



**Daniel Berckmans**

Faculty of Bio Science  
Engineering, Bélgica

[www.apez.pt](http://www.apez.pt) | [geral@apez.pt](mailto:geral@apez.pt) | 912 239 527



## Precision Livestock Farming: a game changer for human and animal?



#AVIS

[www.avicultura.apez.pt](http://www.avicultura.apez.pt)

### Daniel Berckmans

Obtained a Master Degree and a Ph.D. in Bio-Science Engineering at the Katholieke Universiteit Leuven in Belgium. He is full professor, leads the Division M3-Biores (Measure, Model and Manage Bioresponses), Department of Biosystems, Faculty of Bioscience Engineering at the Katholieke Universiteit Leuven.

The main field of research consists of real time signal analysis of humans and animals, by using technology like wearables, cameras and microphones. The activities comprise the measurements, modelling and monitoring or management of individual living organisms. The focus lies on the development of real time wearable algorithms to monitor and control Complex, Individual and Time-varying Dynamic (CITD) living organisms.

During the last 20 years, the research group permanently counted 25-30 researchers who prepare a Ph.D. Daniel is considered as the spiritual father of the concept of Precision Livestock Farming and the team is recognised as a worldwide leading team in this field of research that has become important in the whole world. He initiated the first European Masters in Human Health Engineering (technology for healthy people), organised by 4 collaborating faculties at KU Leuven. Today half of the research team is working on animal applications (health monitoring, welfare monitoring, etc.) and half on human applications like intensive care unit, stress monitoring, sleep monitoring etc.

Daniel is co-author of 294 scientific articles in peer reviewed journals and 398 papers in conference proceedings. He is member of several international advisory boards, visitation commissions in several European countries, and 6 international professional organisations worldwide.

Daniel has been a member of more than 63 Ph. D commissions in 9 different countries. Since 1982, 17 products have been developed for the world market in co-operation with industrial partners with whom royalty agreements were concluded. 20 patents have been submitted and about 20 projects with a mean value of 400.000 euro per project are continuously managed within the group. He is coordinator of several EU-projects with the last one counting 20 partners and a budget of 8 M euro. Daniel is co-founder of 3 spin-off companies: BioRICS NV in 2006 on monitoring humans, Soundtalks NV in 2011 on monitoring livestock and BioRICS INC in San Francisco in 2016. Written research agreements have been signed with over 48 research teams worldwide. About 125 master theses for engineers (5-years-master's degree) have been finished in the team.