

# The UrBioFuture Project



Support for Research and Innovation activities  
promoting the  
Bioeconomy and Circular Bioeconomy



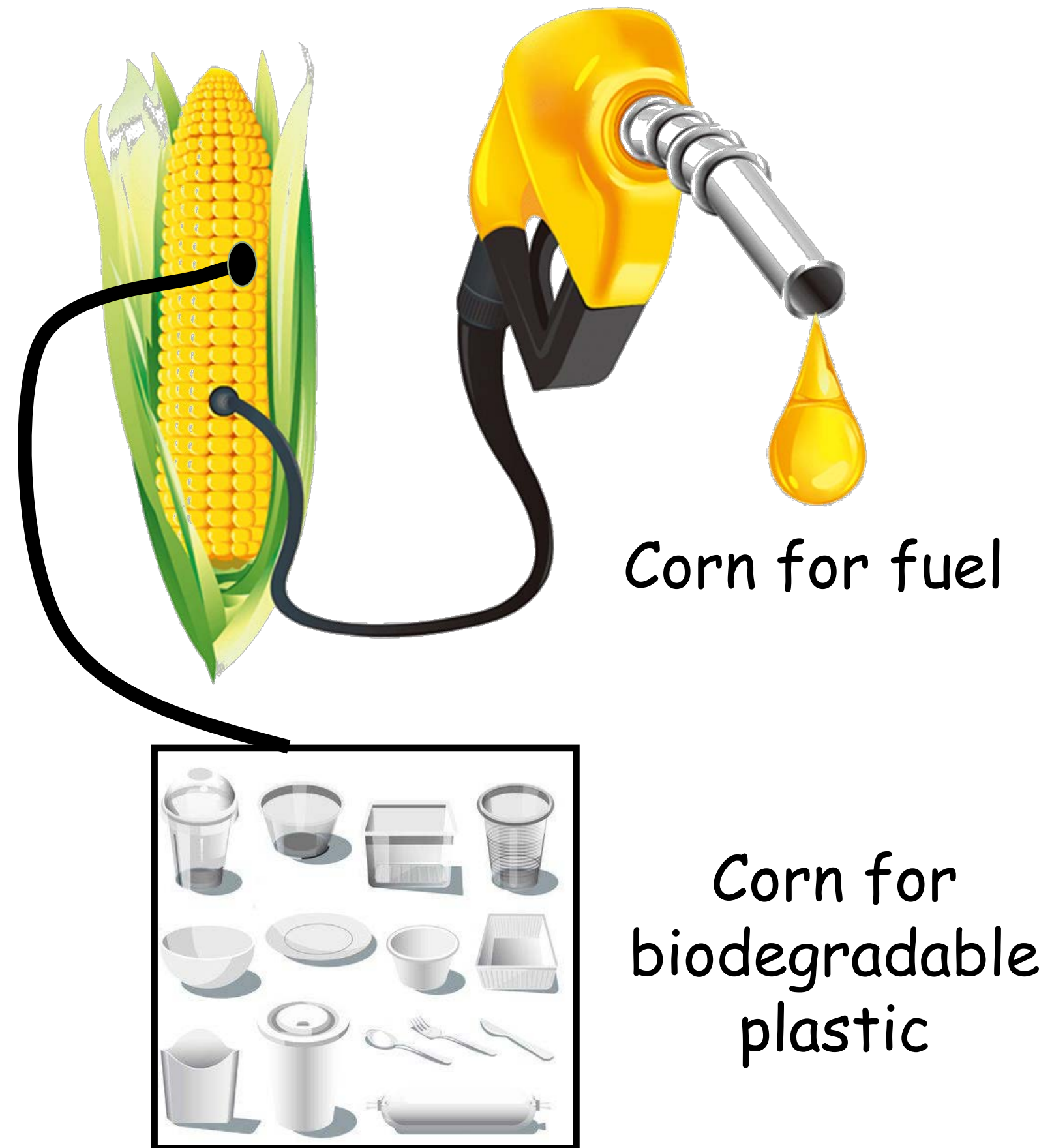
This project has received funding from the Bio Based Industries Joint Undertaking (JU) under the European Union's Horizon 2020 research and innovation programme under grant agreement No 837811.



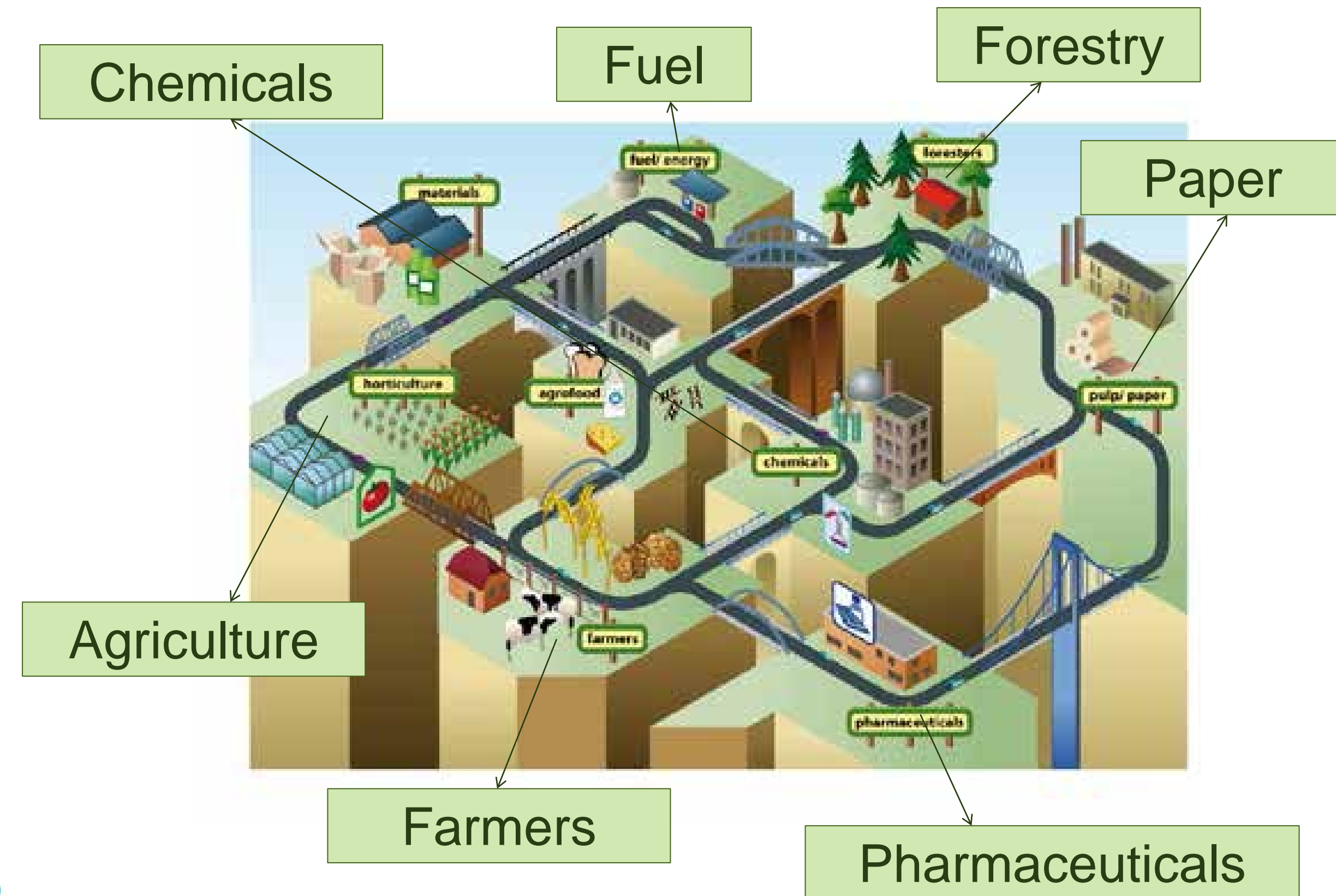
Consiglio Nazionale  
delle Ricerche

# To promote the Circular Bioeconomy

## Create New Value Chains



## Create new cross-sector interconnections



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# UrBioFuture: Partnership & Aim

Finland

Poland

Denmark

Belgium

Netherlands

Italy

Spain

**UAB**  
Universitat Autònoma  
de Barcelona

**Consiglio Nazionale delle Ricerche**

**VTT**

**AGRO BUSINESS PARK**

**c+t=a<sup>n</sup>**  
Corporación Tecnológica  
de Andalucía

**vito**

**IHE DELFT**

**Sustainable INNOVATIONS**

**FUNDACJA UNIWERSYTETU IM. A. MICKIEWICZA W POZNANIU**



**Bio-based Industries Consortium**

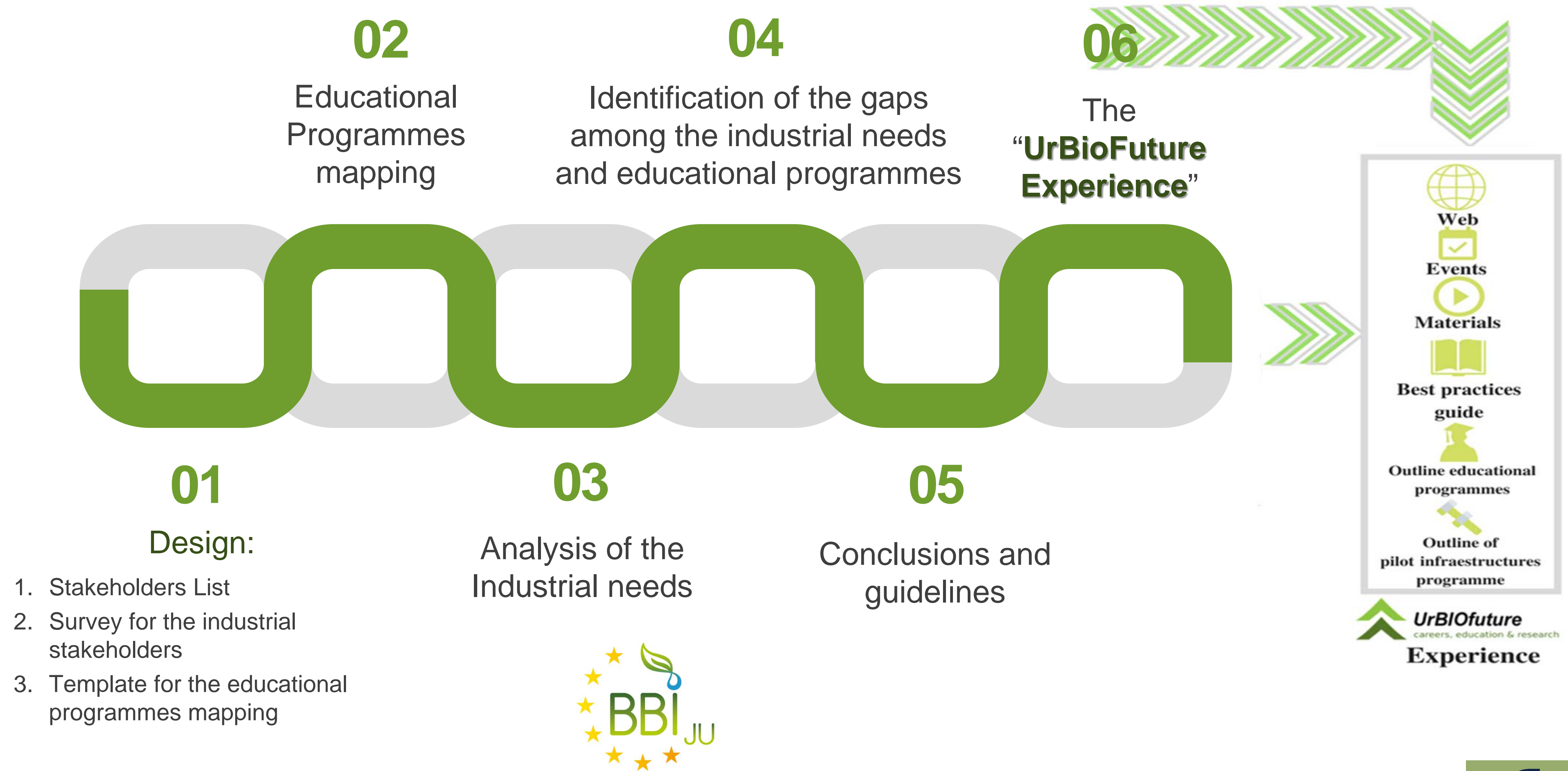
**Horizon 2020  
European Union Funding  
for Research & Innovation**

UrBIOfuture main goal is to bring Europe to the forefront of the bio-based sector by boosting careers, new educational programmes and research activities.

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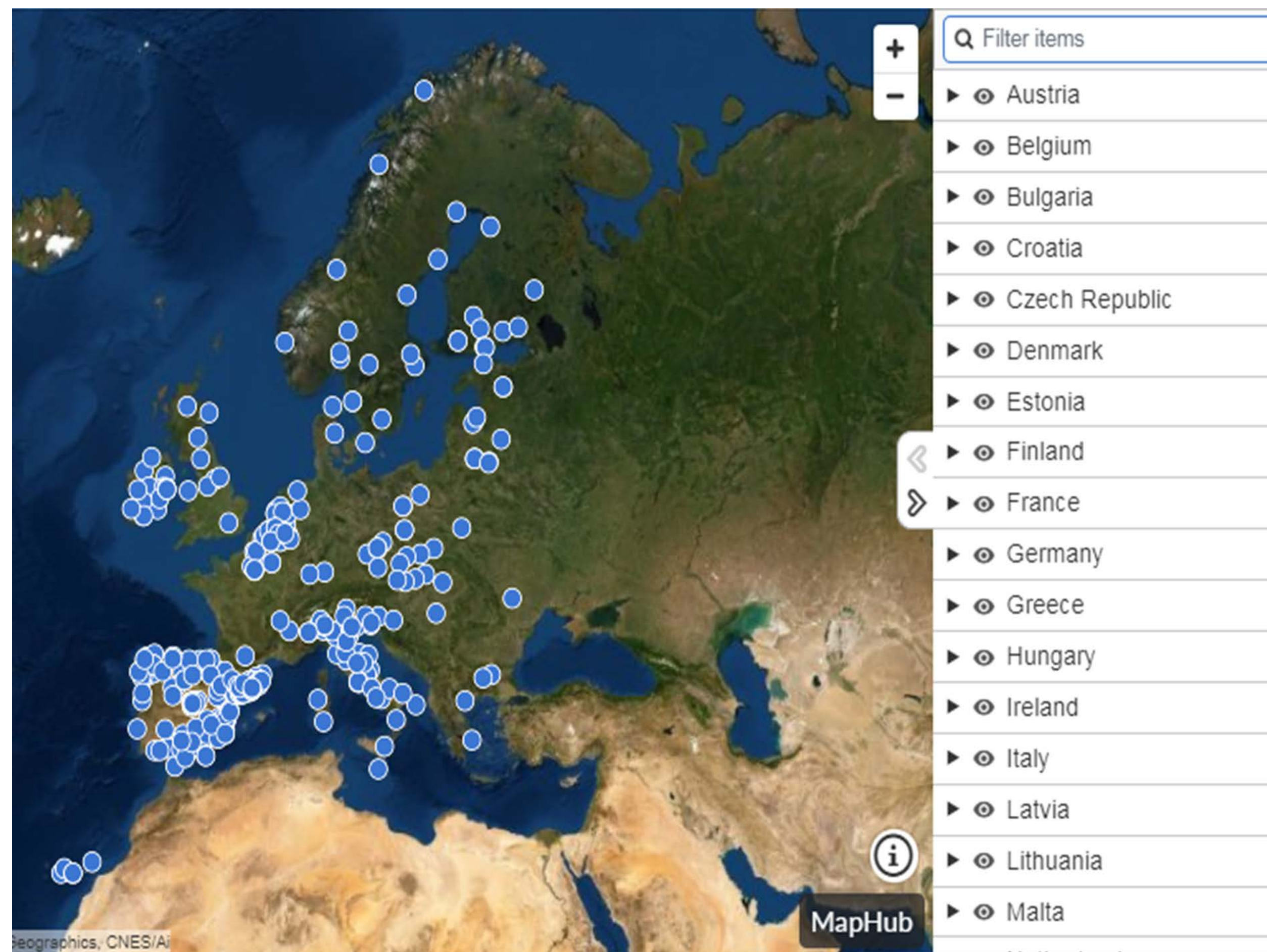


# Project development





# Educational Programmes Mapping



1228

Educational Programmes

912

Educational Programmes analyzed

26

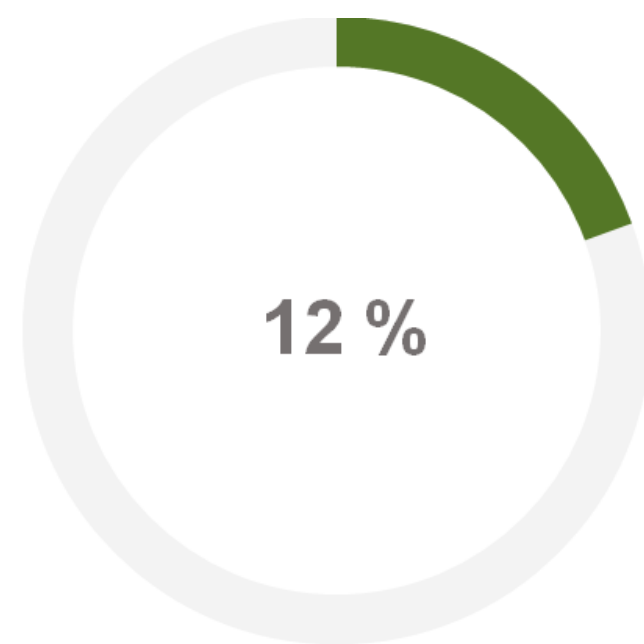
European Countries



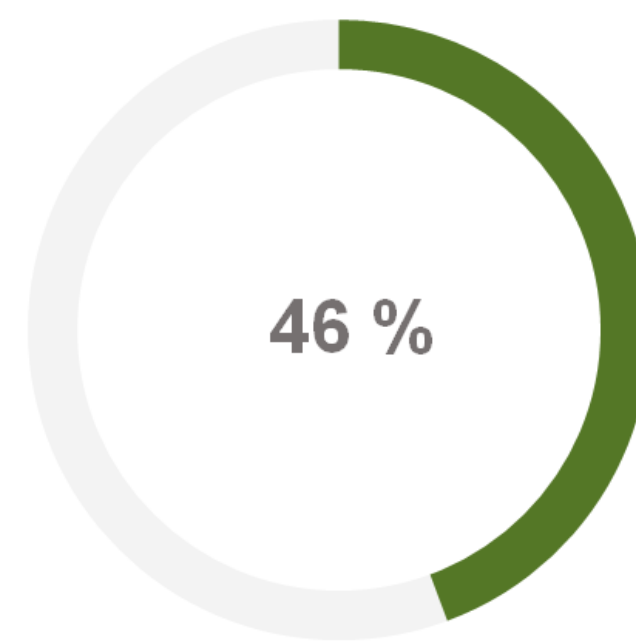
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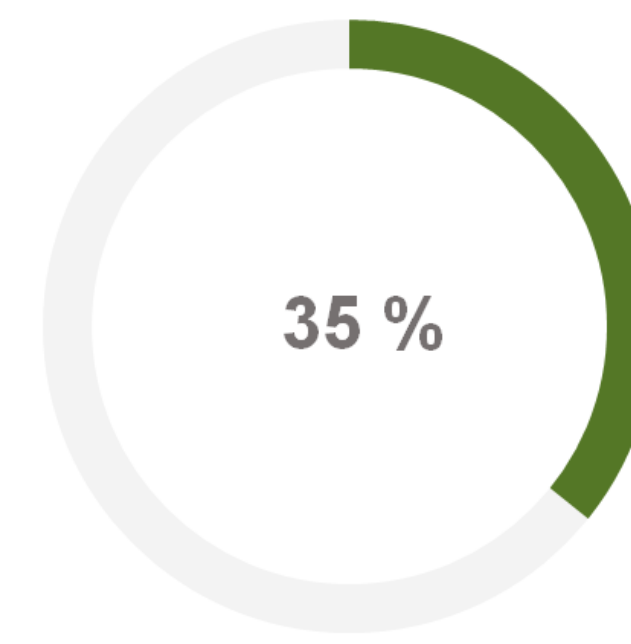
# Educational Programmes mapping



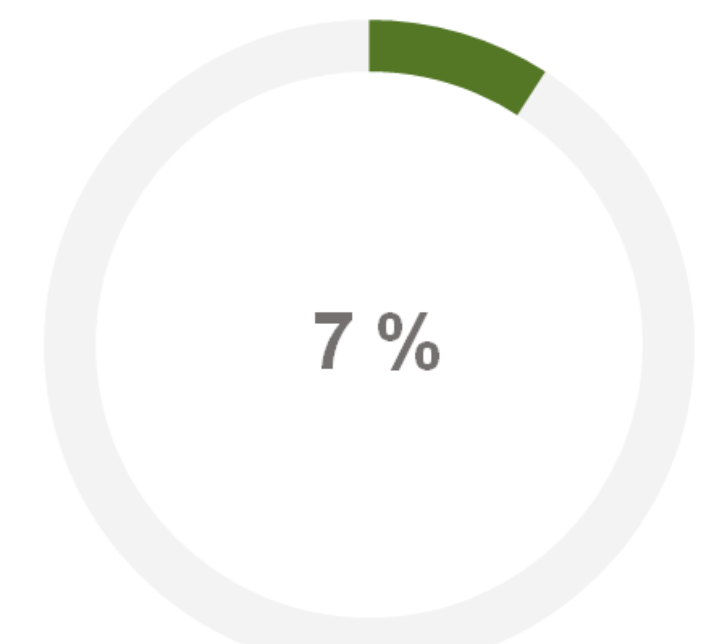
**PhD**



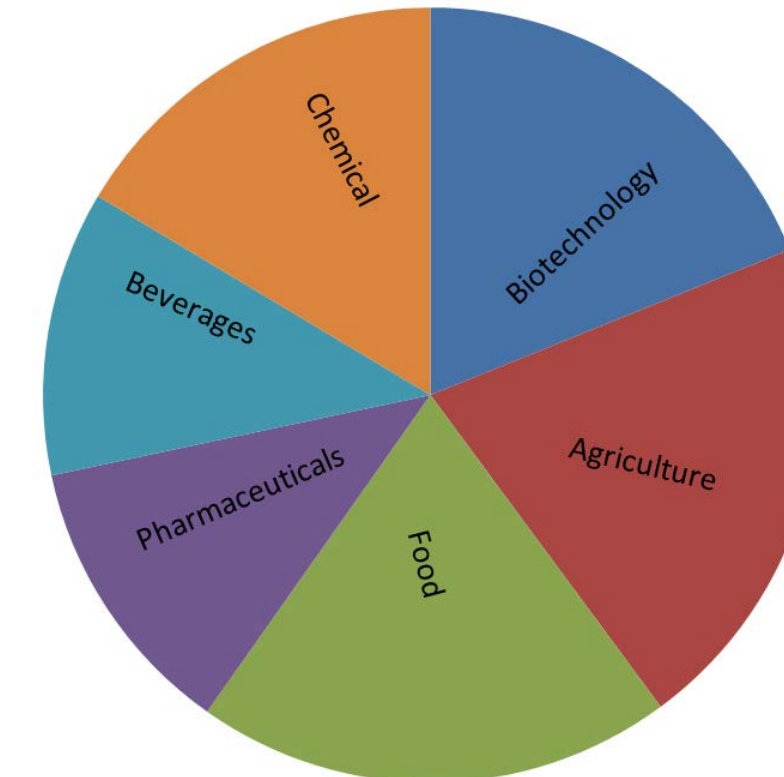
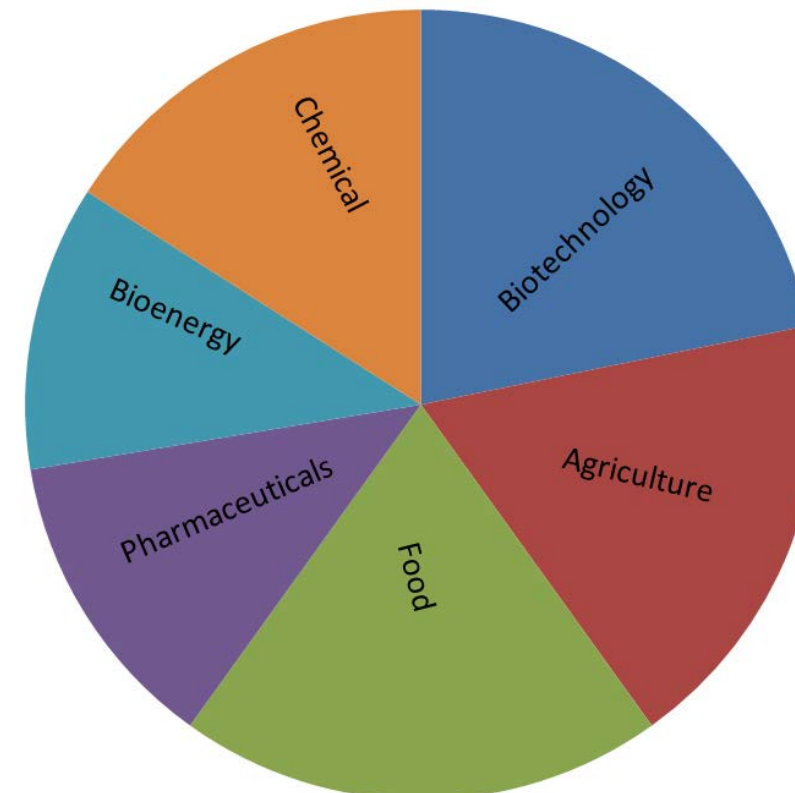
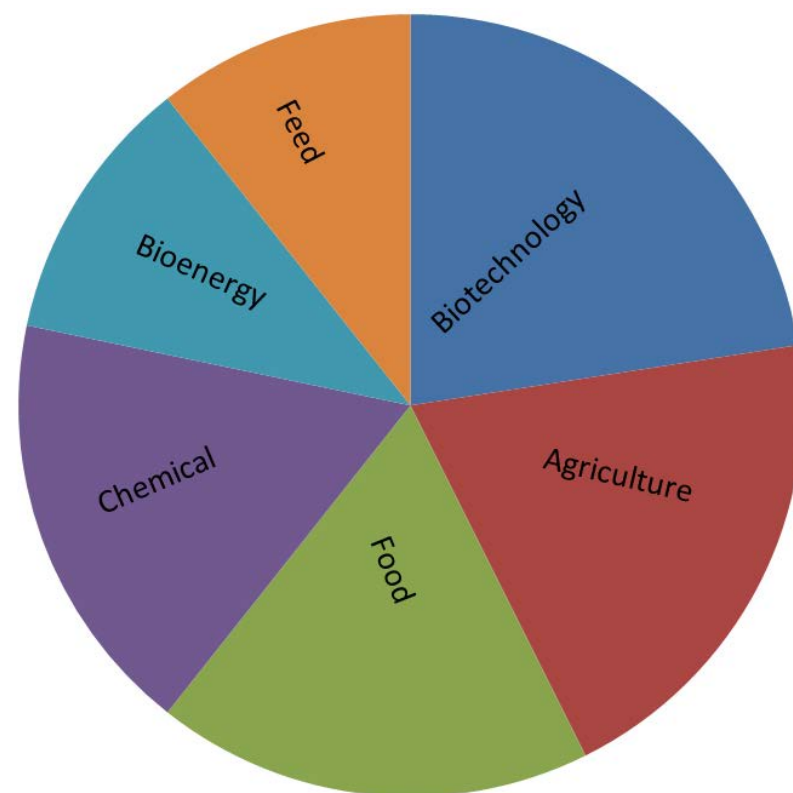
**Master**



**Undergraduate**



**VET**

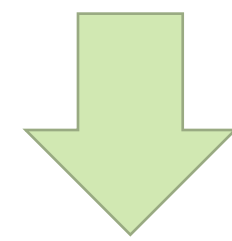


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# Survey to the Industrial Stakeholders

## Industrial Stakeholders

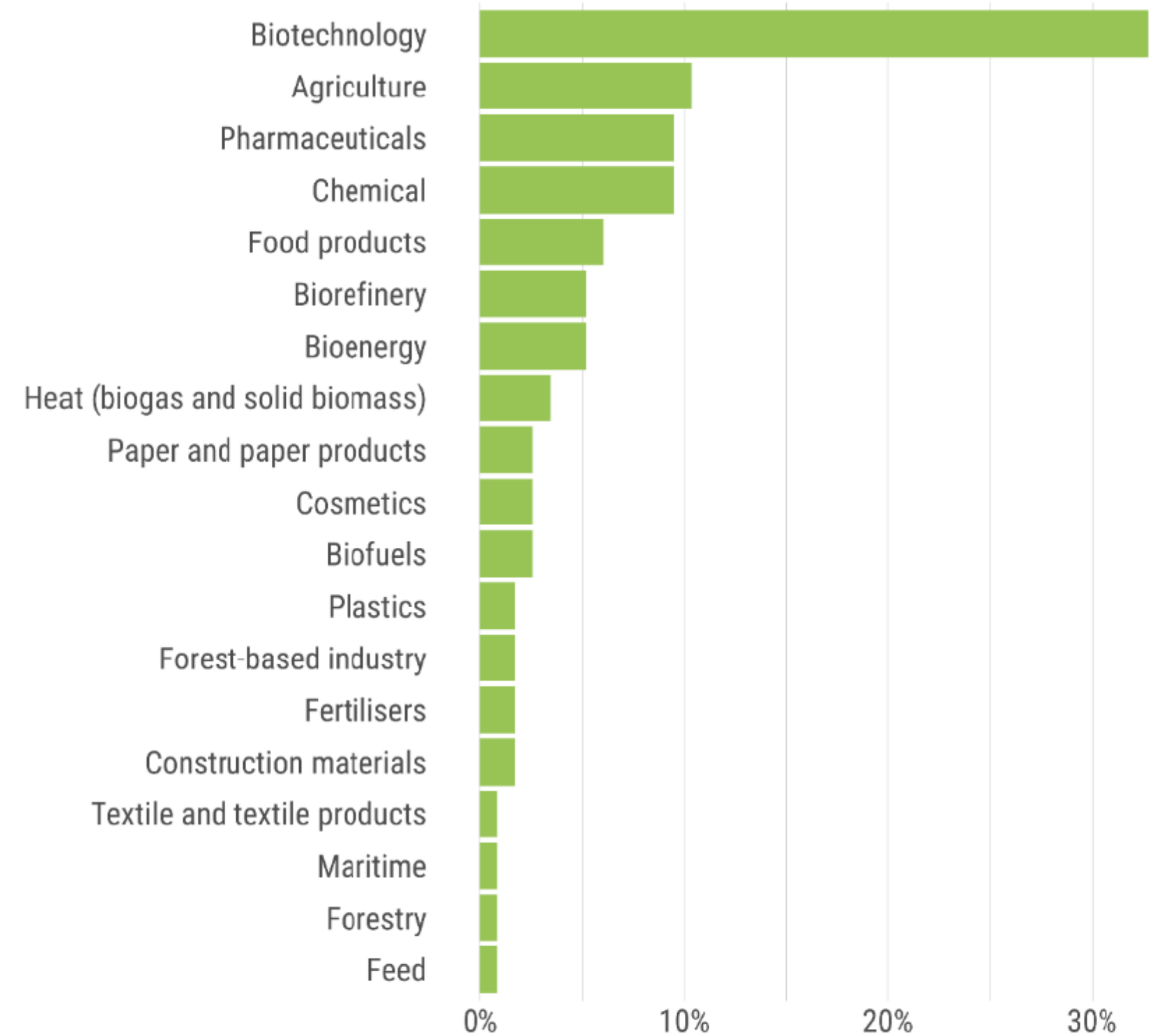
2000



Data analyzed

152

## Industrial sectors

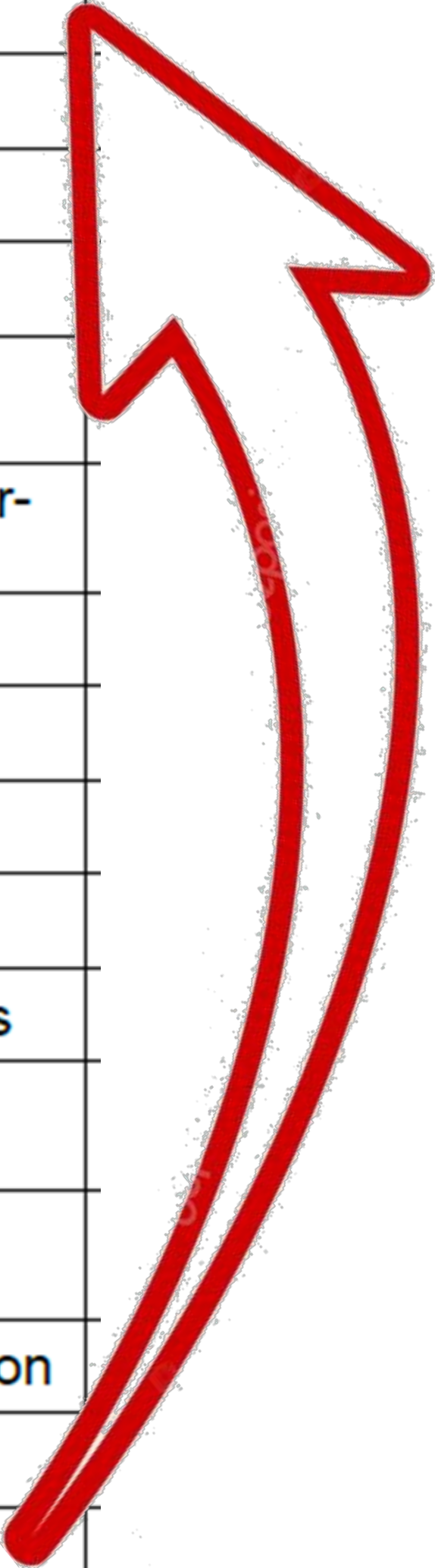




# Gaps among Industrial needs and educational programmes

Categories in which gaps and needs were identified by the bioindustry sector

Research & Innovation
Personal initiative and entrepreneurship
Management
Sustainability and Industry
Specialists in bio-based sector business/market development
Technology / STEM (Science, Technology, Engineering and Maths)
Sales and Marketing
Basic Scientific Knowledge
Rules and Regulations
Soft Skills
Technical expertise in primary conversion processes
Technical expertise in materials, products and functionalization
Technical expertise in secondary conversion processes
Technical expertise in sustainable biomass production
Data Management
Social Responsibility - CSR





# Main gaps





# Conclusions: the European panorama



## European Complexity

- Each country and region has its own legal framework and educational system.
- Each region has its own bio-based industry focus.



## Educational system and Industrial sector

- The education system should analyze the industrial needs and prepare future professionals for the complexity of the bio-industry;
- The industry should collaborate with educational institutions, especially with in-company activities, proposing challenges and objectives that students must address and achieve.





# Guidelines

1. Educating people with interdisciplinary skills i.e. skills related to industry 4.0, digital skills, standard requirements for new bio-products, critical thinking and problem solving
2. Reshaping classroom learning and developing flexible teaching by including experiences that stimulate creativity and problem solving skills.
3. Proposing Case-Study or Project-Based courses on bioeconomy and bioindustry
4. Creating strong links between European and national policy makers in order to lobby for the reduction of the administrative and financial restriction that compromise creation of traineeships in research centres and industries.
5. Promoting the training activities for educators in the bioeconomy sector.

