

---

Master's Programme in  
**BIOECONOMY**

University of Hohenheim



# The University of Hohenheim



Faculty of Agricultural Sciences

Faculty of Natural Sciences (including nutrition, food and biotechnology)

Faculty of Business, Economics and Social Sciences

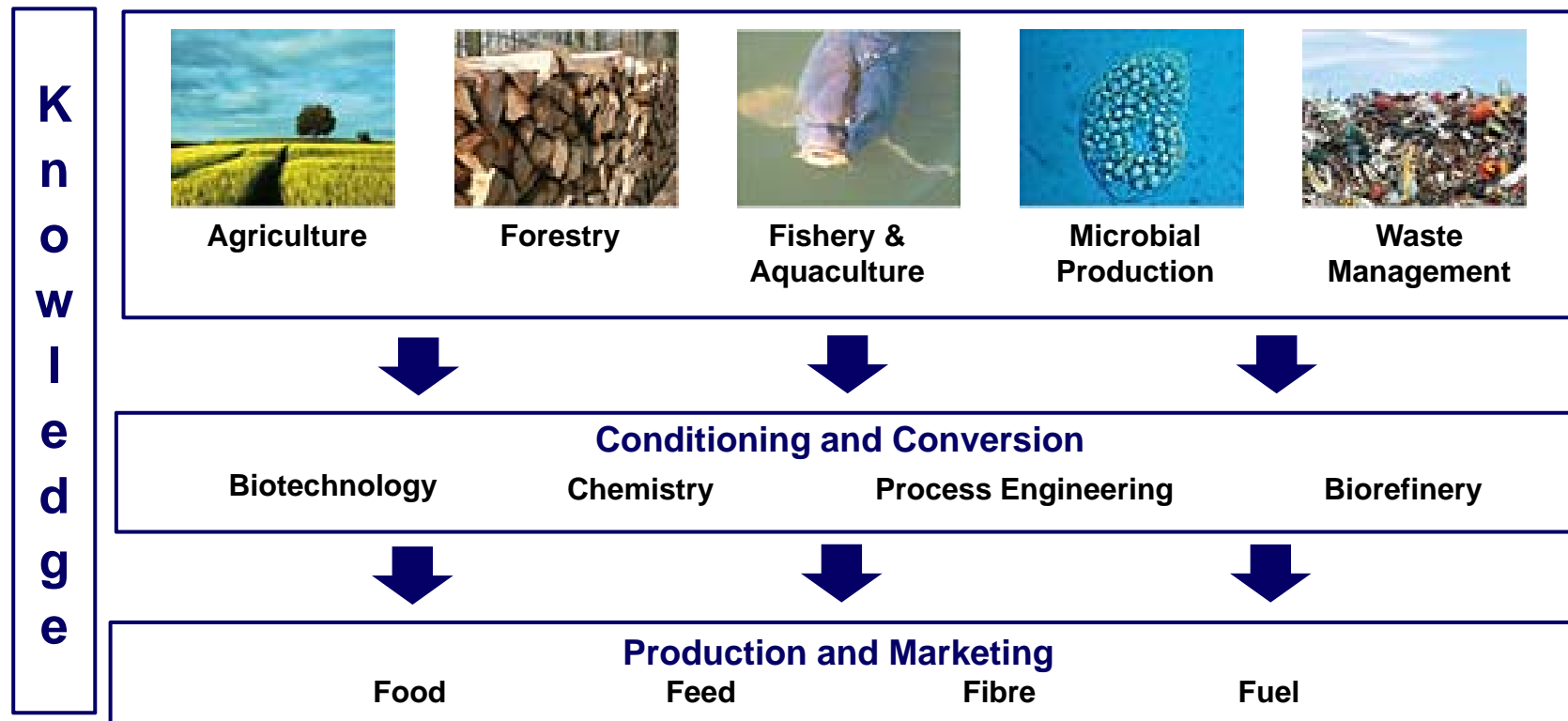
10.000 Students (13 % international)

The Bioeconomy University

## Bioeconomy at a Glance

### What is bioeconomy?

*“Bioeconomy is the knowledge-based production and use of **biological resources** to provide products, processes and services in all economic sectors within the frame of a **sustainable economic system**”.\**



\* Definition of the Bioeconomy Council Germany / Bioökonomierat (BÖR);  
Figure adapted from European Commission 2006



## Bioeconomy at a Glance

---

### Aims of the bioeconomy

Shift from a fossil-fuel-based economy towards an economy based on renewable and sustainable resources including the following overarching aims:\*

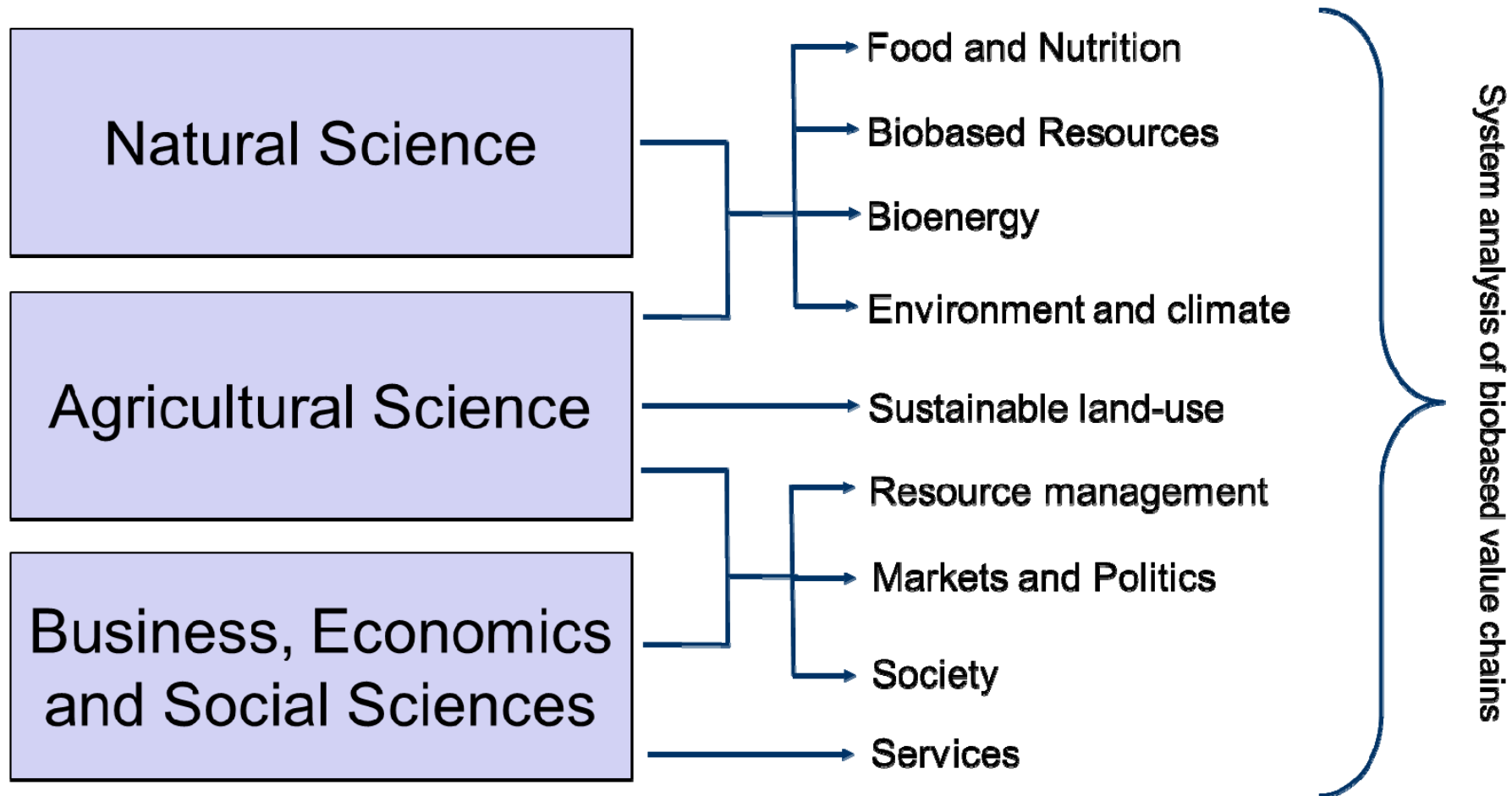
- Securing worldwide food supply
- Producing healthy and safe food
- Creating sustainable agricultural production
- Expanding energy carriers based on biomass
- Using renewable resources industrially

➔ scientific disciplines, political and economic actors must work together to create necessary innovation

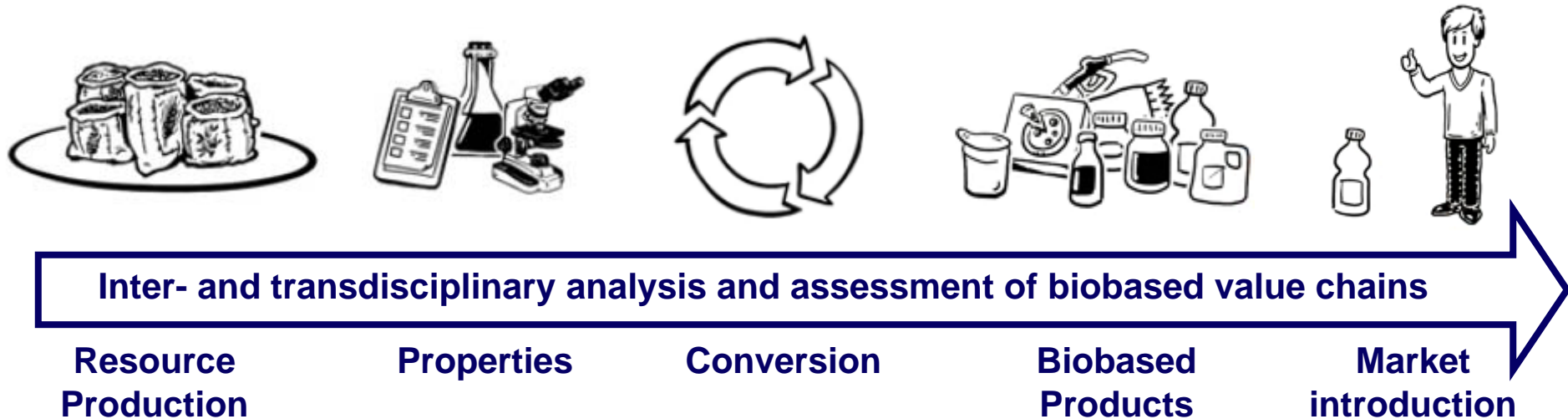




## (2) Bioeconomy at the University of Hohenheim



## (2) Bioeconomy at the University of Hohenheim



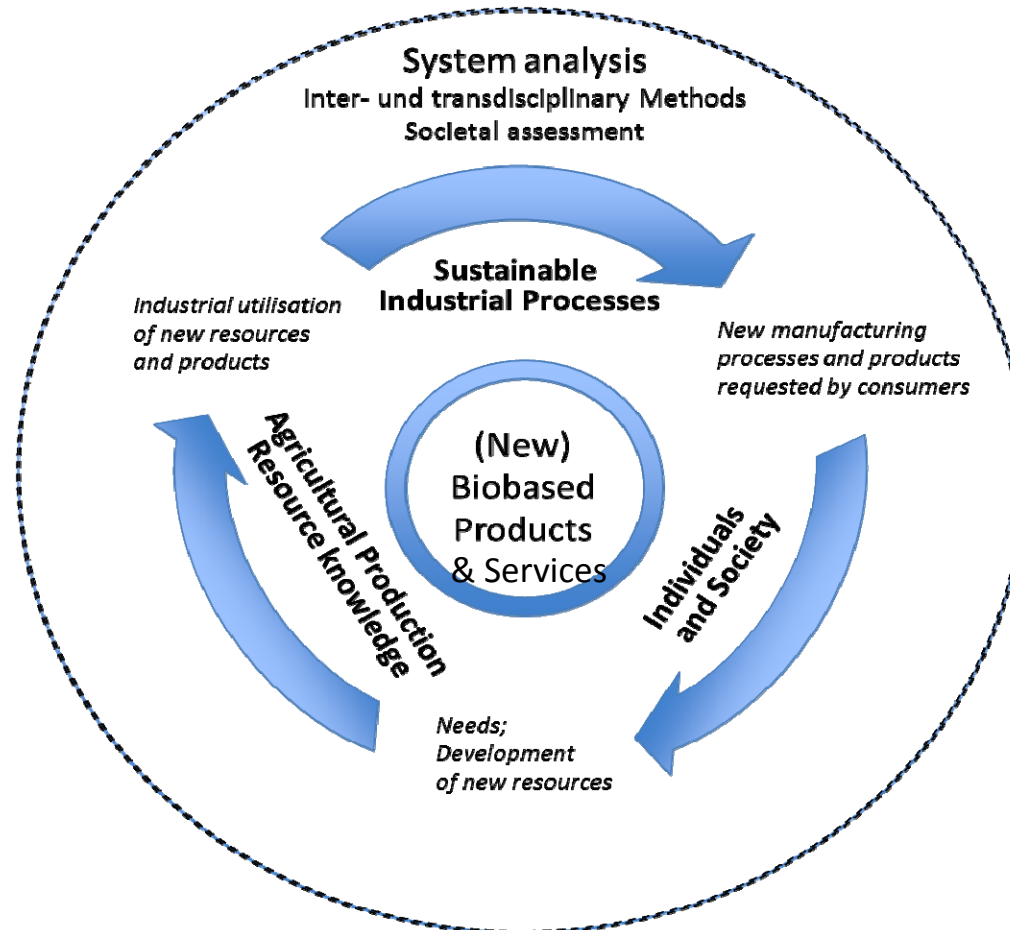
### From each of the following perspectives:

- Companies that focus on new biobased resources, processes and products;
- Established producers seeking to introduce renewable resources, biotechnological processes and their corresponding products onto the market;
- Actors attempting to gauge the need and acceptance of such products;
- Organizations that support the development of biobased value chains, e.g. through research and advisory services.



# Master's Programme in Bioeconomy

## Concept of the programme





## Master's Programme in Bioeconomy

---

# T - Profile

Systematic, holistic and participative approaches

Disciplinary expertise





# Master's Programme in Bioeconomy

## Curriculum

	1st semester	2nd semester	3rd semester	4th semester
6 credits	Inter- and Transdisciplinary Approaches in Bioeconomics	Sustainable Industrial Processes	Elective modules (30 credits)	Master's thesis (30 credits)
6 credits	Properties of Biobased Resources and Products	Internal and External Costs and Benefits of Biobased Products		
6 credits	Agricultural Production of Biobased Resources	Markets, Innovation and Social Acceptance of Biobased Products		
6 credits	Economics and Management			
6 credits	Natural Science Concepts	Projects in Bioeconomic Research		

- compulsory modules
- semi-elective modules

→ **Compulsory modules**  
72 credits

→ **Elective modules**  
36 credits

→ **Semi-elective modules**  
12 credits  
(It is possible to take all semi-elective modules, if one is taken as an elective module)

# Strategic Network BioEconomy - BECY

---

Aim: To set up a long-term cooperation in mutual and complementing areas of bio-based economy in order to strengthen excellence in the quality of research and teaching.

## Partners

- Universidade de São Paulo (USP), Brazil
- Universidade Estadual Paulista (UNESP), Brazil
- Universidad Autónoma Metropolitana (UAM), Mexico
- University of Guelph (UGuelph), Canada
- University of Copenhagen (KU), Denmark
- University of Hohenheim (Germany)



## Master's Programme in Bioeconomy

---

**“Hohenheim bioeconomists” are able to:**

→ **apply a value chain perspective**

- plan, assess and analyse production and processing of renewable resources across all sectors;
- coordinate production of biobased products in a locally-adapted way

→ **determine and use appropriate technologies and processes**

- understand key technologies and advance their economic use;
  - consider interdependencies of biomass utilisation pathways
-



## Master's Programme in Bioeconomy

---

**“Hohenheim bioeconomists” are able to:**

→ **consider societal and economical requirements**

- consider growing societal requirements for biobased products and production methods;
- organize the market launch of new biobased products;
- understand the embeddedness of (new) biobased products in value chains from micro- and macroeconomic perspectives;

→ **set up general conditions and institutional frameworks**

- coordinate cooperation of different stakeholders in the development of biobased value chains;
  - promote the establishment of adequate institutional and policy frameworks, e.g. standards for sustainability in resource production.
-



## Master's Programme in Bioeconomy

---

### Career prospects

#### → Private sector

- Companies that produce products based on
  - biological resources and
  - biotechnological processese.g. food, biobased consumer products and bioenergy
  
- Professional positions in production, marketing and research & development
  
- Project management positions



## Master's Programme in Bioeconomy

---

### Career prospects (cont'd)

#### → Start-ups

- Own start-ups

#### → Research and Development

- Public sector research organisations in the field of the bioeconomy
- Organisations that support biobased value chains (including consulting companies and financial organisations)

#### → Public Sector

- Ministries and agencies that support the bioeconomy
  - International organisations that support the bioeconomy (including international development organisations)
-



## Experiences of the first year

---

Interdisciplinary teaching and learning is a challenge,  
but interdisciplinary composition of the group help to learn it

Workshop in the beginning helps team building  
Strong team work in the group

Strong benefit of international composition of the group  
Students learned from each other

---



**CHANGE  
THE  
SYSTEM.  
SHAPE  
THE  
FUTURE.**

More information:

[www.uni-hohenheim.de/bioeconomy](http://www.uni-hohenheim.de/bioeconomy)

Thank you for your attention!