

Prof. Didier Raboisson
Population Medicine and Animal Health Economics



DVM, MSc, PhD, dipl. ECBHM, HDR

Microeconomics of production and health
 Econometrics and modelization
 Institutional economics
 Bovine health management and epidemiology

Biography

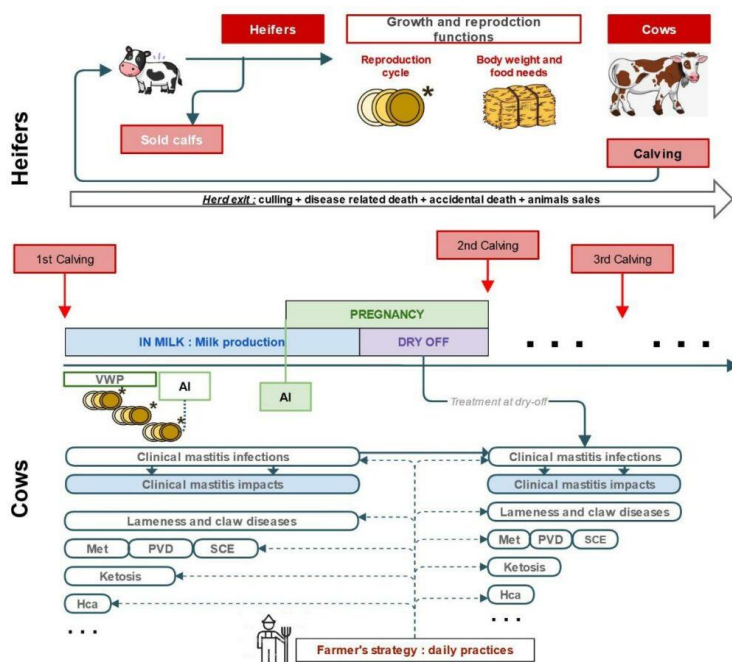
Prof. Didier Raboisson graduated from Toulouse Veterinary School in 2004. He worked few years in veterinary practice. He is Diplomate of the European College of Bovine Health Management ([ECBHM](#)) since 2011. He holds a MSc in Agriculture Socio-economics (2007) and defended his PhD in Institutional Economics in 2011 (University of Toulouse).

He is currently leading the research group [VetEconomics](#) and a French continuous training programme in [bovine population medicine](#).

Since 2021, he is also Attaché for Scientific Cooperation at Embassy of France to India.

Prof. Raboisson published more than 75 international peer-reviewed papers and 82 professional papers. He gave 90 international conferences and was the supervisor of 8 PhD students and 6 post-doctorates. He was involved in 29 international research projects and led 8 of them as principal investigator.

Prof. Raboisson previously led the French research network [ERIAH](#)- Economics Reasoning for Improved Animal Health, acted as secretary of [ISESSAH](#) –the International Society for Economics and Social Sciences applied to Animal Health, and actively contributed to veterinary digital innovation and teaching (registered patent [DHS](#)® and App Qost®). He is actively involved in [GBADs](#) - Global Burden Animal Diseases.



***DairyHealthSim*®(DHS®) concept**
 DHS® is a stochastic dynamic dairy herd simulation model based on mathematical programming and economic optimisation function, used for research, teaching and industrial development.

Research Interests

Prof. Raboisson defended his PhD in institutional economics applied to cattle health in 2011. This work focused on collective organisations and on their impact on production and health performances. It highlighted how farmer behaviour may influence disease control, including epidemic diseases such as Blue Tongue virus.

Prof. Raboisson developed many empirical analysis of disease costs (ketosis, reproduction performances and newborn diseases) showing the limitations of methods used worldwide in the early 2000's. To fix this concern, he developed [DairyHealthSimulator®](#), a new stochastic dynamic model applied to dairy herd that was coupled with an optimization economic function to create a new generation of bio-economic modelling approach. Applied to mastitis, lame and reproduction, the model identified optimal strategies considering at a glance income, labor, welfare and other externalities such antimicrobial use.

Another activity is the study of the veterinary shortage in France. Thanks to qualitative and quantitative approaches, he provided a better description of veterinary shortage in France and its determinants. He also demonstrated how the different veterinarian activities contributes to the veterinarians' income (business model of the French vet offices).

Recent work on the application of the *loss envelop concept* ([GBADs](#)) in different international fields aims at better describing the spatio-temporal changes in the total cost of diseases.

The research work of Prof Raboisson takes place internationally in many fields (France, EU, North America and India), and includes cooperations with many institutions (Cornell, Liverpool, Calgary, Blida...).

Teaching duties

Prof. Raboisson's teachings focus on bovine population medicine and economics of animal health.

In-farm population medicine teaching is based on herd-level health disorders problem solving, using the [DODforD](#) approach: this method gathers clinical observations of animals and herd data-based indicators to identify health and production issues and to provide solutions for farmers. He performed up to 30 global herd visits per year and developed cattle population telemedicine for the follow-up of the in-person visits and for remote clinical herd-level diagnosis.

Teaching of Economics of animal health includes courses in the veterinary curricula as well as in continuous training of vets. It focuses on economics reasoning and the practical use of economics in the field for improved decision making.

Prof. Raboisson is also deeply involved in French professional veterinary journals (members of *Bulletin des GTV* and scientific editor of *Le nouveau praticien Elevage et Santé*) and in French professional associations ([SNGTV](#)).

Key recent publications

Berrada M, **Raboisson D**, Lhermie G. Effectiveness of rural internships for veterinary students to combat veterinary workforce shortages in rural areas. PLoS One. 2024 Mar 7;19(3):e0294651. [doi:10.1371/journal.pone.0294651](https://doi.org/10.1371/journal.pone.0294651). eCollection 2024. PMID: 38451938 Free article.

Sucena Afonso J, El Tholth M, Mcintyre KM, Carmo LP, Coyne L, Manriquez D, **Raboisson D**, Lhermie G, Rushton J. Strategies to reduce antimicrobials in livestock and aquaculture, and their impact under field conditions: a structured scoping literature review. J Antimicrob Chemother. 2024 Jan 3;79(1):11-26. [doi:10.1093/jac/dkad350](https://doi.org/10.1093/jac/dkad350). PMID: 37950886 Free PMC article.

Robcis R, Ferchiou A, Berrada M, Ndiaye Y, Herman N, Lhermie G, **Raboisson D**. Cost of lameness in dairy herds: An integrated bioeconomic modeling approach. J Dairy Sci. 2023 Apr;106(4):2519-2534. [doi: 10.3168/jds.2022-22446](https://doi.org/10.3168/jds.2022-22446). Epub 2023 Mar 7. PMID: 36894430 Free article.

Dervillé M, Manriquez D, Dorin B, Aubron C & **Raboisson D**. Indian dairy cooperative development: A combination of scaling up and scaling out producing a center-periphery structure. World Development, Volume 170, 2023, 106249, ISSN 0305-750X, [doi : 10.1016/j.worlddev.2023.106249](https://doi.org/10.1016/j.worlddev.2023.106249).

Manriquez D, Costa M, Ferchiou A, **Raboisson D**, Lhermie G. Multi-Criteria Decision Analysis for Assessing Social Acceptance of Strategies to Reduce Antimicrobial Use in the French Dairy Industry. Antibiotics (Basel). 2022 Dec 21;12(1):8. [doi: 10.3390/antibiotics12010008](https://doi.org/10.3390/antibiotics12010008). PMID: 36671209 Free PMC article.

Lhermie G, Ndiaye Y, Rushton J, **Raboisson D**. Economic evaluation of antimicrobial use practices in animal agriculture: a case of poultry farming. JAC Antimicrob Resist. 2022 Dec 21;4(6):dlac119. [doi: 10.1093/jacamr/dlac119](https://doi.org/10.1093/jacamr/dlac119). eCollection 2022 Dec. PMID: 36570685 Free PMC article.

Dervillé M, Dorin B, Jenin L, **Raboisson D** & Aubron C. Inclusiveness of the Indian Dairy Sector: An Institutional Approach Journal of Economic Issues Pages 994-1017 | Published online: 01 Sep 2023 [doi: 10.1080/00213624.2023.2240182](https://doi.org/10.1080/00213624.2023.2240182)

See the complete list [here](#).

Main scientific responsibilities

Since 2019: Head of the continuous training programme in [Bovine Population Medicine](#)

Since 2020: Leader of the research unit group [VetEconomics](#) (8 researchers)

2018- 2020: Head of the research unit team *Epidemiology and Economics*

2016- 2020: Lead of the French research network [ERIAH](#)

2016- 2020 : Member of the *Committee for Veterinary Drug* of the [ANSES](#)

Since 2018 : Academic editor for [PlosOne](#) and [Frontiers in Veterinary Sciences](#)

2018- 2022: Secretary of the [ISESSAH](#)

2018: Scientific head of ISESSAH Annual Conference

Main institutional working group and audition

Auditions by [CGAAER](#): Value share in the French official animal health control system (2023) ; Economics of the management of official disease control (2017)

Ministerial working group [DGAL](#): Biosecurity and bovine tuberculosis (2018-2021) ; the veterinary shortage in France (2017-2019)

Expert in the following projects: economic evaluation of PPR (**FAO 2019**), international analysis of the veterinary drug market (**WHO 2020-2021**), 2 legal assessments (2020), 5 scientific assessments for defining the economic strategy related to new veterinary drugs, economic management of drugs in the field and veterinary market analysis

Main research programme

2013-2020: Work-package leader of 3 different research programs of INRAE (200 k€)

2012-2020: Lead of 5 private research programs with pharmaceutical firms (250 k€)

2017-2021: Lead of 5 research program on economic optimisation (520 k€) from Ministry for Agricultural Sovereignty

2017-2024: Lead and Contributor of 4 projects funded by ANR or EU (H2020) (450 k€)

See details [here](#).

My stay at Embassy of France in India as Attaché for Scientific Cooperation

Four missions:

- Support of the Indo-French Center for Promotion of Advanced Research ([CEFIPRA](#));
- Definition and implementation of the pluri-annual plan for the Indo-French scientific cooperation;
- Support of the indo-French cooperation in the domain of health;
- Scientific diplomacy with GoI.

Four key contributions:

- Implementation of the [Indo-French Campus](#) in the field of life science for Health;
- Indo-French Joint Science and Technology Committee ([JSTC](#) – COMIXTE);
- [MoU INRAE-DST](#);
- Symposium of health and support of [Prezode](#) in India.