

Bocconi

SOCIETY, EUROPE AND FUTURE

ADDRESS FOR THE ACADEMIC YEAR
OPENING CEREMONY 2020-2021

**HUMAN CAPITAL,
DIGITAL TRANSFORMATION,
SUSTAINABILITY:
LAUNCHING
THE DESIGN OF THE FUTURE**

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HUMAN CAPITAL, DIGITAL TRANSFORMATION, SUSTAINABILITY: LAUNCHING THE DESIGN OF THE FUTURE

FOREWORD: BEYOND THE PANDEMIC

I don't think it is an exaggeration to maintain that the external shock produced by the Covid-19 pandemic has increased everyone's awareness of how fragile human beings, and modern society in general, are. In spite of significant scientific, technological and economic progress throughout the twentieth century and into the start of this one, in the space of a few weeks the whole world was brought to a halt due to the spread of a virus which, even a year after its appearance, we still don't know how to stop.¹ Unlike other international political crises or worldwide economic recessions, it is interesting to find how few scientists and strategists from among the hundreds of *think tanks* and institutes dedicated to *long-term* dynamics had imagined a scenario of this kind to be probable.² A scenario that, in terms of national and regional economic damage and number of deaths, is objectively comparable to a world war. It is in fact interesting to note in this situation that Bocconi, like universities everywhere, had previously only interrupted in-person lessons during the two world wars of the last century.

Retrospectively, therefore, it should be no surprise that the political reaction has been difficult to coordinate both nationally and internationally. At the outset, Covid-19 acted like a tsunami and the reaction times, especially in Western democracies which – fortunately – are maintained by complex institutional mechanisms, could not be as quick and efficient as such an aggressive enemy, so different from traditional ones. A clever enemy, one that knew how to sow divisions among citizens, causing debates that juxtapose the value of political choices and the need for science-based practical decisions; that counterpose the rhetoric of individual rights with State powers; that place health and the economy in a competitive stance, instead of a complementary one. These battles are objectively harder to resolve in a context of global cooperation that has been weakened in the last five years by nationalist and sovereigntist politicians in various parts of the world. Also contributing to the confusion is a new media context dominated by social networks which instead of objectively representing reality, often act as detonators of complexity, adding the fuel of an infodemic to a pandemic already in flames.

While it honestly seems unfair to criticize the initial work of many governments, as time goes by it is becoming increasingly difficult to hide the disappointment in most countries due to inadequate planning for the advent of the so-called "second wave of the pandemic". In Italy, for example, in spite of all good intentions and the planning carried out,³ the implementation has lacked the scope to suitably equip essential sectors such as health care, schools and public transport. Unlike what has been done by businesses and universities around the world to entirely reorganize over the summer and start up again in September with blended forms of *working from home* and distance learning, other sectors – in particular the public sector – look as though inertia has allowed an unjustified optimism to prevail.

¹ Confirming this statement is the fact that the main world scientific journals, above all *Science* and *Nature*, have for the first time created dedicated sections with preferential lanes for the publication of updates on the subject in question to instantly share the discoveries of researchers in various parts of the world. "

² Some of the rare cases that can be retrospectively highlighted are Professor Eric Toner from *Johns Hopkins Center for Health Security* who produced an epidemiological model published in 2019 by World Economic Forum and Melissa & Bill Gates Foundation and the scientific journalist David Quammen, the author of *Spillover*. Please see: David Quammen *Spillover: Animal Infections and the Next Human Pandemic*, W.W. Norton, 2012; Aria Bendix, "Health experts issued an ominous warning about a coronavirus pandemic 3 months ago. The virus in their simulation killed 65 million people", *Business Insider*, Jan 24 2020.

³ The good intentions were also seen in the drafting of the so-called "Colao Plan", completed before the summer for the reopening and new start of businesses in Phase 2 and Phase 3, and focused on some of the crucial turning points of the reopening.

Allow me to note how disconcerting it has been to observe the spectacle of certain scientists who have fallen into the media trap of overstating what science can legitimately affirm on the subject.⁴

Looking ahead, we hope that the total or partial *lockdowns* imposed in various countries can reduce the recent spike in infections, that effective treatments will be discovered, and that one or more of the pharmaceutical teams competing to perfect a vaccine can manage to produce one on a large scale in 2021, as seems likely. All these hopes emphasize how important it is to think about the future and plan it carefully.

On this matter, it must be said that if a period of expansion follows every economic recession, a shock of this size and gravity will presumably lead to an expansion of similar proportions and importance. This is not so much because the shock affects supply – among other things – but most of all because it also impacts demand, which has been severely limited by the various restrictions that are the hallmark of this period.⁵

The postwar period of the twentieth century is confirmation of this phenomenon. The great conflict made way for a period of flourishing growth during which the Europe we know today was shaped and consolidated, and Italy rebuilt itself to unleash the entrepreneurship that has made us a major player internationally. Even the period of the “Cold War” and the dark years of terrorism that our country experienced in the 1970s are confirmation of this. A path of globalization like no other, not just in the twentieth century, but in the whole of humanity, began after these events. After the exogenous shock created by the pandemic, there will very probably be a significant period of expansion and prosperity. The reinstatement of international mobility, strengthened by new digital infrastructure that Covid-19 has forced us to master, will allow recovery and growth that will be even faster and more imposing than what took place following other recent crises.

All this will be possible, however, under one condition: whether what we are learning in these months will be transformed into tangible change aimed at introducing innovation. Schumpeter’s Theory of Innovation proves this. It was developed during the Second Industrial Revolution, when electricity rebuilt the economy in all twentieth-century industries. It states that times of crisis are the periods that favor the most radical innovations for those entrepreneurs and nations that know how to make the most of them.⁶ Only by innovating and searching for new economic and social opportunities along the path of today’s Fourth Industrial Revolution will it be possible to realize the full value of the natural post-pandemic expansion.

There is, however, one question for those looking to innovate: companies notoriously have fewer economic-financial resources in times of economic crisis.⁷ Therefore, one may ask how it is possible to innovate in a context of inadequate resources like the current one. More than anyone else, the European Union has luckily understood the urgency of this matter. In addition to stimulating a constructive, collaborative spirit among the states during the pandemic, it has also literally acted as a lighthouse in the storm created by Covid, redesigning the European Green Deal of January 2020 and aiming to make Europe the first *carbon-neutral* continent by 2050 with the new *recovery fund* named the *Next Generation EU Fund*, approved in April 2020.

The Recovery Fund has been formed along the two pillars of innovation that the Fourth Industrial Revolution has dictated: “digital transformation” and “environmental transformation”, built on the cornerstone of “human capital”, which is nothing other than a construct for defining the skills and

⁴ On this topic, we can look at some observations in the journal *Nature*: Nic Fleming “Coronavirus misinformation, and how scientists can help to fight it”, *Nature*, June 20 2020.

⁵ On a trial basis, confirmation has come from the third quarter of GDP growth that Italy, France and Spain have just recorded: the bigger the lockdown, the greater the growth in GDP on reopening.

⁶ Schumpeter J.A., 1918, 1934, 1982. *The Theory of Economic Development. An inquiry into profits, capital, credit, interest and the business cycle*. Transaction Publishers, London.

⁷ Archibugi D., Filippetti A., 2011. *Innovation and Economic Crisis: Lessons and Prospects from the Economic Downturn*. London: Routledge.

leadership of those who must lead the two transformational challenges. It must also be stated here that if allocation of the Recovery Fund is entrusted to political consent it will necessarily exclude many companies and institutions. So it is vital to recall that at this historical moment of excess financial liquidity, big investors are increasingly in search of institutions and companies that have potential for growth. Over the next several months, growth can only come through innovation deriving from the digital era's exploitation of big and small data and from research into solutions to the environmental and social challenges that the pursuit of sustainability has brought to light.

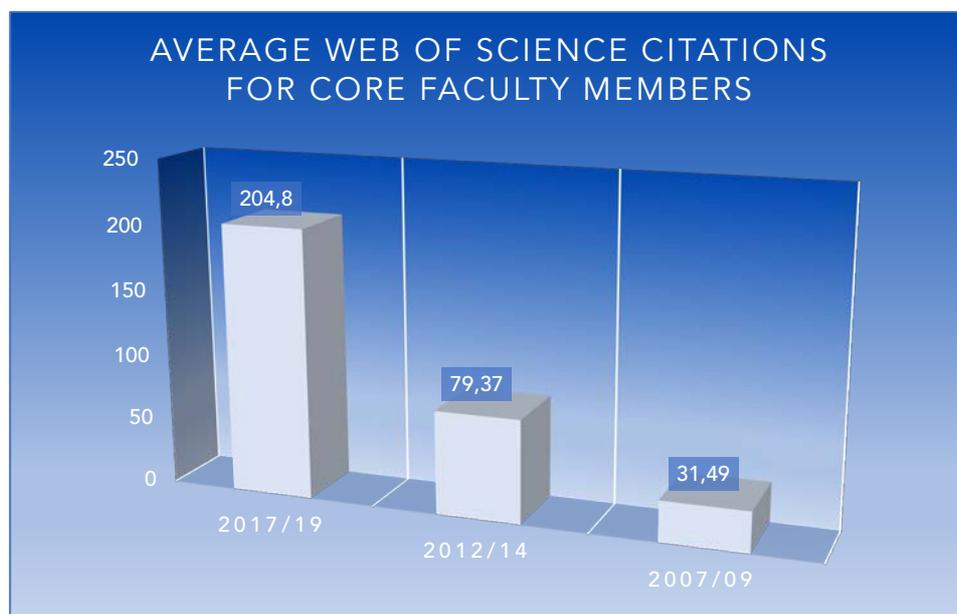
Now more than ever in the past, it is necessary to invest in human capital, digital transformation and sustainability. I like to look at the effort put forth by the Bocconi ecosystem in 2020 in terms of these three lines of action. It is an effort that will be further consolidated in Vision 2030 and in the Strategic Plan 2021-2025 just approved by our University Board.

HUMAN CAPITAL NOW MORE THAN EVER

The strength of a modern university resides in its human capital. More specifically, it rides on both the quality of the faculty's teaching and scientific research, and on the skills applied to ensure that the coming generations can enter an increasingly complex and competitive labor market. If well implemented, these two components attract talented, scholarly, ambitious students, over time generating a virtuous circle.

A photograph of the relative strength of a university is provided by the main international rankings, that measure the parameters with which the academic activities of research, teaching and service are carried out. In 2020, in addition to confirming its position as fourth university in Europe and sixteenth in the world in social sciences in the *QS Rankings* – a status corroborated for the first time by the prestigious *US News* with fifth place in Europe and eighteenth in the world – we succeeded in gaining a place on the podium in the rankings of the best business schools in Europe for the first time, with SDA Bocconi School of Management taking third place in the *Financial Times* rankings.

These results depend primarily on our teaching faculty's scientific production, the three main indicators of which (citations, H Index and number of articles published in band A+) have constantly grown in recent years. In particular, the average Web of Science Citations per core faculty lecturer grew from 79.37 for the 2012-2014 three-year period to 204.8 for the 2017-2019 three-year period, with an increase, therefore, of 158%.



At the same time, the H Index also grew. This is the index used to quantify a researcher's productivity and scientific impact, based on their number of publications, and on the number of citations received. There was a 42.35% increase between 2015 and 2020, changing from 9.94 to 14.15.



The number of scientific articles published in band A+ journals also grew, changing overall from 85 in the 2012-2014 three-year period to 103 in the 2017-2019 three-year period, a 21% increase.

The quality of Bocconi research and its researchers is also proved by the university's ability to attract funding and win important international grants. There have been 37 *European Research Council* grants hosted since 2007, a figure that puts us in third place in the panel most directly related to us, that of Economics, Finance and Management. Today, there are 20 active grants hosted at Bocconi: there were 5 in 2010, an increase of 300%.

This year, Professor Dirk Hovy, a Computer Science expert, was awarded an "*ERC Starting Grant*" thanks to the *INTEGRATOR (Incorporating Demographic Factors into Natural Language Processing Models)* project, that aims to make it possible to design NLP systems that also take demographic aspects into consideration. This year too, the SDA Bocconi School of Management CERGAS program has also had its value recognized by finalizing two important agreements with such prestigious entities as the *Bill & Melinda Gates Foundation (BMGF)* and *The Global Fund (in collaboration with the Liverpool School of Tropical Medicine, Centre for Maternal Health)* that respectively aim to assess the impact of *electronic Logistic Management Information Systems (eLMIS)* and the Electronic Immunization Register (EIR) in 4 developing nations, and also a cross-border project for the economic evaluation of integrated pre-natal and post-natal treatment for HIV, tuberculosis and malaria in 3 African nations.

Bocconi has increased its ability to consistently win international and national grants from public sources. The table shows the number of active funded projects in the three calendar years referred to, and the overall budget for Bocconi. In particular, to date in 2020, new calls for proposals acquired thanks to international, European and national calls total over 9 million Euro. For their constant commitment to promoting and organizing this University activity, I thank Professor Jerome Adda, Dean for Research, and the Academic Services staff.

	2020	2015	2010
no. projects	70	44	15
Budget in Euro	39,068,098	18,937,881	6,089,772

However, innovation in human capital skills also requires new perspectives and the continuous entry into the faculty of new professors, who are its essential lifeblood. With the new entries and their distribution by gender, age and nationality, we have achieved the objectives contained in the Strategic Plan 2016-2020 and we will soon begin the more ambitious objectives of the Strategic Plan 2021-2025 that has just been approved, and which will bring the faculty to 470 members in 2025.

More specifically, during the current academic year, thanks to the hard work of Dean of the Faculty Francesco Billari, the Department Heads, and the Faculty and Staff Administration, Bocconi has further increased its faculty by hiring 22 new professors, including 4 Full Professors:

- Ronald Stuart Burt, University of Chicago.
- Marta Cartabia, President Emeritus of the Constitutional Court, Milan-Bicocca University.
- Sonja Opper, Lund University.
- Giuseppe Savaré, University of Pavia.

and 18 Assistant Professors:

- Uri Barnea, The Wharton School of the University of Pennsylvania.
- Enrico Basile, Bocconi University.
- Nicolò Cavalli, Nuffield College, Oxford.
- Alexia Delfino, London School of Economics and Political Science.
- Stefano Fiorin, UCSD Rady School of Management.
- Valeria Giacomini, USC Marshall.
- Giulia Giupponi, Institute for Fiscal Studies in London.
- Elena Gramano, Università degli Studi Roma Tre.
- Alessandro Iorio, Carnegie Mellon University, Tepper School of Business.
- Hao Jiang, Tulane University Law School.
- Harsh Ketkar, University of Michigan.
- Hugo Lavenant, University of British Columbia.
- Kurt Munz, New York University, Stern School of Business.
- Alessandro Romano, China-EU School of Law.
- Carlo Rasmus Schwarz, University of Warwick.
- Feng Tangren, University of Michigan.
- Luigi Testa, Institute of European and Comparative Law, Oxford.
- Roberto Vincenzi, London Business School.

Including these new entries, our core faculty now comprises 376 professors, 20% of whom are international (+ 36% compared to five years ago) and over 31% women. A significant increase has been the number of female Full Professors, who have increased by 113% in the last 5 years, from 7% to the current 14.9%. Four of our female colleagues have been the protagonists of important acknowledgments this year in their relative scientific associations:

- Professor Maristella Botticini, appointed Vice President of the EEA, European Economic Association, will be President in 2023.
- Professor Elena Carletti, appointed Vice President of the EFA, European Finance Association, will be President in 2022.
- Professor Annalisa Prencipe, appointed President Elect of the EAA, European Accounting Association, will be President in 2021.
- Professor Aleksandra Torbica, appointed President of the AIES, the Italian Health Economics Association.

Again, this year another four professors have achieved prestigious appointments in band A+ journals:

- Mario Daniele Amore, Business Strategy Associate Editor of *Management Science*.
- Eliana La Ferrara, Associate Editor of *Econometrica*.
- Alfonso Gambardella, Business Strategy Department Editor of *Management Science*.
- Antonio Lijoi, Associate Editor of the *Journal of the American Statistical Association*.

However, the quality of human capital and the underlying ranking results can also be found in other indicators that concern the selection of new students and their value in the labor market after completing their academic path at our university.

The selection of new Bocconi students (Undergraduate School, Graduate School, School of Law) has overall stabilized at a ratio of 1 to 5. For the 2020-2021 academic year, 18,208 students applied, 50% more compared to 2015-2016. In the last 5 years, our attractiveness for international students has grown by +154.7%. The consolidation of our PhD School's reputation has attracted an increasing number of candidates. Again, over the last 5 years, applications have increased by 47%, from 522 to 767. These results were made possible thanks to the commitment of the School Deans, the Program Directors and the staff in the Students Organizational Unit.

In addition to offering the experience of an innovative teaching path in modern social sciences, regardless of the choice of field of application, a feature of Bocconi's educational path is that it favors international exposure during the study curriculum. In fact, international perspective and experience have always been Bocconi's pride and priority. Proof of this are the 282 partner universities (there were 254 five years ago) and the presence as a founder and dynamic member of 10 university networks (there were 4 five years ago), including CIVICA, a new model collaboration between *European universities*, founded as part of the *European Universities project by the European Commission*, and which counts the *London School of Economics and Political Science*, *Sciences Po*, *European University Institute*, *Stockholm School of Economics*, *Central European University*, *Hertie School of Business* and *National University of Political Studies and Public Administration* among its members. In 2020, CIVICA entered the implementation phase of its offer to students, providing both *joint courses*, which share content and are taught by professors from different universities, and a catalog of online courses, promoted by the eight partner universities and offered to all students in the consortium, in addition to a common course entitled *Europeanship Multi Campus Course*. For the work done for this important area of the University, I thank Professor Stefano Caselli, Dean for International Affairs, and the International Relations staff.

As confirmation of the effectiveness of the route taken, employment rates among our graduates now stand at 95.7%, including an all-time record for international *placements*, 31.1% this year.

DIGITAL TRANSFORMATION NOW MORE THAN EVER

The Fourth Industrial Revolution that we are experiencing right now, combined with the advent of Covid-19, requires structures and capacity for innovation focused on digital transformation. It is more essential than ever before to develop and disseminate the skills that will allow future generations to integrate big data with careers of the future. There are three areas that we have worked constantly on in 2020: the development of programs concerning digital transformation, the new blended learning and digital student services.

✓ Digital Content

Starting out from our longstanding skills in the field of Social Sciences, that are increasingly influenced by *Computer and Data Science*, Bocconi has been cultivating research and teaching in this new essential area of the world of big data for some years now. We have continued our path into the digital

world by launching a fifth study program, the *Bachelor in Mathematical and Computing Sciences for Artificial Intelligence*, which began this past September and that runs alongside these related programs:

- *Bachelor of Science in Economics and Management of Computer Science* in its fourth edition.
- *Master of Science in Data Science and Business Analytics* in its third edition.
- *Master of Science in Cyber Risk Strategy and Governance*, created with the Polytechnic University of Milan, now in its second edition.
- *LLM in Law of Internet Technology*, also in its second edition.

Simultaneously this year, as part of a review of the study plan for the degree program in Law, we wanted to broaden this area of studies even more, just as we had done in all the Undergraduate and Graduate programs. We therefore made *Coding* courses and *Critical Thinking* seminars mandatory, as an essential skill for navigating and choosing in the increasingly complex digital world. Of the four new elective courses, in line with more current topics, we also included a course in Digital Emerging Technologies and the Law.

To cultivate the entrepreneurship required for the Fourth Industrial Revolution, our accelerator *B4i (Bocconi 4 innovation)*, that we set up to support and fund impactful *startups*, selected 12 startups for the acceleration program and 35 for the pre-acceleration program, out of 439 candidates in the first two calls. Proof of the auspicious beginnings of our acceleration program comes from the data on the growth of the first 5 accelerated startups (Doctors in Italy, Duing, Endelea, Qi4M, Viamadeinitaly), that completed their B4i path in full lockdown from March to July. These are enterprises that in just a few months have hired 10 new employees, and whose turnover has increased up to 300% on an annual basis. These are data that will certainly encourage new entrepreneurs to take part in the third call that is currently open and will end on January 7th. Although young, our accelerator's reputation has grown rapidly in the innovation ecosystem. Technical partners such as Plug&Play, Kilometro Rosso and Invitalia have joined our three institutional partners (*Italian Institute of Technology, Polytechnic University of Milan, University of Milan*). From this academic year, B4i and SDA Bocconi School of Management will launch a new initiative to complete a project in this field: Innovation and *Corporate Entrepreneurship Center (ICE)*. The new center aims to support the development of innovation opportunities in public and private companies and institutions, providing them with personalized research and training paths. ICE will be headed by Professor Markus Venzin, Dean for Innovation.

✓ Digital Education

More than anything else, 2020 has been dedicated to developing remote learning, that is the quintessence of the digital transformation in higher education. The weekend of February 22nd will long remain in the memory of the entire Bocconi community, and of the Milan and Lombardy universities in general. During that long weekend, the Lombardy University Rectors' Coordination group took the difficult decision to interrupt in-person teaching as of the following Monday, to combat the spread of the virus, several days ahead of the national lockdown announced on March 8th.

The reaction was immediate. On Monday the 24th, we were the first Italian university to hold virtual lessons with the *MBA* students at SDA Bocconi School of Management, and within a week, all the Undergraduate School, the Graduate School, the Law School and the PhD program followed suit. We were not improvising, however. All Bocconi courses have had a digital container for the last 3 years. The container incorporates the *BBoard* platform, and the digital agenda *yoU&B* has allowed personalized interaction with individual students since the year 2000. Thanks to the work coordinated by our educational center, *BUILT - Bocconi University Innovations in Learning and Teaching*, led by Professor Leonardo Caporarello, we managed to organize our "crisis teaching", with the introduction of enhanced syllabi, streamed lessons, recorded courses, and a general redefinition of the work path for classes. This reaction was possible because the Coronavirus did not catch us unprepared, as we could make use of a digital structure and culture developed over the years: even prior to the epidemic, 30% of lessons at the University involved digital activities, and in the last two years, 40% of professors had taken part in

specific training for this very purpose. In 2019, SDA Bocconi had launched its portfolio of courses on demand, referred to by the press as the “Netflix of learning”. This innovative spirit in our professors can be seen in the award for teaching innovation that we gave to those members of faculty this year who, long before Covid, had introduced important new features into their courses. These were then revealed to be vital experiences during this pandemic, such as online exams, online mid-term tests, virtual discussion classes, *challenges* carried out on platforms and based on online databases.

The second semester of the 2019-2020 academic year was mostly held remotely, in all three phases of university life: lessons, exams, graduation sessions. The effort made by the five School Deans, Professor Antonella Carù, Professor Andrea Fosfuri, Professor Annalisa Prencipe, Professor Pietro Sirena and Professor Giuseppe Soda, by the professors and the staff of Technology and Academic Services can be summarized in these indicators:

- Almost 20 million minutes of video lessons viewed.
- over 10,000 videos uploaded (viewed more than 1.1 million times).
- 10,000 students who have followed at least one of the 8,500 live sessions.
- 95,000 online exams.
- 2,074 online degrees.

The innovation introduced during lockdown, the result of our experience, creativity and resilience, has been a training ground for organizing educational activities for this academic year, using a “blended” model, again as the first Italian university to return to the classroom on August 24th, and moving to full remote teaching from October 26th, at the end of the first term, due to the rising regional and national infection levels. During the first term, we therefore made sure that our students could attend at least 50% of their educational program in person and safely, using the rooms at 50% capacity. The teaching model adopted has provided for three different types of lessons (all available on the digital platform):

- 70% of classes (amounting to 426) held lessons in person and attended with weekly shifts.
- 12% (71 classes) held lessons online for the theoretical parts and in person, in small groups, for the applied parts and those requiring more interaction between students and the professor and among students themselves.
- 18% of classes (112) were online only, in particular those for subjects that are suited to a full digital immersion, such as some *Computer Science* courses.

The innovations developed and introduced during these times of crises have become the basis for the new teaching model that Bocconi is designing for its future, and that is one of the objectives contained in the Strategic Plan 2021-2025. The new model will combine in-person teaching with digital, creating a new enhanced way of learning and teaching, where the professor will increasingly be the “coach” and will guide students around the content and media, with much attention placed on interaction and swapping of experiences.

If university teaching has undergone a transformation, the executive market of digital courses has seen a sharp rise. Being able to count on a new library of digital courses in Italian and English that were fully redesigned in 2019-2020 (17 in the catalog), SDA Bocconi School of Management has seen a 100% growth in enrollments in this market segment for the online programs on demand, compared to 2019. SDA Bocconi has also finalized two new partnerships for on demand distribution with the platforms *Emeritus* and *GetSmarter*, two of the largest international providers of online courses. In 2021, exclusively on GetSmarter, four new courses in English will be launched in asynchronous mode. These will be in *Sustainable Fashion*, *Sales Management*, *Business Administration* and *Blockchains*.

The offer of *MOOCs*, *Massive Open Online Courses*, will also increase on the *Coursera* platform. Courses are fully online, accessible for anyone, in English, Spanish and Arabic, on both specific sectors and on aspects of management such as leadership or corporate CSR management. On 16 November of this year,

we launched the 12th *MOOC: Management of International Development: Towards the 2030 Agenda*, that addresses the concept of international development by analyzing the opportunities and challenges in the various subject areas. The faculty member in charge is Alexander Maximilian Hiedemann, EMMIO Program Coordinator of SDA Bocconi.

✓ Digital Services

However, the digital transformation brought about by Covid has also extended to the essential services offered to students for their extra-curricular activities. With movement curbed for most of the year and the mass introduction of working from home in companies and institutions, another three essential dimensions of our students' educational path have also been revolutionized: the international experience, entry into the world of work and events in the Bocconi world.

With particular reference to exchanges, the introduction of *Virtual Exchanges* for students from partner universities has meant that we could host 282 students during the current semester. Although not able to travel to Milan, they have been experiencing Bocconi academic life, sharing lessons, group work and assignments with enrolled students, benefiting from all the student support services. In the second semester of the year, the same exchange mode will be offered to our students.

Thanks to its presence in the *GNAM* network, founded by Yale University, Bocconi has also introduced the new *SNOCs (Small Network Online Courses)* format, that is full-immersion elective courses that require the joint participation of students from all the universities in the network, with the formation of mixed work groups. The International Management students took part in the first SNOCs during the fall semester, and Bocconi will offer its first SNOC in the second semester, on the topic of *Private Equity & Venture Capital*.

Like teaching, our Career Service has also had to adapt to the rules dictated by the Coronavirus. None of the traditional appointments that bring our undergraduate, graduating and graduate students in contact with the world of work, up to three years after graduating, have been abandoned. Students have had every resource available, from the *In Company Training to Recruiting Dates* and the *Bocconi& Jobs* career event to all the activities supporting career choices, to guide their decisions for their futures. The various formats have been redesigned to be held online. And so, since the end of February, 181 recruiting and career advice initiatives have been organized onlinenet, involving 696 employers and 16,507 students and graduates.

Lastly, our events have also been transformed. These are a vital element for the exchange of ideas among researchers from around the world who are involved in the seminars organized by our eight Departments. Events are a tool for scientific divulgation and the involvement of all Bocconi stakeholders, not least Milan's citizens. Overall, the Bocconi ecosystem – from the university to the alumni community – has organized over 700 webinars and online events. I would like to mention two of these in particular, due to their relevance and impact. With the help of the *Econometric Society*, the most prestigious economics association, instead of looking at the writing on the wall and canceling the world conference planned for August on the new campus, we held a conference with more than 4000 people from 80 nations, all connected remotely. This was thanks to the team coordinated by Professor Massimiliano Marcellino. It was the most inclusive conference we have ever organized: in the previous edition, 5 years ago, there were 1,600 participants. In October we virtually hosted the *47th Global Conference of the PIM Network*, the oldest network of schools and universities. This event involved the Deans and Directors of 67 partner universities, all called upon to discuss the future of higher education in the post-pandemic era.

SUSTAINABILITY NOW MORE THAN EVER

In addition to digital technology, however, innovation must focus on enhancing the idea of environmental, social and economic sustainability that is worthy of a post-Covid society. This means a

sustainability that refers to the objectives of the Agenda 2030 for the sustainable development of the United Nations and the ideas provided by the Next Generation EU Fund. The Agenda's three dimensions and 17 objectives are closely inter-related with each other and are also applied in the strategies and goals pursued by our University. They are a basic guideline for the Strategic Plan 2021-2025 that plans to make Bocconi an even more open university, one that supports social mobility, diversity and environmental sustainability.

Leopoldo Sabbatini reminds us that our founder and the first university startupper in Italy, Ferdinando Bocconi, wanted to base Bocconi's university studies on respect for "the harmony between school and life", deducing the importance of culture and science as the foundations of a nation's economic and moral growth. His values, unchanged since 1902, of independence, meritocracy, integrity, respect, open-mindedness, pluralism and social responsibility, have now taken on a new importance in light of the principles of sustainability.

As it was for the previous two pillars, the year of Covid has also been a powerful accelerator for sustainability, indicating new paths to achieve the university's objectives.

✓ Social Sustainability

Bocconi has always been committed to guaranteeing the quality of life and safety of its community, based on the principles of diversity and inclusion. These values have found even further momentum in 2020, essential for proactively responding to the health emergency in terms of inclusion and safety.

Inclusion

As well as revealing the issue of safety to be an urgent one, the pandemic has definitively shown the global dimension of modern society, that must make sure to promote cultural and gender diversity, and inclusivity for all its members in order to be sustainable. Bocconi has chosen to be proactive here too. With the start of my third rectoral term at the beginning of this month, Professor Catherine De Vries has taken up the position of Dean for Diversity and Inclusion. Having arrived at Bocconi at the start of this year, just a few weeks prior to lockdown, she has been able to experience the strong inclusive spirit of our community in person. The goal of her appointment, which she has accepted in light of her experience as Chair of the *European Political Science Association* Diversity Committee, is to promote diversity and inclusion as fundamental principles of an open community, through the adoption of specific policies and activities, that creates innovation and cultivates excellence for society's benefit by leveraging diverse backgrounds.

Speaking of Human Capital, we have seen how much Bocconi has achieved and continues to achieve in terms of the internationalization of all its community members and of gender equality, a goal also pursued thanks to projects such as CarDev, bodies such as the POB, the Equal Opportunities Committee and specific scholarships. If we look at the data coming from the World Economic Forum, according to which in 2020 (before the pandemic crisis), the average gender gap still to be filled worldwide was 31.4%, I would like to respond with a summary of what Bocconi has achieved this year, focusing primarily on academic and professional merit:

- Silvia Candiani, President of the Bocconi Alumni Community since November.
- Alessia Melegaro, Head of the Covid Crisis Lab since May.
- Paola Profeta, Director of the AXA Research Lab on Gender Equality since November.

The first form of inclusion for a university is the promotion of merit and making university studies accessible regardless of economic obstacles. Bocconi has always been present in this field, year on year increasing its commitment, including a financial one, to the extent that last year we supported 3,700 students, which means 1 in 4 enrolled students.

In the last 5 years, this commitment to supporting financial aid for our students has increased by approximately 20%, changing from just over 25 million Euro in the 2014-2015 academic year to almost 36 million Euro as full-year forecast, for the 2020-2021 year. Ten years ago, the total was 23.5 million Euro. Simultaneously, in recent years Bocconi's contribution has increased while the public contribution has shrunk: today our contribution accounts for 82.9%, versus 66.9% 5 years ago and 54% 10 years ago.

Safety

Since the start of the pandemic, we have worked to make the campus a safe place, and have invested 3 million Euro. Since the return to the classroom at the end of August, we have:

- Distributed 45,000 surgical masks and 2,000 liters of sanitizer gel free of charge.
- Equipped the campus with six kilometers of pavement signage, 40 safety officers to make sure social distancing is observed, individual and high flow scanners (on airport models) for taking temperatures, an on-campus medical service and an ambulance with two paramedics.
- Sanitized spaces and equipment daily.
- Started up an epidemiological campaign on campus for the entire community (which includes blood tests and, if testing positive, two swab tests) and swab service at the residence halls.
- Launched a communication campaign, *Your Safety Matters*, to increase awareness among the entire community of observing the rules and responsible conduct.

These activities have all been devised and implemented by the Crisis Team which was set up last January, and by the staff of Infrastructures, Sustainability & General Services and of Corporate Marketing & Communication, with the aim of defining strategies and actions to address the evolution of the pandemic.

Thanks to this intense, thorough work, Bocconi has obtained the RINA *Biosafety Trust Certification*, a certification scheme set up to provide a set of benchmark best practices to minimize the risk of the spread of epidemics in public and private gathering places.

✓ Economic Sustainability

Every effort and every initiative that the university promotes to improve the quality of its students' and community's educational experience and life is possible thanks to its economic sustainability. Bocconi is an independent, non profit university, but which stands on its own two feet for its work and development. This is in part thanks to the reputation built up over many years, which today is the guarantee for an ever growing number of private and corporate donors that choose to support our projects in the awareness that like us, they are the protagonists of a tangible impact on societal development.

We reached an important milestone at the end of October: completion of the *Within Our Reach* fundraising campaign. When we launched it, our goal was to raise 100 million Euro, then raised to 120 million, by 2020. This goal has been reached thanks to the contributions from 3,350 donors – alumni, foundations, individuals, companies and organizations – who have wanted to invest in knowledge, young people and the future, alongside our University. This result is even more significant as it has been achieved in such a difficult year. For this and for the important work done towards community inclusion and engagement for more than 120,000 alumni, I thank Professor Bruno Busacca, Dean of Fundraising and Alumni Engagement, and Market & Partners and Alumni staff.

Thanks to the support from the Fondazione Romeo ed Enrica Invernizzi, that has supported us for years, during lockdown we launched the *Covid Crisis Labeled* by Professor Alessia Melegaro, an epidemiologist and expert in demographics and social statistics. The laboratory is characterized by the interdisciplinary nature of its approach. There are, in fact, 40 economists, statisticians, artificial

intelligence experts, demographers, politologists, legal experts and social scientists involved with the center. The laboratory works in four areas: Economics, Finance and Enterprise; Health; Society; and the Legal System, with a total of 45 ongoing projects in collaborations with the most-renowned Italian and international researchers and research centers. These projects have already produced several papers, some of which have already been published in leading scientific journals, such as *Science*, *PNAS*, *Lancet*, and *PLoS ONE*.

Again thanks to the support from Fondazione Romeo ed Enrica Invernizzi, we will in the next few months inaugurate the *European Studies Institute*, headed by Professor Eleanor Spaventa, a legal expert in European law, which will allow us to address European subjects with an interdisciplinary approach, combining law with economics, politics with artificial intelligence.

AXA Research Fund and AXA Italia, Bocconi's strategic partners, have chosen to work with us and support us in an essential research topic, that of gender equality. The new *AXA Lab in Gender Equality*, led by Professor Paola Profeta, an expert in Gender and Public Policy, aims to investigate the role of public policies in promoting gender equality, empowerment and female leadership.

In partnership with Intesa San Paolo, MilanoSesto and Prelios, we are establishing with Hines the new *Research Lab in Sustainable Regeneration*, which will be led by Professor Edoardo Croci and will investigate the new ways of creating private and social value made possible by long-term sustainable industrial development in the urban planning sector.

These new laboratories are in addition to what we have already achieved in recent years thanks to our donors. Their philanthropic commitment has increased greatly in recent years. Proof of this are the named Chairs, Research Centers and Labs, both permanent or temporary, of which there were 8 in 2010 and increased to 25 in 2019. I would like to mention the long-term named Chairs, Research Centers and Labs (in chronological order):

- *KPMG Chair in Accounting*, Professor Annalisa Prencipe (2019).
- *Intesa Sanpaolo Chair in Economics of Financial Regulation*, Professor Donato Masciandaro (2019).
- *Fondazione Achille e Giulia Boroli Chair in European Studies*, Professor Gianmarco Ottaviano (2018).
- *Associate Professorship in Economic Analysis of Crime*, Professor Paolo Pinotti (2018).
- *BNP Paribas Chair in Marketing and Service Analytics*, Professor Andrea Ordanini (2017).
- *Deutsche Bank Chair in Quantitative Finance and Asset Pricing*, Professor Carlo Favero (2016).
- *ICRIOS, The Invernizzi Center for Research on Innovation, Organization, Strategy and Entrepreneurship*, directed by Professor Stefano Breschi (2015).
- *LVMH Associate Professorship in Fashion and Luxury Management*, Professor Emanuela Prandelli (2015).
- *AIdAF-EY Chair in Family Company strategy, in memory of Alberto Falck*, Professor Guido Corbetta (2014).
- *Intesa Sanpaolo Chair in Political Economics*, Professor Guido Tabellini (2013).
- *Avvocato Giovanni Agnelli Associate Professorship in Economics*, Professor Francesco Decarolis (2013).
- *Eni Chair in Energy Markets*, Professor Michele Polo (2012).
- *Fondazione Romeo ed Enrica Invernizzi Chair in Development Economics*, Professor Eliana La Ferrara (2011).
- *AXA-Bocconi Chair in Risk*, Professor Massimo Marinacci (2011).
- *Rodolfo Debenedetti Chair in Entrepreneurship*, pending recipient (2011).
- *Carlo F. Dondena Center for Research on Social Dynamics and Public Policies*, led by Professor Marco Bonetti (2007).

In a year when, as we have already seen, Bocconi has worked to stay close to its students, support them and reward their merit, we have been able to count on important donors who, like us, believe that the nurturing of human capital is an essential lever for economic growth, social mobility and development. Thanks therefore goes to Fondazione ENEL, Citi Foundation and Fondazione Dompè for their support of students or student-related initiatives. For the same reason, I would like to thank two of our alumni who this year have chosen to support the new generations of Bocconi students, demonstrating a great desire to give back: Diego and Monica Piacentini and Niccolò Colussi.

Together with them, I would like to thank the many people who showed their support during the Within Our Reach campaign. Please allow me to mention a few of them:

- Massimiliano and Mary Cagliero, Vittorio Colao, Mario Garraffo, Luciano Gobbi, Luca Mignini, Riccardo Monti, Davide Serra, Claudio Zampa: our alumni who not only have strong links with their Alma Mater but who are also active testimonials and important donors for the campaign.
- Roberto Bertazzoni, Antonella Merloni and Claudia Segre: who, while not alumni, have embraced our values and commitment for the continuing development of cutting-edge research and human capital.
- Carlo Abbagnano who, in addition to the already mentioned Alberto Dondena, has been the protagonist of an important bequest to our University.

The thanks we extend to our supporters are even more heartfelt, as these generous people are the spearhead of our society that still shows a lack of inclination towards a culture of fundraising and giving back. Their important contribution accounts for 3% of our budget (revenue from teaching still accounts for 77%), versus an average of 23% in the leading American universities in this dimension (the percentage is 11% for public universities).⁸ By leveraging this form of funding, over the years these universities have witnessed a constant growth in their academic reputation and have placed themselves constantly at the top of all the main international rankings. That is why Bocconi will continue to work on fundraising, setting itself more challenging goals, knowing how to count on a community and stakeholders joined together in the final goal of contributing to the development of future generations and cutting-edge research. Our donors are with us in supporting *knowledge that matters*.

✓ Environmental Sustainability

In the years of Greta Thunberg's *Fridays for Future* and the European Green Deal, the awareness of how crucial environmental sustainability is and how it is such an important part of our everyday life has finally started to increase. In this dimension of sustainability too, Bocconi has chosen to be a key player, by promoting research, teaching and tangible actions for the reduction of CO₂ emissions, waste production, water consumption, the use of paper and energy consumption. At the same time, the square meters of green spaces have been increased: over 50% of the new urban campus area is parkland, making a total of 17,000 square meters.

What	2019	2017	% Difference
Energy consumption (J)	76,071	81,673	-7%
CO ₂ eq emissions	1,021	1,132	-10%
Waste production (t)	3.5	10.2	-66%
Water consumption (m ³)	130,572	144,679	-10%
Saving on use of paper (number of sheets)	976,000	895,000	+9%

⁸ Council on Governmental relations, Finances of research universities, 2014

Environmental sustainability is achieved through commitment and best practices adopted by each of us in our daily lives. This is why it is essential to spread the culture and continue with precise, targeted impact research. Bocconi has always been active here too, and some 2019 indicators point to this:

- 59% of research projects started during the year were connected with sustainability topics.
- 22% of the year's publications were on sustainability topics.
- 100 events promoted during the year were linked to sustainability.
- 3,062 students attended at least one of the 26 courses on sustainability topics.
- 15% of our graduating students have chosen to write their thesis on sustainability topics.

We take pride in the result that has continued over the years to confirm our first place in the world (above Stanford and Yale) for our *MASEM program, the Master in Sustainability and Energy Management*, directed by Professor Matteo Di Castelnuovo, in the Eduniversal rankings of master courses in Sustainable Development and Environmental Management.

I can also announce that in addition to the wealth of research activities already in place, this year, we also have the just-launched *eSG_Lab Excellence in Sustainability and Governance for SMEs*, promoted by SDA Bocconi School of Management, with important partners such as Fondazione Sodalitas, Falck Renewables and Enel Foundation.

As we have seen, sustainability for Bocconi is a long-term commitment, involving all the dimensions of our work and our community. Our vision is contained in three words:

- *Empower*, inspiring future agents of sustainable change.
- *Embrace*, continuing to develop a sustainable Bocconi.
- *Engage*, being key players in sustainability challenges.

We gathered all these thoughts and actions and set them out in our Sustainability Report, that in addition to summarizing the main indicators, also emphasizes the various phases and activities that have allowed us to achieve such important results. For its commitment, vision and constant attention to this matter, I would like to thank the *Sustainability Committee*, set up in 2013 and led by Professor Francesco Perrini.

THANKS AND CONCLUSIONS

Our commitment to investing in human capital, digital transformation and sustainability has as its primary objective to train citizens, young managers, professionals and policy makers to be able to live and act in an increasingly complex world. We teach them to be aware that a society can only function if human, social, and I would add "political" relations between individuals function. A goal to which the entire Bocconi community is committed.

Indeed, what Bocconi has achieved is the result of close management work with Managing Director Riccardo Taranto under the strategic guidance of the Executive Committee and the University Board, chaired by Mario Monti. This year, the Committee and the Board have also approved Vision 2030 and the Strategic Plan 2021-2025, fruit of the contributions ably coordinated by Vice President Andrea Sironi.

The efforts of the entire Bocconi University this year have also been stimulated by the expert advice coming from the *International Advisory Council* whose Vice President is Francesco Giavazzi, the Fund Raising Campaign Board led by Enrico Cucchiani and the *Bocconi Alumni Community*, which, as I said, has seen the passing of the torch after six years, from Riccardo Monti, who we would like to thank for his competence, passion and commitment during his term, to Silvia Candiani. I would also like to take this opportunity to thank the Istituto Javotte Bocconi Manca di Villahermosa led by Angelo Provasoli.

The results in such a complicated year are also the product of the determination and seriousness of our students, who proved to be especially cooperative and constructive during the pandemic, of the commitment of the entire faculty and staff who went beyond their comfort zones of in-person teaching and work, and of course the Academic Council and all Bocconi Managers.

Special thanks also go to our alumni, ambassadors around the world of the values and skills acquired at Bocconi, who, despite not being on campus, constantly show their connection to their Alma Mater. A prime example of this is Alumnus of the Year Andrea Enria, Chair of the ECB's Supervisory Board.

Finally, a remembrance and a last farewell to a special Bocconian: Alberto Alesina. Alberto, who passed away this year before his time, Harvard professor, for years our Tommaso Padoa Schioppa Visiting Professor, contributed through his studies to broadening the horizons of the field of economics.

Allow me to conclude by noting that Covid is a dramatic social experiment that has highlighted many challenges regarding the sustainability of capitalism. Humanity must overcome these challenges in the post-pandemic society. As Rebecca Henderson, professor at Harvard University, so effectively highlighted in her recent book, we no longer have any excuse for not rethinking some of the main mechanisms behind capitalism, which has been the principal source of prosperity in human history.⁹ In addition to unmasking critical points, the pandemic has also opened up some paths that the digital transformation will allow us to travel. It is a good thing that Europe has managed to catalyze forces and energy to provide a unique stimulus to the Union's nations. It is now up to the individual countries to make the most of the opportunity. In the world of innovation, it is known that it is in times of difficulty that we need the courage to innovate. The politicians who are drawing up the plan for Italy must have it and they must act not thinking about the immediate return to elections but about the future of the country and the generations to come. Entrepreneurs must have the courage to return to investing in their businesses. All of us must have courage. Now more than ever.

I declare that the 2020-2021 Academic Year, the one hundred and nineteenth year in our university's life, is now open.

⁹ Henderson R., 2020, Reimagining Capitalism in a World on Fire, PublicAffairs, New York.