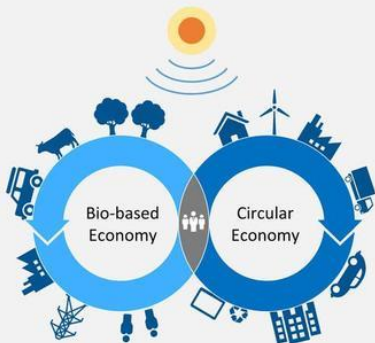


# Academy and private institutions for training new professional profiles for the development of Industrial Biotechnology

Education as a main pillar of the EU Bioeconomy Strategy





# Education and training

**Education, training, and communication are crucial for the future of bioeconomy**

A strong interconnection among education providers, producers, workers, citizens, researchers and innovators should be supported and facilitated

**Duty of Academia is training new professional profiles** with technical and economic expertise (re-design of biotechnological processes, preservation and use of renewable natural resources, zero waste solutions) which will be **able to work within the bio-based goods and services industry**



# Italian Academia position

Closing the technological gap by promoting networking between Academy and Industry (participating to **Technological Clusters**)

- **21 Italian Universities** are members of the **National Technology Agrifood Cluster CL.A.N.**, which has the objective of promoting sustainable economic growth, based on research and innovation in the industry and acting as partner for Italian and European Institutions.

**National Technology  
Agrifood Cluster**



- **23 Italian Universities** are members of the **National Technology Cluster “Green Chemistry” SPRING** – *Sustainable Processes and Resources for Innovation and National Growth*, which has the objective of triggering the development of biobased industries in Italy, through a holistic approach to innovation, aimed at revitalising Italian chemistry in the name of environmental, social and economic sustainability.

**National Technology Cluster  
“Green Chemistry”**



- **20 Italian Universities** are members of the **National Technology Cluster of “Blue Italian Growth” BIG** – which has the objective of boosting innovation and sustainable growth in the marine and maritime sectors.

**National Technology Cluster  
Blue Italian Growth**





# Green and White Biotechnology MSc courses in Italy

 **Agro-industrial Biotechnology**

 **Industrial Biotechnology**



Ref:





# Bioeconomy in the Circular Economy - BIOCIRCE

The first European **Master in Bioeconomy in the Circular Economy**



This Master's program offers an extensive training program for **professionals interested in working within the bio-based goods and services industry.**

The program allows to go in depth in all the aspects related to the production and marketing sides of bio-based products, whilst using the latest technology.



# Bioeconomy in the Circular Economy – BIOCIRCE

## Partner Organizations

[www.masterbiocirce.com](http://www.masterbiocirce.com)

As an interdisciplinary program jointly offered by **4 Universities** (University of Bologna, University of Milano-Bicocca, University of Naples Federico II, and University of Turin), and by **non-academic partners** (Intesa Sanpaolo, Novamont SpA, GFBiochemicals SpA, and PTP Science Park di Lodi), this MS degree program provides skills and expertise necessary to deal with the full range of issues in this complex field.

From 2019  
Clusters  
**SPRING** and  
Cluster **CIAN**  
Joined the  
founder  
Institutions of  
**BIOCIRCE**



*Continuous learning - Master II level ... on demand ...*



# Bioeconomy in the Circular Economy - BIOCIRCE



## Coordinating Committee:

- **Giovanni Sannia**, University of Napoli Federico II, President
- **Danilo Porro**, University of Milano-Bicocca
- **Patrizia Brigidi**, University of Bologna
- **Giovanna Cristina Varese**, University of Torino
- **Andrea Di Lemma**, PTP Science Park
- **Massimiliano Tellini**, Intesa Sanpaolo Spa
- **Giulia Gregori**, Novamont Spa
- **Pasquale Granata**, GFBiochemicals Italy Spa
- **Lucia Gardossi**, CLUSTER SPRING and University of Trieste
- **Michele Pisante**, CLUSTER CLAN and University of Teramo

## Scientific Advisory Board:

- Mario Bonaccorso, **ASSOBIOTEC**
- Raffaele Liberali, **CLUSTER SPRING**, Coordinator Board of Regions
- Cristina Di Domizio, **CLUSTER CLAN** Agrofood and FEDERALIMENTARE
- Nathalie Moll, Secretary general **EUROPABIO**





# Bioeconomy in the Circular Economy - BIOCIRCE

Aim of the Master:

Studying the entire **value chain for bio-based products** giving to professionals the opportunity to deal with the **environmental, social and economic dimensions of the bio-economy** from a micro and a macro level perspective, including innovation, institutions and policies



**First edition of BIOCIRCE started on January 2017**





# Bioeconomy in the Circular Economy - BIOCIRCE

On December the 11<sup>th</sup> 2017 there was the first graduation ceremony of the students of the “Bioeconomy in the Circular Economy” Master.

The official ceremony was chaired by Professor Cristina Messa, Rector of the University of Milano-Bicocca.





## Italiadecide prize


The master BIOCIRCE received, on February the 12<sup>th</sup> 2018, at the Italian Parliament, from the President of the Italian Republic, the "Italiadecide" (Italy-decides) prize for teaching innovation.

The price has been awarded to the initiative of four Italian Universities from North to South (University of Torino, University of Milano Bicocca, University of Bologna and University of Napoli Federico II), with the support of three of the main Italian bioeconomy players (Novamont, GFBiochemicals and Science Park of Lodi) and the Italian leading banking Group Intesa Sanpaolo, which is the only financial global partner of the Ellen McArthur Foundation.





## Bioeconomy in the Circular Economy - BIOCIRCE

Master BIOCIRCE signed, on October the 4<sup>th</sup> 2019, at  in Napoli a Memorandum of Understanding with the Irish Bioeconomy Foundatio

In July 2019 **BIOCIRCE** supported the organization of the:

**1<sup>st</sup> MEDITERRANEAN SUMMER SCHOOL FOR FOR  
SUSTAINABLE DEVELOPMENT AND BIOECONOMY**

**THESSALONIKI GREECE - 9-12 July 2019**



**“Not everything that can be counted counts, and not everything that counts can be counted.”**

*Albert Einstein*

**Protect human health and nature’s beauty by preventing air pollution and water contamination**

Air quality, Water quality, Waste reduction & management, Energy consumption, Protection of natural areas



**BIOECONOMY**

**An economy which makes use of biological resources from land, sea, and waste as inputs to food and feed, industrial and energy production.** Bioeconomy covers the use of bio-based processes for sustainable industries.



Shepard Fairey Dit Obey Giant - Serigrafia