

# AGRO RESEARCHER DAYS 3-4 NOVEMBER 2021

## AGRO – Department of Agroecology

---

We conduct research in agroecology - The interaction between plants, soil, animals, environment, climate and people.

We develop sustainable solutions based on agroecological principles.

Our research is key to underpinning the green transition in agriculture

Optimism:

We see the challenges as being huge, but doable

Motivation:

We will drive the research underpinning the green transition

We will work with industry and society to fulfill the ambitions

# Wednesday 3 November 2021

Time	Topic
10:00-11:00	AGRO Status and prospects
11:00-12:00	Working group on career development – status and ending conclusions from the group
12:00-13:00	Lunch
13:00-14:45	Responsible conduct of research and questionable research practices
14:45-15:00	Coffee
15:00-16:00	Degree programmes, incl. group work
16:00-17:00	Data Management, incl. group work
17:00-18:00	Break
18:00-19:30	Dinner
19:30-	Mad Science with coffee and beer

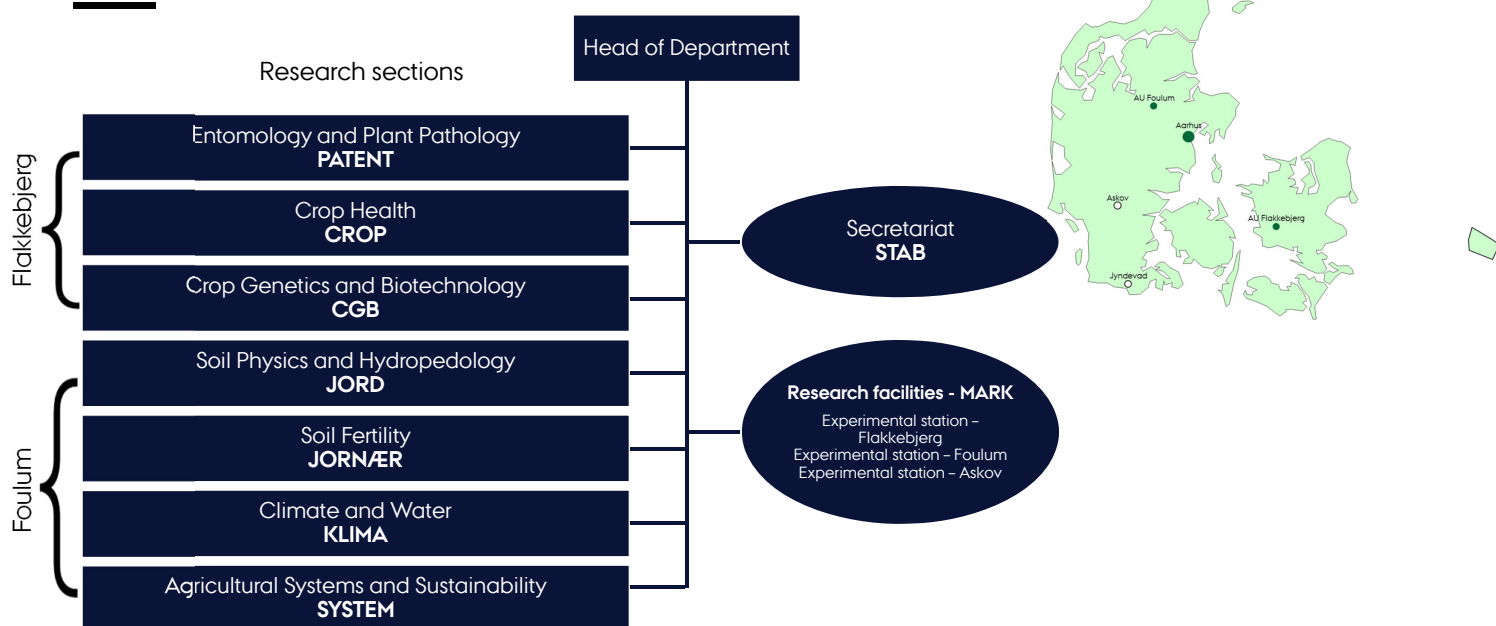
# Thursday 4 November – Career day for young scientists

Time	Topic
08:30-09:30	Career thinking during your PhD
09:30-10:00	How to stay in academia
10:00-10:15	Break
10:15-11:15	The Danish job market
11:15-13:00	Competence workshop: The skills and value from your PhD/JR
13:00-13:30	Action plan reflection
13:30	Lunch to go

# Thursday 4 November 2021 – Quality management

Time	Topic
08:30-09:00	Follow up on yesterday
09:00-10:00	Mentorship
10:00-10:15	Break
10:15-11:15	Tasks when hiring new scientific staff, incl. group work
11:15-12:00	Project applications
12:00-12:30	Collaboration across sections and centres
12:30-13:00	Final remarks and thanks for the days
13:00	Lunch to go

## Department of Agroecology - organisation



# Department management



**Jørgen E. Olesen**  
Head of department



**Birgit S. Langvad**  
Head of Secretariat



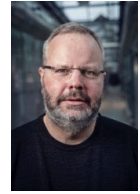
**Jørgen Eriksen**  
Deputy head of department and section manager JORNÆR



**Per Kudsk**  
Deputy head of department and section manager CROP



**Mathias N. Andersen**  
Section manager KLIMA



**Henrik Brinch-Pedersen**  
Section manager CGB



**Mogens Nicolaisen**  
Section manager PATENT



**Mogens H. Greve**  
Section manager JORD



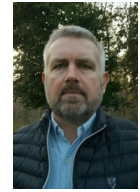
**Tommy Dalgaard**  
Section manager SYSTEM



**Jens B. Kjeldsen**  
Head of exp. station FOULUMGÅRD



**Henning C. Thomsen**  
Head of exp. station ASKOV



**Thomas B. Jensen**  
Head of exp. station FLAKKEBJERG



# Heads of committees in AGRO



**Jørgen E. Olesen**  
Liaison Committee (LSU) and Department forum



**Jørgen Eriksen**  
Policy support



**Per Kudsk**  
Research



**Lis W. de Jonge**  
PhD/Talent



**Jørgen Eriksen**  
Lab Foulum



**Henrik Brinch-Pedersen**  
Lab Flakkebjerg



**Mogens Nicolaisen**  
Occupational health and safety committee (LAMU)



**Mogens H. Greve**  
Field equipment



**Jens G. Hansen**  
Data management



**Bernd Wollenweber**  
Degree programme



**Birte Boelt**  
Business and Innovation



**René Gislum**  
Rep. AGRO in Tech Academic council



# Department economy

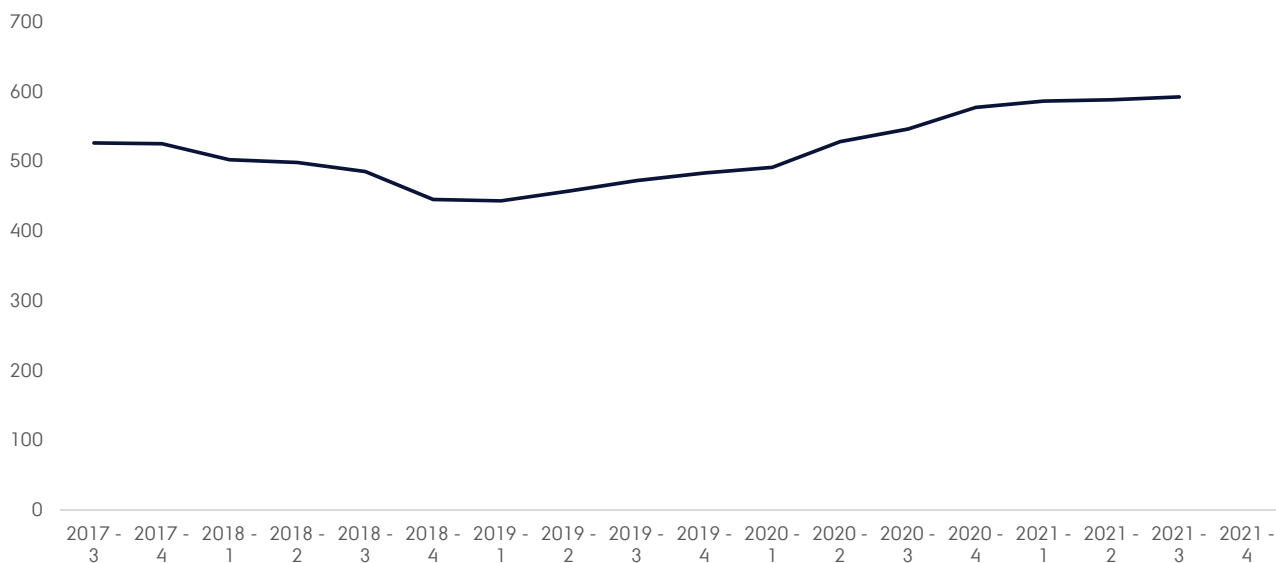
## ØKONOMIRAPPORT 1 2021

Versionsdato: 27/9-2021

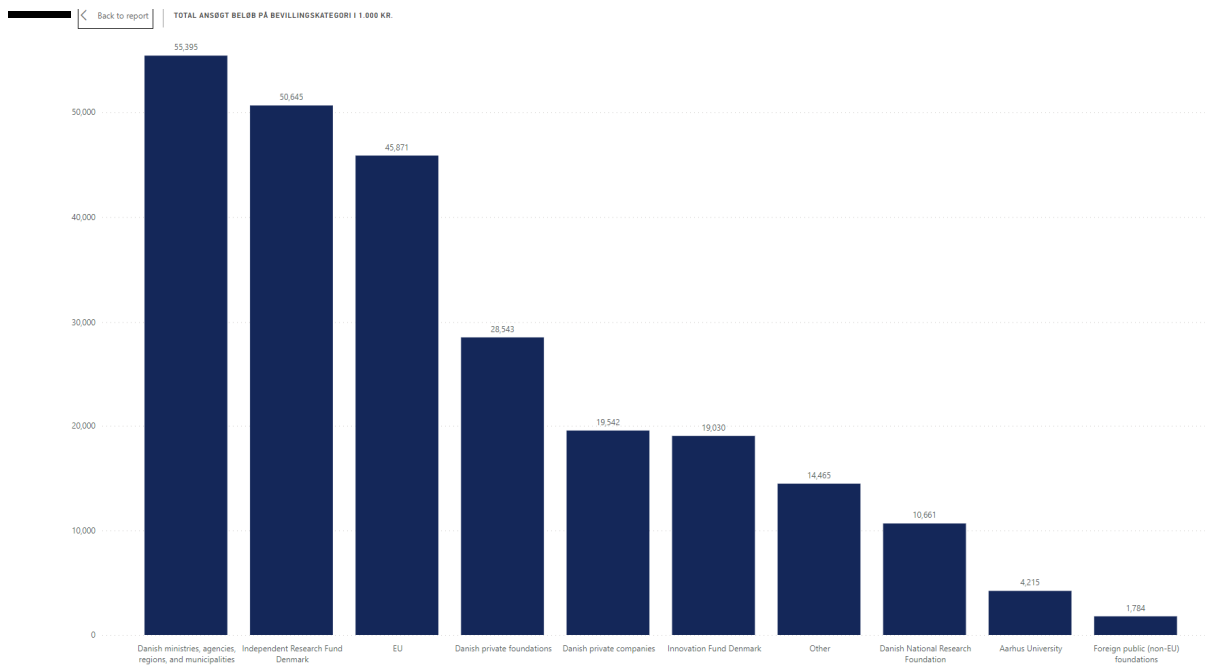
Realiseret År-Til-Dato: Jan-Aug

HOVEDTABEL (alle delregnskaber)	REAL_ÅTD 2020	REAL_ÅTD 2021	REAL_ÅTD 2020	ØR3-21 2021	B2022-25 2022	B2022-25 2023	B2022-25 2024	B2022-25 2025
1 Finanslovtilskud	67.478	88.200	118.255	132.039	133.098	134.368	135.173	135.841
2 Uddannelsestilskud	5.458	6.549	9.621	9.563	9.557	10.260	10.467	10.543
3 Basisforskning	14.476	18.875	24.816	28.312	29.730	30.662	31.720	32.782
4 Mynd.kontrakt, Forskning	29.390	35.322	50.772	52.983	52.742	52.463	52.185	51.908
5 Mynd.kontrakt, Rådgivning	17.961	25.555	31.249	38.332	38.158	37.956	37.755	37.555
6 Andre finanslovtilskud	194	1.900	1.797	2.850	2.910	3.027	3.047	3.053
7 Eksterne tilskud	64.309	69.097	105.145	119.109	124.770	128.828	133.981	139.340
8 Salg/øvrige driftsindtægter	2.569	2.248	11.157	13.005	13.005	13.005	13.005	13.005
9 Interne bidrag	-43.927	-45.632	-48.731	-64.193	-68.589	-70.366	-72.675	-74.014
10 INDTÆGTER FØR INTERNE BIDRAG	134.356	159.545	234.556	264.154	270.874	276.202	282.160	288.187
11 INDTÆGTER EFTER INTERNE BIDRAG	90.429	113.912	185.825	199.960	202.284	205.836	209.484	214.173
12 Lønninger	89.560	89.140	134.966	137.870	139.291	142.761	146.305	150.324
13 Bygningsomkostninger	102	16.704	26.374	29.644	29.546	30.379	30.864	31.358
14 Øvrige driftsomkostninger	12.883	13.525	22.566	28.791	28.838	29.087	28.705	28.882
15 Driftsomkostninger	12.451	13.185	22.186	28.337	28.653	28.653	28.653	28.653
16 Internt køb	3.861	3.208	17.645	18.322	18.970	18.981	19.510	20.487
17 Internt salg	-3.429	-2.868	-17.268	-17.868	-18.785	-18.547	-19.457	-20.257
18 Tilskud fra USM	0	0	0	0	0	0	0	0
19 Overheadomk. på bev.	18.670	18.231	31.295	33.006	33.135	33.645	34.153	35.085
20 Overheadindtægt til inst.	-18.670	-18.231	-31.295	-33.006	-33.135	-33.645	-34.153	-35.085
21 Afskrivninger	1.634	2.255	2.414	3.610	3.610	3.610	3.610	3.610
22 OMKOSTNINGER	104.179	121.624	186.319	199.914	201.285	205.836	209.484	214.173
23 FINANSIELLE POSTER	13	1	5	0	0	0	0	0
24 RESULTAT	-13.738	-7.710	-485	46	1.000	0	0	0
25 Resultat under Tem. Center / Anv. Stat.	1.991	1.981	0	0	0	0	0	0
26 RESULTAT EXCL. T.C. / ANV. STAT.	-15.729	-9.691	-485	46	1.000	0	0	0

# Development in external funding - AGRO



# ReAp – Grant category (remember to register in ReAp)



## Green transition

### Landbrugsaftalen 2021

- Efforts to reduce
- nitrogen pollution
- greenhouse gases

#### Reduktionseffekter

Nye indsatser	Mio. t. CO <sub>2</sub> e		Kvælstof (t. N)
	2025	2030	2027
Reduktionskrav for husdyrenes fordøjelse	0,17	0,16	0
Hypigere udslusning af gyle	0,15	0,17	0
Reform af EU's landbrugspolitik	0,38	0,38	1.550
Udtagning af 22.000 ha lavbundsjord	0,04	0,33	700
Privat skovrejsning	0,00	0,05	50
Ekstensivering	0,10	0,10	400
Kvælstofindsats	0,31	0,64	8.000
Midlertidig reduceret hugst i skove	-	0,07	-
<b>I alt (reduktioner)</b>	<b>1,2</b>	<b>1,9</b>	<b>10.800</b>
<b>Allerede besluttede</b>			
Udtagning af lavbundsjord (FL20-FL21)	-	0,3	-
Øvrige tiltag	-	0,2	-
<b>I alt allerede besluttede</b>		<b>2,4</b>	
<b>Udviklingstiltag</b>			
Brun bioraffinering	-	2,0	-
Gyllehåndtering <sup>1)</sup>	-	1,0	-
Fodertilsætning	-	1,0	-
Fordobling af økologi	-	0,5	-
Udvidet lavbundspotentiale	-	0,5	-
<b>I alt (udviklingstiltag)</b>	<b>-</b>	<b>5,0</b>	<b>-</b>
<b>I alt (reduktioner + udviklingstiltag)</b>	<b>-</b>	<b>7,4</b>	<b>-</b>

# Green transition

## Landbrugsaftalen Research funding

Mio. kr.	2021	2022	2023	2024	2025	2026	2027	2028 <sup>5</sup>	2029	2030	I alt
<b>Forskning, udvikling mv.<sup>4</sup></b>											
Ny bedriftsmodel	57	116	38	38	-	-	-	-	-	-	249
Bovaers samt stoffet X	3	-	-	-	-	-	-	-	-	-	3
Forskning i gyllehåndtering	7	10	6	1	-	-	-	-	-	-	23
Pyrolyse	0	0	98	98	-	-	-	-	-	-	196
Støtte til ICROFS	50	-	-	-	-	-	-	-	-	-	50
Bioøkonomipanel og proteinstrategi	1	1	1	1	-	-	-	-	-	-	4
Plantefond	-	75	75	75	75	75	75	75	75	75	675
Second opinion	-	9	10	10	-	-	-	-	-	-	29
Ekspertgruppe for lavbund	-	3	3	3	-	-	-	-	-	-	9
Midlertidig reduktion i hugst	-	-	-	-	-	12	12	12	12	12	60
Merbevilling udtag af lavbund	-	-	1.000	1.000	-	-	-	-	-	-	2.000
Reserve til kollektive virkemidler	-	-	500	500	-	-	-	-	-	-	1.000
Marine virkemidler og vådområder (analyse mv.)	-	19	17	14	-	-	-	-	-	-	50
Øvrige (administration mv.) <sup>4</sup>	186	303	319	248	190	167	155	86	86	85	1.825

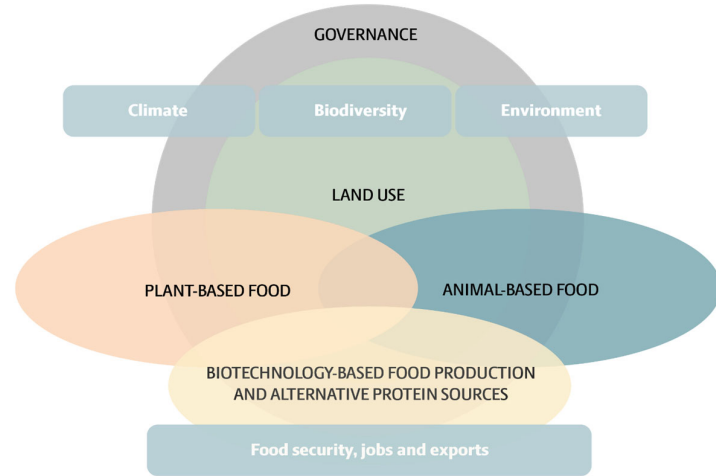
# Parliament decision on the research reserve 2022

Mio. kr. (2022-pl)	2022
<b>1. Ambitiøse og varige grønne forskningsinitiativer</b>	<b>1.573,5</b>
1.1. Grøn forskning, teknologi og innovation – Danmarks Innovationsfond	700,0
1.1.1. Realisering af grønne missioner: PtX, CCS, landbrug og cirkulær økonomi	295,0
1.1.2. Grøn forskning, teknologiudvikling og innovation - syv grønne temaer	350,0
1.1.3. Program for forskning i emissionsfri fødevarereproduktion	55,0
1.2. Øremærkede midler, der understøtter grønne missioner	310,5
1.2.1. Landbrugsforskning, jf. Aftale om grøn omstilling af dansk landbrug af 4. oktober 2021	125,5
1.2.2. CCS-strategi, jf. Principaftale for køreplan for lagring af CO <sub>2</sub> af 30. juni 2021	85,0
1.2.3. Dansk deltagelse i europæisk storskalaprojekt inden for brint, jf. Aftale om dansk deltagelse i et IPCEI vedr. brint af 18. juni 2021	100,0
1.3. Grøn forskning – Danmarks Frie Forskningsfond	110,0
1.4. Udviklings- og demonstrationsprogrammer	360,0
1.4.1. EUDP – Energiteknologisk Udviklings- og Demonstrationsprogram	210,0
1.4.2. MUDP – Miljøteknologisk Udviklings- og Demonstrationsprogram	100,0
1.4.3. GUDP – Grønt Udviklings- og Demonstrationsprogram /øko­logiforskning i samarb. m. ICROFS	50,0
1.5. Nationalt Center for Klimaforskning (NCKF)	40,0
1.6. Styrket grøn myndighedsrettet forskning	40,0
1.7. Internationalt forskningssamarbejde og styrket monitorering af grøn forskning	13,0

# Innomission (200 mill. DKK) – Agricultural green transition

- Reducing environmental and climate impacts of food and agriculture
- Reversing the decline in pollinators and loss of biodiversity
- Setting aside land for multiple functions
- Increasing food supply in support of demands
- Contributing to sustainable jobs and welfare

## AgriFoodTure roadmap



Roadmap developed by AU, UCPH, DTU, SEGES

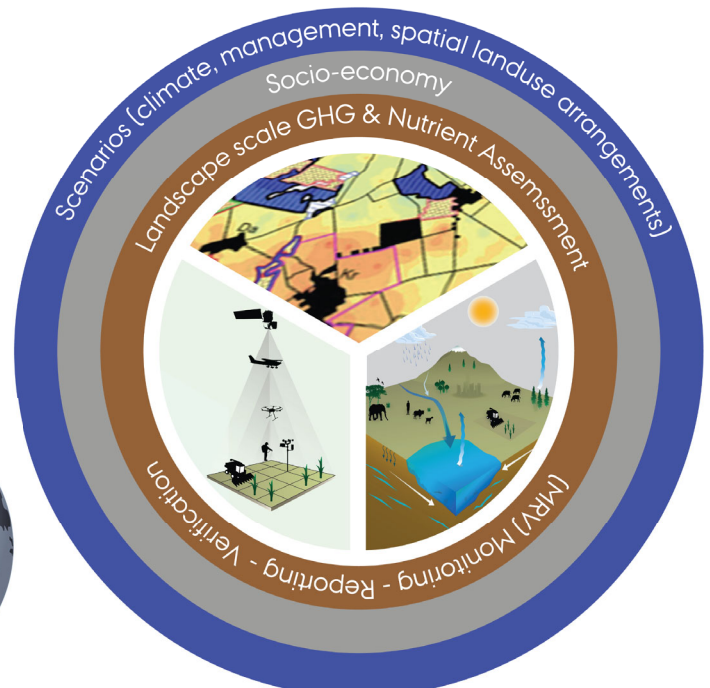
Application submitted October 2021

# Pioneer centre Land-CRAFT (230 mill. DKK over 10 years)

- Support transformational change of current food systems
- Understand nutrient and GHG fluxes at landscape scale
  - Identify and test mitigation actions at landscape scale
  - Develop monitoring, reporting and verification (MRV)

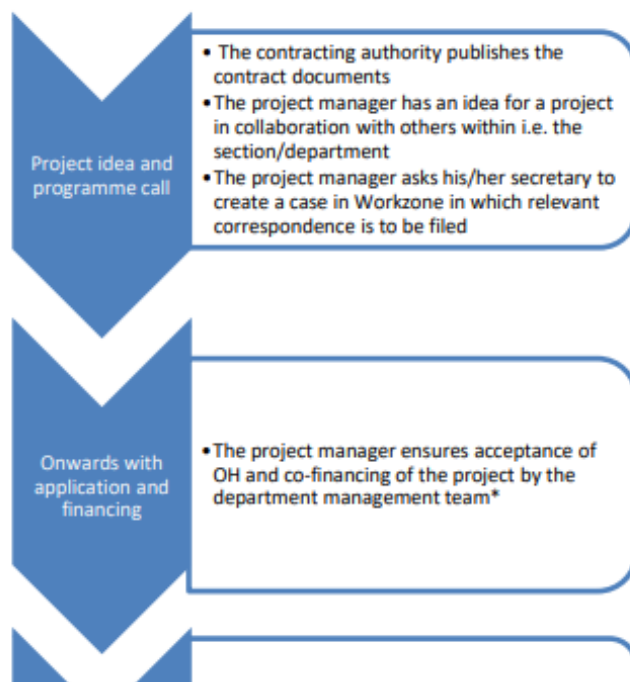
Aarhus University  
University of Copenhagen  
Karlsruhe Institute of Technology  
Colorado State University

Prof. Klaus Butterbach-Bahl



# Application guidelines

- All budgets must be sent to the department's controller for approval, and must be entered in [ØC's forms](#). Also, the funding budget form must be attached
- A file must be created in WorkZone (by the secretariat), in which all correspondence is journalized
- If field trials are planned, please contact the manager of the research station for budgeting of man power
- When something is sent for approval / signature to the head of department, a completed [cover sheet](#) must be attached. Please use the email address [head.agro@au.dk](mailto:head.agro@au.dk)
- [The research support office](#) must be involved in all EU applications
- [TTO](#) must be involved in cooperation agreements and contracts
- DCA must be involved for contract work (must follow our certified quality assurance system)



# Funding opportunities

- Independent Research Fund Denmark (quality assurance needed)
  - Green call / ordinary calls
  - Sapere aude
  - International postdoc
  - Research stay abroad
- EU ERC
  - Starting grant
  - Consolidator grant
- EU Horizon Europe
  - Individual calls
  - Joint Programming (Soil, Agroecology, Food Systems, Agriculture of Data)
  - Mission calls (Soil)

# Funding opportunities

---

- Starting Grants (primarily for externally recruited staff)
  - Novo Nordisk Foundation
  - AUFF
- Novo Nordisk Foundation (we apply too little)
  - Supports research within our research focus area
  - Career stage targeted calls
  - Individual or collaborative areas
  - Infrastructure
  - Other areas (we continuously discuss with NNF)
- VELUX Foundations (Villum and Velux)
  - Investigator / young investigator / experiment / synergy / international postdoc
  - Will likely increase emphasis on the agricultural green transition

# Funding opportunities

---

- Ministry of Food, Agriculture and Fisheries
  - Dedicated research to support farm level accounting
- GUDP
- Pesticide research
- Levy funds
- BioInnovation Institute

# The Kitchen



The Kitchen is Aarhus University's startup hub dedicated to help entrepreneurs and innovators grow

- Explore your entrepreneurial potential through workshops, courses, events and inspirational talks – open to all
- Ignite your startup, research or early stage idea by signing up to The Kitchen and get access to advisory services, funding and entrepreneurial workshops
- Speed up with The Kitchen's intense acceleration program dedicated to grow university spinouts and startups with scaling potential

<https://thekitchen.io/>



AGRO RESEARCHER DAYS | JØRGEN EIVIND OLESEN  
3 NOVEMBER 2021 | HEAD OF DEPARTMENT, PROFESSOR



**Faculty Grant**  
36 months



Up to  
DKK 18M

Open call – deadline 24. Feb  
2022



**Venture Lab**  
Grant / convertible loan  
12 months



Up to  
DKK 4M

Open call – deadline 25. Nov  
2021



**Creation House**  
Convertible loan  
18 months



Up to  
DKK 10M

## BiInnovation Institute (BII)



Our start-ups get access to **funding** via our programs to help them accelerate their business.

**BII**

### Megatrends

- Demographic & social change
- Rapid urbanization
- Climate change
- Resource scarcity
- Shift in global economic power
- Technological breakthroughs

Create impactful, transformative and ground-breaking scientific BioIndustrial solutions through funding and supporting early stage development projects at BII

Sustainable **healthy food** and innovative solutions

Improving **agricultural production, soil health and water quality** for better farming

White Space Projects

**Decrease food waste** by improving food preservation

**Improve nutritional value** of existing raw materials

**Increase food production efficiency**

**Decrease burden** by agricultural production and replace antibiotics

**Improve plant health and yield**

**Remediate soil and water**

**Synthetic biology platforms** for faster & scalable biology\*

**Genome engineering platforms**

**Novel methods of scaling biology**

**Vision/mission**

**End goal**

**Strategy**

\*Can support all three strategic areas: Bioindustrials, Health Tech and Pharmaceuticals

## Staff Development Dialogues (SDD/MUS - GDD/GRUS)

We have stopped using muskema.dk!

A group under LSU has drafted a proposal for 2021/2022:

- Conversation guide for Group Development Dialogue
- Conversation guide for SDD – depending on staff group
- Start-up meeting with leaders to align processes

# Group Development Dialogue (GDD/GRUS)

---

## Topics

- Well-being and cohesion
- Innovation and department development
- Succession management
- Research based policy advice
- Teaching and supervision

GRUS can be conducted within sections or in smaller groups

# Staff Development Dialogue (SDD/MUS)

---

## Topics

- Well-being and motivation
- Working environment
- Career and competence development (separate for staff groups)
- Summary (agreements)

## Other dialogues

- Career development dialogue for young scientific staff
- Senior dialogue (about 5 years before retirement)

# Recruitment and succession

## Recruitment plan:

- Suggested by department management
- Commented by Department forum
- Must be approved by the deans office

## Search Committee:

- Strengthen the department's work with recruiting new employees
- Ensure an applicant field with high professional quality and diversity (gender)

## Support next generation researchers:

- Young scientific staff need to document their independence
- The most important role of senior scientific staff is to support this

## Support incoming researchers:

- We are recruiting staff internationally. They need to feel at home with us. Be inclusive.

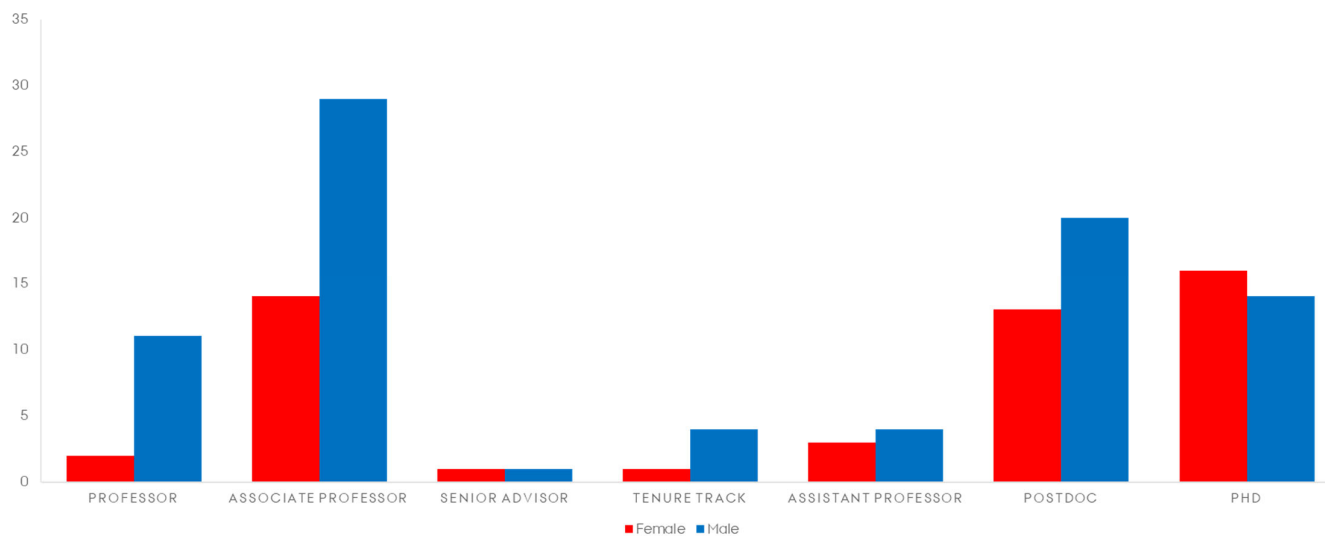
# Recruitment in AGRO 2016-2021

Stilling	2016		2017		2018		2019		2020		2021	
	Intern	Extern	Intern	Extern	Intern	Extern	Intern	Extern	Intern	Extern	Intern	Extern
Ph.d.*		8		21		16		5	1	11	3	3
Postdoc	11	6	8	5	7	1	8	2	10	6	8	5
Researcher / Assistant professor	3		2			2	2		1		4	1
Tenure track					3	1			1		2	3
Senior researcher / Associate professor				1	1	1	1		1			
Professor**	1				1		3					1
Senior advisor	1										2	
<b>Total</b>	<b>16</b>	<b>14</b>	<b>10</b>	<b>27</b>	<b>12</b>	<b>21</b>	<b>14</b>	<b>7</b>	<b>14</b>	<b>17</b>	<b>19</b>	<b>13</b>

# Permanent position for pension precondition age=68

Position	Number employ	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Senior VIP	52	1	0	1	2	8	3	0	4	2	4
AC-TAP	23	0	0	1	1	0	0	2	0	0	2
Other TAP	78	0	0	1	2	2	4	4	1	8	4
<b>Total</b>	<b>153</b>	<b>1</b>	<b>0</b>	<b>3</b>	<b>5</b>	<b>10</b>	<b>6</b>	<b>5</b>	<b>5</b>	<b>10</b>	<b>10</b>

# Gender balance in AGRO



# Gender balance and diversity

---

Equality workshop in TECH 26-11-2021

- Head of department
- Head of secretariat
- 1 section manager
- 1 young researcher – senior level
- 1 young researcher – junior level

In AGRO we could work with:

- Increasing gender awareness
- A systematic approach to mentoring
- A realistic approach to appointments, including supportive measures
- Creating, supporting and increasing the visibility of female role models

# TECH strategy process 2021-2022

---

1. TECH strategy – November 2021
2. Department self assessments – December 2021
3. Faculty seminar – December 2021
4. TECH strategy workshop – February 2022
  - Formulate short draft department strategies
  - Actions for 2022
  - AU action plan 2023

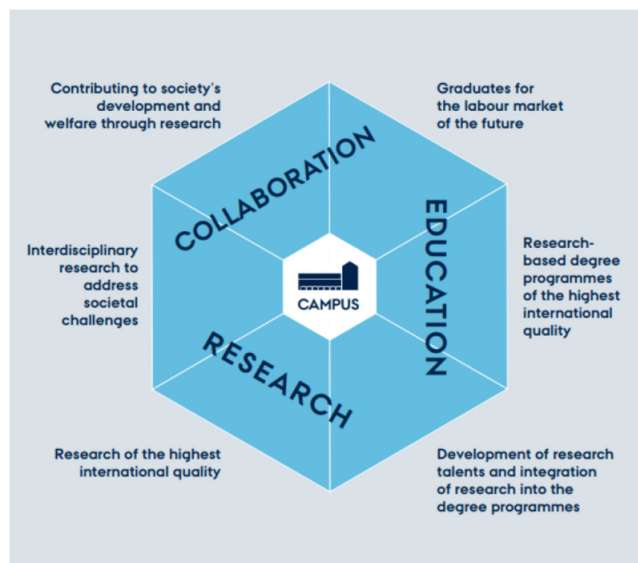
# TECH strategy process - Self assessment

1. The current situation of Department of Agroecology
2. The most important dilemmas
  - Collaboration within the department
  - Research management
  - Succession management and workload
  - Educational programmes
3. The department's prioritised activities from the AU action plan
  - Recruitment of qualified and more diverse candidates for research staff
  - Sustainable educational programmes and student recruitment
  - Collaboration with industry to support the green transition
  - Quality of our work
  - Sustainability of our working environment

## AU and TECH strategy

### TECH STRATEGY 2025

The Faculty of Technical Sciences will translate the AU strategy 2025 into the Tech strategy 2025 and the departments' strategies 2025. The diamond below illustrates the interconnectedness between the strategies at AU level, faculty level and department level.



### Tech mission

Tech strives to be a collaborative and solution-oriented faculty. We want to create the research basis for green and digital solutions. AU Tech's ambition is the overall direction for the faculty. The ambition is supported by four focal-points for strategically prioritised themes.

# AU TECH ambition and focal points

## Tech ambition

The core of AU Tech's work is to **contribute to the green transition** in society.

Through our strong academic fields of food, agriculture, the environment, nature and engineering science, and through our targeted collaboration – both internally and outside AU – we deliver a **clear and significant imprint on society**.

Our **students are an active part of this**, and they are trained in a change-oriented and solution-oriented approach to their subject, whereby they take responsibility.

Digitalisation is part of everything we do – within teaching, research and innovation, and within our research-based consultancy. As the transforming force, **digitalisation enables us to do things more intelligently and more accurately**.

In the future, we will work even **more mission-oriented and partnership-oriented**, and we will aim to be well-known for our work within the entire research and innovation chain.

## TECH strategy – Focal points

1. Prioritisation and development of new partnerships and collaborations
2. Recognised research, stronger partnerships and public sector consultancy
3. We meet our students where they are
4. Joint responsibility for collaborative culture

## All in support of the green transition

# AGRO strategy – supporting the green transition

Focus areas:

1. Low carbon footprint farming
2. Farming with minimum use of chemical pesticides
3. Low nutrient emission farming
4. Improving and maintaining soil quality
5. Sustainable digital-based farming

We will invest in this with infrastructures and staffing

We will educate and train the next generation graduates and researchers

We will work with partners to fulfill the goals