

# **SUSTAINABILITY AT NOVA 2021**

**Facts and Figures**





# Index

A WORD FROM THE LEADERS	4	RESEARCH	13	INFRASTRUCTURES AND SERVICES	23
The School Leaders	5	Schools Overview	15	Environmental Impact	25
10 MINUTE SUMMARY	7	EDUCATION	16	Social Impact	27
SUSTAINABILITY AT NOVA	8	Schools Overview	18	Sustainability in 2022	33
NOVA Community	11	INNOVATION AND COMMUNITY	20		

# A COMPREHENSIVE UNIVERSITY

NOVA University Lisbon is a public higher education institution, with the mission of serving society at a local, regional and global level. Advancing and disseminating knowledge, promoting the understanding of cultures, societies and individuals, teaching and developing excellent research and services are NOVA activities to impact the community for the benefit of all.

Located in Lisbon area, NOVA is a comprehensive European university, including engineering and technology, humanities, medicine health and life sciences, economics and management, social sciences, law and data and information science.

NOVA's motto is to be 'a global and civic university'. The university's strategy supporting education, research and value creation, is aligned with an international agenda and partners from different continents, and is committed to benefit society, culture, and economy, by innovating and contributing to the emergent challenges of this century.

The **Sustainability at NOVA 2021- Facts and Figures** reports key indicators that characterizes NOVA activities for the year 2021. The report covers several components important for sustainability goals namely, the sustainability governance; who and how many constitute the NOVA community; how sustainability is being accomplished in research, education and innovation activities; how infrastructures and services represent regarding environmental and social impacts and closes with a priority list of actions for 2022. All numbers refer to 2021, if not told otherwise.





## João Sàágua

### RECTOR

NOVA took on the 17 Sustainable Development Goals of the United Nations and the European Ecological Pact as its main agenda for society.

This is the commitment that lies beneath our strategic vision of being a global and civic university. A challenge of enormous magnitude for NOVA, but that reflects the true challenge of the 21st century: there is no other like it.

NOVA's institutional and academic activity for sustainability began a long time ago, in a very diverse and relevant way, across all its schools, and can be grouped into three main areas: environment, society and health. These 3 areas have associated autonomous but interconnected knowledge agendas, which motivate various forms of dialogue and interdisciplinary collaboration at regional, European and global level.

We strongly believe that we have the responsibility, as part of our service to society, to promote 'sustainability' in what we teach, in the R&D we conduct and in the practices we implement, to prepare citizens, entrepreneurs, and decision makers to lead the necessary changes. This is not a choice, nor a trend, but a real necessity. Because the cost of our inaction will come with a very high cost for all of us but, especially, for the next generations.

# A WORD FROM THE LEADERS

## Júlia Seixas

### PRO-RECTOR FOR SUSTAINABILITY

NOVA University Lisbon is a global and civic university, meaning that sustainable development relies at its core purpose. Accomplishing current societal needs without compromising the ability of future generations to meet their own needs and to flourish by developing their own life projects underlies most of the education and research and innovation carried by NOVA community. NOVA acknowledges the responsibility of educating the people who will take in hands the govern and the tasks to conduct the Planet and people to a safe future.

Sustainability, including environmental, social and economic components, is a fundamental and safe value for the recovery of the quality of the Planet and the well-being of its 8 billion inhabitants. Assuming sustainability as a core value, NOVA (i) recognizes the complexity and interdisciplinarity of current challenges, to approach with a holistic perspective, (ii) is willing to leave behind the conventional mindset and actions organized in silos, inherited from the 20th century, (iii) adopts creativity and innovation as the driving force for systemic transformation, (iv) listens to and welcomes all voices, especially from vulnerable groups and young people; and (vii) allocates resources (e.g. time, effort and financial) to lead by example.

Although the current conjuncture demands short-term care and decisions, UN Sustainable Development Goals (SDG), as well as the Paris Agreement and the European Green Deal, are the instruments that inspire and guide NOVA strategy and actions to deliver long-term value and impact and prepare the next generations of leaders and professionals.

# THE SCHOOL LEADERS

## NOVA SCHOOL OF SCIENCE AND TECHNOLOGY

**"I have the privilege of running a school with scientific credentials in sustainability for decades. FCT NOVA has a strong commitment to changing organizational culture with a view to sustainable development, and a focus on training highly specialized people to face its challenges."**

José Júlio Alferes, Dean

## NOVA SCHOOL OF SOCIAL SCIENCES AND HUMANITIES

**"Our school particularly takes care of dimensions with a mindset with a sense of the future as social inequalities, cultural diversity, points of views, positions, that we must care in order to ensure a good relational health of citizens, professors, students, workers and all our community."**

Luís Baptista, Dean

## NOVA SCHOOL OF BUSINESS AND ECONOMICS

**"All do we have to change: the way we teach, what we teach, the way we research, what we research so we gain a cycle of hope, a cycle of solutions that actually work to the world and bring hope back to people."**

Daniel Traça, Dean

## NOVA MEDICAL SCHOOL

**"NMS focuses on training a new generation of health professionals of excellence, committed to sustainability and to research in interdisciplinary biomedical areas, including fundamental, translational and clinical research, oriented towards solving health problems that most affect society."**

Helena Canhão, Dean

## NOVA SCHOOL OF LAW

**"Our jurists are fully engaged citizens of the world, ready to put their skills to good use in making the world a better place. They are digital and international, but also responsible and sustainable."**

Margarida Lima Rego, Dean

## NOVA INSTITUTE OF HYGIENE AND TROPICAL MEDICINE

**"We have several activities and several projects that contribute to the SDGs, namely the laboratory with NOVA, the structure for the study of diseases transmitted by vectors, the EuCARE project with a view to identifying better procedures for better another pandemic."**

Filomena Pereira, Vice Dean

## NOVA INFORMATION MANAGEMENT SCHOOL

**"Our ambition is to manage daily in our various spheres of intervention to incorporate this dimension of sustainability and ensure that, as a community NOVA IMS, its students, its teachers, and the entire ecosystem of other public and private institutions with which we collaborate, are actors in the urgently needed change we have ahead."**

Miguel de Castro Neto, Dean

## ITQB NOVA - INSTITUTO DE TECNOLOGIA QUÍMICA E BIOLÓGICA ANTÓNIO XAVIER

**"We contribute to sustainability with fundamental and applied research with health impacts, in agriculture by helping to end hunger, in industry by replacing polluting processes with sustainable alternatives using microorganisms and plants, and in energy by using bio-based processes, microorganisms, to produce energy in a non-polluting way."**

Cláudio Soares, Dean

## NOVA NATIONAL SCHOOL OF PUBLIC HEALTH

**"We want to work at both interfaces, on the one hand, that science contributes to practice, with more effective action strategies, but on the other hand, that science contributes to health policies, thus resulting in a global translation into sustainable solutions."**

Sónia Dias, Dean



## 9 SCHOOLS AND INSTITUTES

- 1 NOVA School of Science and Technology | FCT NOVA
- 2 NOVA School of Social Sciences and Humanities | NOVA FCSH
- 3 NOVA School of Business and Economics | NOVA SBE
- 4 NOVA Medical School | NMS
- 5 NOVA School of Law
- 6 NOVA Institute of Hygiene and Tropical Medicine | IHMT NOVA
- 7 NOVA Information Management School | NOVA IMS
- 8 NOVA Institute of Chemical and Biological Technology António Xavier | ITQB NOVA
- 9 NOVA National School of Public Health | ENSP NOVA
- 10 Rectorate



## 10 MINUTE SUMMARY

### EDUCATION

A bold decision was taken in November 2021, with the unanimous adoption of the Sustainability Policy of NOVA University, which takes sustainability across education, research, innovation and value creation, and organizational practices. From top governance to the whole community, together with bottom-up initiatives from professors, researchers, students and staff, and partners as well, NOVA is paving the way to outstanding contribution to the UN Sustainable Development Goals (SGD) and the European Green Deal.

NOVA served 22 950 students in 2021, 57% in masters, 33% in undergraduate and 10% in PhD programmes, being 18% of them from abroad. An inquiry to NOVA schools showed up the education programmes offered 398 courses which addressed SGD, either focused or related, representing 10% of the total courses, being most of them from masters' curricula. SDG 3 is the most frequent, offered in all schools, topped by NMS, while SDG 11 is the second most frequent, offered in six schools topped by FCT NOVA, and SDG 16 is the third most frequent, offered in five schools, topped by NOVA SBE.

### RESEARCH

NOVA hosts 39 R&D Units, being 92% recognized as very good and excellent research units (FCT, 2019). In 2021, NOVA faculty included 2 031 professors and 838 researchers, being 40% in social science, arts and humanities, 30% in health and 30% in STEM areas. In 2021, NOVA delivered 1 550 publications (total, not only peer-reviewed) contributing directly to different SGD, accounting for 32% of the total publications, according to a classification from the Elsevier algorithm, based on the selection of specific keywords of the scientific domains associated with each SGD.

NOVA research delivers in all SGD, being SDG 3 the champion with 35% of the total SGD mentions, with contributions from all schools. SDG 4 was the second most addressed, with NOVA FCSH contributing to more than 85%, while SDG 16 ranks the third, with FCSH, NSL and IHMT with the highest contributions. SDG 7, 10, 11 and 12 were mentioned more than 100 times each in the publications from different schools, being FCT NOVA, IHMT and IMS with the highest contributions. The publications classified with SGD showed an impact 31% above the world average of all the publications classified by SGD and indexed in Scopus.

### INNOVATION AND COMMUNITY

NOVA is committed to boost academics, researchers and students to apply and maximize the impact of their expertise and research, to foster knowledge transfer and transform innovative outcomes into social and economic value.

In 2021, 2 814 students received training in entrepreneurship in several NOVA schools. Up to now, 34 sustainability related start-ups and 18 sustainability related spin-offs, were borne at NOVA. Several initiatives to engage NOVA students and researchers and its external community into competitions and events to incentivize their spirit of creating impact in society were taken in 2021, with two focused on sustainability matters, involving more than 100 people. Volunteering activities counted with 267 students, while 390 students participated in a wide range of students' organizations, most of them with direct impact in the community.

### ORGANIZATIONAL SUSTAINABILITY

NOVA performance on sustainability is key to lead by example. From a total area of 821 thousand m<sup>2</sup>, green areas occupy around 60% while ground floor use 12%. In 2021, NOVA consumed almost 5 million kWh of electricity (2% from own production) and 2,7 million kWh of gas. Together with gasoline and diesel in own fleet, NOVA energy usage emitted around 5 000 tCO<sub>2</sub>, corresponding to 187 kgCO<sub>2</sub> per capita at NOVA, which is a first estimate for future reference purpose. Caparica, Oeiras, Junqueira and Santana Campus accounted for 70% of total electricity usage at NOVA, due primarily to its energy-intensive laboratories, for research and teaching. Water consumption registered almost 200 thousand m<sup>3</sup> (15% from own resources).

Regarding social aspects, it should be mentioned 1 992 students (9% of total) received significant financial aid in 2021, and 1 003 students (10% of total graduated) were the first generation starting a degree. The canteens served more than 80 000 subsidized meals, and the three residence halls offered 53% of subsidized beds. Well-being was promoted through psychological and psychiatric appointments, and support to sports activities (142 students involved). On gender equality, women represented 49% of students and faculty, and 56% of graduated.



# SUSTAINABILITY AT NOVA





## SUSTAINABILITY AT NOVA

### GOVERNANCE

NOVA University Lisbon is a public institution of higher education, with the mission to serve society, locally and globally, through knowledge, developing education and research of excellence, with significant value. Sustainability is taken at the highest level of NOVA governance model, meaning NOVA recognizes the responsibility to change to take care of the Planet and people towards a safe future. The multiple dimensions of sustainability organized around 17 Sustainable Development Goals, must be taken across all disciplines in teaching, research and innovation, as well as in its campi and provided services. Only leading by example, NOVA's students are willing to understand and take actions to make them future leaders as demanded by society at large.

NOVA leaders, including the rector and rectoral team and the nine schools' deans, have committed themselves with high standards of sustainability for the University. The adoption of the [Sustainability Policy](#) of NOVA University by unanimity in November 2021 taking sustainability across education, research, innovation and value creation, and organizational practices was a bold decision. From top governance to the whole community, together with bottom-up initiatives from professors, researchers, students and staff, and partners as well, NOVA is paving the ambitious way to become an internationally recognized sustainable university.

### SUSTAINABLE DEVELOPMENT GOALS (SDGS)

The 2030 Agenda for Sustainable Development, adopted by all United Nations Member States in 2015, provides a shared blueprint for peace and prosperity for people and the planet, now and into the future. At its heart are the 17 Sustainable Development Goals (SDGs), which are an urgent call for action by all countries - developed and developing - in a global partnership.



Sustainability at NOVA is leveraged through the NOVA4theGlobe platform which join representatives from all NOVA Schools. The platform is organized in two councils: academic council with representatives from all schools plus a student, aiming to promote interdisciplinary collaboration across education and research; and operational council with representatives from all schools plus a student plus a representative from the social support department, aiming to increase awareness and implement organizational sustainability actions. Together, both councils share the same ambition: to transform NOVA towards a sustainable university.

#### ACADEMIC COUNCIL

- Tomás Ramos - FCT NOVA
- Ana Santos Pinto - NOVA FCSH
- Maria A. Cunha-e-Sá - NOVA SBE
- Conceição Calhau - NMS
- Claire Bright - NOVA School of Law
- Tiago Correia - IHMT NOVA
- Miguel Neto - NOVA IMS
- Nelson Saibo - ITQB NOVA
- Julian Perelman - ENSP NOVA
- Students' representative

#### OPERATIONAL COUNCIL

- Marco Lopes - FCT NOVA
- Catarina Bernardo - NOVA FCSH
- Luís V. Martins - NOVA SBE
- Vânia Coucello - NMS
- Jorge Correia - NOVA School of Law
- Isabel Craveiro - IHMT NOVA
- Sara Ribeiro - NOVA IMS
- Ana Sanchez - ITQB NOVA
- Teresa Magalhães - ENSP NOVA
- João Carreiras - SAS NOVA
- Students' representative

### SUSTAINABILITY IN THE RECTORY TEAM

Since November 2021, the Rector appointed Professor Júlia Seixas from NOVA School of Science and Technology as Pro-rector for Sustainability, to coordinate NOVA- 4theGlobe platform. NOVA University Lisbon is fully committed to contribute to the UN 2030 Sustainable Development Goals and to the Paris Agreement and European Green Deal objectives, through its missions.

## SUSTAINABILITY AT NOVA



### IMPACT RANKINGS

NOVA University assesses annually its performance on specific aspects of sustainability, by submitting information on selected SDG within the framework of Times Higher Education (THE) Impact Rankings. The 2022 Impact Rankings (fourth edition) that reports 2021 data, included 1 406 universities from 106 countries/regions.

NOVA University Lisbon ranks in the 101–200 worldwide, and 16th position among young European Higher Education Institutions. Among these, NOVA stands out in the following positions in the respective Sustainable Development Goals (SDGs):





## SUSTAINABILITY AT NOVA

### NOVA COMMUNITY

NOVA Community ("Comunidade NOVA") is part of the backbone of NOVA's development strategy, since it works daily to deliver the services behind its missions, on education, research, and innovation and value creation. Students, professors, researchers and staff are at the core of NOVA's activities, while, at a wider level, alumni and partner organizations, national and abroad, foster to effective impact in the society through a culture of open mind and innovation. Moreover, suppliers are part of NOVA community, and have a critical role to play when adopting practices and standards aligned to sustainability in the different domains. An active community is the bottom line to advance on sustainable practices across the 17 SDG. To achieve bold goals in the short to long-term, NOVA community is key to engage its members as agents for change.

  
CAMPI  
POPULATION  
**27 141**

## FACULTY

Faculty presented in headcount includes Professors and Researchers, with the mission to serve the society at the local, regional and global level, through the progress and dissemination of knowledge and understanding between cultures, societies and people, by way of a teaching and research of excellence.

  
FACULTY  
**2 869**

RESEARCHERS  
**838**

PROFESSORS  
**2 031**



FACULTY PER  
SUBJECT AREA\*:

STEM  
**853**

HEALTH  
**849**

ARTS & HUMANITIES/  
SOCIAL SCIENCES  
**849**

\*STEM: Science, Technology, Engineering and Mathematics.

## STAFF

NOVA Community of Technical Staff is the engine that supports the three pillars of NOVA's mission. This community is composed by specialized members with a wide range of different expertise and experience most critical to support the delivering of the university's education, research and value creation.

  
STAFF  
**1 139**

## STUDENTS

Students\* are the keystone of NOVA's community, including national and international. With over 113 nationalities, they are natural bearers of NOVA's brand as an University of excellence. This is the natural result of NOVA's culture of diversity and inclusion, supported by academic curricula and team-based learning, initiatives to promote integration of new entrants and sustainable-driven research. NOVA has been working to provide agency, empower and mobilizes the talent generated by NOVA to tackle complex challenges with a fresh and innovative approach and solutions. This is particularly important for the sustainability domains, on which new generations are very committed to contribute. NOVA students have already important role through curricular and extra-curricular activities with the social and private sectors, contributing actively to positive local impact in the communities where they operate.



STUDENTS  
**22 950**



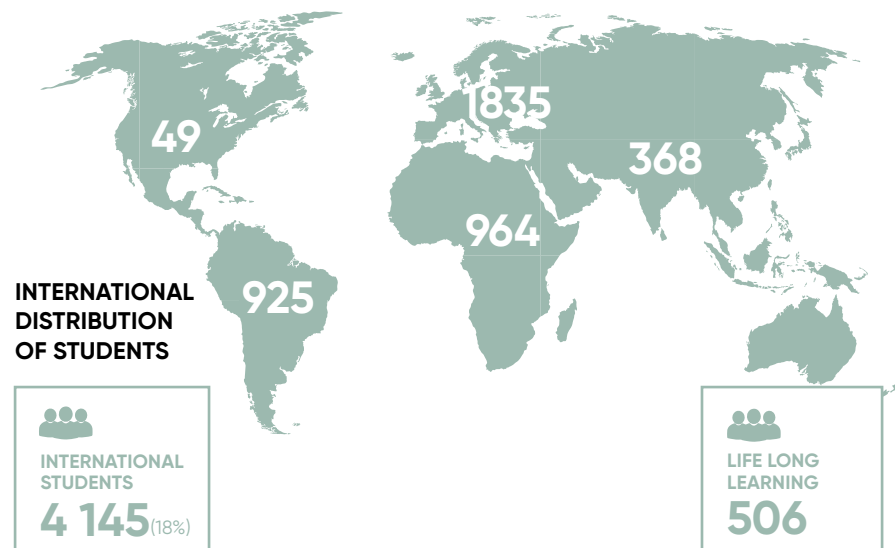
UNDERGRADUATE  
STUDENTS  
**7 506**  
(33%)



MASTER  
STUDENTS  
**13 160**  
(57%)



PhD  
STUDENTS  
**2 284**  
(10%)



\* Degree equivalent programmes except Life Long Learning

## SUSTAINABILITY AT NOVA

### NOVA COMMUNITY

### ALUMNI

The Alumni includes all those who were involved in academic and/or research programs and transformed by their experience at NOVA. They are “ambassadors” from over 113 nationalities to promote NOVA’s brand as global and a civic university. The Alumni community generates relevant externalities at various levels, as they act as mentors, “ambassadors”, lecturers, project partners, donors, active facilitators in talent recruitment and global job placement, or even social advocates. NOVA links with its Alumni through several initiatives to keep confidence and trust with their alma mater.

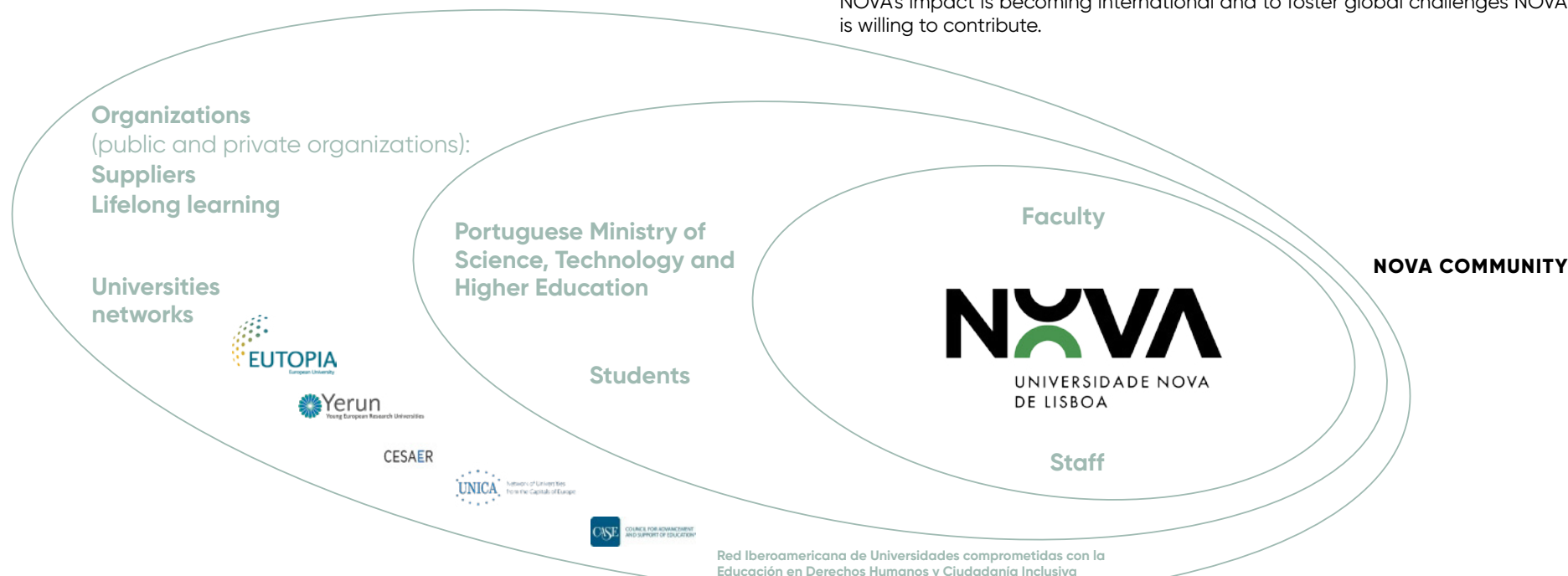


### ORGANIZATIONS

NOVA University is an open system, regulated by the Ministry of Science, Technology and Higher Education.. NOVA have set up many linkages with a plethora of different organizations, through which knowledge and innovation flow naturally, activating knowledge transfer and impact. Public and private organizations are very important for NOVA and play an important role as learning spaces, problem owners, contributing partners, and recruiters for job market placement.

Public institutions as municipalities, public policy bodies and regulators have been important partners for research and education projects, while private organizations have been key to boost applied research, executive education programmes and support as it is the case of students’ scholarships. Several NOVA schools have programmes to bring companies and other organizations to the heart of the University because NOVA believes this engagement is the engine for effective impact of its activities and missions. Many partnerships NOVA has established with organizations, national and abroad, hold up the conditions to make its activities truly competitive.

Also, the different Universities networks NOVA is part of are crucial to assure NOVA’s impact is becoming international and to foster global challenges NOVA is willing to contribute.





# RESEARCH



Sustainability requires a systemic approach focused on knowledge and on technological and social innovation. Universities create the perfect environment to achieve excellence to tackle complex, dynamic and long-term problems that usually characterize sustainable development.

## RESEARCH AT NOVA

In NOVA's case, research is motivated by the challenge of tackling societal problems and offers a comprehensive understanding of effective solutions to accomplish the targets. Leading by example, NOVA is committed towards common goals and recognises the importance of a sustainable approach moving forward. NOVA impact is entailed by a multi- and interdisciplinary and disruptive research community, thus placing NOVA in a unique position. Through high-quality research, NOVA creates momentum to raise awareness and capacity building, and produce knowledge that contributes for the development a more inclusive and sustainable society. National and international cooperation boost resource usage and diversity more efficiently and provide the necessary environment to engage different stakeholders. The result is the increasing trend of NOVA projects and publications delivering across all the SDG, in co-authoring with many colleagues outside NOVA University.

NOVA's contribution to advance knowledge and innovative solutions relies on high-quality education and research, and combines fundamental and applied research with collaborative agendas. NOVA hosts 39 R&D Units, being 92% recognized as very good and excellent research units (FCT international evaluation, 2019). This assessment places NOVA at the top 3 of national universities with international recognition.

Researchers at NOVA have given priority to scientific areas delivering towards sustainable development goals. From social sciences to health to science and technology, NOVA is proud to show its commitment with research with impact. As a consolidated community, NOVA strives to attract significant resources from a wide range of funding mechanisms, allowing highly qualified talent to thrive in its unique environment.



**31% Did you know?**  
Impact above world average of all the publications classified by SDG and indexed in Scopus (normalized citations per scientific area).

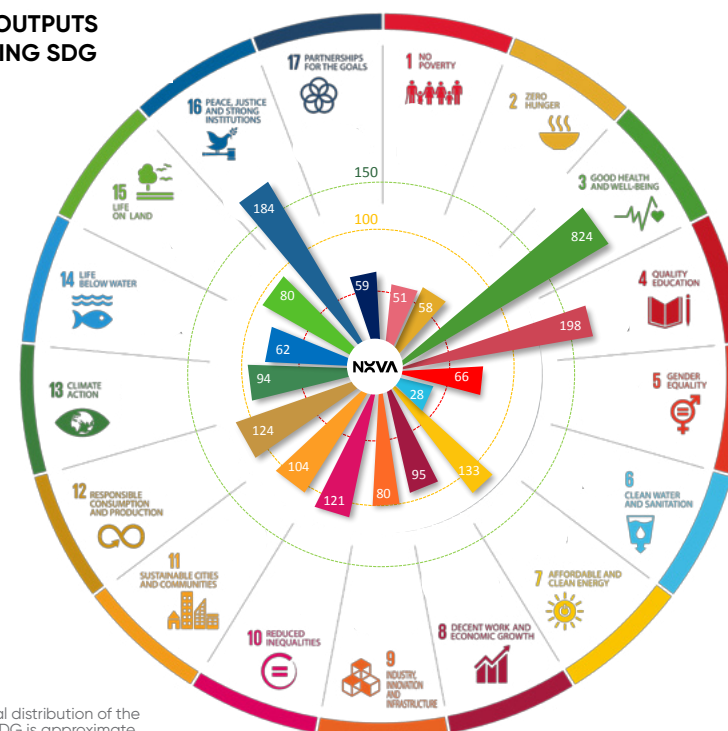
## SDG ADDRESSED BY PUBLICATIONS

In 2021, NOVA published 1550 publications (total, not only peer-reviewed) contributing directly to different SDGs, accounting for 32% of total publications. The classification of publications per SDG resulted from the application of the [Elsevier algorithm](#), which is based on the selection of a set of specific keywords of the scientific domains associated with each SDG.



The graphic shows the number of mentions each SDG was addressed by those 1550 publications, meaning in some cases one publication may address more than one SDG. NOVA research delivers in all SDG, with SDG 3, SDG4, and SDG 16 at the top. SDG7, SDG10, SDG11 and SDG12 are addressed more than 100 times each. A wide range of research interests from social science to health and STEM areas have been applied to all SDG.

## RESEARCH OUTPUTS CONTRIBUTING SDG



Note: the graphical distribution of the publications per SDG is approximate



## RESEARCH AT NOVA SCHOOLS OVERVIEW

The Factor Weighted Citation Impact, which reflects the impact of NOVA publications compared to the international average, of the total publications classified as SDG is 1.31. Publications with an impact greater than this average value are the following: SDG 1 - Zero Poverty (1.97), SDG 4 - Quality education (1.83), SDG 13 - Climate Action (1.71), SDG 8 - Decent work and economic growth (1.54), SDG 17 - Partnerships for goals (1.49), SDG 3 - Health and well-being (1.39), SDG 10 - Reduction of inequalities (1.35), and SDG 11 - Sustainable Cities and Communities (1.35).

### NOVA RESEARCH PORTAL

NOVA Research Portal was launched in February 2019 as a public source, to increase the impact of NOVA's scientific production and research community, and features validated data in NOVA's Current Research Information System (CRIS) - PURE.

### PUBLICATIONS' ALIGNMENT PER SDG AND SCHOOL

NOVA publications in 2021 cover all SDG, although with different intensity across the different SDG and the Schools, as shown in the Table. SDG 3 is the champion with 35% of the total SDG mentions with all schools contributing. Three health related schools and a high interest on the topic across technology, social sciences, economy and management, information management, law and chemistry and biology explain the highest representativeness of SDG3 in NOVA research publications.

SDG 4 is the second most addressed, with NOVA FCSH contributing to more than 85%, while SDG 16 ranks the third, with FCSH, NSL and IHMT with the highest contributions. SDG 7, 10, 11 and 12 are mentioned more than 100 times, with different schools contributing, being FCT NOVA, IHMT and IMS the schools with highest contributions. It is worthy to mention that NOVA schools' contribution depends on the number of faculty members (i.e. professors and researchers), being this analysis an illustration of NOVA commitment with all SDG.

### RESEARCH AT NOVA SCHOOLS OVERVIEW

Total number of publications addressing at least one SDG*	FCT	FCSH	SBE	NMS	NSL	IHMT	IMS	ITQB	ENSP	TOTAL	Representativeness of SDG addressed
SDG 1 - End poverty		5	1	1	1	31	12			51	2,2%
SDG 2 - Zero Hunger	6	12	10	8	1	13	6	1	1	58	2,5%
SDG 3 - Good Health and Well-being	93	36	22	296	2	187	35	62	91	824	34,9%
SDG 4 - Quality Education	2	171		1		19	5			198	8,4%
SDG 5 - Gender Equality		23	1	3	1	28	5		5	66	2,8%
SDG 6 - Clean Water and Sanitation	6	1	1			14	5	1		28	1,2%
SDG 7 - Affordable and Clean Energy	93	5	5	1	3	1	16	9		133	5,6%
SDG 8 - Decent Work and Economic Growth	30	13	6	1	4	21	20			95	4,0%
SDG 9 - Industry, Innovation and Infrastructures	9	6	7		1	42	14	1		80	3,4%
SDG 10 - Reduced Inequalities		25	3		2	74	15		2	121	5,1%
SDG 11 - Sustainable Cities and communities	18	24	2		3	26	29		2	104	4,4%
SDG 12 - Responsible Consumption and Production	48	7	2		5	45	15	1	1	124	5,3%
SDG 13 - Climate Action	36	18	5		4	10	13	5	3	94	4,0%
SDG 14 - Life Below Water	21	12	3		20	3	1	2		62	2,6%
SDG 15 - Life on Land	10	6	1			38	24	1		80	3,4%
SDG 16 - Peace, Justice and Strong Institutions	2	70	8	1	55	38	7		3	184	7,8%
SDG 17 - Partnerships for the Goals		1				57	1			59	2,5%

\* Publications are counting for each addressed SDG (e.g. if a publication deals with 2 SDG, it counts twice).



# EDUCATION

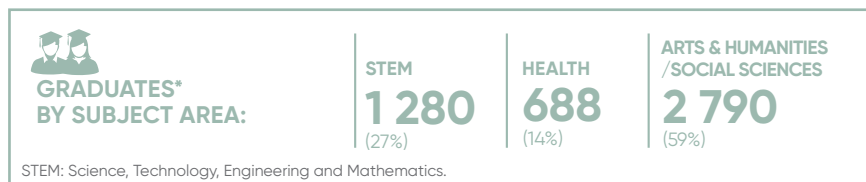
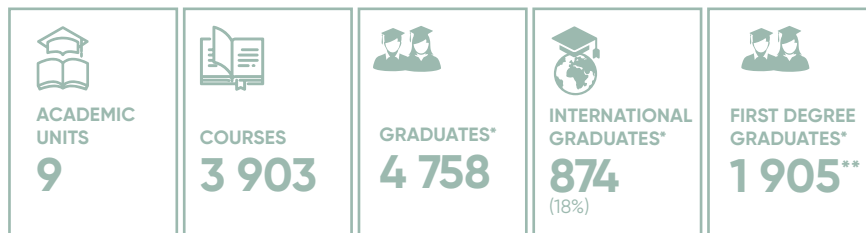


Today's students are tomorrow's professionals; therefore, education is taken by NOVA University with the highest responsibility to foster sustainability. Whatever the scope of the education programme, from engineering to health, to social sciences to economy and business, the linkages with and implications to sustainability are multiple and diverse, and students must be aware of them.



## EDUCATION AT NOVA

The nine schools of NOVA University Lisbon offer more than 250 undergraduate, master and PhD programmes, structured in almost 4000 courses. In 2021, NOVA graduated around 60% students in Arts & Humanities and Social Sciences, followed by STEM (27%) and Health (14%).



\*Degree equivalent programmes

\*\*Number of graduates in bachelor programmes and bachelor graduates in integrated masters' programmes

## SDG ADDRESSED BY COURSES

NOVA education programmes offer 398 courses where SDG are addressed, representing 10% of the total offered courses. The majority of the courses belong to the masters' curricula. These indicators were collected through a direct survey to the courses' coordinators in all schools, via the Council for Teaching and Learning.

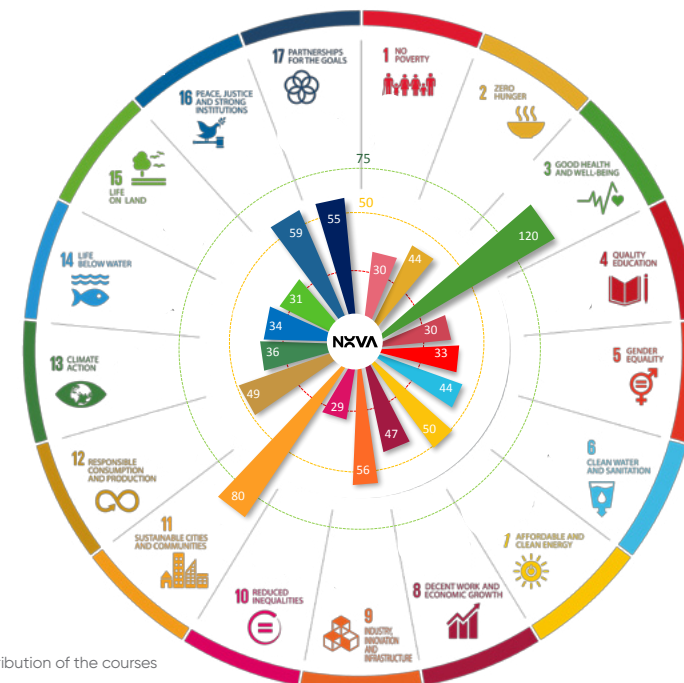


- 30% of SDG related courses were classified as sustainability-focused, meaning that the course title or description must indicate a primary and explicit focus on sustainability, i.e. on the interdependence of ecological and social/economic systems or a major sustainability challenge such as climate change, according to STARS\*.

- 70% of SDG related courses were classified as sustainability-inclusive, i.e. if the course title and description do not unequivocally indicate that focus, but it is evident from the course description or syllabus that it incorporates sustainability challenges, issues, and concepts in a prominent way.

The graphic shows the number of mentions each SDG was addressed by the 398 courses, meaning one course may address more than one SDG. Although all the SDG are addressed, SDG 3 and SDG 11 are the most popular. SDG7, SDG8, SDG9, SDG12, SDG16 and SDG17 are reported to be addressed in circa 50 courses each. Looking at the 118 sustainability-focused courses, mostly are integrated in programmes on environment and sustainability, SDG11 and SDG7 are the most reported, while the 280 sustainability-inclusive courses report mostly SDG3 and SDG16.

\*STARS stands for The Sustainability Tracking, Assessment & Rating System, a programme of the Association for the Advancement of Sustainability in Higher Education.

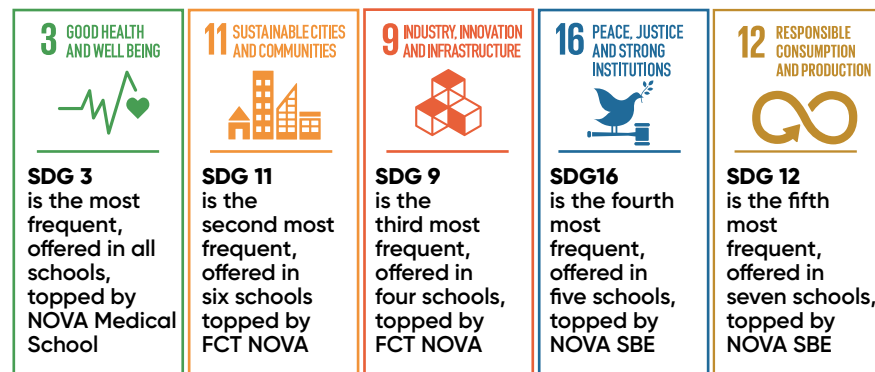


Note: the graphical distribution of the courses per SDG is approximate

## EDUCATION AT NOVA SCHOOLS OVERVIEW

### SDG RELATED COURSES SCHOOLS OVERVIEW

The assessment of the sustainability related courses, both sustainability-focused and sustainability-inclusive, showed the top 5 SDG across NOVA schools are:



Total number of courses addressing SDG*	FCT	FCSH	SBE	NMS	NSL	IHMT	IMS	ITQB	ENSP	TOTAL	Representativeness of SDG addressed
ODS 1 - End poverty	4	2	23					1		30	3,6%
ODS 2 - Zero Hunger	14		23	2				5		44	5,3%
ODS 3 - Good Health and Well-being	12	1	27	51	1	7	1	13	7	120	14,5%
ODS 4 - Quality Education	4		24		2					30	3,6%
ODS 5 - Gender Equality	4	3	24		1	1				33	4,0%
ODS 6 - Clean Water and Sanitation	21		23							44	5,3%
ODS 7 - Affordable and Clean Energy	26		24							50	6,0%
ODS 8 - Decent Work and Economic Growth	6		39		1			1		47	5,7%
ODS 9 - Industry, Innovation and Infrastructures	27		27		2					56	6,8%
ODS 10 - Reduced Inequalities	4		25							29	3,5%
ODS 11 - Sustainable Cities and communities	33	18	24		2		2	1		80	9,7%
ODS 12 - Responsible Consumption and Production	17	1	27	2	1			1		49	5,9%
ODS 13 - Climate Action	6	3	27							36	4,4%
ODS 14 - Life Below Water	9		23		2					34	4,1%
ODS 15 - Life on Land	8		23							31	3,7%
ODS 16 - Peace, Justice and Strong Institutions	5	3	39		9		3			59	7,1%
ODS 17 - Partnerships for the Goals	5	2	46		2					55	6,7%

\* Courses are counting for each addressed SDG (e.g. if a course deals with 2 SDG, it counts twice).

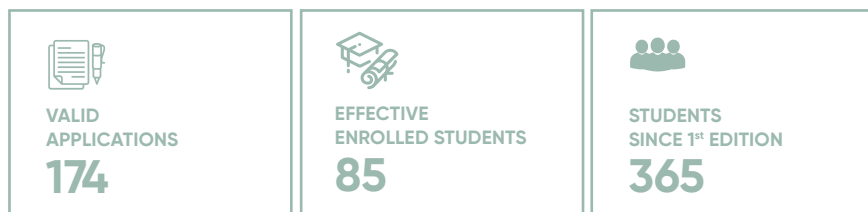


## EDUCATION AT NOVA OTHER PROGRAMMES



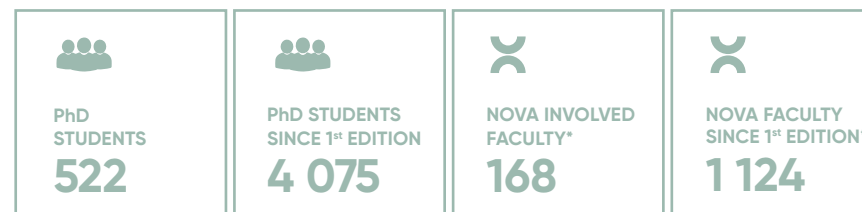
### NOVA FOUNDATION PROGRAMME – SUPERNOVA

NOVA Foundation Programme was designed for students who have recently finished high school and plan to apply to Higher Education in Portugal. It assists students from different countries in adapting to the European education system, developing language and academic skills at an appropriate level for successful progression to an undergraduate course at NOVA. In 2021, the programme was able to return to a face-to-face mode after the Covid pandemic. Among the 27 student's nationalities, Brazil is the main source of new students to the programme.



### NOVA DOCTORAL SCHOOL

NOVA Doctoral School was created in 2013 to provide short courses (2/3 days) and activities to PhD students and their supervisors, aiming to: contribute to the excellence of the doctoral training at NOVA; provide cross-disciplinary and complementary training to PhD students and their supervisors; promote interdisciplinarity and transdisciplinarity; share best practices in doctoral programmes and promoting cross institutional cooperation, at both national and international level, and contribute to network creation and collaborations between students and professors at NOVA. There are 17 courses available.



\*Source: Professors' Development Report

# INNOVATION AND COMMUNITY

NOVA is committed to support and foster the development of the University's innovation and entrepreneurship ecosystem, promoting a knowledge-based and high-impact value creation activity through collaborations with industry and society at large. Value creation and innovation is an output of NOVA's commitment to quality education and innovative research and is assumed as the NOVA third mission.



## INNOVATION AND COMMUNITY

NOVA has a plethora of activities to promote entrepreneurship and innovation with social and environmental impact, involving all NOVA schools' faculty and students.

NOVA is committed to boost academics, researchers and students to apply and maximize the impact of their expertise and research, to foster knowledge transfer and transform innovative results into social and economic value. This is of upmost importance for NOVA since it makes tangible the purpose of contributing to societal development.

Several different activities have been carried across the NOVA schools to (i) train students in entrepreneurship, providing them with the mindset and tools to turn ideas into projects with impact [SDG 4]; (ii) support new spin-off companies with services allowing them to grow and promote highly qualified jobs [SDG 8]; (iii) foster knowledge-based and high-impact innovation through the valorization of NOVA's technologies and specialized knowledge, namely with collaboration with industry and social organizations [SDG 9]

### EBREATHIE – NEW SPIN-OFF IN 2021

eBreathe is a new smart-inhaler coming to empower asthma patients on the management of their disease, giving them a better quality of life. Founded by NOVA ENSP and FCT NOVA alumni, eBreathe is a great example of the entrepreneurial spirit and ventures nurtured among the multidisciplinary core of NOVA's programmes. eBreathe won NOVA impACT! Challenges in 2021.



**ALUMNI INVOLVED**  
Ana Rita Constante  
Ana Rita Rebelo  
Ana Filipa Rebelo



**2 814**

STUDENTS WITH  
ENTREPRENEURSHIP TRAINING

#### START-UPS

**104**  
STARTUPS

**1** UNICOR **1** INITIAL  
PUBLIC  
OFFERING

#### SPIN-OFFS

**19**  
SPIN-OFFS

**34**

SUSTAINABILITY  
RELATED  
STARTUPS

**8**

SUSTAINABILITY  
RELATED  
SPIN-OFFS

Accumulated values\*



## COMMUNITY IMPACT

NOVA promotes the engagement of its students' and researchers' community into competitions and events to incentivize their spirit of creating impact in society. Volunteering by the students to support local communities is encouraged and nurtured.

## NOVA IMPACT! CHALLENGES

NOVA Impact Challenges is supported by Fundação Santander Universidades and is open to students from all Portuguese higher education institutions. This initiative aimed to find 10 ground-breaking and impactful solutions to address challenges posed by the new normal expected to arise during and after the coronavirus pandemic, putting knowledge, creativity and innovation at the service of society. After the pandemics, the programme continued and broaden its scope, now focusing on creating solutions that solve real problems strongly aligned with the SDGs.

The 2021 edition attracted 32 participants, from 10 universities. During four full weeks (11th Oct. - 15th Nov.), 10 teams got access to pocket money (500€ each), to workshops and mentoring to develop a proof of concept/prototype to solve a challenge aligned with at least 1 Sustainable Development Goal (SDG).



### IMPACT CHALLENGES 2021 WINNER | EYECYCLE

The EyeCycle aims to prevent accidents between cars and bicycles caused when cars do right-turns and lack of visibility of the bike lanes. The project aimed to develop a machine-learning framework with computer vision algorithms that would change the traffic light in the face of danger.

 **STUDENTS INVOLVED**  
**Francisco Enguita**  
**João Raio**



## MIND THE TOURISM INNOVATION PROGRAMME

The NOVA Tourism and Hospitality (TOHO) platform and NOVA Impact were partners of the Mind The Tourism programme - mind your footprint, mind your health. Launched by NEST (Tourism Innovation Center), the programme focused on encouraging the creation of solutions for a greener, safer and healthier tourism, just after the impact of COVID 19 that brought the whole sector into unknown territory. NOVA conceptualized and supported the organization of the Hackthon programme that was integrated into a broader programme with roundtables and different talks as sustainable mobility in cities, healthy food, the events of the future, nature and ocean, cultural heritage.

 **23**  
APPLICATIONS

 **20**  
TEAMS

 **75**  
PARTICIPANTS

 **3 000**  
EUROS

### MIND THE TOURISM HACKATHON 2021 WINNER: HOTEL CALIFORNIA

The Hotel California project developed a tool to help hospitality businesses to predict and better understand the generated data in a more efficient way using AutoML machines.

 **STUDENTS INVOLVED**  
**Saleh Shugair**  
**Dave Montali**  
**Catarina Matos**



## VOLUNTEERING AT NOVA

NOVA University of Lisbon has been promoting and supporting volunteer activities, in partnership with other entities, civil society organizations, involved directly in the exercise of solidarity and citizenship. Around 20 active partnerships, the volunteering programme covers activities in the social, educational, health, scientific, sports, cultural, environmental and leisure areas to all NOVA students. Also students' unions and other formal or informal organizations, such as musical groups or clubs, develop activities with local organizations and communities. This involvement is very much incentivized by the University as it contributes to their personal and professional development. In 2021, the NOVA Volunteering Day was held in September 22 joining the partners and volunteer students to engage new students.

 **5 080**  
HOURS OF  
VOLUNTEERING



# INFRASTRUCTURES AND SERVICES

NOVA University Lisbon sustainable performance is key to lead by example. Selected environmental and social indicators highlight how NOVA have been taking care of its own impact in sustainability. NOVA is committed with its organizational transformation towards sustainability, aligning with the European Green Deal objectives, the Paris Agreement ambition, and the Sustainable Development Goals.

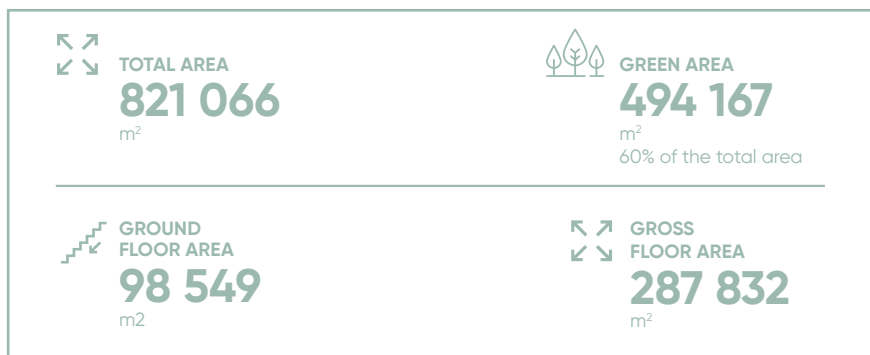


## ENVIRONMENTAL IMPACT

Everyday life at NOVA Campi making use of diverse infrastructures from classrooms to laboratories, cantinas to offices is a constant opportunity to change the way all people at NOVA community behave and decide on water and energy use, waste disposal or commuting options. Services available at the nine NOVA Campi and the three halls of residence provide amenities aiming for a smooth and happy daily life taking the very diverse needs of students, professors, researchers, staff and visitors, with no exception regarding religion, sexual orientation, ethnicity or any other factor.

The nine schools of NOVA University Lisbon are organized in eight campuses spread over four municipalities, Lisboa, Cascais, Oeiras and Almada, to support its community of 27 141 people. Three halls of residence in Lisbon and Almada offers 460 beds for students.

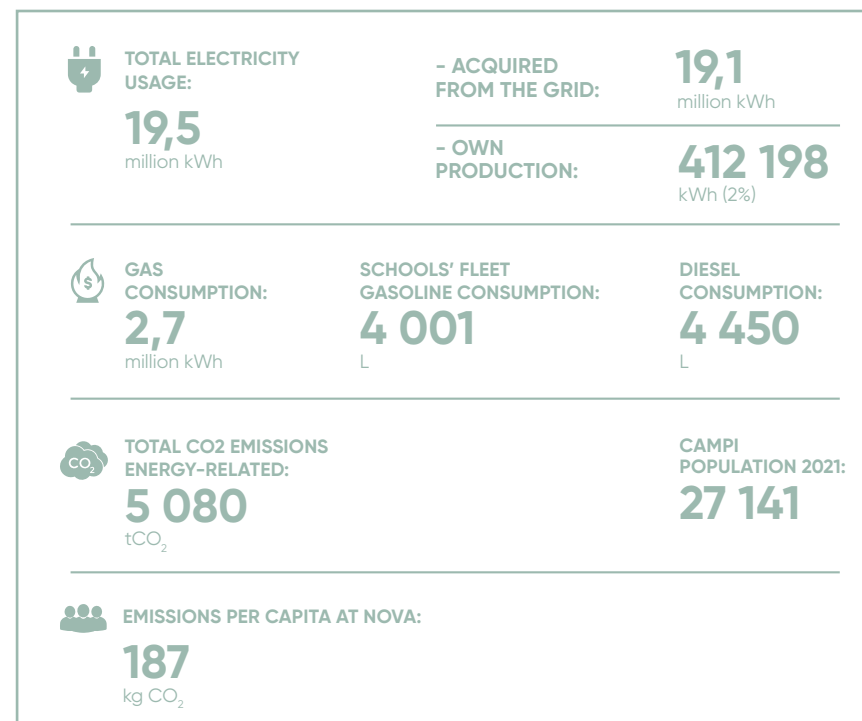
NOVA schools are developing several initiatives and projects to minimize resources use at the physical infrastructures, including green areas and buildings while keeping or improving services provision.



## INFRASTRUCTURES AND SERVICES



### ENERGY AND CO2 EMISSIONS AT NOVA

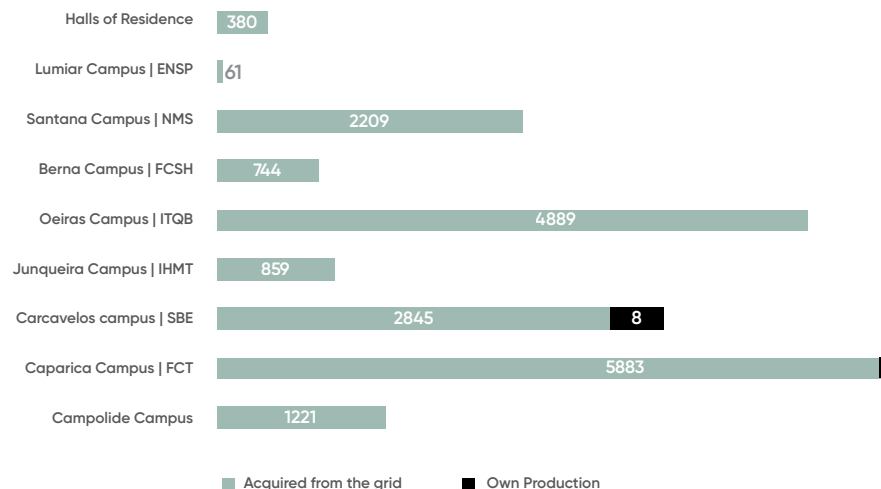


## ENERGY AND CO<sub>2</sub> EMISSIONS AT NOVA: SCHOOLS OVERVIEW

NOVA infrastructures have different sizes, occupancy and characteristics and then energy usage and related CO<sub>2</sub> emissions have different profiles, as shown in the graphics. Caparica and Oeiras Campus are the top energy consumers due primarily to its extensive area of energy-intensive laboratories, for research and teaching. Together with Junqueira and Santana Campus, which also have considerable area of laboratories, the four campuses account for 70% of total electricity usage at NOVA.

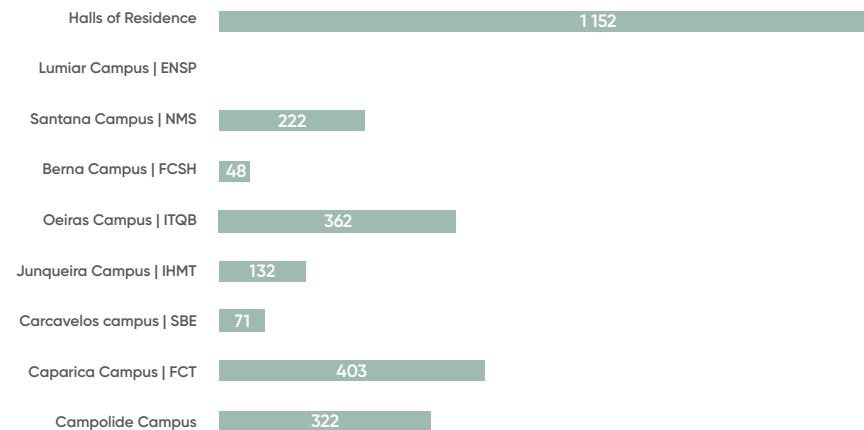
Electricity consumption data was acquired through the digital platform Barómetro ECO.AP, while gas consumption data was gathered from the respective bills provided by the schools. CO<sub>2</sub> emissions refer to the use of (i) gas consumption in situ; (ii) gasoline and diesel by the rectorate and schools' own fleet, and (iii) electricity acquired from the grid. CO<sub>2</sub> emission factors for gas and oil products are from the National Inventory Report (APA, 2022), while for electricity were taken from the 2021 bills of each school, rectorate building and halls of residence.

### ELECTRICITY USAGE (1000 kWh)

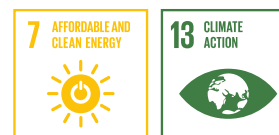
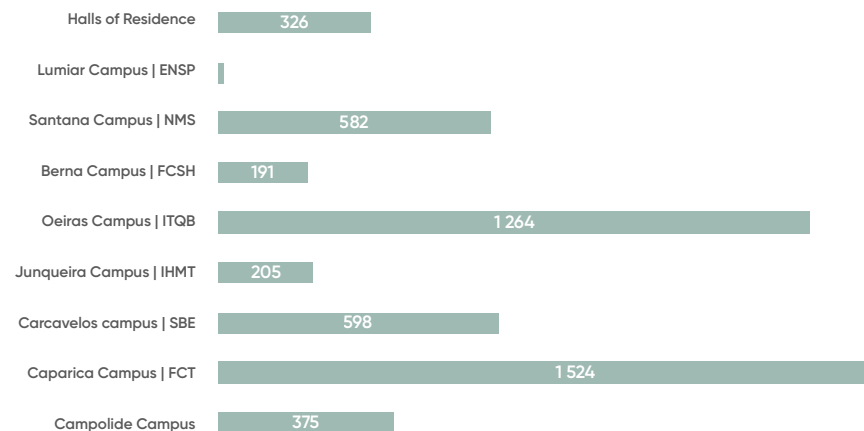


## INFRASTRUCTURES AND SERVICES ENVIRONMENTAL IMPACT

### GAS CONSUMPTION (kWh)



### CO<sub>2</sub> EMISSIONS (t CO<sub>2</sub>)





## WATER CONSUMPTION AT NOVA

TOTAL WATER USAGE: <b>197 240</b> m <sup>3</sup>	- ACQUIRED FROM THE SUPPLY NETWORK: <b>167 65</b> m <sup>3</sup>
	- OWN PRODUCTION: <b>29 581</b> m <sup>3</sup> (15%)
TOTAL AREA 2021: <b>821 066</b> m <sup>2</sup>	CAMPI POPULATION 2021: <b>27 141</b>
WATER USAGE PER AREA UNIT: <b>0,24</b> m <sup>3</sup> /m <sup>2</sup>	WATER USAGE PER CAPITA AT NOVA: <b>7,26</b> m <sup>3</sup>

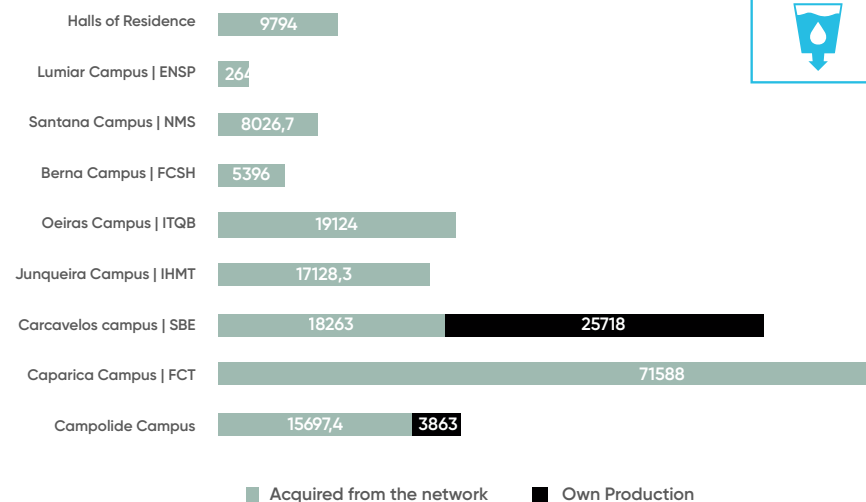


## INFRASTRUCTURES AND SERVICES

### ENVIRONMENTAL IMPACT

Water consumption at NOVA provides different services including water for cooking, for toilets, for the laboratories and for irrigation. In 2021 total water consumed was 197 240 m<sup>3</sup>, being 15% of own production.

The number of students differs across NOVA campi which explains the water usage profile as shown in the graphic. Also, the extension of green areas and laboratories' activities are reasons to justify water usage in the different schools. Water own production is significant for the respective campus, representing more than 50% of the total water usage at Carcavelos Campus and 20% in Caparica campus.

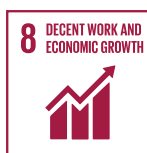
WATER USAGE (m<sup>3</sup>)

## HIGHLIGHTS

In November 16th, 2021, the Deans' Board meeting, chaired by the Rector, approved unanimously a policy target to [Energy and Climate](#), and a policy target to [Water Management](#). The successful implementation of these policies is responsibility of each school, by developing adequate Implementation Guidelines according to each campus characteristics.

## EMPLOYMENT

While promoting sustained, inclusive and sustainable economic growth, NOVA generates employment opportunities for faculty and staff. Values are presented in FTE – Full Time Equivalent, accounting for different type of contracts. Seniority is a relevant indicator because it translates how the organization values talent.



\*All Professors in a career track.

## DIVERSITY, EQUITY AND INCLUSION (DEI)

NOVA's Policy in this area expresses the University responsibility and commitment to welcoming diversity, while assuring equity and inclusion.



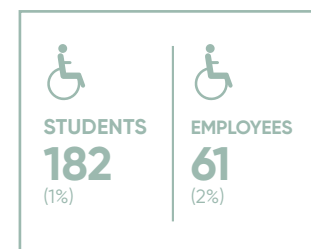
## DIVERSITY IN EDUCATION

NOVA's students and faculty come from all over the world, including a significant proportion of students from developing countries. Since the language plays an important role as an inclusion factor, NOVA's Schools offer degrees and courses both in Portuguese and English.



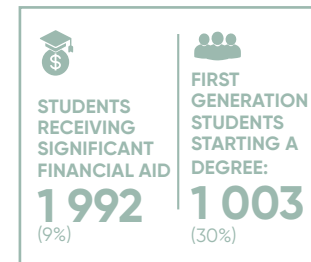
## SOCIAL IMPACT

NOVA has also been addressing the inclusion of people with disabilities and immigrant minorities, working together with organizations and local communities. Examples of such commitment include [Nova SBE inclusive Community Forum](#), which addresses the lives of people with disabilities though employment or education, and [NOVA Refugee Clinic](#), that gives legal support to migrant communities.



## INCLUSION IN EDUCATION

Access to education is a major institutional concern, acknowledging its role to drive social mobility. In 2021, 30% of NOVA's students started a degree as the first in their direct families. To facilitate access, Portuguese state grants supported 9% of NOVA Students in 2021.



NOVA Social Welfare Services manage three Halls of Residency and Canteens, meant to promote inclusiveness among NOVA's Community and support vulnerable students. Canteens offer subsidized complete meals to students, that costs 2,75 Eur to the student. NOVA's Halls of Residency are located in Lisbon and Almada, and offer low-cost accommodation to students and faculty. Under a context of increasing prices of accommodation in the Lisbon Metropolitan Area, this support is critical to students coming from other parts of the country, or abroad.



<sup>1</sup> Students' meals only.

	TOTAL BEDS	SUBSIDIZED TO SCHOLARS
<b>HALLS OF RESIDENCY</b>		
ALFREDO DE SOUSA - CAMPOLIDE CAMPUS	180	118
FRAÚSTO DA SILVA - CAPARICA CAMPUS	210	103
LUMIAR HALL - OF RESIDENCY	70	21



<sup>2</sup> This aggregate value compares the halls' market prices to the price paid by scholars (76,23 Eur per month, established by the Portuguese State).



## SOCIAL IMPACT

## WELLBEING

Wellbeing is particularly relevant to universities, considering their role in the future of their students. NOVA's activities in this area are managed by NOVA's Social Welfare Services and are mainly focused on occupational health, offered to students and staff: mental health (psychology and psychiatry), nutrition support, and sexual and reproductive healthcare ([check the list of services](#)). [The Bridge](#), students well-being platform, is a good example of NOVA's proactivity in this field.



## CULTURE AT NOVA

Each School develops cultural activities, in particular through their [libraries](#). Expositions, music concerts, book launch events, among other. NOVA University Lisbon, through Social Welfare Services (SAS NOVA), also supports and promotes cultural activities for the students. Considering the pandemic situation, the year 2021 was atypical, with the strong limitation of events reflected in NOVA's cultural activities.



## TEDX NOVA

TED is a nonprofit organization devoted to Ideas Worth Spreading. Started as a four-day conference in California 30 years ago, TED has grown to support its mission with multiple initiatives.

The first edition of TEDx NOVA was organized by students from NOVA's different Schools on the 24th of September 2021. Seven speakers with different backgrounds, from psychology, environmentalism, or photography shared their Big Bang, the most impactful moment in their lives. Targeting SDG 4, Quality Education, this event integrates NOVA 4 The Globe's activities and is meant to inspire NOVA's community for sustainability.



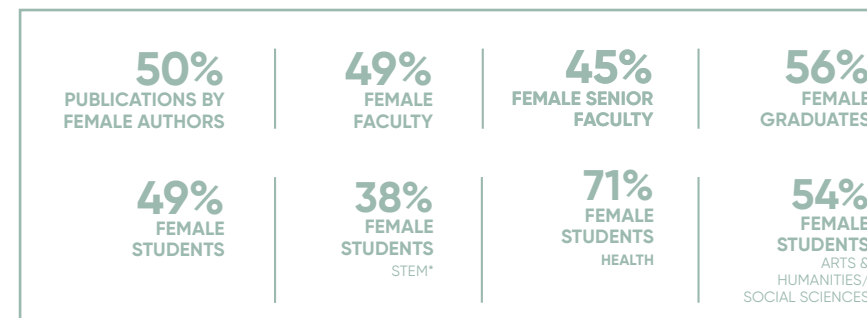
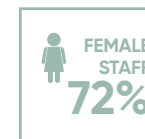
## SPORTS AT NOVA

NOVA Social Welfare Services (SAS NOVA) supports and promotes sports activities for NOVA's students. Each School also develops sports activities and sometimes have their own School teams. Given the pandemic, the year 2021 was atypical, with a strong limitation of events reflected in NOVA's sports' activities.



## GENDER EQUALITY

In 2021, the Gender Equality Plan was approved reinforcing the importance of this topic to NOVA. Gender equality in universities account for parity among employees, namely faculty, but also students. It is relevant among peers but quite relevant when considering career progression and seniority. NOVA is balanced and a strong commitment to supporting women is in place after reinstating the Childhood Support Center in Almada.



\*STEM: Science, Technology, Engineering and Mathematics.

## SOCIAL IMPACT

### HIGHLIGHTS

#### SASNOVA'S CHILDHOOD SUPPORT CENTER

In 2021, NOVA's Social Welfare Services, SASNOVA, assumed the operation of an existing childhood support center - Centro de Educação Pré-Escolar (CEPE) - in Caparica Campus. It is dedicated to the children of NOVA's internal community, namely students, faculty and staff. Services include a nursery dedicated to welcoming children between 4 to 12 months of age, a daycare for children between 12 months and 3 years, and a kindergarten from 3 to 5 years.

#### GENDER EQUALITY PLAN

In 2021, NOVA developed and approved the Gender Equality Plan for the period 2021-2025. The Plan addresses work-life balance and organisational culture, gender balance in leadership and decision-making, gender equality in recruitment and career progression, the integration of the gender dimension into research and teaching content, and measures against gender-based violence, including sexual harassment.

#### GERAÇÃO NOVA SCHOLARSHIPS

NOVA launched Geração NOVA scholarships, targeting undergraduate students not considered under the official Portuguese Ministry grants. Support is given to tuition fees, food, or accommodation in a flexible response to students needs. Funding comes from private funds from companies, institutions and civil society, namely alumni.





# SUSTAINABILITY IN 2022





## 2021: starting a comprehensive pathway to achieve bold goals on sustainability!

A remarkable milestone of the year 2021 refers to a dedicated Pro-rector to the subject of sustainability, just after November. Main assertions recognized at once were related with the mapping and boosting of NOVA community around sustainability scope, since much of the change needed must occur in each one of the individuals' mindset and the collective he/she belongs to. Therefore, actions were identified right there to develop along the year 2022, namely:

- Visit each NOVA school to acknowledge and engage with its leaders and governance bodies around specific issues, problems and opportunities related with Sustainable Development Goals (SDG);
- Map the ongoing projects and initiatives tackling and delivering to the SDG targets across the nine NOVA schools, to showcase them to the community, mostly through a dedicated website;
- Identify priority areas across NOVA schools to start preparing plans of actions, mostly probably on energy transition, waste and single use plastics;
- Engage the professors, researchers and staff running projects and initiatives on teaching, research and best practices to share with colleagues, to build-on NOVA sustainability community around a dedicated event.
- Identify and systematize data needs to support the wide range of sustainability-related indicators with the purpose of characterize and monitor the performance of NOVA schools and to support decisions. Emphasis on data quality, data collection processes and data systems are of outmost importance.
- Prepare the entrance of students' representatives into the NOVA4theGlobe platform, where representatives from all NOVA schools discuss and reflect on interdisciplinary initiatives to deliver sustainability. Students' participation will enable NOVA4theGlobe to better design and prepare those initiatives aligned with youth expectations and ambition.



## ACKNOWLEDGEMENTS

This report is a collective work from different stakeholders at NOVA, coordinated by Pro-rector Julia Seixas and Sustainability Coordinator João Loureiro Rodrigues. Information was gathered from different departments of NOVA's nine Schools, and only a strong sense of belonging allowed this project to successfully accomplish its goals. We would like to thank, in particular, all the members of NOVA 4 the Globe, who devoted all the efforts to gather and prepare information and data: Tomás Ramos, Ana Santos Pinto, Maria A. Cunha-e-Sá, Conceição Calhau, Claire Bright, Tiago Correia, Miguel Neto, Nélson Saibo, Julian Perelman, Marco Lopes, Catarina Bernardo, Luís V. Martins, Vânia Coucello, Jorge Correia, Isabel Craveiro, Sara Ribeiro, Ana Sanchez, Teresa Magalhães, and João Carreiras.

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**A big thank you for all of them.**



Visit the website 

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