



WELCOME TO THE GREEN UNIVERSITY OF APPLIED SCIENCES WEIHENSTEPHAN-TRIESDORF

DEPARTMENT OF SUSTAINABLE AGRICULTURE AND ENERGY SYSTEMS



Bachelor's degree programmes at the Department of Sustainable Agriculture and Energy Systems (AE)

Agriculture (LW)
*also dual
(work-study)*

Agribusiness
Marketing and
Management (WA)
*also dual
(work-study)*

Management of
Renewable Energies
(ME)



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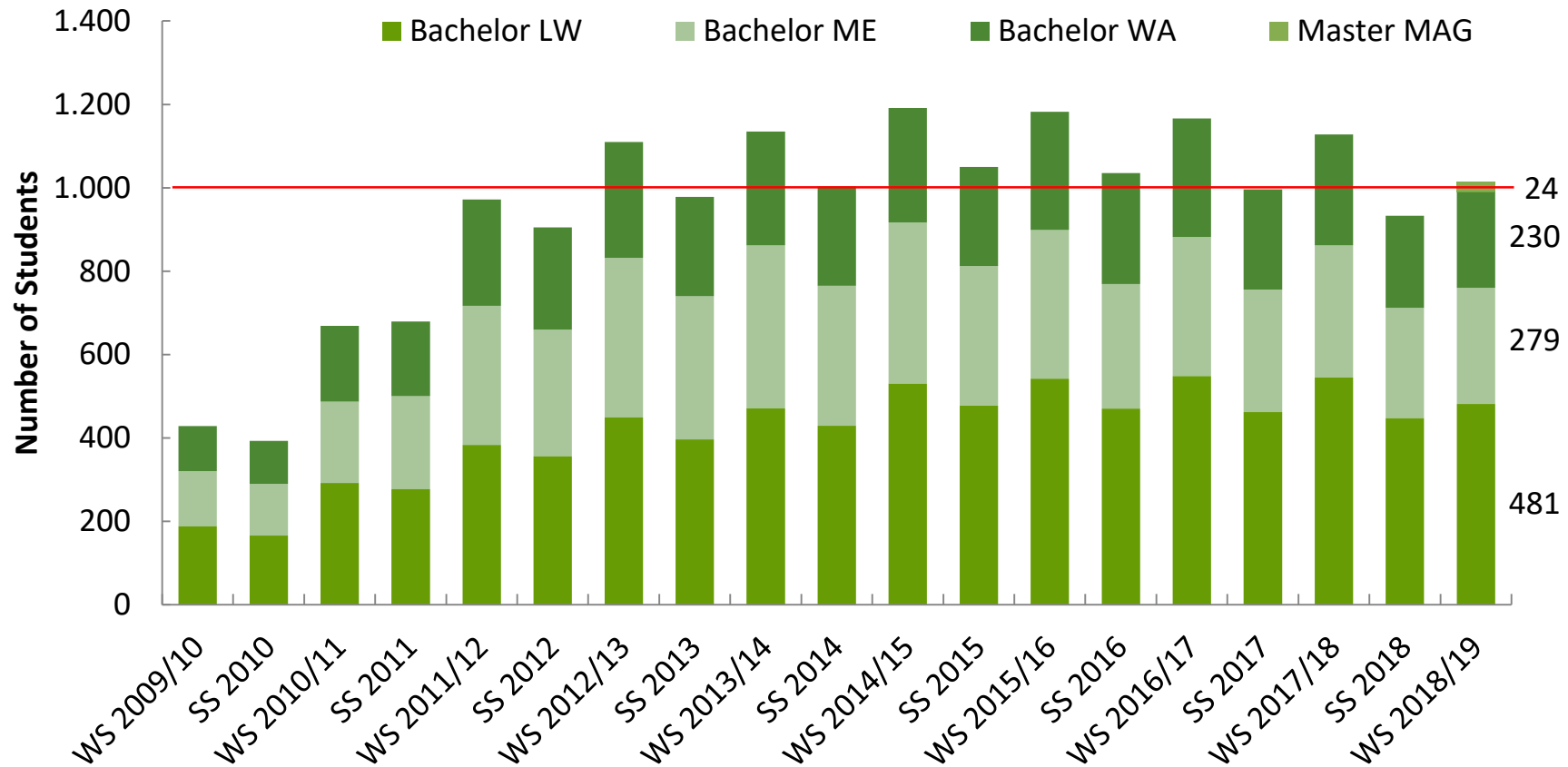
Agribusiness
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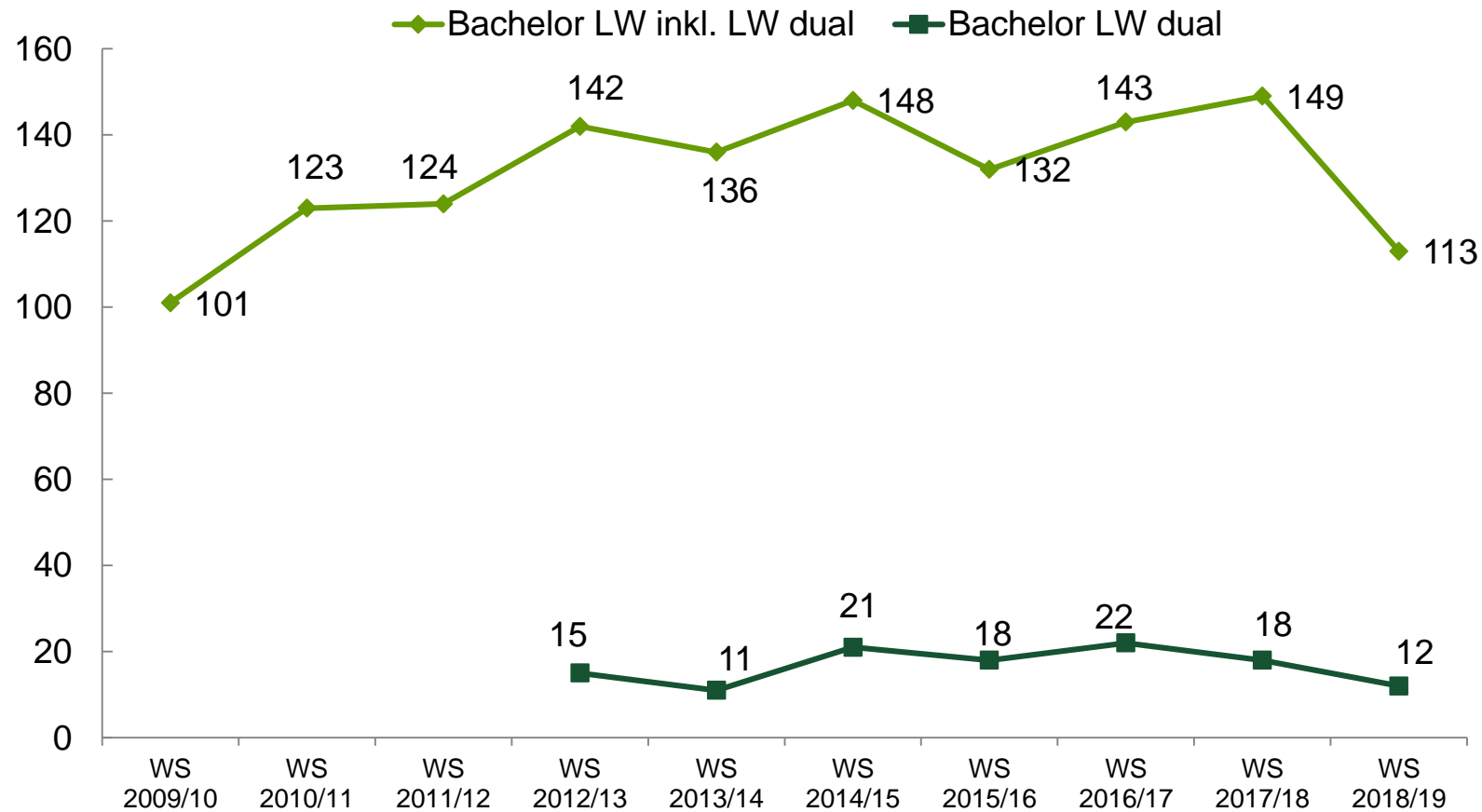
Overview of all Students at the Department AE



Quelle: CEUS 2017, Abruf der Daten am 18.10.2018 sowie HIS-Client, Abruf WS 18/19 am 18.10.2018



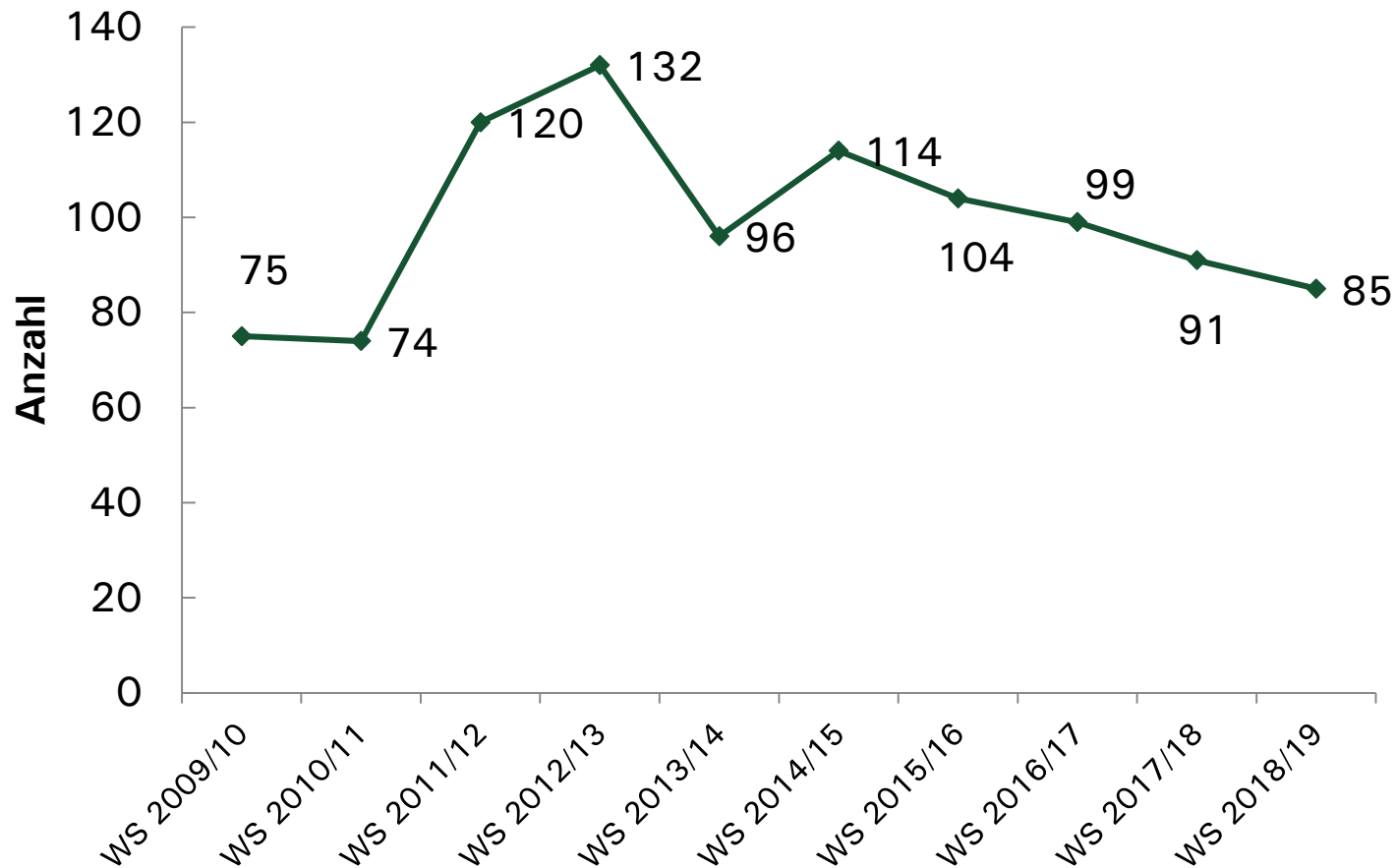
First Semester of Agriculture



Quelle: CEUS 2017, Abruf der Daten am 18.10.2018 sowie HIS-Client, Abruf WS 18/19 am 18.10.2018



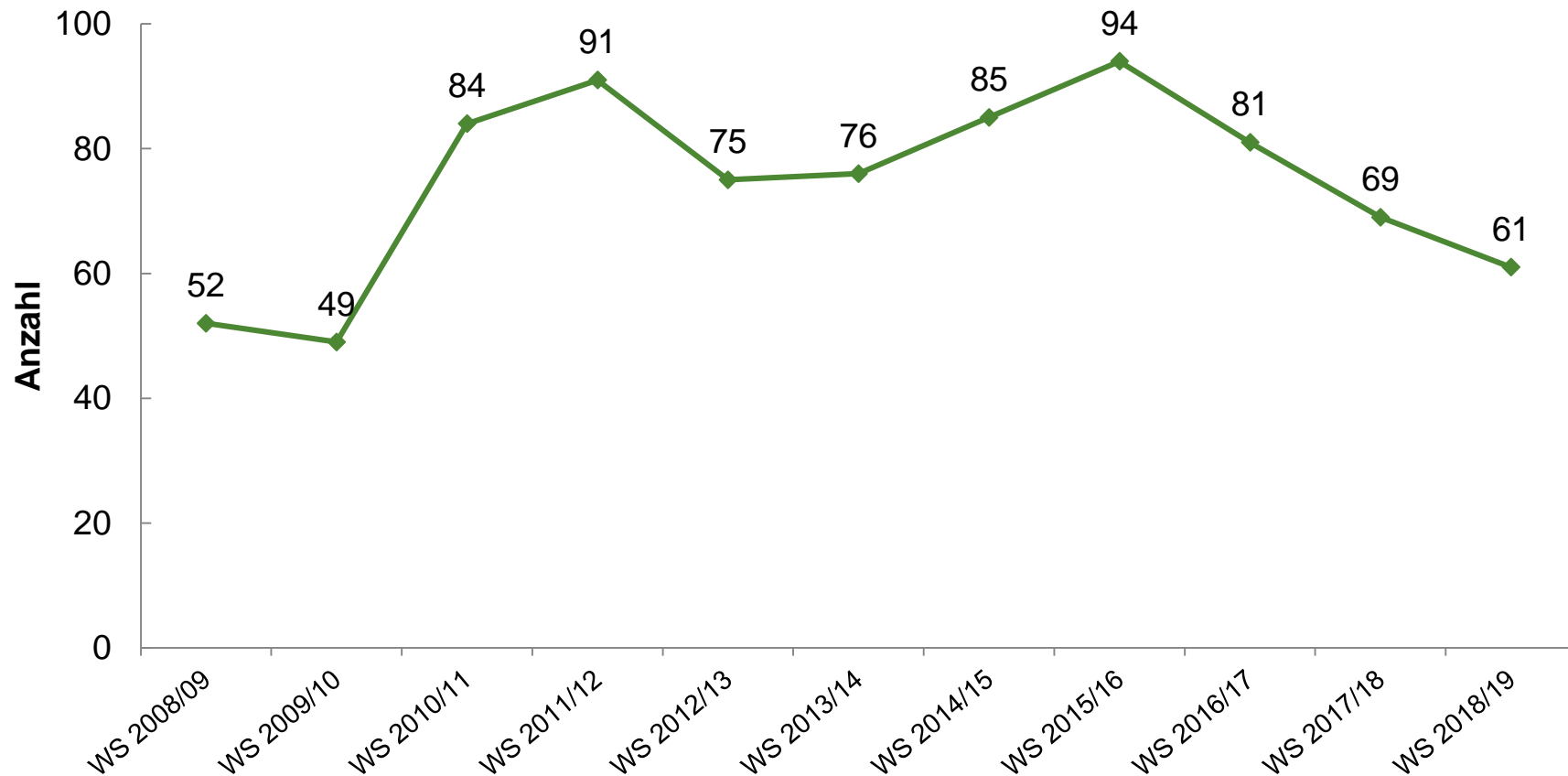
First Semester Management of Renewable Energies (ME)



Quelle: CEUS 2017, Abruf der Daten am 18.10.2018 sowie HIS-Client, Abruf WS 18/19 am 18.10.2018



First Semester Agribusiness Marketing and Management



Quelle: CEUS 2017, Abruf der Daten am 18.10.2018 sowie HIS-Client, Abruf WS 18/19 am 18.10.2018

Agriculture (LW) BSc Degree Programme



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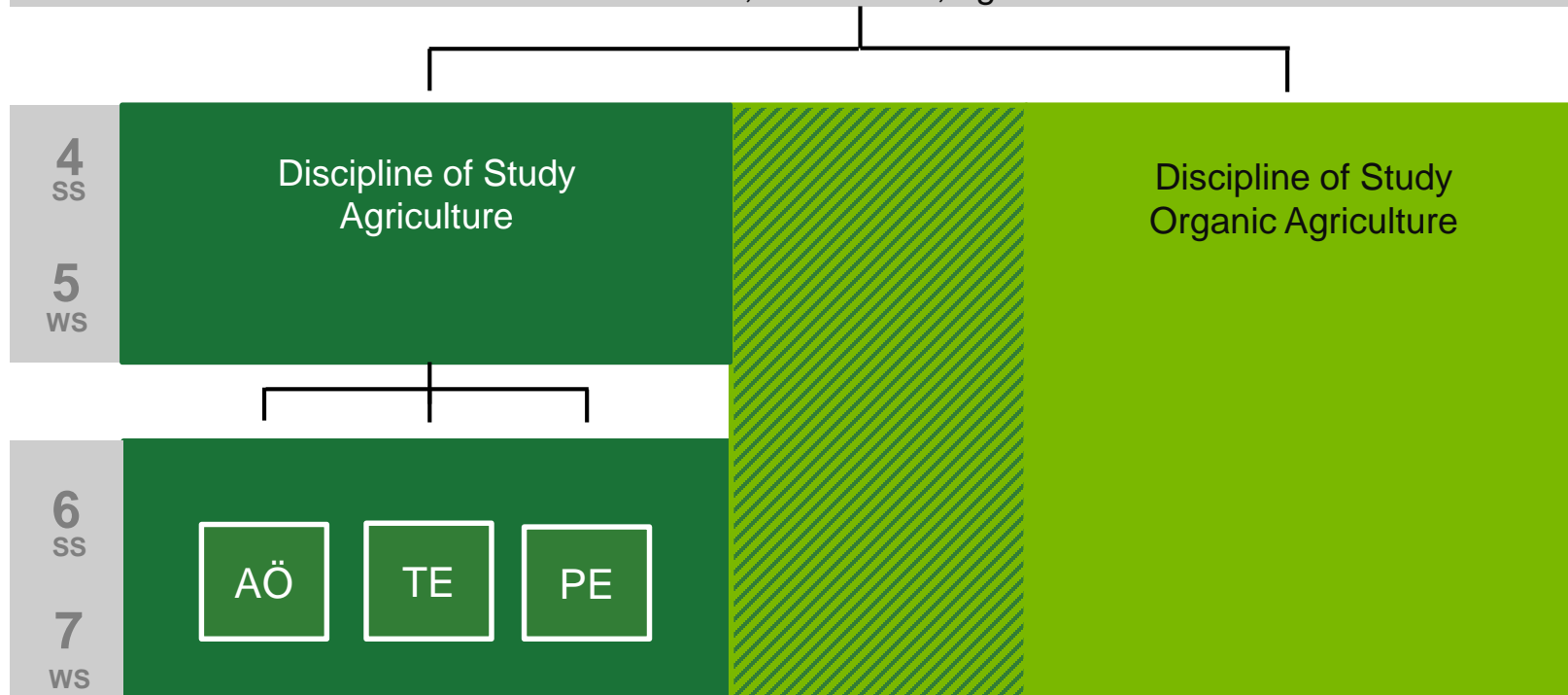
Degree Programme Assistant
Dipl.Ing. (FH) Johanna Graf
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Course Structure and Content

1 – 3 study semester

basic knowledge:
natural sciences, economics, agriculture



Only for Discipline of Study Agriculture; three areas of study focus: AÖ= agricultural economics, TE = livestock production, PE= crop production

Modules for both disciplines of study

Only for Discipline of Study Organic Agriculture

Study Programme Agriculture (Bachelor Degree)

specialisation in the 4.th semester



Agriculture



Organic Agriculture





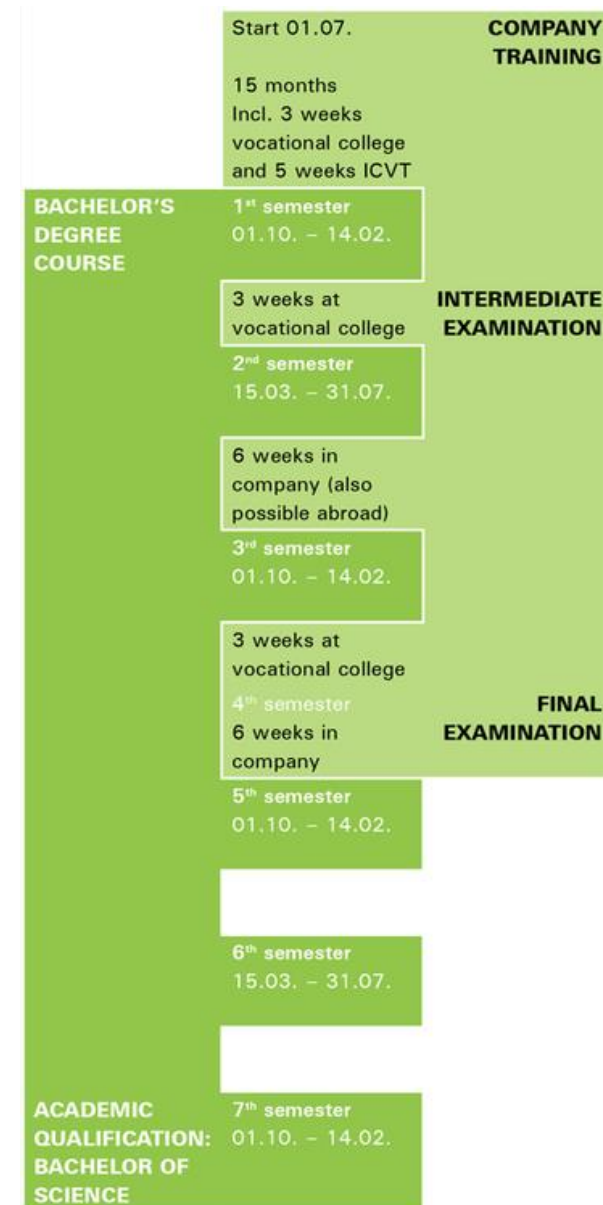
„Dual Education“ in Agriculture

15 months of vocational training
 (before the academic studies start)

+ 3 months of vocational training
 (during the semester break)

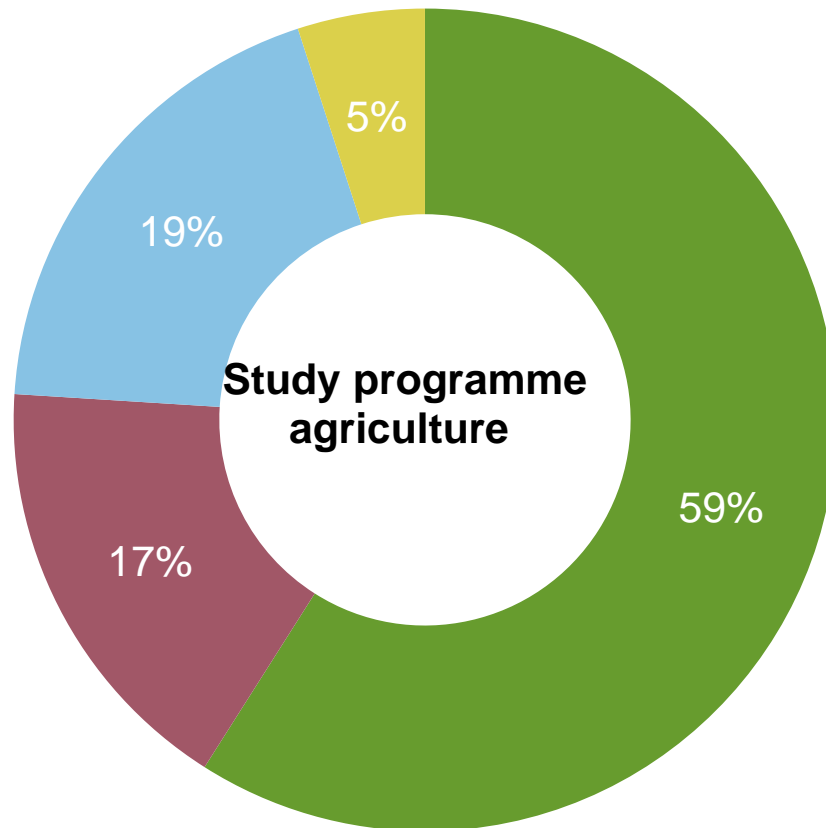
+ 6 months of vocational training
 (semester for an internship)

= 24 months of vocational training (reduced)





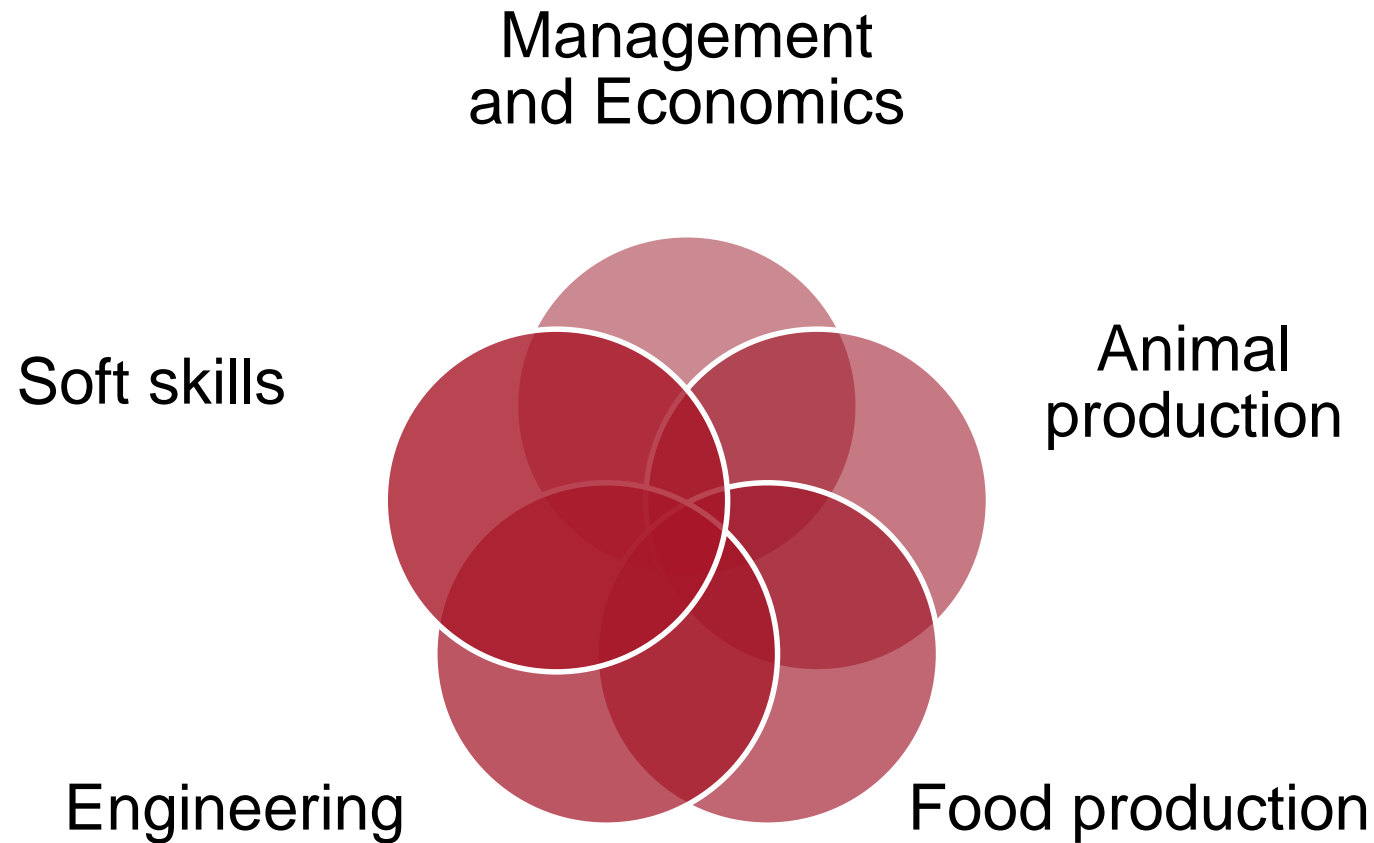
Structure of the Study Programme Agriculture



- natural sciences and engineering
- economics and legislation
- elective modules
- bachelor thesis









Structure of Elective Modules



STUDY INFORMATION SPO 2018/19

Agricultural pre-study internship (6 weeks) in a training company

1 WS	Anatomy and Physiology	Basic Physics and Engineering	Mathematics and Data Processing	Biology	Agrochemistry	Soil Science and Plant Nutrition
2 SS	Livestock Breeding and Ethology	Agricultural Engineering and Construction	Introduction to Plant Cultivation	Plant Protection and Fertilisation	Economics and Agricultural Law	AWPM
3 WS	Animal Nutrition	Process Engineering in Plant Production	Agroecological Project	Accounting and Taxation	Agricultural Business Administration	FWPM FWPM
4 SS	Agricultural internship (24 weeks)					
5 WS	Livestock Breeding	Cash Crops	Process Engineering in Animal Production	Investment and Taxation	Production Economics	FWPM FWPM
6 SS	Specialisation	Livestock Feeding	Grassland and Forage Production, Assessment of Plant Populations	Business Management	Statistics and Experimental Research	AWPM FWPM
7 WS	Agroeconomics Animal Production Plant Production	Vocational Fields Analysis	Bachelor's thesis		Market Analysis and Agricultural Policy	

-  Introduction to Natural Science
-  Plant Production
-  Animal Production
-  Technology
-  Economics
-  Elective modules

General required elective module (AWPM):

- e.g.:**
- Vocational Pedagogy
 - Languages

Specialised required elective module (FWPM):

- e.g.:**
- Tax Planning
 - Animal Health
 - Precision Farming

-  Specialisation modules

Specialisations to choose from:







- Agroeconomics
- Animal Production
- Plant Production

-  Bachelor's thesis

Module: • Seminar-based tuition of 4–5 hours per week with different proportions of exercises, seminars, internships and project work – see module descriptions online
• 5 EC (European Credits) per module; exceptions: Required elective modules 3 EC, vocational fields analysis 7 EC, Bachelor's thesis 10 EC, specialisation module 12 EC and internship 30 EC

STUDY INFORMATION SPO 2018/19

Agricultural pre-study internship (6 weeks) in a training company						
1 WS	Anatomy and Physiology	Basic Physics and Engineering	Mathematics and Data Processing	Biology	Agrochemistry	Soil Science and Plant Nutrition
2 SS	Livestock Breeding and Ethology	Agricultural Engineering and Construction	Introduction to Plant Cultivation	Plant Protection and Fertilisation	Economics and Agricultural Law	AWPM
3 WS	Animal Nutrition	Process Engineering in Plant Production	Agroecological Project	Accounting and Taxation	Agricultural Business Administration	FWPM FWPM
4 SS	Agricultural internship on an ecological farm (24 weeks)					
5 WS	Animal Production Systems on Ecological Farms	Plant Production Systems on Ecological Farms	Process Engineering in Animal Production	Investment and Taxation	Production Economics	FWPM FWPM
6 SS	Project on Analysis, Organisation, and Planning on Ecological Farms	Operating Systems for Organic Agriculture	Business Management on Ecological Farms	Marketing for Organic Agricultural Products	Statistics and Experimental Research	AWPM FWPM
7 WS		Vocational Fields Analysis	Bachelor's thesis		Market Analysis and Agricultural Policy	



-  Introduction to Natural Science
-  Plant Production
-  Animal Production
-  Technology
-  Economics
-  Elective modules

General required elective module (AWPM):
e.g.:

- Vocational Pedagogy
- Languages

Specialised required elective module (FWPM):
e.g.:

- Tax Planning
- Animal Health
- Precision Farming

-  Organic Agriculture specialisation
-  Bachelor's thesis

- Module:
- Seminar-based tuition of 4–5 hours per week with different proportions of exercises, seminars, internships and project work – see module descriptions online
 - 5 EC (European Credits) per module; exceptions: Required elective modules 3 EC, vocational fields analysis 7 EC, Bachelor's thesis 10 EC, project on the analysis and assessment of ecological farms 12 EC and internship 30 EC

Reasons for Studying Agriculture in Weihenstephan

- » project based learning
- » small groups
- » projects with business partners
- » most advanced techniques
- » seminars
- » clearly structured programme
- » direct & informal relationship to professors
- » own farm for conducting field trials





Exemplary Career Perspectives



JOHN DEERE



CLAAS



HORSCH
Landwirtschaft aus Leidenschaft



Management of Renewable Energies (ME) Degree Programme



Programme Director
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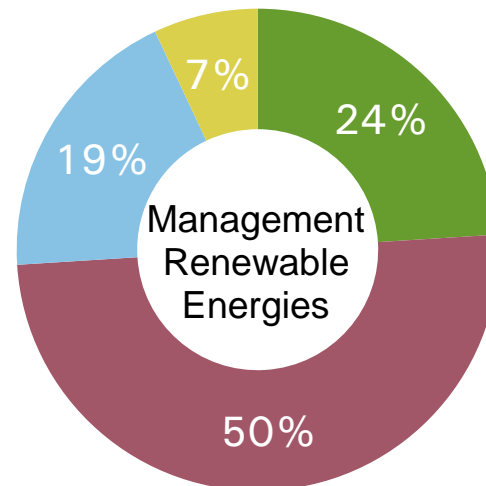


The Management of Renewable Energies course offers...

... a varied qualification in the areas of

- » production,
- » the technical use
- » energy-related application

of biomass and other renewable energies in combination with economic and ecological knowledge



- Science/Engineering
- Business/Law
- Option
- Bachelorthesis



Course Structure and Content

7th semester

Personnel Management, Law, Politics;
Advanced study in a chosen core subject;
Bachelor's thesis



6th semester

Quality Management, Corporate Governance, Energy Markets;
Project work in a chosen core subject



5th semester

Internship



4th semester

Technology, Logistics, IT;
Project work in the chosen core subject (Economy or Production)



3rd semester

Basic studies in Management, Marketing, Technology, Law
and Cost Accounting



2nd semester

Basic studies in Renewable Raw Materials, Technology,
Business Administration and Data Processing



1st semester

Basic studies in Natural and Engineering Sciences and
Economics

- » The course is clearly structured and practice-orientated.
- » Study projects are conducted in small groups with personal supervision by professors.
- » Graduates earn the title of 'Bachelor of Science'.

Some Examples for Student Projects

**Energyforest
Zurnhausen 20.000m²**



**Experiment with
Paulownia 3.000m²**



Wood chips barbecue



Potential Professional Fields

- » Operating companies
- » Energy providers
- » Project development companies
- » Project management
- » Project funding (private/public)
- » Approving authorities
- » Machine and system construction
- » Technical monitoring
- » Trade associations
- » Consulting companies



BACHELOR MANAGEMENT OF RENEWABLE ENERGIES

STUDY INFORMATION SPO 2018-19



1 WS	Basic Business Administration and Accounting	Mathematics and Statistics	Biology (of Renewable Resources)	Basic Physics and Engineering	Basic Economics	AWPM AWPM
2 SS	Cost Accounting and Control	Chemistry	Introduction to the Production of Renewable Raw Materials	Basic Process Engineering	Basic Data Processing	WPM Languages FWPM
3 WS	Basic Investment and Financing	RE Business English & Presentation Skills	Basic Marketing and Sales	Energy and Environmental Engineering I	Economic Law	FWPM FWPM
4 SS	Specialisation module I	Process Engineering and Logistics for Renewable Energies	Project Management	Energy and Environmental Engineering II	Renewable Energy Law	FWPM FWPM
5 WS	Internship in companies/institutions typical of the industry (22 weeks)					
6 SS	Specialisation module II	Personnel Management	Renewable Energy Markets	Computer Applications	Business and Financial Management	FWPM FWPM
7 WS	Specialisation module III	Quality Management: Environment and Energy	Environmental Policy, Energy Policy, Energy Law	Bachelor's thesis		

- Introduction to Natural Science
- Economics/Business
- Data Processing
- Law
- Market/Politics
- Management
- Production/Technology
- Elective modules (AWPM/FWPM)
- Bachelor's thesis
- Specialisation modules

By the end of the 7th semester, students must have completed 6 FWPM each worth 3 EC.

Module:

- Seminar-based tuition of 4–5 hours per week with different proportions of exercises, seminars, internships and project work – see module descriptions (visit our website)
- 5 EC (European Credits) per module; exceptions: required elective modules (3 EC), Bachelor's thesis (12 + 2 EC) and internship (30 EC)

Specialisations:	Economics (OE)	Production (PR)	International (IM)
4 SS	Market Research	Energy Plant Production	International Marketing Project
6 SS	Sustainable Business and Economic and Ecological Planning	Wood Energy	International Challenges of RE
7 WS	Regional Energy Management	Efficient Energy Use	Climate Protection Law & RE Business Communication



Agribusiness Marketing and Management (WA) Degree Programme



Programme Director
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Degree Programme Assistant
Dipl. Wirtschaftsing. (FH) Carola Metz
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Areas of Study Focus in the Study Programme Agribusiness Marketing and Management (WA

Areas of Study Focus

Agribusiness

**broad commercial
knowledge in
agribusiness sector**

z. B.

- Strategic Marketing
- processing and marketing of agricultural products
- Logistics
- Business Software
- Environmental law
- Controlling
-

Agri Engineering

**broad commercial
knowledge and industry
specific knowledge**

e.g..

- Marketing and sales
- International sales strategies
- Precision Farming
- Milking Techniques
- Forage Techniques
- Barn design (CAD)
- Process Engineering Sugar Beets & Potatoes
-



Study Course with Intensive Practical Work

The overall duration of the phase of practical experience is equal to 12 months plus 1.5 months of agricultural practice.

BACHELOR'S DEGREE COURSE	1 st semester* 01.10. – 14.02.	APPLICATION AT COMPANY DURING THE 1 ST SEMESTER
	1 month practical	
	2 nd semester 15.03. – 31.07.	
	2 month practical	
	3 rd semester 01.10. – 14.02.	
	1 month practical	
	4 th semester 15.03. – 31.07.	
	5 th semester = practical semester 01.08. – 14.03. 7.5 month practical incl. 1.5 months of agricultural practice	
	6 th semester 15.03. – 31.07.	
	2 month practical	
ACADEMIC QUALIFICATION: BACHELOR'S DEGREE	7 th semester 01.10. – 14.03.	BACHELOR'S THESIS IN COMPANY



STUDY INFORMATION SPO 2018/19

	Agricultural pre-study internship (6 weeks) in a training company						
1 WS	Basic Physics and Engineering	Agrochemistry	Mathematics and Basic Computing	Basic Economics	Business English and Presentation Skills*		AWPM I AWPM II
2 SS	Agricultural Engineering	Agrobiologie	Statistics	Computer Applications	Accounting and Taxation	Business Law and Operations	
3 WS	Introduction to Plant Production	Basic Animal Production	Databases*	Production and Logistics	Basic Marketing*	Business English/Technical English*	
4 SS	Production of Plant Products	Production of Animal Products	Cost Accounting and Controlling	Economics of Agricultural Production	Market Research		FWPM FWPM
5 WS	Agricultural internship (6 weeks)		Commercial internship (17 weeks in a specialist area)				
6 SS	Business and Financial Management*	Markets for Agricultural Products and Production Means*	Agricultural Policy	Specialisation module I	Specialisation module II		FWPM
7 WS	International Trade*	Personnel Management and Communication	Specialisation module III	Bachelor's thesis			FWPM

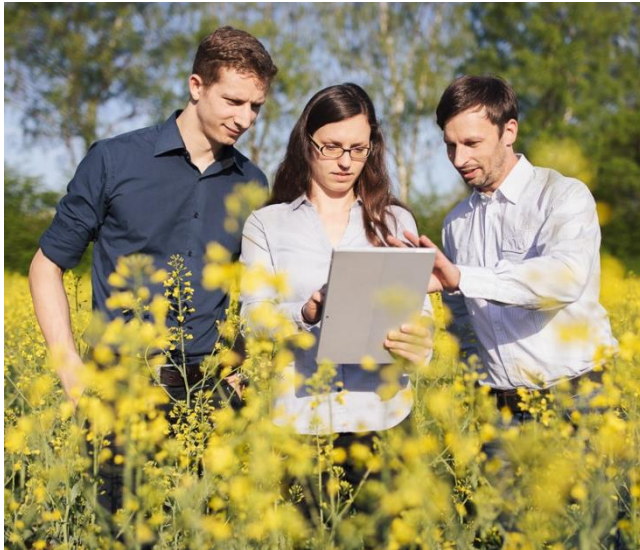
- Production Technology
- Economic Mathematics
- Marketing, Management
- Languages/Communication
- Elective modules
- Bachelor's thesis
- Specialisation modules
Specialisations to choose from:
Agribusiness (AG)
Agritechnology (AT)
- Specialisation module I:
AG: Marketing Conception
AT: Marketing and Sales
- Specialisation module II:
AG: Quality Management and Consumer Protection
AT: International Sales Management of Agricultural Technology
- Specialisation module III:
AG: Processing of Agricultural Raw Materials
AT: Precision Farming

AWPM, general required elective module; FWPM, specialised required elective module

* Modules taught partly in English

- Module:
- Seminar-based tuition of 4–5 hours per week with different proportions of exercises, seminars, internships and project work – see module descriptions online
 - 5 EC (European Credits) per module; exceptions: required elective modules 3 EC, internship 30 EC, Bachelor's thesis 12 EC

Agricultural Management (MAG) Master's Degree



Programme Director
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Degree Programme Assistant
Ellen Redderberg
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Master's degree in Agricultural Management

WEIHENSTEPHAN

3 semesters



Departments: AE, GL, LT

Specialisation	Management of Operating Systems in Agriculture (LW)			Management of Operating Systems in Organic Agriculture and Horticulture (Ecological)			Value Chain Management (WK)		
1 WS Integrated compulsory modules	Digitalisation and Data Management	Qualitative and Quantitative Methods	System Analysis and Modelling	Digitalisation and Data Management	Qualitative and Quantitative Methods	System Analysis and Modelling	Digitalisation and Data Management	Qualitative and Quantitative Methods	System Analysis and Modelling
Management Required elective modules (MWPM)	MWPM I	MWPM II	MWPM III	MWPM I	MWPM II	MWPM III	MWPM I	MWPM II	MWPM III
2 SS Specialised required elective modules (FWPM)	Project on Location-Specific Operating Systems for Agricultural Operations			Project on Location-Specific Operating Systems for Organic Farming			Value Chain Coordination Project		
	FWPM I – LW	FWPM II – LW		FWPM I – Ecological	FWPM II – Ecological		FWPM I – WK	FWPM II – WK	
	WPM I	WPM II		WPM I	WPM II		WPM I	WPM II	
Required elective module (WPM) from separate Master's course									
3 WS	Master's thesis (in collaboration with a company – either in Germany or abroad)								

Required elective modules WPM (see study plan for minimum and maximum number of students)										
MWPM	Innovation Management	Consulting Communication Negotiations	Business Management Personnel, Tax, Law	Investment and Financing	Management internship	English for Specific Purposes **	Intercultural Competence **			
FWPM	LW	Precision Crop Production Smart Farming	Herd Management Cattle *	Quality of Agricultural Products	Ethology and Systems Technology Livestock					
FWPM	Eco	Ecological Cash Crop Farming and Olericulture	Grassland, Forage Production and Conservation *	Ecological Pig and Poultry Farming	Ecological Horticulture					
FWPM	WK	International Trade	QM and Certification Systems	Consumer Studies	Maintaining Post-Harvest Quality					

* can also be chosen in the LW and Ecological specialisations as an FWPM ** 1 module can be chosen as an MWPM, a second language module (including other language courses at Master's level) can be chosen as a WPM



Partnerships



Research at the Department AE

Project Titel	Duration	Partner
Cow Energy – Stable 4.0 Development of an integrated farm management system for combined dairy and energy production on farms and networking in a regional energy network	2016 - 2020	<ul style="list-style-type: none"> • BEDM GmbH, • Hörmann GmbH & Co. KG, • Technische Universität München - Lehrstuhl für Agrarsystemtechnik
GRUENLEGUM Green legumes as protein and roughage in ecological poultry and pig feeding	2016 - 2019	<ul style="list-style-type: none"> • Bayerische Landesanstalt für Landwirtschaft, • Bioland Beratung GmbH - Geschäftsstelle Augsburg, • Justus Liebig Universität Giessen - Center for international research, • Thünen Institut - Bundesforschungsinstitut für Ländliche Räume, Wald und Fischerei

Research at the Department AE

Project Titel	Duration	Partner
GUI Studies on genotype-environment interactions in sheep of the Merinoland sheep breed with special focus on concentrate- and grass-based feeding	2016 - 2017	Bayerische Landesanstalt für Landwirtschaft, Institut für Tierzucht
Multi-use feeding robot Conception, development and construction of a novel electrically operated multifunctional automatic feeding system for dairy cattle pens	2015 - 2018	<ul style="list-style-type: none"> • Mayer Maschinenbaugesellschaft mbH, • Technische Universität München - Lehrstuhl für Agrarsystemtechnik
Production of liquid biomethane from biogas for long-term storage of energy	2014 - 2017	Hochschule für Angewandte Wissenschaften Landshut

All Research Projects: <https://www.hswt.de/en/research/research-facilities.html>



Impressions



DEPARTMENT OF SUSTAINABLE AGRICULTURE AND ENERGY SYSTEMS

