006-2008).
- Network Cemicro. POSC (2006-2008)
- Green-IT (www.Green-IT.eu). EU-SAVE (2006-2008)

3.3 Published Work

Partidário, P.J.(1981), Sulphur dioxide and sulphuric acid determination in portuguese waste gas effluents by US.EPA Method 8 , 4^o Enc.Nac.Quimica , PI-6 (*in portuguese*) .

Partidário, P.J., M.T.Chambino & L.M.Coutinho (1984), Metrology of gaseous emissions in fixed sources, Física '84 - 4^a Conferência Nacional de Física : 611 (*in portuguese*) .

Partidário, P.J. (1984), Simulated emission of monodispersed Fe₂O₃ aerosols , 7^o Enc.Nac.Quimica, PB47 (*in portuguese*).

Partidário, P.J. (1985), Characterization systems for industrial gas emissions in Portugal , Rev. DGQ 31 , 9/10 (*in portuguese*).

Partidário, P.J., M.E.Simas Marques , M.L.Quinta & M.J.T.Carrondo (1986) , Biological removal of trimethylamine in odorous gases using an aerobic thermophilic process . Chem. Environ. , Proc. Int. Conf. S29-S36 (J.N.Lester,R.Perry & R.M.Sterritt , Eds) Selper Ltd London

Simas Marques, M.E., M.L.Quinta & P.J. Partidário (1986), Characteristics of a thermophilic bacterium isolated from a fish meal processing gas effluent, Proc.14th Intern.Congress on Microbiology - Thermal environments 14.

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Partidário, P.J., M.J. Martins & M.J.T. Carrondo (1987), Henry law coefficient determination for aqueous solutions of trimethylamine, Resumos do 10ºEnc.Nac.Quimica M 17:513 (*in portuguese*).

Partidário, P.J., M.J. Martins & M.J.T.Carrondo (1987), Overall mass transfer coefficient determination for trimethylamine in a liquid-gas transportation process, 10ºEnc.Nac.Quimica , M 16 : 511 (*in portuguese*).

Neves,J. & P.J.Partidário (1987), Study and application of a nitrous oxides determination method in gaseous effluents, 10ºEnc.Nac.Quimica , M 5 : 489 (*in portuguese*).

Partidário,P.J. & M.J.T. Carrondo (1987), Absorption and bioremoval of trimethylamine in an aerobic thermophilic bioreactor, Proc. Intern.Symp.on "Biological treatment of industrial waste gases" : Oral 3 ,Dechema/EFB , Frankfurt

Carrondo, M.J.T., P.J. Partidário & M.J. Martins (1987), Application of a packed bubble column to the bioremoval of organic waste gas pollutants , 8ºCongresso Nac. Bioquimica , S6-9:207 (*in portuguese*).

Partidário, P.J. (1987) , Environmental control and the use of biotechnology, 8º Congresso Nac. Bioquimica, S6:44 .

Partidário, P.J. & M.J.T. Carrondo (1988) , Process parameters influence in propionic aldehyde (g) bioremoval in a trickle bed three-phase reactor, 4º Congresso Nac. de Biotecnologia , EB-8 (*in portuguese*).

Partidário, P.J. , M.J.Martins & L.M.Coutinho (1989), Industrial gas emissions redution and control - Which possibilities of intervention , 1ªs Jornadas sobre Industria e Ambiente , LNETI (*in portuguese*).

Partidário, P.J. & M.J.T.Carrondo (1991), Waste gas treatment - Oxidation of trimethylamine (g) in a biochemical 3-phase process, Proc. Workshop on Industrial Wastes Treatment ,SPB/EFB - Working Party on Environmental Biotechnology , IST Lisboa.

Partidário, P.J. & M.J.T. Carrondo (1993), Mass Transfer and Reaction of Trimethylamine in a Three Phase Biological Reactor . J.Chem.Tech. Biotechnol. **57**, 299-307.

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Partidário, P.J. & Barros, J. S. (1994). Aerodynamic dimension, granulometric and chemical analysis of solid particles from real multiphase gaseous emissions, 4^a Conferência Nac. Qualidade do Ambiente, vol. 3, pg. 87 (*in portuguese*).

Roseiro, J.C., P. J. Partidário, N. Lobo, A. Rebelo & M.T. A. Collaço (1994). Trimethylamine kinetic utilization by *Aminobacter Aminovorans* in a chemostat, II Cong. Ibérico/ VII Cong. Soc. Port. Biotecnologia, EB - P47 (*in portuguese*).

Lobo, N. & P.J. Partidário (1994). Odours bioremoval, Jornadas sobre Eng^a Quimica: o Meio Ambiente e a Sociedade, IST (*in portuguese*).

Nogueira, A., Lança, A. & Partidário, P.J. (1994). Characterization of the contamination of soils and groundwater in the coke oven site of Siderurgia Nacional, Project Report CECA Ref. 7261/ 03/504/15.

Partidário, P.J. (1994). Pollution minimization in the portuguese iron foundries, Tecnoambiente **1**, 3:76-77 (*in portuguese*).

Partidário, P.J. (1995). The importance of technological innovation in the environmental equipment industry, Informetal - AIMMS/ Cenfim Magazine, n^o 7 (*in portuguese*).

Partidário, P.J. & Cruz, M. (1996). Mass and Energy Balances for Environmental Audits, Working Paper INETI/ITA 18/ 96 (*in portuguese*).

Peneda, M.C., J.Catarino, A. Nogueira, P. Barroca, R. Frazão & P.J. Partidário, (1996). Cleaner Production in Food Processing Industry. Case Study - 1st Phase, 5th National Conference on Environmental Quality, Borrego, C. et al (eds), vol. 2:1793-6, Aveiro, 10-12 Abril.

Nogueira, A., A.Lança, T.Vilhena, C.Simões & P.J.Partidário (1996). Characterization of PAH contaminated soils from coke oven sites, 5th National Conference on Environmental Quality, Borrego, C. et al (eds), vol. 1: 511-6, Aveiro, 10-12 Abril.

Partidário, P.J. & Peneda, M.C. (1996). Process Analysis and Waste Monitoring Towards System Integration, Proceed. Appl. Econometrics Assoc. 51th Internat. Confer. “Econometrics of Environment and Transdisciplinarity”, Baranzini,A. & Carlevaro,F. (eds), vol. 1: 459-69, Lisboa, April 10-12.

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Partidário, P.J. (1997). Environmentally sound technology development and innovation in SMEs, EU.JRC - IPTS Report nº 19, November: 32-37.

Partidário, P.J. (1997). The Enhancement of SMEs Ability to Innovate Through Cleaner Production, European Symp. on “Environmental Management of Technologies at Small and Medium Size Companies” - EUREMT ‘97, Lisboa 28 de Novembro.

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Partidário, P.J. (1998). The industrial company and its environmental performance, *Cerâmicas - Revista do Centro de Formação Profissional para a Industria Cerâmica (Cencal)*, vol X/XI, October: 91 - 98 (*in portuguese*).

Partidário, P.J. & Vergragt, Ph.J. (1998). Influencing the Shape of Sustainable Technology Development. The Paint Production Chain – The role of main players, Proc. 5th Roundtable on Cleaner Production – ERCP’98, Lisboa, Oct. 29-30. Obs. Available through the web site: <http://www.ineti.pt/ita/ercp98/ercp98.html>. No ISBN available.

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Catarino, J. ; Mendonça, E.; Picado, A.; Andrade, N.; Almeida, M.; Anselmo, A.; Partidário, P.; Nobre Costa, J. e Mata Torres, J.L. (1999). Valorização de Subprodutos numa Industria Agralimentar, In: Proc. 6th Nat. Conf. Environmental Quality, vol.1: 593-597, 20-22 Out., Lisboa. (*in portuguese*)

Picado, A.; Anselmo, A.M.; Hall, L.; Martins, A.; Mendonça, E.; Nogueira, A.; Rocha, A.; Rodrigues, M.F.; Sãágua, M.C.; Vilhena, M.T. e Partidário, P.J. (1999). Bioremediação de um Solo de Coqueria, In: Proc. 6th Nat. Conf. Environmental Quality, vol.1: 581-587, 20-22 Out., Lisboa. (*in portuguese*)

Partidário, P.J. & Vergragt, Ph.J. (1999). Moving Beyond Current Practices in the Coatings Chain - From process optimisation to design for environmental sustainability supported by network strategies, Proc. Conference on “Business Strategy and the Environment”, pg. 263-272, University of Leeds, UK, Sept. 16-17.

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Partidário, P.J. & Vergragt, Ph.J. (2000). Shaping Sustainable Technology Development in the Coatings Chain. Defining boundaries, environmental problems and main players, Journal of Cleaner Production **8**, 3: 201-214.

Partidário, P.J. & Vergragt, Ph.J. (2000). Development of Scenarios for Strategic Innovation concerning Environmental Sustainability as a Driver – A case study on a polymeric coating chain. In: 4th International Conference on EcoBalance “Methodologies for Decision Making in a Sustainable 21st Century”. Oct.31st-Nov.2nd, 2000 – Tsukuba, Japan, pp. 53-56 (Session B1-08).

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Partidário, P.J. (2001). Innovation Towards Environmental Sustainability in Industry, in: Madu C (ed) Handbook of Environmentally Conscious Manufacturing, Chapter 11: 229-264, Boston: Kluwer Academic Publ.

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Partidário PJ & Figueiredo JM (2003). Designing a Co-Evolutive Innovation Strategy for Integrated Systems, Proc. 1st Intern. Meeting of Science and Technology of Design – Senses and Sensibility in Technology, pg 211-217, 25-26 Sept. 2003, IADE, Lisboa.

Partidário PJ, Sacramento C & Cardoso C (2003). How May Sustainability be Integrated in a Socially Driven Value Chain? The case of Social Services in Lisbon Area, Proc. 1st Intern. Meeting of Science and Technology of Design – Senses and Sensibility in Technology, pg 103-109, 25-26 Sept. 2003, IADE, Lisboa.

Partidário PJ (2004). System Assessment, in: E.Manzini, L. Collina & S.Evans (eds) “Solution Oriented Partnership. How to design industrialised sustainable solutions”, pp. 150-159, Cranfield University, Oscar Press, March 2004 (ISBN 1861 94 1064).

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Partidário PJ (2004). Bridging the gap: From legal compliance to environment as a business opportunity, Presentation in the Brokerage Event “Moulds & Dies 2004”, Semana de Moldes, Marinha Grande, 13-14 Outubro 2004.

Partidário PJ (2004). Creating strategic directions for radical system innovation towards sustainable development in industry, Proceedings Conference “Integrated scenario analysis and decision support for the modern factory”, pp.171-187, 23-24 Setembro, Univ. Karlsruhe, Alemanha.

Partidário PJ & Sota L (2004). Como estimular produtos-serviços de forma integrada e elevada contextualização de consumo? 8ª Conferência Nacional de Ambiente, Lisboa 27-29 Outubro.

Sacramento C, Montez C, Cadete A & Partidário PJ (2004). Inovação tecnológica e organizacional para a melhoria de serviços alimentares: O caso dos SOFE em Lisboa, 8ª Conferência Nacional de Ambiente, Lisboa 27-29 Outubro.

Catarino J, Mendonça E, Picado A, Anselmo A, Costa JN & Partidário PJ (2006). Getting Value from Wastewater - Starch recovery in a potato chips industry, J. Cleaner Production 15, 10: 927-931.

Oliveira P, Sacramento C & Partidário P J (2006). “Redesigning the provision of Assistive Technologies: towards a more sustainable system”, in: Proceedings of WonderGround – The Design Research Society International Conference 2006, ed. Ken Friedman, Terence Love and Eduardo Côrte-Real, Lisbon, p.p. 266.

Partidário PJ, Lambert J & Evans S (2007). Building more sustainable solutions in production-consumption systems – The case of food for people with reduced access, J. Cleaner Production 15: 513-524.

Ribeiro C, Ferreira JV & Partidário PJ (2007). Lifecycle assessment of a multi-material car component, Int. J. LCA 12(5) 336-345.

Evans S, Partidário PJ, Lambert J (2007). Industrialisation as a key element of sustainable product-service solutions, Int. J. Production Research 45, 18-19, 15 Sept-1 Oct: 4225-4246.

Partidário P (2008). “Prevenção da produção de resíduos industriais. A estratégia de desperdício ‘zero’”, 2ª Conferência de Resíduos – Novas políticas, Novos negócios, Lisboa: 1-2 Abril.

Partidário P, Caldeira Coelho M & Figueiredo J (2008). “How to influence industrial processes efficiency towards sustainable production? An inter and intra-sector experience in Portugal”, in: Conference ‘Resource Efficiency’ – Poster Session, OECD, Paris: 23-25 April.

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workshop “Nanomaterials: Environmental Risks and Benefits and Emerging Consumer Products” – Poster session, Carvoeiro: 27-30 April.

Partidário P & Figueiredo J (2008). “Measuring material flows in industrial processes. A key step towards sustainable production”, in: Proc. Int. Conf. ‘Business Sustainability 2008’, Putnik G & Ávila P (Eds), Univ.Minho, 25-27 June.

Partidário P (2008). Avaliação do ciclo de vida de produtos, in: Pousada, Vieira, Bartolo Eds, Manual de Microfabricação, Fascículo E1- Ambiente, Higiene & Segurança, Edição Centimfe, Impressão Colorestudio, Artes Gráficas Lda , 1ª edição, Outubro 2008, Depósito Legal: 284111/08 (ISBN: 978-989-95964-3-6)

Oliveira P & Partidário P (2008). “Que oportunidade para inovação sustentável no Sistema Nacional de Atribuição de Ajudas Técnicas/ Tecnologias de Apoio?” Revista de Educação Especial e Reabilitação. Edições FMH-UTL 14, Lisboa, 2008, pp. 15-49.

Partidário P & Vieira T (2008). “Enquadramento necessário à prevenção da nanopoluição”, Seminário Internacional “Cemicro day 2008 – Jornadas Tecnológicas”, OPEN Marinha Grande: 26 Jun.

Partidário P & Gonçalves H. (2008). Green initiative for energy efficient eco-products in the construction industry, Seminário “Os Edifícios Bioclimáticos, a integração das Energias Renováveis e os Sistemas Energéticos, Cytel – Rede IberoAmericana 4D5RT0271, Lisboa: 6 Outubro de 2008.

Partidário P, Santos I & Gonçalves H (2008). How lifecycle stages may affect the environmental impacts of residential buildings? An LCA perspective, Proc. *Congress of Innovation on Sustainable Construction - CINCOS '08, Curia, 23-25 Outubro*.

Picado A, Mendonça E, Partidário P & Barrulas J (2008). Nano(Eco)Toxicology – Giving the Matter Some Thought, In: *Ecotoxicology Research Developments*, Editor: Eduardo B. Santos, Nova Science Publishers, Inc (ISBN 978-1-60692-167-8) in press.

Partidário P & Gonçalves H (2008). E2 Pilot – Base de dados Europeia em construção, Seminário Green- IT sobre “Certificação Energética e Ambiental para uma construção sustentável”, Lisboa: 20 Nov. de 2008.

Gonçalves H & Partidário P (2008). The Green-IT Scheme: How to get involved? Conference “Product Choice Criteria for Energy Efficient Buildings”, Paris: 9 Dez 2008.

Partidário P (2009). Prevenção de Resíduos Urbanos. Desenvolvimento do programa nacional, 3º Forum Nacional de Resíduos – Conferência de Resíduos, Lisboa: 22 de Abril de 2009.

Correia A & Partidário P (2009). Metodologia e aplicação da estratégia de ‘desperdício zero’ para a ecoeficiência das empresa: lições do projecto PreResi, 3º Forum Nacional de Resíduos – Conferência da Industria, Lisboa: 23 de Abril de 2009.

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Partidário P (2009). Inovação mais sustentável: Contributo dos materiais para a eficiência energética – Uma perspectiva de ciclo de vida, Palestra no IST – Dept. Eng. Civil no âmbito da cadeira de “Avaliação Estratégica e Sustentabilidade”, Lisboa: 28 de Abril de 2009.