

Personalia

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Working; Visa Status Permanent Resident – Australia
Citizenships Mauritian and Belgium

Summary

A scientific and business professional, with fifteen years of experience in research and business development. I have a solid background in **research and development** in biological science and aquaculture, and as a consultant offering my technical services and business development capabilities to the aquaculture industry. I am highly proficient in identifying and capitalizing on new technologies and new market opportunities. I have a complementary training in technical cooperation issues for LDCs (least developed countries) and direct experience working on sea cucumber aquaculture projects in Madagascar and in Malaysia. I am client focused and highly skilled at nurturing key relationships with client to create win-win scenarios. I have superior communication skills and am fluent in English and French.

Key strengths

- A self motivated and highly experienced research professional with a PhD.
- More than 10 years' experience in leading and managing R&D teams in recognised academic and research institutions (Belgium, Madagascar, Australia and Malaysia).
- Proven track records in aquaculture technologies research and development.
- Capacity building within community-based projects.
- Highly developed research and analytical skills.
- Lead and co-author of many peer-reviewed papers.
- Good communication skills and team building capacity.

Career history

Jan 2015 – Present

Asia Aquaculture
Development Company
Key responsibilities

Research & Development Consultant

Asia Aquaculture Development Company (AADCo) is involved in the commercialisation and pilot to commercial scale production of new marketable species using innovative technologies.

- Lead the sea cucumber aquaculture program in Australia and Malaysia
- Manage production and staff training
- Promoting our technologies and products to the Asian market.
- Liaise with the local fisheries department

July 2013 – December 2014

Asia Aquaculture
Development Company
Key responsibilities

Senior Consultant

Asia Aquaculture Development Company (AADCo) is involved in the commercialisation and pilot to commercial scale production of new marketable species using innovative technologies.

- Liaising with Malaysian and Filipino government to access local aquaculture infrastructure for lease.
- Selling our innovative technologies to Malaysia and Philippines.
- Promoting our technologies and products to the Asian market.
- Establishing a trading network and sales strategies for our products.
- Securing at least \$550 K by private investors to develop aquaculture businesses in Malaysia and Philippines.
- Secure access to a fully equipped hatchery facility from the Malaysian government.

Key achievements

July 2010 – July 2016
BioSys Consulting Pty Ltd

Key responsibilities

Director

BioSys Consulting Pty Ltd (www.biosysconsulting.com.au) is an aquaculture consulting and business development company based in Sydney. It delivers services to develop sustainable aquaculture businesses and designs innovative technologies to increase profitability.

Project management level:

- Identification of potential tenders and preparation of competitive proposals for bidding.
- Intelligence gathering on customers and competitors.
- Liaising with clients to understand and meet their expectations.
- Oversee all the different steps for the on time delivery of project milestones.
- Liaising with local government and clients for the development of sustainable aquaculture business.
- Developing strategic planning for the future of the company.

Business development level:

- Leading the research and development (R&D) branch of the company.
- Identifying new technologies to increase productivity in aquaculture business.
- Commercialisation of new technologies.
- Capital raising and intellectual property development.
- Secured a major R&D contract with a pharmaceutical company to test the efficiency of a natural product on optimisation of prawn aquaculture productivity. This project benefited from the R&D tax incentives.
- Secured major consulting contracts from NGOs, private and government institutions.

Key achievements

July 2009 – June 2010
Revolution #1 Pty Ltd

Key responsibilities

Senior Consultant – Aquaculture Business Development

Revolution #1 Pty Ltd is a privately owned commercialisation consulting company. It delivers services to early stage companies and scientist-entrepreneurs to develop strategies and fundraising to successfully commercialise their research and discoveries.

Business development level:

- Bringing new technologies to commercialisation through intellectual property rights.
- Deliver business cases and business presentations.
- Developing R&D strategies eligible for Tax incentive.

Project management level:

- Identification of potential tenders and preparation of competitive proposals for bidding.
- Liaising with clients to understand and meet their expectations.
- Managing data analysis and report writing. Oversee all the different steps for the on time delivery of project milestones.
- Liaising with local government and clients for the development of sustainable aquaculture business.

Technical level:

- Designing and implementing new technologies for the optimisation of complete and partial recirculating systems for aquaculture.
- Development of innovative aquatic systems for research.
- Data compilation and analysis.

Key achievements

Secured major contracts with both national and international clients in aquaculture business development.

June 2007 – July 2009
AusUni Pty Ltd

Principal Scientist

AusUni Pty Ltd is a start-up company from Macquarie University (Sydney, Australia), developed for the commercialisation of sea-urchin roe. Major funder: AusIndustry

Key responsibilities	<p><i>Scientific project management level:</i></p> <ul style="list-style-type: none"> • Managing research team involved in the development of state of the art technologies for land-based sea urchin aquaculture. • Managing research and development from proof of concept to pilot stage. • Managing production for market trials. • Designing new technologies for optimisation of complete and partial recirculation systems for sea urchin aquaculture. • Compilation and data analysis. • Providing yearly reports to funding organisations (AusIndustry). <p><i>Business development level:</i></p> <ul style="list-style-type: none"> • Bringing the new technologies to commercialisation through intellectual property rights. • Setting up aquaculture investment proposals from pilot to commercial scale. • Participating in strategic works related to fund raising for business development. • Participating in business plan and business model development. • Developing short and long terms business objectives. • Identifying, developing and exploiting new market opportunities for the company product and by-products.
Key achievements	<ul style="list-style-type: none"> • Secured approximately \$100K from private investors for market trials. • Developed two patents, one is filed in Australia and the second one is pending. • Developed marketing strategies in Japan in collaboration with Oceanus Consulting. • Product presentation to the Directors of Tsukiji market, Tokyo and Mitsui & Co, Australia. • Developed a cost production modelling in collaboration with GHD, Coffs Harbour.
<p>Sept. 2005 – June 2007 Institution Key responsibilities</p>	<p>Senior Research Fellow Macquarie University, Sydney, Australia</p> <ul style="list-style-type: none"> • Managing scientific staff for the development of a sea urchin aquaculture programme at Macquarie University. • Setting up sea urchin aquaculture investment proposals- from pilot to commercial scale. • Leading research on the biology and ecology of the edible echinoid <i>Tripneustes gratilla</i>, in view of an aquaculture. • Leading field and laboratory based experiments on sea urchin ecology and biology. • Identifying and implementing new technologies for commercialisation through intellectual property development. • Supervising B.Sc. and M. Sc. students in the field of aquaculture and marine biology. • Participating in field works for the abundance and diversity of key marine species in Sydney harbour. • Compilation and data analysis. • Providing yearly reports to corporate funding partners and university.
Key achievements	<ul style="list-style-type: none"> • Successfully developed a business case to Macquarie University business incubator for commercialisation assistance. • Secured approximately \$800K from private investors and government grants (AusIndustry) to develop the early stage of a start-up company.
<p>March 2005 – Sept. 2005 Institution</p>	<p>Research Collaborator in Marine Biology Laboratory Université Libre de Bruxelles, Brussels, Belgium.</p>
<p>March 2004 – Feb. 2005 Institution - Project</p>	<p>Postdoctoral Fellow – Numerical Ecology of Aquatic Systems Université de Mons-Hainaut, Mons-Hainaut, Belgium – FNRS funded project</p>
<p>Sept. 1999 – April 2004.</p>	<p>Research fellow – Marine Biology Laboratory</p>

Institution - Project	Université Libre de Bruxelles, Brussels, Belgium and Institut Halieutique et des Sciences Marines, Toliara, Madagascar - BelgiumAid funded project
1996 - 1999 Institution - Project	Research Fellow - Marine Biology Laboratory Université Libre de Bruxelles, Brussels, Belgium – European Commission funded project

Major consultancy contracts

October 2014 – May 2015	University of Tasmania – Design of water intake and wastewater treatment systems for a salmon research facility BioSys was engaged to design the seawater intake and treatment system and wastewater treatment and biosolids recycling systems for a \$15 million research facility
February 2014 – April 2015	Macquarie University – Design of Seawater Research Facility BioSys is the lead consultant in the design of the new marine research facility in the North Ryde campus.
February 2012 – Dec 2014	Phytext Pty Ltd – Pharmaceutical company Quality control technician: performing quality control tests on chemical substances produced by the company.
November 2011 – April 2014	Phytext Pty Ltd – Pharmaceutical company R&D: testing a new pharmaceutical product on the optimisation of production in crustacean aquaculture.
Dec. 2010 – Dec 2012	Sydney Institute of Marine Science Technical design: Provisioning of recirculating seawater systems for a physical containment level 2 (PC2) facility and constant temperature rooms.
Dec. 2010 – March 2011	Department of Employment, Economic Development and Innovation – Queensland Government Technical design: Provisioning of four independent recirculating aquaculture systems for finfish broodstock maintenance under temperature controlled conditions.
August – November 2010; March – August 2011	Blue Planet Marine Project management and team leadership: Marine Fauna Monitoring during the Hay Point Expansion project, BMA coal loading site, Hay Point, QLD.
May 2010 – July 2010	Graphite Architects / University of Sydney Technical design: Concept design of a recirculating seawater facility on the University of Sydney campus.
February 2010 – May 2010	Private entrepreneur - Mr Paul Pace, Landilo, NSW, Australia Aquaculture business development: Design of an integrated system for murray cod aquaculture using aquaponic technologies.
February - March 2010	APC International, Boroko, Papua New Guinea Aquaculture business development: Design for a sea cucumber aquaculture farm in PNG.
October 2009 – January 2010	Sydney Institute of Marine Science Technical design: Optimising water usage in existing seawater facility using partial recirculation systems.
Sept. 2009 – January 2010	Halios Pty Ltd, Noumea, New Caledonia Aquaculture business development: Development of a prefeasibility study for a pilot scale sea cucumber aquaculture farm.

Education

2004	Université Libre de Bruxelles, Belgium PhD in Science (Marine Biology, Aquaculture)
2001	Université Libre de Bruxelles, Belgium

1996 Master in Science (majoring Marine Biology)
Université Libre de Bruxelles, Belgium
Bachelor of Science (Honours)

Training

January 2005 **Belgian Development Agency – Belgium State Government**
Training in technical cooperation for least developed countries

August 1995 **Université Pierre et Marie Curie, Paris VI, France** - Observatoire Océanologique de Roscoff
Certificate in Zoology and Marine Ecology - Biodiversity in megatidal seas

Successful grant

2006- Williamson JE, Vaïtilingon D and Access MQ. Sea urchin aquaculture project. \$882 K AusIndustry Start-up grant.

Patent

Vaïtilingon D, Williamson JE (2007) Production of sea urchin roe. (PCT/AU2007/001972)

Language

(from 1 to 5; 5 = excellent)
Creole Mother tongue
English Read (5), Speaking (5), Writing (5) – Scale 1 to 5, 5 being Fluent
French Read (5), Speaking (5), Writing (5)

Additional skills

Biostatistics Probabilities, descriptive statistics, parametric and non-parametric tests, ANOVA, regression, multivariate analysis, spatio-temporal analysis, circular statistics.
Modelling Population dynamics and growth.
Computer science Programming language: R (basic level)
Data analysis softwares: R, Systat, Statistica, MIX, CA.MAN, SPSS, Primer
Miscellaneous: Vectorworks, Photoshop, 2D and 3D CAD

Scientific Publications

in peer reviewed journals

- 1998 Grosjean Ph., Spirlet Ch., Gosselin P., **Vaïtilingon D.** & Jangoux M. Land-based closed cycle echiniculture of *Paracentrotus lividus* Lamarck (Echinoidea: Echinodermata): a long-term experiment at a pilot scale. *J. Shellfish Research*, Vol. 17, No.5, 1523-1531.
- 1999 **Vaïtilingon D.**, Gosselin P. & Jangoux M. Influence of delayed metamorphosis and food intake on the fate of competent larvae of the echinoid *Paracentrotus lividus* (Lamarck, 1816) (Echinodermata). In: Candia Carnevali and Bonasoro (eds). *Echinoderm Research*, Milano, Balkema, Rotterdam, p 231. (Abstract).
- 1999 Deheyn D., **Vaïtilingon D.**, De Bremaeker N., Mallefet J. & Thorndyke M.C. Immunolocalization of SALMFamide neuropeptides S1 and S2 in *Amphipholis squamata* (Ophiuroidea, Echinodermata). In: Candia Carnevali and Bonasoro (eds). *Echinoderm research*, Milano, Balkema, Rotterdam, p 7. (Abstract).
- 2001 Jangoux M., Rasolofonirina R., **Vaïtilingon D.**, Ouin J.M., Seghers G., Mara E. & Conand C. A sea cucumber hatchery and mariculture project in Tulear, Madagascar. *Bêche-de-mer information Bulletin* 14:2-5.
- 2001 **Vaïtilingon D.**, Morgan R., Grosjean Ph., Gosselin P. & Jangoux M. Effects of delayed metamorphosis and food rations on the perimetamorphic period of the echinoid *Paracentrotus*

- lividus* (Lamarck, 1816) (Echinodermata). *Journal of Experimental Marine Biology and Ecology*, Vol. 262, No. 1, 41-60.
- 2003 **Vaïtilingon D.**, Rasolofonirina R., & Jangoux M. Feeding preferences, seasonal gut repletion indices, and diel feeding patterns of the sea urchin *Tripneustes gratilla* (L.) (Echinodermata, Echinoidea) off Toliara (Madagascar). *Marine Biology* 143: 451-458.
- 2004 **Vaïtilingon D.**, Eeckhaut I., Fourgon D. & Jangoux M. Population dynamics, infestation and host selection of *Vexilla vexillum* (Gmelin, 1791) an ectoparasitic muricid of echinoids, in Madagascar. *Diseases of Aquatic Organisms* 61: 241-255.
- 2005 **Vaïtilingon D.**, Rasolofonirina R., & Jangoux M. Reproductive cycle of edible echinoderms from the southern Indian Ocean. I. The echinoid *Tripneustes gratilla* (L.). *Western Indian Ocean J. Mar. Sci.* 4 (1): 47-60.
- 2005 Rasolofonirina R., **Vaïtilingon D.**, & Jangoux M. Reproductive cycle of edible echinoderms from the southern Indian Ocean. II. The holothuroid *Holothuria scabra*. *Western Indian Ocean J. Mar. Sci.* 4 (1): 61-75.
- 2005 CAB International. Cultured aquatic animal species: The European edible echinoid *Paracentrotus lividus* [original text by **D. Vaïtilingon**, M. Jangoux & Ph. Grosjean]. In: *Aquaculture Compendium*. Wallingford, UK: CAB International.
- 2005 Fourgon D., Eeckhaut I., **Vaïtilingon D.**, & Jangoux M. Lecithotrophic development and metamorphosis in the Indo-West Pacific brittle star *Ophiomastix venosa* (Echinodermata: Ophiuroidea). *Invertebrate Reproduction and Development*. 47 (3): 155-165.
- 2006 Lavitra T., **Vaïtilingon D.**, Rasolofonirina R., & Eeckhaut I. Seasonal abundance of sea cucumber larvae at Toliara Great Reef, Madagascar. *Bêche-de-mer information Bulletin* 24:35-38.
- 2008 Byrne M., Prowse T.A.A., Sewell M.A., Dworjanyan S., Williamson J.E., & **Vaïtilingon D.** Maternal provisioning for larvae and larval provisioning for juveniles in the toxopneustid sea urchin *Tripneustes gratilla*. *Marine Biology* 155: 473-482.
- 2012 Williamson J.E., Gleeson C., Bell J.E., & **Vaïtilingon D.** The role of visual and chemical cues in host detection by the symbiotic shrimp *Gnathophyllodes mineri*. *Journal of Experimental Marine Biology and Ecology* Vol. 414, No. 415, 38-43
- 2016 **Vaïtilingon D.**, Smith S., Watson G., Miller T., Alattas S., Hock K.O., Zainuddin J., Zaidnuddin I., Azhar H. Sea cucumber hatchery seed production in Malaysia: From research and development, to pilot-scale production of the sandfish *Holothuria scabra*. *Bêche-de-mer information Bulletin* 36:67-75.
- 2016 Choo P.S., Conand C., **Vaïtilingon D.** Kerabu *beronok* (*Acaudina salad*) – Signature appetiser in Langkawi Island, Malaysia. *Bêche-de-mer information Bulletin* 36:101-105.

International / National meetings

- 2015 **Fifth International Fisheries Symposium.** Asean Fisheries 2015: Towards sustainability, advanced technology and community enhancement, 1st – 4th Dec, Gurney Plaza, Penang, Malaysia.
- 2014 **NSW DPI, Ministerial Advisory Council Education Workshop** – Pratley Review into Agricultural Education and Training in NSW, September 2014.
- 2014 **AusAID Sustainable Islands Program Workshop** – Sydney Institute of Marine Science, April 2014.
- 2013 **NSW Aquaculture Association Workshop** – RAS and Aquaponic systems, October 2013.
- 2011 **Aquaculture Association Queensland Workshop.** Brisbane, August 2011.
- 2006 **Molluscs 2006**, 6-8 December, Wollongong, Australia. Population dynamics, infestation and host selection of *Vexilla vexillum*, an ectoparasitic muricid of echinoids, in Madagascar.
- 2006 **Skretting Australasian Aquaculture 2006**, Adelaide, Australia. The potential for high roe production from sea urchins as a new aquaculture industry in Australia.
- 2004 **ICES working group on zooplankton ecology**, 5-12 April 2004, Hamburg, Germany. *Oral*

- 2002 *presentation*. Grosjean Ph., & Vaïtilingon D. The Zooscan System.
Campus Plein Sud, Universités - ONGs, Université de Mons-Hainaut, 14-18 October 2002, Mons, Belgium. *Oral presentation*. Vaïtilingon D. Tropical Echinoculture in Madagascar.
- 2002 **5th Larval Biology Meeting**, 15-19 September 2002, Vigo, Spain. *Oral presentation*. Vaïtilingon D., Eeckhaut I., Fourgon D. & Jangoux M. Larval development and metamorphosis of the parasitic gastropod *Vexilla vexillum* (Gmelin, 1779) (Mollusca).
- 1998 **5th European Echinoderm Conference**, 7-12 September 1998, Milano, Italy. *Poster presentation*. Vaïtilingon D., Gosselin P. & Jangoux M. Influence of delayed metamorphosis and food intake on the fate of competent larvae of the echinoid *Paracentrotus lividus* (Lamarck, 1816) (Echinodermata).

Professional memberships

- Aquaculture Association Queensland
- Aquaculture Association NSW

Varia

- Driving NSW Driving licence
- Sports PADI Rescue Diver (No. 0705A46699)
More than 300 dives. Experiences in SCUBA diving for scientific purposes (coral reef monitoring and sampling of scientific materials). Certified Scientific Diver. First Aid and Oxygen Resuscitation Certificate.
Squash, badminton, cycling and gym.

Referees

Details of referees to be provided on request