

Higher Education Institutions transforming societies through Sustainable

Development: the comprehensive approach of the University of Bologna

Research project

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Higher Education and the 2030 Agenda

Even before the adoption of the 2030 Agenda¹ in late 2015, higher education and more broadly academia, has been included in the discussion on sustainable development. This evidence in the reading of United Nation's General Assembly Resolution A/RES/66/288, well known as 'The Future We Want', which set the basis for the creation of today's development trajectory². Paragraph 235 of this resolution explicitly calls for support of educational institutions, especially of higher education institutions (HIEs) to conduct research and innovation for sustainable development "geared to bridging skills gaps for advancing national sustainable development objectives"³.

A significant role of educational institutions and scholars also emerged from the following debate that gave birth to the 17 SDGs⁴. Arguably, the linkage between higher education and the 2030 Agenda has become closer with the shift from the 2000 Millennium Development Goals (MDGs) to the 2015 Sustainable Development Goals. While in the MDGs, higher education was feebly mentioned in goal number 3 aimed to achieve gender parity, the SDGs in contrast offer a more extensive reference at Goal number 4 titled 'ensure inclusive and equitable quality education and promote lifelong learning opportunities for all'. More specifically, higher education finds place in five targets under Goal 4. Direct tackling of this objective is in target 4.3 which states "equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university", and 4.B "substantially expand globally the number of scholarships available [...] for enrolment in higher education...", while indirect references are in target 4.4 "number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship", 4.5 "eliminate gender disparities in education and ensure equal access to all levels of education", and 4.7 "ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development".

Following the adoption of Agenda 2030, educational institutions have been engaging in a variety of actions and initiatives one hand and on the other have provided inputs to or been tackled by international tools for further exploring the relationship between them and sustainable development. To this extent, it is relevant to consider the Higher Education Sustainability Initiative (HESI)⁵ for the first set of actions and the FFA - Education 2030 Framework for Action⁶ for the latter. Moreover, linking higher education with Goal 4 would offer a too limited and an insufficient picture of the topic in the interconnected world of the 21st Century. Hence, higher education plays a significant direct role in many other fields inter alia, good health and well-being (Goal 3), gender equality (Goal 5), decent work and economic growth (Goal 8), industry, innovation and infrastructures (Goal 9), reduced inequalities (Goal 10), sustainable cities and communities (Goal 11), and partnerships for the goals (Goal 17). The choice of this set of Goals is not accidental, as they, together with Goal 4 have been included in the 2016-2018 Strategic Plan of the University of Bologna. As the 2030 Agenda

is not merely a set of 17 goals, rather a harmonic plan of action, Bologna University has therefore taken action by merging the SDGs with its vision, mission, positioning analysis, and community goals.

Perspectives and Actions of the University of Bologna

The plan of action in this regard has initiated from three main considerations.

First, a complex range of teaching activities conducted throughout a multi-campus system requires a synergy that increasingly generates interaction between the cities, departments and Schools where the courses are set. Therefore, it is pivotal to improve and to expand facilities and spaces where teaching and research activities are carried out. Second, Bologna University feels the need to increasingly become a major laboratory of ideas for sharing with other players active in its local area in the fields of industry, business and cultural investment. A multi-stakeholders net of partnerships is one of the answers to understand the present and to face the challenges that tomorrow will bring. Third, the University is aware of the importance of consolidating the already existing dense web of relationships with HEIs all over the world to make the many forms of knowledge locally developed interact with those of other realities and cultures. All these, together with the recognition of the value that education has in the development of every country, led to a progressively wider line of reasoning on the real function of the Alma Mater Studiorum in the achievement of the 17 SDGs. Considering that the University of Bologna is a leading academic institution in Europe and worldwide, the discussion soon questioned the broader role of HE broadly asking the questions: Where and how the University set itself in the demanding path toward sustainability? What is its role both internally and externally? How can the university meaningfully benefit from the full embracement of the SDGs in its strategy and the implementation of this strategy?

These questions are pressing universities to confirm their accountability to society under conditions of constantly changing and reorienting paradigms. Driven by these questions, a debate was conducted within the University of Bologna. While the focus on teaching and research remains primary, the aim to set sustainability as a propulsive push for the betterment of the institution and its communities, goes further and beyond this traditional mandate of the university. Indeed, the Alma Mater has significantly broadened the sphere of application of the sustainable perspective by incorporating it in all its governance actions.

In order to carry out a strategic planning that puts issues related to sustainable development at the center of the university's governance action, the Alma Mater developed the Strategic Plan with an articulating its objectives and strategies according to the 17 SDGs and the related 169 targets. In the first experimentation of the new strategic planning methodology, each basic objective of the Strategic Plan was associated with one or more objectives identified in the 2030 Agenda. This association was represented through the inclusion of the icon related to the associated SDG with which the University of Bologna intended to contribute. The weak point is that when the university started this new approach it had incomplete and non-systematic quantitative data relating to the strategic and operational objectives on the 17 goals of 2030 Agenda. Lacking a historical basis for measuring sustainability performance presented a limitation of the 2016-2018 strategic plan since it was difficult to define indicators and objectives directly linked to the 2030 Agenda except for a limited number of SDGs. In 2017, using data from 2016 and previous years, the Alma Mater prepared the first reporting document measuring the impact of the university on each SDG. In 2018 the second report was compiled, and the compilation of the third edition report was in progress at the time of writing this chapter. The acquisition of a historical database and the learning on how to measure the impact of the university to the 2030 Agenda, is an indispensable condition to improving the planning process pertaining to the university's sustainability strategy. The new planning process involves a diagnosis phase important to fully understand the reality within which the University operates and the resources at its disposal to operate at the desired level. From the process it was decided to develop an internal analysis of the strengths and

weaknesses of the university's sustainability and an external analysis of the risks and opportunities given by the context in which the University of Bologna operates.

The strengths have been identified as the characteristics for which the University stands out in a positive sense. While the weaknesses are the features that present room for improvement. Opportunities were then identified as the external factors that the university can grasp to improve its sustainability positioning. Finally, the risks are external factors that constitute a constraint in the University's operations, or events that can negatively influence sustainability performance.

On the light of these findings, the next section will develop the precise methodology on which the university's report on SDGs is built upon.

The UN Report on Sustainable Development Goals (SDGs)

As earlier reported, the University of Bologna Report on United Nations Sustainable Development Goals to date has been published twice, for 2016 and 2017. For the purpose of this explanation, reference will be mainly made to the latest edition of the Report⁷, which was prepared from April 2018 to July 2018. The data presented refer to 2017, as well as academic year 2017/18 for training data.

The Scientific and Technical Committee for Social Reporting – appointed by the University Board of Directors has formulated the report with the support of the ARAG – Evaluation and Strategic Planning Unit, and the ARTEC – Communication Unit. In order to fully comprehend the cross-sector nature of the study, it is relevant to catch the diversity of the Committee which comprises: the Rector; the Deputy Rector and the National Coordinator for Italy for the UI GreenMetric Network; Delegates on Budget, on Occupational well-being, and on Building and Sustainability; the coordinator of the Alma Mater Technical Group for H2020; Chair of the Guarantee Committee for Equal Opportunities, Employee Wellbeing and Non-Discrimination at Work – CUG; Pro Rectors on International Relations and on Digital Technologies; the Member of Network of Universities for Sustainable Development (RUS) for University of Bologna; Director General; Head of Administrative Division - ARAG - Finance and Subsidiaries Division; Head of Administrative Division - APOS – Personnel Division; Head of Administrative Division - AUTC – Buildings and Sustainability Division.

The report presents the key figures of the University of Bologna, followed by 17 sections dedicated to each SDG. The sections define the direct and indirect impact of the university's activities in their four dimensions - training, research, Third Mission and institution – in order to measure their contribution to the advancement of the 2030 Agenda. A single goal is reported using a set of metrics specifically formulated to match and integrate with the institutional documents adapted by the University of Bologna.

First, under the dimension of training three items are measured: course units, students and collaborations. Course units indicate the link between the single course unit of a study program and the 17 SDGs. The relevant data come from a survey conducted through an on-line procedure asking to all teachers to identify the links. Up to 95% of the course units have been found a link with at least one SDG. The number of students who could chose a course unit linked with the taken SDG is then reported, together with the number of collaborations, teaching and mobility projects active in 2017 and listed by continent of implementation. Some SDG sheet is also integrated with further data, such as Goal 8 (Decent work and economic growth) reporting the percentage of graduates employed⁸. Second, the dimension of research presents six items: publications in Scopus, "cited by" in Scopus, H index, publications per capita (international and national benchmark), and H2020-FP7 Research Projects⁹. In order to extract the number of publications from the Scopus database, a research has been conducted considering all articles from 2007 to 2017 containing a specific sequence of keywords chosen for each SDG (considering all its targets) and an author affiliated with the University of Bologna. The "cited by" in Scopus derives from the number of documents that have cited the author for a document's publication in the database. The H-index, developed by the physician Jorge Eduardo Hirsh, counts the highest number of papers having at least the same number of citations. It expresses an easy to read 1:1

relationship between publishing articles and citations, useful in the medium-long term of e.g. a career, to define the level of global citation, in terms of scientific production of an author. In the report it is used to measure the scientific output of the University of Bologna, using the keywords' clusters, extracted from each SDG, to contain, cross and limit its topics and objectives. The procedure has the advantage that, once the keywords selected and the Boolean operators applied are fixed, it can be repeated year by year giving the same results (or updated in case of new citations) and gives affordable results if different Institutions are compared. The main limit of the use of this procedure is that it excludes the non-bibliometric sectors. After a long discussion and the consideration of different proposals and databases to rate the non-bibliometric sectors, none of the possible methods actually available to measure the contribution of the non-bibliometric sectors was agreed to be universally used as a valid and sufficiently updated national or international reference and the Scientific and Technical Committee agreed, till a solution will be found, by to accept and declare this limit.

The international benchmarking standards includes universities within the top 10 European Universities ranked in QS World Universities Ranking 2017/2018¹⁰ comparable to the University of Bologna in terms of: size (XL – more than 30,000 students), focus (FC – all 5 QS faculty areas, including the school of medicine, Research Intensity (Very High - more than 13,000 publications in the last 5 years), and Status (Public). The total number of articles was determined as described in the item publications in Scopus¹¹. The national benchmarking follows the parameters used for the selection of the international one: three Italian universities were selected from the first 400 in the same ranking¹².

The dimension of the Third Mission, referring to the role of the University in knowledge society, mainly indicates the numerical level of cooperation and social engagement research projects that are active worldwide, but also – as a non-exhaustive list - students and teachers on lifelong learning programmes (SDG 4), spin off and start-ups born by academic entrepreneurship (SDG 8), and events with public engagement (SDG 11). The fourth dimension intended to measure the institution's overall performance, displays concrete results (e.g. the reduction of water consumption in a three-year period – SDG 6; the solar energy produced – SDG 7) or data connected to a topic (e.g. institutional accountability and transparency – SDG 16). Further elements of harder classification are reported under the last two dimensions. Among these are the patents¹³, including new plant varieties, and other projects the University is involved in such as the participation into the Magna Charta Observatory) or has created e.g. AlmaEngage or Unibo4Refugees.

The Report is presented in a very attractive layout for reading and comprehension of data making the tool accessible to all readers. This presentation style affords quick reading given the difficulties that non-expert readers sometimes encounter with such reports which are sometimes extremely long, detailed and confusing. However, these quick read reports should give enough information and pointers to move towards stated objectives annually. For a deeper understanding, a reading of the full document is recommended.

Pathway toward the Report on UN Sustainable Development Goals

A broad and cross-disciplinary vision has been driving the governance bodies and units in the scrutiny of the University's status quo while not forgetting to read in depth the relationship between the institution and all its stakeholders. This section will provide an overview on the Alma2021 portal, the Social Responsibility Report, the Gender Equality Annual Report, and the Gender Equality Plan.

The first tool to consider in this framework is the Alma2021 on-line portal¹⁴ which sets out the actions that are intended to implement the Strategic Plan and essentially summarizes the planning processes followed by the university's governing bodies and departments. The website¹⁵ reports on the policy decisions made, the processes of governance implemented within the academic community and outside, the commitments made, and the results achieved. Thus, Alma2021 has a dynamic shape deriving from the continuous inputs provided throughout the University, the adoption of new ideas and the adaption of institutional policies and

strategies along the way. This dynamism is expressed through a regular update and a live interaction with all the parties involved. Actions listed in the Alma2021 platform are organized in major categories that are easy to understand e.g. international", public & social engagement and digital agenda among others. With a zoom-in path, the user accesses a content finding highlighted the SDGs or a single goal, its related actions. The logo on display links directly to the UN information box on the SDGs. This linkage does not simply hint the subject the action deals with, it explicates the inner relationship with the aim of achieving the Goal itself.

Finally, the Alma2021 platform, keenly wanted by the Rector Professor Francesco Ubertini at the beginning of its mandate, seeks to be a transparent and systemic tool for communicating the progress made by the governors towards achieving – at the same pace – the objectives of the Strategic Plan and those of the Sustainable Development Agenda.

A second tool deserving attention in this treatise is the Social Responsibility report, which has been published annually since 2012. The report has become a flagship document for the university management, and it reached its 6th edition subtitled "Value of the use of knowledge for the community and the territory"¹⁶.

The Social Responsibility report consist of an extensive publication covering the economic, social, and environmental effects of the entirety of the University fields of action: identity, strategy and governance structure; accounting, asset and properties; activities and results (including research and teaching); procurement policies and impact on the environment. The editing of the report follows a meticulous methodology made of precise data and time references. Hence, its completion gets sharpened year by year thanks to a tenacious investment of time and resources, and to the feedback of the increasing number of readers, from inside and outside the University environment. In the same way the report precisely sums up the annual life of the University. It also generates an active debate and stimulates a critical discussion on the direction the institution should take in the future i.e. the next review year. This virtuous circle indicates the transparency end of the document that has been validated to an even stronger extent by the recent sharing of data sets the report is grounded on in the University open data portal. This way, not just a policy of open science is fostered, but also that of open government. It is significant to point out that the Scientific Committee in charge of the work on the report, coincides with the one managing the Report on the UN SDGs this chapter focuses on. The complex activity of reporting has gradually involved all university entities at different levels (principle of inclusivity), which consented to identify the most relevant activities and data (principle of materiality) in order to allow an evaluation of the full performance of the institution (principle of completeness). These principles, together with that of a balanced reporting, have been and are the driving standards of all the analysis carried out by the University of Bologna regarding its own actions that are taken in the context of the Report on the UN SDGs.

The University's stand for gender equality has been translated into two meaningful tools: the Gender Equality Annual Report, and the Gender Equality Plan. The Gender Equality Annual Report¹⁷, started with reference to the year 2015, is a voluntarily published document that gives account of the studying, researching and working opportunities within the Alma Mater from a gender perspective. Conceived under the aegis of the CUG – Guarantee Committee for Equal Opportunities, Work Wellbeing and Non-Discrimination at Work initiative is today. The last edition of the Report used, for the first time, the UGII – University Gender Inequality Index¹⁸ expresses, through a single value, the distance between gender balance at the University and hypothetical perfect equality. The report is organized in the following four sections: (i) Regulations and bodies in charge for the promotion of equal opportunities; (ii) Positive Actions Plan and initiatives implemented; (iii) Gender composition at the University of Bologna; and (iv) Investments made for the promotion of equal opportunities. The third section presents an analysis of the context through disaggregates data of all the universities components - students, teaching staff, technical and administrative staff – and the women representation in university bodies and top positions in research and teaching. Moving to the Gender

Equality Plan (GEP), it becomes clear how the University of Bologna's adhesion to the 2030 Agenda is shaped by global goals that go far beyond the boundaries of the university itself.

This brief outline, despite excluding several other resources the University of Bologna has been producing over years, evidently captures the pre-existing vocation of the University to the single contents of the 2030 Agenda.

Given this inner setting, as integral part of the Alma Mater's identity and spread through its governance, the drive time that brought to the Report on the UN SDGs has been the Environment Ministerial Meeting of the G7 held in Bologna in June 2017. The Report was launched ahead of the gathering of the Ministers of Environment of the seven most industrialized countries: the presentation demonstrated not only the value of the HE's commitment for sustainability, but also the novelty of Bologna approach.

The novelty of Bologna approach: objectives of the research project

The innovation in adopting the United Nations Sustainable Development Goals as a reporting framework carries two main elements. First is the political choice behind the full inclusion of the 2030 Agenda in the University strategy; and second the setting of the SDGs as driving standards, rather than mere parameters of analysis. These positions are the product of a long process of reflection directed to answer the overriding question: how to measure the status of compliance of such a complex institution to push the community to commit to sustainability, and how to harmonize the implementing actions?

The answer came with reversing the usual paradigm. Instead of identifying the SDGs' targets and indicators that would fall into the University actions, the alternative was to consider the actions that could deliver on the SDGs and to re-design the university strategy to conform accordingly. This approach of not turning the narrative but the operations upside down required a strong push from the highest levels of governance in the university, and a deep process of reforming the conventional measurement criteria. Although complex, the process was smooth and the measurement of social, environmental and economic impact of the university read through the 17 SDGs, the University of Bologna has started a new Strategic Plan for 2019-2021 developing initiatives and projects described in a web site entirely dedicated to the 2030 Agenda called "AlmaGoals"¹⁹. "AlmaGoals" establishes actions and measures both at the wide-campus level and also at the single-campus level with three-year objectives. The AlmaGoals initiative is accompanied by a new model for communicating the "Social Responsibility and Sustainability" (RSS) strategy and for promoting discussion and dialogue with all interested parties.

While the University has moved some steps forward in providing sustainable strategies, a number of questions remains open. Therefore, the objectives of this research project are connected to the following point:

- contributes to raising awareness on the broad sphere of application of the SDGs and its targets within the University of Bologna. It starts with a process of basic literacy on sustainability and develops in a systematic action of inner dissemination of the culture of sustainability. The entire university system therefore becomes the subject through which sustainability permeates in the activities of research and teaching and in the Third Mission;
- the experience generates an external interest, bringing a competitive push that impacts other universities in turn giving birth to new partnerships at national and international level, brought the University of Bologna closer to the global community in terms of dissemination of the SDGs;

The Alma Mater comprehensive approach to sustainability in the perspective of the Sustainable Development Goals generates virtuous processes with implications on one hand on the internal sphere of the university and on the other on the external one.

Fig. 1 Cycle of sustainability at the Alma Mater Studiorum – Università di Bologna

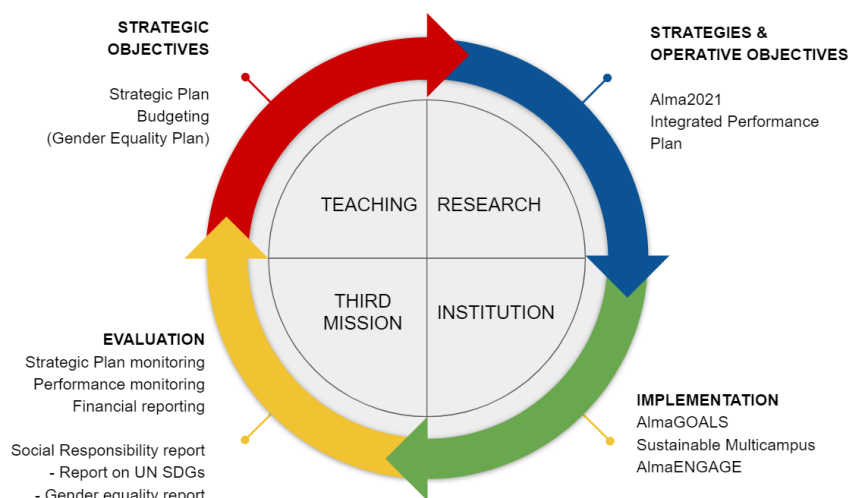


Figure 1 simplifies the cycle of sustainability retracing the line of reasoning followed until this point, by displaying the broader picture where the described actions are to be inscribed. Strategic objectives, set by the Strategic Plans, the budgeting and the GEP are translated into strategies: while the open access platform Alma2021 sets the vision of development for the Alma Mater, the Integrated Performance Plan rules over the management operations of the technical administrative divisions run by the Director General. By reflecting this step and through the means of implementations, an in-depth evaluation is carried through the corresponding monitoring of the set objectives. The monitoring tackles the objectives of the governance (Strategic Plan monitoring), the management (Performance monitoring), as well as the financial ones (Financial reporting), and is complemented by the specific tools on sustainability.

From integrating the SDGs into the major strategies of the university as a complex organization, the implementation of those strategies is fed by creative life forces the entire community is entitled and empowered to contribute to. The application of the SDGs and its targets within the institution allowed on one hand to catalyze a process of basic literacy on sustainability and of inner dissemination of SD culture. This point is confirmed by the fact that education on sustainable development (ESD) is currently being included into the mandatory training for new employees.

At the same time, developing tools to monitor and then evaluate performances in terms of sustainability is highly increasing the accountability of university units and structures, and therefore their future accomplishments. Following a positive trend, more ambitious goals can be set and therefore all the present and future components of the institution can benefit from this internal process of paradigms shifting.

However, it is appropriate to specify a few weaknesses. As an ongoing process, subject to the constant transformations of the society in a globalized world, the methodologies are to be regularly sharpened. Applicable indicators need to be adjusted to offer comparable results and confront the hardship in collecting and elaborating data. A useful example is offered by the recent discussion on the necessity to anticipate the annual issuing of the Report on the UN SDGs to harmonize its dissemination with that of other reporting documents with the aim to provide an updated and timely picture of the university results.

Dealing with external implications of the approach, findings have demonstrated over the years a strengthening of the accountability towards all the relevant stakeholders. In the first place among other HEIs, the Alma Mater has greatly contributed to the birth of new positive networks, at both the international and

national level. Internationally, UNA Europa has been established in 2019 as an alliance of eight European universities to build with special consultative status at the United Nations Economic and Social Council (UN ECOSOC). Nationally, the Alma Mater has contributed to the establishment of RUS – Italian University. The network represents a tool for coordination and sharing among all Italian universities committed to sustainability in all its shades. The main purpose of the Network is to spread the culture and good practices on SD, both inside and outside the Universities and to strengthen the recognition and value of the Italian experience at international level.

The SDG communication strategy

The research project will then develop and implement the University of Bologna communication strategy related to SDGs alongside the whole Cycle of sustainability at the Alma Mater Studiorum – Università di Bologna. This communication strategy perfectly fits with the Public engagement strategy that the University of Bologna needs to pursue in order to disseminate to the whole society the impact of its activities.

The SDG communication strategy will thus define:

- The positioning and communication objectives to achieve in the medium term (why)
- The target (who)
 - o Internal target
 - o External target

Then, for each target, the communication strategy will develop the tactics related to:

- Content (what)
- Channels of distribution (where)
- Timing of tactics (when)

The communication plan will be developed in annual plans and will also identify tools and methods for analysing and measuring the impact of communication activities.

¹ United Nations General Assembly Resolution 70/2015 “Transforming our world: The 2030 Agenda for Sustainable Development”, U.N. Doc. A/RES/70/1 (Oct. 21, 2015).

² More properly reference must be made to the outcome document of the United Nations Conference on Sustainable Development (held in Rio de Janeiro from 20 to 22 June 2012), entitled “The future we want”, annexed to the mentioned resolution, U.N. Doc. A/CONF.216/L.1

³ United Nations General Assembly Res. 66/288, 45, U.N. Doc. A/RES/66/288 (Jul. 27, 2012).

⁴ Dodds, F. & Amb. Donoghue, D. & Roesch, J.L. (2016) Negotiating the Sustainable Development Goals: A transformational agenda for an insecure world. New York, NY: Routledge Taylor & Francis Group.

⁵ Partnership between UNDESA, UNESCO, UNEP, UN PRME initiative, UNU, UN-HABITAT, UNCTAD and UNITAR collects commitments from over 300 universities from around the world and provides higher education institutions with a unique interface between higher education, science, and policy making. UN (2016) <https://sustainabledevelopment.un.org/sdinaction/hesi> accessed 28th February 2019.

⁶ Result of the Incheon Declaration, outcome of the World Education Forum 2015 convened in Incheon, Republic of Korea by UNESCO with the support of other IGOs.

⁷ The full report is available in the attachments menu at <https://www.unibo.it/en/university/who-we-are/report-on-un-sdg> accessed April 1st 2019

⁸ 69.7% in 2017

⁹ The number of FP7 [EU 7th Framework Programme for Research and Technological Development 2007-2013], H2020 [EU Horizon 2020 2014-2020] research projects active on 2017.

¹⁰ UCL (University College London) UK; The University of Manchester UK; Ludwig-Maximilians-Universität München – DE; Sorbonne University – FR; University of Copenhagen – DK; Katholieke Universiteit Leuven – BE; University of Leeds – UK; Utrecht University – NL; University of Ghent – BE; Rheinisch-Westfälische Technische Hochschule Aachen – DE.

¹¹ The total number of articles for each university and each goal was scaled against the number of academic staffs as listed by QS for the World University Ranking 2016/2017 and published on www.topuniversities.com. By doing so, we eliminated any dimensional effect caused by simply considering the total number of publications. Finally, for each goal we compared the University of Bologna's ratio with the average of the ratios for the 10 universities in the benchmark group. The result is the index number "benchmark = 100"; an index number higher than 100 means that "per capita publications" by UNIBO academics is higher than the average of the universities in the international benchmark group. If the index is lower than 100, UNIBO academic productivity is lower than the benchmark.

¹² Sapienza – Università di Roma (UNIROMA1); Università degli Studi di Padova (UNIPD); Università degli Studi di Milano (UNIMI). The Scopus research criteria and the index number calculation criteria were the same as that of international benchmarking.

¹³ The number of active patents and vegetal varieties registered in 2017 by the university (both ownership and co-ownership), including their various international extensions.

¹⁴ Unibo, Alma2021 <http://alma2021.unibo.it/en> accessed 29th March 2019.

¹⁵ Unibo, Alma2021 <http://alma2021.unibo.it/en> accessed 29th March 2019.

¹⁶ Unibo, Social Responsibility Report 2017 <https://www.unibo.it/en/university/who-we-are/Social-Responsibility-Report/social-Responsibility-report> accessed 29th March 2019.

¹⁷ Unibo, Gender Equality Annual Report 2017 <https://www.unibo.it/en/university/who-we-are/gender-budgeting/gender-equality-annual-report-2017> accessed 29th March 2019.

¹⁸ Mignoli, G. P., Siboni, B. P., Rignanese, P., Valentini, C., & Toschi, T. G. (2018, August 10). UGII – University Gender Inequality Index. A proposal from the University of Bologna. *OSF Preprints*. <https://doi.org/10.31219/osf.io/kfg6m>.

¹⁹ Unibo, AlmaGoals <https://site.unibo.it/almagoals/en> accessed 5th April 2019