



EU GREEN DEAL

**MAKE IT
REAL**

**PARTNER EVENT
#EUGREENWEEK
30 MAY – 5 JUNE 2022**



STAAA PhD OPEN DAY

Dipartimenti di Eccellenza 2018-2022
DISTAL The Nexus Approach for Sustainability in Agriculture,
Food, Energy & Water

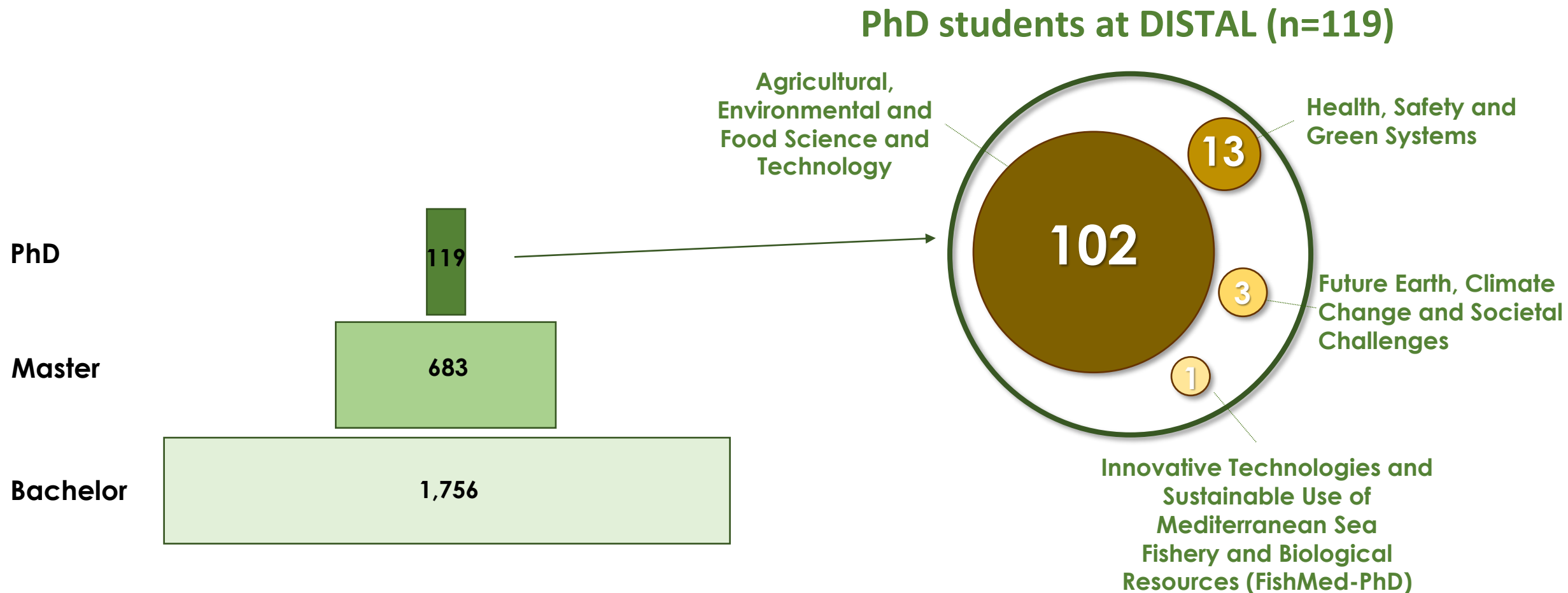
June 1st, 2022

Presentation of the PhD programme in Agricultural, Environmental and Food Science and Technology (STAAA)

Massimiliano Petracchi



DISTAL – Students Enrolled in DISTAL Courses (A.Y. 2021/22)



Foundation of STAAA PhD Course

STAAA was founded in 2010 from the merging of 9 doctoral courses

Herbaceous Crops, Agricultural Genetics and Agroterritorial Systems

International Cooperation and Sustainable Development Policies

Microbial Ecology and Plant Pathology

Agricultural and Food Economics and Policy

Agricultural Entomology

Agricultural Engineering

Food Science and Biotechnology

Animal Science

Tree and Ornamental Crops and Landscape Forest Agrosystems

PhD Course in
**Agricultural,
Environmental and Food
Science and
Technology
(STAAA)**
organized in
9 research topics

Coordinators: Claudio Ciavatta (2010-2012), Giovanni Dinelli (2012-2018) and Massimiliano Petracchi (2018-)

STAAA PhD Academic Board

- Agricultural Economics and Rural Appraisal

Maurizio CANAVARI, Matteo VITTUARI

- Agronomy and Field Crops

Giovanni DINELLI, Cesare ACCINELLI

- Arboriculture and Fruitculture

Francesco SPINELLI

- Vegetable and Ornamental Crops

Giorgio PROSDOCIMI GIANQUINTO

- Forest Management and Silviculture

Federico MAGNANI

- Agricultural Genetics

Silvio SALVI

- Agricultural Hydraulics and Watershed Protection

Attilio TOSCANO

- Agricultural Machinery and Mechanization

Luigi RAGNI

- Rural Buildings and Agro-forest Land Planning

Daniele TORREGGIANI

- General and Applied Entomology

Giovanni BURGIO

- Plant Pathology

Elena BARALDI, Claudio RATTI

- Agricultural Chemistry

Claudio CIAVATTA

- Pedology

Gloria FALSONE

- Food Science and Technology

Giuseppina Paola PARPINELLO, Santina ROMANI

- Agricultural Microbiology

Diana DI GIOIA, Lucia VANNINI

- Livestock Systems, Animal Breeding and Genetics

Stefania DALL'OLIO

- Animal Science

Paolo TREVISI

- Aquaculture, Poultry and Rabbit Science

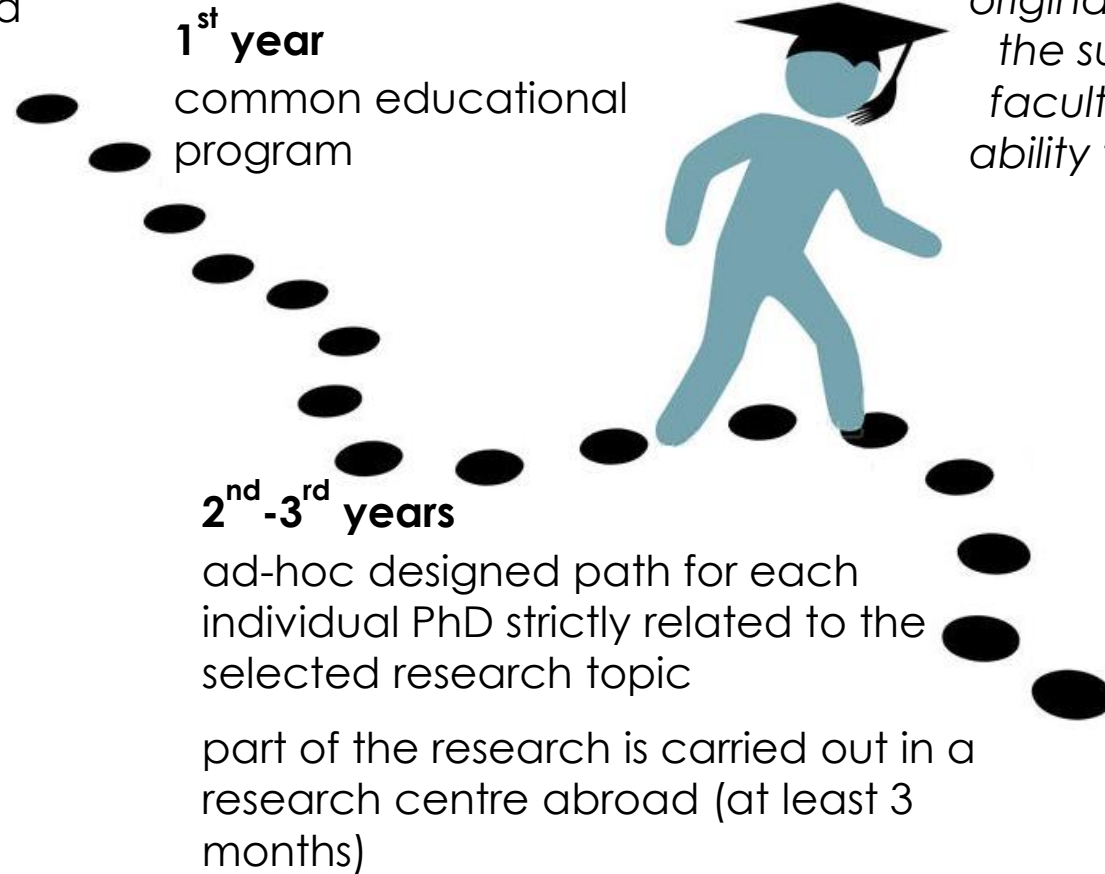
Massimiliano PETRACCI

- General and Inorganic Chemistry

Francesco CAPOZZI

STAAA PhD Course: Learning programme

The STAAA is a three-year, English-language PhD programme working with a wide variety of industrial and academic partners



PhD students are required to plan and carry out an original research project with the supervision of a DISTAL faculty and to develop the ability to work independently and in a team

The STAAA Ph.D. course opens up several career prospects by allowing to continue with research in academia, in public or private research centres or as a business consultant

New research topic thanks to «Dipartimenti di Eccellenza 2018-2022» programme



#10 Water-Food-Energy-Sustainable Agriculture Nexus

Agromy, Herbaceous Crops, Flowers and Vegetables Systems, Agricultural Genetics and Agricultural Chemistry
#1

International Cooperation and Sustainable Development Policies
#2

Microbial Ecology and Plant Pathology
#3

Agricultural and Food Economics and Policy
#4

Agricultural Entomology
#5

Agricultural Engineering
#6

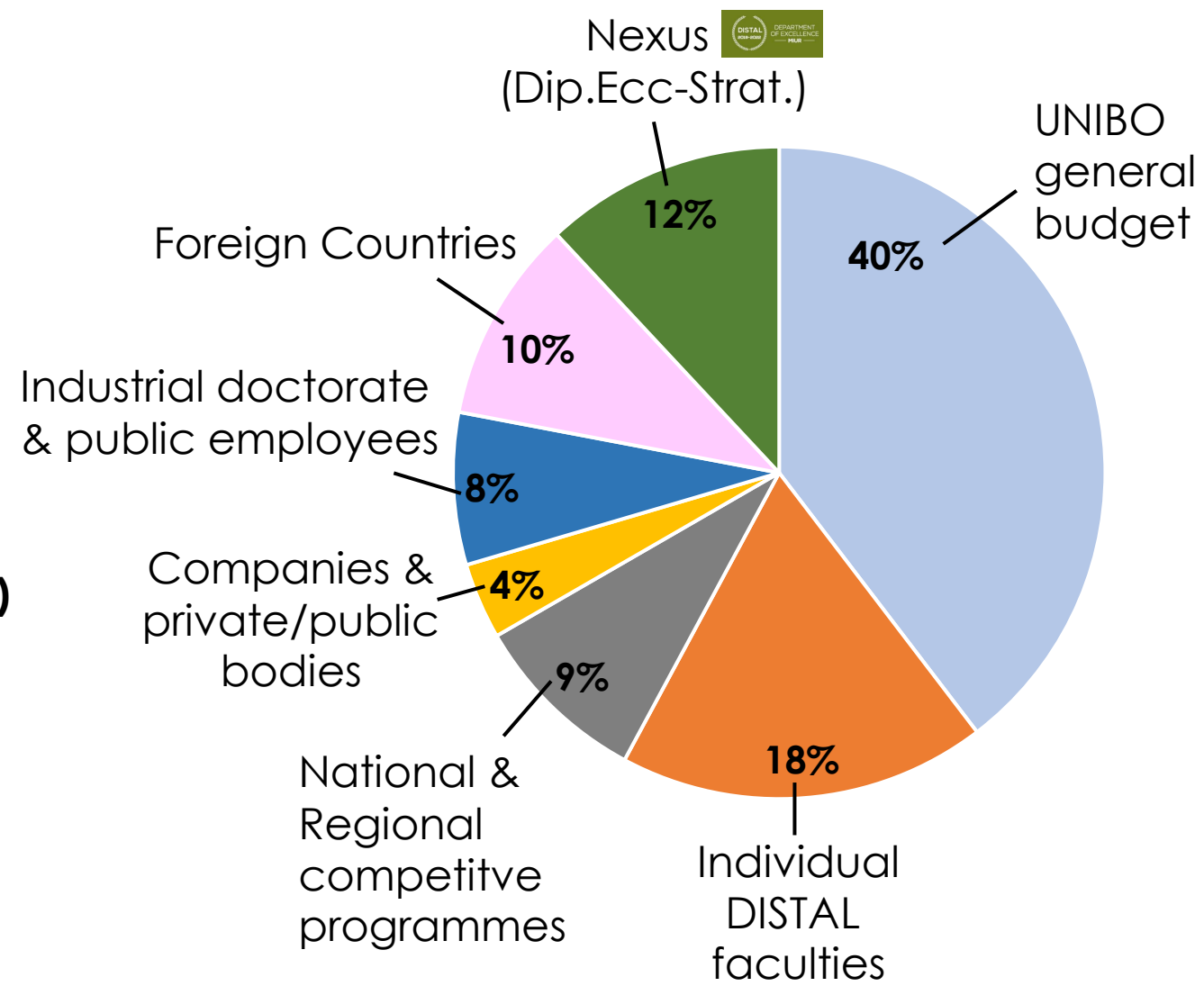
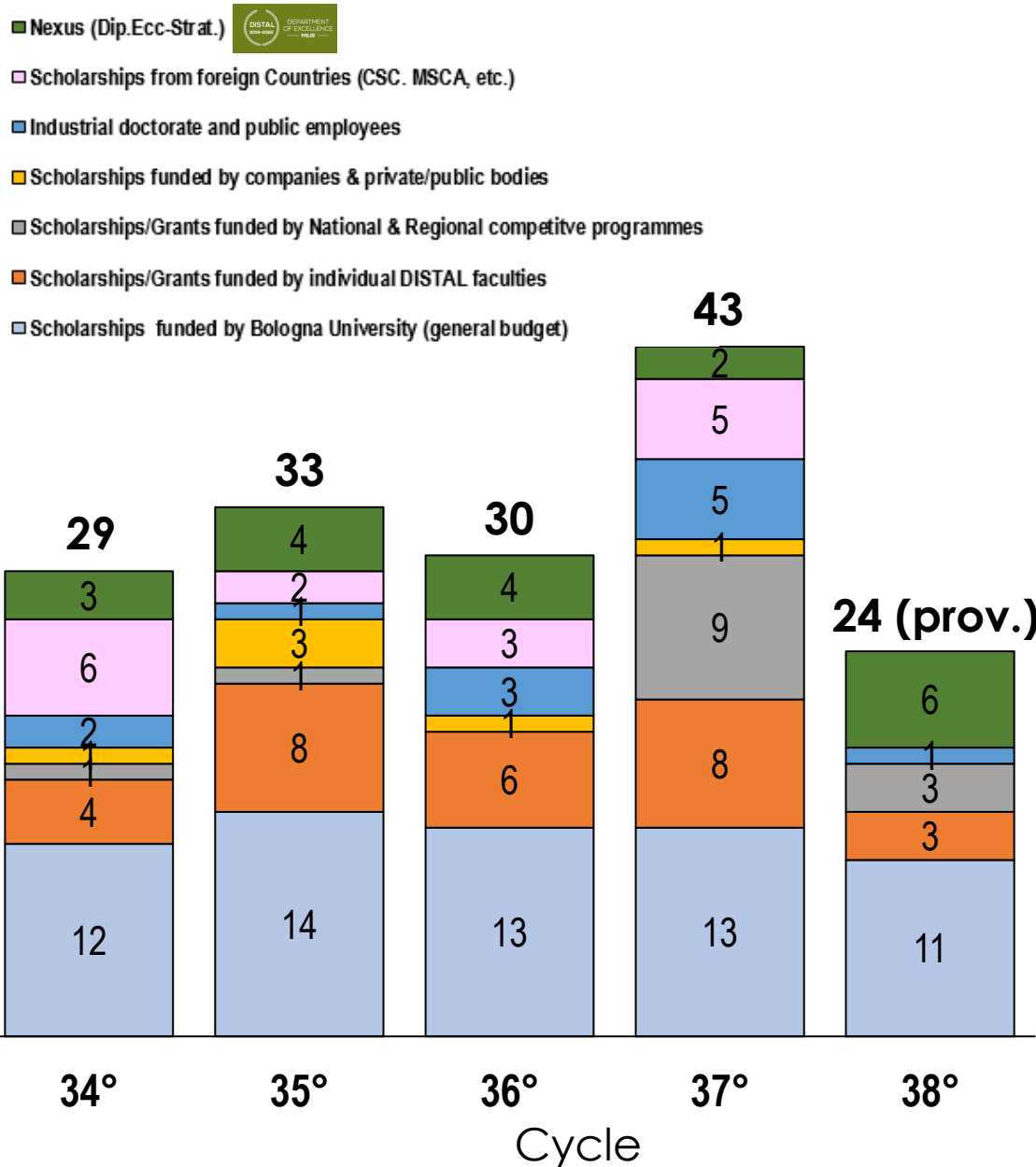
Food Science and Biotechnology
#7

Animal Science
#8

Tree Production Systems, Fruit, Forest and Ornamental Trees and Grape
#9



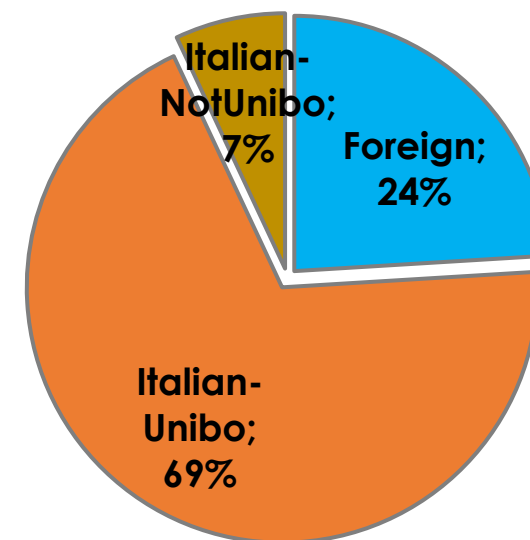
PhD positions activated thanks to the DE 2018-2022 programme



PhD students currently enrolled in STAAA PhD Course

Research topic	XXXVII cycle	XXXVI cycle	XXXV cycle	TOT.
#1 Agronomy, Herbaceous Crops, Flowers and Vegetables Systems, Agricultural Genetics and Agricultural Chemistry	9	4	10	24
#2 International Cooperation and Sustainable Development Policies	6		2	8
#3 Microbial Ecology and Plant Pathology	3	3	1	7
#4 Agricultural and Food Economics and Policy	6	4		10
#5 Agricultural Entomology	1		1	2
#6 Agricultural Engineering	2	1	2	5
#7 Food Science and Biotechnology	4	4	3	11
#8 Animal Science	4	4	3	11
#9 Tree Production Systems, Fruit, Forest and Ornamental Trees and Grape	1	2	4	6
#10 Water-Food-Energy-Sustainable Agriculture Nexus	5	6	6	17
TOT.	41	28	33	102

Country of Origin



♀ : ♂ 55:45

Nationality of foreign PhD students:

Austria, Brazil, Chile, China, Cuba, Ethiopia, France, India, Iran, Nigeria, Pakistan, Portugal, Syria, Spain, Tunisia and USA

First final exam sessions for PhD students of «Nexus» research topic (34° cycle)

Spring session (Bologna, March 25th, 2022)

Federico Correa | Feeding the gut microbiome and immune maturation to manage weaned piglets

Lorenzo Negri | Functional biodiversity of soft wheat: an adaptation tool for low environmental impact cereal crop production models

Tamara Ricchi | Evaluation of different tools for agricultural water assessment at different spatial scales

Summer session (Bologna, July 1st, 2022)

Alessandro Benelli | Hyperspectral imaging and other optical techniques for in-field/in-lab) physico-chemical attributes estimation agri-food vegetal products

Gianmarco Bortolotti | Evaluation of a 2D multileader training system for improving sustainability and precision orchard management applications in Italian apple orchards

Dario Mercatante | Valorization of by-products from olive oil industry and their utilization for innovative food formulation

Visiting professors invited thanks to the DE 2018-2022 programme

Jaap Van Milgen (*INRA, Physiologie, Environnement et Génétique pour l'Animal et les Systèmes d'Elevage, France*) | **Precision livestock feeding, principle and practice** (Bologna, March 28-29, 2022)

Antonio Patti (*School of Chemistry at Monash University, Australia*) | **Green Chemistry and Agriculture and Green Chemistry & Addressing the UN Sustainable Development Goals** (Bologna, April 20-21, 2022)

Henrik Siegumfeldt (*Department of Food Science, Food Microbiology and Fermentation, University of Copenhagen, Denmark*) | **Beer production: Current technologies and novel sustainable solutions** (Cesena, May 13, 2022)

Uri Lesmes, (*Faculty of Biotechnology and Food Engineering, Technion, Israel Institute of Technology, Israel*) | **From understanding digestion to consumer-oriented optimization of food formulations: Food enginomics applied to sustainable use of natural resources and fabrication of healthier foods** (Cesena, tbd)

Call for applications for the next cycle (38°, 2022-2025)

	Call#1	Call#2
Positions	<i>Scholarships funded by Bologna University (general budget), Nexus, individual DISTAL faculties Industrial doctorate and public employees</i>	Scholarships funded by PNRR and companies & private/public bodies
Applications: opening deadline	May 2 nd June 9 th	June 20 th August 10 th
Selection procedure (title evaluation and oral interview)	From June 13 th to July 20 th	From August 22 th to September 20 th

Presentations of activities of PhD students working on «Nexus» research topic

3rd YEAR

Federica Barbieri | Sustainable approaches for improving quality and safety of fresh or fermented products: use of bioactive compounds and bioprotective cultures

Margherita Del Prete | Agro-food system fairness and environmental sustainability from a consumer perspective

2nd YEAR

Eleonora Cappelletti | Bio-formulates as a promising control strategy against different Fusarium pathogens with intent to reduce food mycotoxins contamination

Beatrice Cellini | Biotechnological valorisation of residues and by-products from agro-food industries

Mara Petruzzelli | Short Food Supply Chains and Sustainable diets: combining Life Cycle Costing (LCC) and financial regulatory instruments to support the urban food policy agenda

1st YEAR

Francesco Chioggia | Nature based solutions for polluted water treatment and reuse in agricultural irrigation

Celeste Lazzarini | Production and analytical characterization of new and traditional foods: focus on sustainability

Marta Reggio | *Metabolic profiles of microorganisms of agro-industrial interest for a sustainable farm-to-fork approach and exploitation of biodiversity*