

Catalina Rodríguez Correa
University of Hohenheim
Germany

Bioeconomía en América Latina y el Caribe 2015

Latin America and the Caribbean Bioeconomy 2015



Santiago 7 y 8 octubre de 2015



Session 1: / Sesión 1:

Regional, national and local bioeconomy strategies

Estrategias de bioeconomía regionales, nacionales y locales

Towards a Bio-Economy 2030: A Public Strategic Framework for Opportunities in a Bio-based Economy



Societal Challenges in the 21st Century



- Increasing world population and changes in food utilisation patterns
- Increase of food associated diseases
- Climate change/protection, resource conservation/protection
- Need for a sustainable energy production
- Transfer from a fossil to a bio-based raw material supply



Bio-Economy: the German Concept

Definition

*“Bioeconomy is the **knowledge-based** production and utilization of **biological resources** to provide products, processes, and services in all industrial sectors in the framework of a **sustainable economic system**”*

Source: German Bioeconomy Council



Bio-Economy: the German Concept

Consumer

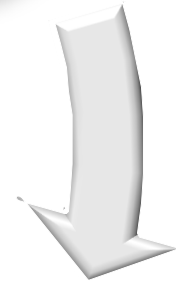
- *socio-economics*
- *logistics*
- *construction*
- *trade*



*Systems
analysis*

Production

- *agri-tech*
- *(mol.) biology,*
- *soil, plant, animal*

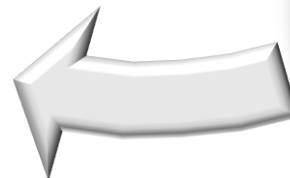


Conversion

- *process tech*
- *biotechnology*



Sustainable?



Valorisation

- *food, feed*
- *fiber,*
- *fuel*



National Research Strategy Bio-Economy 2030

NFSB 2030

- **BMBF** Federal Ministry of education and research
- BMELV Federal Ministry of food, agriculture and consumer protection
BMWV, BMZ, BMU...
- Research Institutes: HGF, WGL, FhG, MPG
- Industry
- Federal states
- European and International cooperation
starting November 2010; duration 6 years

Project funding	1 457.6 Mio €
Institutional funding	976.6 Mio €
Total funding	2 400.0 Mio €



Knowledge-based Bio-Economy Vision



- › natural,
- › cycle-oriented
- › sustainable
- › biobased economy

promise of global food supplies

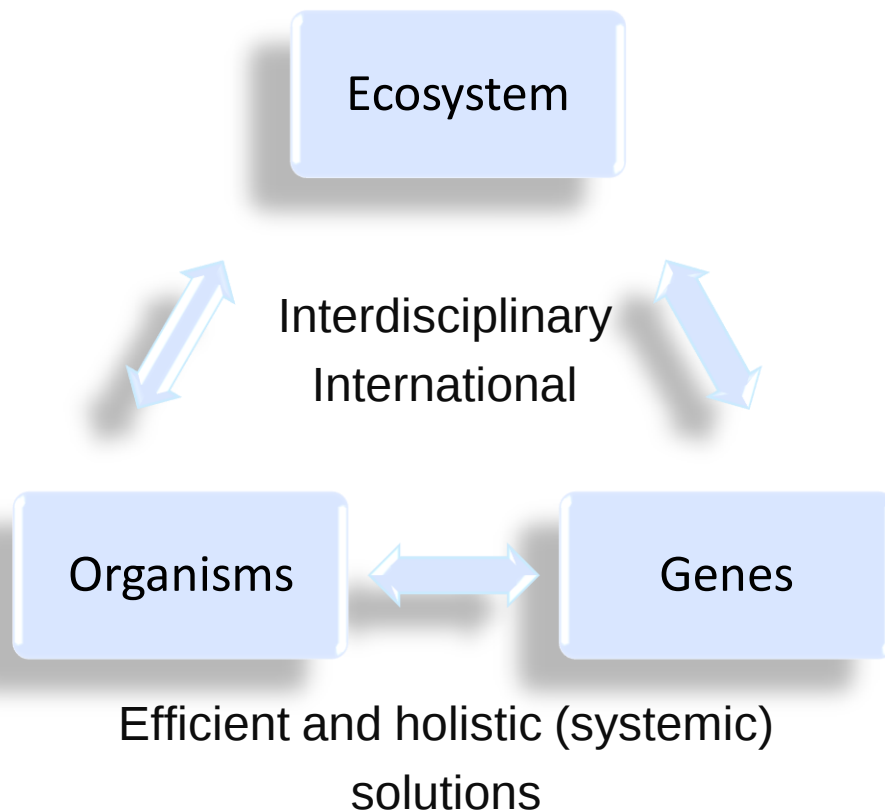
quality products from renewable resources

With our research, we want to meet our responsibilities for global nutrition, the protection of the climate, efficient use of resources and the environment.



Knowledge-Based Bio-Economy Objectives

Understanding, predicting and using
biological systems



National Objectives → become a highly dynamic research and innovation center in international comparison for bio-based products, energy, processes and services.

Global Objectives (Responsibility) → acknowledge our responsibility for world food supplies, as well for the protection of the climate, resources and the environment. Thereby, equally high importance is also given to a healthy diet.



NFSB 2030 - Perspectives

Understanding, predicting and using
biological systems

Ecosystem

Interdisciplinary
International

Organisms

Genes

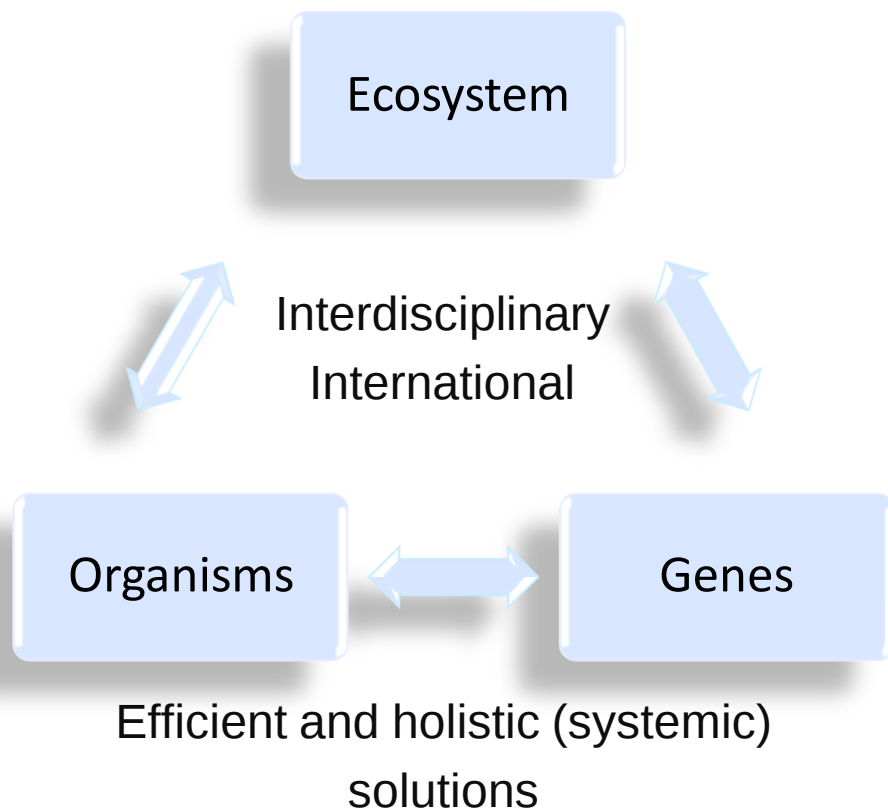
Efficient and holistic (systemic)
solutions

Integrating **knowledge** from...

- Biology
- Chemistry
- Mathematics
- Physics
- Engineering Sciences
- Agricultural and Nutritional Sciences
- Computer Science
- Environmental Science
- Social Sciences
- Economics
- ...

NFSB 2030 - Perspectives

Understanding, predicting and using
biological systems



Innovations for...

- World Food Supplies
- Climate/Environmental Protection
- Agriculture/Forestry
- Biotechnology
- Food Industry
- Fisheries
- Stock/Plant Breeding
- Timber/Pulp Industries
- Chemical/Pharmaceutical Industries
- Energy sector
- Services
- Commerce
- Engine Building/Plant Construction
- ...



NFSB 2030 - Implementation

Fields of action

**Producing healthy
and safe foods**



**Securing
global nutrition**



**Using renewable
resources for
industry**



**Sustainable
agricultural
production**



**Developing
biomass-based
energy carriers**



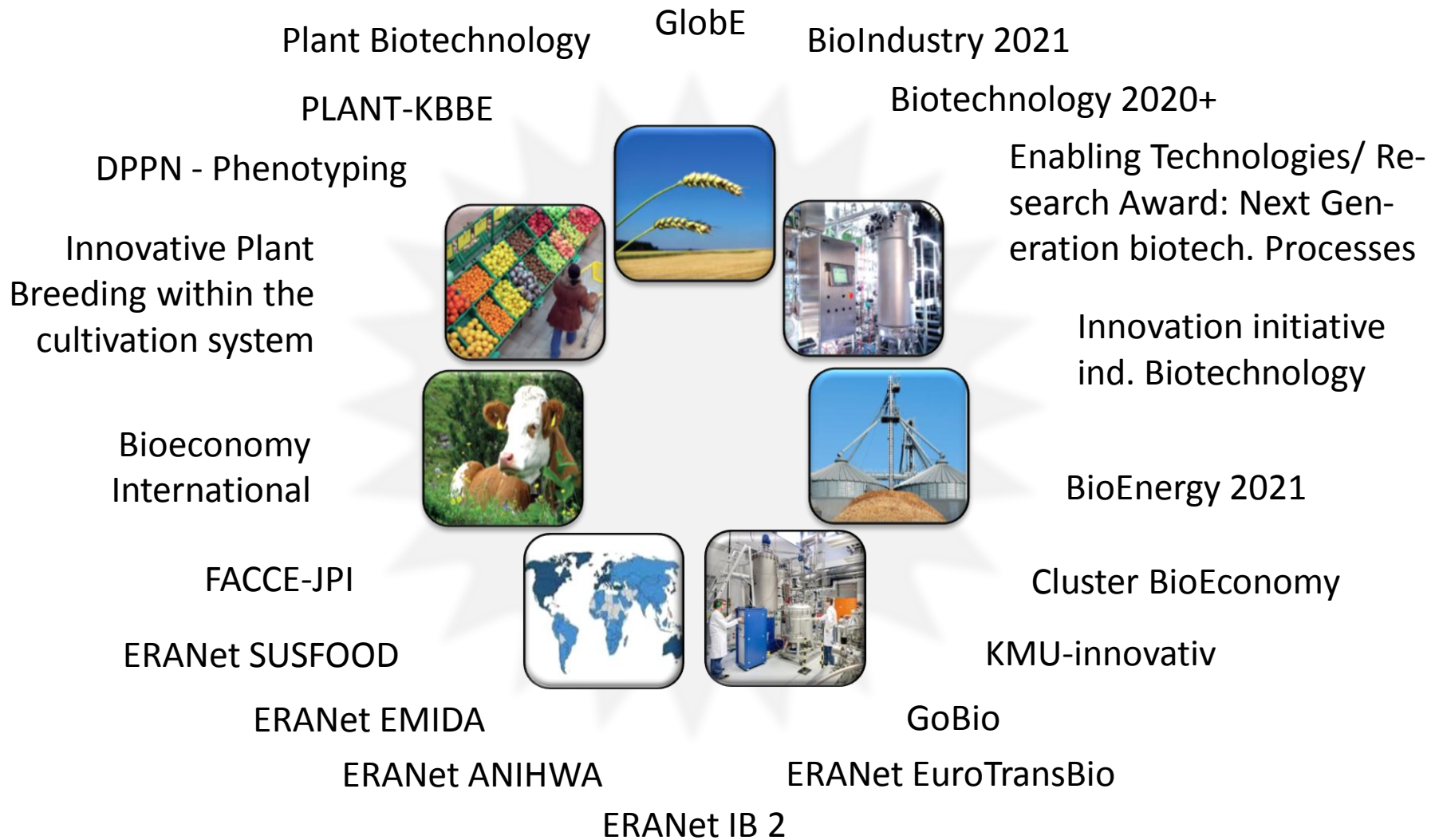
**International
Cooperation**



**KMU, GoBio
Bioeconomy Cluster**



NFSB 2030 - Implementation



ERANet-LAC as an Example

TOPIC

Small-scale self-sustainable biorefineries for multi-feedstock processing of agro-industrial and urban wastes for advanced biofuels, biobased chemicals and biomaterials.

PROJECT

Biorefinery for the Production of Low- and High-Grade Activated Carbon from forestry wastes, maize residues and biogas digestate (Bio-FESS)

PARTNERS

University of Hohenheim – Germany (Coordinator)

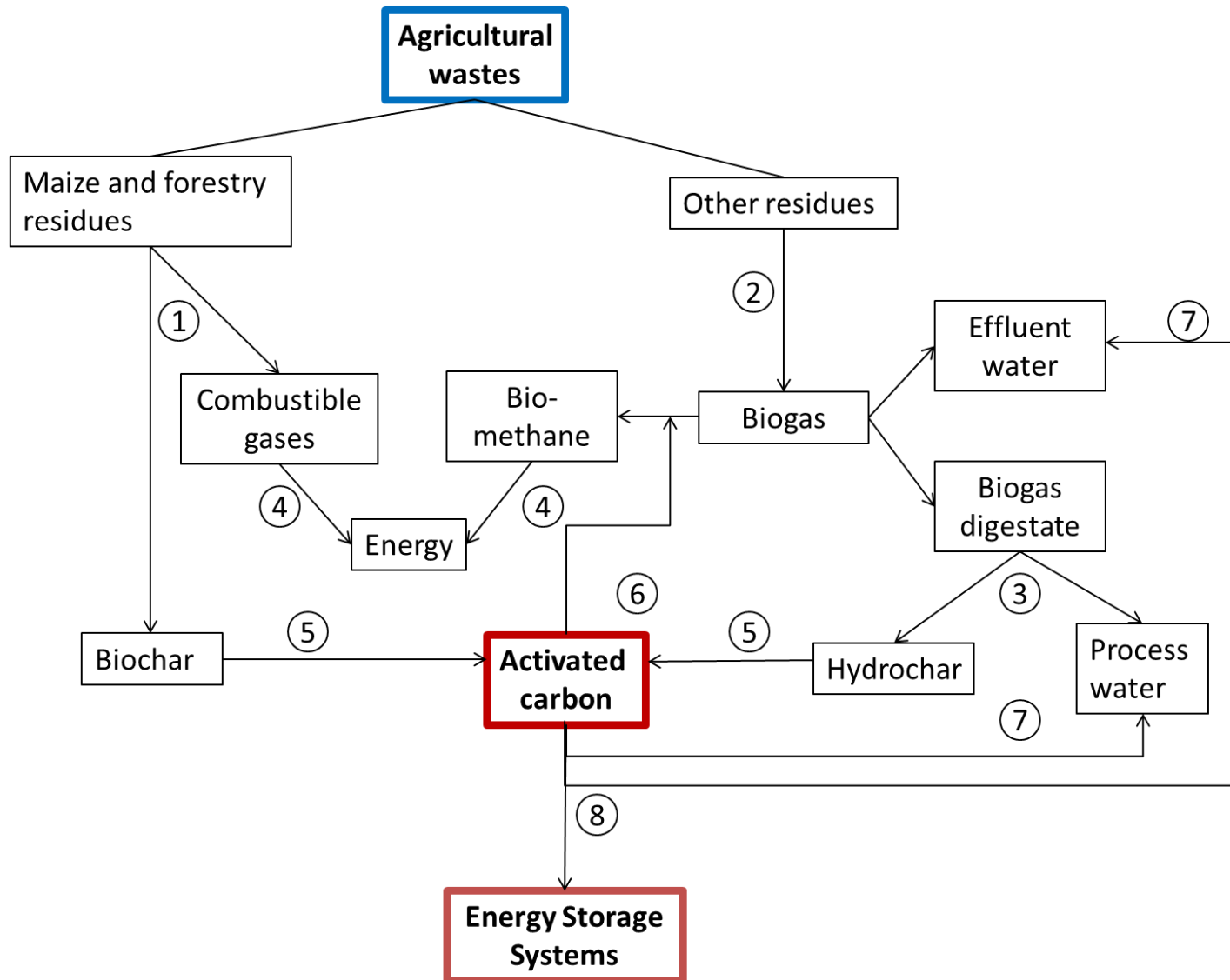
University Nova de Lisboa (FCT/UNL) – Portugal

University of Los Andes – Colombia

Instituto Tecnológico de Monterrey – Mexico



ERANet-LAC as an Example





Bundesministerium
für Bildung
und Forschung

THANK YOU VERY MUCH FOR YOUR ATTENTION

GRACIAS POR SU ATENCIÓN

