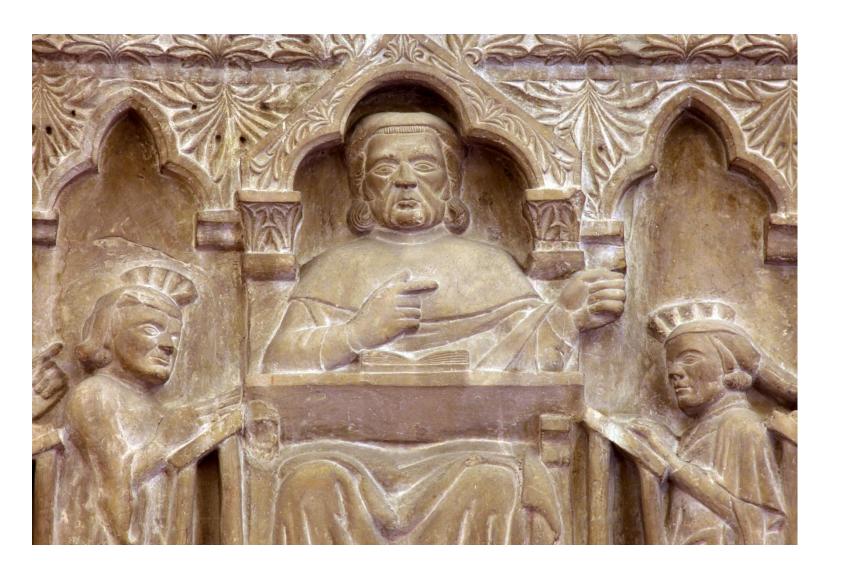




# The University of Bologna and the Department of Agricultural and Food Sciences | DISTAL

## Alma Mater Studiorum - UnIversità di Bologna



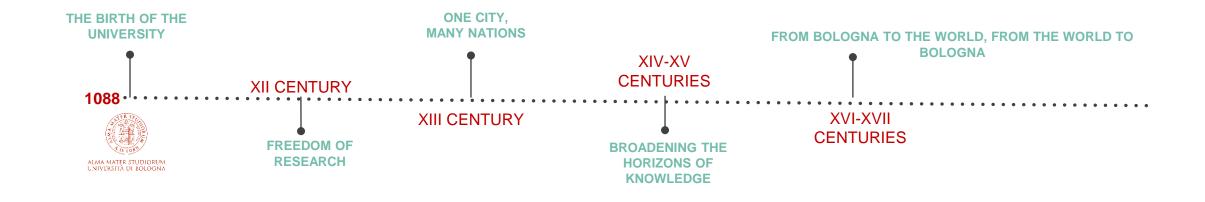
1088

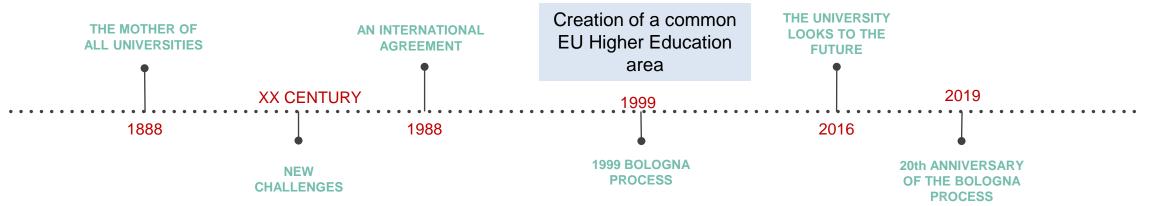
The oldest university in the western world





### FROM 1088 TO THE FUTURE





The rectors of 500 European Universities met in Bologna to sign the Magna Charta Universitatum to confirm the essential values and authonomy of universities





#### **CESENA CAMPUS**

#### The main vocations

- Agrifood
- Architecture
- · Ict and Bioengineering
- Psychology

### Departments and Local Organizational Units (*U.O.S.*)

- Architecture (Department and U.O.S.)
- U.O.S. Computer Science and Engineering
- U.O.S. Electrical, Electronic and Information
- Engineering "Guglielmo Marconi"
- U.O.S. Psychology "Renzo Canestrari"
- U.O.S. Agricultural and Food Sciences
- U.O.S. Veterinary Medical Sciences

#### FORLÌ CAMPUS

#### The main vocations

- Economics and Social Sciences
- Mechanical and Aerospace Engineering
- Translation and Interpreting

### Departments and Local Organizational Units (*U.O.S.*)

- Business Science Forlì campus
- Interpreting and Translation
- U.O.S. Industrial Engineering
- U.O.S. Economics
- U.O.S. Sociology and Business LawU.O.S. Political and Social Sciences

#### **RAVENNA CAMPUS**

#### The main vocations

- · Environments and Sea Rights
- Cultural Heritage

### Departments and Local Organizational Units (*U.O.S.*)

- Cultural Heritage
- U.O.S. Industrial Chemistry "Toso Montanari" (Faenza)
- U.O.S. History, Culture, Civilisation
- U.O.S. Biological, Geological and Environmental Sciences
- U.O.S. Law
- U.O.S. Chemistry "Giacomo Ciamician"
- U.O.S. Civil, Chemical, Environmental and
- Materials Engineering

### RIMINI CAMPUS

#### The main vocations

- Sustainable Development and well being
- Services for individuals, businesses and communities
- · Tourism and Fashion

### Departments and Local Organizational Units (*U.O.S.*)

- Business Science Rimini campus
- Life Quality Studies
- U.O.S. Industrial Chemistry "Toso Montanari"
- U.O.S. Economics
- U.O.S. Statistical Sciences "Paolo Fortunati"
- U.O.S. Chimica "Giacomo Ciamician"
- · U.O.S. for the Arts





26,748 new students have enrolled at the University of Bologna for the 2024/2025

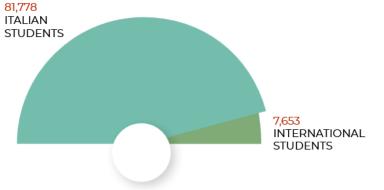
The University of Bologna continues to lead in attracting **international students, with a 23.1% increase** (compared to +11% last year). Notable growth has been recorded from China (+27%), Turkey (+43%), Russia (+8%), Pakistan (+172.2%), and Turkey (+43.1%), as well as from European countries, including Germany (+50%), Belgium (+253%), Spain (+143%), and Romania (+24%).

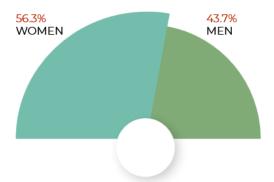


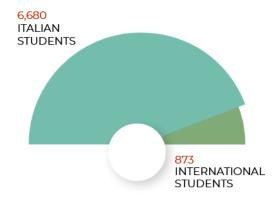
#### STUDENTS ENROLLED IN **DEGREE PROGRAMMES BY GENDER**







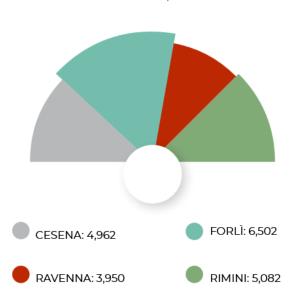




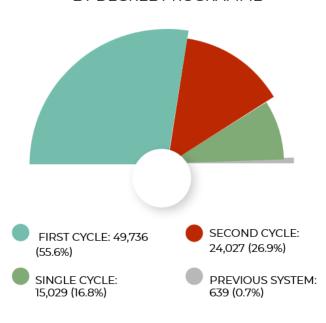
STUDENTS ENROLLED **UNDERGRADUATE AN** POSTGRADUATE DEGF **PROGRAMMES** 

96,984

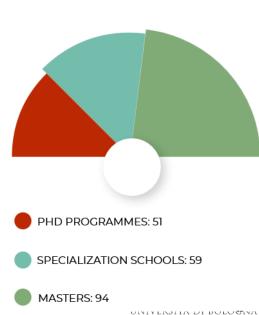
**ENROLMENTS BY CAMPUS:** 20,496

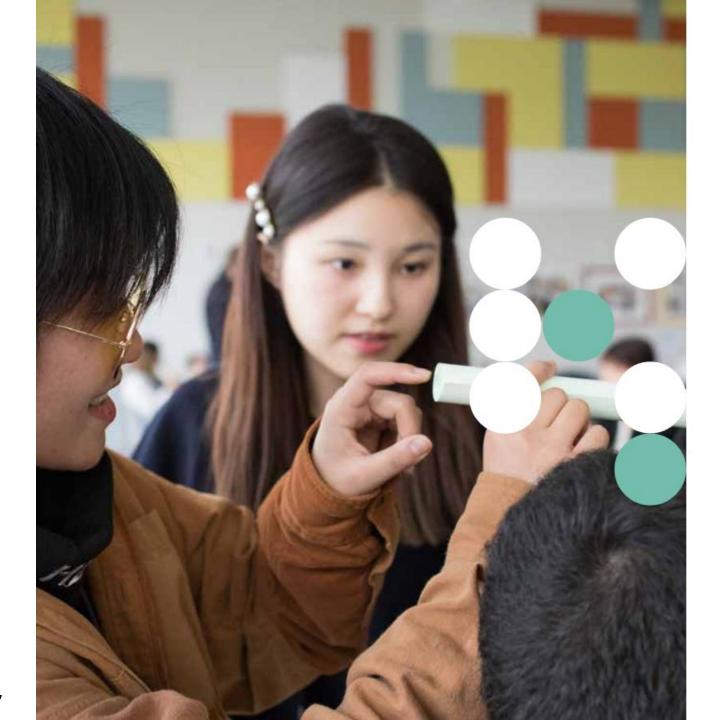


**ENROLMENTS** BY DEGREE PROGRAMME



#### POSTGRADUATE TRAINING





#### INTERNATIONAL MOBILITY



FROM BOLOGNA TO EUROPE (ERASMUS+)

3,604



FROM EUROPE TO BOLOGNA (ERASMUS+)

3,250



EUROPEAN STUDENTS (ERASMUS+ COUNTRIES) ENROLLED IN DEGREE PROGRAMMES

2,442







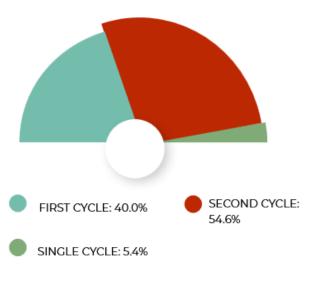
#### **DEGREE PROGRAMMES**

260

#### OF WHICH 107 INTERNATIONAL:

- 64 TAUGHT IN ENGLISH
- 25 TAUGHT IN ENGLISH DOUBLE/MULTIPLE DEGREES
- 18 DOUBLE/MULTIPLE DEGREES NOT TAUGHT IN ENGLISH

#### PROGRAMME CATALOGUE BY CYCLE





#### **OUTSTANDING MULTIDISCIPLINARY RESEARCH**



Agri-food, bioeconomics, natural resources, agriculture and the environment

RESEARCH



Climate, energy and mobility



Culture, creativity and inclusive societies



Digital, industry and space

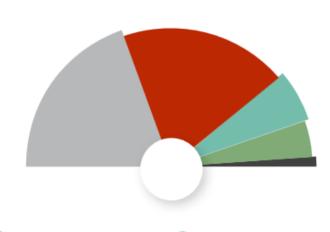


Health



Public safety

## SCIENTIFIC PRODUCTION: 14,500















## Department of Agricultural and Food Sciences

MISSION

Promoting knowledge and scientific culture in agricultural and food sciences by advanced research



## DISTAL

Born in 2018 as an integrated organisation incorporating all the teaching and research activities of the agricultural area of the University of Bologna



Distal won projects "Department of Excellence 2018-2022" and "Department of Excellence 2023-2027" (awards funded by MUR - Ministry of University and Research)



Agriculture & Forestry: UNIBO 1st out of 21 Italian Universities



## DISTAL SPACES

Research labs 31 for about 5.000 m<sup>2</sup> Teaching labs about 1.000 m<sup>2</sup>

Computer classrooms about 200 m<sup>2</sup>

Classrooms more than 2.000 m<sup>2</sup>

Greenhouse more than 2.000 m<sup>2</sup>

Green areas more than 7.000 m<sup>2</sup>

Study/lunch rooms about 400 m<sup>2</sup>

Shade structures more than 100 m<sup>2</sup>



#### Lido delle Nazioni Cento Portomaggiore Comacchio A13 n Giovanni Lido di Spina Persiceto Argenta SS16var Bologna Marina di Ravenna SS16 Lugo Ravenna SS67 SS 65 della Futa Faenza to Cervia Forli Brisighella Cesenatico SS16 Cesena Marradi Rimini SS 65 della Futa E45 SR302 Barberino Rico di Mugello Parco Borgo San Nazionale San Marino Lorenzo delle Foreste Casentinesi... Bagno di Sesto

## LOCATIONS

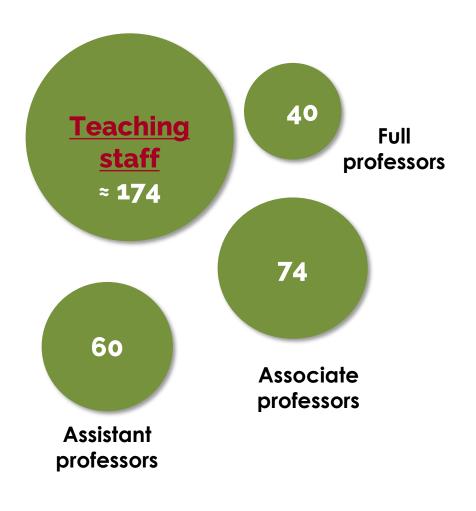
Two main headquarters in: **Bologna (BO) Cesena (FC)** 

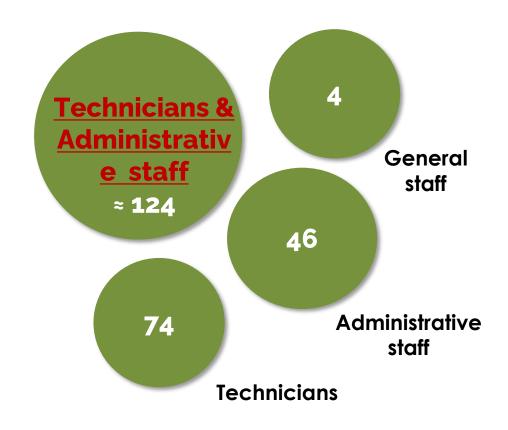
Other teaching and research activities in:

Ozzano (BO)
Cadriano (BO)
Imola (BO)
Tebano (RA)



## PEOPLE (2024)





Postdoc researchers ≈ 131



## STUDENTS ENROLLED (A.Y. 2023/24)



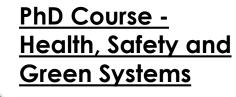
**566**Master

1.622

Bachelor

(702 new careers)







PhD Course - Innovative <u>Technologies and Sustainable</u> **Use of Mediterranean Sea** Fishery and Biological Resources (FishMed-PhD)

182



## TEACHING PROGRAMMES

4

PhD

programmes

7

Master's degree programmes

8

Bachelor's degree programmes





## 8 BACHELOR'S DEGREE PROGRAMMES



At Bologna campus

Agricultural Technology

**Animal Production** 

Land and Agro-Forestry Technologies

Marketing and Economics of the Agro-Industrial System

At Imola campus

Sciences and Technologies for Green and Landscape

At Cesena campus

Food Technology

Sciences and Culture of Gastronomy

Viticulture and Enology



## 7 MASTER'S DEGREE PROGRAMMES



At Bologna campus

<u>Agricultural Sciences and Technologies</u>



Food Safety and Food Risk Management



International Horticultural Science

Planning and management of forest territory, landscape and environment



Precise and Sustainable Agriculture

At Imola campus

At Cesena campus

Plant and agricultural biotechnology

Food Science and Technology





















Food science and technology





Plant pathology and entomology

## 10 RESEARCH AREAS

- Agronomy and field, vegetable, ornamental crops
- Agricultural and food economics
- Agricultural chemistry, pedology and agricultural genetics
- Agricultural engineering
- Agro-environmental and food microbiology
- Animal sciences
- Chemistry, biochemistry and botany
- Food science and technology
- Fruit tree and woody plant sciences
- Plant pathology and entomology





## 31 RESEARCH LABS

- Agricultural garden | Greenhouse complexes | Growth chambers
- Phytotrons & Plant Physiology Labs
- Agri-environmental Microbiology labs
- Agricultural Chemistry and Pedology Labs
- Animal Production Quality and Food Safety labs
- Experimental Economics in Agriculture, Food, Environment | FARE-La
- Applied research and food formulation | RAFA
- Enology, Beverages and Sensory Analysis | LEBS
- Nutritional Biochemistry Labs
- Chemistry, instrumental and sensory analysis of food | LACASS
- Seed Research and Testing | LaRAS
- Mycology and Applied Botany | LAMBA
- Agricultural mechanics Labs
- Food Characterization and Food Technologies | LCTA



## 9 MULTIDISCIPLINARY THEMATIC GROUPS



Water & agriculture



Apidology & apiculture



Agriculture & climate change



Genetic resources



Precision agriculture



Soil health



Plant health



Circular bioeconomy



Big data



## DISTAL competitive projects won since 2022

### COORDINATED H2020 & HEU PROJECTS

YEAR	No. of project	Total funding (Ml €)	
2014	1	0.434	
2015	10	3.390	
2016	8	3.879	
2017	8	2.423	
2018	6	1.555	
2019	6	3.722	
2020	3	2.118	
2021	1	0.192	
2022	1	1.285	
2014 - 2022	44	17.448	

- 79 EU-funded project (H2020,HEU,KIC, PRIMA Sec. 1, etc.), 18 coordinated projects, over 24,9M € of Grant for the Department;
- 22 International projects with EU and international dimension (JPI, PRIMA Sec. 2, EJP, etc.), 6 coordinated projects, over 3M € grant;
- 53 nationally funded projects, 12 coordinated projects, over 5M€ grant
- 85 minor projects from Regional and local funding agencies (public and provate), of over 3,5M € grant



## AZIENDA AGRICOLA A.U.B. The Farmhouse





## University of Bologna Farmhouse - A.U.B.

A.U.B. (unibo.it)

The farmhouse supports teaching, research and testing activities, and the management and the enhancement of the University's land assets.

### Main features:

- Technological platform
- Living Lab



## Third Mission

- 25 Patent Families for a total of 83 patents
- 34 plant breeders rights (link)
- 3 Spin-off

Laboratories and structures accredited at national and international level allow a constant alignment with the industrial world and financing through projects and activities on behalf of third parties.

Fingerprinting Service of plant material for its discrimination and/or identification (fingerprinting). The laboratories are accredited by the Emilia-Romagna Region for DNA molecular analysis.





## Third Mission

### LaRAS - Seed Research and Analysis Laboratory

The laboratory is authorized to perform analysis for the application of seed regulations.

The Laras performs on request the following service activities for public bodies and private entities (seed companies, multiplier farmers, food industry, etc.):

- Official sampling service of seed lots, especially those intended for export
- Seed quality analysis services
- Physical analysis
- Physiological analysis
- Genetic analysis
- Technical consultancy service on specific issues related to seeds.





## INTERNATIONAL DIMENSION



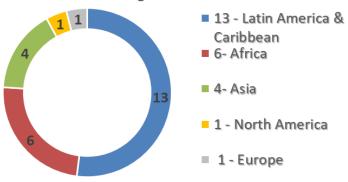


161856 AL 0		Agricultural University of Tirana Accordo di settore tra University of Agricolture of Tirana e DISTAL	ALBANIA TIRANA	Dipartimento di Scienze e Tecnologie Agro- Alimentari	Accordi di settore	05/04/2023 04/04/2028
162998 BR (		UNIVERSIDADE FEDERAL DE PELOTAS Accordo tra DISTAL e UNIVERSIDADE FEDERAL DE PELOTAS	BRASILE PELOTAS	Dipartimento di Scienze e Tecnologie Agro- Alimentari	Accordi di settore	15/06/2023 15/06/2028
155717 BR (		UNIVERSIDADE DO ESTADO DE SANTA CATARINA (UDESC) Agreement of cooperation between the dep. of Agricultural and Food Sciences of Unibo and the University of the state of Santa Catarina	BRASILE SANTA CATARINA	Dipartimento di Scienze e Tecnologie Agro- Alimentari	Accordi di settore	26/09/2022 25/09/2027
160414 BR (		Universidade Federal de Santa Maria International Cooperation agreement between the Federal University of Santa Maria, Brazil and the department of agricultural sciences , Unibo	BRASILE SANTA MARIA	Dipartimento di Scienze e Tecnologie Agro- Alimentari	Accordi di settore	11/10/2022 10/10/2027
162973 CL 0		UNIVERSIDAD DE LA FRONTERA ACCORDO DISTAL UNIVERSIDAD DE LA FRONTEIRA	CILE TEMUCO	Dipartimento di Scienze e Tecnologie Agro- Alimentari	Accordi di settore	31/05/2023 31/05/2028
146281 CM		University of Buea Cooperation agreement between DISTAL Unibo and the Faculty of Agriculture and Veterinary Medicine of the University of Buea	CAMERUN BUEA	Dipartimento di Scienze e Tecnologie Agro- Alimentari	Accordi di settore	27/04/2022 26/04/2027
186086 CN (		UNIVERSITA' AGRARIA DELLO XINJIANG Accordo di settore tra DISTAL e The college of economics and management of The Xinjiang Agricultural University	CINA REPUBBLICA POPOLARE URUMQI	Dipartimento di Scienze e Tecnologie Agro- Alimentari	Accordi di settore	09/09/2024 08/09/2029
182914 CN (		CHINESE ACADEMY OF AGRICULTURAL SCIENCES AGREEMENT OF COOPERATION BETWEEN ALMA MATER STUDIORUM - UNIVERSITA' DI BOLOGNA , FACULTY OF AGRICULTURAL SCIENCES AND THE CHINESE ACADEMY OF AGRICULTURAL SCIENCES	CINA REPUBBLICA POPOLARE BELJING	Dipartimento di Scienze e Tecnologie Agro- Alimentari	Accordi di settore	04/09/2024 03/09/2029
145089 CN (	0093	Henan Agricultural University Agreement of Cooperation between the Department of Agricultural and Food Sciences of the Alma Mater Studiorum - University of Bologna and the College of Agronomy - Henan Agricultural University	CINA REPUBBLICA POPOLARE HENAN	Dipartimento di Scienze e Tecnologie Agro- Alimentari	Accordi di settore	05/05/2022 04/05/2027
191864 CN (		School of Tropical Agriculture and Forestry, Hainan University Accordo di settore tra DISTAL e School of Tropical Agriculture and Forestry, Hainan University	CINA REPUBBLICA POPOLARE HAINAN, P.R. CHINA	Dipartimento di Scienze e Tecnologie Agro- Alimentari	Accordi di settore	16/12/2024 15/12/2029
166110 CO		FACOLTÀ DI INGEGNERIA, CORPORACION UNIVERSITARIA MINUTO DE DIOS, UNIMINUTO Accordo di settore tra DISTAL e Facolta' di Ingegneria, corporacion Universitaria Minuto de Dios, UNIMINUTO	COLOMBIA BOGOTÁ D.C.	Dipartimento di Scienze e Tecnologie Agro- Alimentari	Accordi di settore	10/07/2023 10/07/2028
152587 CR (		Instituto Tecnológico de Costa Rica Letter of agreement of cooperation between the department of Agricultural and Food Sciences of University of Bologna and the Instituto Tecnologico de Costa Rica	COSTA RICA CARTAGO	Dipartimento di Scienze e Tecnologie Agro- Alimentari	Accordi di settore	30/09/2022 29/09/2027
155160 CU (		UNIVERSIDAD DE ORIENTE Accordo di cooperazione tra il dip. di Scienze e Tecnologie agro-alimentari (DISTAL) dell'Unibo e l'Universitàde Oriente (UO)	CUBA SANTIAGO DE CUBA	Dipartimento di Scienze e Tecnologie Agro- Alimentari	Accordi di settore	05/12/2022 04/12/2027
175453 ET 0		College of Agriculture and Natural Resources of the Salale University Accordo di settore tra DISTAL e College of Agriculture and Natural Resources of the Salale University	ETIOPIA ETIOPIA	Dipartimento di Scienze e Tecnologie Agro- Alimentari	Accordi di settore	13/03/2024 13/03/2029
146267 HN (	0002	UNIVERSIDAD NACIONAL DE AGRICULTURA DE HONDURAS - UNAG ACCORDO DI COOOPERAZIONE TRA DISTAL, UNIBO E L'UNIVERSITA NAZIONALE DELL'AGRICOLTURA DELL'HONDURAS	HONDURAS CATACAMAS	Dipartimento di Scienze e Tecnologie Agro- Alimentari	Accordi di settore	29/04/2022 28/04/2027
182533 IT 00		Organizzazione Internazionale Italo Latino Americana - IILA Accordo fra Dipartimento Scienze e Tecnologie Agro-Alimentari - IILA	ITALIA ROMA	Dipartimento di Scienze e Tecnologie Agro- Alimentari	Accordi di settore	26/08/2024 25/08/2029
178179 JP 0	0031	Chiba University - National University Corporation  Agreement between School of Horticultre and Faculty of Horticulture of Chiba University and Department of Agricultural and Food Sciences of Bologna University	GIAPPONE CHIBA	Dipartimento di Scienze e Tecnologie Agro- Alimentari	Accordi di settore	31/05/2024 30/05/2029
160416 KE 0		Jomo Kenyatta University of Agricultural Technology Accordo tra il Dipartimento di Scienze e tecnologie Agroalimentari e la Jomo Kenyatta University of Agriculture and Technology	KENYA NAIROBI	Dipartimento di Scienze e Tecnologie Agro- Alimentari	Accordi di settore	15/03/2023 14/03/2028
168468 MX (		Instituto tecnologico de Pabellon de Arteaga Accordo di settore tra DISTAL e Instituto tecnologico de Pabellon de Arteaga	MESSICO PABELLON DE ARTEAGA	Dipartimento di Scienze e Tecnologie Agro- A Alimentari	Accordi di settore	12/06/2023 11/06/2028
155429 PE 0	0014	UNIVERSIDAD NACIONAL DE FRONTERA Accordo di cooperazione tra il dip. di Scienze e Tecnologie agro-alimentari (DISTAL) dell'Unibo e la scuola professionale di Ingegneria dell'industria alimentare dell'Universidad de la Frontera	PERÙ PIURA	Dipartimento di Scienze e Tecnologie Agro- Alimentari	Accordi di settore	14/11/202 13/12/202
160810 SC 0	0001	University of Seychelles Accordo di settore tra Dip. Scienze e Tecnologie Agro-Alimentari e University of Seychelles	SEYCHELLES MAHE	Dipartimento di Scienze e Tecnologie Agro- Alimentari	Accordi di settore	06/04/202 05/04/202
177824 TRT	TEKIRDA01	NAMIK KEMAL UNIVERSITY l'accordo DISTAL e Department of soil sciences and plant nutrition, Namik Kemal University	TURCHIA ÇORLU/TEKIRDAĞ	Dipartimento di Scienze e Tecnologie Agro- Alimentari	Accordi di settore	16/05/202 15/05/202
161948 US (	0259	MICHIGAN STATE UNIVERSITY General International Agreement for academic cooperation between Michigan State University and University of Bologna	STATI UNITI D'AMERICA EAST LANSING, MICHIGAN	Dipartimento di Scienze e Tecnologie Agro- Alimentari	Accordi di settore	07/11/202 06/11/202
179954 US (	0263	University of Georgia Accordo di settore tra DISTAL e University of Georgia	STATI UNITI D'AMERICA ATHENS	Dipartimento di Scienze e Tecnologie Agro- Alimentari	Accordi di settore	27/05/202 26/05/202
183592 UZ 0	0015	Agreement of cooperation between DISTAL and the Samarkand State University Agreement of cooperation between DISTAL and the Samarkand State University	UZBEKISTAN SAMARKAND CITY	Dipartimento di Scienze e Tecnologie Agro- Alimentari	Accordi di settore	20/04/202 19/04/202

## **DISTAL**

## 25 Active sector agreements







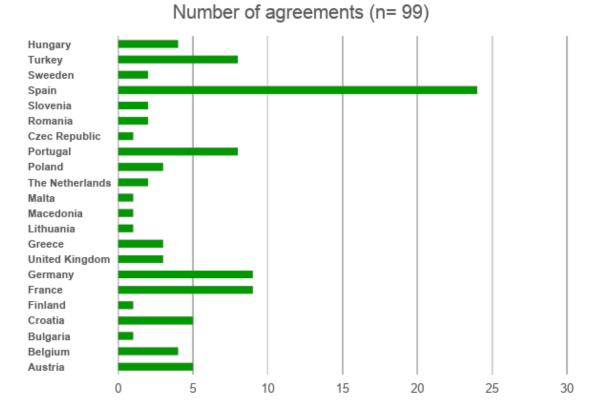
Samarkand - June 2022



## INTERNATIONAL MOBILITY WITHIN THE FRASMUS+ PROGRAMME

A.Y.	No. active Erasmus+ agreements		
2019/2020	49		
2020/2021	35		
2021/2022	67		
2022/2023	62		

International agreements with at least one incoming or outgoing mobility of students or staff in indicated academic years (A.Y.)



Bilateral agreements for Erasmus+ programme KA1, mobility for students and staffs



## OUR INTEREST IN UZBECHISTAN and in the HEMUA PROJECT

- ➤ 2009 → Prof. Bruno Marangoni leaded a team of agronomists from UNIBO to study of modern and past agrotechnologies in the Samarkand region
- > 2010 -> bachelor thesis on viticulture in the Samarkand region Michele Bonvicini, DISTAL-UNIBO
- ➤ September 2017 → Moreno Toselli and Diana Di Gioia were invited to celebrate the 90<sup>th</sup> Anniversary of the Samarkand State University foundation. A sector agreement in agricultural disciplines was discussed (signed in December 2017 and renewed in 2022).
- February 2020 → the SHARQ project started within the framework of "Innovative Projects in International Cooperation" of the University of Bologna
- May 2022: Summer School in Samarkand (ENVIRONMENT AND ARCHAEOLOGY: LINKING THE PAST AND THE FUTURE FOR A SUSTAINABLE DEVELOPMENT OF THE SAMARKAND TERRITORY)
  - October 2022: visit of the Samarkand delegation to Bologna
- > 2023 Two professors from DISTAL (including <u>Elena Baldi</u>) were hosted by Samarkand State University for teaching
- ➤ 2023 → the Erasmus+ International Credit Mobility (ICM) program (Key Action 1, Learning mobility for higher education students and staff) involving DISTAL and Samarkand State University was approved. Mobility of 4 Uzbekistan students, 2 PhD students and 1 professor to UNIBO, along with 3 teaching staff members moving from UNIBO to SamSU (mobility already implemented by <u>Daniele Alberoni</u>)
- > 2025 → HEMUA



## Samarkand, 2017





## SHARQ



## "ENVIRONMENT AND ARCHAEOLOGY: LINKING THE PAST AND THE FUTURE FOR A SUSTAINABLE DEVELOPMENT OF THE SAMARKAND TERRITORY"

Moreno Toselli, Diana Di Gioia

Department of Agricultural and Food Science (DISTAL), University of Bologna (UNIBO)

Simone Mantellini, Antonio Curci
Department of History and Cultures (DISCI), University of Bologna (UNIBO)









## Samarkand, 2022



### Diana Di Gioia

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www.unibo.it