

## INTERNAL APPENDICES – specific strategic initiatives

The following describes a number of **specific** initiatives that will be implemented during the strategy period with the aim of helping the department achieve the overall objectives for the strategy period. Roughly, the initiatives are divided into four groups representing different management instruments and tools, as a concrete initiative often contributes to fulfilling several of the overall objectives. The groups selected are: (1) *ECOS as a workplace* (2) *Infrastructure and equipment*; (3) *External research collaboration* and (4) *Centre formations and research platforms*.

Management will actively work for and support these initiatives and actions, including helping to create the necessary framework for the initiatives to be implemented. A specific and dynamic implementation plan has been prepared for the strategy period in order to ensure follow-up on all initiatives.

### ECOS as a workplace

Management will implement a number of initiatives that cover the entire department and deal with more general conditions and objectives.

Table 1: Strategic initiatives in the period 2021-2025 within the following general areas: ECOS as a workplace, infrastructure development, collaboration on research and teaching and setting up centres and other research platforms.

Title	Strategic initiative
A balanced working life	The focus is on maintaining and developing a common set of values that support the development, job satisfaction and well-being of all employees. This must be based on mutual academic and collegial respect, irrespective of function and academic background, and allow room for individual differences.
Diversity and gender equality – politics	During the strategy period, special emphasis will be placed on improving gender distribution in all types of positions, including the use of search committees to ensure diverse and top-qualified applicants where relevant.
Diversity and gender equality – visible career criteria	Ensure visible career criteria, where the merit requirements do not include direct or indirect discrimination, discriminatory principles, stereotypes, etc., as well as career-promoting initiatives, e.g. by actively using both AU's and the department's own mentor programme.
Diversity and gender equality – committee	Establish a gender equality and diversity committee at the department to develop and support local gender equality and diversity measures.
A dynamic environment for young researchers	We wish to create a dynamic, young research environment with more Master's and Ph.D. students. This will be done through initiatives that make it attractive to be a student in the department. The initiatives may include mentor schemes, seminars, locally based courses and social events as well as the establishment of local committees for Master's and Ph.D. students.
Strengthening the role of supervisor and mentor	In order to support the goals of enrolling more Master's and Ph.D. students, measures to make it more attractive to be a supervisor will be implemented, including allocated supervision time and partial funding of Ph.D. scholarships.
Dissemination	Prepare and implement a comprehensive communication plan for the department, including strengthening the department's external communication (Web, news, SoMe) with the aim of raising awareness of our department as a collaborative partner, a candidate for funding, an attractive workplace and as a supplier of knowledge on socially relevant issues.
Fundraising	Develop and increase the collection of external research funding and optimise success rates through support for individual researchers through individual counselling, guidance, pitch sessions and specific application support and strengthened knowledge of foundations and fundraising initiatives.
Relocation to Aarhus Campus	Initiate social and academic initiatives to maintain and develop collaboration between the relocated sections and ensure the best utilisation of the new, shared facilities on campus in Aarhus.
Cohesion in one common department	We will be holding a two-day departmental meeting focusing on collaboration and academic development across the entire department.

### Infrastructures

The department wishes to strengthen its infrastructure to provide optimum support for our research, consultancy, talent development and teaching.

Title	Strategic initiative
Bio logging and telemetry	We will expand the department's ability to further develop systems and equipment for bio logging, including increased collaboration with the engineering departments and Zoophysiology at the Department of Biology.
E-Infrastructure for biodiversity and modelling data	We will build a data infrastructure to ensure that data is stored securely and intelligently in accordance with the quality assurance procedures, with open access for all of the department's researchers.
Infrastructure for storage of tissue and other biological samples	The department will ensure optimal facilities for safe storage of tissue samples, samples for genetic analyses and other biological material with the aim of establishing national tissue banks.
Remote sensing and drones for innovative monitoring	We will expand the department's expertise in remote sensing and drone technology, including flight with drones, sensor technology, analysis of remote sensing data and the use of drones for organic research, e.g. through participation in the national research infrastructure platform UAS-ability.
Automatic collection and processing of data	We will utilise the Internet of Things technology combined with artificial intelligence to enable the collection of large amounts of data from buoys, etc. and efficiently process and produce data online, e.g. in real-time.
Developing the MC-ICP-MS laboratory	Building and developing the operation of the department's new MC-ICP-MS instrument, granted by Carlsberg Foundation, for, among other things, source tracking and process studies of mercury in the Arctic.
Marine research centre	Develop and establish a marine research centre at AU Campus Roskilde in Roskilde Fjord focusing on the development and testing of new, smart surveillance techniques and large-scale experiments.
Bio logging and telemetry	We will ensure that the department is a leader in the field of Movement Ecology and energetics with focus on detailed, comprehensive tracking of ecosystems through strong collaboration with the leading developers of sensors and the best international research groups.
Freshwater research station	Ensure continuation of the department's experimental station in Lemming with artificial streams and shallow lakes through long-term agreements or purchase.
Green transition of Zackenberg	Ensure up-to-date development of the energy supply and the physical framework of research station Zackenberg so that the climate footprint is minimised.

### Research and educational collaboration

The department has a collaborative approach with a high level of external collaborations, both nationally and internationally. This will be further strengthened through a number of initiatives to strengthen interdisciplinary collaboration with other academic environments.

Title	Strategic initiative
AU collaboration on new techniques for research and monitoring	Focus on establishing collaboration on new monitoring techniques with other departments, e.g. the Department of Agroecology, the Department of Food Science, the Department of Biology and the four engineering departments (e.g. surveillance using image recognition and drones, automatic buoy stations) and IGN at the University of Copenhagen.
Ecotoxicology and risk assessment	Interdisciplinary networks will be established between ECOS and key partners (including ENV5 and GN) with a main focus on knowledge sharing, collaboration and development of innovative methods in ecotoxicology and risk assessment of environmentally hazardous substances. The aim is to increase the department's research share in this field and strengthen teaching nationally and internationally.
Establishing workshop areas	Collaborate with land managers and researchers to establish a network of large workshop areas in which sustainable management initiatives can be tested and developed, including establishing collaboration with socio-economists on the development of cost-effective management initiatives.
Develop study programmes at TECH	Meetings will be organised across the new TECH faculty with the aim of supporting collaboration and opportunities for study programmes and courses, e.g. environmental engineering or a Master's in management focusing on water and the environment.
TECH collaboration	Facilitate and increase collaboration across TECH, including organising specific events, with the aim of increasing awareness of our competencies and initiating new joint collaborations.

### New centres and research platforms

The department will strengthen its research and its visibility significantly within a number of specific subject areas and strengthen existing centres and establish new centres or research platforms. The following is a preliminary list, and further items may be added during the strategy period.

Title	Strategic initiative
Green transition of Danish agriculture	Through research collaboration and innovative nature-based solutions, we must ensure a central role in AU's centre formation within the green transition of Danish agriculture.
Marine centre	The national centre for marine nature restoration will be launched.
Utilisation of marine resources and sustainable production for green transition	We will establish a research and test platform for cultivating seaweed for the sustainable production of biofuels and high-quality products, e.g. by retaining and expanding the department's collaboration under the auspices of the AlgaeCentre Denmark and the Kattegatcenter.
Consolidation of the department's Arctic profile	Strengthen the department's Arctic profile in close collaboration with Department of Environmental Science. There must be a closer connection to and development of existing Arctic research activities between ECOS and ENV5, with a clear emphasis on the strong grouping of Arctic competencies in Roskilde.
Academic network on research and consultancy	Establishment of fixed networks/dialogue forums in the areas of research and consultancy in which there are academic overlaps (e.g. bees, nitrogen, invasive species, rewilding) in order to facilitate optimal collaboration, particularly across the department.
Network on modelling	We will bring together the department's experts on modelling in a network to ensure overview, knowledge sharing and collaboration both internally and with similar modelling environments at TECH and externally.