# SUSTAINABILITY REPORT 2022



ALMA MATER STUDIORUM Università di Bologna 2021 Social Responsibility Report
2020 Social Responsibility Report – A community, even at a distance
2019 Social Responsibility Report – Passion, Rebirth, Ties
2018 Social Responsibility Report – Competence, Commitment, Community
2017 Social Responsibility Report – The value of knowledge for the community and territory
2016 Social Responsibility Report – A path to sustainability
2015 Social Responsibility Report – A commitment to the future
2014 Social Responsibility Report – A legacy from the past, many plans for the future
2013 Social Responsibility Report – A report on our people, projects and results
2012 Social Responsibility Report – People at the heart of knowledge

Sustainability Report prepared by Alma Mater Studiorum – University of Bologna APPC – Planning and Communication Division – University Planning and Data Analysis Unit

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Photos

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Our University has been working for a long time to raise awareness and address gender stereotypes. In accordance with the Gender visibility guidelines for the University of Bologna's institutional communications, approved in 2020, an attempt has been made in this Sustainability Report, whenever possible, to make the female gender explicit or, at least, to use gender-neutral terminology.

When only the masculine form is used in the document, due to graphic requirements or for the sake of brevity, this is meant to refer inclusively to all persons working within the academic community.

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Considering a carbon sequestration capacity for an average deciduous tree of 10-20 CO2 kg per year and an average life span of 30 to 50 years, the planting requirement for the University to cover the entire impact has been estimated at 2-4 trees.



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# SCIENTIFIC TECHNICAL COMMITTEE FOR SUSTAINABILITY AND COORDINATION GROUP ON REPORTING 210



#### INTRODUCTION

It is with pleasure and pride that I present this **2022 Sustainability Report** of Alma Mater Studiorum – Università di Bologna, which marks a dramatic change – in terms of structure, content and method of preparation – from our decade-old Social Responsibility Report format.

The new Sustainability Report is intended to be a tool to directly engage students, teachers, professional staff and the local community in the strategies and results of our University. The new format of the document allows everyone to understand how Alma Mater has **simultaneously generated economic, social and environmental value for its own community and the area in which it operates**.

First of all, the Sustainability Report reconstructs the University's strategies and choices in terms of **sustainability governance**; then, it documents the **economic value** attracted, distributed and retained by the University of Bologna, in five sections representing the five areas into which the 2022-2027 Strategic Plan is organised.

In particular, the **Teaching and student community** section illustrates the services offered and actions taken for the benefit of our student community, including an ever-increasing commitment to ensuring the quality of our programme catalogue; the **Research** section describes our scientific contribution on a national and international level, focussing in particular on the Italian National Recovery and Resilience Plan (NRRP); the **People** section illustrates our human resources policies and their results in terms of new forms of work organisation and measures ensuring organisational well-being; finally, the **Society** section presents the impact of our activities on the local community, with a particular focus on libraries and museums and on the promotion of health and sports. In addition to these four sections, the **Environment** section reports on the University's energy policies, accompanied by an environmental impact assessment. Our first Sustainability Report is the result of **innovative stakeholder engagement methods**, especially with regard to teachers, students and professional staff, who, together with the University governing bodies, have shaped the structure and content of this document, in an ongoing, constructive dialogue that lays the essential foundations for all concrete sustainability actions.

Furthermore, the 2022 Sustainability Report follows **the most authoritative international guidelines**, i.e. the Global Reporting Initiative Standards (GRI Standards 2021) and, for the first time, incorporates the Sustainable Development Goals (SDGs) of the UN 2030 Agenda, with a view to fully harmonising actions and impacts, in pursuit of the goal of sustainability.

I wish to thank all the colleagues and students who have shared this journey with us, filling this document with ideas and content. Thank you to the entire Alma Mater, which I am truly proud to represent: the pages that follow reflect not only all the effort put into the year 2022, but most of all our commitment to the future.

**Giovanni Molari** Rector Alma Mater Studiorum Università di Bologna







# **READING GUIDE**

The first edition of the University of Bologna's Sustainability Report follows on the social reporting activity already launched by the University with its first Social Responsibility Report in 2012, which has reached its tenth edition.

The aim of the Sustainability Report is to give an account of the values, actions, results and impacts of the activities carried out by the University. The content presented in this Sustainability Report is the result of discussions with the University's stakeholders, especially with the teacher, student and professional staff communities, who, together with the University governing bodies, have shaped its content map. The engagement process allowed to identify the most relevant activities and data for reporting purposes.

The first stakeholder engagement process took place through dedicated focus groups in March 2023. The second one will start after this document is published, in order to discuss its results and resume the debate as early as in September 2023. In line with sustainability reporting standards, our meetings with the stakeholders allow us to appreciate and assess how Alma Mater understands and implements its institutional mandate and the results it has achieved, and to build a set of shared values and actions from which results and impacts that benefit all the University communities arise.

In order to report on the three main areas of sustainability at Alma Mater – economic sustainability, social sustainability and environmental sustainability – we relied on the Global Reporting Initiative Standards (GRI Standards 2021). The impacts achieved were also assessed against the Sustainable Development Goals (SDGs) of the UN 2030 Agenda.

All the information in the document is tracked in the University's information systems. The reporting period covered by the document is the year 2022.

# 1. STRATEGY AND GOVERNANCE





# Gender Equality Report

INTERNATIONALISATION

# **1.1 IDENTITY, PRINCIPLES AND VALUES**

The University of Bologna's long history, daily effort and constant orientation towards the future enable it to be a community of people where seemingly incompatible values and goals coexist, integrate harmoniously and strengthen each other. Alma Mater is a Multicampus University that constantly grows in numbers and size and aims for the best teaching and scientific

quality. In light of the new opportunities that future brings, as well as the new challenges that our increasingly complex economic and social context faces us with, our mission is to reiterate and strengthen our proudly multifaceted identity, which we are all committed to nurture every day.

Four principles underpin Alma Mater's action: These principles are inspired by two cross-cutting goals – internationalisation and digital transition.

DIGITAL TRANSITION



# **DIGITAL TRANSITION**

Our proactive digital transition strategy launched in 2022 is supporting change through IT solutions capable of innovating teaching, broadening the horizons of research and technology transfer, and streamlining administrative processes.

In dealing with the digital transition, we prioritise the values of trust and respect for individual and social rights, inclusion, and the removal of all forms of technology-related discrimination.

List of key interventions in 2022 (to be included in the infographics):

- Re-engineering and digitisation of real estate management;
- Consolidation of data sources and records of research processes;
- Implementation of the Virtual Helpdesks;
- Digitisation of records of research equipment;
- Digital skills certification based on the Open Badge standard;
- Re-engineering and digitisation of PhD programme processes;
- Digitisation of the processes to shorten one's university career, enrol, and launch the career of students in medical specialisation schools.



Alma Mater has equipped itself with a set of tools to protect and monitor compliance with its values. In addition to our Statute, our Code of Ethics and Conduct, identifies the key values of the University community and a system of regulations, guidelines and internal codes that describe the rules, beliefs and provisions through which the University protects and monitors each area of activity.

To ensure lawfulness, transparency and the prevention of corruption, the Anti-Corruption strategy is incorporated every year into our Integrated Activity and Organisation Plan (PIAO). Significant information is disclosed in the Transparency section of our website, ensuring everyone's right to access University documents.

Additionally, Alma Mater promotes equal opportunities, equity, and social and occupational inclusion through measures and actions that enhance diversity and prevent and combat all forms of discrimination and inequality. These goals are presented in our 2022-2026 Gender Equality Plan (GEP). The University of Bologna's focus on social inclusion reporting translates into our Gender Equality Annual Report.

#### **1.2 ACTIONS AND RESULTS**

The University uses an integrated suite of tools to plan actions and measure goals.

ACTIVITIES OF **RESEARCH AND TEACHING STRUCTURES** 

**GENERAL ADMINISTRATION ACTIVITIES** 

PERFORMANCE REPORT FORECAST (VARIANCES) DEPARTMENT PRESENTATIONS FINANCIAL STATEMENTS GENDER EQUALITY REPORT SUSTAINABILITY REPORT SDGS REPORTING



Gender Equality Report

STRATEGIC PLAN (SDGS – NRRP) DEPARTMENT PLANNING INTEGRATED PLAN (PIAO) **OPERATIONAL OBJECTIVES** BUDGET 00 **REVISION OF MANAGEMENT** YC, **OBJECTIVES RE-PLANNING OF ACTIVITIES** FOR THE FOLLOWING YEAR FORECAST (CHANGES)

Our Strategic Plan sets out the University of Bologna's priorities and guides its actions for the upcoming years. In addition to the four key principles around which the Strategic Plan is structured, there are four areas of impact of the University of Bologna's action: Teaching and student community, Research, People, Society. The principles of Alma Mater are translated into 50 goals, to be achieved through specific actions that contribute to the implementation of the Italian National Recovery and Resilience Plan (NRRP) and the Sustainable Development Goals (SDGs) of the UN 2030 Agenda.



In addition, the Strategic Plan goals are adapted in the Integrated Activity and Organisation Plan (PIAO) to suit the needs of each organisational unit within the University, by coordinating activities to improve process efficiency and effectiveness, perceived quality, and impacts on the various dimensions of public value. It is therefore an additional level of planning that sets structure-specific operational objectives, directly derived from strategic goals.





Goals and objectives are achieved thanks to the University's commitment and the resources it allocates every year to ensure service continuity and launch innovative actions.

These financial commitments are highlighted in the University Budget (i.e. our approved annual budget).

After the planning stage, the University begins work; the corresponding results will then be checked. In the checking stage, Alma Mater drafts several documents to report on its work to stakeholders. Among the various reporting tools, particular importance is attached to the Sustainability Report, which aims to build a common identity for the University and its many communities, in order to account for the topics and impacts generated by this relationship.

Integrated Activity and Organisation Plan (PIAO)



Governance and Organisation

# **1.3 GOVERNANCE AND ORGANISATION**

VICE RECTORS Deputy Rector Teaching Personnel International Relations Research Digital Transformation

## DELEGATES

Budget and Planning Constructions Equity, Inclusion and Diversity Public Engagement Cultural Heritage Industrial Relations and Research Process Streamlining Relations with the Health Service Sustainability Students Institutional Communications Guidance for Prospective Students and Ongoing Guidance Guidance for Graduates International Training and New Activities Postgraduate Education Multilingualism Teacher Training Cooperation and Development International Agreements and Networks Mobility of Teachers, Students and Professional Staff UnaEuropa PhD Equipment and Infrastructure **Competitive Research Projects** Interdisciplinarity Open Science and Research Data Occupational Well-Being



The University of Bologna carries out its activity through its Divisions and Departments. Divisions are the General Administration operational units. They oversee technical and administrative services, and manage teaching, research and third mission support services based on rules, common standards and models that consistently, effectively and efficiently meet the needs of its various communities (students, teachers, professional staff). Divisions preside over specific functions and locations.





Departments

MEDICINE AREA

- Experimental, Diagnostic and Specialty Medicine – DIMES
- Biomedical and Neuromotor Sciences -DIBINEM
- Medical and Surgical Sciences – DIMEC
- Veterinary Medical Sciences – DIMEVET

The **32 Departments** of the University of Bologna perform functions related to scientific research, third mission, and learning and training activities. Departments coordinate and support their teachers and researchers' research activities and organise and manage student activities within their degree programmes. Each Department is managed independently by its own Head and by a decisionmaking body, the Department Board.

SCIENCE	SOCIAL STUDIES	TECHNOLOGY	HUMANITIES
AREA	AREA	AREA	AREA
<ul> <li>stic</li> <li>Chemistry "Giacomo Ciamician" – CHIM</li> <li>Industrial Chemistry "Toso Montanari" – CHIMIND</li> <li>Pharmacy and Biotechnology – FaBiT</li> <li>Physics and Astronomy "Augusto Righi" – DIFA</li> <li>Mathematics – MAT</li> <li>Biological, Geological and Environmental Sciences – BiGeA</li> </ul>	<ul> <li>Management – DiSA</li> <li>Economics – DSE</li> <li>Legal Studies – DSG</li> <li>Political and Social Sciences – SPS</li> <li>Statistical Sciences "Paolo Fortunati" – STAT</li> <li>Sociology and Business Law – SDE</li> </ul>	<ul> <li>Architecture - DA</li> <li>Computer Science and Engineering - DISI</li> <li>Civil, Chemical, Environmental and Materials Engineering - DICAM</li> <li>Electrical, Electronic and Information Engineering "Guglielmo Marconi" - DEI</li> <li>Industrial Engineering - DIN</li> </ul>	<ul> <li>Cultural Heritage – DBC</li> <li>Arts – DAR</li> <li>Classical Philology and Italian Studies – FICLIT</li> <li>Philosophy and Communication Studies – FILCOM</li> <li>Interpreting and Translation – DIT</li> <li>Modern Languages, Literatures and Cultures – LILEC</li> </ul>

 Life Quality Studies – QUVI

- Agricultural and Food Sciences DISTAL
- Psychology "Renzo Canestrari" – PSI
- Education Studies "Giovanni Maria Bertin" – EDU
- History and Cultures DiSCi

In addition, Alma Mater hosts **17 Research and Training Centres** and seven Interdepartmental Research Centres (CIRI). Each Centre encourages cooperation among researchers from the disciplinary areas of the Departments involved in the Centre itself; some Centres have their own laboratories to carry out research.

# RESEARCH AND TRAINING CENTRES

## ARCES - ADVANCED RESEARCH CENTRE ON ELECTRONIC SYSTEMS "ERCOLE DE CASTRO"

A.U.B. – UNIVERSITY OF BOLOGNA EXPERIMENTAL FARM

CAST – CENTRE FOR ADVANCED STUDIES IN TOURISM

UNIVERSITY CENTRE FOR THE PROTECTION AND PROMOTION OF HEALTH AND SAFETY: A) OCCUPATIONAL HEALTH AND SAFETY SERVICE B) SERVICE FOR ANIMAL WELFARE IN UNIVERSITY TEACHING AND SCIENTIFIC FACILITIESO

ALMA MATER INSTITUTE ON HEALTHY PLANET (ALMA HEALTHY PLANET) INTERDEPARTMENTAL RESEARCH CENTRE

ALMA MATER RESEARCH INSTITUTE FOR HUMAN-CENTRED ARTIFICIAL INTELLIGENCE (ALMA AI) INTERDEPARTMENTAL RESEARCH CENTRE

ALMA MATER RESEARCH INSTITUTE ON GLOBAL CHALLENGES AND CLIMATE CHANGE (ALMA CLIMATE) INTERDEPARTMENTAL RESEARCH CENTRE

INTERNATIONAL CENTRE FOR HUMANISTIC STUDIES "UMBERTO ECO"

CILDIC – CHEMISTRY TEACHING LABORATORY CENTRE

CIRSA – INTERDEPARTMENTAL RESEARCH CENTRE FOR ENVIRONMENTAL SCIENCES

CRBA – CENTRE FOR APPLIED BIOMEDICAL RESEARCH

CRIFSP – PUBLIC SECTOR RESEARCH AND TRAINING CENTRE

ISS – INSTITUTE FOR HIGHER STUDIES

SPISA – SPECIALISATION SCHOOL FOR PUBLIC ADMINISTRATION STUDIES

SPECIALISATION SCHOOL FOR LEGAL PROFESSIONS "ENRICO REDENTI"

SSPS – ADVANCED SCHOOL FOR HEALTH POLICY

SSCT – ADVANCED SCHOOL OF STUDIES ON THE CITY AND TERRITORY

## CIRI

ICT

AGRIFOOD

# HEALTH SCIENCES AND TECHNOLOGIES

#### ADVANCED MECHANICS AND MATERIALS

# **BUILDING AND CONSTRUCTION**

### FRAME (RENEWABLE RESOURCES, ENVIRONMENT, SEA AND ENERGY)

## AEROSPACE

Finally, Schools are organisational units that link and coordinate member Departments with a view to streamlining, supporting and managing their programme catalogues. The Schools of Engineering, Economics and Management, Arts, Humanities and Cultural Heritage, Science, and Medicine are currently in operation.

Alma Mater is the only university in Italy that has adopted a Multicampus structure since 1989: in addition to Bologna, there are other Campuses in Cesena, Forlì, Ravenna and Rimini. Each Campus has a strong scientific and educational identity, its own facilities and services dedicated to institutional, cultural, sports activities and associations. Each Campus has its own Schools, Departments or Campus-specific Organisational Units. Each Campus coordinates services and initiatives in support of its own teaching and research activities and of its students. Dynamic relations are also maintained with local bodies, associations and private organisations, as part of the cultural, economic and social development of the areas.



<u>Schools</u>



# The University of Bologna Campuses





Cesena Campus



Forlì Campus



Ravenna Campus Rimini Campus



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# 2. SUSTAINABILITY GOVERNANCE

ALL DE LE CALLER

## 2.1. GUIDELINES

The content of the Sustainability Report follows the Global Reporting Initiative guidelines (GRI Stan2021)<sup>1</sup>. The results achieved by the University of Bologna are assessed against the Sustainable Development Goals (SDGs) of the UN 2030 Agenda. In addition, in preparing this Report, reference was made to the document "Il Bilancio di Sostenibilità delle Università" (Sustainability Reporting for Universities), issued by Gruppo di Studio sul Bilancio Sociale in cooperation with the Italian University Network for Sustainable Development (GBS and RUS, March 2021), and to the Italian Ministry of Public Administration's Directive on social reporting in public administrations (Directive, 2006)<sup>2</sup>.

The scope of reporting includes the activities carried out directly by the University of Bologna through its structures (General Administration, Campuses, Departments, Schools, etc.), while the activities and results of subsidiary and associated companies are not included in the scope of reporting.

All the information in the document is tracked in the University's information systems. In particular, unless otherwise indicated, quantitative data are sourced from, processed and classified in the University Data Warehouse, a database fed by the Alma Mater's management systems. Qualitative data come from institutional documents (Statute, Regulations, Financial Statements, Strategic Plan, PIAO and Performance Report, etc.), from the University of Bologna website and intranet, from periodic reports drafted in compliance with the regulations in force, and from other internal sources that can be checked for reliability.

According to the principle of annuality, the reporting period is the calendar year 2022, with the exception of the data in the Teaching and student community section, which relate to the 2022/23 academic year. While reference to that period does not always imply that the available data can be considered 'final' (although up-to-date at the time of reporting), it allows relevant information to be provided to readers in a timely manner, so that they can make informed decisions in good time (principle of timeliness). In addition, some of the data and quantitative indicators in the sections are presented on a multi-year basis to enable readers to appreciate the changes in the University's performance over time and, in some cases, allow comparison with national averages and other mega-universities (principle of comparability).

In order to ensure that the Sustainability Report is as accessible and comprehensible as possible for all stakeholders, the document was drafted with a view to synthesis and clarity, attempting to use terminology that refers to concepts of common knowledge, and providing an explanation of the technical terms and acronyms used in a Glossary attached to the document (principle of clarity).

The gradual and targeted involvement of the various University of Bologna's levels (principle of inclusiveness) has made it possible to identify the most material activities and data for reporting purposes (principle of materiality) and the most significant information on the actions carried out in 2022, thus enabling stakeholders to assess the results of the organisation as a whole (principle of completeness).

 <sup>1</sup>GRI – Global Reporting Initiative (2021), Consolidated Set of the GRI Standards 2021, available online at the following https://www.globalreporting.org/how-to-usethe-gri-standards/gri-standards-english-language/.
 <sup>2</sup>Directive – Italian Ministry of Public Administration's Directive on social reporting in public administrations, published in Official Gazette no. 63 of 16 March 2006.



In particular, the information and indicators reported were identified by referring to the most widespread guidelines for social and sustainability reporting on a national and international level, and confirmed and supplemented through discussions with internal coordinators and by examining the strategies, objectives and content of the planning documents prepared by the University.

Reporting encompasses the economic, social and environmental dimensions (principle of sustainability context) and reflects both the positive and negative aspects of Alma Mater's performance, allowing a reasoned assessment of results (principle of balance) and a measurement of the contribution made by the University to improving or worsening the local sustainability framework.

In order to provide a fair view of the University of Bologna's performance, preference was given to the presentation of directly measurable qualitative and quantitative information, avoiding the use of estimates where possible. Any estimates made are noted within the document, stating their sources and calculation methods (principle of accuracy).



# 2.2 STAKEHOLDERS AND ENGAGEMENT

A stakeholder is anyone with whom the University of Bologna maintains relations – students, teachers, professional staff, institutions, organisations, businesses and communities. The University of Bologna's continuous efforts generate results that have an impact on its stakeholders, their behaviour and choices. For this reason, the Sustainability Report aims to account for the relationship between the University and its stakeholders in order to cooperate in building paths that guide the University itself towards results and impacts in line with the expectations of the various stakeholder groups. The active engagement of stakeholders allows sharing results and heir impacts, but also reflecting together on the strategies and needs to be met in the future.

The stakeholder groups identified for Alma Mater are shown in the following infographic.

Having regard to the initiatives to engage stakeholders in social reporting, the following are worth noting:

- Focus groups to engage students and staff in the identification of material topics, through the President and Vice President of the Student Council and the President of the Professional Staff Council;
- Involvement of a number of University offices in the processing of information and data for reporting purposes, as well as discussions on their materiality;
- Reporting document approval process, covering presentation and discussion at the meetings of the Sponsors' Committee, the Student Council, the Professional Staff Council, the Academic Senate and the Board of Governors.



# PARTICIPATORY STAKEHOLDER ENGAGEMENT WITH FOCUS GROUPS

A focus group is an engagement method, which the University understands as a chance to discuss social, environmental and economic sustainability aspects that are material to its stakeholders.

Focus groups were held in March 2023 with governing bodies (teachers), professional staff (members of the Professional Staff Council) and the student community (members of the Student Council), in order to discuss how 2022 results should be reported.

The following activities took place within each focus group, lasting approximately 3 hours:

- Presentation of the social reporting document;
- Brainstorming in subgroups through circle meetings;
- Definition of proposals and presentation to all participants;
- Discussion, evaluation and prioritisation.

The focus groups were supported by experts from the Technical Reporting Committee and the office responsible for the process (Planning and Communication Division). We wish to extend our gratitude to all our colleagues and students who shared this new experience of engagement and growth:

**PROFESSIONAL STAFF:** Stefano Brumat; Maria Calienni; Roberto Carli; Giuseppe Cusimano; Federico Daniel Di Persio; Lucia Ferroni; Cosetta Marchionni; Giuseppe Merloni; Rosa Modarelli; Valentina Vasina.

**STUDENTS:** Chiara Cova; Noa De Cristofaro; Giulia Gambino; Daniele Leone; Francesca Saccardi; Jacopo Tagliati; Jacopo Toccoli.

Special thanks to the students of the Service Management degree programme of Università Cattolica di Piacenza, who participated in the Student Focus Group with a view to drafting a paper on Social Reporting within universities:

Marco Cerri; Sophia Chiesa; Federico Dallara; Mattia Faiella; Filippo Angelo Mazza; Francesca Sartori.

# 2.3 MATERIALITY

According to the reporting framework recommended by the GRI Standards, the Sustainability Report is structured around material topics, i.e. topics of particular significance to stakeholders. The materiality analysis of economic, environmental and social aspects considered material must be reported in the 2022 Sustainability Report.

Materiality is the dimension within which a certain aspect of the relationship between the University and its stakeholders is able to influence the organisation's capacity to create value. By analysing its material topics, an organisation is able to disclose whether it produces economically, socially or environmentally significant impacts. Moreover, material topics substantially influence stakeholder evaluations or decisions about the organisation itself and help to understand stakeholder engagement, prioritise resource use and manage risks.

Alma Mater has implemented various methods to identify its own material aspects and related indicators, i.e. by analysing internal documentation, analysing industry standards (including the Sustainability Accounting Standard Board – SASB standards, in addition to those already mentioned), and analysing and benchmarking industry peers.

A materiality analysis involves a prioritisation of the topics according to their significance as identified by the governing bodies and a panel of stakeholders. Oneto-one interviews were conducted with members of the governing bodies, while focus groups were set up to listen to a selected sample of the main stakeholders in each group. In particular, this being the first year in which materiality is analysed through focus groups, the University decided to focus on internal stakeholders by conducting focus groups with students and staff. From the next edition of the Sustainability Report onwards, the analysis of material topics will be extended to external stakeholders, businesses, networks and public administrations. The combination of internal and external materiality for each aspect results in a score that allows these topics to be assigned various degrees of priority and enables selecting a limited set on which to focus action and reporting.

The results of stakeholder listening sessions were also taken into account and reported in the relevant section of the Sustainability Report.

Below are the steps that led to the identification of the topics to be included in the materiality table:

- Identification of material aspects and elements based on the sustainability context in which the University operates and the principle of stakeholder inclusiveness;
- Prioritisation of aspects to be considered and related indicators;
- Validation of material aspects and related indicators in accordance with the principle of completeness;
- Ongoing review of the path to move from the previous reporting process to the current one with a view to ensuring consistency, continuity and continuous improvement, building on the aspects that emerged from discussions with the governing bodies and focus groups.

This path is summarised in the materiality table below, in which each dimension of sustainability is matched with the corresponding strategic priority and topic relevant to the University of Bologna. This is linked to the GRI Standards deemed most suitable to provide a reporting measure of the impacts related to those aspects. The corresponding internal and external stakeholders are also identified.

# TABLE 1 - MATERIALITY TABLE

DIMENSION	SCOPE	DESCRIPTION	GRI	STAKEHOLDERS
	Teaching and student community	Expand actions to support the right to higher education and availability of student accommodation		Students, Sponsors, National, regional and local institutions, Families
ECONOMIC	Research Increase participation in competitive calls GRI 201: Economic performance GRI 202: Market presence		Scientific communities, Teachers, International networks	
ONC		Foster local development and build on local expertise	GRI 203: Indirect economic impacts	Families, National,
EC	Society	Promote fundraising	GRI 204: Procurement practices	regional and local institutions,
		Enhance entrepreneurship and technology transfer	r	Businesses
	People	Streamline processes, also thanks to digital transformation		Teachers, Professional staff, Students and Families
		Improve energy efficiency	GRI 301: Materials	National, regional
	Society	Facilitate low environmental impact mobility		and local institutions, Students, Families,
VTAL		Promote efficient environmental management models and the circular economy	GRI 303: Water and effluents (2018)	Businesses, Scientific communities
MEN		Improve safety and accessibility of buildings and spaces	GRI 304: Biodiversity	
ENVIRONMENTAL	People	Enhance the University assets and real estate	GRI 305: Emissions GRI 306: Waste GRI 308: Supplier environmental assessment	Students, Teachers, Professional staff

Image: Processing and student community         Reduce dropout rates and support timely student career progression by improving services         Students, Teachers, Sponsors, International networks           Improve student sociability and engagement in academic life graduate employment         GRI 401: Employment         Students, Teachers, Sponsors, International networks           Research         Protect freedom and autonomy of research         GRI 403: Labour/imanagement relations         GRI 404: Training and education         GRI 403: Cocupational health and safety (2018)           Research         Protect freedom and autonomy of research and of research facilities and equipment         GRI 406: Diversity and equal opportunities         GRI 406: Non-discrimination           Research         Develop PhD programmes and expand career opportunities         GRI 406: Non-discrimination         Teachers, Businesses, Scientific are career or computing with the social impact of research and its engagement in the networks of care         GRI 406: Non-discrimination         Teachers, Stational, regional and local institutions and collective bargaining           Society         Ensure quality and transparency of all information         GRI 411: Rights of indigenous propies         National, regional and local institutions students, Families, Sponsors, Sudents, Families, Sponsors, Businesses           Society         Ensure quality and transparency of staff         GRI 411: Local communities         Stational, regional and local institutions students, Families, Sponsors, Businesses           Rinhance and promote he local	DIMENSION	SCOPE	DESCRIPTION	GRI	STAKEHOLDERS
Teaching and student community     Improve students oxidating and refegement in academic me Ensure innovative teaching and professional training and promote graduate employment     GRI 401: Employment     Sponsors, International networks       Research     Protect freedom and autonomy of research     GRI 403: Occupational health and safety (2018)     International networks       Research     Protect freedom and autonomy of research and of research facilities and equipment     GRI 403: Decupational health and safety (2018)     Teachers, Businesses, Scientific communities, Develop PhD programmes and expand career opportunities     GRI 404: Training and education GRI 405: Diversity and equal opportunity     Teachers, Businesses, Scientific communities, Mational, regional and local institutions       Reinforce biomedical research and its engagement in the networks of care     GRI 407: Freedom of association and collective bargaining     GRI 406: Non-discrimination       Businesses, Scientific communities, the effectiveness of care models and health policies     GRI 407: Freedom of association and collective bargaining       Society     Ensure quality and transparency of all information the effectiveness of care models and health Service by improving the effectiveness of care models and health policies     GRI 411: Rights of indigenous peoples       Society     Encourage dialogue with schools     GRI 411: Rights of indigenous peoples     GRI 411: Rights of indigenous peoples       Promote development cooperation     GRI 412: Dublic policy     GRI 416: Customer health and safety       Professional staff, Teachers     GRI 417: Marketi			Reduce dropout rates and support timely student career progression by improving services		
Image: Second Statustic Community     Ensure innovative teaching and professional training and promote graduate employment     GRU 4001: Employment     Infernational networks       Reinforce international teaching     GRU 400: Labour/manaagement relations     GRU 400: Labour/manaagement relations     Infernational networks       Research     Protect freedom and autonomy of research     GRU 400: Diversity and equal opportunities     GRU 400: Diversity and equal opportunities     Teachers, Scientific communities, National, regional and collective bargaining       Research     Develop PhD programmes and expand career opportunities     GRU 400: Diversity and equal opportunity     Teachers, Scientific communities, National, regional and collective bargaining       Research     Ensure quality and transparency of all information     GRU 400: Scientify practices     GRU 409: Forced or compulsory labour       Society     Ensure quality and transparency of all information     GRU 401: Rights of indigenous peoples     National, regional and solical institutions       Society     Ensure quality engagement initiatives     GRU 411: Rights of indigenous peoples     National, regional and solical institutions       Promote development cooperation     GRU 415: Public policy     GRU 414: Supplier social assessment     Anional, regional and solical institutions       Promote development cooperation     GRU 415: Public policy     GRU 414: Supplier social assessment     GRU 414: Supplier social assessment       Profescional staff, Teachers, Public policy     Increa			Improve student sociability and engagement in academic life		
Protect freedom and autonomy of research     GRI 403: Occupational health and safety (2018)     Strengthen the quality of research and of research facilities and equipment     GRI 403: Occupational health and safety (2018)       Research     Strengthen the quality of research and of research facilities and equipment     GRI 405: Diversity and equal opportunity     Teachers, Businesses, Scientific communities, Opportunity       Reinforce biomedical research and its engagement in the networks of care     GRI 406: Non-discrimination     GRI 406: Non-discrimination       Monitor the social impact of research     GRI 408: Child labour GRI 409: Freedom of association and collective bargaining     Strengthen integration with the Italian Health Service by improving the effectiveness of care models and health policies     GRI 410: Security practices       Strengthen integration with the Italian Health Service by improving the effectiveness of care models and health policies     GRI 411: Rights of indigenous peoples     National, regional and local institutions, Sponsors, Businesses, Sponsors, Businesses       Society     Encourage dialogue with schools     GRI 411: Rights of indigenous peoples     Research       Promote development cooperation     GRI 415: Public policy     Autional, regional and local institutions, Sponsors, Businesses       People     Increase international mobility of staff     GRI 417: Marketing and labelling     Professional staff, Teachers			Ensure innovative teaching and professional training and promote graduate employment	GRI 402: Labour/management	International
Protect freedom and autonomy of research     safety (2018) *     safety (2018) *     safety (2018) *       Research     Strengthen the quality of research and of research facilities and equipment     GRI 404: Training and education     GRI 405: Diversity and equal opportunity       Develop PhD programmes and expand career opportunities     GRI 406: Non-discrimination     GRI 407: Freedom of association and collective bargaining     National, regional and local institutions       Nonitor the social impact of research     GRI 407: Freedom of association and collective bargaining     GRI 408: Child labour GRI 409: Forced or compulsory labour     Sective       Enhance the role of Alma Mater as a safe and welcoming place     GRI 411: Rights of indigenous peoples     GRI 411: Rights of indigenous peoples     National, regional and local institutions       Society     Encourage dialogue with schools     GRI 413: Local communities     GRI 414: Supplier social assessment       Promote development cooperation     GRI 416: Customer health and safety     Sponsors, Businesses       People     Increase international mobility of staff     GRI 417: Marketing and labelling       Professional staff, Teachers     Professional staff, Teachers			Reinforce international teaching		
PEOD       equipment       Teachers, Businesses, Scientific communities       Teachers, Businesses, Scientific communities, National, regional and local institutions         POOD       Monitor the social impact of research       GRI 405: Diversity and equal opportunity       Businesses, Scientific communities, National, regional and local institutions         Monitor the social impact of research       GRI 407: Freedom of association and collective bargaining       GRI 407: Freedom of association and collective bargaining         Society       Ensure quality and transparency of all information       GRI 408: Child labour GRI 409: Forced or compulsory labour       National, regional and local institutions         Society       Ensure quality and transparency of all information       GRI 410: Security practices       National, regional and local institutions         Society       Encourage dialogue with schools       GRI 411: Rights of indigenous peoples       National, regional and local institutions, Sponsors, Businesses         Society       Expand public engagement initiatives       GRI 413: Local communities       Sponsors, Businesses         Promote development cooperation       GRI 416: Customer health and safety       Professional staff, Teachers         People       Increase international mobility of staff       GRI 417: Marketing and labelling       Professional staff, Teachers			Protect freedom and autonomy of research	GRI 403: Occupational health and safety (2018)	
Processional staff, People     Develop PhD programmes and expand career opportunities     opportunity     opportunity     communities, opportunity       Reinforce biomedical research and its engagement in the networks of care     GRI 406: Non-discrimination     GRI 406: Non-discrimination     National, regional and local institutions       Monitor the social impact of research     GRI 406: Non-discrimination     GRI 407: Freedom of association and collective bargaining     National, regional and local institutions       Society     Ensure quality and transparency of all information     GRI 408: Child labour GRI 409: Forced or compulsory labour     National, regional and local institutions       Society     Ensure quality and transparency of all information     GRI 410: Security practices     National, regional and local institutions       Society     Ensure quality and transparency of all information     GRI 411: Rights of indigenous peoples     National, regional and local institutions       Society     Encourage dialogue with schools     Expand public engagement initiatives     GRI 414: Supplier social assessment       Promote development cooperation     GRI 416: Customer health and safety     Sponsors, Businesses       People     Value meritocracy and gender respect in recruitment     GRI 417: Marketing and labelling			Strengthen the quality of research and of research facilities and equipment		
PEODE       Reinforce biomedical research and its engagement in the networks of care       GRI 406: Non-discrimination       local institutions         Monitor the social impact of research       Monitor the social impact of research       GRI 407: Freedom of association and collective bargaining       GRI 408: Child labour GRI 409: Forced or compulsory labour         Ensure quality and transparency of all information       Enhance the role of Alma Mater as a safe and welcoming place       GRI 410: Security practices       RRI 410: Security practices         Society       Encourage dialogue with schools       Encourage dialogue with schools       GRI 413: Local communities       National, regional and local institutions. Students, Families, Sponsors, Businesses         Promote development cooperation       GRI 416: Customer health and safety       Professional staff, Teachers         People       Increase international mobility of staff       GRI 417: Marketing and labelling       Professional staff, Teachers		Research	Develop PhD programmes and expand career opportunities		communities,
Image: Properties of the social impact of research       and collective bargaining       and collective bargaining         Image: Properties of the social impact of research       GRI 408: Child labour GRI 409: Forced or compulsory labour       Forced or compulsory labour         Image: Enhance the role of Alma Mater as a safe and welcoming place       GRI 410: Security practices       GRI 411: Rights of indigenous peoples         Society       Encourage dialogue with schools       GRI 413: Local communities       National, regional and local institutions. Sponsors, Businesses         Formed development cooperation       Formote development cooperation       GRI 415: Public policy       Forestinal assessment         Promote development cooperation       Increase international mobility of staff       GRI 417: Marketing and labelling       Professional staff, Teachers         People       Value meritocracy and gender respect in recruitment       GRI 417: Marketing and labelling       Professional staff, Teachers					
Forced or compulsory labour       Forced or compulsory labour         Enhance the role of Alma Mater as a safe and welcoming place       GRI 410: Security practices         Strengthen integration with the Italian Health Service by improving the effectiveness of care models and health policies       GRI 411: Rights of indigenous peoples         Society       Encourage dialogue with schools       GRI 413: Local communities         Expand public engagement initiatives       GRI 414: Supplier social assessment         Promote development cooperation       GRI 416: Customer health and safety         Increase international mobility of staff       GRI 417: Marketing and labelling         People       Value meritocracy and gender respect in recruitment       GRI 417: Marketing and labelling	IAL		Monitor the social impact of research		
Enhance the role of Alma Mater as a safe and welcoming placeGRI 410: Security practicesSocietyStrengthen integration with the Italian Health Service by improving the effectiveness of care models and health policiesGRI 411: Rights of indigenous peoplesNational, regional and local institutions. Students, Families, Sponsors, BusinessesSocietyEncourage dialogue with schoolsGRI 413: Local communities GRI 414: Supplier social assessmentNational, regional and local institutions. Students, Families, Sponsors, BusinessesPromote development cooperationGRI 416: Customer health and safetyNational safetyPeopleIncrease international mobility of staffGRI 417: Marketing and labellingProfessional staff, Teachers	SOC		Ensure quality and transparency of all information		
Society       Strengthen integration with the Italian Health Service by improving the effectiveness of care models and health policies       GRI 411: Rights of indigenous peoples       National, regional and local institutions. Students, Families, Sponsors, Businesses         Society       Encourage dialogue with schools       GRI 413: Local communities       Students, Families, Sponsors, Businesses         Expand public engagement initiatives       Promote development cooperation       GRI 415: Public policy       Health and safety         Promote development cooperation       Increase international mobility of staff       GRI 417: Marketing and labelling       Professional staff, Teachers			Enhance the role of Alma Mater as a safe and welcoming place		
Society     Encourage dialogue with schools     GRI 413: Local communities     Students, Families, Sponsors, Businesses       Expand public engagement initiatives     GRI 414: Supplier social assessment     Sponsors, Businesses       Promote development cooperation     GRI 415: Public policy     Free one       Enhance and promote the local cultural heritage     GRI 416: Customer health and safety     Professional staff, Teachers       People     Value meritocracy and gender respect in recruitment     Professional staff, Teachers			Strengthen integration with the Italian Health Service by improving the effectiveness of care models and health policies	GRI 411: Rights of indigenous	National, regional
Expand public engagement initiatives       GRI 414: Supplier social assessment       Sponsors, Businesses         Promote development cooperation       GRI 414: Supplier social assessment       Herber         Enhance and promote the local cultural heritage       GRI 416: Customer health and safety       Herber         People       Increase international mobility of staff       GRI 417: Marketing and labelling       Professional staff, Teachers		Society	Encourage dialogue with schools		Students, Families,
Promote development cooperation     GRI 415: Public policy       Enhance and promote the local cultural heritage     GRI 416: Customer health and safety       People     Increase international mobility of staff     GRI 417: Marketing and labelling       People     Value meritocracy and gender respect in recruitment     Frofessional staff, Teachers			Expand public engagement initiatives		Sponsors, Businesses
People     Increase international mobility of staff     GRI 417: Marketing and labelling       People     Value meritocracy and gender respect in recruitment     Professional staff, Teachers			Promote development cooperation		
People     Value meritocracy and gender respect in recruitment     Professional staff, Teachers			Enhance and promote the local cultural heritage	GRI 416: Customer health and safety	
People Value meritocracy and gender respect in recruitment Teachers			Increase international mobility of staff	GRI 417: Marketing and labelling	
		People	Value meritocracy and gender respect in recruitment		
			Enhance the role of people and improve occupational well-being		

# 3. ECONOMIC VALUE







€ 724 million ECONOMIC VALUE DISTRIBUTED



**16%** GREEN PROCUREMENT In 2022, the University's Consolidated Financial Statements showed a profit of  $\in$ 75 million, with sufficient reserves to adequately support future operations and the implementation of strategic planning.

# **3.1 ECONOMIC VALUE ATTRACTED**

The economic value attracted for the year 2022 is  $\notin$  877 million, 63% of which contributed by the State.

# **TABLE 2 – ECONOMIC VALUE ATTRACTED**

	2022 (€m)	%
Contributions from students	135	15%
Contributions from the State	549	63%
of which FFO	469	53%
Contributions from the Regions	6	1%
Contributions from the EU and the rest of the world	9	1%
Contributions from others	43	5%
Income from sponsored research and technology transfer	20	2%
Income from research	86	10%
Other income	29	3%
Total	877	100%



# FIGURE 1 – ECONOMIC VALUE ATTRACTED (€M)

Fund for the ordinary financing of Italian universities

The Ordinary Financing Fund (FFO) is the main public financing instrument for Italian universities. Every

year, the Italian Ministry of University and Research allocates the Fund to universities based on historical, size and performance criteria.



#### FIGURE 2 – FFO 2021-2022 (€M)

2022

### Fundraising and donation campaign

In its 2022-2027 Strategic Plan, the University has set a specific fundraising goal and planned dedicated actions:

- Define a vision and cross-cutting goals for fundraising;
- Adopt increasingly transparent reporting methods for results;
- Devise new communication strategies to support fundraising;
- Promote crowdfunding practices, possibly involving foundations and charitable organisations;
- Monitor and map donation types to rearrange processes in a consistent manner.

<sup>3</sup>Latest data supplied by the Italian Revenue Agency.

2021

The 2022 survey was carried out by the competent offices in July, i.e. not in time for reporting purposes. Next year, internal procedures will be changed so that the relevant data are available in due time, hopefully upon approval of the Financial Statements.

The first survey in 2021 showed approximately  $\notin$  2.9 million, which the University intends to increase 10% by 2024.

In the 2021 **5x1000 campaign** (2020 income, accounted for in 2022 after receiving funding)<sup>3</sup>, Alma Mater received support from 7,087 taxpayers and raised a total amount of  $\notin$ 416,883.93 to fund scholarships, research projects and fellowships.

## **3.2 ECONOMIC VALUE DISTRIBUTED**

The University distributes the value created during the year directly and indirectly to its stakeholders. The main recipients include the teaching and research staff and professional staff, the student community that benefits from services and scholarships, the research partners that act as project coordinators, the suppliers that provide goods and services, the financial intermediaries for interest payable on loans, and the public administration, through the payment of direct and indirect taxes.

## **TABLE 3 – ECONOMIC VALUE DISTRIBUTED**

	2022 (MLN)	%
Human resources	412	57%
of which Teaching and Research Staff	303	42%
of which Managers and Professional Staff	109	15%
Student grants and subsidies	113	16%
Payments to third parties	35	5%
Suppliers	139	19%
Loan capital	1	0%
Public administration	25	3%
Total	724	100%

A portion of the economic value generated is not distributed, but retained internally. This relates to

amortisation, depreciation and provisions, other operating expenses and operating profit.

### **TABLE 4 – ECONOMIC VALUE RETAINED**

	2022 (MLN)	%
Amortisation, depreciation and write-downs	30	20%
Provisions for risks and charges	37	24%
Other operating expenses	11	7%
Operating profit	75	49%
Total	153	100%

#### FIGURE 3 – VALUE DISTRIBUTED (€M)



## **Procurement policy**

The University purchases goods and services in compliance with EU directives and the Italian Public Contract Code. Procurement contracts include a social clause, which allows the hiring of personnel already employed under current contracts. Bids are checked for compliance with the requirements, taking the cost of personnel according to the most representative collective bargaining agreements into account. With regard to the protection of employees, invoice payments are only made after confirming that the contractors have met their social security obligations pursuant to the applicable law. Environmental sustainability in the procurement of goods and services is ensured by requiring compliance with the Minimum Environmental Criteria (CAM) dictated by ministerial decrees.

#### Green procurement

The University Strategic Plan encourages green public procurement, an approach whereby public administrations integrate environmental criteria into all phases of the purchasing process.

The incidence of green procurement on the costs incurred for goods and services in 2022 is 16%.

#### Geographical origin of suppliers

In 2022, the University purchased goods and services totalling  $\notin$ 146 million. Of these, 50% were purchased from suppliers based in Emilia-Romagna, thus pouring a total of  $\notin$ 73.6 million into the territory where the University sites are located (+6% compared to 2021).

## FIGURE 4 – GEOGRAPHICAL ORIGIN OF SUPPLIERS



\*Excluding the province of Bologna.

# Prompt payment

The University's indicator in 2022 is **-14.01**; this means that, on average, the University pays purchase invoices

from its suppliers 14 days in advance of their due date.



-14.01 PROMPT PAYMENT RATE 2022
#### **3.3 ECONOMIC VALUE OF THE UNIBO GROUP**

The University of Bologna is the parent company of the Unibo Group, which is formed by those organisations and businesses in which the University holds an interest and influences the decision-making process. The <u>Consolidated Financial Statements</u> of the Unibo Group

present the global economic value of all these entities.

In 2022, the Unibo Group consisted of the following entities:



In addition to the entities that form part of the Unibo Group, there are the other organisations in which the University of Bologna holds an interest, which were as follows as at 31 December 2022:



Of the 71 Foundations, one is based at Unibo, two have the same Board of Governors as Unibo, four are controlled by Unibo, three are owned by Public Bodies, 16 have Statutes that reserve the right to hold or appoint certain offices to the Rector or the University, and six are Banking Foundations. As far as Consortia are concerned, 27 are interuniversity consortia and six were established by the University with private entities.

In addition, the University is involved in over 60 Associations, and a founding member of 11 of them.



# 4. TEACHING AND STUDENT COMMUNITY

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DEGREE PROGRAMMES AT VARIOUS LEVELS OF WHICH 51 PHD PROGRAMMES



88,685

STUDENTS ENROLLED IN DEGREE PROGRAMMES AT VARIOUS LEVELS IN 2022



7,199

INTERNATIONAL STUDENTS ENROLLED



23,731

GRADUATES FROM DEGREE PROGRAMMES AT VARIOUS LEVELS



12,662

SCHOLARSHIPS FOR STUDENTS (FUNDED BY ER.GO)



**81.5**%

REGULARLY ENROLLED STUDENTS

#### **4.1 TEACHING, QUALITY AND INNOVATION**

The University of Bologna covers all cycles of university education, which can be accessed after upper secondary school: first cycle and single cycle degree programmes (Bachelor and Combined Bachelor and Master), second cycle degree programmes (two-year Master), and third cycle programmes

(PhD programmes and Specialisation Schools). In addition, further opportunities are available in between cycles: first-level and second-level professional master's programmes, postgraduate programmes, lifelong learning programmes and intensive courses.



# TABLE 5 - MULTICAMPUS PROGRAMME CATALOGUE

2022/23	Bologna	Cesena	Forlì	Ravenna	Rimini
First cycle and single cycle degree programmes	77	10	8	11	9
Second cycle degree programmes	99	9	11	8	10
Total degree programmes	176	19	19	19	19
of which: double degrees	30	3	7	2	-
PhD programmes	46	1	3	1	1
Professional master's programmes	85	-	4	6	-
Postgraduate programmes	27	-	2	-	2
Students enrolled in the first year	20,169	1,581	2,083	1,133	1,663
Students enrolled	68,329	4,957	6,416	3,939	5,044
of which: second cycle degree programmes	18,482	1,303	1,793	918	1,316
of which: double degrees	14,678	423	1,486	494	-
Graduates*	14,149	991	1,800	766	1,229

\* The figures refer to the calendar year 2022.



# Programme catalogue

# **TABLE 6 – PROGRAMMES OFFERED**

	2020/21	2021/22	2022/23
First cycle degree programmes	93	97	101
Second cycle degree programmes	125	132	137
Single cycle degree programmes	14	14	14
Specialisation schools	57	56	Nd
PhD programmes	48	48	51
Professional master's programmes	95	91	95*
Postgraduate programmes and lifelong learning programmes	28	24	31*

\* The figure includes the programmes offered or scheduled to be offered as at April 2023.

# EDUCATION ON DIVERSITY, GENDER AND HUMAN RIGHTS

In order to inspire a cultural change towards equity and inclusiveness, Alma Mater has launched the following degree programmes in the 2022/23 academic year:

- First cycle degree programme in Intercultural and Linguistic Mediation, run by the Department of Interpreting and Translation (DIT), which offers three curricula, including Gender Studies;
- Erasmus Mundus Joint Master's Degree in Europe in Women's and Gender Studies GEMMA;
- PhD programme in Modern Languages, Literatures and Cultures: Diversity and Inclusion, run by the Department of Modern Languages, Literatures and Cultures (LILEC): EDGES Women's and Gender Studies curriculum;
- PhD programme in Translation, Interpreting and Intercultural Studies, run by the Department of Interpreting and Translation (DIT) Intercultural Studies curriculum, including gender studies, women's literature and feminist criticism;
- Diversity Management Transferable skills (Bologna Forli);
- Unibo for Gender Equality 2022.

In 2022/23, more than 26,500 students enrolled in the first year at our University. A slight variation was noted compared to the previous year, i.e. -3.9% in first cycle degree programmes (L) and -10.3% in second cycle

degree programmes (LM) and single cycle degree programmes (LMCU). On the other hand, applicants for restricted access degree programmes grew by +2% in the 2022/23 academic year.

# FIGURE 5 – STUDENTS ENROLLED IN THE FIRST YEAR



The overall number of students exceeds 88,600, 55% of whom enrolled in first cycle degree programmes, 27%

in second cycle degree programmes, and 18% in single cycle degree programmes.

# FIGURE 6 – STUDENTS ENROLLED IN FIRST CYCLE, SECOND CYCLE AND SINGLE CYCLE DEGREE PROGRAMMES



# FIGURE 7 – STUDENTS ENROLLED IN PROFESSIONAL MASTER'S PROGRAMMES, PHD PROGRAMMES AND POSTGRADUATE PROGRAMMES



The figure for students enrolled in Specialisation Schools in 2022/23 is not available yet (2,634 in 2020/21 and 2,766 in 2021/22).

As in the previous two-year period, the prevalence confirmed in 2022/23 too. of female students, accounting for 56% of the total, is



# FIGURE 8 – STUDENT COMPOSITION BY GENDER (FIRST, SECOND AND SINGLE CYCLE)

The figures relating to geographical origin confirm Alma Mater's attractiveness: 49.2% of those who enrolled in 2022/23 live outside Emilia-Romagna. According to the latest available information (2021/22 survey), the percentage is only 25.5% in the Italian university system as a whole, and 23% in major universities (MIUR National Student Database).

#### FIGURE 9 - STUDENTS BY REGION OF RESIDENCE





76.4% of students are under 25 years of age and the number of students aged 25 and over is decreasing.

### **FIGURE 10 – AGE OF STUDENTS**



The figure relating to on-time graduation shows an increase in students 'fuori corso' (past the envisaged completion time for the degree programme), which went from 17.8% in 2021/22 to 18.5% in 2022/23.

The dropout rate, after remaining stable over the last three years, increased in 2021/22.

**Teaching quality** Surveys reveal widespread satisfaction of attending students with the various aspects of the learning activities

taken into consideration. In the 2021/22 academic year, around 87% of students expressed positive opinions, with no differences across the Campuses.

# **FIGURE 11 - POSITIVE OPINIONS ON TEACHING<sup>4</sup>**

teachina?	2021/22 2020/21 2019/20		_			86.8% 87.0% 84.5%
Is the amount of work proportionate to the number of credits assigned?	2021/22 2020/21 2019/20		_	_	-	87.1% 86.8% 85.1%
Does the teacher present content clearly?	2021/22 2020/21 2019/20				-	89.0% 89.0% 87.0%
Are lecture halls adequate	2021/22 2020/21 2019/20				8	92.3% 94.9% 31.1%
Does the course timetable for the period allow you to attend lectures as well as study	2019/20	0%	25%	50%	75%	86.8% 87.5% 85.3% 100%

<sup>4</sup>For 2019/20, the opinion on lecture halls only refers to in-person learning activities (as opposed to online activities).

# Teaching innovation and teacher training

The University of Bologna plays an active role in the **teaching innovation** processes taking place in education and training systems worldwide – the Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG). The University pursues a student-centred approach to teaching, under which learning is not limited to the disciplines covered by a certain degree programme, but also encompasses **strategic and transferable skills**, and experiments with **flexible learning paths** supported by new forms of teaching and by digital learning, in which **teachers are facilitators** of learning and support the student community in acquiring disciplinary knowledge and strategic skills. The <u>Teaching and Learning Centre</u> is responsible for teaching innovation at the University of Bologna.

Teaching activities resumed entirely in 2022 and a new season of teaching innovation opened, with trials being conducted on two possible models:

- The Hybrid model, which involves the integration of innovative teaching methods for a portion of teaching and up to 35% of total learning hours;
- The DDI Integrated Digital Teaching model, which provides for the development of a repository of resources to support students in their learning activities and for exam preparation. This form of innovation goes beyond methods and looks at innovating formats and making the most of new technological devices; this, in order to support the learning paths of both attending and non-attending students, thus reducing, through both models, the opportunity gap between the two groups.

A total of 520 learning activities joined the trial in 2022.

**Teacher training** plays a central role in teaching innovation. The University implements a plan, which encompasses different roles and disciplines, of training sessions and workshops of a theoretical and methodological nature and on new technology as a tool for improving the learning experience. Since launching the project, 77 initiatives have been rolled out over 120 sessions, totalling 1,040 hours and 3,409 participants.

In 2022, the University started a process to reshape its **Transferable Skills Plan**. Transferable skills are defined by the European Union as the competences each individual needs for personal fulfilment and development, for employment, social inclusion and active citizenship, regardless of one's learning cycle. The plan involves more than 60 course units (around 3,500 places) taught across all Campuses.

Since the 2021/22 academic year, the University has expanded its programme catalogue with the Minors project. Minors are optional interdisciplinary courses, additional to degree programmes and centred around topical subjects, that allow each student to divert from their main subjects and acquire skills useful for future studies and the world of work. Five Minors, totalling 24-30 CFU credits, are offered to students enrolled in second cycle degree programmes.

**Graduates and employment status** The total number of graduates in the 2022 calendar

#### **FIGURE 12 – GRADUATES**



The percentage of those completing their studies rose to 72%. Only one student in ten is 'fuori corso' (past the envisaged completion time for the degree programme) by at least two years. Final grades also tend to increase over the three-year period: the percentage of those graduating with final grades higher than 105 rose from 49.1% in 2020, to 50.4% in 2021, to 53.3% in 2022.

#### **FIGURE 13 - TIME OF GRADUATION**





# HONORARY DEGREES AND HONORARY PHD DEGREES

To date, the University of Bologna has awarded over 600 honorary degrees to illustrious Italian and foreign personalities from the scientific, art, political, civil or religious world, and just as many in memory of its students who died in the war. Since 2017, the University also awards honorary PhD degrees to those who stand out in the various areas of interest of the University itself. In **2022**, an honorary degree in **Medicine and Surgery** was conferred on **Fabio Roversi Monaco**.

The **employment status** of our graduates is extremely positive. A growth in employment for Bachelor graduates has been recorded compared to the previous two-year period. The figure is around 40%, in line with that of the Italian university system as a whole and of Italy's major universities. An even more significant increase in employment compared to the previous two-year period has been recorded for graduates from single cycle degree

programmes. If we consider the University of Bologna's second cycle and single cycle degree programmes, figures are in line with those of the Italian university system as a whole and of Italy's major universities.

# FIGURE 14 – EMPLOYMENT STATUS ONE YEAR AFTER GRADUATION FIRST CYCLE DEGREE PROGRAMME





Not employed but in postgraduate education (not paid)

Not employed and not in postgraduate education

Source: AlmaLaurea – 2022 Employment Status Survey.

\* No. 75 Italian universities involved. Italy's major universities are: Bologna, Milano, Napoli Federico II, Padova, Roma Sapienza and Torino.

Postgraduate education includes:

- For graduates from a first cycle degree programme: second cycle degree programme, internship/practical training, specialisation school or first-level professional master's programme;

- For graduates from a second cycle or single cycle degree programme: internship/practical training, PhD programme, specialisation school, or first-level or second-level professional master's programme.

The distribution according to employment status one year after graduation varies across the Campuses; of course, when comparing results, the degree programmes on offer at each Campus should be taken into account, since a person's chances of employment also depend on their degree.

# FIGURE 15 - EMPLOYMENT STATUS ONE YEAR AFTER GRADUATION BY CAMPUS

	Bologna	38.9%		53.7%	7.4%
	Cesena	30.7%		64.8%	<mark>4.5%</mark>
1st Cycle	Forlì	32.9%		61.1%	<mark>6.0%</mark>
	Ravenna	55.89	%	37.5%	6.7%
	Rimini	56.9	%	33.2%	9.9%
	Total	39.7%		53.0%	7.3%
pu	Bologna		79.5%	5.4%	15.0%
Single Cycle and 2nd	Cesena		73.0%		
e ar	Forlì		78.0%		
Cycl	Ravenna		72.1%		
gle	Rimini		81.5%		
Sin	Total		78.9%	5.5%	15.6%
	0	% 25%	50%	75%	100%
		Employed			
		Not employed	but in postgraduate ed	ucation (not paid)	
		Not employed	and not in postgraduat	e education	

Source: AlmaLaurea – 2022 Employment Status Survey.

Knowing to what extent the skills acquired through university studies are used in one's professional activity is an especially relevant aspect within any university's Sustainability Report. From this point of view, results have tended to be stable over the last three years and show a gap between single cycle and second cycle degree programmes: 75% of single cycle graduates use their skills to a great extent, against 53.3% of second cycle graduates.

#### FIGURE 16 - USE OF SKILLS ACQUIRED WITH THE DEGREE



Source: AlmaLaurea – 2022 Employment Status Survey.

\* No. 75 Italian universities involved. Italy's major universities are: Bologna, Milano, Napoli Federico II, Padova, Roma Sapienza and Torino.

# Postgraduate education centres



#### Collegio Superiore

The Collegio Superiore, together with the Institute of Advanced Studies, is part of the University's Institute for Higher Studies (ISS), an interdisciplinary and international centre of excellence at all levels of study and research.

In the year 2022, 328 hours of curricular lectures and seminars and 45 hours of international conferences were offered. The Collegio Superiore organises seminars held by its students to enhance its cultural offer for the University student community and teaching staff and for the general public.



#### Consorzio MED3 - Continuing Medical Education

Med3 is a non-profit consortium between the University of Bologna, CINECA Consorzio Interuniversitario (Inter-university Consortium), four Local Health Authorities in the Region, and Montecatone R.I. SPA, which aims to design, develop and market e-learning courses and blended learning courses in the field of Continuing Medical Education (CME). In addition to hosting classes, the University plays a role in directing and designing innovative CME models.



### University Residential Centre of Bertinoro

Since 1994, the University Residential Centre – C.e.U.B., housed in the monumental area of Bertinoro, has held a number of postgraduate education events and conferences of a national and international significance.



#### Fondazione Bologna Business School

Since 2014, the BBS has been involved in postgraduate and post-experience manager training, withprofessional master's and training programmes attracting some 1,600 students from 103 countries around the world annually.

#### **4.2 INTERNATIONALISATION OF TEACHING**

The University of Bologna offers a range of **international degree programmes** that welcome international and Italian students and provide them with tutoring, support and counselling services aimed at fostering integration and training professionals willing to work in a global environment. Students can

enrol in degree programmes taught in Italian or in a foreign language and receive a double, multiple or joint degree, or in degree programmes taught entirely in a foreign language and receive a University of Bologna degree. The University's programme catalogue has expanded steadily over the past three years.

#### FIGURE 17 – INTERNATIONAL DEGREE PROGRAMMES





The number of international students has grown over the last three years and reached 7,199 in 2022/23, i.e. 8.1% of the total number of students enrolled in the first and second cycle. International PhD students are the most numerous and growing, reaching 18.3% in 2022/23. EU countries include the 27 Member States of the European Union.

# FIGURE 18 - COMPOSITION OF FIRST AND SECOND CYCLE STUDENTS BY ORIGIN



# FIGURE 19 – COMPOSITION OF PHD STUDENTS BY ORIGIN



# FIGURE 20 - NEW CAREERS (2022/23) BY COUNTRY OF ORIGIN



The ability to welcome all students and protect their rights is confirmed by the presence of 168 female students among the 271 total Iranian students.

#### OPENING OF THE ACADEMIC YEAR WITH MARJANE SATRAPI

The ceremony opened with the Rector's speech, which was followed by speeches from representatives of the professional staff and students. Then, Marjane Satrapi held a *lectio magistralis* entitled "The freedom of mind".

The Iranian artist and intellectual was the guest of honour at the 935th opening ceremony since the University's founding.

By inviting Satrapi, Alma Mater has taken a firm stance in support of the Iranian citizens' fight for their inalienable rights. A fight that has closely affected the University, with the death of Mehdi Zare Ashkzari, a former student of the University of Bologna who died after being imprisoned and tortured in Iran.

#### THE UNIVERSITY OF BOLOGNA AWAITS PATRICK ZAKI

We have been waiting for him since 7 February 2020, when Patrick was arrested in Cairo. He remained in prison for 22 months, until 8 December 2021, when the Court of Mansura decided to release him. Since then, he has been awaiting trial and is unable to return to Bologna to continue attending the GEMMA degree programme in Women's and Gender Studies. He is charged with "spreading false news inside and outside the country" and faces up to five years' imprisonment.

Alma Mater has always support

ed Patrick and has produced thirty pictures of him and one hundred and twenty multicoloured drapes to fill the corridors and courtyard of Palazzo Poggi, where the Rector's Office is located, in the heart of the University.

The drapes hung along with Patrick's pictures symbolise the embrace of those who, over so many weeks and months, have gathered around him and around his absence. These are not just any drapes – they are made from scraps of a thousand different fabrics, which would have otherwise been thrown away. After being recovered and sewn together, they now symbolise the chain of solidarity, indignation and hope that has united us in Patrick's name.

### International mobility

In 2022, Alma Mater participated in various international mobility programmes, including Erasmus+, Overseas and mobility to the Representación en la República Argentina. International mobility is

made possible by agreements that aim to foster, support and strengthen institutional, academic, scientific and teaching relations with partner universities worldwide.

#### FIGURE 21 – AGREEMENTS IN FORCE<sup>5</sup>



These agreements encourage student mobility for carried out abroad teaching activities and/or internships. Any activities one's study plan.

carried out abroad are recognised and integrated into one's study plan.

<sup>5</sup> The figure refers to the number of agreements in force with foreign businesses/organisations for incoming and outgoing mobility.

#### **FIGURE 22 – STUDENT MOBILITY**



\* The figure refers to the calendar years of the three-year period 2020-2022.



### FIGURE 23 – OUTGOING STUDENTS BY COUNTRY OF DESTINATION (TOP 10 COUNTRIES – THREE-YEAR PERIOD 2020-2022)



# FIGURE 24 – INCOMING STUDENTS BY COUNTRY OF ORIGIN (TOP 10 COUNTRIES – THREE-YEAR PERIOD 2020-2022)



### FIGURE 25 – SCHOLARSHIPS FOR DISSERTATION ABROAD

**University Language Centre and language courses** The University Language Centre (CLA) offers language services to students, teachers and professional staff of the University of Bologna. In particular, the CLA offers foreign language and **Italian as a second language courses**, as well as language proficiency tests. In 2022, the CLA run 80 Italian as a second language courses across the various Campuses for incoming exchange students (Erasmus, Erasmus Mundus, Overseas, etc.) and for international students enrolled in degree programmes, single course units, professional master's programmes and PhD programmes. The **AlmaEnglish** project gives students the opportunity to improve their English language skills and take the international IELTS Academic test free of charge. 71 AlmaEnglish courses were on offer in 2022, of which 52 in Bologna and 19 in Romagna. 1,789 students and 62 professional staff passed the IELTS Academic test, level B2 or higher. While the substantial ministerial funding for the AlmaEnglish project ended in June 2022, the University has allocated funds to support the language certification project.







#### STUDENT AMBASSADORS PROGRAMME

The Student Ambassadors Programme is a point of reference for the international student community. Students who participate in the programme foster the intercultural development of the University by getting together and sharing their different cultures. At the same time, they develop and strengthen the University's international and multilingual community by taking part in community-building activities specifically designed to encourage their integration and cooperation. In 2022, there were 190 student ambassadors from 53 different countries.

Student Ambassadors Programme

### 4.3 MEDICAL TEACHING AND RELATIONS WITH THE ITALIAN HEALTH SERVICE

Medical teaching is characterised by a close integration with clinical care activities. The Emilia-Romagna regional authority (Regione Emilia-Romagna) has set up two socalled Observatories to monitor and improve the quality of training – the Observatory for Specialist Medical Training and the Observatory for Nursing, Technical, Rehabilitation and Prevention Professions.

The University of Bologna's structures involved in the network of relations with health authorities are the Department of Biomedical and Neuromotor Sciences and the Department of Medical and Surgical Sciences, as well as the School of Medicine. Teaching in the medical field at Alma Mater is mainly carried out through:

- The Bologna IRCCS University Hospital, which is the reference centre for the University's relationships with the Italian Health Service and the main professional internship location for most degree programmes and specialisation schools in the medical field;
- The IRCCS IOR (Rizzoli Orthopaedic Institute), which is the additional location for orthopaedic research and teaching;
- The IRCCS ISNB (Institute of Neurological Sciences, part of the Bologna Local Health Authority), which is the reference facility for all activities related to neurological sciences;
- The Bologna Local Health Authority, which supports a number of teaching and research activities in areas such as pathological anatomy and psychiatry and contributes to internship activities for health professions degree programmes and specialisation schools.

The number of **actors involved** also bears witness to the importance of these relationships:

- Over 3,000 enrolments/year in the Medicine and Surgery degree programmes (in Italian and in English);
- Over 2,600 enrolments/year in health professions degree programmes (e.g. for nurses, midwives, healthcare technicians).

As far as **medical doctors in specialty training** are concerned, Regione Emilia-Romagna signed a regional memorandum of understanding concerning specialty training of Medicine and Surgery graduates, which sets out the core elements of training for students in medical specialisation schools and the contribution that the Region and the University are called upon to make to it.

In recent years, due to the severe rationing of specialty training contracts until 2017, an alarming shortage of specialist medical doctors has emerged in a number of fields that are essential for the functioning of the Italian Health Service as a whole – such as emergency and first aid medicine and surgery, anaesthesia and resuscitation, general surgery and paediatrics. In 2022 (2021/22 academic year), the total number of students enrolled in medical specialisation schools (2,334) increased by 10% compared to 2021 (+42% compared to the number of students enrolled in 2020, 2019/20 academic year). This is a consequence of the upward trend in new students (518 in the 2021/22 academic year), ministerial scholarships (549) and the investment of the Emilia-Romagna Region, which has confirmed the allocation of 28 additional specialty training contracts in 2022.

In 2022, the Italian Ministry of University and Research confirmed the accreditation of **44 medical specialisation schools**, which have been joined by **the new Specialisation School in Medicine and Palliative Care**, adding to the range of medical specialisations available at the University.

For students enrolled in medical specialisation schools, the University of Bologna has created a **training network involving 35 Local Health Authorities and organisations throughout the country with more than 300 operational units**.

#### **4.4 STUDENT COMMUNITY SERVICES**

**Guidance for prospective students** Guidance for prospective students is aimed at upper secondary school students to help them make an informed choice about their university studies. Alma Mater holds two virtual fairs. Alma Orienta and Magistralmente, which provide up-to-date information on first cycle and second cycle degree programmes and on the services offered. It also organises inperson presentations of the University and its degree programmes for secondary school students attending the fourth and fifth year. Similar initiatives are held during the Romagna Campuses' Open Days. In 2022,

the myAlmaOrienta app was used by 26,820 users and AlmaOrienta received 26,350 likes on Facebook. Other interventions are carried out within the Paths for educational and career guidance and for the acquisition of transferable skills (PCTO), which are co-designed by teachers and coordinators of the University structures and by secondary school teachers.

Throughout the year 2022, 308 guidance interviews were conducted to help students choose their ideal degree programme.

Alma orienta

#### **TABLE 7 – GUIDANCE FOR PROSPECTIVE STUDENTS**

	2022
In-person presentations at secondary schools	72
No. of participants	9,177
In-person and online programme-specific presentations	133
No. of participants	12,200
Guidance events for prospective students	8
No. of participants	18,819
No. of agreements with schools for PCTOs	150
No. of PCTOs on offer	110
No. of students involved	4,000

# Tuition fees and waivers

To enrol in any degree programme, students are required to pay **tuition fees**. While each university may set the amount of these fees independently, every student is called upon to pay a certain amount of tuition fees which is calculated on the basis of their ISEE certification, i.e. the student's equivalent economic situation indicator. Special subsidies for the right to higher education are also calculated based on the ISEE certification.

**ISEE** Calculation

Students may be granted full or partial **tuition fee waivers**. Since the 2017/18 academic year, the University of Bologna has applied an ISEE-based model, alongside a 'no-fee area' which is above the minimum threshold defined at national level and which in the 2022/23 academic year was further extended to include all those with an ISEE amount less than or equal to €24,500. Above this threshold, the current system provides for a specific ISEE-based fee, which is calculated progressively but grants special protection to the most economically disadvantaged students.

#### **TABLE 8 – STUDENT DISTRIBUTION BY ISEE**

	2020/21 %	2021/22 %	2022/23 %
ISEE < €24,500.00	30.4	31.0	31.5
ISEE between €24,500.01 and €33,000.00	9.2	9.6	9.8
ISEE between €33,000.01 and €45,000.00	7.9	8.7	8.9
ISEE between €45,000.01 and €60,000.00	4.1	4.6	5.0
ISEE between €60,000.01 and €70,000.00	0.6	0.8	0.9
ISEE > €70,000.00	0.5	0.7	0.7
ISEE not submitted	47.4	44.6	41.0
Flat tuition fee for international students	-	-	2.2
TOTAL	100	100	100



#### Flat tuition fee for international students

Since the 2022/23 academic year, international students from certain non-EU countries are charged reduced tuition fees in a fixed amount, irrespective of their financial circumstances. The purpose of this measure is not only to lower their tuition fees, but also to relieve this student population of the often substantial financial burden to produce the necessary documentation for fee calculation. In the 2022/23 academic year, 1,890 students benefitted from this measure.

In the 2022/23 academic year, in order to protect economically disadvantaged students who would have to enrol for an additional academic year solely to obtain the final examination CFU credits, <u>tuition fees</u> were also reduced for students who only have to sit the final examination. In this case, only a flat fee is due:  $\in$ 500 if the student graduates by 30 September (or 30 November for health professions degree programmes) or  $\notin$ 1,000 if the student graduates by 31 December. In 2022, despite the extension of the academic year, 352 students applied for and 155 benefitted from the measure.

### Scholarships and funding opportunities

Financial aid supporting the right to higher education falls partly within the competence of the Emilia-Romagna Region, through the Regional Authority for the Right to Higher Education (ER.GO), and partly within the competence of the University of Bologna. In particular, ER.GO acquires and checks the documents concerning the student's financial circumstances, while the University makes sure that the applicable merit requirements are met by checking the student's career. Scholarships are awarded based on specific financial and merit criteria - the former are the subject of a specific Region's resolution within the ranges set annually by the Italian Ministry of University and Research, while the latter are defined by Premier's Decree dated 9/4/2001. Scholarship amounts vary according to the financial circumstances of the student, whether they live in the city, live away from home, or live at home and commute, and for female students in the case of STEM degree programmes (in Science, Technology, Engineering and Mathematics). In 2022, 12,662 students were awarded these scholarships.

Additional scholarships are offered for part-time (150-hour) student collaborations, under which students may apply for a grant, worth up to  $\in$ 1,125, and carry out collaboration activities in support of student services. In 2022, 2,347 grants were allocated.

Each year, the University of Bologna publishes calls for applications to award <u>scholarships to disadvantaged</u> <u>students</u> – be it a financial, physical, psychological, social or family disadvantage that could jeopardise their studies. Scholarships are awarded, on a case-by-case basis, to those who have not received any other financial aid under the law on the right to higher education. Since the 2017/18 academic year, in addition to the above-mentioned annual call, a further measure has been provided jointly with the Regional Authority for the Right to Higher Education (ER.GO), which grants not only financial aid, but also tuition fee waivers and support services. In the 2021/22 academic year, 431 students took advantage of this measure. Additional <u>scholarships and tuition fee waivers for</u> <u>international students</u> are envisaged as part of meritbased schemes (students enrolled in second cycle degree programmes who were awarded a first cycle degree by the University of Bologna within the first graduation session, with final grade 110/110) or support policies for special student categories (Unibo for Refugees project).

<u>Merit-based schemes</u> have been implemented for many years now; one of these measures provides for a waiver only applicable to students enrolled in second cycle degree programmes who were awarded their first cycle degree by the University of Bologna within three academic years and within the first graduation session, with a grade of 110/110. In 2022, 450 students benefitted from this measure.

<u>Tutoring fellowships</u>, introduced by Law 170/2003, are granted to students enrolled in second cycle degree programmes (or in the last two years of single cycle degree programmes). Tutors provide valuable support to students during their university years. Alma Mater's tutors welcome new students in Schools, degree programmes, halls of residence and internships, and provide services for students with disabilities or SLD. In 2022, **2,658 tutoring fellowships** were granted.

# **TABLE 9 – FUNDING OPPORTUNITIES**

	2019/20	2020/21	2021/22
Tuition fee waivers	42,102	43,108	46,578
of which: full	21,613	22,192	23,507
of which: partial	20,489	20,916	23,071
Scholarships funded by ER.GO	12,874	14,404	12,662
Part-time (150-hour) collaborations	2,390	2,374	2,347
Measures for economically disadvantaged students	375	420	431
Merit-based grants	450	450	450
Educational tutors	337	1,009	762
Teaching tutors	2,102	2,356	2,658
Accommodation	1,852	1,852	2,127
of which: Romagna Campuses	232	232	232
Prestiti fiduciari erogati	10	-	-
## Housing services

Approximately half of all students enrolled in the first year of first cycle and single cycle degree programmes come from non-neighbouring provinces or regions or from abroad; this figure reaches about 70% for students enrolling on a second cycle degree programme at the University. Their impact on Bologna and the Romagna Campuses is significant, as almost all students from nonneighbouring provinces rent accommodation or make use of the Right to Higher Education accommodation to attend their chosen degree programme. One-third of students from neighbouring provinces do the same.

## FIGURE 31 – NEW CAREERS (IST YEAR) BY GEOGRAPHICAL ORIGIN<sup>6</sup>



Same province where the degree programme is based

Neighbouring province\*

Non-neighbouring province or abroad

<sup>6</sup> The geographical origin of a student is the place where they obtained their secondary school diploma. When this information is not available for second cycle students, the location of their home university – for those who live in the province where the Alma Mater's degree programme is based – or their residence – for those who live outside that province – is taken into account.

\*Neighbouring provinces (to the province where the degree programme is based) are bordering provinces, with some exceptions – according to the geographical principle adopted by ER.GO in Bologna.

The University is aware of the difficulties faced by students away from home in finding accommodation, which is why it continues to collaborate with the municipal authority, ER.GO and other local actors to find solutions. ER.GO manages a total of **24 halls of residence** (19 in Bologna, two in Cesena, one in Forlì, one in Rimini and one in Ravenna), access to which is reserved for students away from home based on specific merit and financial criteria set out in the calls for applications.

With the aim of expanding actions to support the right to higher education, in addition to the other measures taken to make it easier for students away from home to find accommodation in the city, in 2022 the University of Bologna allocated €600,000 as <u>rent subsidy</u> for the 2022/23 academic year. This has translated into a call for 600 grants of €1,000 each for students away from home who have an ISEE certification between €24,335.12 and €28,000. The subsidy will help a segment of the student population that cannot access ER.GO benefits, even though they are not financially well off. An **agreement** was reached in 2022, giving students on the ER.GO ranking lists access to housing opportunities managed by the Romagna Campuses' sponsors, in particular Fondazione Flaminia in Ravenna and SER. IN.AR. in Forlì. As far as UNI.RIMINI is concerned, housing support has been agreed in the form of a call for applications funded by this body to provide financial aid to students and researchers in training, which will be managed by ER.GO.

### Housing support

In partnership with the Regional Directorate of the Italian Revenue Agency and the Bologna municipal authority (Comune di Bologna), the University encourages students to enter into and register their tenancyagreementsthrough the Sportello Registrazione Affitti desk of the Right to Higher Education Unit, to which the student community can turn for advice and information on tenancy agreements. The desk is also available on each Romagna Campus and for the issue of the tax identification number.



## Improving living and study conditions

The <u>Psychological Support Service for Young Adults</u> (<u>SAP</u>) is a listening, guidance and counselling service for students who face emotional and relational problems or difficulties of various kinds during their university life. €195,000 were allocated to this service in 2022. 1,035 requests (865 in Bologna and 170 in the Romagna Campuses) were submitted in 2022, up from previous years (around 900 annually). All those who made a request in 2022 were offered counselling for around 3,070 interviews in total, which were followed, in almost all cases, by a treatment period. The aim was to expand the service reach, which has seen an increase in requests for access due to the large number of people experiencing anxiety, depression, psychological and emotional disorders.

The Service for Students with Disabilities and Specific Learning Disorders (SLD) mainly provides guidance upon entry to university and support throughout one's studies, with the objective of identifying specific needs and implementing the necessary adaptations to successfully complete one's degree programme. Measures are aimed at accompanying students throughout their learning path and supporting teaching and professional staff. The Service carries out its activities through specialist tutors and mainly with a view to responding to educational needs. The Service contributes to creating the best conditions for access to university facilities, in partnership with other local institutions and figures who have skills and experience in the field.

The Cross-Cultural Counselling Service for international students was launched in June 2018 and aims to prevent especially critical situations from a cross-cultural perspective that involve adjusting to university life, studying, excessive complaints and grievances, isolation, conflicts, practical environmental issues, etc.

The <u>alias career</u> allows students to be given a provisional identity for the entire duration of their university career. Once the alias career is activated, the student's 'chosen name' will appear on their University badge, e-mail address and in all information systems. The alias career support service also offers assistance in dealing with ER.GO-related paperwork and access to University libraries. 48 alias careers were activated in 2022.

<u>Study services</u>. In Bologna, the University has 14 study rooms open at different times, sometimes also in the evening and at weekends. Students can check real-time occupancy, rules and services using the Affluences app or via the webpage of each study room. Many study rooms have extended opening hours until 8.30 p.m. and are also open on holidays.

There are study rooms on the other Campuses too – five in Cesena, five in Forlì, nine in Ravenna and two in Rimini.

Alma Mater encourages students to get together by granting **special funding to student associations** to arrange their own cultural, recreational and sports activities. The updated list of Student Associations and Cooperatives formally accredited in 2022 is published on the <u>University website.</u>

## TABLE 10 - SERVICES FOR IMPROVING LIVING AND STUDY CONDITIONS

	2019/20	2020/21	2021/22
Students with disabilities	705	750	856
Users of the accompanying and support service for students with disabilities	492	449	441
Users of the accompanying service for students with motor disabilities	23	22	43
Users of the service for students with specific learning disorders	923	1,207	1,378
Funding to Student Associations (€)	353,000	400,000	400,000
No. of accredited Student Associations and Cooperatives	40	39	30
No. of activities carried out by Student Associations in Bologna	364	296	335

The University of Bologna provides Italian students away from home, EU and non-EU students with dedicated <u>healthcare services</u> when needed, including the possibility of consulting a general practitioner for medical examinations. Emergency care services also include a night/weekend emergency medical service and a dental clinic.

## VIRTUAL HELPDESKS

Virtual Helpdesks (<u>https://sportelli.unibo.it/</u>)are a new way of getting in touch with the University of Bologna offices, based on the dematerialisation of procedures and services and open to all users (prospective students, enrolled students, international students, graduates, staff). The Virtual Helpdesks system is a prime example of how the University's digital transformation strategy positively affects the organisation of activities by improving the way offices work and the quality of users' interactions with them.

In order to design the system, the back and front office models and supporting IT tools had to be rearranged. In particular, the Virtual Helpdesks system is structured around services grouped into divisions (student administration, international mobility, personnel, other services). Users can get in touch with the offices via computer or smartphone in two ways:

- Synchronous or real-time communication, through a videoconferencing system integrated into the application. Users can access the service directly or make an appointment;
- Asynchronous communication, through a user-friendly ticketing system (like a chat). Each request generates a ticket that can be handled by an operator, passed on to another operator/service, or referred back to the user for clarification. Users can see the progress of their request at any time, respond to any requests for clarification from operators and receive a reply.

In 2022, the Virtual Helpdesks real-time mode of operation was implemented and tested across several service categories (student administration, right to higher education, international students, postgraduate education, document management, personnel services).

**Ongoing guidance and guidance for graduates Ongoing guidance** provides support especially during the first and second year of university to overcome momentary difficulties and avoid dropping out. In this activity, **tutors** play a key role. These are specifically trained and experienced figures who offer support to students, particularly those who encounter initial issues, through targeted actions.

To better support our students, a survey-based **study** was carried out **to identify contributing factors to the students' academic success**. Subsequently, indepth interviews and/or workshops were held to provide students with the right tools to overcome any difficulties. The project was piloted in 2021 and implemented in 2022, involving 65 degree programmes and 35,000 students.

The University also offers support in the transition from university to work by providing **guidance to graduates**, helping them to pinpoint their skills, inclinations and aspirations, to acquire information on employment opportunities and to develop job search strategies. The main activities include:

- Reception and information on services/pathways;
- Seminars and interactive workshops to improve self-presentation (CV and cover letter, short self-presentation);
- **Support during selection**, including through simulated individual and/or group job interviews;
- Seminars to set professional objectives and plan a job search strategy: finding information on the job market, assessing opportunities, networking, personal branding and professional networks;
- **One-to-one advice** on how to identify professional objectives and complete the career guidance process;
- Feedback on CV.

Activities in preparation for placement/recruiting events were also carried out in the framework of the career guidance **agreement with ER.GO**.

The Job Placement service aims to facilitate access to the world of work for graduates from the University of Bologna, in line with national legislation that has given universities an important role in bridging supply and demand.

In 2022, the Career Day was attended by hundreds of national and international companies from various sectors, to promote knowledge of the world of work, get in touch with human resources personnel and carry out preliminary guidance interviews. Sectorspecific Recruiting Days were also organised, only open to companies that offer job positions in certain sectors. During 2022, some initiatives were held in person while others continued to be held online – such as Job Incontra Online, a cycle of webinars where human resources personnel, technical managers and young testimonials present their company, positions sought and selection processes. Other sector-specific initiatives were held as Recruiting Weeks Online, providing a chance to meet businesses that are in search of new talent in a certain sector.

## **TABLE 11 – GUIDANCE TO GRADUATES**

		2022
	companies involved	7
Job Incontra Online	participants	620
	companies involved	11
Fashion Recruiting Week Online	participants	508
Career Day (in person)	companies involved	139
	participants	2,378
Veterinary Medical Sciences Recruiting Day (in person)	companies involved	13
	participants	137
Job Incontra (in-person initiatives with	companies involved	4
individual companies)	participants	413
	no. of ads posted	5,568
	no. of accredited companies 2022	1,498
Job Placement Service	no. of CVs seen	70,859
	total accredited companies	8,700

as the possibility of including participation in specific courses on transferable skills, which are increasingly in demand in the world of work, in one's study programme.

In addition to career guidance and job placement activities, the University has implemented various services to support student entrepreneurship, as well

### **Student associations**

<u>Student associations</u> are organisations that bring together students interested in developing the University in various ways. Specifically, they organise cultural and social events and engage students in university and city life. They are also a valuable aid to students facing an experience away from home or abroad. Universities promote student associations and support activities organised directly by students by providing them with dedicated premises, funds and media. Each university has its own Register of Student Associations, a list of all associations that meet certain requirements. In 2022, there were 30 accredited student associations at Alma Mater.

### 4.5 IMPACT ON THE UN SUSTAINABLE DEVELOPMENT GOALS (SDGS)

Through its course units, the University of Bologna contributes to the pursuit of the Sustainable Development Goals (SDGs). A single course unit may correspond to one or more goals.

### FIGURE 32 - COURSE UNITS BY SDG



Similarly, the total number of students involved in course units related to the Sustainable Development Goals is shown below.

## FIGURE 33 – STUDENTS BY SDG













95 HORIZON EUROPE PROJECTS





**211 MILLION** NRRP AND CNP (INCLUDING CASCADE FUNDING CALLS)

## 5.1 ITALIAN NATIONAL RECOVERY AND RESILIENCE PLAN (NRRP) AND COMPLEMENTARY NATIONAL PLAN (CNP) – RESEARCH PROJECTS

The Italian National Recovery and Resilience Plan (NRRP) is part of the Next Generation EU (NGEU) programme, the  $\notin$ 750 billion package set up by the European Union in response to the pandemic crisis. The centrepiece of Next Generation EU is the Recovery and Resilience Facility (RRF), which has a duration of six years, from 2021 to 2026, and a total value of  $\notin$ 672.5 billion.

The Plan hinges upon three strategic axes, shared across the EU – digitisation and innovation, ecological transition, social inclusion – and is structured around six Missions that transpose and reflect its strategies and priorities. In particular, Mission 4, Education and Research, has two components: "Strengthening the provision of education services: from nurseries to universities" and "From research to business".



### **GOAL PNRR**

M1.



AND TOURISM M2. GREEN REVOLUTION AND

DIGITISATION, INNOVATION,

COMPETITIVENESS, CULTURE

Four investments are provided within Mission 4, Component 2 "From research to business":

**Investment 1.3** – Extended partnerships between universities, research centres, businesses and funding of basic research projects (PE) > 14 large, cross-cutting, fundamental and/or applied research programmes (one for each theme) were funded for approximately €115 million each.

With the funding of **13 Extended partnerships**, including one as proposer, the University received **€96 million**, **€14 million** of which are earmarked for 'cascade funding calls' to involve third parties in research activities.

**Investment 1.4 – National centres (CN)** > Funding was awarded to five national research and development centres (so-called Champions) on certain key enabling technologies. The University is involved in all five National Centres (Agritech; Biodiversity; HPC, Big Data and Quantum Computing; Sustainable Mobility; Gene Therapy and Drugs based on RNA Technology). Total funding amounts to **€55 million**, **€5 million** of which are earmarked for 'cascade funding calls' to involve third parties in research activities.

**Investment 1.5 – Innovation ecosystems (ECS)** > 12 innovation ecosystems received funding. The University of Bologna is the proposer of the Ecosystem for Sustainable Transition in Emilia-Romagna, which was allocated  $\notin$ 22 million.

**Investment 3.1** – Research and technological innovation infrastructures (RI) > The investment aimed to finance the creation of up to 30 research and technological innovation infrastructures. The University of Bologna participated in the drafting of ten projects, eight of which received funding for  $\notin 12$  million.

Under the National Plan for Complementary Investments to the NRRP (CNP), the Italian Ministry of University and Research funded four research initiatives for technologies and innovative paths in the field of assistance and healthcare, its goal being the systematic and innovative implementation of key enabling technologies in healthcare to improve diagnosis, monitoring, care and rehabilitation.

The University of Bologna is the proposer of the **DARE** – **Digital Lifelong Prevention** project, totalling  $\in 124$  million, about  $\in 24.7$  million of which for our University. This initiative will also provide for 'cascade funding calls', totalling approximately  $\in 7.7$  million.

Thanks to the NRRP and CNP funding for the projects described above, we will be able to plan multiple actions, such as new hires, large equipment purchases and building works, including upgrades.



### FIGURE 34 – BREAKDOWN OF NRRP AND CNP BUDGET ITEMS

Having particular regard to personnel, the University has planned to hire 187 junior assistant professors under the NRRP and eleven under the CNP in 20222026 (Figure 35), and to award 180 PhD scholarships, 164 of which have already been allocated to the Departments (Figure 36).



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### **5.2 INTERNATIONAL PROJECTS**

The University of Bologna feels its social responsibility in doing science. This is why it promotes multidisciplinary and international research and understands seizing every competitive funding opportunity as a value.

### Horizon Europe 2021-2027

Launched in 2021, Horizon Europe is the new EU Framework programme for research and innovation. With a total budget of  $\notin$ 95.5 billion, it is the world's largest international research and innovation programme, and finances research activities that will strengthen the EU's scientific and technological bases, boosting its innovation capacity and employment, and meeting the priority needs of citizens.

During the first two years of the programme, Alma Mater has confirmed itself among the top European universities in terms of funding received, with 95 projects to be awarded funds by the end of 2022, totalling more than  $\notin$ 51.8 million. The University of Bologna acts as coordinator in 28 and as a partner in 64 of those projects.

In order to strengthen the participation of its own research teams, in 2022 the University of Bologna launched the <u>HorizonEurope@Unibo</u> Plan, a series of meetings attended by over 900 participants including teachers, researchers, PhD students and research support staff to share strategies and opportunities for participation in the framework programme.

Particular emphasis was placed on Open Science with the aim of promoting transparent research data management, practices and products, and Citizen Science with the direct involvement of citizens in doing science.

### Interreg

Interreg is a funding programme aimed at developing and improving cooperation between EU Member States and countries in the pre-accession phase (2021-2027). The goal is to stimulate and share ideas for development and progress in the areas of innovation, reduction of CO2 emissions, protection of natural and cultural resources and improvement of green transport and mobility services, which would otherwise remain isolated within national borders.

During the first two years of the current Interreg seven-year period, only a few have already approved the first round of projects. Out of the ten project proposals submitted by the University of Bologna under these programmes, two were awarded funding for over €350,000 (both as a partner). In the seven-year period just ended, on the other hand, 28 projects of the University of Bologna were approved, six of which as coordinator and 22 of which as a partner, for a total funding of more than €6.5 million.

## LIFE Programme

The LIFE Programme is the EU's funding instrument for climate, nature, environmental sustainability of human activities and the energy transition towards clean energy. During the first two years of the programme, Alma Mater has confirmed itself as the top European university on the Environment subprogramme, and among the top ones in terms of funding received. Out of the 12 project proposals submitted by the University of Bologna, three were awarded funding – one as coordinator and two as a partner – totalling  $\in$ 1.5 million. In the seven-year period just ended (2014-2020), 11 LIFE projects were approved, four of which as coordinator and seven of which as a partner, for a total funding of more than  $\in$ 3.8 million.



**FIGURE 37 – EU PROJECTS** 



FIGURE 38 – EU PROJECT FUNDING (€ THOUSANDS)

## **5.3 NATIONAL PROJECTS**

## Departments of Excellence

Thanks to the Departments of Excellence initiative launched by the Italian Ministry of University and Research, the University of Bologna was awarded a total of  $\notin$ 113.8 million in funding, distributed over the five-year period 2018-2022.

The funds were used to strengthen and promote the excellence of research, with investment in human capital, research infrastructure and postgraduate teaching activities. All 14 participating Departments obtained a positive assessment from the Ministry at the end of the project.

## TABLE 12 – DEPARTMENTS OF EXCELLENCE – FUNDING BY DEPARTMENT (€)

DEPARTMENT	2022 (€)
Architecture	1,327,160
Chemistry "Giacomo Ciamician"	1,731,295
Classical Philology and Italian Studies	1,347,117
Civil, Chemical, Environmental and Materials Engineering	1,866,006
Electrical, Electronic and Information Engineering	1,866,006
Modern Languages, Literatures and Cultures	1,347,117
Psychology	1,347,117
Management	1,616,540
Biomedical and Neuromotor Sciences	1,866,006
Economics	1,616,540
Legal Studies	1,616,540
Veterinary Medical Sciences	1,866,006
Political and Social Sciences	1,616,540
Agricultural and Food Sciences	1,731,295
Total	22,761,285

### **Research Projects of National Interest**

In the course of 2022, the Italian Ministry of University and Research issued two PRIN calls (so-called PRIN 2022 and PRIN 2022 NRRP). The University submitted 990 proposals in the PRIN 2022 call, with total requested funding of more than €91 million. As regards the PRIN 2022 NRRP call, 461 project proposals were submitted for a requested funding of more than €54 million. The projects for both calls are currently in the evaluation stage.

## FISA projects (Italian Fund for Applied Sciences)

In 2022, the Italian Ministry of University and Research issued the FISA 2022 call for proposals with the aim of financing interventions to promote the competitiveness of the national production system through the enhancement of industrial research and experimental development, encouraging positive social, economic and industrial impacts. The University of Bologna submitted 19 projects for a requested funding of €44.8 million. Evaluations are currently underway.

## **5.4 INVESTMENT IN RESEARCH**

## Supporting basic and interdisciplinary research

With the aim of promoting basic research, expanding research equipment and encouraging the strategic development of Departments, the University of Bologna launched the following initiatives during 2022:

- Alma Idea 2022: With a total funding of almost €2,500,000, the initiative aims to support basic research along two lines of action, called A and B, to fund bottom-up, interdisciplinary and potentially interdepartmental project ideas that focus on the priorities of the 2021-2027 NRP (Italian National Research Plan), and for research projects in the field of medicine and sustainability. A total of 105 projects were awarded funding on the two lines.
- Alma Scavi 2022: With a total funding of €300,000, the initiative seeks to support archaeological field

research activities in Italy and abroad. 35 projects received funding.

- Alma Attrezzature 2022: An initiative aimed at upgrading, enhancing and sharing the University's research equipment along two different lines of action, called Maintenance and New Equipment. A total of 102 funding applications were submitted. The Structures were informed of the results of the evaluation during 2023. The total budget allocated to the initiative is approximately €3.7 million.
- **PSSD** (Strategic Departmental Development **Projects**): Contributions (also in terms of hiring capacity) intended to encourage departmental excellence, rewarding the quality of research and scientific, organisational and teaching projects, based on the model of the Departments of Excellence initiative financed by the Italian Ministry of University and Research. Scientific and administrative monitoring activities continued during 2022.

## **Research fellowships**

Research fellowships are among the most popular forms of collaboration in university research activities and can be awarded to PhD or degree holders with a scientific and professional curriculum suitable for the purpose. Research fellows are appointed to implement a research programme, or a phase thereof, with the aim of training and developing specific professional skills.



## 1,298 1,202 2020 2021 2022

### Research equipment and infrastructure

FIGURE 39 – RESEARCH FELLOWSHIPS

In order to promote the upgrading, enhancement and integrated management of equipment while ensuring its long-term sustainability, research equipment was mapped in 2022, resulting in the creation of a database of 1,146 data sheets, distributed across 25 Departments and 12 Interdepartmental Research Centres throughout the Multicampus.

In addition,  $\notin$  300,000 were earmarked for the financing of infrastructure maintenance and/or upgrading, and over  $\notin$  3,250,000 for the acquisition of new research equipment to be managed in an open and shared manner.

## **RESEARCH EQUIPMENT**

Improving the quality of research spaces, equipment and infrastructure based on the logic of sharing is among the most relevant objectives under the University 2022-2027 Strategic Plan. Its purpose is to support research, innovation and technology transfer, thus being instrumental in improving the quality of research, supporting participation in competitive calls, and strengthening biomedical and translational research. In order to promote the upgrading, enhancement and integrated management of equipment while ensuring its long-term sustainability, four main actions were implemented:

- Creation of the University Equipment Board: The Board advises on the acquisition, mapping, enhancement and sharing of research equipment at the University;
- **Mapping of research equipment**: All medium and large, individual and shared pieces of equipment in the University's facilities, including IT equipment, were mapped using the IRIS-RM application, resulting in the creation of a database of 1,146 data sheets, distributed across 25 Departments and 12 Interdepartmental Research Centres throughout the Multicampus;
- Funding of extraordinary maintenance/upgrading/improvement of research equipment: Through the Alma Attrezzature 2022 call, Maintenance (line 1), funding was awarded for the upgrading of 35 pieces of equipment across 17 University structures, for a total amount of €300,000;
- Acquisition of new research equipment: Through the Alma Attrezzature 2022 call, New Equipment (line 2), the University of Bologna invested over €3,250,000 to co-finance the purchase of 13 medium-to-large instruments.

### Integrated Research Budget (BIR)

In 2022, the Integrated Research Budget (BIR) covered the following expenditure items: Research fellowships, Marco Polo, Oriented Fundamental Research (RFO) for the support of research by teachers/researchers, Publications and conferences, Departmental Research Fund.

The allocation for 2022 was €10,755,000.

The overall allocation to Departments is as follows:

- €5,277,553 for research fellowships;
- €643,560 for the Marco Polo programme;
- €4,596,303 for Oriented Fundamental Research (RFO);
- €237,584 for publications and conferences.

As at 31 December 2022, the total number of research fellows was 1,298, 405 of whom fully or partially funded under the BIR.

## 5.5 PHD

A PhD is the highest level of education in the Italian academic system. PhD programmes focus on the acquisition of skills to carry out highly qualified research activities at universities, public bodies and private organisations.

In the 2021/22 academic year, the number of new PhD students grew significantly, concurrently with a steady increase in the population of second cycle graduates. This growth is mainly due to the University of Bologna's ability to attract ministerial funds reserved for merit-based PhD scholarships. Thanks to the NRRP, growth is set to continue in the coming years.

## FIGURE 40 – SECOND CYCLE AND SINGLE CYCLE GRADUATES IN ITALY







<sup>7</sup> Of the 844 new students of the 37th cycle at the University of Bologna, 191 occupy additional positions for PhD scholarships on innovation and green topics financed under the European Social Fund in the framework of the 2014-2020 National Operational Programme on Research and Innovation. The "Evaluation of the study and research experience and future prospects" survey conducted with AlmaLaurea involved 496 PhD graduates of 2022; 357 (72%) completed the questionnaire. The results show satisfaction with the learning activities carried out during the programme (Figure 42), especially with regard to the competence of teachers (8.2 points, mean on a scale of 1-10). The overall satisfaction for structured learning activities was 6.7 points.

As to the PhD programme experience as a whole (Figure 43), the PhD graduates expressed great satisfaction with their supervisor's competence on the topic of their thesis and with the possibility of acquiring new competencies and specific skills through the PhD programme.

### FIGURE 42 – SATISFACTION WITH STRUCTURED LEARNING ACTIVITIES (SCALE 0-10)



## FIGURE 43 – SATISFACTION WITH THE PHD EXPERIENCE (SCALE 0-10)



- Acquisition of new competencies and specific skills
- Supervisor's networking ability
- Mastery of research techniques
- Quality of basic research
- In-depth theoretical study
- Career prospects
- Mastery of teaching techniques



AlmaLaurea's survey on the "Employment status" of former students 1, 3 and 5 years after graduation had a response rate of 77% in 2022 and shows an employment rate for PhD graduates of 94.7% 1 year, 93.4% 3 years, and 96.8% 5 years after graduation

(higher than the rate for second cycle graduates interviewed in 2021). Figure 45 shows that PhD graduates are mostly employed in intellectual, scientific and highly specialised jobs (79% 1 year, 86% 3 years and 87% 5 years after graduation).

#### FIGURE 44 - PHD GRADUATES EMPLOYED, COMPARISON WITH GRADUATES

PHD GRADUATES 2022 SURVEY							TOTAL nployed			
PhD graduates 2021 after 1 year		48.1%		46.6%		5.3%	<b>94.7</b> %			
PhD graduates 2019 after 3 years	33.9	33.9%		59.5%		6.6%	<b>93.4</b> %			
PhD graduates 2017 after 5 years	17.9%		78.8%		78.8%		78.8%		3.2%	5 <b>96.8</b> %
SECOND CYCLE AND SINGLE CYCLE GRADUATES 2021* SURVEY										
Graduates 2020 after 1 year	19.5%	54.6%		54.6% 25.9%		9%	<b>74.1</b> %			
Graduates 2018 after 3 years	16.8%	70.5%		70.5% 12.7		<b>12.7</b> %	<b>87.3</b> %			
Graduates 2016 after 5 years	9.2%	78.6%		78.6% 12		<b>12.2</b> %	<b>87.8</b> %			
0	)%	25%	50	% 7	′5%	100	%			
		vities func ther activi	-	ellowships/	scholar	ships				

Not employed

\* Second cycle and single cycle graduates employed in activities funded by fellowships/scholarships include those attending PhD programmes, specialisation schools or other training, provided these are paid activities.

### FIGURE 45 - PHD GRADUATES EMPLOYED BY JOB



\* Technical jobs, executive office jobs or other.

## 5.6 PUBLICATIONS AND PRODUCTS OF RESEARCH

The University of Bologna's Research Information System (IRIS) is maintained by our teachers and researchers. It gathers all information on the University's scientific production (publications and products of research) and allows managing the full text of the contributions submitted in accordance with the Open Access model.



<sup>9</sup>Research Quality Evaluation (VQR).

<sup>10</sup> University Research Evaluation (VRA).

<sup>11</sup>With regard to citations, the percentile is calculated within each subject area (Subject Category) and year of publication.

## The new Research Evaluation system

In 2022, the University resumed its internal research evaluation process, following the publication of the 2015-2019 VQR<sup>9</sup> results (<u>https://www.anvur.it/attivita/vqr/vqr-2015-2019/rapporto-finale-anvur-e-rapporti-di-area/</u>), with a view to improving the quality of scientific production in line with national evaluation practices.

In October 2022, the general outline of the new evaluation system was approved. The new VRA<sup>10</sup>(University Research Evaluation) process was launched in December 2022 and should be completed by the summer of 2023.

In the future, the University's methods and tools for internal research evaluation will also refer to the activities of the Coalition for Advancing Research Assessment (<u>https://coara.eu/</u>), an important initiative promoted by the Council of Europe with the aim of improving research evaluation. The University of Bologna joined the coalition by signing the <u>Agreement on Reforming Research Assessment.</u>

## **Research quality**

The Single Index (UI) of each publication is the weighted average of two values: the journal impact factor percentile and the citation percentile. Both percentiles are taken from the main bibliometric databases (Scopus, Web Of Science) and are expressed on a 0-1 scale, where 1 is the best possible result<sup>11</sup>. The author's VQR area and the year of publication of the product are taken into account in order to calculate the mean of the two percentiles. The percentile of a publication is higher for products published in less recent years.

24% of the University of Bologna's publications are in the highest quality group, i.e. have a Single Index greater than or equal to 0.9. The figure is in line with the previous year.





### 5.7 OUTGOING AND INCOMING MOBILITY

### **Outgoing mobility**

The University encourages outgoing mobility of permanent teaching and research staff to European and non-European countries through the Erasmus+ programme, protocols with the Italian Ministry of Foreign Affairs and International Cooperation, framework and sector agreements with universities around the world, and strategic actions aimed at enhancing research and teaching opportunities. In particular:

- Erasmus+ Programme Mobility;
- Marie Skłodowska-Curie Actions Mobility for research;
- MAECI Protocols (Italian Ministry of Foreign Affairs and International Cooperation);
- Mobility under framework agreements with

### FIGURE 49 – OUTGOING PHD STUDENTS WITH AT LEAST 30 DAYS OF MOBILITY IN THE YEAR

universities in non-EU countries - Teaching;

- Mobility under sector agreements with universities in foreign countries Research and teaching;
- Institutional activities temporarily carried out at another university or research institute under an agreement;
- EURIAS fellowship programme Mobility for research;
- University of Sussex (UK) EPDF programme Mobility for research and teaching.

In 2022, 621 PhD students participated in mobility programmes, exceeding the figure of 2019 (501); the number of teachers (4,399), however, was still lower than in 2019 (5,173).





## FIGURE 51 – MAIN COUNTRIES OF DESTINATION FOR TEACHERS AND RESEARCHERS (THREE-YEAR PERIOD 2020-2022)



The **Marco Polo programme** funded by the University of Bologna pays monetary incentives to unconfirmed and fixed-term assistant professors, research fellows and PhD students to promote research stays at universities or institutes located in other countries, lasting between three and six months. Incentive recipients were 283 in the 2021/22 academic year, a marked increase over previous years.

### **Incoming mobility**

There are various international mobility opportunities for teachers, researchers and scholars to be hosted at the University of Bologna for research, teaching, study, international cooperation and curriculum development purposes.

Some of these opportunities are listed below:

- Erasmus+ programme to host professors from European universities (for teaching);
- Erasmus+ programme to host personnel from European organisations and businesses (for teaching);
- Marie Skłodowska-Curie Actions (for research);
- MAECI Protocols Italian Ministry of Foreign Affairs and International Cooperation (for research);
- ISA (Institute for Advanced Studies) Fellowship Senior fellow (for research);
- ISA (Institute for Advanced Studies) Fellowship EURIAS fellow (for research).

Incoming mobility resumed in 2022, and the number of participants exceeded that before the pandemic (506 in total in 2019).





## FIGURE 52 – VISITING PROFESSORS<sup>12</sup> AND PhD STUDENTS

<sup>12</sup>Visiting professors also include research fellows.

In this heat map, the shades of green represent (from darkest to lightest) the number of visiting professors and PhD students from each country of the world.



#### Institute of Advanced Studies (ISA)

The Institute of Advanced Studies (ISA), together with the Collegio Superiore, is part of the University of Bologna's Institute for Higher Studies (ISS), an interdisciplinary and international centre of excellence and a place for scientific debate in the various disciplinary areas represented at the University.

In 2022, the number of visiting fellows at the ISA grew significantly and the Institute was able to plan a busy calendar of activities, thanks to the dedication and interest of international teachers and the possibility of conducting blended meetings. Special attention was also paid to the Multicampus sites, for which specific strategies were identified and implemented (reserved VF quotas, lectures on the Romagna Campuses), with a view to creating additional spaces for cooperation within the University and enhancing the local impact of international research. In order to encourage cooperation between the University and the international scientific scene in terms of competitive projects, in addition to organising lectures at the ISA headquarters, VFs were required to take part in the so-called Research Showcase, a series of online

meetings to present the selected VFs' lines of investigation each semester.

In terms of numbers, the ISA hosted 29 Senior Visiting Fellows from Austria, Australia, Canada, Denmark, France, Germany, Iran, New Zealand, the Netherlands, the United Kingdom, Serbia and the United States, and 11 international PhD students from China, Ethiopia, France, India, Iran, Pakistan, Poland, Russia and the United States; as of 1 November 2022, the International PhD College is part of the 3rd cycle of the Collegio Superiore. The Institute also held 30 ISA Lectures, five ISA Topic conferences in cooperation with the Departments, one seminar in cooperation with NetiAS, and sponsored one study day organised by Professor Massimiliano Tarozzi (UNESCO Chair in Global Citizenship Education in Higher Education) and one meeting held by the University Quality Committee, totalling 38 events. Specific project lines for the support of young researchers have been prepared and agreed upon by the ISA Scientific Board and Director, and are expected to be implemented by the 2022/23 academic year.

### 5.8 MEDICAL RESEARCH AND RELATIONS WITH THE ITALIAN HEALTH SERVICE

As per the current legislation, which guarantees the necessary balance between the independence of research and the right to health, medical research and healthcare activities must be closely integrated with one another. Concretely, this translates into a protocol, which is signed between each Region and the universities and regulates the respective areas of participation and sharing of resources and activities. In Emilia-Romagna, the protocol was renewed in 2016. This was followed by implementation agreements with each health authority. Based on these documents, the University contributes to the definition of regional health planning, which in turn influences our institutional activities, and helps defining medical research and training policies.

In this regard, in 2022, Alma Mater was actively involved in the reorganisation of the institutional structure of the Health Service via the "Technical project team for integration and innovation in the organisation and management of hospital networks and local healthcare in the Metropolitan City".

Among research activities, the clinical trials promoted by both private companies (for-profit studies) and researchers (nonprofit studies) should be mentioned for their social impact. Since 2021, the University of Bologna's scientific supervisors have conducted 105 clinical trials. In 2022, in order to better support joint research, the University and the Bologna University Hospital (IRCCS AOU) signed an implementation agreement for the management of forprofit clinical trials. The University and IRCCS AOU also worked together to lay down a cooperation framework agreement to pursue activities of common interest in the field of institutional research, which also provides for coownership of data and procedures for the joint promotion of clinical trials. In addition to acquiring funds from sponsored contracts and competitive calls, the Departments of the Medical Area develop various research lines thanks to donations, which amounted to approximately  $\notin 1.5$  million in 2022.

The University of Bologna and the four IRCCSs where our teachers perform work have entered into agreements to define how they can cooperate in joint research programmes capable of integrating the agendas of medical researchers and colleagues from multiple disciplines, such as chemistry, physics, biomedical engineering, computer science and biotechnology, who can make essential contributions to improve the quality of research as a whole. The first University-IRCCS joint research laboratories were created for this purpose. These include the Transplantation immunobiology laboratory at IRCCS AOU and the Neuroimaging laboratory at IRCCS Institute of Neurological Sciences of Bologna (ISNB).

By entering into an ad hoc framework agreement with the University within the joint research platform, the Institute of Romagna for the Study of Cancer (IRST), a recognised Oncology IRCCS based in Meldola (FC), established a laboratory of Digital microscopy and artificial intelligence in oncology.

The University has strengthened its presence on the Romagna Campuses via joint recruitment actions, both in the form of ordinary hiring of teachers and researchers under employment agreements, and through the appointment of six extraordinary professors based on an agreement between the University of Bologna and the Romagna Local Health Authority.

Finally, the merger of the Department of Experimental, Diagnostic and Specialty Medicine (DIMES) into the Department of Medical and Surgical Sciences (DIMEC) was completed in 2022. DIMEC is currently one of the largest medical departments in Italy and is responsible for the activities carried out by the University's medical staff at the University Hospital and, in a broader perspective, within the Romagna Local Health Authority.

#### 5.9 IMPACT ON THE UN SUSTAINABLE DEVELOPMENT GOALS (SDGS)



FIGURE 54 – SCIENTIFIC PRODUCTIVITY PER CAPITA AT THE UNIVERSITY OF BOLOGNA COMPARED TO THE EUROPEAN BENCHMARK (EUROPEAN BENCHMARK VALUE EQUAL TO 100)

The histogram shows the ratio of the University of Bologna's number of publications per capita relating to each SDG compared to the European benchmark. Values below 100 indicate lower productivity than the average of the other European universities.

The universities taken into consideration are the top nine European universities ranked in the QS World Universities Ranking 2022, which are similar to the University of Bologna in terms of size (more than 30,000 students), areas of study and research (all five QS subjects, including Medicine), research intensity (very high, i.e. more than 13,000 publications in the last year), status (public). Below is the list of the universities in question: UCL (University College London); University of Edinburgh; The University of Manchester; University of Amsterdam; Ludwig-Maximilians-Universität München; University of Copenhagen; Sorbonne University; Katholieke Universiteit Leuven; Université Paris-Saclay.



The University of Bologna's Horizon Europe projects that support sustainable development goals are presented in thousands of euros. Projects financed in 2022 are taken into account. The data, processed on an experimental basis, originate from the abstracts of the projects entered into the <u>OSDG.ai</u>. Quest'ultima sfruttando delle metodologie di intelligeopen source platform. This uses artificial intelligence to assign up to 3 SDGs to each project.





# 6. PEOPLE





3,176 TEACHING AND RESEARCH STAFF + 5.8%



3,153 PROFESSIONAL STAFF + 4.8%

SMART WORKING AGREEMENTS



80,692 STAFF TRAINING HOURS IN 2022 + 29.5%



2,330,000 € 136 CORPORATE WELFARE SMART WOF

**1,668** REMOTE WORKING PROJECTS There are two macro categories of staff: teachers and researchers, who are directly involved in the University's teaching and research activities, on the one hand, and professional staff, who support all research, teaching and administrative activities, on the other. They all contribute to the University's progress towards achieving maximum efficiency and developing knowledge.

### **6.1 TEACHING AND RESEARCH STAFF**


The teaching load of tenured teaching staff (full and associate professors) includes both lecturing and supplementary teaching and student support activities, which are allocated depending on whether they choose to work full or part time. The teaching activities of fixed-term assistant professors depend on their contract type, within the limits and in the manner provided for in the current regulations.

Teachers and researchers may also carry out other activities, known as extra-institutional activities, in addition to their ordinary teaching work, in which case they must give notice or receive authorisation,

FIGURE 56 – TEACHING AND RESEARCH STAFF

depending on the type of activity to be carried out, in accordance with the University Regulations.

The University Inspection Service (pursuant to Law 662/1996) is responsible for checking compliance with regulations on multiple employments and positions. Finally, the Disciplinary Board (pursuant to Law 240/2010) carries out disciplinary proceedings and issues a final opinion.

At the end of 2022, the number of teaching staff employed by the University was **3,176** and the number of adjunct teaching staff was **1,442**.



\* 221 junior and 276 senior assistant professors in 2020; 265 junior and 306 senior assistant professors in 2021; 308 junior and 339 senior assistant professors in 2022.

## FIGURE 57 - TEACHING AND RESEARCH STAFF BY LOCATION (BOLOGNA AND ROMAGNA CAMPUSES)



## FIGURE 58 – AGE OF TEACHING AND RESEARCH STAFF







## FIGURE 59 – TEACHING STAFF HIRES<sup>13</sup>

<sup>13</sup>Teaching staff hires include both new external resources and internal career progressions.





Teaching staff hires and terminations in the three-year period 2020-2022 show a **positive balance of 379 units**, i.e. **1,523 hires and 1,144 terminations**. In particular, in the year **2022**, a **positive balance of 178 units** was recorded, i.e. **555 hires and 377 terminations**. The balance was positive for full professors (+130) and associate professors (+289), but negative for assistant professors (-40). In 2022, the number of adjunct teaching staff, i.e. staff from outside the University who are entrusted with certain teaching activities to meet the Departments' specific requirements, also increased by 82 units. With regard to training, teachers and researchers have a per capita value of 1.6 in 2020, 2.7 in 2021 and 3.5 in 2022.

## **TENURE-TRACK ASSISTANT PROFESSORS (RTT)**

In 2022, Law 79 introduced the position of tenure-track assistant professor (RTT) to replace the former dual role of fixed-term junior and senior assistant professor (RTD) with a single fixed-term position. Only a PhD is required to take up this role, with the possibility of subsequently applying for an associate professor position if deemed suitable. This transition is possible after the end of the third year of contract or even earlier if the candidate was an RTD or research fellow in the past. RTTs who are in possession of the National Scientific Qualification may apply to take a suitability assessment and move to an associate professor position. The reform also provides for an extension of contracts, which for RTTs will last six years instead of three, neither renewable nor extendable. Junior and senior assistant professors will continue to be hired according to the reform itself: junior RTDs, until June 2025; senior RTDs, until June 2023 (subject to the possibility of filling positions on the 2022-2026 Extraordinary Plans).

## Teaching and research staff policies

In 2022, the University allocated **more funds to direct** calls of female full professors from abroad, compared to those allocated to men, in order to incentivise the hiring of female professors in senior roles, consistently with the 2022-2027 Strategic Plan's goal of reducing the Glass Ceiling Index (i.e. the ratio between the number of women among teaching and research staff and the number of women among full professors).

Moreover, the University approved an incentive mechanism to recruit professors from outside the University of Bologna, pursuant to Article 18 of Law 240/2010. In particular, thanks to co-financing from the University, the mechanism envisages that Departments will only incur 40% of the total cost of recruiting an external professor in terms of hiring capacity ('punti organico'). In 2022, the University also approved some fundamental

In 2022, the University also approved some fundamental changes to the **regulations governing the recruitment of full and associate professors**. According to the new rules, the selection committee will prepare a shortlist of no more than three candidates, deemed the most suitable based on the criteria identified in the call for applications, among whom the Department may choose, by reasoned decision, the one to submit to the Board of Governors for approval (direct call).

	FEBRUARY 2020	OCTOBER 2020	TOTAL 2020	MARCH 2021	NOVEMBER 2021	TOTAL 2021	MARCH 2022	OCTOBER 2022	TOTAL 2022
PERSONS ENTITLED	492	506	998	903	458	1,361	582	349	931
SALARY INCREASES APPROVED	270	321	591	825	314	1,139	498	237	735
% INCREASES AP- PROVED	54.9%	63.4%	59.2%	91.4%	68.6%	83.7%	85.6%	67.9%	<b>78.9</b> %

## TABLE 13 - SALARY INCREASES IN THE LAST THREE YEARS

## **6.2 PROFESSIONAL STAFF**

At the end of 2022, the Professional staff<sup>14</sup> employed by the University consisted of: 18 managers, 3,056 employees in categories EP, D, C and B, 77 foreign language assistants and instructors, and two agricultural workers, i.e. **3,153** staff in total. The National Collective Bargaining Agreement (CCNL) for Personnel in the Education and Research Sector allows administrations to establish part-time employment relationships. The number of part-time contracts may not exceed 25% of the total number of staff in each area or category, as at 31 December of each year.

### FIGURE 61 – PROFESSIONAL STAFF WITH FULL-TIME OR PART-TIME CONTRACT



The classification system for professional staff is divided into four categories, called B, C, D and EP (Highly Skilled Professional Types), in addition to the management category.

These job categories group similar sets of competencies, knowledge and skills, as necessary to perform a range of work activities, with different degrees of autonomy and responsibility. Specific qualifications are required for each category (B – compulsory education plus vocational qualification, if necessary; C – upper secondary school qualification; D – university degree; EP – university degree and professional licence or university degree and specific professional qualification).

Professional staff may also carry out extra-institutional activities, other than the tasks and duties of a public sector employee; these may be performed subject to authorisation or notification, depending on the type of position. Under current legislation, through its Inspection Service, the University performs spot checks every year to ensure compliance with the rules on incompatibility and multiple employments and positions.

<sup>14</sup>Professional staff include managers, employees in categories EP, D, C, B, foreign language assistants and instructors (CEL), and agricultural workers.







Professional staff belong to different structures and can be grouped by functional area according to the main tasks they perform. General Administration employs 1,621 people, around 450 of whom provide direct support to Departments (e.g. library, IT, teaching, and support services for the medical area).



FIGURE 62 – PROFESSIONAL STAFF DISTRIBUTION (EP, D, C, B) BY CONTRACT TYPE



The professional staff employed by the University of Bologna in the Departments, Executive Divisions or other structures have different levels of responsibility and perform work mainly in the following areas:

- Administration, organisation and management, providing support in purchasing and procurement processes, institutional affairs, legal and contractual issues, accounting and tax management of the budget, HR organisation, development and management processes, privacy and information security issues as well as IT law, strategic planning and management control (including control over data quality, origin and completeness, and monitoring of indicators), internationalisation processes, knowledge transfer (Third Mission), teaching and research processes, or for salaries;
- Libraries and databases, for database management, document management, content management and related services, or for the management and organisation of libraries and related services;
- Laboratory technicians or technicians providing

teaching/research support;

- **Facility and asset management**, for the setting up and management of facilities to guarantee their usability and adequacy, for the management of the University's movable and immovable property (from an organisational, legal, administrative, accounting, cadastral and fiscal point of view), for the management of sustainability and energy saving, planning, design, construction management, extraordinary and routine maintenance, or for the management of maintenance work, including of installations and green spaces;
- **Technical and IT**, for software development, infrastructure development (networks and systems), IT support services, service design or big data;
- Health and safety, i.e. occupational health physicians, midwives, health surveillance support staff, and staff for animal welfare supervision or workplace safety supervision, including waste management.



Over the three-year period 2020-2022, the overall balance of permanent professional staff hires and terminations was positive.



## FIGURE 66 – PERMANENT PROFESSIONAL STAFF HIRES AND TERMINATIONS (CAT. EP, D, C, B)<sup>16</sup>

<sup>16</sup> The figures include permanent employment contracts and exclude changes of category.

# **Professional staff policies**

The University of Bologna applies the 2016-2018 National Collective Bargaining Agreement (CCNL) for Personnel in the Education and Research Sector, signed on 19/04/2018.

Staff in categories B, C and D may hold organisational positions and perform specialist functions, also with responsibility. Staff in category D may be assigned specific and qualified positions of responsibility. Staff in category EP hold management positions and perform professional functions requiring registration with professional associations, or high qualification and specialisation.

The **staff evaluation system** consists of a set of actions and tools to develop knowledge and a constructive relationship between managers and employees. The system is structured around various components, in accordance with the applicable CCNL:

- Evaluation of performance quality: The evaluation of performance quality in the two-year period 2020-2021 was launched in 2022 for the in-range progression procedure (changes in salary within one's current contract category);
- **Evaluation of results**: On an annual basis, it involves staff in categories EP and D who are given positions of responsibility. A positive evaluation entitles to a bonus;
- **Personal evaluation of professional staff**: As of 2022, the system for measuring and evaluating the personal performance of professional staff has extended the assessment of behaviour to all staff. It applies to staff in categories B, C and D (unless already subject to evaluation of results). The outcome of this evaluation is taken into consideration for the purpose of inrange progressions (PEO) and will be gradually expanded to reclassifications (PEV);
- Evaluation of professional performance of foreign language instructors (CEL) and fixed-term foreign language assistants (LC), in accordance with the applicable CCNL supplementary agreement. The evaluation aims to

measure personal productivity on an annual basis. The evaluation for CEL staff also applies to fixedterm foreign language assistants.

# **Professional growth**

Professional growth within the University can take place through reclassifications or in-range progressions. In the three-year period 2020-2022, in accordance with Legislative Decree 75/2017, the University used **reclassifications (Progressioni Economiche Verticali** – **PEV**), i.e. transitions between contract categories, as a measure to enhance the skills, abilities, professional competencies and experience of permanent professional staff.

Although the University allocated the maximum recruitment capacity allowed by current legislation to reclassifications, the opportunities for progression are unfortunately not enough compared to the number of staff. The University regulations will be revised to bring the text into line with the provisions of Article 52 of Legislative Decree 165/2001 (as amended by Decree-Law 80/2021) for reclassifications to be planned for 2023, based on the 2022 and next years' planning. Ongoing procedures are published on the University's web pages <a href="https://www.unibo.it/it/ateneo/lavora-con-noi/bandi-e-avvisi-ta#..">https://www.unibo.it/it/ateneo/lavora-con-noi/bandi-e-avvisi-ta#..</a>

# TABLE 14 – RECLASSIFICATIONS ALREADY COMPLETED AND IN PROGRESS AS AT 31/12/2022 BY CATEGORY

AREA	CATEGORY	POSTS	POSITIONS COVERED
Administration	С	59	9
Administration/Management	D	10	10
Technical/IT	D	9	9
Technical/Laboratory	D	41	41
Legal	D	20	20
Teaching manager and programme coordinator	D	10	10
Library (computer catalogue)	D	2	2
Library (electronic resources)	D	2	Ongoing
Technical	D	10	8
Technical (MR/DG staff)	D	2	2
Administration/Management (Head of Unit)	EP	1	Ongoing
Administration/Management (Teaching chain coordinator)	EP	2	Ongoing

**In-range progressions (Progressioni Economiche Orizzontali – PEO)** allow permanent professional staff to obtain salary increases within the category to which they belong (i.e. without changing their current level of autonomy and responsibility).

The PEO session for the year 2022 ended in December, when the final rankings by category (B, C, D and EP) where published online and the relevant progressions assigned.

### TABLE 15 - PEO 2022 RESOURCES AND SUMMARY DATA

CATEGORY	PERSONS ENTITLED	BENEFICIARIES	% BENEFICIARIES/ PERSONS ENTITLED	EARMARKED RESOURCES (WITH EXPENSES 38.38%)
EP	138	10	7.3%	27,377
D	740	87	11.8%	125,892
С	936	121	12.9%	159,485
В	169	23	13.6%	28,604
TOTAL	1,983	241	12.2%	341,359

# Incentives and welfare

The resources made available by the University for the year 2022 allowed to:

- Make a specific allocation for in-range progressions (PEO) of B, C, D and EP staff;
- Confirm the resources allocated to staff who are assigned Positions of Responsibility;
- Increase the Organisational Performance Incentive (IPO) allocation compared to the previous year's value;
- Confirm an allocation for allowances for tasks involving particularly heavy work, risks or hardship (FORD), albeit slightly lower than in the previous year;
- Maintain the values of the Ancillary Monthly Allowance (IMA) unchanged;
- Confirm an allocation for Additional Hourly Services (POA), albeit lower than in the previous years.

**Corporate welfare** was ensured by confirming all existing measures, the most recent one being the health insurance policy for all professional staff.

Similarly, the rules set out in the Regulations governing services provided to third parties, which provide for a 15% charge on total proceeds from activities carried out in favour of third parties to be allocated to professional staff, remained in place. The rules set out in the Regulations on **bonuses** pursuant to Article 9 of Law 240/2010 on the criteria for allocating resources to the Bonus Fund for Teaching, Research and Professional Staff, both permanent and fixed-term, were confirmed. Incentive payments to professional staff include the additional remuneration, the bonus for Department of Excellence projects, and position-specific bonuses.

## **TABLE 16 - STAFF INCENTIVES**

INCENTIVE	RECIPIENTS	2021 AMOUNT (GROSS FOR THE INSTITUTION)	2022 AMOUNT (GROSS FOR THE INSTITUTION)	% CHANGE
<b>Ancillary Fund</b> (including budgeted PEO cost)	Professional staff	€14,729,845	€14,646,021	-0.57%
<b>Third-party</b> <b>Fund</b> (2021 amount: 2020 Fund; 2022 amount: 2021 Fund)	Professional staff, CEL	€2,618,203	€3,667,891	40.09%
<b>Bonus Fund</b> (under Article 9 Law 240/2010)	Professional staff, Teachers	€1,117,529	€1,528,129	36.74%
Corporate Welfare	Professional staff	€2,330,000	€2,330,000	0.00%
TOTAL		€20,795,578	€22,172,042	6.62%

**Internal, external and international mobility** The purpose of internal mobility is to make the most of people's motivation, professional skills and inclination, while respecting the needs of the organisation. Before publishing new calls, employees are asked about their actual interest in mobility.

Staff who are willing to transfer to another public administration – so-called external mobility – may participate in calls for mobility launched by other public administrations, for which prior authorisation from the University may be required.

Mobility to other public administrations is also possible through direct exchange: applications submitted jointly by the University's employees and by staff of other public administrations are considered, provided their contract classification is compatible and the principle of cost neutrality is respected.

## **TABLE 17 - INTERNAL AND EXTERNAL MOBILITY**

Internal mobility	2020	2021	2022
Number of internal mobility applications (new + renewals)	106	69	100
Applications accepted*	64	24	37
Number of calls for internal mobility	28	47	20
Number of internal staff transfers (both based and not based on calls; excluding changes between units of the same structure)	83	80	128
External mobility	2020	2021	2022
<b>External mobility</b> Number of requests for external mobility authorisation	<b>2020</b> 30	<b>2021</b> 17	<b>2022</b> 67
Number of requests for external mobility authorisation Number of requests for external mobility authorisation	30	17	67

\* 2020: of which 35 referring to applications filed in 2020 and 29 referring to applications filed in previous years; 2021: of which seven referring to applications filed in 2021 and 17 referring to applications filed in previous years; 2022: of which 14 referring to applications filed in 2022 and 14 referring to applications filed in previous years.

## **Benefits**

The main benefits granted in 2022 relate to the Utility bill support, commute allowance, Unisalute health insurance policy, subsidy for summer camps and babysitting services, subsidy for nursery school fees, and childbirth allowance. The allocation for these benefits amounted to €4,836,608 in 2022.

## TABLE 18 - MAIN BENEFITS

	EUR
<b>Utility bill support</b> To subsidise the payment of integrated water, electricity and natural gas bills. The maximum per capita amount was €672.75; 2,753 employees benefitted from this measure.	1,819,72
<b>Commute allowance (for professional staff, teachers and students)</b> To purchase local public transport season tickets at discounted rates (see Section 8).	1,760,35
<b>Unisalute health insurance policy (value of benefits paid)</b> To receive health services (including preventive medical examinations, depending on one's age) and medical expense reimbursement. The premium is paid by the administration. 1,864 beneficiaries (professional staff, foreign language instructors and assistants), policy use 85.8%.	1,137,49
Subsidy for summer camps and babysitting services Permanent and fixed-term professional staff and foreign language instructors with children under the age of 14 may apply for a maximum amount of €1,400.	69,84
Subsidy for nursery school fees For permanent and fixed-term managers, professional staff and foreign language instructors. The benefit is limited to a maximum amount of €1,400.	43,68
<b>Childbirth allowance</b> For professional staff and foreign language instructors. The 2022 childbirth allowance refers to staff with children born in 2021. The benefit was paid to applicants in the entitled ISEE categories according to the CCNL supplementary agreement. Benefit amount: €500.	5,50

## **TABLE 19 – UNISALUTE**

STAFF REGISTERED WITH UNISALUTE	2020	2021	2022
YES	2,503	2,947	3,099
NO	443	63	52
PROFESSIONAL STAFF WHO USED THE INSURANCE POLICY	2020	2021	2022
YES	1,606	1,753	1,935
NO	1,340	1,257	1,216



# FIGURE 67 - NUMBER OF SERVICES PROVIDED (TOTAL)





Other benefits that the University makes available include:

- Education and training: Waiver of tuition and enrolment fees for degree programmes at the University of Bologna (for professional staff and foreign language instructors);
- Waiver of children's tuition and enrolment fees for degree programmes at the University: Full waiver of tuition and enrolment fees for only one dependent and/or cohabiting child;
- **Meal vouchers**: Agreement between Consip and Day Ristoservice for the supply of electronic meal vouchers (€7/day) to professional staff, managers and foreign language instructors;
- **Special discounts** in bookshops, cinemas, museums, and for magazine subscriptions;
- **Tax support** from authorised tax support centres at discounted rates;
- Subsidies: A financial aid, the amount of which varies according to the applicant's ISEE, that the University grants to support the employee in the event of significant personal or family needs. In addition to the coverage already provided by the health insurance policy, some specific forms of subsidy are recognised for the reimbursement of medical expenses of the employee's family not covered by the policy. The total amount allocated annually to this measure, according to the applicable Agreement, is €140,000.

# Training

The University of Bologna provides **mandatory** and non-mandatory **training** courses for its staff. **Mandatory training** in 2022 focussed on Health and Safety, Privacy and Anti-corruption in compliance with the requirements of current regulations. Compared to previous year's volumes, 2022 showed an increase of 28.3% in the total number of training hours attended by professional staff.







## FIGURE 70 – PERCENTAGE OF TRAINED PERSONNEL<sup>17</sup>

<sup>17</sup> Percentages are 36.2 in 2020, 33.3 in 2021 and 32.5 in 2022 for foreign language instructors and assistants.

The University sees **non-mandatory training** as an investment, an important tool for professional and personal growth and for raising the quality of the services offered by the University itself. Training projects in 2022:

- Were accessible 'on demand' on cross-cutting subjects of widespread interest;
- Focussed on the development of digital skills (Syllabus);
- Allowed the implementation of flexible working at the University;
- Were taken into account for the purposes of the personal evaluation process;
- Supported the system for measuring and evaluating performance (of second-level and third-level positions);
- Focussed on technical and specialist topics (for various roles and jobs);
- Aimed to support newly recruited staff;
- Provided coaching (individual or group pathways);
- Aimed to foster mental health (in line with the positive action plan proposed by the CUG).

The University encourages the **international mobility** of permanent and fixed-term professional staff. International placements are arranged in line with the indications of the Erasmus+ programme, which aims to foster high quality on-the-job training experiences in international contexts. These experiences are an actual opportunity for our staff to develop, and are part of the University's broader internationalisation processes. Placements can last up to eight working weeks and take place within and outside the EU.

The University of Bologna meets a number of staff training requests from professional staff of foreign partner institutions by holding an annual Staff Training Week. The training week focusses on a specific management area each year and is offered to groups of 25/35 colleagues. This type of mobility is aimed at the professional development of participants, as it enables them to learn new practical skills and good practices among peers. For the year 2022, the Staff Training Week focussed on the Internationalisation of Higher Education for Society and welcomed 32 professional staff members from 15 EU and non-EU countries. Current global challenges have resulted in the need for universities to be more 'socially responsible'. The Staff Training Week sought precisely to provide professional staff with tools and ideas to prepare for this new scenario.

Basic and intermediate language training is also widely provided from level Pre A1 to level B1 inclusive (Alphabet project). Finally, the University offers professional master's and postgraduate programmes on various topics.



# **Flexible working**

The University has developed and streamlined flexible working arrangements for professional staff, in particular remote working and smart working.

**Remote working** allows work to be carried out at home and with the help of technological devices provided by the Administration itself. Remote working is a voluntary choice that does not change the nature of the existing employment relationship and can be requested by all permanent and fixed-term professional staff, whether parttime or full-time. 1,668 projects were activated in 2022.

**Smart working** is a work organisation model based on giving people greater flexibility and autonomy in choosing their working methods (e.g. with regard to place, time and tools) in return for greater responsibility for results. Goals should be 'smart', specific and measurable for progress, attainable and achievable (Law 81/2017). The smart working experimental phase ended in July 2022, followed by the extension of this form of flexible working to all structures. 136 agreements were activated in 2022.

**Decentralised working from satellite offices** relates to work performed by staff at the premises of the University or of other local organisations deemed suitable, i.e. identified in advance by the Administration as they meet safety requirements and the principle of cost-effectiveness. Decentralised working from satellite offices is open to all permanent and fixed-term professional staff. As a rule, decentralised working from satellite offices is authorised for up to two/three days per week, for consecutive periods not exceeding six months. In 2022, 29 locations were available: nine on the Forlì Campus, six on the Cesena Campus, five on the Rimini Campus, four on the Ravenna Campus, three in Imola and two in Fano.

## **6.3 GENDER AND CITIZENSHIP**

The composition of teaching staff by gender shows that, as the role increases, the presence of men tends to increase too. Among assistant professors, men make up 53% of the total and women 47%, with a female-tomale ratio not far from gender parity; among associate professors, percentages are 55% and 45% respectively, while among full professors, percentages are

## 70% and 30%.

Among professional staff (including managers, foreign language assistants and agricultural workers), women are more numerous (66% vs. 34%) and the differences narrow as the role increases.



## FIGURE 71 - STAFF DISTRIBUTION BY GENDER<sup>18</sup>

<sup>18</sup>100% of agricultural workers are men (no. 2 men and no. 0 women). Foreign language instructors and assistants in 2022 were 79% women and 21% men.

For a detailed analysis of the gender composition of students, teaching staff, professional staff and members

of University Bodies, please refer to the Gender Equality Report published on the University website.



#### FIGURE 72 – STAFF WITH FOREIGN CITIZENSHIP<sup>19</sup>



<sup>19</sup> All managers are Italian citizens.

### **6.4 ORGANISATIONAL WELL-BEING**

Community health and organisational well-being are of great importance to the University, which implements various policies in these fields (through seminars, training, awareness-raising meetings) aimed at both teaching and professional staff. The University also promotes the quality of working life of the entire community through a network of support and listening services.

## Health and safety

The University of Bologna protects the health and safety of all those who live and work within it (student community, staff, etc.), through its **Occupational Health and Safety Service**. The Service's main functions include assessing workrelated risks across the University's activities (teaching, research and services), defining preventive and protective measures to control work-related risks, taking risk management measures through safety manuals and regulations, emergency plans, safe work procedures, identifying safety officers and scheduling their training, choosing safety signs, arranging fire-fighting facilities, and providing health surveillance for all categories of workers exposed to specific risks. Risk assessment is key to the entire protection

Risk assessment is key to the entire protection strategy's success. Risk assessments cover both general and cross-cutting risks at the facilities under review, as well as activity-specific risks (exposure to chemical, carcinogenic and biological agents, noise, vibrations, optical radiation, load handling, ergonomic factors). Investment in occupational health and safety training continued in 2022. Continuity was given to general training and training on crosscutting risks, through e-learning in both Italian and English. Training for emergency personnel continued too, with a total of 67 sessions involving 1,203 participants, alongside specific and specialist training for professional staff, with particular regard to members of the Occupational Health and Safety Service, Local Safety Officers (ALS/ ACS), Workers' Safety Representatives (RLS), safety trainers, laboratory heads and supervisors, arranged both internally and by external bodies. A total of 29,946 hours of health and safety training were delivered in 2022 (excluding hours delivered to students), up 53.3% compared to 2021. E-learning training – i.e. general training (10,345 certificates issued) and specific low-risk training (9,417 participants) - also continued for students. In addition, specific medium-risk training was provided in person, with 131 sessions involving

Risk assessment covers all occupational health and safety risks, including **work-related stress risk**. This assessment, carried out pursuant to Legislative Decree 81/08, aims to identify organisational factors that have a positive or negative effect on work-related stress risk. In spite of some potentially negative elements to be addressed, the results of this analysis, thanks to which a corrective action plan could be prepared, show a generally positive picture for the prevention of work-related stress and the protection of workers' well-being.

6,420 participants.

The trend of total **work-related injuries** at the University has increased slightly over the past year. The total number of work-related injuries reported by teaching and professional staff in the last three years went from 53 in 2020, to 45 in 2021, to 50 in 2022. However, approximately two-thirds of those injuries occurred on the way to and from work and, as such, they are not strictly

related to specific occupational risks. Workrelated injuries in 2022 involved five men and four women among the teaching staff and 15 men and 25 women among the professional staff. As far as the student component is concerned, there is a fluctuating trend in both work-related accidents and commuting accidents, all of which can be traced back to road accidents on the way to and from work. The number of commuting accidents fell in 2022, while the increase in actual workrelated injuries is largely due to sports accidents. The total number of injuries among students went from 40 in 2020, to 30 in 2021, to 34 in 2022 (of which 12 occurred to men and 22 to women).

Through the Occupational Health Centre, the University of Bologna offers its employees a voluntary **Health Promotion Programme** with a range of actions in the field of general prevention and health protection, such as **flu vaccination**. In 2022, from October to December, 1,515 employees across all Multicampus locations received free flu vaccination.

## Inclusion and protection

The University pays special attention to people with disabilities and those who face professional and/or personal difficulties, by promoting targeted inclusion initiatives throughout their entire working life. The approach of the Inclusion and Work Protection Office is inspired by the principles of diversity and disability management, understood as an interdisciplinary and crosscutting mode of action to shape and strengthen organisational well-being and enhance each person's specificities. Finally, the Office is responsible for fulfilling regulatory requirements under the rules that govern the right of persons with disabilities to work. As at 31 December 2022, Alma Mater employed 204 persons with disabilities.





Helpdesk against gender based violence

The Confidential Counsellor is appointed by the Academic Senate at the proposal of the Rector. This role is considered above the parties, and called upon to listen and engage in dialogue in support of the University community in matters of discrimination, sexual and moral harassment, mobbing, or failure to comply with the values and rules set forth in the University Code of Ethics and Conduct. As of 23 November 2021, the Confidential Counsellor, who reports directly to the Rector, is Professor Fiorella Giusberti. While the Confidential Counsellor is unable to take action in Court, she does have functional autonomy and facilitate preventive actions and settlements. Working together with the academic structures, she also promotes a culture of gender and non-discrimination. All those who contact the Confidential Counsellor are entitled to maximum confidentiality. During 2022, the Confidential Counsellor saw 88 people (67% teachers, 22% professional staff, 11% students). Her cooperation with the CUG, the Vice Rector for Personnel, the Vice Rector for Research and the Delegate for Students proved especially fruitful.

## **Psychological support**

In 2022, the University opened the **Avrò cura di me** (I'll take care of myself) helpdesk for all its staff. It is a free service that offers counselling, support and guidance to help each person face and manage emotional overload and relational difficulties they might experience in the various areas of sentimental and social life, including professional life. The aim of the service is to help people identify and use their inner resources to improve their own psychological flexibility and well-being.

The **Helpdesk against gender-based violence** also opened in 2022. This service offers a protected environment for counselling and support in relation to the various forms of violence that can occur both within and outside the University, by partners, family members, acquaintances and strangers. The service is aimed at the entire University of Bologna community: students, professional staff, teaching and research staff, collaborators of the University in their various capacities, CEL, foreign language assistants, tutors, language trainers and research fellows. The helpdesk is managed by Casa delle donne per non subire violenza (Women's Refuge) in Bologna. The service is free of charge. The helpdesk is available remotely to ensure Multicampus coverage; it is also available in English.

The **Avrò cura di te** (I'll take care of you) helpdesk continued its activities in 2022. The service offers the University of Bologna community psychological support for parents of pre-school/ school age children and adolescents, and for carers of elderly and ill or disabled family members. The service is free of charge.

The **Cross-Cultural Counselling Service** was also in operation in 2022, offering counselling, evaluating and analysing the psychological, social and cultural demand, and providing basic support to international university students and adults from other cultural backgrounds.

In 2022, cross-cultural initiatives were promoted to support the well-being and occupational inclusion of colleagues in the University, a total of 19 sessions involving 132 participants for 226 hours. In addition, in agreement with the Guarantee Committee for Equal Opportunities, Employee Well-being and Non-Discrimination at Work (CUG), four initiatives on occupational well-being and mental health were offered, in two sessions, to all University staff. These involved 794 participants for 4,712 hours in total.



circolocubounibo.it

# Circolo Università di Bologna (CUBO)

Circolo Università di Bologna (CUBO) implements social and cultural initiatives aimed at promoting leisure time activities, including tourism, sports and socially useful activities directed at both members and non-member employees.

The initiatives launched in 2022 received University funding for  $\notin 68,850$  and translated into a range of cultural, social and recreational activities, including:

- Editing of an online magazine;
- Purchase of discounted season and single tickets for shows and concerts at the most important theatres across the Multicampus, in the fields of drama, opera, and symphonic, concert and jazz music;
- Organisation of trips to exhibitions, museums and arts towns in the area, cultural talks and online lectures;
- Participation, with representatives of the University staff, in national university championships of various sports including tennis, skiing, running, cycling and fishing, organised by ANCIU (National Association of Italian University Clubs)
- Epiphany fundraising event in favour of the association Gli Amici di Luca;
- Organisation of a sports event open to all employees in Milano Marittima, with tennis tournaments and leisure walks.

In 2022, CUBO had around 900 members and over 1,000 people took part in the initiatives organised by the club.





PARTICIPANTS





**164** PHD SCHOLARSHIPS FUNDED BY THIRD PARTIES



1,272
EVENTS
IN 2022



**5,320,467** DOCUMENTARY HERITAGE (BOOKS, PERIODICALS, OTHER)



**291** PATENT FAMILIES



59 SPINOFFS AND STARTUPS



**2,027** ARTICLES AND EVENTS (UNIBO MAGAZINE)



145,187 MUSEUM VISITORS

# 7.1 RELATIONS WITH THE LOCAL COMMUNITY

The University of Bologna is constantly committed to social responsibility. This principle translates into third mission actions that enhance teaching and research as facilitators of innovation, development and the welfare of society. Such actions often take the form of a twoway dialogue aimed at co-designing effective measures to bring the University closer to businesses, citizens, associations, schools, public and private organisations and institutions, all with a view to making a significant social, cultural and economic impact..

## Agreements and partnerships

Alma Mater investe in un'intensa attività di Alma Mater has established intensive cooperation with the local community through a number of partnerships and framework agreements with third sector organisations and companies that seek to bring about collaboration in teaching, research and internships with external bodies and businesses.

The new **teaching collaborations** established in 2022 include those with: Associazione Culturale Danza Urbana, ART-ER, Conservatorio Statale di Musica "Bruno Maderna" of Cesena, Istituzione Bologna Musei – Comune di Bologna, and Università Verde di Bologna APS – Centro Antartide.

Three **partnerships** have been set up with Scuola Universitaria per le Professioni Tecniche Emilia Romagna for the creation of vocational degree programmes, with the involvement of important local businesses. The **vocational degree programme** in **Mechatronics** is offered in cooperation with ACMA, AEPI Industrie, ALSITER, Bonfiglioli Riduttori, Bucci Automations, Calzoni, Carpigiani Group – Ali Group, CEFLA, C.N.I. Group, COMECER, Diemme Enologia, Elettrotecnica Imolese, Elsa Solutions, Eurovo, Geminiani, G.D., IMA, Marcegaglia Carbon Steel, Marini, MARPOSS, MG Marchesini Group, Natura Nuova, OLEOBI, Philip Morris Manufacturing & Technology Bologna, SACMI Imola, SASIB, Sica, Surgital, Unitec, Vulcaflex and Walvoil. The vocational degree programme in **Information Systems Technology** is offered in cooperation with Alexide - Software Solutions, Maggioli, Spot Software, UNITEC and Vem Sistemi. Finally, the vocational degree programme in **Chemical Methodologies for Products and Processes** is offered in cooperation with ADVA, PolyCrystalLine, NIER INGEGNERIA, Unigrà, SACMI IMOLA, Biolchim and the University Consortium for the Management of the Research and Experimentation Centre for the Ceramic Industry.

Besides confirming a number of partnerships, **new agreements** were signed in 2022 with Aeroporto G. Marconi Bologna BLQ, Atos Italia, Bonfiglioli, C.P.C. Group, Eni S.p.A. (renewal), Fondazione Fashion Research Italy (renewal), Marelli Europe (renewal), Rekeep, and Unipol (renewal). In addition, a Joint Research Laboratory was created in partnership with Eni at the Marina di Ravenna Research Centre.

Having regard to **company personnel training**, longterm agreements are in place with companies such as Lamborghini, Philip Morris, HPE Coxa, Assinter and IEG, which aim to develop technical skills and train employees in new areas of technology. In addition to these multi-year partnerships, a number of single course units are available too. This process was expanded during the year, with more than 300 employees trained, totalling about 400 hours across 15 tailor-made courses.

With reference to our **relations with national and international non-profit organisations**, the University signed a framework agreement with ECMWF – European Centre for Medium-Range Weather Forecasts. This covers research and innovation, teaching and training activities, exchanges and access to infrastructures. Another framework agreement was entered into with Fraunhofer-Gesellschaft for the creation of the Fraunhofer Innovation Platform for Waste Valorisation and Future Energy Supply at University of Bologna (FIP-WE@UNIBO), resulting in the creation of the new Marina di Ravenna Research Centre on waste valorisation and energy efficiency, in line with the principles of the circular economy. In the year 2022, **institutional agreements were renewed** with: AgroParisTech, in the bioeconomy sector; CREA – Council for Agricultural Research and Economics, for cooperation in the food, agriculture, fisheries, forestry, nutrition and socioeconomic sectors; IZSLER – Istituto Zooprofilattico Sperimentale della Lombardia e dell'Emilia-Romagna, for cooperation on food safety and animal health; CNR – National Research Council, for the Centre for Light Activated Nanostructures (CLAN) joint research laboratory, based in Bologna; and Wellness Foundation and the Emilia-Romagna Region, for the promotion of healthy lifestyles and physical activity in the local community.

In 2022, around 12,850 **agreements for curricular internships** were in place, of which 3,674 new agreements signed during the year; of these, 227 involve facilities based abroad.



### FIGURE 73 – AGREEMENTS FOR CURRICULAR INTERNSHIPS IN 2022

## AGREEMENTS FOR VOCATIONAL DEGREE PROGRAMMES

Within the new vocational degree programmes in Mechatronics, in Chemical Methodologies for Products and Processes, and in Information Systems Technology, a high number of university credits is awarded for curricular internships at businesses and professional associations, with a view to meeting the needs of the labour market by training highly qualified and specialised technical staff.

In order to develop and enhance learning activities by bringing the curriculum closer to the needs of the labour market, the Agreements in place aim to support the vocational degrees offered in partnership with Scuola Universitaria per le Professioni Tecniche Emilia Romagna and thanks to the resources of the many local companies involved. These companies have undertaken to make available vocational learning facilities, internship tutors, and specifically appointed employees with certain professional skills.

# CONSERVATORIO STATALE DI MUSICA "BRUNO MADERNA" OF CESENA – ISTITUTO DI ALTA FORMAZIONE ARTISTICA

As from the 2022/23 academic year, the University of Bologna has partnered with the "Bruno Maderna" music conservatory to run a second cycle programme in Music Therapy Theories and Techniques (DCSL 72). Through the Departments of Psychology, Biomedical and Neuromotor Sciences, and Medical and Surgical Sciences, the University already provides the conservatory with teachers for specific course units; in the future, the University will also run preparatory course units to earn the necessary credits to access the programme.

# **AEROPORTO DI BOLOGNA**

In June 2022, a five-year framework agreement was signed with Aeroporto di Bologna for the development of research and innovation projects with a strong impact on the territory, society and the University community. A biomonitoring project has been in operation since April, which complements the traditional data collection systems (managed by the ARPAE Regional Agency) and allows air quality to be monitored by analysing the honey produced by bees (100,000 in eight hives) that 'work' around the airport. Regular laboratory analysis of the hives, bees, honey and pollen allows detecting any pollutants in the air, water and soil. The initiative was made possible thanks to the cooperation between the Department of Agricultural and Food Sciences, Aeroporto di Bologna, ERGO Consulting S.r.l. (an accredited spinoff of the University of Bologna), Consorzio Nazionale Apicoltori (National Consortium of Beekeepers) and Mielizia (an organic honey producer cooperative).



# **BONFIGLIOLI SPA**

The agreement with Bonfiglioli SpA was signed in May 2022, has a duration of five years and aims to foster the development of multidisciplinary projects in the fields of research and innovation, technology transfer, entrepreneurship, teaching and career guidance, internationalisation, development cooperation, sustainability and social innovation.

The University and the company are already working together in European projects, such as the H2020 IoTwins project, in the BI-REX Competence Centre for Industry 4.0, in the Open Innovation initiatives within AlmaCube's SUGAR programme, in the Recruiting Days held by Alma Mater, and in several curricular and postgraduate internships hosted at Bonfiglioli.

The objectives of the agreement are the development of research in strategic sectors such as Big Data, Artificial Intelligence and Cybersecurity, through initiatives and activities that benefit students, teachers and researchers of the University of Bologna, on the one hand, and Bonfiglioli SpA's employees for learning, innovation and research activities, on the other.

# JOINT RESEARCH LABORATORY WITH ENI S.P.A.

The University of Bologna and Eni S.p.A. have been partnering on a scientific level since 2017. This partnership was strengthened in 2022 through a new framework agreement and the creation of a Joint Research Laboratory at the Marina di Ravenna Research Centre.

The joint laboratory was set up with the aim of cooperating, by sharing intellectual and technical resources and equipment, in the promotion, coordination and carrying out of study and research projects, as well as professional training and life-long learning, in the field of energy transition. Specifically, the following research themes have been identified: sustainable and safe production and use of hydrogen, decarbonisation technologies in synergy with hydrogen transformation, technologies with potentially harmful CO2 emissions.

# PILOT TRAINING PROGRAMME FOR COMPANY EMPLOYEES IN COOPERATION WITH LEGACOOP BOLOGNA

In 2022, an agreement was signed with AlmaVicoo – University Centre for Training and Promoting Cooperative Enterprises, to launch a postgraduate programme for company employees called Coo.D.E. – Cooperative Digital Education. The programme is aimed at educators working in and out of school (at community and leisure centres, in the field of educational and social inclusion, in Legacoop member cooperatives).

The programme was co-designed with cooperatives Open Group and Cadiai, under the coordination of AlmaVicoo and in partnership with the Department of Education Studies, and seeks to train educators on the opportunities of the digital environment, tools and channels for developing professional skills in the field of education.

The programme is a 'pilot' project in view of the creation of a Postgraduate School designed to expand and enhance digital skills in the social field and more specifically in educational services.

# **Technology transfer**

The University of Bologna develops technology transfer activities in many ways – through the Emilia-Romagna High Technology Network, by protecting and exploiting its own intellectual property, via idea scouting, and by supporting students and teachers/ researchers who wish to launch new entrepreneurial activities (spinoffs and startups).

# High Technology Network

The University of Bologna's seven Interdepartmental Research Centres (CIRI) and the Laboratories accredited by the Emilia-Romagna Region aim to carry out and coordinate research to strengthen relations with industry, popularise research findings and implement technology transfer in order to meet the needs of the production world.



The CIRIs enter into agreements with external research centres and institutes and other universities, both within and outside the country, as shown in the table. The seven CIRIs were recently joined by the Research Centre on Cultural and Creative Industries (CRICC), which seeks to strengthen the regional production system in the CCI sector by integrating research, digital and enabling technologies.

## TABLE 20 - AGREEMENTS WITH EXTERNAL RESEARCH CENTRES

RESEARCH CENTRE	AGREEMENT		DURATION N
Italian Space Agency	2022-5-HH.0 "Ope CubeSat missions	erational navigation of 5 in Deep Space"	1.5 years
Italian Space Agency	2022-8-HH.0 HER vities for the HER	A Mission "Scientific acti- A Mission"	3 years
In 2022, all ongoing <b>industrial research projects</b> continued, alongside the research project funded by Eni S.p.A., for an amount of $\notin 2,700,000$ , to set up a joint laboratory where research on decarbonisation and energy transition will be carried out.		The CIRIs' for-profit activities c confirming their results in tern with companies not only withir nationally and internationally.	ns of contracts signed

## **TABLE 21 – CIRI RESULTS**

COMPETITIVE RESEARCH PROJECTS	No. of ongoing projects	Amount
TOTAL PROJECTS	61	€12,424,000
National	7	€472,000
Regional	44	€8,482,000
International	10	€3,470,00
RESEARCH CONTRACTS WITH COMPANIES	No. of contracts	Amount
TOTAL CONTRACTS national, regional and international	58	€2,800,000

## Intellectual property and patents

The University promotes the **protection and exploitation of intellectual property**, supporting innovation and technology transfer, with the aim of bridging research and society and connecting the supply of skills and technologies with market demand and community needs. Having regard to technology transfer, particular attention is paid to the protection and exploitation of the University's own intellectual property.

In 2022, activities involved the following:

- Patent and other Intellectual Property (IP) portfolio management, with around 240 patent families and plant varieties, totalling more than 800 patents/plant varieties, 27 new filings, 70 international extensions in 2022;
- **Promotion and exploitation of IP titles**, mainly patents and plant varieties, with 35 confidentiality agreements and 10 licensing agreements totalling about €1.7 million;
- **Protection and exploitation of other research results**, e.g. software, databases, with 17 research results under management and four licensing agreements signed in 2022;
- Strengthening Technology Transfer Offices Italian Ministry of Economic Development

projects (Feed-KT and ExploitAction), with projects submitted and approved for refinancing until 30/06/2025;

- **Proof of Concept PoC Unibo**, with coordination of and support to ongoing projects;
- **Proof of Concept** Italian Ministry of Economic Development, with funding awarded to the AlmaValue project for €480,000;
- **Breeding project** approved in 2022, for the exploitation of plant varieties;
- **Institutional investors**, by negotiating relationships and partnerships with Fondo Eureka and Cassa Depositi e Prestiti's Fondo CDP Venture Capital for participation in various National Technology Transfer Hubs.

The University protects its **patents**. A patent is a legal instrument that restricts the use of an academic invention, protects technology produced in the University and exploits the results of scientific research. In 2022, Alma Mater filed 103 patent applications (including for plant varieties, software, trademarks). As at 31 December 2022, the University has 291 patent families.



FIGURE 74 – PATENT FAMILIES

## New entrepreneurship

The University actively engages in **supporting new entrepreneurship**, especially **spinoffs and startups**. In this field, it provides for the possibility of accrediting as University spinoffs those businesses that exploit the results of research carried out at the University by teachers and researchers. The relevant Regulations also give the student community the opportunity to accredit as University startups innovative entrepreneurial projects developed within the framework of initiatives promoted by the University itself.

In 2013, the University launched the business incubator AlmaCube and in 2021 it established Behold srl, which holds shares in the University of Bologna's investees.

In 2022, the University of Bologna had 59 accredited companies, i.e. 45 spinoffs and 14 startups. The University has an interest in 24 of the 45 spinoffs; in particular, 11 spinoffs are owned by the holding company BeHold.

Several initiatives are in place at the University to support the **dissemination and development of entrepreneurial culture**:

- **AlmaEClub**, an interdisciplinary club for teachers and researchers to support the development of an entrepreneurial culture;
- Advanced Academy, a series of meetings to support business creation and exploit research results, with 48 participants in 2022;
- **Basic Academy**, training and support for developing a business idea, with 37 participants in 2022;
- Call for Spinoff Projects, a pre-competitive call for patented research results aimed at their technical and commercial validation; three of the seven projects submitted received funding;
- Call for Business Plans, a call for projects that have reached a level of maturity that enables sustainable market development; seven project proposals were submitted in 2022, four of which received funding;
- **Call for StartUps**, a call for students aimed at selecting emerging or ongoing entrepreneurial projects that are ready to access growth and acceleration paths, with 139 project proposals submitted in 2022, from

which the best 38 were selected;

- **StartUp Day**, an event to bring skills together and develop youth entrepreneurship, with more than 2,000 participants in 2022;
- **Training programmes for students** who submit entrepreneurial projects, in order to support them in developing their business idea;
- Awareness-raising events on entrepreneurial culture, such as Social Business Change, the "Business idea creation" workshop in partnership with Fondazione Guglielmo Marconi, StudEnt for Africa, the "Realizzazione di un prototipo" (Making a prototype) workshop, Hackathons and Open Innovation Programmes for the development of innovative projects and ideas, including CBI and Sugar, which engage students from different universities in challenges issued by businesses;
- Support for the development of project work in various subjects, thanks to the ALMALABOR prototyping laboratory for testing business ideas.

## **Externally funded PhD programmes**

The University of Bologna's engagement with the society is also evidenced by the remarkable number of **PhD scholarships funded by third parties** (organisations, other universities, the Italian Ministry of Foreign Affairs, Marie Curie and Erasmus Mundus; starting from the 35th cycle, PhD scholarships financed entirely by Departments with funds from other organisations are also included). Having regard to the 38th PhD cycle, this source of funding accounts for

approximately 34% of the total number of scholarships, with 164 scholarships funded by third parties and 323 by the University (277 of which are partly funded by the Italian Ministry of University and Research, and 46 of which are entirely covered by the University's research structures, mainly the Departments). In the 38th cycle, 352 scholarships were also awarded under the NRRP, 173 of which were co-financed by companies (additional to those under Mission 4 – Component 2 referred to in Section 5).



#### FIGURE 75 – FUNDED PHD SCHOLARSHIPS<sup>20</sup>

<sup>20</sup> The figures do not include foreign government scholarships, PON FSC – MIUR scholarships, and NRRP scholarships


#### Sponsors and banking foundations

Fondazione Flaminia, Ser.In.AR and Uni.Rimini are **sponsors** of the Romagna Campuses and support local development. Their purpose is to promote the University, scientific research and higher education in order to contribute to social, economic and cultural development in Romagna. Moreover, in 2022, the Italian Association of Banking Foundations and the Emilia-Romagna Region signed a Protocol of interventions to build on the peculiarities and expertise of each territory, with a focus on the reduction of inequalities in educational and employment opportunities and access to public services.



DI RISPARMIO IN BOLOGNA

## Polo Universitario Penitenziario

For many years now, the University has been committed to guaranteeing the right to higher education to students in prison or on probation. To this end, a project called Polo Universitario Penitenziario (PUP – University Penitentiary Hub) was launched to facilitate university studies, both by setting up a dedicated space within the Bologna prison and, more generally, by ensuring a series of activities aimed at supporting and facilitating higher studies for inmate students. The Bologna PUP carries out teaching activities thanks to 27 tenured professors in charge of the various departments, 50 volunteers among tenured or retired professors and non-teaching staff, and 60 student volunteers. At the end of 2022, the Bologna PUP student community had more than 60 members, including two young adults committed to the Bologna youth detention centre. PUP students are distributed across 24 different degree programmes. Below is an overview of the main subject areas in the 2022/23 academic year.

#### FIGURE 76 – PUP STUDENTS BY FIELD OF STUDY





<u>More info</u> <u>CNUPP | Conferenza Nazionale dei Delegati dei</u> <u>Rettori per i Poli Universitari Penitenziari</u> In the 2021/22 academic year, six PUP students were awarded a degree (five Bachelor degrees and one twoyear Master degree).

The University of Bologna's Polo Universitario Penitenziario is a success story that consistently ranks at the top, in terms of students involved, among the almost 40 currently existing hubs at as many Italian universities.

#### 7.2 INTERNATIONAL DIMENSION

The internationalisation strategy is an integral part of the University's institutional activity and is fuelled by targeted and differentiated actions that start in Europe and increasingly focus on the global dimension. The University of Bologna liaises with institutions in an increasing number of countries, through strategic partnerships, participation in international networks, agreements, exchanges and mobility at all levels, joint projects and actions funded under national and international competitive programmes and with internal resources.



#### Una Europa - European University Alliance

Una Europa is the Éuropean University Alliance founded in 2018. The Alliance creates synergies and opens up new scenarios on the higher education and scientific research front, with the aim of creating a true European university campus. It currently consists of the following prestigious European universities: Freie Universität Berlin, Alma Mater Studiorum Università di Bologna, University College Dublin, University of Edinburgh, Helsingin yliopisto, Universiteit Leiden, Uniwersytet Jagielloński w Krakowie, KU Leuven, Universidad Complutense de Madrid, Université Paris 1 Panthéon-Sorbonne, Universität Zürich.

The Alliance's activities have been and are still funded by the European Commission through projects for the creation of innovative teaching, joint training and public engagement pathways on six focus areas (Europe and the World, Sustainability, Cultural Heritage, Data Science and Artificial Intelligence, One Health, Future Materials), fostering the mobility of students, teachers and professional staff between the Alliance sites. Joint strategies for research and innovation, the sharing of infrastructure and resources, and strengthening of the human capital are also being developed.

The Una.Futura project, launched in December 2022, will guide the activities of the Alliance over the fouryear period 2023-2026 and aims to create a truly integrated organisation and management system for the European campus of the future, with a specific focus on the active engagement of students and staff. The role and training of professional staff is crucial. Since its foundation, the Alliance has been experimenting with innovative forms of mobility and training of not only academic, but also professional staff, by means of two staff weeks (online in 2021, with 150 participants, and blended in 2022, with 31 participants) and the implementation of a job shadowing scheme called Live my Life (two editions, 95 participants), a peer-to-peer activity involving staff from different administrative divisions of the partner universities.

#### **Projects, agreements and activities**

Within the internationalisation process, the University of Bologna is engaged in cooperation, curriculum development and capacity building projects around the world, particularly in the EU, Central and Eastern Europe, Central Asia, North Africa, the Middle East, China, Southeast Asia and South America. In 2022, the University acted as coordinator in 47 out of 137 ongoing programmes and projects.

Alma Mater ranks among the top universities in Europe in terms of number of incoming and outgoing exchange students and amount of funding received under the Erasmus+ programme. In addition to the many bilateral agreements that translate into teacher and student mobility projects, the University of Bologna participates in 89 international projects funded under the Erasmus+ programme and aimed at teaching innovation, social inclusion and cooperation with local bodies, which are implemented in partnership with European and international organisations. Of these 89 projects, 32 are coordinated by the University of Bologna. The University participates as a partner in a project funded by the Italian Agency for Development Cooperation and coordinated by the Emilia-Romagna Region, which was launched in 2022 to contribute to the definition of governance models and good practices for regional authorities in the area of global citizenship education.

The University of Bologna has 42 agreements in place in **North America**, which translate into student and academic staff mobility, as well as teaching and research collaborations. Several Summer and Winter Schools are held in cooperation with U.S. partners. Such close relations with some U.S. universities have led to the creation of Study Centres in Bologna that play an important role in terms of social and cultural cohesion for U.S. students and provide guidance to our students in the United States. The U.S. institutions and consortia with which the University cooperates in Bologna are: the Bologna Consortial Studies Program (B.C.S.P.) and Eastern College Consortium (E.C.C.O),

University of California, Dickinson College, Brown University, and the Bologna Center of the Johns Hopkins University. It is also important to mention that in-person teaching and research activities are carried out at the Italian Academic Center (IAC), a facility at Cornell TECH's Tata Innovation Center in New York that the University of Bologna shares with Università di Roma La Sapienza and Università degli Studi di Napoli Federico II.

In Asia and the Middle East, the University is engaged in capacity building activities in Nepal, India, Indonesia, Thailand, Iraq, Pakistan, Myanmar, Laos and Sri Lanka, funded by the European Union to support these countries' universities and higher education systems in developing capacity in the areas of governance, internationalisation, teaching, research and collaboration with society. The University also participates in development cooperation initiatives in Palestine with funding from the Italian Agency for Development Cooperation (AICS), for properly reusing wastewater for the benefit of agriculture, the environment and food security, and in Syria, with the Unibo Global South grant to combat energy poverty. In 2022, a youth capacity building project was launched to promote cohesion and inclusion in Turkey, Lebanon and Jordan. An agreement was also signed for the establishment of the Italy-Azerbaijan University, involving four other Italian universities (Luiss, Sapienza, Politecnico di Torino and Politecnico di Milano) in addition to the University of Bologna. The University is working with ADA University (Azerbaijan) on the construction of their new School of Agriculture and Food Science, which will be a centre for teaching, research, technology, skills and innovation transfer between the two countries.

The University's presence in **Africa** mostly translates into cooperation initiatives. Activities continued on the two Intra-Africa projects in which the University is a technical partner, which focus on strategic development (Laser-based Manufacturing and Space Sciences), and on the two capacity building projects in South Africa, in the One Health field, and in Egypt, in the energy field, respectively. Moreover, in 2022, four new projects were launched that are directly funded by the University through the new Unibo Global South programme, which supports international development cooperation initiatives promoted by Departments in partnership with local players. The four projects are in progress in Ethiopia (veterinary training), Senegal (sustainable water management; service learning in the translation field) and Kenya (environmental restoration; service learning in the translation field). An AICS-funded project on Blue Economy and the coastal ecosystem was also launched in Kenya. Lastly, the University has renewed its commitment to the programme to strengthen the Somali National University and its contribution to the Italian Higher Education with Africa (IHEA) Foundation, with teaching activities carried out mainly in partnership with Ethiopian and Tunisian institutions.

During 2022, the University was engaged in South America in two capacity building projects, both aimed at strengthening the quality of education. One project focussed on building training pathways on migration management and migrant rights in Colombia, Peru and Ecuador, the other on improving the quality of teacher training in Mexico, Ecuador, the Dominican Republic, Panama and Brazil. The NEST2020 project was also launched in 2022. Funded by the Italian Agency for Development Cooperation, it seeks to consolidate the Network of Education on Sustainable Tourism, involving priority countries for Italian cooperation in Africa, Asia, the Middle East and South America, and especially operators in Bolivia, Cuba and El Salvador. In addition, learning activities continued at the Centro de Altos Estudios de la Universidad de Bologna in Buenos Aires (Argentina), with the strengthening of synergies with several universities in the country.

The University of Bologna has a long history of cooperation with the Western Balkans. In 2022, the Delegated Cooperation Project assigned to the Italian Agency for Development Cooperation by the

Delegation of the European Union to Albania, in Tirana, went into full swing. The project is implemented in cooperation with the Emilia-Romagna Region and aimed at the economic development of the province of Fier, through a process of recovery and enhancement of the archaeological park of Byllis. This initiative complements the objectives of an ongoing capacity building project focussed on strengthening the capacity of four Albanian universities to do innovative research in the field of cultural heritage conservation and restoration.

## International networks

The University of Bologna is a member of a number of **international networks** that aim to promote cooperation activities in various fields and to create a European area of higher education and research. The main groups of associations and networks of which the University is a member in 2022 are:





#### Magna Charta Universitatum Observatory

In 2022, the Magna Charta Universitatum celebrated its anniversary in Bologna; the theme was "Universities engaging with society in turbulent times".

The Magna Charta Universitatum was signed in 1988 on the occasion of the 900th anniversary of the University of Bologna. The document declares and affirms the fundamental principles of all universities: institutional autonomy and academic freedom, moral and scientific independence from all political and economic influence, indissoluble link between teaching and research, social responsibility and international cooperation. The Magna Charta was initially signed by 388 university rectors from all over the world and subsequently endorsed by many other universities: at present, 960 universities from 94 countries are signatories. The Magna Charta Universitatum Observatory was established in 2001 to ensure the dissemination of the values affirmed through the Magna Charta Universitatum.

The Observatory organises and participates in several international events, such as the "Relevance and Value of Universities to Future Society" meeting held during the IAU 16th General Conference (October 2022), and a series of activities related to the Living Value project with the aim of reflecting on the fundamental values of universities and their implementation in a global perspective. An example was the initiative "Ambassadors and Living Values meeting in Stockholm", held in June 2022. The Observatory also organises several webinars with universities from all over the world, in which the fundamental topics contained in the MCU2020 (e.g. academic freedom) and their application in relation to current social and political situations (e.g. Ukraine) are explored.

#### THE UNIVERSITY OF BOLOGNA FOR PEACE

In conducting its academic activities, Alma Mater is inspired by the values of peace and dialogue and promotes initiatives that are in line with these values. This is why the University firmly condemns the invasion of Ukraine and watches in dismay as the humanitarian crisis continues.

The University is fully committed to taking concrete actions in favour of members of the student and academic community who are victims of the war, and more generally, in favour of the Ukrainian population as a whole. Actions include registration for single learning activities, online exams for Ukrainian students, hosting of Visiting Fellows, voluntary language assistance and psychological support. Various research initiatives have also been organised to better understand what is going on.

The University of Bologna has launched a series of initiatives aimed at investigating the Iran crisis, which seek to interpret these events through a historical, sociological and political approach.

The goal is to provide the knowledge to understand current events, keep the focus on the Iranian situation and express closeness to those who are fighting and suffering for freedom.

#### 7.3 PUBLIC ENGAGEMENT

Culture, expertise, research and innovation are essential resources for the growth of the society of knowledge. Alma Mater shares and supports this vision and considers dialogue with society crucial to develop its public engagement strategy. In 2022, the University of Bologna held many public engagement initiatives that well represent the liveliness, richness and multidisciplinary nature of our organisation.

The University of Bologna organises a significant number of **events** across the Multicampus: presentations, shows, seminars, ceremonies, etc., also in partnership with other local organisations. In 2022, 1,272 events, both in-person and online, were posted on the UniboMagazine calendar, compared to 1,151 in 2021 and 781 in 2020.



#### **FIGURE 77 – EVENTS IN 2022**

#### UniboCultura events – Enhancing the University's history and venues

UniboCultura is a programme of initiatives that promote the history of Alma Mater, its historical figures and illustrious alumni, and the buildings and venues of the University of Bologna. In 2022, 40 guided tours were conducted, which were attended by 601 visitors. In addition, a training course for Alma Mater employees titled "Storia della nostra Università" (History of our University) was held in 2022 with 100 participants (two editions). All UniboCultura initiatives are open to the public and free of charge.

#### FIGURE 78 – GUIDED TOUR PARTICIPANTS 2022



Science popularisation spreads knowledge and culture, raises curiosity about the world of research and its protagonists, develops a critical sense, recounts discoveries and projects, and informs secondary school students and the general public about the profession of researcher. In 2022, an experimental event called <u>PhD Storytelling</u> was held, whose aim is to raise the awareness of PhD students at the University of Bologna of the importance of disseminating research in a simple and clear language, with texts that can be understood by laymen and written directly by those doing research. The event, in partnership with Unione giornalisti italiani scientifici (Italian Science Journalists' Association – UGIS), included speeches, research dissemination stories and a written communication workshop. The articles written by PhD students at the end of the workshop were published on <u>UniboMagazine</u> published on <u>Unione giornalisti italiani scientifici-</u> UGIS. <sup>21</sup> The event was part of the SOCIETY riPENSAci European project. It was planned and organised by a partnership comprising, in addition to the University of Bologna, the Consiglio Nazionale delle Ricerche (National Research Council – CNR), CINECA Consorzio Interuniversitario (Inter-university Consortium), Istituto Nazionale di Astrofisica (National Institute for Astrophysics – INAF), Istituto Nazionale di Fisica Nucleare (National Institute for Nuclear Physics – INFN), Istituto Nazionale di Geofisica e Vulcanologia (National Institute of Geophysics and Volcanology – INGV), Comunicamente and Naxta.

The European Researchers' Night<sup>21</sup>è lis the Multicampus event dedicated to research and aimed at the younger generation, schools, families and children. In 2022, it involved more than 250 researchers in Bologna and the Romagna Campuses (Cesena and Cesenatico, Forlì and Predappio, Ravenna and Rimini) to disseminate research in an informal and fun way. The keyword of the 2022 edition was "riPENSAci" (Think again), encouraging reflection on established habits, acquired knowledge, certainties and everything that is taken for granted in order to change perspective and face the changes and challenges that society poses to us at all levels through the glasses of research. According to a questionnaire, the European Researchers' Night significantly increased the participants' scientific knowledge (84.4% fairly/very much).





## WAITING FOR THE EUROPEAN RESEARCHERS' NIGHT

The festival that takes place from July to September, before the European Researchers' Night, is filled with events for schools and the general public. In 2022, several initiatives were planned.

Talk in cooperation with CUBO, the corporate museum of the Unipol Group: "Chi ha paura dell'economia?" (Who is afraid of the economy?) – A talk to reflect on how the economy impacts our lives; and "La musica che trasforma e cura" (Music that transforms and heals).

Science Happy Hour: Five talks around a keyword, which is explored in depth from an interdisciplinary perspective ("BORDERS", "DISASTER", "ADDICTION", "COMMUNICATION", "INTELLIGENCE").

"La ricerca va in città (...e dintorni)" (Research goes to the city ... and around): Local tours guided by Alma Mater researchers.

Guided tours "Le vie delle stelle" (The ways of the stars), "Augusto Righi e 'l'intuizione dell'esperimento" (Augusto Righi and 'the intuition of the experiment'), in cooperation with the University Museum Network, "Il rifugio antiaereo di Villa Revedin" (The air raid shelter of Villa Revedin) and "La centrale idroelettrica del Cavaticcio nel cuore della città" (The Cavaticcio hydroelectric power station in the heart of the city).

Marconi: radio beyond radio (2022: Celebrating 100 years of the BBC) – Speech on the 100th anniversary of the founding of the BBC - British Broadcasting Corporation, the world's oldest national radio station, followed by a guided tour of the Marconi Museum, in cooperation with Fondazione Guglielmo Marconi.

"Seminare il futuro" (Sowing the future) – À dialogue on agri-food research, new sustainable practices to protect biodiversity and farmers in the era of climate change and population growth. "Storie di animali!" (Animal stories) – A digital storytelling event for children aged 7 to 10, to make an animated film about the evolution of life forms inhabiting the Earth. In cooperation with the National Research Council and Fondazione Golinelli.

"La ricerca universitaria in e sul carcere" (University research in and on prison) – A meeting focussing on the Bologna prison inmates, organised by the Bologna University Penitentiary Hub in cooperation with the Ferrara PUP.

"To bite or not to byte" – A multi-voice dialogue on food waste between students of the Malpighi secondary school and teachers of the University of Bologna.

"Galvani for future" – 4th and 5th year students of the Galvani secondary school, supported by PhD students of the Department of Chemistry "Giacomo Ciamician", presented four hands-on workshops on mechanochemistry, the voltaic pile, fuel cells, biosensors and their applications, aimed at students in the first two years of high school. Followed by lectio magistralis on sustainable chemistry held by Alma Mater teachers.

Face-to-face meetings with researchers: lectures on research themes for secondary schools. In total, more than 894 students and 11 schools were involved in Bologna and the Campuses of the University.

A sample of 281 high school students who participated in the events, of an average age of 17.3 years, were interviewed and a satisfaction rating of 4.03 out of 5 was achieved.

#### WORLD HERITAGE SITE. 50 YEARS SINCE THE UNESCO CONVENTION: MULTICAMPUS EVENTS

The University of Bologna celebrated the 50th anniversary of the signing of the UNESCO Convention (1972) for the protection of world cultural and natural heritage, through a programme of scientific and informative initiatives that were held in partnership with the main institutions in the area across all Multicampus locations. Celebrations included a packed programme of scientific and informative events open to the entire community. From June to December 2022, 11 conferences were organised with 140 papers by about 300 authors and 436 in-person participants, 12 live streams with 5,321 views and recordings available on the YouTube channel, seven dissemination events with 456 participants and two PCTO projects (Paths for educational and career guidance and for the acquisition of transferable skills) for upper secondary school students. In addition, four guided tours were conducted by UniboCultura around the porticoes of Bologna (UNESCO World Heritage Site), which involved 49 participants in total.

## "VOCI DALL'ANTROPOCENE": UNDERSTANDING CHANGE

What is the Anthropocene and what does it mean to live in this new era? The "Voci dall'Antropocene" (Voices from the Anthropocene) series, consisting of five podcast episodes, helps to understand the technological, social and economic impact of mankind on our Planet directly from the voice of researchers. The initiative is part of Research Corner, a virtual podcast to learn about and address the challenges of our time through the glasses of research. The podcast is hosted on Spreaker and is also available on the main podcasting platforms.

The University of Bologna supports the development of **social innovation** initiatives by using its learning pathways and research to formulate programmes of public interest and contribute to the generation of innovative ideas capable of responding to social needs and establishing new relationships and partnerships. To this end, the University maintains an open dialogue with citizens, associations and institutions, in order to identify the areas in which cooperation can provide effective answers; these answers involve students, teachers and the entire staff and can be the result of open innovation paths, applied research implementation and co-production of knowledge. For example, on 14 October 2022, at Piazza Lucio Dalla in Bologna, the city associations and institutions met to talk about mental health and reaffirmed everyone's commitment to implement innovative services in this area.



## OPS! PROJECT UNIVERSITÀ VERDE DI BOLOGNA APS CENTRO ANTARTIDE



Since 2018, the OPS! project has enabled university students to carry out internships as caretakers in the ER waiting area, after attending a training course held by experts. The project impact assessment shows excellent results: the students' welcoming, supporting and listening efforts have turned the Emergency Room into a place where not only everyone's urgent healthcare needs, but also social needs, for which health workers usually have little time, can be met.

In 2022, the University of Bologna signed an official partnership agreement with Antartide (a social promotion association). At the conference held on 28 November, the value of the project in implementing a model capable of responding to social needs and creating new synergies between all partner institutions was highlighted. These include, besides the University of Bologna: Emilia-Romagna Regional Health and Social Authority, Bologna Local Health Authority, Istituto Ortopedico Rizzoli, IRCCS Policlinico di Sant'Orsola, Municipality of Bologna – Health and Welfare Division.

The University uses various tools and forms of **communication**. <u>UniboMagazine</u> is the University's online magazine. It is updated daily to express the

University's point of view on events and the university world.

#### TABLE 22 – MAGAZINE FIGURES 2022

UNIBOMAGAZINE	2022
Published articles and events	2,027
UniboMagazine accesses	695,824
UniboMagazine pageviews	1,021,427
ISSUES IN NATIONAL MEDIA AND FOREIGN NEWS SITES	
Newspapers/Periodicals	16,889
Newspapers/Periodicals Radio/TV services	16,889 2,090
Radio/TV services	2,090

The **University website system** consists of more than 1,600 websites and involves over 5,200 editorial staff, with 68,405,491 visits in 2022.

#### TABLE 23 - WEBSITE SYSTEM FIGURES

WEBSITE	NUMBER OF SITES	VISITS	PAGEVIEWS
Main website (www.unibo.it)	Italian version	22,911,844	52,963,393
Main website (www.unibo.it)	English version	3,349,219	10,616,140
Degree programme websites	311	21,078,701	58,553,611
Department websites	31	1,714,627	3,873,219
On-demand websites (Sites, Professional master's programmes, Specialisation Schools, Centres, PhD programmes)	747	3,086,070	7,914,356
On-demand websites (Web events)	219	625,788	1,668,219
Websites of various Structures and Services (SBA, SMA, Calls for applications, etc.)	10	3,307,069	8,282,649

The **UniboCultura newsletter** showcases events open to the public organised by the University Structures. It has a mailing list of over 5,000 people, the majority of whom are from outside the University. In 2022, 20 newsletters were sent.

Our **institutional social media channels** convey the identity of Alma Mater and establish relations and a dialogue with the local and student community, with prospective students, researchers, the business world,

professionals and alumni. Since 2022, the University has official accounts on the following social media platforms: Instagram, YouTube, LinkedIn, Facebook, Twitter, Telegram and Spreaker. Students were also involved in the creation of videos and infographics to build a narrative of the university experience and allow peer-to-peer transmission of information. In 2022, there was a significant increase in followers and interactions, with the entire community becoming more actively involved.

#### TABLE 24 - INSTITUTIONAL SOCIAL MEDIA CHANNELS

	CURRENT TOTAL FOLLOWERS	CRESCITA DEL 2022	RANK UNIVERSITÀ ITALIANE
Unibo	131,000	+22,004	٦ <sup>st</sup>
Uniboper	3,849	+1,452	-
f	120,441	+2,641	4 <sup>th</sup>
in	375,364	+40,143	3 <sup>rd</sup>
Y	28,259	+4,259	6 <sup>th</sup>
You Tube	29,600	+5,100	5 <sup>th</sup>

@UniboPER is the **University's Instagram channel** to communicate our commitment to society, disseminate research and Alma Mater's culture. PER stands for Public Engagement Research, and relates to the University's public commitment to promoting the dissemination of its research to young people, schools and society as a whole. The channel provides the

23,115 DOWNLOADS IN THE LAST YEAR

> opportunity to remain up-to-date on current research topics, ongoing projects, achievements, discoveries, and people who have made the history of the University, as well as learn about our places of research and prestigious venues, and the initiatives and events open to all. The channel opened in 2021 and had over 3,200 followers at the end of 2022.

#### 7.4 THIRD MISSION OBSERVATORY

The national Research Quality Evaluation (2015-2019 VQR) confirmed and strengthened a strongly interdisciplinary and cross-cutting view of the Third Mission (TM). For this reason, the new Third Mission Observatory started work in 2022 with an initial survey of data sources for monitoring TM activities, based on information on public engagement, and performed a qualitative examination of the case studies submitted for the VQR and their evaluation. The Observatory set up six internal working groups on the specific TM topics already selected by ANVUR for the national evaluation: Research Enhancement. Public Asset Production (artistic and cultural heritage), Public Asset Production (health protection), Public Asset Production (lifelong learning), Public Asset Production (public engagement), Public Asset Production (inclusion, open science, SDGs).

The Observatory's activities in 2022 also included several **information and discussion sessions** in which Departments were involved in order to foster dialogue by facilitating the sharing of information and experiences and to strengthen external engagement by promoting the contribution of the University community to knowledge transfer, social engagement and the production of public assets of a social, educational and cultural nature.

#### 7.5 LIBRARIES

The University Library System (SBA) is the set of libraries and other facilities that provide bibliographic and documentary services in every city where the University of Bologna has sites. The SBA supports the transfer of knowledge for the benefit of teachers and students, other libraries, scholars, society, and the development of users' information skills. In 2022, the University Library System consolidated a realtime library update service: the Affluences app allows users to know the occupancy rate of the study places available in each University library at any time and offers information on opening hours, location, news.

Within the SBA, the Bologna University Library (BUB) is the central library of the University. In 2022, it actively participated in the Ulisse Aldrovandi 500th anniversary celebrations (1522-2022), making its collections of printed books and manuscripts available to scholars and researchers. In particular, projects were launched for the complete cataloguing of Aldrovandi's manuscripts, their digitisation, the revision of the printed book catalogue, and the inventorying of the early 20th century archive on xDams. The BUB was involved in the organisation and displayed its own pieces at nine exhibitions, six in Italy and three abroad (United Arab Emirates, Germany, Switzerland). Seven exhibitions were held at the BUB itself, totalling 342 days of exhibition activity and 2,819 visits. The free guided tours of the historical building also continued, totalling 3,669 visitors.



12,153 REFERENCE DESK INTERACTIONS (advice, information and guidance that librarians provide to users to help them retrieve and use documentary resources)



381 COMPUTER WORKSTATIONS



SERVICE POINTS





## TABLE 25 - FACILITIES, SERVICES, HERITAGE AND ACTIVITY

	2022
DOCUMENTARY HERITAGE IN THE CATALOGUE	5,320,467
of which: books	3,205,558
of which: issues of periodicals	1,137,682
of which: other documentary material	51,554
of which: material on non-paper physical media	39,861
Electronic resources	880,318
of which: e-books	813,903
of which: online periodicals	66,100
of which: databases	315
Subscriptions to printed periodicals	5,494
	2022
TOTAL DOCUMENT CIRCULATION	226,459
loans and renewals	196,458
interlibrary loans	30,001
items sent/received	19,242

**4,448** READING

SPACES/NUMBER

OF SEATS

\*As of 2022, only pieces in the SBN and ACNP catalogues are indicated.



## THE NEW NAVILE LIBRARY

The Navile Library was inaugurated at the end of 2021 and became fully operational in 2022. The libraries of Chemistry, Astronomy and the Department of Pharmacy and Biotechnology are now part of this new facility. Its spacious and bright premises are equipped with 116 reading places and an extensive and up-to-date catalogue of text books, research volumes and periodical collections. All basic and advanced services for students and teachers, as well as for scholars and the general public, are in place.

#### **Open science**

The University has intensified its efforts to support open access to research publications and data through specific actions that promote open science, in line with the Italian Ministry of University and Research's National Open Science Plan.

In 2022, the University joined the European Open Science Cloud (EOSC), a European infrastructure for storing, managing, analysing and reusing research data, and continues to contribute data from its institutional repositories to the European research portal (OpenAIRE).

During 2022, the University made 57% (4,701 out of a total of 7,033) of the articles used for the VQR national research evaluation available in open access through the institutional repository IRIS-IR, and strengthened its support and advisory services for open access, making almost 9,000 new publications available in open access, in addition to the 14,000 already validated since 2018. An authoritative selection of scientific and academic journals (more than 63,000) and scientific monographs (more than 127,000) are available in open access or for free. In addition, the repository

for the enhancement of digitised cultural heritage was strengthened, also hosting research collections and adopting a new platform in line with the best international standards. In total, almost 100,000 digital documents are freely accessible online through the services of the institutional digital library. In 2022, consultancy on open access to research publications and data was provided to University researchers in nearly 2,500 cases.

The University allows authors to publish in gold open access at no additional cost. As at 2022, contracts are in place with the American Chemical Society, Cambridge University Press, De Gruyter, Emerald, IEEE, Institute of Physics, Lippincott, Royal Society of Chemistry, Springer and Wiley; negotiations with other international scientific publishers are ongoing. Finally, the University has planned an action to promote research data management in line with the principles of open science and launched the Data Steward@UNIBO project to support research data management.



In 2022, the University of Bologna held several **exhibitions**. In particular, 2022 was dedicated to the celebration of the 500th anniversary of the birth of Ulisse Aldrovandi, and a number of special initiatives took place at the University.

#### 7.6 MUSEUMS

The University Museum Networks (SMA) consists of 15 structures, including museums, collections and a digital museum space. The SMA is involved in teaching activities for schools and in the protection of assets through conservation, restoration and cataloguing actions that ensure the enhancement and use of collections also for research and learning purposes. The SMA promotes public engagement activities and the dissemination of scientific culture in partnership with national and international, public and private institutions, also via digital communications. In 2022, the museums welcomed 145,187 visitors, almost double the previous year's figure. In 2022, the University of Bologna held several exhibitions. In particular, 2022 was dedicated to the celebration of the 500th anniversary of the birth of Ulisse Aldrovandi, and a number of special initiatives took place at the University.

#### FIGURE 81 – MUSEUM VISITORS 2020-2022





## THE 500<sup>™</sup> ANNIVERSARY OF THE BIRTH OF ULISSE ALDROVANDI

The year 2022 was dedicated to the celebration of the **500th anniversary of the birth** of naturalist and scientist **Ulisse Aldrovandi**, for which the SMA received national funding.

The SMA, in cooperation with the University Library, launched a series of initiatives aimed at **enhancing and popularising Aldrovandi's extensive heritage** at the University.

Museum and library assets were **catalogued**, manuscripts and printed works were **surveyed**, and a national project was launched to **publish** Ulisse Aldrovandi's work.

At the same time, an intense schedule of **educational activities** allowed to successfully experiment with methodologies for the effective teaching of science. "**Il codice Aldrovandi. Interpretare il mondo con la scienza**" (The Aldrovandi Code. Interpreting the world through science) was an eight-night summer festival that featured science shows and talks and brought together University teachers and young disseminators.

In the autumn, the first celebratory exhibition opened to the public: "MENTE ET MALLEO. Da Ulisse Aldrovandi a Giovanni Capellini: storie dal primo museo geologico" (From Ulisse Aldrovandi to Giovanni Capellini: stories from the first geological museum) was dedicated to the rediscovery of the curiosities that had captured the interest of the father of modern natural sciences and the fossils that fascinated the great geologist. The exhibition featured a real Orcinus citoniensis fossil and a digital version that brought the animal to life. The project was carried out in partnership with the Department of Architecture and combined digital survey and gaming software techniques to make the visitor's experience immersive yet scientifically accurate.

At the end of the year, another great exhibition was inaugurated at the Palazzo Poggi Museum: "L'altro Rinascimento. Ulisse Aldrovandi e le meraviglie del mondo" (The other Renaissance. Ulisse Aldrovandi and the wonders of the world). The exhibition narrative was designed to engage a range of audiences through multimedia experiments. In the square in front of the Museum entrance, a video mapping installation was set up by animating Aldrovandi's watercolour paintings.

More information is available on the website: unibo.it/aldrovandi500





To mark the 700th anniversary of Dante's death, the SMA opened the exhibition "**Il Genio nelle Ossa**. **Fabio Frassetto: Un antropologo alla ricerca dell'italianità di Dante**" (An anthropologist in search of Dante's Italianness), dedicated to anthropologist and Alma Mater professor Fabio Frassetto (1876-1953), who devoted a considerable part of his time as a researcher to study the bones of great Italians, and Dante in particular.

Under the patronage of



Finally, the exhibition "Verità e illusione. Figure in cera del Settecento bolognese" displayed wax sculptures made in Bologna during the 18th century. The exhibition was held in partnership with the Civic Museums, at the Davia Bargellini Museum and the Palazzo Poggi Museum.

The following events were held in 2022: "The Aldrovandi Code. Interpreting the world through science" summer festival (see Focus); Darwin Day 2022 "La crisi climatica e la biodiversità" (Climate crisis and biodiversity), a series of meetings, organised together with Unione Bolognese Naturalisti (Bologna Naturalists' Association), the Department of Biological, Geological and Environmental Sciences, and Fondazione Golinelli; "Caleidoscopio Giappone 2022", an annual cycle of conferences on Japanese culture, art and traditions, in cooperation with Centro Studi d'Arte Estremo-Orientale (Centre for Far Eastern Art Studies) and the University of Yamagata; "Smatinée - Colazione in collezione", guided tours at dawn to start the day at the museum; "Guido Horn d'Arturo. L'astronomo che immaginò il futuro" (The astronomer who imagined the future), a series of meetings, workshops and conferences to celebrate the astronomer who invented the tessellated mirror for telescopes, on which the largest and most recent space telescope in existence, the James Webb Space

Telescope, is also based; finally, during "**Art City Bologna 2022**", the festival that takes place at the same time as Arte Fiera, the Botanic Garden and Herbarium hosted the video installation "Aedes Aegypti" by Pedro Neves Marques.

The SMA offers **educational services** to the public of all ages by arranging thematic tours that focus on its historical and scientific collections, also through experimental and interdisciplinary experiences.

## EDUCATIONAL SERVICES (ten locations):



The SMA offers a variety of pathways targeted at schools, each of which contributes to the achievement of some of the 17 Sustainable Development Goals (SDGs) and is designed to enable students to acquire the key competences for active citizenship. The pathways on offer include:

- 11 for nursery schools;
- 47 for primary schools, 12 of which also 'on air';
- 40 for lower secondary schools, ten of which also 'on air';
- 37 for upper secondary schools, nine of which also 'on air';
- Tailor-made Paths for educational and career guidance and for the acquisition of transferable skills (PCTO) that can be combined with e-learning paths.

In 2022, in-presence teaching was complemented by 'on air' (i.e. live) online courses for classes that could not travel to the museum collections. WunderBo and Aldrovandi Experience are two free video games <u>https://www.wunderbo.it/</u> that were developed alongside online activities such as "Una Gita al Museo

2.0" and "Oggi imparo a...". The SMA has a busy calendar of more than 100 events per month. The SMA's digital communication also takes place via its website, newsletter, Facebook page, Instagram profile and YouTube channel, all essential tools for fostering dialogue with the public.

#### TABLE 26 – THE SMA'S DIGITAL COMMUNICATION

WEB SITE	2021	2022	CHANGE %
Facebook fans	21,564	23,372	+ 8.4%
Instagram followers	1,718	2,605	+51.6%
YouTube channel subscribers	203	416	+104.9%
Newsletter subscribers	7,514	7,301	+2.8%
Website visits	123,211	157,272	+27.6%

#### **Digital cataloguing**

The project for cataloguing and digitising the museum assets aims to deepen and share knowledge of our collections. It follows the standards outlined by the Istituto Centrale per il Catalogo e la Documentazione (Central Institute for Catalogue and Documentation – ICCD) of the Italian Ministry of Culture and will result in the publication of this body of records in the online General Catalogue of Cultural Heritage.

In 2022, the SMA received ministerial funding to purchase a collection management software ensuring interoperability with the national one, in order to publish its catalogue online. The management system was set up at the same time as records were entered into the national Catalogue.



#### 18,000 CUSB MEMBERS, INCLUDING OVER 10,000 MEMBERS WITHIN THE UNIVERSITY COMMUNITY



9 DIRECTLY OPERATED SPORTS FACILITIES



1 MILLION

ACCESSES

TO OUR

FACILITIES

200 HIGH-LEVEL ATHLETES IN THE DUAL CAREER PATHWAY



2 EUROPEAN TITLES WON IN 2022



ITALIAN UNIVERSITY TITLES WON IN 2022



30 SPORTS FIELDS



8 AFFILIATED COMPETITIVE SPORTS SECTIONS



7.7 SPORTS AND HEALTH

The University of Bologna has made it its goal to

actively contribute to the pursuit of well-being,

understood as a state of physical, mental and social

health. With this in mind, the University launched and

implemented a psychological support service in 2022,

offering free counselling to students and professional

staff, as well as to young people aged 20 to 28 years

old who are not members of the University community

"Ci vuole una città" (It takes a city) is a joint project

with the Local Health Authority, Municipality and

Metropolitan City of Bologna, launched on the

occasion of World Mental Health Day, which involved

more than 80 local associations. From 1 October to 14

October 2022, 31 roundtables of citizens, operators

and users sought to address situations and conditions

that can jeopardise citizens' well-being and, at the

same time, to explore possible policies to deal with

them, with a specific focus on recovery paths. From

this perspective, physical activity can play a strategic

role, as formally indicated by the UN in the Sustainable

Development Goals (SDGs) and, subsequently, by

but refer to the Bologna Local Health Authority.

13,000 PARTICIPANTS IN EVENTS AND TOURNAMENTS



18 NATIONAL AND INTERNATIONAL TOURNAMENTS



100 DISCIPLINES

UNESCO in the Kazan Action Plan, which aligns sports policies with the goals of the 2030 Agenda and also identifies areas for action.

The benefits of **sports** have also been the subject of popularisation initiatives, first and foremost the one on fighting diabetes with exercise, which is the focus of the EU-funded BE-NEW project coordinated by the University of Bologna. BE-NEW will propose initiatives to encourage an active and healthy lifestyle, also with a view to improving social cohesion, by introducing the concept of 'regular exercise', and will implement training programmes for primary and secondary school teachers, aimed at encouraging physical exercise in children and young people with diabetes.

Finally, through the Alma Idea 2022 call for applications, the University funded a medical project called "Stand up University, Break Sedentary Behaviour: UNIFIT study", which seeks to combat sedentariness in the University community by experimenting with short physical activity sessions lasting a few minutes, called Active Breaks.

150 FITNESS COURSES

In the field of health protection and well-being promotion, the University finances the activities of the **Bologna University Sports Centre** (CUS Bologna A.S.D. – CUSB), an amateur sports association that is a member of CUSI (Italian University Sports Centre). The CUSB operates all University-owned sports facilities and a number of municipal facilities in the Bologna area and elsewhere, providing sports services not only to the student community and staff, but to everyone across all Multicampus sites.

The CUSB services range from sports promotion activities, through events organised directly (championships, tournaments, courses, etc.) and in partnership with other clubs; competitive sports activities organised by the CUSB's competitive sports sections affiliated with the relevant federations (Athletics, Tennis, Indoor Hockey, Swimming/ Water Polo/Finswimming, Fencing and Sailing); the National University Championships (CNU), the most important university sporting event in Italy; and the annual European University Championships (EUSA), in which the national champion universities compete for the title of European champion. In 2022, the Alma Mater's official teams won the European championships in men's basketball and women's volleyball. Furthermore, at the National University Championships in Cassino, our athletes won ten gold medals in men's basketball, karate, taekwondo, fencing, judo and athletics. Finally, a special mention for the Ultimate Frisbee women's team, who won the Champions League.

In Bologna, the CUSB operates seven university multi-sports **facilities** and two municipal facilities. It also has many agreements in place with local organisations that enable the University community to play sports in a widespread manner. The two main university facilities are the Record University Sports Centre (which houses a 25-metre swimming pool, a multifunctional hall for basketball, volleyball, five-aside football, combat sports and martial arts, tennis, fencing, padel and hockey, and several outdoor spaces) and the Terrapieno facility (which houses the PalaCus and brand new outdoor facilities, including a recently inaugurated athletics track and several multi-sports artificial turf fields).

These are joined by the Preziosi University Sports Centre in Ozzano dell'Emilia, while the Lucchini (Stadium area) and the Battiferro (Navile area) sports facilities are owned by the Municipality.

Recently, our range of facilities in Bologna and on the Romagna Campuses has been expanded to include ALMA GYMS, complete with fully equipped weight rooms, cutting-edge fitness machines and innovative fitness courses.



## CUSB INITIATIVES FOR THE COMMUNITY

Alma Mater Fest – In 2022, the CUSB organised the third Alma Mater Fest, the University of Bologna's student welcome event. 230 meetings, more than 9,500 participants and over 100 guests for a six-day programme packed with initiatives on sports, inclusion and services, allowing us to show the many sides of the University of Bologna, its venues and most significant projects.

**Discounted membership** – Starting from the 2022/23 academic year, the CUSB and the University have launched a promotion to encourage sports participation, socialisation and a healthy lifestyle: all new students will be offered free membership to the University Sports Centre and discounted rates will be available to all Alma Mater students, employees and children of employees. The annual CUSB membership will be offered at €5 only (instead of €13 for non-University members).

**E-Sports** – Also in 2022, the University and the CUSB held the E-Sports Tournament. The tournament was sponsored by important partners such as Bologna FC, Lamborghini, Technogym and Macron and served as the first event of a multi-year project to create a new sports discipline.

**Summer camps** - "Seminiamo la pace" (Let's sow peace) was the title of the 2022 edition of the Unibo summer camps for the children of Alma Mater employees, with discounted rates and a sports, cultural and recreational programme focussing on education on inclusion, non-violence and active citizenship. Over 100 families of our employees attended during the weeks between 27 June and 15 July.

More than 130 hours of activities run by the CUSB, including workshops, music and philosophy lessons, reflections on social communication, and various sports activities (swimming, fencing, tennis, frisbee, basketball, etc.).

#### 7.8 IMPACT ON THE UN SUSTAINABLE DEVELOPMENT GOALS (SDGS)

FIGURE 82 – INTERNATIONAL COOPERATION AND COLLABORATION PROJECTS (THIRD MISSION)



In 2022, the University acted as coordinator in 47 out of 137 ongoing programmes and projects, which are represented in the following chart and labelled based on the 17 Sustainable Development Goals (SDGs) of the UN 2030 Agenda.



# 8. Environment

17

1 Pro



PHOTOVOLTAIC

SURFACE AREA

**1,871** COURSE UNITS DEALING WITH ENVIRONMENTAL TOPICS IN THE 2022/23 A.Y.



**1,241,485 kWh** ENERGY FROM RENEWABLE SOURCES



600 BICYCLES MANUFACTURED BY THE UNIVERSITY OF BOLOGNA



20,288 SUBSIDISED SEASON TICKETS FOR STUDENTS AND STAFF TO ENCOURAGE THE USE OF PUBLIC TRANSPORT



**50** ECO-FRIENDLY VEHICLES (ELECTRIC,NATURAL GAS, ETC.)

#### **8.1 ENERGY POLICIES AND CONSUMPTION**

In 2022, the University made the choice of using certified electricity from renewable sources only. Socalled Guarantees of Origin attest to the renewable origin of the energy sources used for a certain customer. The University produces energy from renewable sources that covers about 3% of its overall consumption, thanks to a photovoltaic surface area of 8,443 m2.

In accordance with the Italian national plan for the containment of energy consumption, and more generally to raise the University community's awareness of energy saving, a 10-point list of good practices was circulated at the beginning of the 2022/23 thermal season and a dedicated channel for reporting energy waste was created (risparmio.energia@unibo.it).

The technical and regulatory adaptation of the existing heating and cooling systems continued in 2022, including the replacement of some obsolete equipment and accessories.

The University has been implementing a plan of actions and behaviours to promote an efficient and rational use of resources. In 2022, this resulted in the renewal of the maintenance contract for Bologna, to achieve a more effective and efficient management of technological systems, with the addition of a dedicated role tasked with scheduled maintenance and remote control activities.

Approximately 30% of the University buildings use technological heating and air-conditioning systems that are operated through remote control equipment to set up the system and handle any alarms.

A database of energy bills and an algorithm to process the relevant data were created in order to build a dashboard that shows consumption at each building by energy carrier. The algorithm allows identifying the most energy-intensive buildings, thus providing guidance for investments.

#### Consumption

In 2022, electricity consumption increased because all activities resumed and because the cooling systems were switched on for longer, as summer started early and was hot. Consumption grew significantly in the Navile District too. Water consumption also increased in 2022, as in-person activities resumed and new teaching and research started at the Navile District, the former ENAV Academy in Forlì, and the former Zuccherificio site in Cesena.

Conversely, in 2022, consumption for heating decreased across all energy carriers, because winter was mild and because greater attention was paid in operating the systems, following the implementation of energy-saving policies and awareness-raising actions of the community using the premises.

The cost of electricity purchased from suppliers grew by 27% year-on-year.

The natural gas supply contract was executed in August 2021, when the energy market was just beginning to experience volatility; in order to contain costs, a fixed price was applied until the end of the contract in late September 2022; on average, the cost of natural gas grew by 41.8%, mainly due to the surge in gas prices in the last quarter of the year, when a new supply contract had to be executed at a variable price.

The district heating rate was heavily affected by the surge in the gas price, to which it is inherently linked, with an 84.4% increase on the previous year.

#### TABLE 27 - UTILITY AND MATERIAL COSTS AND CONSUMPTION 2022

	CONSUMPTION				COST (€)	
	2020	2021	2022	2020	2021	2022
Water (m³)	265,730	293,996	314,175	756,394	871,499	977,256
District heating (kWh)	26,745,324	34,571,764	31,143,330	3,601,717	5,292,830	8,792,887
Electricity (kWh)	36,296,017	40,720,701	42,571,998	7,197,377	6,961,918	9,251,694
Gas (m³)	3,172,544	3,910,659	3,405,877	2,074,000	2,853,780	3,525,897
Heating oil (I)	167,500	91,500	71,000	164,339	95,438	100,913

#### Water

The University participates in HERA Spa's twoyear "Water Consumption Control Project", which envisages various actions aimed at monitoring and controlling consumption, such as georeferencing supply points on a map, implementing digital alerts for abnormal consumption, making water meter readings more frequent at supply points where the risk of hidden leaks is higher. To this end, 147 sensitive water supply points were identified and subject to monthly readings in 2022.

After being used by the University community, drinking water is piped to the greywater or blackwater sewage systems. At the Ozzano site, a purification plant treats wastewater from University activities, in compliance with the relevant standards. In 2022, a phyto-purification plant was installed at the Cadriano site.

## Photovoltaic systems

The total energy from renewable sources produced in 2022 was 1,241,485 kWh (sources: ENEL metering service and GSE dedicated portal). In 2022, the operating state of the equipment installed on the Romagna Campuses was surveyed, and the activities required to ensure normal energy production were defined.



## **8.2 REAL ESTATE**

## Composition and use

The real estate managed by Alma Mater is considerable in terms of both size and geographical distribution. In relation to size, its buildings occupy a net surface area of 1,218,158.82 m2, including outdoor spaces (1,031,023 m2, excluding outdoor spaces), while its land totals more than 550 hectares.



## FIGURE 83 – GEOGRAPHICAL DISTRIBUTION OF REAL ESTATE (EXCLUDING OUTDOOR SPACES)



#### FIGURE 84 - INTENDED USE OF REAL ESTATE



## **Development project**

Over the past decade, the University of Bologna has prepared and started implementing a real estate plan, under which it has structured itself around University Districts, i.e. multifunctional complexes distributed throughout the territory that offer students a suite of services in line with the best international standards. Under the 2022 Plan, work has continued to consolidate the multifunctional districts across the five Campuses with a view to improving their functionality, energy efficiency, environmental sustainability and safety. With this in mind, in 2022, Alma Mater prepared a three-year investment plan for approximately  $\in$ 179 million (ET 2023-2025), which provides for 48 interventions in total. In 2022, the University of Bologna submitted 32 of these projects to the Italian Ministry of University and Research for participation in the Call for proposals for university construction projects (Ministerial Decree 1274/2021), within four of the five funding lines of the call itself. The distribution of these projects by funding line is shown in the table below, together with the amounts of the overall estimated costs and the co-funding requested from the Italian Ministry of University and Research.

#### TABLE 28 – PROJECTS SUBMITTED TO THE ITALIAN MINISTRY OF UNIVERSITY AND RESEARCH FOR PARTICIPATION IN THE CALL FOR PROPOSALS FOR UNIVERSITY CONSTRUCTION PROJECTS

LINES OF THE CALL FOR PROPOSALS (MINISTERI- AL DECREE 1274/2021)	PROJECTS SUBMITTED	ESTIMATED COSTS	CO-FUNDING REQUESTED FROM THE ITALIAN MINISTRY OF UNIVERSITY AND RE- SEARCH (€)
А	11	58,997,000	35,398,200
В	14	60,003,600	33,102,160
С	3	11,525,000	6,915,000
D	4	26,445,000	15,827,332.5
TOTAL.	32	156,970,600	91,242,692.5

Of the 32 projects submitted, 11 (Line A – total amount €59 million) have already been examined by the Italian Ministry of University and Research and received funding; works are scheduled to start by June 2023.

The three projects submitted under Line C (Scientific equipment and furniture) were also found eligible for funding. As to the remaining 18 projects (Lines B and E – total amount just under  $\notin$ 90 million), approval is expected by June 2023.

Furthermore, thanks to Ministerial Decree 1275/2021, the University received a co-funding of  $\in$ 3,190,000 from the Italian Ministry of University and Research for a series of projects aimed at bringing the University buildings in line with fire safety requirements.

The University's real estate plan for **Bologna** aims to streamline the use of existing buildings and move all STEM Departments, which need laboratories that can no longer be housed in historical buildings, outside the University Cittadella.

The redevelopment projects under the Plan seek to restore the original appearance of historical buildings by removing all the equipment that has been installed over the years in order to bring the laboratories up to current standards. The recovery of the University Cittadella will allow the reallocation of available spaces to the General Administration.

With this in mind, works at the Navile District were completed in 2022.

In the summer of 2022, the Biomedical Tower construction works began in the S. Orsola area, which will result in the creation of a cutting-edge biomedical research centre. Many research laboratories will be relocated to the hospital grounds from the University Cittadella, where they currently suffer from the restrictions imposed on historical buildings.

Major redevelopment work is currently underway at the Department of Veterinary Medical Sciences site in Ozzano and at the Department of Agricultural and Food Sciences site in Cadriano, as well as at the Department of Engineering historical site on Via Risorgimento.

As part of the project to reorganise and upgrade the existing buildings, the former railway station just outside Porta S. Donato, known as Ex Veneta, will also be recovered to house PhD students and research fellows enrolled in NRRP-funded research projects on digital transition. All engineering, architecture and computer science teaching and research activities on the **Cesena** Campus have been moved to the new building at Via dell'Università, 50 where the Campus teaching services, IT services, library services and the technical office are also located. With the aim of providing spaces for sports and the well-being of students and staff, a gym was also built during 2022.

In 2022, relocation of the Cognitive Neuroscience Centre to the renovated site on Viale Rasi e Spinelli was completed; all the clinical services of the Department of Psychology were also moved there.

Most teaching activities in **Forli** have been relocated to the 'new Campus' in the heart of the city. Following completion of the school for interpreters and translators' teaching laboratories, the Campus is now fully functional, while the Vice Dean's Offices of the School of Economics and Management and the School of Modern Languages and Literatures, Interpreting and Translation will be relocated to the new Campus upon completion of the Sauli-Saffi wings, the renovation of which began in January 2021. In 2022, with the aim of providing spaces for sports and the well-being of students, a gym was built inside the ER.GO Hall of Residence in Forlì. Work has begun to move all the teaching and research activities of the Department of Industrial Engineering to the former ENAV building on Via Montaspro.

Most of the **Ravenna** Campus' sites are located in the city centre, inside prestigious historical buildings located a short distance from each other. This significant presence has progressively expanded over the years, becoming a true 'city campus'. The project for the construction of new teaching laboratories and a library on Via S. Alberto, in north-west Ravenna, was re-launched in 2022.

In **Rimini**, the University's efforts to improve the quality of the Campus premises and increase the availability of study rooms continue.

In 2022, the renovation of the former Arpa building at Piazza Malatesta, 29-30 almost reached completion. The new site will house a gym for students and the local community, which will be operated by the CUSB, the teaching laboratories of the Department for Life Quality Studies, and a number of study rooms for Campus students.

#### Halls of residence

Our real estate plan affirms the University's strong commitment to increase student accommodation both in Bologna and on the Campuses.

In Bologna, renovation work was completed at the former Croce Rossa building, which now houses a hall of residence named after Umberto Eco, adjacent to Palazzo Hercolani. All 40 beds were assigned last year by ER.GO, which manages the service.

In March 2022, construction works began for a new hall of residence in the heart of the Belmeloro complex, called Baricentro, which will house 57 students and accommodation for visiting professors.

Work at the Lazzaretto-Bertalia District resumed in 2022 for the construction of two halls of residence, with services, totalling approximately 400 beds.

The construction of the new Battiferro hall of residence at the Navile District is about to start too: this 131bed student residence will be housed in a nearly zeroenergy building.

In 2022, co-financing was sought from the fifth call for proposals under Law 338/2000 for two halls of residence of about 90 places each, to be built in Bologna, in the Filippo Re District and at Via Bellinzona, 6.

As far as the Romagna Campuses are concerned, the La Torre hall of residence built by the University and managed by ER.GO in Cesena filled up with students (80 beds) last academic year.

At the end of 2022, renovation work began on a wing of the Osservanza complex in Imola, which will house around 40 students when completed.

In 2022, the Italian Ministry of University and Research also co-financed the purchase of a building on Via Montaspro in Forlì (former ENAV), where around 60 beds will be made available from the beginning of the 2023-24 academic year.

## **BATTIFERRO HALL OF RESIDENCE**

The Battiferro hall of residence is located in the north-west suburbs of Bologna, within the socalled Navile District, in an area of the city that requires redevelopment.

The project involves the construction of a residential building for university students and related services. The overall accommodation capacity of the facility is 131 beds, of which eight are for disabled users, covering a surface area of 4,932 m2 on three floors above ground.

The building will have a green roof, and photovoltaic and solar panels will be installed. Green roofs have several advantages from an energy and environmental point of view; they help to control and channel rainwater runoff, reduce the risk of flooding, purify the air, regulate the internal temperature with consequent energy savings, mitigate the temperature of the surroundings, reduce internal noise pollution, increase the durability of the roofing slab, create a fireproof layer, and reduce maintenance depending on the species planted.

Having regard to the systems installed, the thermal performance of the building will be 'Excellent', according to the definition in the Building Regulations of the Municipality of Bologna – P3 Energy and Emission Sustainability – which effectively makes the Battiferro hall of residence a nearly zero-emission building (NZEB). This will be achieved by installing 320 400 Wp photovoltaic panels and 20 2.57 m2 solar thermal panels to offset the consumption of non-renewable primary energy and allow the annual balance of electricity fed into and withdrawn from the grid to be positive.

The architectural, technical and systems engineering choices made will allow this project to achieve high standards of thermal performance, making it able to meet the needs of the University community while respecting the environment and limiting harmful emissions into the atmosphere.
#### **8.3 ACTIONS FOR SUSTAINABILITY**

Alma Mater is committed to promoting, planning and implementing actions and projects aimed at achieving a harmonious balance between space, people and the environment, with the aim of reducing the University's environmental impact, improving its community's quality of life and encouraging increasingly responsible lifestyles. Since the main impacts are caused by the lifestyle of the community, the University of Bologna has implemented a programme of actions to raise awareness and introduce good practices:

- Promotion of public transport;
- Adoption of a sustainable vehicle fleet;
- Limited use of disposable plastic items;
- Tree planting;
- Dematerialisation to reduce paper consumption;
- Routine and extraordinary maintenance;
- Building works to improve energy efficiency and environmental friendliness.

#### Green Offices of ALma Mater - GOAL

Created at the end of 2019 as a place to discuss and develop projects, they are run by students together with teachers and professional staff and aim to spread a culture of sustainability within the University. Since their creation, the GOALs have implemented a series of initiatives aimed at raising awareness among the University community. In 2022, in addition to participating in guidance events (Alma Orienta and Magistralmente), GOAL students organised the second edition of the Festival of Biodiversity – Biodiversity Day, in cooperation with the student association UniversiRà. In 2022, for the first time, meetings were held both in person and online; the events, which took place over five days, were hosted both in Bologna and on the Romagna Campuses.

#### Green spaces and the EXTRA Project

The University promotes and implements the development of green areas to improve the well-being of its community by creating more green spaces, expanding existing ones and planting new trees, always with a focus on biodiversity. With this in mind, two terraces were set up along the sides of the Cesena Campus cafeteria, with flower beds, benches and tables for study and recreation, as well as a wheelchair ramp and accessible furniture. A large sculptural seat, made up of concrete elements and three large 'red stones', was installed at the entrance to the Bologna headquarters (Viale Berti Pichat, 6/2), where one can stop for a break surrounded by colourful plants. 71 trees of nine different species were planted in the Navile District, as part of a green redevelopment project.



25,000 SQM RENEWED SPACES/RECOVERED FROM 2017

**300 ONLINE AND** 

PARTICIPANTS AT

THE FESTIVAL OF

IN PRESENCE

BIODIVERSITY



## **CLIMATE-NEUTRAL CITIES**

Alma Mater is a partner in the "100 Climate-neutral cities by 2030" initiative, promoted and funded by the European Union and led by the Municipality of Bologna, which involves other institutional actors in the Bologna metropolitan area, including Hera, Tper and Acer. It is an ambitious transition project in 100 urban areas selected from 377 candidate cities, spread across all 27 EU countries and representing 12% of the European population. Bologna was selected along with eight other Italian cities.

In December 2022, Alma Mater took part in the launch of the process to draft the Climate City Contract, which will set out all actors' commitments and investments as needed to achieve the goal of climate neutrality by 2030 through a series of projects on key issues such as mobility and transport, energy efficiency, public lighting, waste, and renewable energy production.

Alma Mater seeks to achieve these goals every day through its teaching, research and third mission activities. In December, the University approved a real estate plan under which it will implement a number of building energy efficiency measures. Finally, sustainable mobility actions were strengthened in 2022, including the purchase of subsidised public transport season tickets for students and staff and the development of a set of actions to encourage cycling.

### THE UNIVERSITY'S ARBOREAL HERITAGE

With regard to the maintenance of horizontal and vertical green spaces, Alma Mater signed an agreement with the Metropolitan City of Bologna for the two-year period 2022-2023. In order to improve and expand knowledge of the University's arboreal heritage while constantly monitoring its conditions, a new software (R3GIS) was adopted, which is more powerful than the one previously in use (AlmaAlberi).

During 2022, as many as 2,810 trees were surveyed and georeferenced in the University Cittadella and other sites in Bologna. Using visual and instrumental methods, extensive information regarding each plant was obtained – name, biometric data, position, past maintenance, risk of falling, proposed interventions, etc. This information is visible and accessible through the R3GIS software, which provides a general and detailed picture of all the areas surveyed. This level of detail makes it possible to plan targeted interventions on the basis of the health conditions of each tree, such as cutting it down for safety reasons or poor life prospects, or recommending specific tree care



#### **GREEN SPACES AND WELL-BEING**

As part of the partnership agreement between the University of Bologna and University College Cork – National University of Ireland, the "Green spaces and well-being" survey continued. Following the first edition in 2021, which focussed on sustainability and civic engagement, the second edition considered the relationship between exposure to nature on campuses and nature connectedness, psychological well-being and pro-environmental behaviour of university students. Additionally, the survey sought to analyse the sense of place and community associated with the university context and how it relates to contact with nature, well-being and pro-environmental behaviour.

The Alma Mater and Cork students' answers to over 600 questions confirm the findings in scientific literature: contact with nature is associated with greater well-being and environmentally sustainable behaviour.

#### University of Bologna Experimental Farm (A.U.B.)

In cooperation with our Experimental Farm, the produce delivery service for the University community has been extended to the Cesena Campus as of 2021. Products on offer include fruit and vegetables, processed agricultural products, wine and animal products, also involving two refugees employed at the Farm as part of the Unibo for Refugees project.

Guided tours for the University community continued in 2022, as an opportunity to share and learn about the Alma Mater's assets. The countryside hikes organised by A.U.B. contributed to make the Farm's products known: chestnut picking, as part of the activities to enhance the centuries-old chestnut grove of Matildico, and cherry picking at the Cadriano cherry orchard, where our new varieties of cherries are grown. Under the Agriculture 4.0 measure, which provides a substantial tax credit for high-tech acquisitions, A.U.B. purchased four new pieces of agricultural equipment that are more sustainable than their predecessors in terms of lower energy consumption.

#### "Il Nastro Verde" showcase

Through the power of cinema, "Il Nastro Verde" showcase seeks to encourage everyone to reflect on environmental issues and the challenges that society must face in order to achieve sustainable progress that respects the environment. The fourth edition took place from 30 November to 14 December 2022 in a blended mode, both in theatre and on an online platform. Many people attended, and students in particular enjoyed the event very much. Before each screening, teachers presented the film together with the University's young researchers who receive funding under the PON-Green call. After the film, a debate took place: viewers from home could participate too via a dedicated online chat. This was an opportunity to discuss current issues such as climate justice and social vulnerability, sustainable tourism, marginalisation and a critical analysis of capitalism.



500 PARTICIPANTS TO THE 4TH EDITION



## EUROPEAN WEEK FOR WASTE REDUCTION (EWWR)

To raise awareness among the University community about waste reduction, reuse and recycling, as well as resource valorisation, in 2022 the University of Bologna participated in the 14th European Week for Waste Reduction.

In cooperation with the association Plastic Free, two clean-up campaigns were organised in Bologna, at the Engineering building of Via Risorgimento, 2 and around Piazza Giuseppe Verdi in the University Cittadella. The municipal waste collected during the campaigns was sampled in cooperation with Professor Alessandra Bonoli to quantify and analyse waste types. In addition, cigarette butts were recovered. The two clean-up campaigns resulted in the collection of 21 kg undifferentiated waste, 7.5 kg plastic, 11.5 kg glass/cans, and 3 kg butts.

A significant opportunity to get to know other local organisations that raise awareness of these issues and a chance for the University community to actively contribute to change.

#### Waste policies and management

In order to be fully compliant with the applicable legislation, as well as to apply waste prevention and reduction and resource valorisation and optimisation models with a view to the circular economy and in line with Sustainable Development Goal 12, in 2022 the University integrated all laboratory waste management functions performed by the Nu.Te.R. – Waste Technical Unit into the Constructions and Sustainability Division.

The Resources and Waste Working Group, started in 2021, continued its activities in 2022, involving several Divisions in order to set up a single point of supervision for the various waste types produced by the University. Discussions have continued with local authorities (both at municipal and regional level) and waste management operators in the University locations.

In the course of 2022, training sessions were offered to

colleagues involved in building and space management activities (64 people trained in total), and to students and volunteers as part of the alternative civilian service, in order to raise awareness of the University's waste management in accordance with the relevant regulations.

**Waste is sorted** into plastic, paper, cans, glass, toner cartridges and batteries at the University of Bologna's facilities in and outside the city centre and on the Romagna Campuses.

Laboratory **waste management** is overseen by the Waste Technical Unit (Nu.Te.R.), which implements specific procedures for the disposal of reagents, unstable substances, etc. The Nu.Te.R. is organised into approximately 45 local units to maximise its functionality.

#### FIGURE 85 - SPECIAL WASTE DISPOSED OF (KG)





**16,200** STUDENT PASSES Of which 51 for campuses, 4.857 Tper passes With further reductions, 13.255 under the new TPER-Unibo agreement

**945** PASSES FOR ERASMUS STUDENTS Of which 191 from September to December 2022 under the new TPER-Unibo agreement

**621** PASSES FOR PHD STUDENTS Of which 508 from September to December 2022 under the new TPER-Unibo agreement

2,076 PASSES FOR TEACHING AND PROFESSIONAL STAFF Of which 31 for Campuses, and 1.046 under the new TPER-Unibo agreement

## **Emissions and transport policies**

In order to monitor, survey and evaluate greenhouse gas emissions, the University of Bologna has adopted a new Carbon Footprint calculation method according to ISO 14064.

#### **TABLE 29 - CARBON FOOTPRINT**

AREAS	2021* T CO <sub>2</sub> EQ/YEAR
DIRECT EMISSIONS from heating and transport	8,388
INDIRECT EMISSIONS from energy consumption	7,815
OTHER EMISSIONS (waste, etc.)	17,244
тот	33,447
* 2022 figures were not available at the time of writing.	

Commuting has a very significant impact in terms of the University community's emissions. In order to act on this front, Alma Mater has continued to support various measures for sustainable mobility in 2022.

#### Subsidised public transport season tickets

The initiative aims to offer students and staff annual season tickets for public transport (bus or train) at discounted rates.

The first public road transport agreement for the Romagna Campuses (with the company START ER) was launched in 2022. Since September 2022, a new agreement has been in place between TPER and the University, which has made it possible to further reduce prices and extend the scheme to research fellows and students of first-level and second-level professional master's programmes.





#### COURSE UNITS BY SDG









805





#### Alma Bike

The <u>AlmaBike</u> project makes 600 custom-designed bicycles available to students and encourages everyone to use bicycles to move around the University Campuses.

Approximately 300 AlmaBikes were made available to students in 2022, and the project to distribute approximately 200 AlmaBikes to ER.GO halls of residence was launched in order to guarantee environmentally friendly mobility for resident students.

The DICAM-ATES research project, in partnership with Technion in Haifa, involved 50 AlmaBikes that are equipped with environmental sensors, in order to monitor the impact of air quality awareness on the use of bicycles for commuting. The project consisted of choosing the sample through a call, distributing the bicycles and sensors, and conducting measurements from May to July 2022. The data was collected, analysed and displayed on an online web application capable of matching pollution levels and routes.

#### Green vehicle fleet

The project encourages sustainable mobility through car sharing and electric and hybrid-powered vehicles. The vehicle fleet in 2022 consisted of 50 mostly electric and hybrid-powered vehicles. A new project was launched, which will reduce the overall number of vehicles and introduce a new management system, designed and implemented in-house by CESIA, to better meet the needs of staff.



50 FULL ELECTRIC, HYBRID OR BI-FUEL (GASOLINE-NATURAL GAS) VEHICLES

#### Networks for sustainability

In order to contribute to the pursuit of the Sustainable Development Goals (SDGs) of the UN 2030 Agenda, through the dissemination of a culture of sustainability and of good practices, the University of Bologna has joined and actively participates in many networks, including:

- <u>RUS Italian University Network for Sustainable</u>
   <u>Development</u>
- <u>ASviS Italian Alliance for Sustainable</u>
   <u>Development</u>
- <u>SDSN Sustainable Development Solutions</u> <u>Network</u>

## 8.4 EDUCATION AND TRAINING ON ENVIRONMENTAL ISSUES

In the 2022/23 academic year, the number of course units on this subject grew.

The figures show the number of course units taught in Italian and English and their correspondence to SDGs 6, 7, 11, 12 and 13.

#### FIGURE 86 – EDUCATION AND TRAINING ON ENVIRONMENTAL ISSUES





### **GRI 2: GENERAL DISCLOSURES**

1. The organization practices	anisation and its reporting	Reference to 2022 SR index and/or notes
2-1	Organisational details	1.3 - Governance and organisation 6 - People
2-2	Entities included in the organisation's sustainability reporting	1.3 - Governance and organisation
2-3	Reporting period, frequency and contact point	
2-4	Restatements of information	Reading guide
2-5	External assurance	Feasibility analysis of future editions
2. Feasibili	ty analysis of future editions	Reference to 2022 SR index and/or notes
2-6	Activities, value chain and other business relationships	3.2 - Economic value distributed

2-7	Employees	6.1 - Teaching and Research Staff
2-8	Workers who are not employees	6.1 - Teaching and Research Staff 6.2 - Professional Staff
3. Govern	ance	Reference to 2022 SR index and/or notes
2-9	Governance structure and composition	
2-10	Nomination and selection of the highest governance body	1.3 - Governance and organisation
2-11	Chair of the highest governance body	
2-12	Role of the highest governance body in overseeing the management of impacts	
2-13	Delegation of responsibility for managing impacts	2 - Sustainability governance
2-14	Role of the highest governance body in sustainability reporting	
2-15	Conflicts of interest	1.1 - Identity, principles and values
2-16	Communication of critical concerns	1.1 - Identity, principles and values 6.4 - Organisational well-being

2-17	Collective knowledge of the highest governance body	1.2 - Actions and results
2-18	Evaluation of the performance of the highest governance body	2 - Sustainability governance
2-19	Remuneration policies	
2-20	Process to determine remuneration	6.1 - Teaching and Research Staff 6.2 - Professional Staff
2-21	Annual total compensation ratio	
4. Strategy	, policies and practices	Reference to 2022 SR index and/or notes
2-22	Statement on sustainable development strategy	
2-23	Policy commitments	1.2 - Actions and results 2 - Sustainability governance
2-24	Embedding policy commitments	
2-25	Processes to remediate negative impacts	
2-26	Mechanisms for seeking advice and raising concerns	1.1 - Identity, principles and values
2-27	Compliance with laws and regulations	
2-28	Membership associations	7.2 - International dimension
5. Stakeho	lder engagement	Reference to 2022 SR index and/or notes

2-29	Approach to stakeholder engagement	2.1 - Stakeholders and engagement
2-30	Collective bargaining agreements	6.1 - Teaching and Research Staff 6.2 - Professional Staff
GRI 3: MA	TERIAL TOPICS	
3-1	Process to determine material topics	
3-2	List of material topics	2.2 - Materiality
3-3	Management of material topics	
GRI 200: E	CONOMIC ASPECTS	
GRI 201: F	Economic performance	Reference to 2022 SR index and/or notes
201-1	Direct economic value generated and distributed	3.2 - Economic value distributed
201-2	Financial implications and other risks and opportunities due to climate change	The environmental impact depends on the lifestyle of the University community. For this reason, the University has implemented actions to raise awareness and introduce good practices for environmental protection: promotion of public transport, adoption of a sustainable vehicle fleet, limited use of disposable plastic items, dematerialisation to reduce paper consumption, tree planting. Additional activities relate to extraordinary maintenance and building works to improve energy efficiency and environmental friendliness.

201-3	Defined benefit plan obligations and other retirement plans	All University employees are enrolled in the public pension scheme; so-called contracted employees – professional staff and foreign language instructors – can enrol in the PerseoSirio supplementary pension fund. Both are managed by the Italian National Institute for Social Security (INPS – Gestione Dipendenti Pubblici).
201-4	Financial assistance received from government	3.1 - Economic value attracted
GRI 202: N	Aarket presence	Reference to 2022 SR index and/or notes
202-1	Ratios of standard entry level wage by gender compared to local minimum wage	NA Remuneration is determined on the basis of contract categories as per the applicable collective bargaining agreements.
202-2	Proportion of senior management hired from the local community	NA The University's hiring regulations are defined by law on the basis of comparative assessment procedures and public calls for applications, and in compliance with the legislation on the right of persons with disabilities to work. 89% of the managers reside in Emilia-Romagna, specifically 75% in the province of Bologna, 6.25% in the province of Rimini, 6.25% in the province of Ravenna and 12.5% in the province of Forlì-Cesena.
GRI 203: I	ndirect economic impacts	Reference to 2022 SR index and/or notes
203-1	Infrastructure investments and services supported	<ul> <li>7.5 - Libraries (The new Navile library)</li> <li>7.6 - Museums</li> <li>7.7 - Sports and health</li> <li>8.1 - Energy policies and consumption (Photovoltaic systems)</li> <li>8.2 - Real estate (Development project - Halls of residence)</li> </ul>
203-2	Significant indirect economic impacts	<ul><li>4.5 - Student community services</li><li>8.3 - Actions for sustainability (Networks for sustainability)</li><li>5 - Research</li></ul>
GRI 204: I	Procurement practices	Reference to 2022 SR index and/or notes

204-1	Proportion of spending on local suppliers	3.2 - Economic value distributed
GRI 205: A	anti-corruption	Reference to 2022 SR index and/or notes
205-1	Operations assessed for risks related to corruption	
205-2	Communication and training about anti-corruption policies and procedures	1.1 - Identity, principles and values
205-3	Confirmed incidents of corruption and actions taken	
GRI 206: A	nti-competitive behaviour	Reference to 2022 SR index and/or notes
206-1	Legal actions for anti-competitive behaviour, anti-trust and monopoly practices	NA
GRI 207: T	ax	Reference to 2022 SR index and/or notes
207-1	Approach to tax	NA
207-2	Tax governance, control and risk management	NA

207-3	Stakeholder engagement and management of concerns related to tax	NA
207-4	Country-by-country reporting	NA
GRI 300: E	NVIRONMENTAL ASPECTS	
GRI 301: M	laterials	Reference to 2022 SR index and/or notes
301-1	Reference to 2022 SR index and/ or notes	8.1 - Energy policies and consumption
301-1 301-2		<ul> <li>8.1 - Energy policies and consumption</li> <li>NA On average, 50% of the reams of paper purchased for the General Administration's office activities are recycled.</li> </ul>

GRI 302: E	Inergy	Reference to 2022 SR index and/or notes
302-1	Energy consumption within the organisation	
302-2	Energy consumption outside the organisation	
302-3	Energy intensity	8.1 - Energy policies and consumption
302-4	Reduction of energy consumption	
302-5	Reductions in energy requirements of products and services	
GRI 303: V	Vater and effluents	Reference to 2022 SR index and/or notes
303-1	Interactions with water as a shared resource	
303-2	Management of water discharge- related impacts	8.1 - Energy policies and consumption (Water)
303-3	Water withdrawal	The University draws water from the public aqueduct.
303-4	Water discharge	8.1 - Energy policies and consumption (Water)
303-5	Water consumption	The University draws water from the public aqueduct. Quantitative data are reported on a building-by-building basis.

GRI 304: I	Biodiversity	Reference to 2022 SR index and/or notes
304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	A limited portion of the new buildings in the Navile District, located near the Navile canal, falls within the river protection area, which is subject by law to landscape restrictions (no more than 200 m2). Similarly, the former Zuccherificio area in Cesena is partly protected by law pursuant to Legislative Decree 42/2004 (Italian Cultural Heritage and Landscape Code), under which a strip of land of 150 m off the banks or berms of the rivers listed in the relevant consolidated act is considered of landscape interest.
304-2	Significant impacts of activities, products and services on biodiversity	The University's activities are mainly carried out in built-up areas, where no significant impacts on biodiversity are generated. Agricultural scientific research, which involves carrying out land cultivation activities for agricultural purposes, has a negligible impact on biodiversity.
304-3	Habitats protected or restored	The University's work to upgrade green spaces and create nature trails for pedestrians and cyclists in the Navile District is important for biodiversity as it helps recover the Navile canal's function as an ecological corridor.
304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations	The University's activities are mainly carried out in built-up areas, where no significant impacts on biodiversity are generated. Agricultural scientific research, which involves carrying out land cultivation activities for agricultural purposes, has a negligible impact on biodiversity.

GRI 305:	Emissions	Reference to 2022 SR index and/or notes
305-1	Direct (Scope 1) GHG emissions	
305-2	Energy indirect (Scope 2) GHG emissions	8.3 - Actions for sustainability (Emissions and transport policies)
305-3	Other indirect (Scope 3) GHG emissions	
305-4	GHG emissions intensity	The figures presented are a University estimate.
305-5	Reduction of GHG emissions	
305-6	Emissions of ozone-depleting substances (ODS)	8.3 - Actions for sustainability (Emissions and transport policies)
305-7	Nitrogen oxides (NOx), sulphur oxides (SOx) and other significant air emissions	
GRI 306 a	a): Waste	Reference to 2022 SR index and/or notes
306-1	Waste generation and significant waste-related impacts	
306-2	Management of significant waste- related impacts	
306-3	Waste generated	8.3 - Actions for sustainability (Waste policies and management)
306-4	Waste diverted from disposal	
306-5	Waste directed to disposal	

GRI 306 (b	): Effluents and waste	Reference to 2022 SR index and/or notes
306-3	Significant spills	A spill control and clean-up procedure is in place for workplace spills, as per the chemical and biological risk management manuals. For accident reporting purposes, reference is made to the University procedure for the management of accidents and near misses, which also records reported and confirmed occurrences.
GRI 308: Su	applier environmental assessment	Reference to 2022 SR index and/or notes
308-1	New suppliers that were screened using environmental criteria	
308-2	Negative environmental impacts in the supply chain and actions taken	3.2 - Value distributed (Green procurement)
GRI 400: 5	SOCIAL ASPECTS	
GRI 401: F	Employment	Reference to 2022 SR index and/or notes
<b>GRI 401: E</b> 401-1	Employment New employee hires and employee turnover	Reference to 2022 SR index and/or notes         6.1 - Teaching and Research Staff         6.2 - Professional Staff
	New employee hires and	6.1 - Teaching and Research Staff
401-1	New employee hires and employee turnover Benefits provided to full-time employees that are not provided to temporary or part-time	<ul> <li>6.1 - Teaching and Research Staff</li> <li>6.2 - Professional Staff</li> <li>6.1 - Teaching and Research Staff</li> <li>6.2 - Professional Staff</li> </ul>
401-1 401-2 401-3	New employee hires and employee turnover Benefits provided to full-time employees that are not provided to temporary or part-time employees	<ul> <li>6.1 - Teaching and Research Staff</li> <li>6.2 - Professional Staff</li> <li>6.1 - Teaching and Research Staff</li> <li>6.2 - Professional Staff</li> <li>6.4 - Organisational well-being</li> <li>6.1 - Teaching and Research Staff</li> </ul>

GRI 403: Occupational health and safety		Reference to 2022 SR index and/or notes	
403-1	Occupational health and safety management system	Legislative Decree 81/08 – The management system is set out and described in Chapter 1 of the Health and Safety Manual published on the University's intranet page.	
403-2	Hazard identification, risk assessment and incident investigation	The University draws up a General Policy Document at its annual meeting (Article 35, Legislative Decree 81/08). The competency requirements of personnel carrying out risk assessments are checked every year, pursuant to Legislative Decree 81/08. This is an internal audit based on training requirements. Each document is complete with an improvement programme and a schedule of assessments. Workers undertake the training courses required by Legislative Decree 81/08 and are aware of who is in charge of these roles at each facility. With regard to retaliation, they can turn to multiple figures (Ombudsman, Confidential Counsellor, etc.) and actions are taken in accordance with the Code of Ethics (Article 9). Article 33, paragraph 2 of Legislative Decree 81/08 – "The members of the prevention and protection service are bound to secrecy with regard to the work processes of which they become awar in the performance of their duties under this legislative decree. Incident management procedure (P11/SPP)"	
403-3 Occupational health services		The service does not report the main types of occupational diseases. NA workplace hazards that pose occupational disease risks are not relevant to the service.	
403-4	Worker participation, consultation and communication on occupational health and safety	The Occupational Health Centre carries out worker health surveillance pursuant to Legislative Decrees 81/2008 and 101/2020. The Prevention and Protection Service is tasked with performing risk assessment, identifying the hazards a the University and promoting safety in all respects. The Occupational Health Centre cooperates with the Prevention and Protection Service for the purpose of protecting workers' health, as set out in Article 25, paragraph 1(a) of Legislative Decree 81/2008.	
403-5	Worker training on occupational health and safety	The report presented at the annual meeting (Article 35 of Legislative Decree 81/08) includes the Annual APOS Report (in conjunction with the meeting) and the Prevention and Protection Service (SPP) Training Plan.	
403-6	Promotion of worker health	6.2 - Professional staff policies - Unisalute health insurance policy	
403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	Application of Article 26 of Legislative Decree 81/08 with procedure P08/SPP.	
403-8	Workers covered by an occupational health and safety management system	The way occupational health and safety is managed in the University is set out in P01/SPP and in the Regulations on occupational health and safety (Rector's Decree no. 87 of 7 February 2013, as amended), also referred to in Chapter 1 of the Health and Safety Manual.	
403-9	Work-related injuries	6.4 Organisational well-being - Health and safety	

403-10	Work-related ill health	The task of the Occupational Health Physician is not to identify and remove hazards, or minimise risks, except in the sense of protecting each worker by means of medical examinations and the expression of suitability judgments that may provide for prescriptive or restrictive measures. The Occupational Health Centre carries out worker health surveillance pursuant to Legislative Decrees 81/2008 and 101/2020. The Prevention and Protection Service is tasked with performing risk assessment, identifying the hazards at the University and promoting safety in all respects. The Occupational Health Centre cooperates with the Prevention and Protection Service for the purpose of protecting workers' health, as set out in Article 25, paragraph 1(a) of Legislative Decree 81/2008: "The Occupational Health Physician works alongside the Employer and the Prevention and Protection Service in the assessment of risks, also for the purpose of planning health surveillance, where necessary, in the preparation and implementation of measures for the protection of the psychological and physical integrity and health of workers, in workers' training and education on matters within his/her competence, and in the organisation of the first aid service, considering the specific type of work and exposure and the peculiar work organisation methods. He/she also contributes to the implementation and enhancement of voluntary 'health promotion' programmes in accordance with the principles of social responsibility."	
GRI 404: Training and education		Reference to 2022 SR index and/or notes	
404-1	Average hours of training per year per employee	6.2 - Professional Staff - Professional staff policies (for more details please refer to the 2022 Gender Equality Report	
404-2	Programmes for upgrading employee skills and transition assistance programmes	6.2 - Professional Staff	
404-3	Percentage of employees receiving regular performance and career development reviews		
GRI 405: D	iversity and equal opportunity	Reference to 2022 SR index and/or notes	
405-1	Diversity of governance bodies and employees	6.3 - Gender and citizenship (for more details please refer to the 2022 Gender Equality Report)	
405-2	Ratio of basic salary and remuneration of women to men	For more details please refer to the 2022 Gender Equality Report	
GRI 406: Non-discrimination		Reference to 2022 SR index and/or notes	

406-1 Incidents of discrimination and corrective actions taken		In 2022, the Confidential Counsellor was reported incidents, to support and resolve which the necessary actions were taken.	
GRI 407: Freedom of association and collective bargaining		Reference to 2022 SR index and/or notes	
407-1 Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk		Considering that the University's activities are mainly carried out in Italy, compliance with current legislation already protects workers' rights in terms of freedom of association and collective bargaining.	
GRI 408: Child labour		Reference to 2022 SR index and/or notes	
408-1 Operations and suppliers at significant risk for incidents of child labour		This is covered by compliance with national legislation on labour rights.	
GRI 409: Forced or compulsory labour		Reference to 2022 SR index and/or notes	
409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labour		This is covered by compliance with national legislation on labour rights	
GRI 410: Security practices		Reference to 2022 SR index and/or notes	
410-1	Security personnel trained in human rights policies or procedures	Given the type of activity carried out, the University does not come into direct contact with situations where human rights may be violated, as hiring practices and in general all operations take place in compliance with national laws that already protect these rights. The University, however, provides training on human rights to all possible stakeholders inside and outside Alma Mater. 4.3 - Education on diversity, gender and human rights	
GRI 411: Rights of indigenous peoples		Reference to 2022 SR index and/or notes	

411-1	Incidents of violations involving rights of indigenous peoples	Given the type of activity carried out, the University does not come into direct contact with situations where human rights may be violated, as hiring practices and in general all operations take place in compliance with national laws t already protect these rights. The University, however, provides training on human rights to all possible stakeholders inside and outside Alma Mater and is committed to promoting respect for human rights through teaching, international projects and its procurement policy (social clause, 3.2 - Economic value distributed). 4.3 - Education on diversity, gender and human rights 7.2 - International dimension (Projects, agreements and activities)	
GRI 413: Lo	ocal communities	Reference to 2022 SR index and/or notes	
413-1	Operations with local community engagement, impact assessments and development programmes	7.1 Relations with the local community	
413-2 Operations with significant actual and potential negative impacts on local communities		8.3 Actions for sustainability (Emissions and transport policies - Waste policies and management)	
GRI 414: Supplier social assessment		Reference to 2022 SR index and/or notes	
414-1	New suppliers that were screened using social criteria	2.2 Free manie velue distributed (Decoursement melion)	
414-2	Negative social impacts in the supply chain and actions taken	- 3.2 Economic value distributed (Procurement policy)	
GRI 415: Public policy		Reference to 2022 SR index and/or notes	
415-1	Political contributions	NA	
GRI 416: Customer health and safety		Reference to 2022 SR index and/or notes	

416-1       Assessment of the h safety impacts of pr service categories         Incidents of non-cc	npliance h and safety	conomic value distributed (Procurement policy - Green procurement)	
	npliance h and safety	conomic value distributed (Procurement policy - Green procurement)	
416-2 concerning the heat impacts of products	and services	3.2 Economic value distributed (Procurement policy - Green procurement)	
GRI 417: Marketing and labelling	Refe	Reference to 2022 SR index and/or notes	
417-1 Requirements for p service information	oduct and adver and labelling regar autho criter the U mana	University's programme catalogue and services are published on the University website. The University lies with the provisions of the current national legislation on marketing and advertising. It complies with lative Decree no. 208 dated 8 November 2021 (Consolidated act on audiovisual media services), and reports advertising costs incurred to the Italian Communications Regulatory Authority. In its communications and tising messages, the University of Bologna observes the principles set out in its Code of Ethics (page 10), as ds the image that the University wishes to convey internally and externally. The Regulations governing the orisation for temporary use of premises of Alma Mater Studiorum – University of Bologna set out specific ia for authorising third-party concessionaires to use University premises for advertising purposes. Finally, niversity Brand and Sponsorships Committee is tasked with monitoring the use of the University Brand and ging sponsorships, in compliance with the University Identity System and related Guidelines approved by the d of Governors on 26/03/2013.	
417-2 Incidents of non-cc concerning produc information and la	and service NA		
417-3 Incidents of non-co concerning market communications			
GRI 418: Customer privacy		Reference to 2022 SR index and/or notes	
418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data		University aims to ensure that the personal data of its students, employees and any other subject who has a onship with it is processed in a correct and transparent manner, pursuant to Regulation (EU) 2016/679.	

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# Scientific Technical Committee for Sustainability and Coordination Group on Reporting

The Sustainability Report was designed by the University of Bologna's **Scientific Technical Committee for Sustainability**, composed of: Rebecca Levy Orelli, Delegate for Budget and Planning, Federico Condello, Delegate for Institutional Communications and the Students, Giacomo Bergamini, Delegate for Sustainability, Maurizio Marano, Associate Professor, Federica Farneti, Associate Professor, and Camilla Valentini, Head of the University Planning and Data Analysis Unit.

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