

# Vincent MARTINET (Ph.D.) - Curriculum Vitæ

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**Position:** Researcher in Environmental and Resource Economics at  
INRA (French National Institute for Agricultural Research)

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<http://ideas.repec.org/f/pma495.html>

**Personal:** Date of Birth: December 22, 1979.  
French Citizenship; Married ; Two children.  
Spoken languages: Français, English.

## Fields of Specialization:

Sustainable Development  
Environmental and Resources Economics  
Ecological Economics  
Applied Mathematics and modeling

## Research Interests:

My research focuses on the sustainable development issue in Environmental and Resource Economics. My theoretical work aims at giving an interpretation to the sustainability concept, with the use of mathematical tools such as invariance and viability. I develop a multicriteria approach to address sustainability issues from both economic and ecological viewpoints, in an integrated ecological-economics approach. In the continuation of this theoretical work, I consider the sustainability of dynamic systems involving natural resources (e.g., fisheries). Ongoing work at INRA addresses the issue of defining sustainable multifunctional agricultural landscapes, coping with the conflicting objectives of food security, ecosystem services provision, and the preservation of biodiversity and the environment. This issue is addressed considering the competition on land-use and the impacts of land-use change.

## Permanent Positions

- 2016–... Research Director - INRA  
2011–2015 Experienced Research Scientist - INRA  
2007–2011 Junior Research Scientist - INRA  
2005–2007 Research fellow at the Marine Economics Department of IFREMER (French Research Institute for Exploration of the Sea), Brest, France  
2002–2005 PhD student. Thema - University of Paris 10

## Affiliated Positions

- 2005–... EconomiX, University of Paris Ouest Nanterre La défense. Associate member  
2012–... CESifo. Affiliate member  
2007–2016 AMURE, UMR UBO-Ifremer. Associate member

## Visiting Positions

- 2010 Visiting position – 8 months – GERAD (HEC) – Montreal, Canada

- Short visits**  
(invited)
- CIREQ (McGill), Montreal, Canada (June 2005, May 2008, January 2013, January 2014, April 2015, November-December 2015, December 2016)
  - Bren School of Environmental Science and Management – University of California, Santa Barbara, United States (November 2011)
  - CESifo, Munich, Germany (August 2012)

## Education

- 2012 H.D.R. in Economics (Habilitation to Supervise Research)  
Committee: Prs. Gilles Rotillon, Alain Ayong Le Kama, Dominique Bureau, Christopher Costello, Charles Figuières, Katheline Schubert, Cees Withagen.  
2005 Ph.D. in Economics, University of Paris 10 – Nanterre  
Supervisor: Pr. Gilles Rotillon. Committee: Prs. Alain Ayong Le Kama, Nguyen Manh Hung, Michel Moreaux, Katheline Schubert.  
2002 Master degree in Environmental and Natural Resources Economics  
ParisTech (Paris Institute of Technology)  
2001 Master degree in Agronomics – Engineer degree  
French National Institute of Agronomics Paris-Grignon (AgroParisTech)

## Honors and personal grants

- 2002-2005 CNRS doctoral fellowship (BDI funding grants)  
2006 Thesis award “Louis Forest” (best 2005 Ph.D. thesis in Economics) from the Chancellerie des Universités de Paris.  
2008 OECD Prize for Best Policy Paper at IIFET 2008. Honorable mention.  
2011-2018 *Prime d'Excellence Scientifique*.

2012 “Young Talent” of the French-Dutch university network. Topic of the 2012 meeting: World food shortage.

## Publications

### Articles in peer-reviewed journals

#### Economic Theory: Sustainability

- Sust1. ‘Sustainability of an economy with an exhaustible resource: a viable control approach’ (with L. Doyen), 2007, *Resource and Energy Economics* **29(1)**, p.17-39.
- Sust2. ‘Invariance in Growth Theory and Sustainable Development’ (with G. Rotillon), 2007, *Journal of Economic Dynamics and Control* **31(8)**, p.2827-2846.
- Sust3. ‘A step beside the maximin path: Can we sustain the economy by following Hartwick’s investment rule?’, 2007, *Ecological Economics* **64**, p.103-108.
- Sust4. ‘Lois de conservation économiques et développement durable’ (with G. Rotillon and F. Costes), 2008, *Annales d’Economie et de Statistique* **90**, p.103-125.
- Sust5. ‘A characterization of sustainability with indicators’, 2011, *Journal of Environmental Economics and Management* **61**, p.183-197.
- Sust6. ‘Maximin, Viability and Sustainability’ (with L. Doyen), 2012, *Journal of Economic Dynamics and Control* **36(9)**, p.1414-1430.
- Sust7. ‘An environmental-economic measure of sustainable development’ (with R. Cairns), 2014, *European Economic Review* **69**, p.4-17.
- Sust8. ‘Satisficing versus Optimality: Criteria for Sustainability’ (with M. de Lara and L. Doyen), 2015, *Bulletin of Mathematical Biology* **77(2)**, p.281-297.
- Sust9. ‘Combining rights and welfarism: a new approach to intertemporal evaluation of social alternatives’ (with Ngo Van Long), 2018, *Social Choice and Welfare* **50**, p.35-64.

#### Ecological Economics: Fisheries

- Fish1. ‘Defining viable recovery paths toward sustainable fisheries’ (with O. Thébaud and L. Doyen), 2007, *Ecological Economics* **64**, p.411-422.
- Fish2. ‘Multi-criteria dynamic decision under uncertainty: a stochastic viability analysis and an application to sustainable fishery management’ (with M. de Lara), 2009, *Mathematical Biosciences* **217**, p.118-124.
- Fish3. ‘Fishery externalities and biodiversity: Trade-offs between the viability of shrimp trawling and the conservation of Frigatebirds in French Guiana’ (with F. Blanchard), 2009, *Ecological Economics* **68**, p.2960-2968.
- Fish4. ‘Hare or Tortoise? Trade-offs in recovering sustainable bioeconomic systems’ (with O. Thébaud and A. Rapaport), 2010, *Environmental Modeling and Assessment* **15(6)**, p.503-517.
- Fish5. ‘A stochastic viability approach to ecosystem-based fisheries management’ (with L. Doyen, O. Thébaud, C. Béné, S. Gourguet, M. Bertignac, S. Fifas and F. Blanchard), 2012, *Ecological Economics* **75**, p.32-42.

- Fish6. ‘Viability of transboundary fisheries and international quota sharing: the case of the Bay of Biscay Anchovy’ (with R. Curtin), 2013, *Canadian Journal of Agricultural Economics* **61**, p.259-282.
- Fish7. ‘Risk and Sustainability: Assessing Fishery Management Strategies’ (with J. Peña-Torres, M. De Lara and H. Ramirez C.), 2016, *Environmental and Resource Economics* **64**, p.683-707.

### **Agricultural and ecological economics: Land use**

- Ag1. ‘Biological conservation in dynamic agricultural landscapes: effectiveness of public policies and trade-offs with agricultural production’ (with F. Barraquand), 2011, *Ecological Economics* **70**, p.910-920.
- Ag2. ‘Effect of soil heterogeneity on the welfare economics of biofuel policies’, 2013, *Land Use Policy* **32**, p.218-229.

### **Other publications: Surveys and Position papers**

- Oth1. ‘Interactions between agricultural economics and environmental and resource economics in European research: Insights from the theory of non-renewable resources’ (with P. Bontems, G. Rotillon and C. Withagen), 2015, *Review of Agricultural and Environmental Studies* **96(1)**, p.167-185.
- Oth2. ‘Networking Our Way to Better Ecosystem Service Provision’ (with D. Bohan and the Quintessence consortium), 2016, *Trends in Ecology & Evolution* **31(2)**, p.105-115.

### **Book**

- B1. *Economic Theory and Sustainable Development: What can we preserve for future generations?*, Routledge, Oxon (United-Kingdom), April 2012. (ISBN-10: 0415544777)

### **Book Chapters**

- C1. ‘The viability framework: A new way to address the sustainability issue’, 2008, in *Progress in Sustainable Development Research*, R. Lopez (Ed.), Chapter 5, pp.143-167, Nova Science Publishers.
- C2. ‘Invariance in Economic Dynamics and the Sustainable Development Issue’ (with G. Rotillon), 2009, in *Economic Dynamics: Theory, Games and Empirical Studies*, Chester W. Hurlington (Ed.), Chapter 5, pp.99-120, Nova Science Publishers.

### **Theses**

- T1. Master Thesis: “Etude sur le concept de développement durable en économie,” with Ferdinand Costes (2002), Institut National Agronomique Paris Grignon (INA-PG).

- T2. Ph.D. Thesis: “Interpretation of the sustainable development concept in economic models with natural resources” (2005) University of Paris 10 – Nanterre.
- T3. H.D.R. Thesis: “Supporting multi-attribute decision-making for sustainability: an ecological economic modeling approach” (2012) University Paris Ouest Nanterre La défense.

## Other Publications (vulgarization of scientific results)

- V1. ‘La “viabilité”, une approche du développement durable visant à éviter les crises dans le long terme : l’exemple des pêcheries’, 2010, *INRA Sciences Sociales* N°1/2010 - Mai (in French and English).
- V2. ‘Définir les objectifs d’un développement durable, un exercice difficile’, 2011, *INRA Sciences Sociales* N°2-3/2011 - Décembre (in French and English).
- V3. ‘Modélisation, scénarisation et aide à la décision’ (with L. Ragot, K. Benzada, M.-P. Camproux-Duffrene, A. Langlais, F. Lecocq, S. Maljean-Dubois, H. Morlon, F. Salanié, K. Schubert), 2014, in *Prospective “droit, économie & écologie de la biodiversité”*, p.49-59. Les Cahiers Prospectives du CNRS.
- V4. ‘Pourquoi associer des valeurs économiques aux services retirés de la nature ?’ (with J.-M. Salles), 2016, *Economie et Management* n°161 - October.

## Most advanced work in progress

- ‘Sustainability of an economy relying on two reproducible assets’ (with R. Cairns and S. Del Campo)
- ‘Bargaining with Intertemporal Maximin Payoffs’ (with P. Gajardo and M. De Lara).
- ‘Farmers’ motivations to reduce their use of pesticides: a choice experiment analysis in France’ (with M. David and B. Chèze).
- ‘Defining cost-effective ways to improve ecosystem services provision in agroecosystems’ (with B. Langlois)
- ‘Action de restauration d’écosystèmes et fourniture de Services Ecosystémiques par des agriculteurs : enjeux et défis’ (with R. Choukroun)
- ‘Contextual substitutability and the nature of environmental public goods’ (with M. Dupoux)
- ‘Pesticide use reductions at landscape level: efficient allocation of land uses’ (with M. Pérez-Urdiales)
- ‘The economics of the Food versus Biodiversity debate’

## Invited seminars

- 2006 Toulouse School of Economics (LERNA)
- 2007 University Paris 1 Panthéon-Sorbonne (EUREQua)
- 2008 HEC Montreal (GERAD)
- 2009 UC Davis (AgEcon); UC Berkeley (AgEcon) ; HEC Montreal (GERAD)
- 2010 ETH Zurich (CER)
- 2011 Toulouse School of Economics (LERNA) ; HEC Montreal (GERAD) ; University of Bordeaux ; University of Oslo ; UC Santa Barbara (Bren School)

2012	University of Geneva (Job market seminar) ; University of Montpellier – INRA (Lameta) ; VU Amsterdam (Spatial Economics seminar) ; Ecole Polytechnique (Palaiseau)
2013	CIRAIG (Montreal) ; Paris Environmental and Energy Economics Seminar; Chaire Economie du Climat (Paris) ; CES-Ifo (Munich)
2014	Workshop in Sustainability Economics (Leuphana University of Lüneburg, University of Kiel and University of Regensburg)
2015	Monash (Prato Campus, Italy) ; Alliance Summer School in Science and Policy (Columbia University, Paris campus) ; ETH Zurich (CER).
2017	LAMETA (Montpellier) ; Queen’s University (Kingston, Ontario) “Investing Resource Rents: A look at resource economics after 40 years of Hartwick’s Rule”
2018	SMART-LERECO (Rennes)

## Presentations (Conferences and Workshops)

WCERE	World Congress of Environmental and Resource Economists. 2006 (Kyoto, Japan), 2010 (Montreal, Canada), 2018 (Gothenburg, Sweden).
EAERE	Congress of the European Association of Environmental and Resource Economists. 2008 (Gothenburg, Sweden), 2009 (Amsterdam, Netherlands), 2011 (Rome, Italy), 2012 (Prague, Czech Republic), 2013 (Toulouse, France), 2016 (Zurich).
SURED	‘Sustainable Resource Use and Economic Dynamics’ (Ascona, Switzerland). 2004, 2008, 2010, 2012, 2016 (Banyuls edition), 2018.
CIREQ	Natural Resources and Environmental Economics Workshop (Montreal, Canada). 2005, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016.
BIOECON	BIODiversity and Economics for CONservation, annual conference. 2006 (Cambridge, England), 2009 (Venice, Italy), 2012 (Cambridge).
CREE	Canadian Resource and Environmental Economics Study Group. 2008 (Toronto), 2009 (Edmonton).
IIFET	World Meeting of the International Institute for Fisheries Economics and Trade. 2006 (Portsmouth, England), 2008 (Nha Trang, Vietnam).
AFSE	French Economic Association. Annual Thematic Meeting “Frontiers in Environmental Economics and Natural Resources Management” 2008 (Toulouse, France), Annual Congress 2012 (Paris).

Conferences I enjoyed once: APPOPT (2008, San Andres - Colombia), Diversitas (2009, Cape Town - South Africa), EAAE (2014, Ljubljana - Slovenia), ESEM (2012, Malaga - Spain), META (2007, Kourou - French Guiana), MODSIM (2007, Christchurch - New Zealand), PSI (2009, Tahiti - French Polynesia), SFER (2013, Angers), SSES (2005, Zurich - Switzerland).

## Teaching

Since 2008, I teach an Advanced Resource Economics class in the Paris-Saclay Master in Environmental Economics (<http://www.master-eddee.fr/>).

Occasional teaching at AgroParisTech and Paris Nanterre University.

Past teaching at University of Corsica, INSEEC (Business school), University of Evry Val d'Essonne, Montpellier Sup'Agro, AgroCampus Ouest.

Short course *Sustainable management of natural resources: A viability perspective*, graduate students at the Bren School of Environmental Science and Management (Instructor of record: Steve Gaines), University of California, Santa Barbara. November 2011 (in English).

## Supervision

### Post-doc

2015–2016 María Pérez-Urdiales (BASC Post-doc). Current position: Research Fellow at University of California, Riverside

### PhD Students

2014–... Supervisor of Barbara Langlois (INRA) with Muriel Tichit

2014–... Supervisor of Stello Del Campo (Université Paris Nanterre) with Alain Ayong Le Kama

2012–2017 Supervisor of Marion Dupoux (IFPEN) with Alain Ayong Le Kama. Current position: Postdoctoral Research Fellow at the University of Gothenburg (Sweden) - School of Business, Economics and Law

### PhD Committees

2016 Antoine Brias, Ph.D. defense committee member - [Rapporteur] (Irstea)

2015–... Rémi Prudhomme, Ph.D. committee member (CIRED)

2014 Thomas Coisson, Ph.D. defense committee member (Agrocampus Ouest)

2013–2017 Manuel Bellanger, Ph.D. thesis committee member (Ifremer)

2012–2016 Michel Duhalde, Ph.D. thesis committee member (Ifremer)

2011–2014 Esther Regnier, Ph.D. thesis committee member and defense committee member (Paris School of Economics)

2010–2014 Pierre Scemama, Ph.D. thesis committee member (Ifremer)

### Master students

Since 2006 Frequent supervision of Master students

## Other Professional Activities

Since 2015 Elected member of the Scientific Council of INRA.

Since 2012 **Country representative** at the European Association of Environmental and Resource Economists (EAERE)

Since 2013 Founding member of the French Association of Environmental and Resource Economists (FAERE), elected member of the board, in charge of the coordination with the EAERE ; member of the Editorial Board.

2009–2017 Nominated member of the CNECA (Commission nationale des enseignants-chercheurs relevant du ministre chargé de l'agriculture) - Section 9 (Sciences économiques, sociales et humaines).

- 2012 – 2017 Member of the Steering Committee of the GESSOL program.
- 2011 – 2016 Elected member of the Scientific Council of the Social Sciences Division (SAE2) at INRA.
- 2015 Member of the Assistant Professor (Maîtres de Conférences) hiring committee at University Paris 1 Panthéon–Sorbonne.
- Conferences **Programme Committee member** of EAERE 2009 (Amsterdam), WCERE 2010 (Montreal), EAERE 2011 (Rome), EAERE 2012 (Prague), AFSE 2012 (Paris), EAERE 2013 (Toulouse), WCERE 2014 (Istanbul), EAAE 2014 (Ljubljana), ESEE 2015 (Leeds), EAERE 2016 (Zürich), EAERE 2017 (Athens), WCERE 2018 (Gothenburg).
- Journals **Reviewer – Economics and Management science** for – **A** – *American Journal of Agricultural Economics*; *African Journal of Marketing Management* – **C** – *Computational Management Science* – **E** – *Environmental and Development Economics*; *Environmental and Resource Economics*; *European Economic Review* – **I** – *International Economics* – **J** – *Journal of the Association of Environmental and Resource Economists*; *Journal of Economic Dynamics and Control*; *Journal of Environmental Economics and Management* – **I** – *Macroeconomic Dynamics* – **R** – *Resource and Energy Economics* – **S** – *Scandinavian Journal of Economics* – **T** – *Theoretical Economics Letters*.  
**Reviewer – Ecological Economics and Environmental sciences** for – **B** – *Biological Conservation*; *Biomass and Bioenergy* – **E** – *Ecological Complexity*; *Ecological Economics*; *Ecological Modelling*; *Environment, Development and Sustainability*; *Environmental Modeling and Assessment* – **I** – *IMA Journal of Applied Mathematics*; *International Journal of Global Environmental Issues* – **J** – *Journal of Applied Ecology*; *Journal of Environmental Management* – **N** – *Natural Resource Modeling*; *Nonlinear Analysis: Real World Applications* – **R** – *Review of Agricultural and Environmental Studies*; *Resource Policy* – **S** – *Sustainability*.
- Institutions External scientific expert for the Research Council of the ‘Académie universitaire Louvain’ (AuL) and the US-Israel Binational Agricultural Research and Development (BARD) Fund.

## Memberships

- EAERE:** European Association of Environmental and Resource Economists (since 2008).
- FAERE:** French Association of Environmental and Resource Economists (since 2013).
- AFSE:** French Economics Association. From 2011 to 2013.
- EAAE:** European Association of Agricultural Economists. From 2011 to 2016.
- Econometric Society:** 2004, and since 2012.

# Grants and Research Programs

## Project funding and research coordination

- 2016-2019 API-SMAL – Agroecology and Policy Instruments for Sustainable Multifunctional Agricultural Landscapes. Research project funded by the LabEx BASC (Biodiversité, Agrécosystèmes, Société, Climat). *Coordinator* - 23 researchers from 7 research units, as well as 2 non-academic partners involved - 280 kEuro.
- 2016-2017 ADOSE-CAPP – Articuler Offre et Demande de Services Ecosystémiques pour leur Cartographie et l'Analyse de Politiques Publiques. Exploratory project granted by INRA's metaprogram on Ecosystem Services (ECOSERV). *Coordinator* - 18 researchers from 10 research units involved - 20 kEuro.
- 2013-2017 PEERLESS – Predictive Ecological Engineering for Landscape Ecosystem Services and Sustainability. Granted by the French National Agency for scientific Research (Agrobiosphere program) - 807 kEuro. *Coordinator* of the Economics task - 5 researchers involved - 60 kEuro.
- 2010-2011 INRA project 3BCar - Coupling Life Cycle Analysis and Cost Benefit Analysis approaches for the assessment of biofuel production projects at the regional level. *Coordinator* - 4 teams - One employee (research engineer) - 33.4 kEuro.
- 2005-2008 ACI Economic Modeling of Sustainable Development (Economic Interpretation of Sustainable Development, Invariance and Environmental Preferences), granted by the French Ministry of Research. *Coordinator* - 5 teams - 31 kEuro.

## Participation in research programs

- 2008-2011 FP7 Programme AgFoodTrade (New Issues in Agricultural Food and Bioenergy Trade), a project supported by the EU Commission, Grant 212036, 2008.
- 2006-2009 MIFIMA (Mathematics and Informatics for Fisheries Management) - International research program (France, Chile, Peru).
- 2007-2011 ANR Biodiversity BiodivAgriM (Biodiversity conservation in Agro-ecosystem: landscape modelling), granted by the French National Agency for scientific Research.
- 2005-2008 ANR Biodiversity CHALOUPE (Global Change, Dynamics of Exploited Marine Biodiversity, and Fisheries Viability), granted by the French National Agency for scientific Research.
- 2002-2006 ACI Quantitative Ecology MOOREA (Models and Optimization Tools for Research in Applied Ecology), granted by the French Ministry of Research.