

Wageningen School of Animal Sciences

WIAS

WIAS strategy 2018-2021



WAGENINGEN
UNIVERSITY & RESEARCH



Vision and ambitions

Our mission is: 'improving our understanding of animals and their various roles for mankind through fundamental and strategic research and training of early-stage researchers (PhD and postdoc)'.

WIAS aims to be a leading graduate school in the domain of fundamental and applied animal sciences. WIAS investigates the biological mechanisms of animal functioning in an evolutionary and ecological context at multiple levels, from the molecule to ecosystems, and contributes to farming methods that are environmentally sustainable, animal friendly, safe for the health of humans and animals, economically viable and socially acceptable. WIAS emphasises the quality of its PhD training, PhD research programme, and its development and support of talented researchers. In the years to come, certain areas will be particularly important. WIAS lines up with WUR's overarching investment themes, of which global one health, resilience, and resource use efficiency have been the most relevant. In the coming year, WIAS will start participating in the investment themes of WUR's new strategic plan, namely Connected Circularity, Protein Transition, and Digital Twins.

We stimulate research groups to maintain or develop world-leading positions in their specific scientific domains. We achieve synergy by combining fundamental and applied research into our WIAS core research areas, thereby mutually profiting from each other's expertise. In this manner, we advance our knowledge base, create increased funding opportunities and define novel, relevant research questions. We identify important issues in the world around us and aim to understand our stakeholders' concerns and work together with partners on solutions and innovations.



Research domain

We have distinguished three interrelated, partially overlapping core areas: 'Animals in Future Food Systems and Society', 'Integrative Animal Biology', and 'Animal Populations, Interactions and Genomics'.

In the first core area, the main focus is on the transition towards a sustainable role for farm animals in future food systems and society. Themes that are investigated include (1) the potential of animals to sustainably unlock biomass unsuitable for direct human consumption and use it as food, manure and other products; (2) the improvement of the resilience, welfare and health of animals; and (3) the design of sustainable animal production systems at farm, chain and food systems levels.

In the second core area, the main focus is to explore how animals function and interact from a disciplinary and interdisciplinary perspective and provide bio-inspired solutions for challenges through natural and managed changes in the environment. Three main topics are investigated in this core area: (1) sustainable

aquaculture and blue growth; (2) resilient animals in sustainable ecosystems; and (3) animal and human health and performance.

In the third core area, the main focus is on factors that affect interactions between the phenotype of animals, genes within and among animals, microorganisms, and animals with their microorganisms. In particular, the focus here is on (1) the transition towards animal breeding that will contribute to sustainable animal production systems through a clearer understanding of the relationships between phenotypes and genotypes, (2) the prevention and control of the risk of disease outbreaks and the reduction of endemic infectious diseases, and (3) understanding through observation and modelling of the functioning of the complex biological systems, including humans, animals and microbes underlying these phenomena.

The topics within the core areas are mutually interwoven, such that each topic is supported by the knowledge developed in the other two areas.

Collaboration

Clearly, there is ample overlap between the core areas, which is crucial to the overall cohesion and collaboration within WIAS. From a different perspective, every core area addresses different aspects of the basic functioning of animals, animal and human health, welfare and resilience and the transition of animal production chains towards sustainable food systems. WIAS stimulates collaboration between chair groups, not only for groups within a single core area, but also across core areas, thereby promoting group collaboration on key questions, especially those relevant to WIAS' mission and requiring interdisciplinary and transdisciplinary approaches. We emphasise the coherence and overlap between core areas as this is where synergy can also be maximally achieved, whereas disciplinary depth is pursued in the core areas. Many new insights and applications are generated in the overlap of the three core areas by pursuing an integrated approach, with the aim of contributing to the major societal challenges of our domain.



To achieve our aims, we need powerful national and international partnerships. This is why we collaborate with leading universities and research institutes in our domain. We have set up joint research projects and training activities, such as summer schools and joint PhD projects within the European Graduate School for Animal Breeding and Genetics¹, for instance. We also connect with government agencies, public bodies, industry and NGOs at both the national and international level as future employers of our alumni and key stakeholders in our research.

Within Wageningen University & Research, we collaborate with other graduate schools and research institutes to tackle interdisciplinary cross-domain challenges. The offices of the Wageningen Graduate Schools collaborate to enable an efficient workflow and fully exploit the opportunities that these schools collectively offer in the training of early-stage researchers at Wageningen University.

Implementation and progress

Through top-quality training of early-stage researchers, we assure that they can make major contributions to key societal challenges in animal sciences in the future. Through our training and research, WIAS ensures its societal impact. We have formulated intended effects of our defined ambitions and examples for implementation as we move forward in the direction set out in this plan. There are five key ambitions, and for each ambition two key performance indicators (KPIs) have been identified.

We cannot achieve all our ambitions simultaneously. Therefore, WIAS will provide an annual implementation plan, in which we identify a number of priority areas that will receive particular attention during that year. In these implementation plans, the objectives will be described in greater detail than in the present plan. We will closely monitor progress throughout the year. Naturally, we will also continue examining our environment so that we, if necessary, can shift our course in response to new developments.



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¹ www.egsabg.eu

Ambitions and KPIs

1 Develop the three core areas

The core areas we have distinguished will assume a different formal role in the current strategic plan than previously. The chair groups that take part in a certain core area will not be reviewed separately anymore; instead, each core area will be reviewed as a single unit. We will facilitate and stimulate the groups in each core area to articulate and implement their joint strategy and profiling. The joint strategy takes into account the diversity of chair groups and is meant to facilitate cooperation of research groups that participate within a given theme. Our ambition is to stimulate the strategic research choices of groups within a core area in compliance with the mission and vision of WIAS.

KPI-1 Groups within a core area have established clear joint research programmes and this will be acknowledged during the 2021 peer review. These core areas are recognised as one research unit both within and outside the institution.

KPI-2 Before the peer review to take place in 2021, we will propose a suitable benchmark in our self-assessment for each of the three core areas.

2 Provide an attractive environment for talented early stage researchers, in particular postdocs

KPI-3 By 2021, we will have set up a programme to attract high potentials at the postdoc level with adequate funding in projects and programmes, fulfilling the position of the respective core groups.

KPI-4 By 2021, we will have (1) built up a portfolio of excellent research achievements within the three core areas, (2) disseminated these achievements, and (3) implemented a postdoc network that includes individual support to internal and external postdocs writing personal grant proposals.

3 Stimulate innovative and high-quality research

We aim to increase and anchor synergy in the organisation by tackling interdisciplinary challenges across various research groups through fundamental and applied research of great quality. This ambition implies that secure funding is arranged to achieve these goals.

KPI-5 During the 2021 peer review, all current WIAS fellows will meet the publication requirements² set.

KPI-6 In 2021, we will have organised at least five training activities together with other graduate schools with a multidisciplinary approach to tackle a societal challenge. These activities will meet international standards set by professional scientific societies.

4 Strengthen our international connections

KPI-7 By 2021, we will have at least one new joint PhD programme set up with a foreign institution that meets the quality standards set by Wageningen University.

KPI-8 By 2021, we will have organised at least two new training activities together with an international partner. These activities will meet international standards set by professional scientific societies.

5 Place our research in a societal context

We wish to devote more attention to economic and societal value creation, aimed at contributing to innovation in enterprises and strengthening our dialogue with society.

KPI-9 By 2021, we will have intensified our contact with both the employers of our alumni and the alumni themselves to reflect on our ambitions and plans based on their experiences and future strategic visions.

KPI-10 By 2021, we will have organised at least two new activities to involve society in our research and to provide outreach to the professional and general public.

² www.wur.nl/en/Education-Programmes/PhD-Programme/Graduate-Schools/Wageningen-Institute-of-Animal-Sciences/Fellows.htm



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The mission of Wageningen University & Research is "To explore the potential of nature to improve the quality of life". Under the banner Wageningen University & Research, Wageningen University and the specialised research institutes of the Wageningen Research Foundation have joined forces in contributing to finding solutions to important questions in the domain of healthy food and living environment. With its roughly 30 branches, 5,000 employees and 10,000 students, Wageningen University & Research is one of the leading organisations in its domain. The unique Wageningen approach lies in its integrated approach to issues and the collaboration between different disciplines.

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