

Sustainability at NOVA 2024

Facts and Figures October 2025





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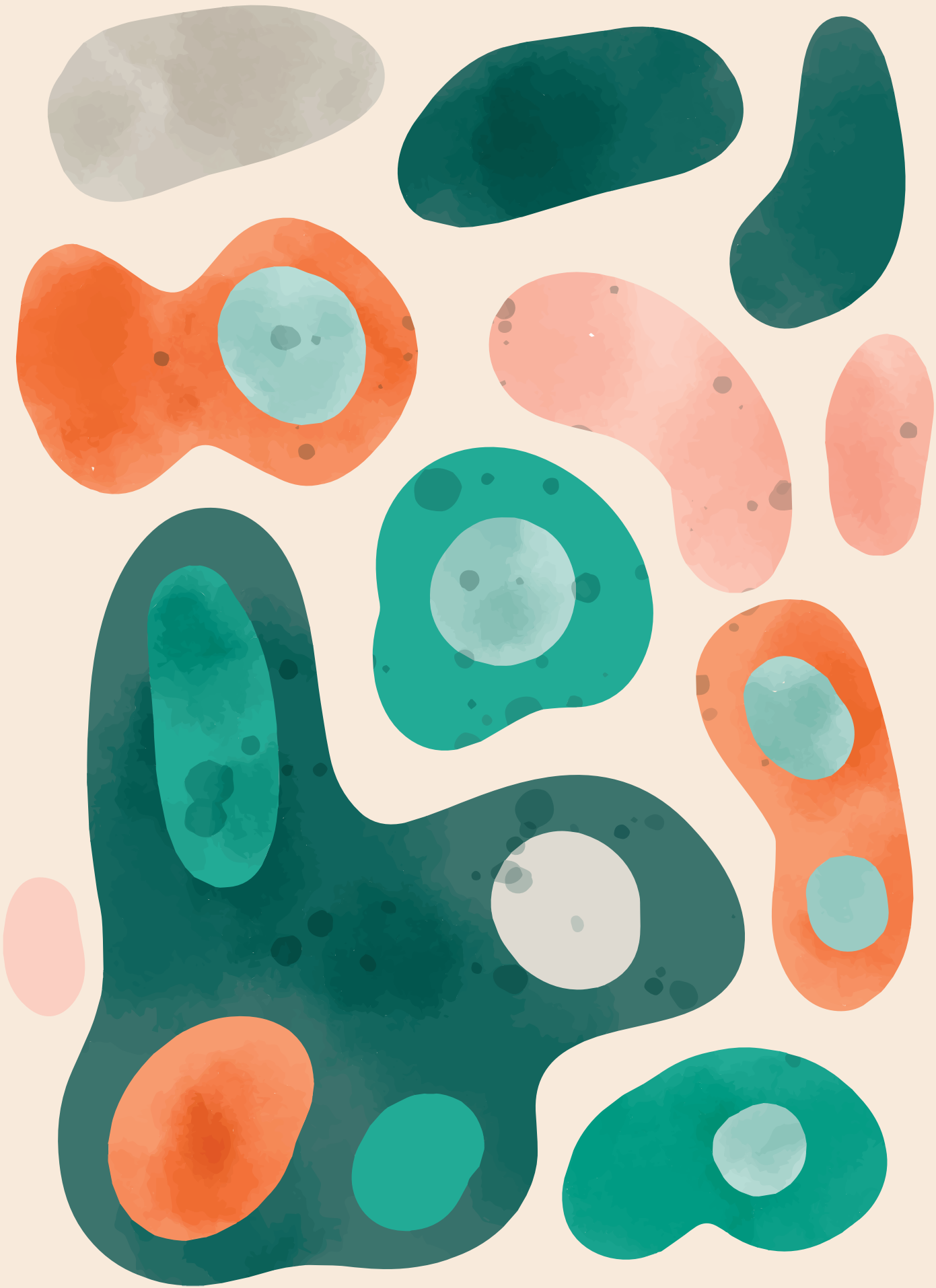
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NOVA SCHOOLS



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A Comprehensive University

NOVA University Lisbon is a public higher education institution, with a community of almost 30 000 people, guided by the motto 'a global and civic university'. NOVA missions – education, research and value creation – have been developed taking excellency, cooperation and inclusiveness as key pillars, and the commitment with scientific and societal agendas, with a view on both international and national arenas. Current complex challenges from social, political and environmental systems demand for the best of NOVA community, inspiring for more innovation, better services and increasing commitments.

NOVA includes nine schools: science and engineering, social sciences and humanities, medicine, public health, tropical medicine, life science technologies, economics and business, law and data and information science. This scientific diversity has proven to be important and fruitful to deliver impactful interdisciplinary outputs. Moreover, NOVA also includes the Welfare Services and the rectory services.

NOVA University Lisbon takes sustainability as a strategic value for its development, as stated in NOVA Strategic Plan 2020–2030, and aims to mainstream it into all aspects of the institution, which implies the incorporation of sustainable principles, practices and tools throughout the institution, across all its missions. NOVA adopts a “whole-institution approach”, to achieve the potential to transform itself and to transform the world. An increasing number of initiatives and actions has been occurred in the different schools regarding the implementation of the 2030 Agenda Sustainable Development Goals. At the University level, the goal is to gather and further develop these initiatives and actions to boost NOVA's credentials as a Sustainable University.

NOVA extends its sustainability purpose beyond its own campus, through its membership in national and international networks. NOVA is part of the EUTOPIA MORE alliance – a coalition of European universities dedicated to transformative change grounded in openness, inclusiveness, and innovation. Within this partnership, NOVA leads key sustainability

initiatives, particularly in addressing climate impact, and participates in other areas, namely the promotion of diversity, equity, and inclusion; strong sustainability governance and leadership; advancing education for sustainable development; and encouraging social innovation, entrepreneurship, and cultural preservation. Moreover, NOVA chairs SDSN Portugal, the national branch of UN SDSN (Sustainable Development Solutions, a global initiative for the United Nations) with the mission of mobilizing the world's knowledge community for science-based solutions for sustainable development. Through these collaborative and comprehensive efforts, NOVA University Lisbon is actively shaping a future where academic excellence and sustainability go hand in hand – driving positive change for society and the planet.

Sustainability NOVA 2025 Facts & Figures reports key sustainability-related indicators regarding NOVA's activity and performance in the year 2024, from governance to education, research and value creation and innovation, as well as infrastructures and services, on environmental and social impacts, covering all schools and Campi. A section with selected cases highlights how NOVA Schools are addressing the 17 SDGs. Sustainability at NOVA 2024 Facts & Figures cannot be considered a complete Sustainability Report due to the absence of some key indicators and relevant information.





João Sàágua
Rector

At NOVA University, our pursuit of academic excellence goes hand in hand with a deep and enduring commitment to promoting the social, economic, and environmental well-being of our world.

As we continue to evolve as a global and civic institution, sustainability remains a guiding principle. Far from being a temporary concern, sustainability is a pressing necessity and a core value at the heart of NOVA’s mission. In recent years, we have seen this commitment become more deeply embedded across our programs and practices. Yet, lasting progress depends on our ability to engage in meaningful dialogue and collaboration with society, companies, and public institutions. By working together, we can apply our academic knowledge to real-world challenges and, in turn, learn from the innovative strategies and perspectives of our partners.

The NOVA Sustainability Report 2025 reflects our strong alignment with the United Nations Sustainable Development Goals (SDGs) and our adherence to the principles of the Paris Agreement.

It provides a thorough account of our actions and achievements in sustainability, while also illustrating a crucial shift: NOVA is no longer merely supporting sustainability initiatives—we are actively leading them. Sustainability is no longer an external objective but an intrinsic part of who we are.

Of course, there is always room to grow. But the progress we’ve made so far gives us good reason to look ahead with optimism and determination. The challenges we face are complex, but they are matched by the enormous potential for innovation and transformative change.

By placing sustainability at the forefront of our mission, we are not only safeguarding the future of our planet—we are fostering a sense of hope and demonstrating that a better, more sustainable world is within reach. Our steadfast dedication propels us forward, and through collaboration with partners across all sectors, we are confident that we can achieve remarkable outcomes.

Finally, to every member of the NOVA community: thank you. Your continued commitment and hard work are the foundation of our success. Let’s keep moving forward—together.



Júlia Seixas
Pro-rector for Sustainability

A significant bulk of work was done along the year 2024 in the sustainability domain, bringing to the spotlight the skills and time dedication of a large team of people from all NOVA schools. It has become very clear the need to consider sustainability related objectives under their job contract, to facilitate and make recognized the dedication of human resources, particularly in the schools’ services. The Academic and Operational Councils of NOVA for the Globe platform worked on a regular pace, coordinating a common agenda, and guiding the action plan.

Since the beginning in 2023, NOVA [Route Zero](#) advanced on the implementation of numerous processes for data collection, both from centralized data systems and from schools’ specific processes, to feed the new [InNOVA](#) - NOVA Information System on Environment and Sustainability - which is the basis of the University inventory of greenhouse gas emissions. In the next years, InNOVA will be enlarged to include data and indicators regarding all aspects of sustainability, becoming the cornerstone of Environment and Sustainability data system. Moreover, under NOVA Route Zero, a comprehensive survey was conducted with the Deans to get a prospective view for each NOVA school in 2040, and a set of indicators was gathered.

An in-depth analysis of all projects under way with impact on the infrastructures was made in all schools, namely the projects funded by PRR, and the projects for projected new buildings. These activities provided valuable elements to build comprehensive future scenarios pathways up to 2040 for each NOVA school, which constitutes the anchor to decide on the net-zero commitment for the whole University.

Compared to 2023, sustainability-related courses increase by 11%, with SDGs 3 and 9 being the most addressed, while scientific publications increase by 9%, with SDGs 3, 7, and 13 being the most popular. A new course *Sustainability for All* started to be developed in 2024 with a team of 26 professors from all NOVA schools. NOVA increased 4% electricity consumption while reduced 9% the consumption of gas, leading to a decrease of 15% in CO2 emissions (scope 1&2). The international certification of wet labs with [MyGreen Lab](#), has started in 2024, in six labs from FCT, NMS, IHMT and ITQB.

Sustainability at NOVA 2024 Facts & Figures adopts a similar format as previous editions, to facilitate the readers’ navigation. This report is made possible due to the effort of dozens of people from all schools and services who are taken sustainability as part of their mission in the University. I am deeply grateful to them, and they make me believe that NOVA is truly moving towards a Sustainable University. After four years working as Pro-rector for Sustainability, and recognizing that much is still to be done, I am very proud of these achievements.

Indicators 2024 | Overview

EDUCATION

24 696

STUDENTS

38%

Undergraduate and Integrated Master's programs

9%

PhD programs

53%

Master's programs

414

SUSTAINABILITY-RELATED COURSES

29%

Sustainability-focused

71%

Sustainability-inclusive



Most Popular

RESEARCH

2 214

PROFESSORS

536

RESEARCHERS

1 893

SUSTAINABILITY-RELATED SCIENTIFIC PUBLICATIONS

35%

of total NOVA scientific publications



Most Popular

INNOVATION & SOCIETAL IMPACT

80

SUSTAINABILITY-RELATED START-UPS

12

of them are Spin-offs

287

Active patents

↑ 12
Relative to 2023

NOVA impACT! Challenges competition:

34

Applications

37

Participants

ORGANIZATIONAL SUSTAINABILITY

3 312

FULL TIME EQUIVALENT EMPLOYEES

↑ 4%
Relative to 2023

71%

Female Staff

50%

Female Faculty

Electricity

19,6

MILLION kWh

↑ 4%
Relative to 2023

Water

219

THOUSAND M³

↑ 5%
Relative to 2023

7 346

PSYCHOLOGY AND PSYCHIATRY APPOINTMENTS

+275

Students involved

1 074 276 EUR

GERAÇÃO NOVA GRANTS

Gas

2

MILLION kWh

↓ 9%
Relative to 2023

Emissions

3 036

TONNE CO₂

(CO₂ emissions estimation of Scope 1 and 2 according to GRI standards)

↓ 15%
Relative to 2023

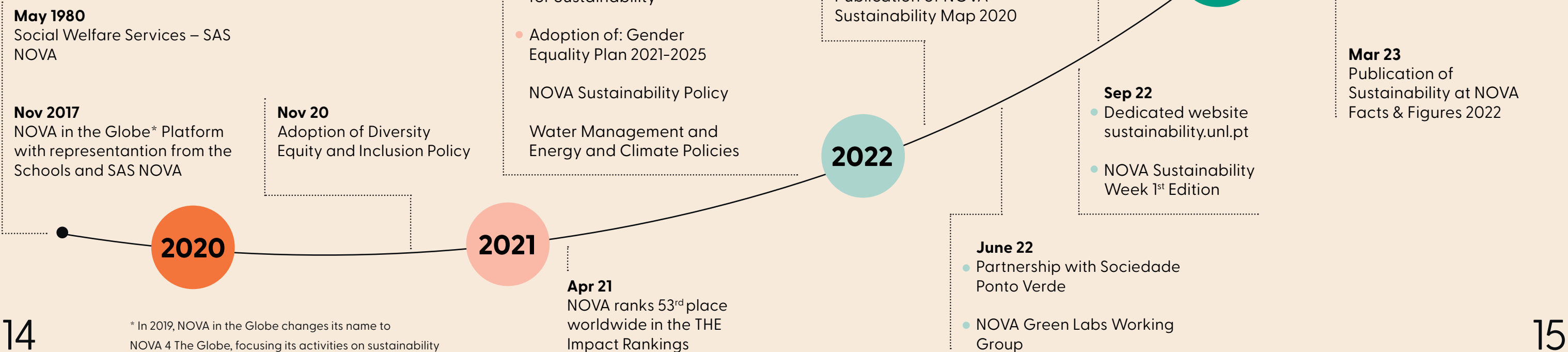
SUSTAINABILITY AT NOVA



NOVA Sustainability Journey

Sustainability has become ingrained in all NOVA schools, although at different paces and through diverse processes and actions. In the last five years, bold projects and actions, and governance changes have been observed in all NOVA schools to better address sustainability ambition and performance. A close relation between NOVA sustainability Agenda and NOVA schools’ deans boosts and accelerates the common journey towards high standards. Leadership towards sustainability is tangible, throughout programs on education and training, on research and on decisions over schools’ *campi* infrastructures.

In 2024, several working groups with representatives from all NOVA schools continued developing a collaborative work on ZeroWaste practices, on sustainable wet labs, on data collection for the NOVA information system in environment and sustainability, among others. During 2024 a comprehensive work on raising awareness on climate action must be underlined, with a students’ bootcamp, events in all schools, capacity building sessions on inventory of greenhouse gas emissions, under the [NOVA Route Zero](#), a project co-funded by Fundo Ambiental, to conclude for the NOVA Roadmap towards Climate Neutrality and Resilience. Finally, the launch of a new course [Sustainability for All](#) to be offered to all NOVA students, regardless the education program they are enrolled with, must be highlighted, with a team of 26 professors from all NOVA schools to develop the contents for an innovative pedagogical model.



* In 2019, NOVA in the Globe changes its name to NOVA 4 The Globe, focusing its activities on sustainability

NOVA Campi

8

CAMPUSES

9

SCHOOLS AND
INSTITUTES

4

MUNICIPALITIES
Lisboa, Cascais,
Oeiras and Almada

3

HALLS OF
RESIDENCE

821 066

m² TOTAL AREA

98 549

m² of Ground Floor
Area

494 167

m² of Green Area

287 832

m² of Gross Floor Area

460

Beds for students

- 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

- i Alfredo de Sousa Residence
Campolide Campus
- ii Fraústo da Silva Residence
Caparica Campus
- iii Lumiar Residence
Lumiar Campus

ENSP NOVA, Lumiar Campus



NOVA *Campi* are lively places where students, faculty and collaborators, and visitors, may find the multiple services supporting the campus’ daily life.

CAMPOLIDE CAMPUS



Campolide Campus is home to three Schools - NOVA IMS, NOVA FCSH and NSL, and to Alfredo de Sousa hall of residence. The Campus includes Colégio Almada Negreiros, a former Jesuit school from 1835 to 1910, and the rectorate building, awarded with the Valmor architecture prize in 2002. The Social Welfare Services are also located in this Campus. The campus is easily accessible by public transport. With a green area of 16 907 m², the Campus has pedestrian paths opened to the community.

CARCAVELOS CAMPUS



Also serving as a hub for internal and external community, Carcavelos Campus is the house of NOVA SBE with increasing number of students and visitors populating its modern buildings. Facing the sea, with an area of more than 66 000 m², it has low buildings and large open spaces. In April 2019, Carcavelos Campus won the award for Best Real Estate Project of the Year and Best Collective Equipment at the 21st edition of the Real Estate National Awards.

CAPARICA CAMPUS



Caparica Campus in Almada is home to NOVA FCT. With 27 buildings, including Fraústo da Silva Hall of Residence, a library, minimarkets, a day-care center, and a FabLab, the campus is the largest one, with 592 728 m². It is integrated in the urban tissue and accessible by public transport. NOVA FCT has an area of over 50% dedicated to outdoor spaces, including one pond for wildlife, and sports grounds.

Services available at the NOVA *Campi* and the three halls of residence provide amenities aiming to create the conditions for a smooth and happy daily life.

JUNQUEIRA CAMPUS



Junqueira Campus is the house of NOVA IHMT, carrying out its education and research activities in a building dating back to 1902. It is a robust, large building with wide walls lined with marble panels. Due to its privileged location, it has excellent sun exposure and a large area of gardens and forest, allowing its community to enjoy outdoor walks. IHMT is well served by public transport. The school’s contribution to cooperation for health development in the PALOP countries (Portuguese-speaking African Countries) and East Timor has been recognised by the World Health Organisation as a collaborating center for Health Workforce Policy and Planning.



OEIRAS CAMPUS



Oeiras Campus hosts NOVA ITQB within National Agronomy Station campus with beautiful surroundings, including the vineyards of Carcavelos wine. The community benefits from all this green space, and students and faculty can be found strolling (or jogging) throughout the whole campus. The main building is set on a built space with 1 250 m².

SANTANA CAMPUS



Santana Campus is the NMS main Campus. Located at the top of Santana Hill in Lisbon, it includes the historical qualified headquarters’ building from a 19th century design project by architect José Maria Nepomuceno. Two modern research buildings and the library completes the campus dedicated to medicine. NMS was the first faculty in Portugal recognized as an Eco-School and is awarded with the Green Flag since 2015.

AVENIDA DE BERNA CAMPUS



Located in Lisbon, Avenida de Berna Campus is home to NOVA FCSH’s estate dating back to 1978. The Campus has a gross floor area of 24 892 m². FCSH is distinguished as an Eco-School and has been awarded with the Green Flag since 2018.

LUMIAR CAMPUS



Lumiar Campus in Lisbon hosts NOVA ENSP, part of the National Health Institute Dr. Ricardo Jorge facilities. The initial building project was developed by the architect António Pardal Monteiro and was completed in 1972, later extended in 1985. ENSP has been leading public health training for more than 50 years. World Health Organization (WHO) has designated the National School of Public Health as a WHO Collaborating Centre for Education, Research and Evaluation of Safety and Quality in Healthcare.

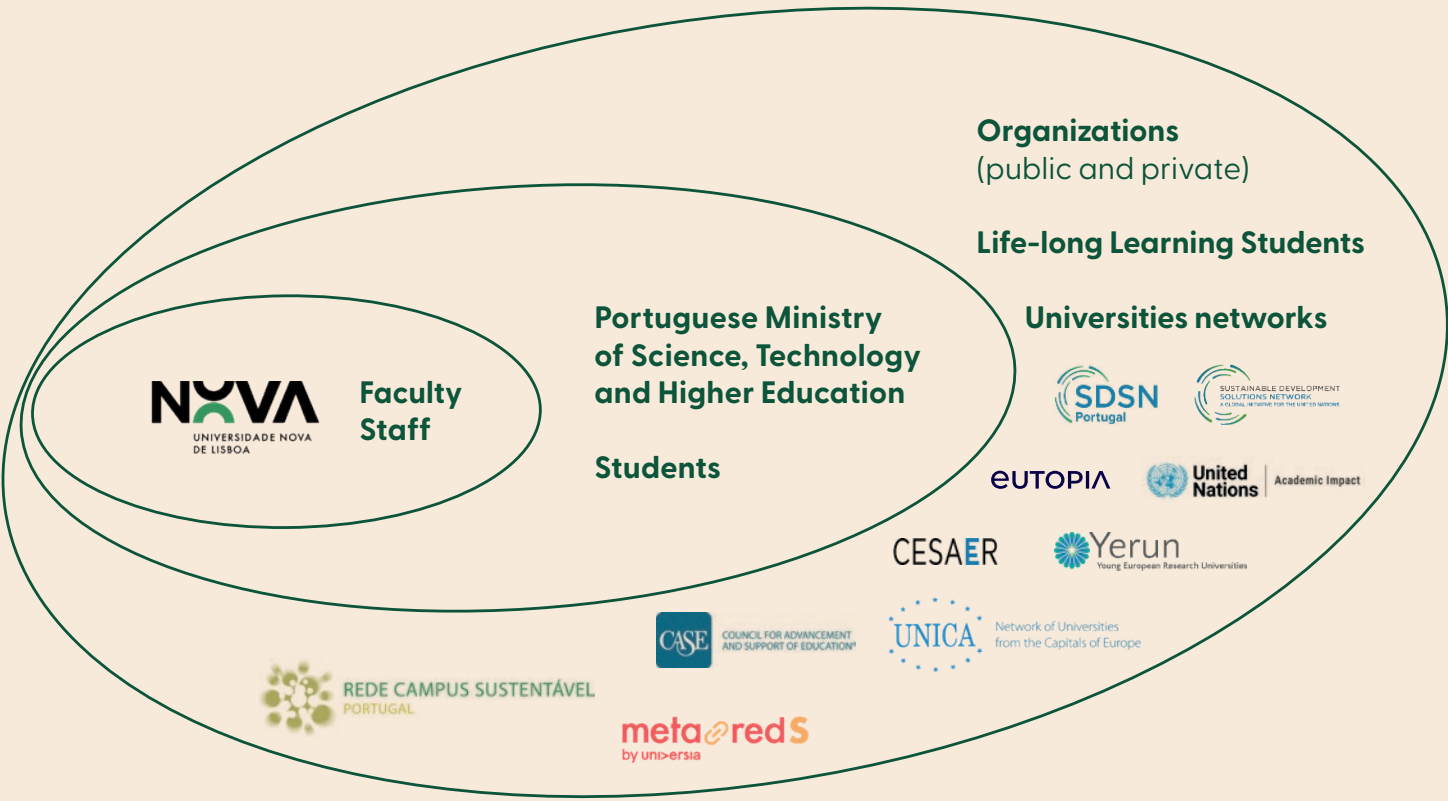
- Hall of Residency
- Heritage
- Bicycle and scooter friendly

- Open to the Community 24/7
- Clinic
- Daycare

- Shuttle
- Eco Campus
- Green Areas

NOVA Community in a snapshot

NOVA Community (“Comunidade NOVA”) includes students, professors, researchers and staff, as well as alumni, partner organizations and suppliers, national or international, working together to foster effective impacts in society, through an open-minded culture of cooperation and innovation.



29 972*
CAMPI POPULATION

2 750
FACULTY¹

1 518
STAFF

24 696
STUDENTS²

631
LIFE-LONG LEARNING STUDENTS

2 214
Professors

536
Researchers

Both national and international

9 306
Undergraduate and Integrated Masters' (38%)

13 032
Master (53%)

2 358
PhD (9%)

5 528
International Students from degree equivalent programmes (22%)

125
Nationalities



*Includes Faculty and Staff, Students, and Researchers without contract with NOVA.

¹ Headcount, including professors and researchers.
² Degree equivalent programmes.

Governance for Sustainability

Sustainability is embedded at the highest level of NOVA University Lisbon’s governance structure, as affirmed by the Rector in the University’s Strategic Plan 2020–2030 and formalized through the publication of NOVA’s Sustainability Policy in November 2021. The Pro-Rector for Sustainability plays a pivotal role in catalyzing institutional change, leading and coordinating diverse initiatives and projects through interdisciplinary teams and working groups. These efforts are primarily oriented toward aligning the University with ambitious sustainability standards, supporting the annual sustainability reporting process, and strengthening NOVA’s presence in international sustainability-related rankings.

Schools are actively engaged in NOVA’s collective sustainability journey through the NOVA for The Globe strategic platform, which brings together representatives from all NOVA schools. Structured around two councils—academic and operational—the platform fosters shared leadership and joint action, with a common ambition to transform NOVA into a model sustainable university. In 2024, the Operational Council was particularly focused on the implementation of NOVA Route Zero, supporting the organizational journey towards Carbon neutrality and Climate Resilience.

ACADEMIC COUNCIL

Including Professors from all nine NOVA Schools, plus a students’ representative, the Academic Council focuses its activity primarily on NOVA’s missions, in the intersection with sustainability. Regarding Education, the council aims to boost, develop and expand education for sustainability, translating into interdisciplinary collaborative projects between the academia of the various schools. Regarding Research, the council aims at creating conditions and incentives to expand the research carried out at NOVA with direct impact on the SDGs, the Paris Agreement, and European Green Deal. On Value Creation and Impact, the goal is to promote innovation with impact, disseminating its value through narratives and indicators (impact narratives are an exemplary case), fostering innovation and knowledge transfer.

Carlos Chastre – NOVA FCT
Graham Miller – NOVA SBE
Ana Santos Pinto – NOVA FCSH
Paulo Coelho – NMS
Claire Bright – NSL
Isabel Maurício – IHMT NOVA
Marco Painho – NOVA IMS
Nélson Saibo – ITQB NOVA
Teresa Magalhães – ENSP NOVA

OPERATIONAL COUNCIL

Including staff from the different schools, from SAS NOVA and the rectory, plus a students’ representative, the operational council takes institutional practices and activities aiming to reduce environmental impacts, and the promotion of an agenda that impacts the social and economic dimension of the University’s community. Academic and Operational councils are chaired by the pro-Rector for Sustainability.

Marco Lopes – NOVA FCT
Rita Aragão Ramos – NOVA SBE
Catarina Bernardo – NOVA FCSH
Manuel Salvador – NMS
Patricia Luz – NSL
Paula Pacheco – IHMT NOVA
Sara Ribeiro – NOVA IMS
Paula Chicau – ITQB NOVA
Vitória Ferreira – ENSP NOVA
José Malcato – SAS NOVA
Patrícia Ferreira – Rectory

Two working groups in NOVA’s Governance Model deal with specific topics, due to its complexity and requirements: waste management and sustainability in wet laboratories.

NOVA ZERO WASTE
Waste Management

The NOVA Zero Waste Working Group brings together specialized staff from all NOVA Schools, SAS NOVA, and the Rectory, representing various Facilities departments. This group plays a central role in managing waste and advancing the University’s commitment to becoming a Zero Waste institution.

- NOVA FCT** | Claudia Saque e Marco Lopes
- IHMT** | Dinora Lopes
- ENSP** | Flavia Casini
- ITQB** | Helena Matias e Paula Chicau
- SAS** | Jose Malcato
- NOVA SBE** | Marta Sousa
- NSL** | Miguel Ferrari
- Reitoria** | Patricia J. Ferreira
- NOVA IMS** | Raquel Antunes
- NMS** | Rogério Marchante
- NOVA FCSH** | Telma Inácio

NOVA GREENLABS
Sustainability in Laboratories

NOVA Green Labs working group joins multiple researchers and lab managers of wet labs across FCT, NMS, ITQB and IHMT, to share and implement good practices towards environmental high standards.

- NOVA FCT** | Rita Sobral, Luisa Pinto Ferreira, Eduardo Mateus, Inês Coutinho and Andreia Ruivo, Alexandra Gonçalves
- NMS** | Ana Faria. Catarina Martins, Manuela Correia
- ITQB** | Carina Valente
- IHMT** | Pedro Cravo

In addition to environmental sustainability, NOVA has established dedicated governance structures to address other key dimensions of sustainability. Equality and Inclusion are overseen by the Vice-Rector for Quality Management, Accreditation, and Employability, Professor Isabel Nunes, who is responsible for implementing and supporting NOVA’s Gender Equality Plan and promoting inclusive practices in academia and research. Socio-territorial innovation is led by Pro-Rector Professor João Seixas, who is addressing critical challenges such as student housing, particularly for those residing far from the Lisbon area.



Complementing these efforts, NOVA’s Social Welfare Services (SAS NOVA) play a crucial role in promoting student well-being and ensuring equal opportunities. Their support includes access to scholarships, food services, accommodation, and both physical and mental health care. SAS NOVA also fosters student engagement in cultural, sports, and volunteering activities, contributing to a more inclusive and supportive university experience.

Sustainability Rankings

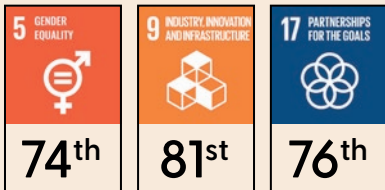


TIMES HIGHER EDUCATION | IMPACT RANKINGS

[See Overall Rankings →](#)

Each year, NOVA University Lisbon evaluates its sustainability performance through its participation in the Times Higher Education (THE) Impact Rankings, which assess universities' contributions to the United Nations Sustainable Development Goals (SDGs). The 2025 edition, based on data from 2023, includes 2 318 universities from around the world. In 2024, NOVA submitted data for 11 SDGs, the highest number since it first joined the rankings. For the first time, the University reported on SDG 7 (Affordable and Clean Energy), SDG 10 (Reduced Inequalities), SDG 12 (Responsible Consumption and Production), and SDG 13 (Climate Action)—marking a significant step in aligning its institutional reporting with the full breadth of global sustainability priorities.

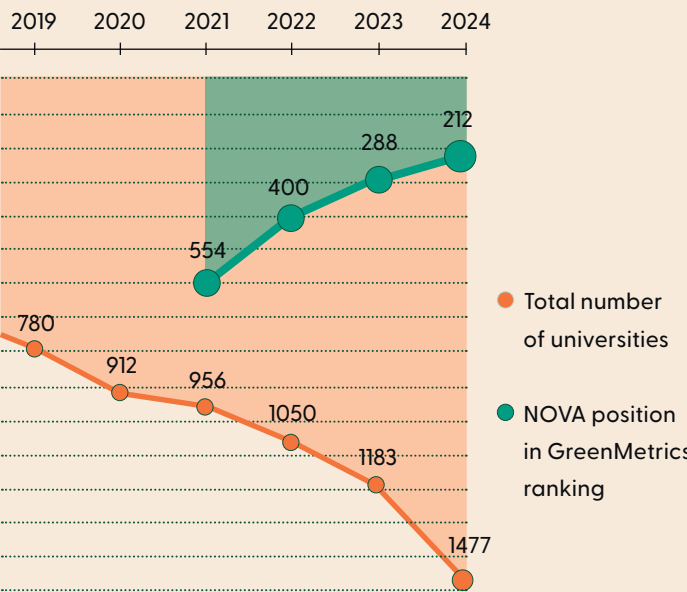
NOVA University Lisbon ranked within the 101–200 band globally and achieved notable positions across several individual SDGs, demonstrating a consistent commitment to academic excellence, social responsibility, and environmental stewardship.



GREENMETRIC

[See Overall Rankings →](#)

In 2024, NOVA consolidated its upward trajectory. With data relating to the calendar year 2023, NOVA is ranked in position 212, among 1 477 Universities. NOVA is now top 14% globally, a significant increase compared to position 288 (among 1 183 Universities) obtained in 2023, in which NOVA was on top 24% globally.



Events



SDSN PORTUGAL - CONFERENCE “PAVING THE WAY TO THE PACT OF THE FUTURE”

On June 17th and 18th, the international conference “Paving the way to the Pact of the Future” took place, debating how we can accelerate and achieve the Sustainable Development Goals (SDGs). The event, organized by [SDSN Portugal](#), chaired by NOVA University Lisbon, was also marked by the launch of the Sustainable Development Report 2024, by the [UN SDSN](#) – Sustainable development Solutions Network – of which it is part. Among the main topics under debate, education models, measures beyond GDP and the role of young people and multilateralism.

[READ MORE](#)

NOVA ROUTE ZERO EVENTS

Throughout the year, the NOVA Route Zero team worked to build internal capacity and foster climate literacy across the schools. Workshops and technical training sessions brought together staff, faculty, and students in meaningful dialogue and action. One such moment took place during NOVA Sustainability Days 2024–NOVA annual celebration of Sustainability. In October, a full week of sessions in each School made Route Zero and all the work carried out by its teams known to the entire community. This activity was taken as very positive, being a significant step towards the ownership of the project and its objectives by each School.



NOVA SUSTAINABILITY DAYS 2024

Over the last three years, NOVA has promoted its Sustainability Days, one or more days dedicated to sustainability. In 2024, special emphasis was given to the Route Zero project. In this way, after a day of conferences at the Rectory, we visited each NOVA School to make Route Zero and all the work carried out by the representatives of each School directly involved in the project known to the entire community, including teachers, researchers, students and employees. The evaluation of this activity was very positive, being a significant step towards the "ownership" of the project and its objectives by each school. Also in the context of the Sustainability Days, the first Route Zero Conference was promoted, with the theme "Financing the Climate Transition in Higher Education" in the auditorium of the Rectory on the Campolide Campus.

[READ MORE](#)



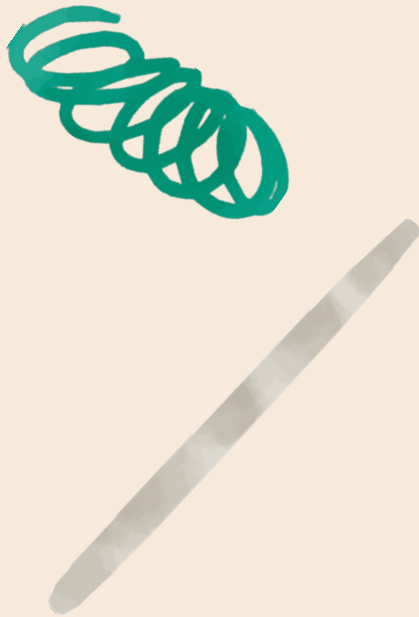
Route Zero Session at NOVA Medical School, Oct 18 2024



Route Zero Session at IHMT NOVA, Oct 16 2024

Networks

NOVA University Lisbon believes in the cooperation with other institutions to speed up the transformation under way in its own. Therefore, NOVA actively participate in several networks to share with others and learn from others on sustainability good practices across its activities and missions.



RCS – SUSTAINABLE CAMPUS NETWORK

The Sustainable Campus Network is a cooperation network of people from national higher education institutions (HEIs) in Portugal for the implementation of the principles and practice of sustainable development in the environmental, social and economic aspects. NOVA University Lisbon is part of RCS since 2018. In september 2024, Julia Seixas participated, together with colleagues from other Universities, in the webinar dedicated to *Sustainable Campuses in Lisbon - Best Practices*.

[READ MORE](#)



UNITED NATIONS ACADEMIC IMPACT (UNAI)

In January 2023, NOVA University Lisbon has been recognized as a member of the United Nations Academic Impact (UNAI), joining a group of over 1600 institutions from more than 152 countries that are working with the United Nations to promote global priorities such as peace, human rights and sustainable development.

[READ MORE](#)



SDSN PORTUGAL

Created in 2023, on the initiative of NOVA, CEiiA, and Instituto Marquês de Valle Flor, SDSN Portugal aims to mobilize universities, research centers and other knowledge networks, civil society organizations and companies to create synergies for the promotion of transformative solutions to accelerate the implementation of the 2030 Agenda SDG and the Paris Agreement goal. In 2024, SDSN Portugal organized the conference “Paving the way to the Pact of the Future” and participated in several panels within the United Nations Action Days in 20 and 21 sep in NYC, UN headquarters, dedicated to the topics of the *Pact for the Future*.

[READ MORE](#)

EUTOPIA

EUTOPIA MORE – SUSTAINABILITY OFFICERS NETWORK (SON)

NOVA participates actively in the EUTOPIA MORE Alliance of 10 European universities, namely through the Sustainability Officers’ Network (SON). The network works collaboratively to develop a Transformation Through Sustainable Development Strategy that can equip universities with cooperative processes to further development of all three university missions in line with the societal and economic needs and with European and global objectives. In 2024 NOVA SON member participated in the bi-annual EUTOPIA Week, which took place in Cluj-Napoca in Romania (from 16th to 20th of June) to discuss the results from the year-long activities of the network and to chart future actions towards shared goals.



METARED S – NETWORK OF SUSTAINABLE AND SOCIAL RESPONSIBILITY UNIVERSITY NETWORKS

MetaRed S is present in several Ibero-American countries, promoted by Universia and Santander Universities. MetaRed S involves the management of the positive and negative impacts produced by the university community, and the expectations and needs of the interest groups as established by the principles of Corporate Social Responsibility, adapted and applied to the educational field. NOVA University joined MetaRedS in 2023. Júlia Seixas is the executive secretary of MetaRedS and participated in the International meeting of Rectos and presidents of Universities, in 3 and 4 october in Cusco, Peru.

[READ MORE](#)

Sustainability in



Research

Education



Innovation and Societal Impact



Research

“At NOVA we believe that the complex challenges of today are only addressable by a combination of deep knowledge and interdisciplinarity. Therefore we promote in many different ways the excellence and interdisciplinarity in science.”

ISABEL ROCHA
Vice-rector for Research, Innovation and Value creation

Research at NOVA is increasingly driven by the ambition to address global sustainability challenges through interdisciplinary collaboration and innovation. Aligned with international agendas such as the UN Sustainable Development Goals and the European Union’s mission-oriented research framework, NOVA’s research community works across technological, social, and economic domains to generate impactful knowledge and solutions.

By positioning sustainability as a cross-cutting priority, NOVA not only advances the scientific frontier but also fosters awareness and capacity-building to shape a more inclusive and resilient society. In 2024, NOVA expanded its SDG-related research outputs across all 17 Goals, reflecting a growing culture of collaboration through co-authorship with researchers from diverse institutions worldwide.

5 367 22 853

TOTAL PUBLICATIONS AUTHORS

51%
With international collaboration

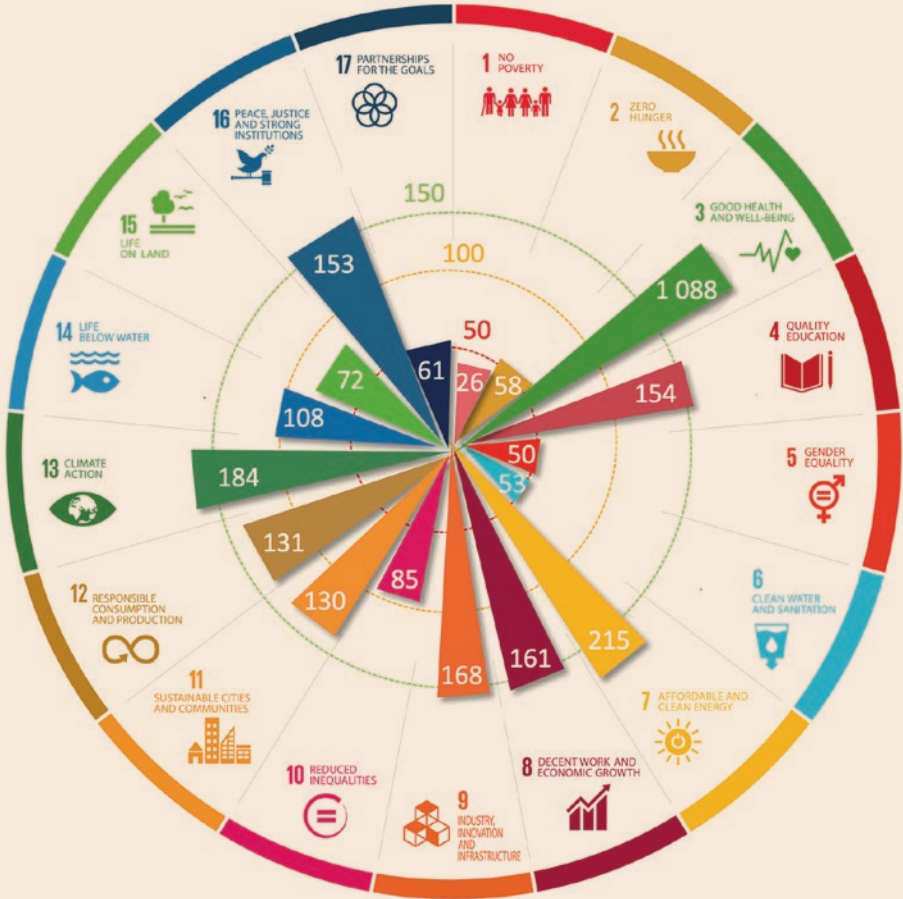
SDGs ADDRESSED BY PUBLICATIONS

1 893 35% 13 460 59%
PUBLICATIONS ADDRESSING SDGs AUTHORS ADDRESSING SDGs

In 2024, NOVA published 1 893 publications contributing directly to different SDGs, accounting for 35% of total publications (33% in 2023), according to the Elsevier Sustainable Development Goals Mapping algorithm³. 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 3.25. Publications with an impact higher than this value include: SDG3 – Good Health and Well-being (4.71), SDG 5 – Gender Equality (6.30), and SDG 10 (3.64).

The graphic* shows the number of mentions of each SDG in the 1 893 publications, meaning in some cases one publication may address more than one SDG. NOVA research delivers on all SDGs, with SDG 3, SDG13 and SDG7 at the top. A significant number of authors address the different SDG, namely SDG 3 (11 034), SDG 5 (1 465), SDG 10 (1 677), and SDG 13 (2 282). The publications consider a wide range of research interests from social science to health and STEM areas across all the SDGs.

*Note: the total research publications’ distribution is approximate.



³ <https://elsevier.digitalcommonsdata.com/datasets/6bjy52jkm9/1>

HIGHLIGHT!

Showcasing the Transformative Impact of Research on Society

In 2024, NOVA University Lisbon reaffirmed its commitment to showcasing the societal impact of research by launching the second edition of the Research Impact Narratives Challenge. This initiative encourages researchers to share the relevance of their work through accessible stories, highlighting science’s benefits beyond academia. The 2nd edition received 25 submissions from eight NOVA Schools, involving 135 researchers across 14 Research Units. Six winners and six honourable mentions were selected – and published at the NOVA Science 2024 –, reflecting NOVA’s diverse and crossdisciplinary research.

A standout project, [Innovation in Rehabilitation: Social Impact through 3D Printing](#), led by the 3D Printing Center for Health – established by members of the LIBPhys and UNIDEMI research units, in collaboration with Fablab FCT –, improved mobility and quality of life for 46 patients with custom, low-cost 3D-printed prosthetics, orthotics, and assistive devices. It cut production costs by 30%, sped up delivery, enhanced healthcare efficiency, and achieved a 90% mobility improvement and 95% satisfaction rate, earning national recognition for both innovation and social responsibility. This project

directly contributes to UN SDGs, including SDG 3 (Good Health and Well-being), SDG 9 (Industry, Innovation and Infrastructure), and SDG 10 (Reduced Inequalities), with a particular focus on targets 3.8, 3.d, 9.5, 9.b, 10.2, and 10.3.

Through such initiatives, NOVA reinforces its role in advancing knowledge with real-world impact, aligned with the 2030 Sustainable Development Agenda.



NOVA IMS, Campolide Campus

HIGHLIGHT!

ENCOMPASS and BIOCIRCLE: NOVA’s Flagship Projects for Clean Energy Innovation

Following the [Interdisciplinary Research Community on Sustainable Energy Systems](#), launched in 2023, supported by Galp Energia, in April 2024, a funding call supported two interdisciplinary projects: ENCOMPASS, mapping energy complexity for sustainable systems, led by Professors Ian Scott (NOVA IMS), António Vicente (NOVA FCT), and Flávio Pinheiro (NOVA IMS); and BIOCIRCLE, exploring biomass from contaminated sites for biomethane production, led by Professors Ana Luísa Fernando (NOVA FCT) and Ricardo Louro (ITQB NOVA). Both teams collaborate with Galp experts to advance research for a greener economy.

HIGHLIGHT!

SeaMic: Empowering Citizens to Safeguard Public Health and Coastal Waters

As part of the EUTOPIA_ HEALTH project, an ITQB NOVA initiative was selected to promote citizen science. The SeaMic project addresses delays in beach water quality testing, which currently takes 48 hours and can expose people to risks or unnecessary closures. SeaMic is developing a rapid test for real-time seawater monitoring. A prototype was showcased at the European Researchers’ Night and Science Café, with citizens participating in the project. Beyond public health benefits, SeaMic also helps tackle environmental challenges affecting coastal ecosystems.

Education

“NOVA University is deeply committed to promoting sustainability through innovative teaching within its educational framework. We have launched a groundbreaking transversal curriculum, “Sustainability for All,” which is designed for all undergraduate students across diverse fields of study. This program recognizes their future roles as professionals and active contributors to societal development. In line with this initiative, our Doctoral School now offers advanced interdisciplinary content on sustainability for PhD students.

We are also excited to introduce an Executive Education program developed in collaboration with the World Bank, focused on Sub-Saharan Africa, specifically in Mozambique, Senegal, and Kenya. This program aims to support organizations funded by the World Bank in their sustainability efforts.”

JOÃO AMARO DE MATOS
Vice-rector for Education and International Development



Education at NOVA University Lisbon plays a central role in advancing its sustainability mission by equipping students with the knowledge, skills, and values needed to address global challenges. Aligned with the UN Sustainable Development Goals and emerging educational frameworks, NOVA is integrating sustainability across curricula and pedagogical approaches. From undergraduate to doctoral programs, the University fosters critical thinking, ethical leadership, and interdisciplinary learning to empower future changemakers.

This chapter presents an overview of NOVA’s efforts to align academic offerings with the SDGs, including a mapping of course content, learning outcomes, and competencies that support the transition to a more just, inclusive, and sustainable society.

The nine schools of NOVA University Lisbon offer more than 280 undergraduate, masters and PhD programmes, structured into almost 4 500 courses. In 2024, approximately 64% of NOVA students graduated in Arts & Humanities/ Social Sciences, followed by STEM (25%) and Health (10%) (Legenda igual à de 2024). In addition, NOVA offers life-long learning programmes.

GRADUATE STUDENTS

7 153

INTERNATIONAL STUDENTS

1 668

NOVA FOUNDATION PROGRAMME – SUPERNOVA

SUPERNOVA – the Foundation Programme, created in 2018, is a strategic initiative by NOVA to attract international students. It goes beyond academic training, also promoting cultural, linguistic, and institutional integration for participants. The program guarantees direct access to undergraduate degrees for those who meet the criteria, offering a curriculum with specific subjects, language modules, and adaptation support. Since its inception, the number of participants has grown from 36 to 195 in 2024, coming from over 40 nationalities. In total, SUPERNOVA has welcomed students from 66 countries. Brazil leads in the number of participants, followed by Angola, the USA, Mozambique, China, Russia, and Ukraine. The presence of Portuguese-speaking countries and global powers reinforces the international nature of the program. NOVA professors ensure high-quality teaching and personalized support.

[KNOW MORE.](#)

195 PARTICIPANTS
in 2024

NOVA DOCTORAL SCHOOL

The training offered by the NOVA Doctoral School is aimed at the doctoral students and PhD holders (Researchers and Professors) of NOVA University Lisbon. It complements the academic path and promotes the development of transversal skills for a solid and comprehensive training. Our Mission is contributing to the excellence of the doctoral training at NOVA. Sharing best practices in doctoral programmes and promoting cross institutional cooperation, at both national and international level.

From 2013, until the end of 2024, 285 editions of the courses have been held, with a total of 5243 participations.

[KNOW MORE](#)

401

PHD STUDENTS

5 243

since 2013

SDG ADDRESSED BY COURSES

414 9%

COURSES ADDRESSING SDGs

NOVA’s education programmes offer 414 courses where at least one SDG is addressed, representing 9% of the total courses offered. Most of the courses are part of the masters’ curricula. These indicators were updated by the course coordinators in all schools, via the Council for Teaching and Learning.



Most popular

118 29%

Sustainability-focused

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 STARS⁴.



Most reported

296 71%

Sustainability-inclusive

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 way⁶.



Most reported



The graphic* shows the number of mentions of each SDG in the 414 courses, where one course may address more than one SDG. Although all the SDGs are addressed, SDG3 and SDG9 are the most popular. Looking at the 118 sustainability-focused courses, most are integrated in programmes on environment and sustainability, SDG7, SDG9 and SDG11 are the most reported. The 296 sustainability-inclusive courses report mostly SDG3 and SDG16.

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

HIGHLIGHT!

Sustainability for All new course

The new couse *Sustainability for All* was conceptualized and developed in 2024. After a call to NOVA professors, 26 were selected from the 9 Schools to develop, in multidisciplinary teams, 12 Missions, which are the core of the course. The course is to be offered to all NOVA students, adopting a pedagogical model much supported by mission-based learning model and peer-to-peer. The goal is to provide fundamental concepts and tools around the 17 Sustainable Development Goals (SDGs) to all NOVA students, as part of their fundamental training.



The course will be offered in a digital platform, with no classes, but with three in-person sessions. Learning is based on 12 missions, which can be completed at each student’s own pace, although with some deadlines. Students will gain an interdisciplinary knowledge by exploring the interconnectedness of SDGs across various topics.

⁴ STARS stands for The Sustainability Tracking, Assessment & Rating System, a programme of the Association for the Advancement of Sustainability in Higher Education.

Innovation and Societal Impact



“NOVA Community is ever more committed with the creation of social and economic value as a result of their research, teaching and learning activities. We are proud that a significant and growing number of our innovation and entrepreneurial projects directly address sustainability challenges.”

ISABEL ROCHA
Vice-rector for Research, Innovation and Value creation

The NOVA community has been increasingly responsive to societal and economic demands for expertise and knowledge in the various SDG domains. NOVA is proud to deliver and transfer knowledge and tools which feed into social and economic values. Several activities have been carried out across NOVA schools to promote entrepreneurship and innovation with social and environmental impact: (i) train students in entrepreneurship, providing them with the mindset and tools to turn ideas into projects with impact; (ii) support new spin-off companies with services allowing them to grow and promote highly qualified jobs; (iii) foster knowledge-based and high-impact innovation through the valorization of technologies and specialized knowledge, namely in liaison with industry and social organizations.

237	80
STARTUPS ⁵	Sustainability-related ⁵
23	12
NOVA SPIN-OFF® ⁵	Sustainability-related ⁵
287	70%
ACTIVE PATENTS ⁵	International
↑ 12 Relative to 2023	

⁵ Start-up values refer to accumulated values. The cutoff date is 31/12/2024. The first start-up mapped was founded in 1996. The NOVA Spin-off ® trademark started in 2018. The first patent was registered in 2005. The figures presented may be adjusted in the process of validating the data reported by the schools and updating the database, which is done manually and occasionally. Due to some reporting errors in the previous years, in 2024, numbers are significantly adjusted when compared to 2023.

ENTREPRENEURSHIP PROGRAMMES:

NOVA impACT! Challenges

In 2024, the fifth edition of the NOVA impACT! Challenges was held with the support of Santander Portugal Foundation. This initiative aims to stimulate the development of entrepreneurial projects focused on solving social and environmental challenges, in line with the United Nations SDGs. The program ran from June 19th to July 10th, 2024, culminating with an exciting Demo Day in the Rectorate Auditorium, where the teams presented their final projects.

The 2024 edition saw 34 projects registered, by a total of 95 people, of which ten were selected for the development phase. A total of 37 students from different Higher Education Institutions, both national and international, 27 of whom were from the NOVA community.

Each selected team received financial support of 500 EUR for the development of a prototype or proof of concept.

The jury awarded the final prize of EUR 2 000 to the teams:

CIRCULAR FOODS

whose project aims to reintegrate industrial food waste into a new range of healthy and affordable food and drink products. These products are designed for customers who find it difficult to find natural alternatives on the market, with a positive impact on both the planet and the community. The project stands out for prioritizing physical and mental health through recycled natural ingredients, offering competitive prices thanks to its circular business model.

During the program, participants benefited from four hands-on workshops, the support of a dedicated mentor, access to the NOVA Mentor Network and use of the FCT FabLab facilities.

Since its launch in 2020, NOVA impACT! Challenges programme has supported 52 projects developed by more than 120 students, investing around EUR 37 000 in the development of innovative ideas. This initiative has so far resulted in the creation of six new start-ups, highlighting the impact of this program on the entrepreneurial ecosystem.

[MORE INFO](#)

34	37	10
APPLICANT TEAMS	PARTICIPANTS	TEAMS SELECTED

ENSINAI

whose project aims to empower students with an AI-assisted tutor and a gamified platform that provides accessible and engaging education, addressing the shortage of teachers and the high cost of private tutoring.

NOVA Empreperneurship Academy

NOVA Academia de Empreendedorismo (NOVA Entrepreneurship Academy) is a MOOC (Massive Online Open Course) that seeks to democratize access to knowledge for all interested parties and is available, in Portuguese, first through the NAU platform of the National Science and Technology Foundation (FCT, I.P.) and then through the edX platform. The course is taught by professors from different NOVA schools, structured in six modules, from basic concepts to entrepreneurship tools and best practices and invite entrepreneurship and start-up founders to share their experiences. Each lesson lasts between five and ten minutes, for a total of eighteen lessons. It's a free, short course, to be taken at each participant's own pace and aimed not only at university students, but also at anyone who wants to learn more how to manage their own professional projects. NOVA Academia de Empreendedorismo promotes long-life learning opportunities for all, aligned with SDG4. In 2024, the 3rd edition had, once again, a high demand, placing it once again at the top of courses searched for and completed on the NAU platform. In just two months (November to December 2023), more than 2 400 people signed up, with registrations from various countries, and around 70 paid certificates of completion were issued (with the attribution of 1 ECTS).

[READ MORE](#)

2 400

REGISTRATIONS
IN 2024

+11 500

REGISTRATIONS
SINCE 2022

WISE (World-Changing Innovations for Sustainable Energies)

Students from various NOVA schools (NOVA FCSH, NOVA IMS, NOVA FCT and NSL) worked together between March and June 2024 to develop solutions that would transform the landscape of sustainable energy systems. Among the more than 70 students who applied to the WISE (*World-Changing Innovations for Sustainable Energies*) program - launched by the NOVA Impact office of the Rectorate, with the support of GALP - 35 were selected to develop the most innovative response to complex problems in the world today, in seven groups of five students each.

This program takes place in the context of the partnership between GALP and NOVA, signed in 2023, for the creation of the NIRC (NOVA Interdisciplinary Research Community), with a view to promoting collaboration and innovation within the NOVA community and tackling emerging challenges in the field of energy. For around 12 weeks, the slected teams tackled the following challenges with the support of expert mentors: i) second life batteries (including the supply and use of batteries); ii) shared energy storage in energy communities; iii) energy storage for negotiations; and iv) energy arbitrage and alternative energy storage systems (other than chemical batteries).

The WISE program aimed not only to answer the questions posed by GALP, but also to provide a unique learning experience for students, promoting collaboration between different disciplines and stimulating innovation in the energy field.

70

APPLICANTS

35

PARTICIPANTS

WINNING PROJECT

The winning project was presented by a team made up of students from Nova SBE, NOVA FCT and NOVA FCSH, who were offered participation in the European Innovation Academy, as well as a job shadowing opportunity at GALP and a LinkedIn Badge (NOVA's certificate for LinkedIn). Their proposal consisted of a “Sunny Solar Bank”, which introduces the innovative concept of an energy bank. This application allows users to deposit the extra energy they produce and use an algorithm that predicts the availability of energy, suggesting the best times to sell it to the grid. The profits made can be converted into discounts on energy bills or invested in renewable energy projects.

An honourable mention was also awarded to the team that presented the project “NEWLY - Alternative Energy Storage Systems”, developed by students from NOVA FCT and NOVA FCSH. proposal that aims to revolutionize energy storage systems through the development of a supercapacitor, a component capable of storing and supplying a high density of electrical high density of electrical power in a short period of time, which uses paper electronics to increase the capacity of to increase the capacity of current storage systems. Pedro Copeto, Duarte Riscado.

[MORE INFO](#)



HIGHLIGHT!

New NOVA Spin-off® in 2024

In 2024, the NOVA Spin-off® community welcomed three more members:



CLEOCARE

A start-up founded by a NOVA FCT student, originated in the Biomedical Engineering master's degree, in the entrepreneurship mid-term course, where the student was supported by several professors in the areas of business and the technology used. Since its creation in June 2021, the company has maintained a strong connection with the NOVA academic community, being incubated at the NOVA SBE Haddad Entrepreneurship Institute. CleoCare, previously called Glooma, is developing a home and portable medical device that complements SenseGlove. This device is a glove that contains piezoelectric sensors and connects to a mobile application that contains a Machine Learning algorithm. By combining sensors and artificial intelligence, CleoCare is able to create a profile for each user and monitor breast health on a monthly basis, alerting the patient whenever there is a suspicion, thus differentiating itself from the existing competition.



LEVACELLS

Founded in 2024, offers media and food formulas for cell lines, modulating specific biological functions through variations in media and food components, taking advantage of the functional environmentalomics approach and the latest advances in machine learning techniques. It is co-founded by Professor Rui Oliveira (NOVA FCT) and a NOVA FCT research fellow.



ALBATROZ DIGITAL

Albatroz Digital positions itself in the construction of solutions and the provision of IT, web and mobile services, oriented towards people, territories and the relationships that regulate different communities. The applications developed by Albatroz Digital for local authorities, public companies and non-governmental organizations promote social inclusion and the exercise of citizenship in the most diverse dimensions: governance and participatory democracy; culture, education, heritage and sport; employment and economic development; digital inclusion; rights and security. The company has a strong relationship with the NOVA ecosystem, was founded by a NOVA FCT alumnus and is currently incubated at Madan Parque - NOVA University Lisbon's Science and Technology Park.

Infrastructures and Services

Environmental Impact

Social Impact

Driven by the ambition to lead through action, NOVA University Lisbon is embedding sustainability across its operations, in line with the Sustainable Development Goals and the Paris Agreement. Environmental and social metrics presented here reflect the University's commitment to accountability and progress.



Environmental Impact

The eight Campi of NOVA University offer a large and diverse set of infrastructures, green areas, and services to a vibrant multinational community of students, faculty, collaborators and visitors. NOVA community is aware of the impact on environmental systems of its daily life at campus and is keen to improve its individual and collective behaviour towards more sustainable patterns.

All NOVA schools have been implemented actions and initiatives targeted at improving resources consumption and the well-being at campus.

HIGHLIGHT!

NOVA Climate Journey – Students Bootcamp

In March 16, 2024, NOVA partnered with LIDERA to organize and facilitate a one-day bootcamp aimed at NOVA student community. The event brought together more than 50 participants from all NOVA schools, in a renewed effort to strengthen relationships across campus borders. With climate action as the main topic, the bootcamp sought to enhance knowledge on the drivers and consequences of climate change and motivate students to actively engage in solutions. Workshops throughout the day touched upon diverse topics, such as insects, forests and oceans, climate entrepreneurship and leadership for sustainability. The day ended with students creating a vision for a more sustainable NOVA university, in the year 2040.



HIGHLIGHT!

InNOVA- NOVA information System for Environment and Sustainability

One of the major milestones of 2024 was the launch of **InNOVA**, the University’s digital platform for calculating and tracking greenhouse gas (GHG) emissions, covering scopes 1, 2 and 3, for 2023 and 2024. Any person can access InNOVA main page to have a broad view of NOVA’s GHG emissions. NOVA community can access more detailed data, through their credentials, regarding their own school and other schools as well.

INNOVA CAN BE ACCESSED [HERE](#)

Universities have a critical role in the climate transition, as transformation catalysts both of their own campuses and services, and of community's behaviors. To address just that, the NOVA Route Zero project was launched at the end of 2023. This two-year initiative co-funded by Fundo Ambiental, aims at creating a comprehensive framework for NOVA to contribute effectively to the Paris Agreement goal, while taking Agenda 2030 SDGs, and galvanizing other Portuguese Higher Education Institutions to join the journey as well. During 2024 the governance model was established, multiple internal and external actors were identified and engaged, and project activities were developed, mostly within a collaborative mode across various institutional structures. Activities conducted throughout the year focused on building the technical and institutional foundations to become a Net Zero and Climate Resilient University.

Two key components of the project deserve to be highlighted. For the first time, NOVA set out to build a comprehensive Greenhouse Gas Emissions Inventory, according to the internationally

recognized Greenhouse Gas Protocol Standard, aiming to i) aggregate raw data and automate the calculation of GHG emissions; ii) enable quality control and internal or third-party verification of the results obtained; iii) facilitate the identification of mitigation priorities through the integrated emissions management and their sources. To achieve this, every NOVA School, the Social Services and multiple divisions

from the Rectory were involved, as well as some external partners. Amongst other activities, this exercise implied mapping all university assets and activities, identifying and implementing new processes for data gathering and analysis. The year 2023 was established as the base year, meaning that the correspondent emissions will serve as reference for future decarbonization goals and strategies.

What the team working is saying:

"The emissions inventory aggregates value to the faculty's strategic planning, promoting a culture of environmental responsibility. Nonetheless, there are challenges, such as the collection and systematization of activity data, which requires collaboration and internal awareness."

Catarina Bernardo

Coordinator of the Center for Space Management, Sustainability and Development of Campi, Head of Space Management, NOVA FCSH

The second component deserving highlight during 2024 was the exercise to project NOVA's GHG emissions for 2040. The basis for this exercise was a questionnaire answered by the Deans of all Schools, together with his/her management team, on prospecting the eAvolution of the school in 2040. This *visioning* exercise covered several domains related to campus assets and activities, such as the evolution of built area, the type of buildings in the case of new constructions, the number of students, collaborators and faculty, the evolution of amenities and wet labs, among others. For the sake of simplicity, and because there will be a review in the next 4 years, the Deans worked over two scenarios until 2040: 1) the Reference Scenario, which considers all existing initiatives and projects under implementation and those approved with secured investment, with impact on the GHG emissions; 2) the Scenario with Additional Measures, which considers also other actions for GHG emissions reductions which are not yet approved. A set of assumptions allowed for the estimation of GHG emissions in 2040 for each School and for NOVA. This information, alongside with the inventory, will be the basis for a detailed, data-driven Roadmap towards net-zero emissions and increased climate resilience.

Route Zero is a transformational journey, one that reaches across operations, governance, education, and collective action. Now, more than ever, NOVA invites its community of students, faculty, collaborators, suppliers and partners to be part of this path forward.

[READ MORE](#)

"The biggest challenge was the collection and processing of data for the InNOVA tool, a process that implied joint effort and organization, teamwork and dedication."

Paula Chicau

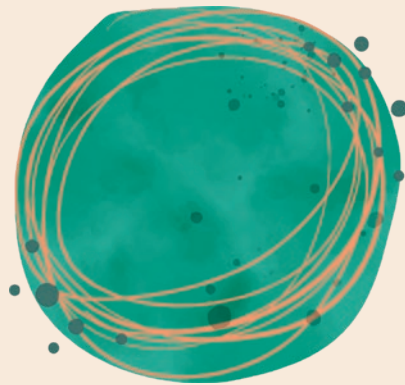
Research facilities team and laboratory manager, ITQB NOVA

"InNova, allowed us to capitalize on pre-existing processes and signal potential optimizations. The 2023 GHG inventory update was an important moment of training, improvement, and above all, of responsibility and transparency."

Susana Santos

Sustainability Manager, NOVA SBE

● Energy usage



NOVA’s electricity consumption profile has been consolidated since 2019, evolving under a continuous improvement process⁵ (Figure 1). In 2024, the University’s electricity consumption totaled 19,6 million kWh (2% of which produced locally at FCT and SBE Campuses). This figure reveals a decrease of 14% compared with 2019, and an increase of 4% compared with 2023. Electricity is the major final energy form, representing 90% of NOVA total energy use. This is explained by the major energy-dependent services provided by the University, including electronic and laboratories equipment, lighting, air conditioned and refrigeration.

Natural gas consumption at NOVA, together with propane, amounts to 2,0 million kWh in 2024, representing 10% of NOVA total energy use. That figure represents a decrease of 29% in comparison with 2019, and a decrease of 8% compared to 2023.

Natural gas is used mostly for cooking at cantinas and for space heating in some buildings, while propane is only used in the FCT Campus and has remained constant since 2019. NOVA's car fleet is responsible for the consumption of fossil fuels for transportation.

Beyond direct energy use, NOVA's energy-related consumption also includes fluorinated gases (F-gases) utilized in its air conditioning and refrigeration systems. Due to the nature of F-gas usage, primarily occurring during equipment top-ups or repairs, it is not possible to establish a consistent annual consumption profile. Replenishment needs are intermittent and unpredictable, meaning consumption can vary significantly from one year to the next. The data on the amount of fluorinated gas acquired, included in the form submitted to the Portuguese Environmental Agency is used as the data source to estimate the f-gases emissions.



Electricity usage:

19,6

MILLION kWh

↑ 4%
Relative to 2023

Acquired from the grid:

19,2

MILLION kWh

Own production:

376 168

kWh
(2% of total energy usage)



Gas consumption:

2,0

MILLION kWh

↓ 8%
Relative to 2023



F-gases:

161

kg



Fossil Fuel consumption
in own fleet:

3 375

L
Gasoline consumption
(similar to 2023)

6 833

L
Diesel consumption

↑ 17%
Relative to 2023

⁵The figures for previous years may differ from those already published, due to improvements on data gathering and methods, with impacts in the time series for data coherence.

SCHOOLS’ OVERVIEW

Due to high energy-intensity laboratories, both for education and research, FCT and ITQB have been the top electricity consumers, accounting for 30% and 22% of total electricity consumption in 2024, respectively. NOVA SBE is also responsible for significant electricity consumption in 2024 (20%), mostly attributed to a growing number of students, internal and external events and activities held within Campus. Together with NOVA Medical School, which has also considerable laboratory areas, the four schools account for more than 72% of total electricity usage at NOVA, as shown in Figure 1.

Throughout the years, SAS NOVA, responsible for the management of residences and canteens, has been the primary consumer of gas (55% in 2019, 68% in 2022, 50% in 2023), while schools have registered variable amounts of gas consumption, as illustrated in Figure 2. In 2024, SAS NOVA started the renovation to improve and modernize two residences, due to the Recovery and Resilience Plan (PRR) funding opportunity, which explains a significant reduction of 39% in gas consumption compared with 2023. NOVA Medical School's consumption increased compared to 2023. This rise was primarily due the disconnection of HVAC system's ducts during several months of 2023, which implied the use of gas heaters. For the case of NOVA SBE, 98.8% of total on-campus natural gas consumption is attributed to leases, with the school’s direct consumption being 2 457 kWh only.

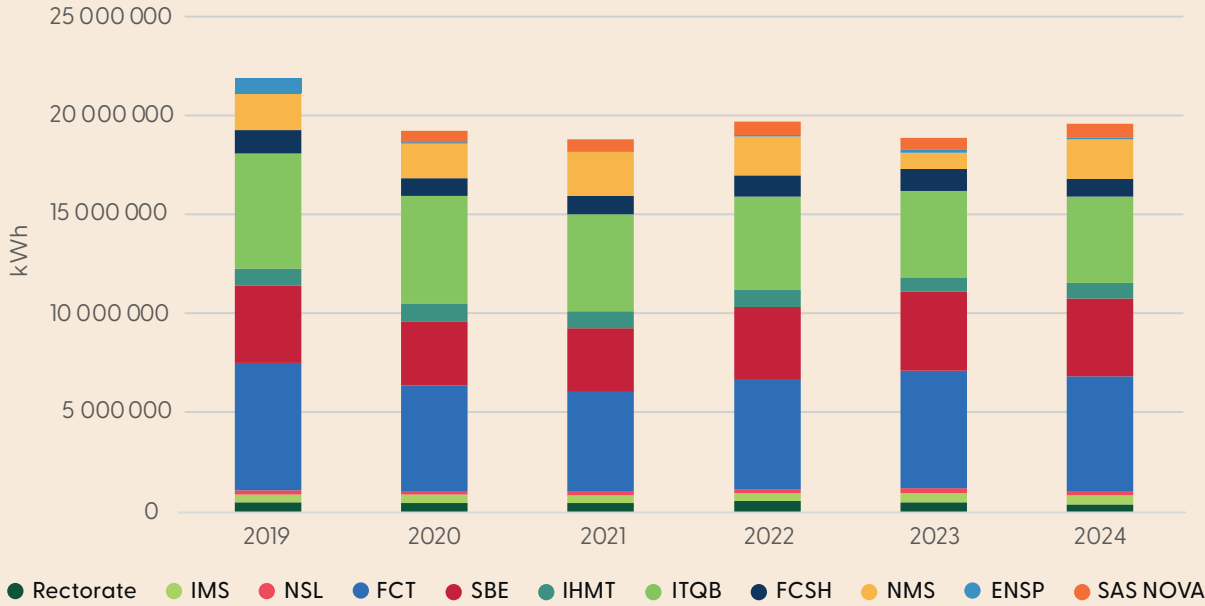


Figure 1- Electricity usage per NOVA school for the period 2019 to 2024 (kWh)

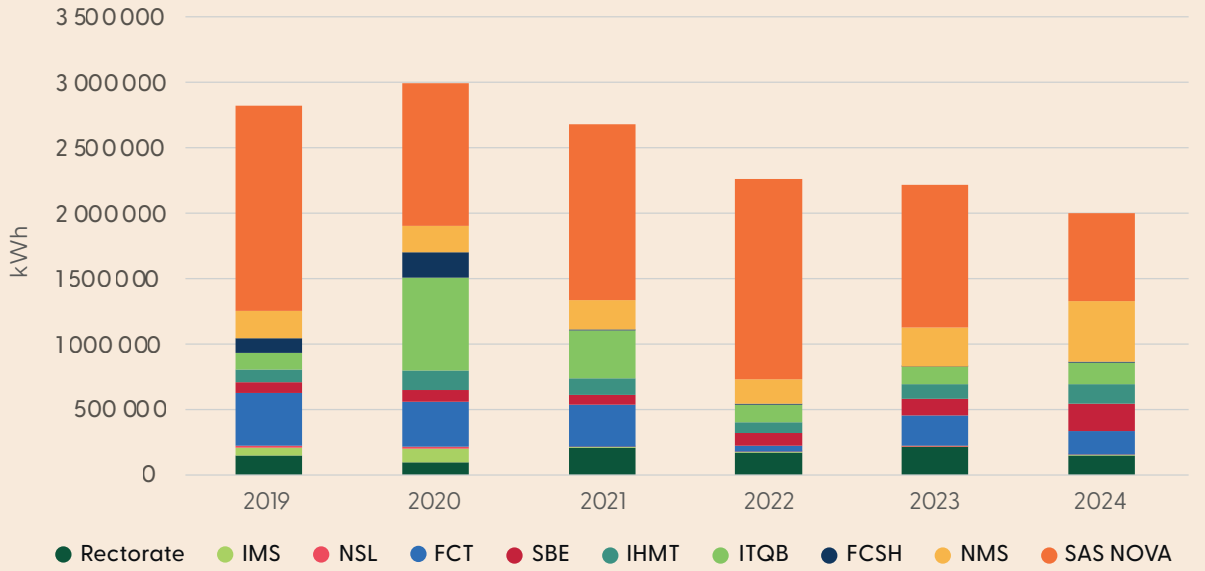


Figure 2- Gas usage per NOVA school for the period 2019 to 2024 (kWh)



● Water consumption

NOVA's water usage in 2024 increased by 6% compared to the previous year (surpassing the year 2019 by 14%). Total water usage amounted to 219 378 m³, for multiple purposes, including for cooking and irrigation, in bathrooms and laboratories.



Total water usage:

219 378

m³

↑ 6%
Relative to 2023

Own water supply:

27 304

m³

(12% of total water usage)

Per area unit: Per capita:

0,27

m³/m²

7,5

m³

821 066

m² (Total area)



Campi
population
2024:

29 341
pax

SCHOOLS' OVERVIEW

Due to the installation of a new water irrigation system at the Campolide campus by the end of 2023, overall water usage decrease by 60% in 2024 when compared to 2023. NOVA FCT has been decreasing its water usage, with a record in low water consumption in 2024 since 2019 (-31%). Contrasting with this, water usage at ITQB, NMS and IMS have increased from the previous year, as presented in Figure 3.

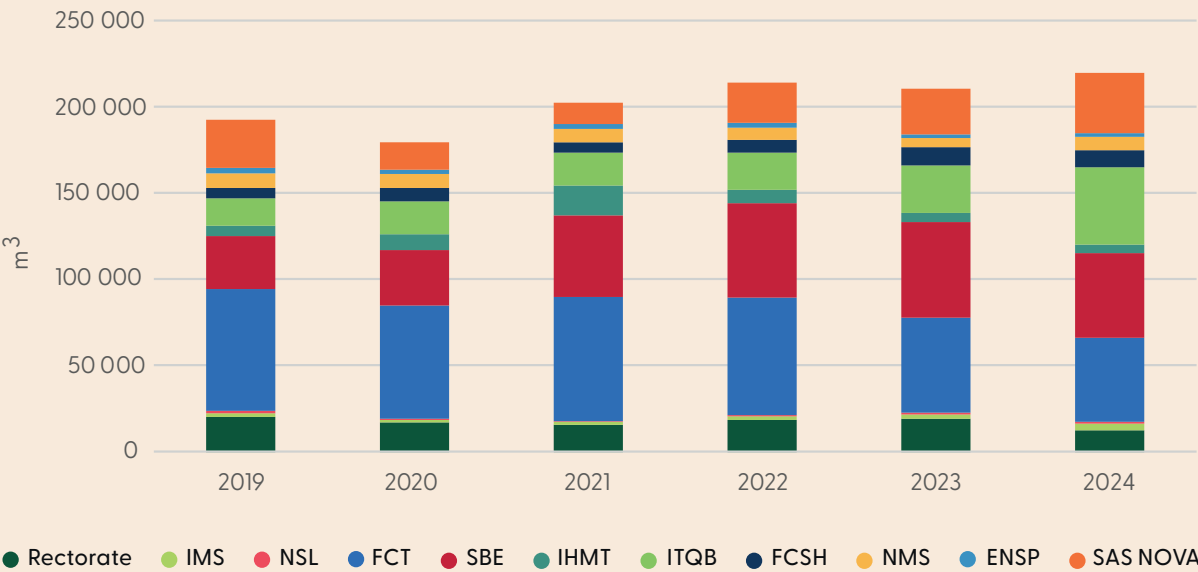


Figure 4 - Water usage by NOVA schools for the period 2019 to 2023 (m³)

● Waste Management

The year 2024 was the second year in a row of the waste monitoring campaign, and there was the opportunity to adjust and consolidate the methodology and the in-site protocol adopted in all Campuses. The campaign took place during three weeks, from 4 to 22 march (15 working days) in which at least twice a day the filling capacity of each waste container (i.e. glass, paper and cardboard, packaging and mixed waste) was assessed. This data allowed for the estimation of indicators of waste produced (both in volume and in height) per category per working day, and extrapolated for the whole year, taking out holidays and weekends (i.e. 255 working days).

In 2024, NOVA University produced a total of 1122 tonnes of waste, a 1% increase, compared with 2023. Mixed waste represents the biggest share of waste produced at NOVA (73%), a bit more than in 2023, which reveal a challenge to manage.

The recyclable waste, taken as a proxy of NOVA recycling rate, was slightly below the national average (33%). Figure 4 illustrates the difference in the proportion of each recycled waste category for the two years. A decrease of biowaste separated (or reported) should be underlined, which impacted negatively NOVA recycling rate. For this reason, that will be a point of focus in waste management in the year to come.

WASTE AT NOVA:

Total waste per capita:

38

kg/pax/year
(consistent with 2023)

Mixed waste per capita:

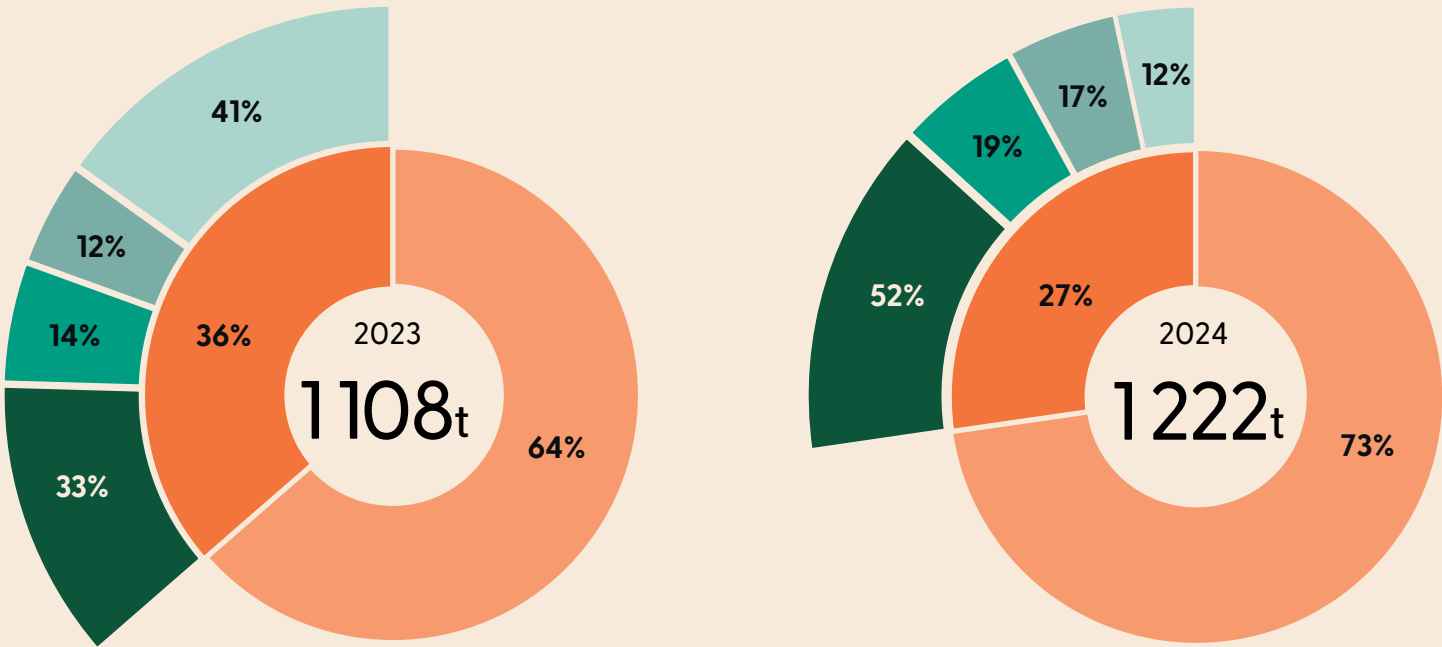
28

kg/pax/year

Recycling rate:

27%

↓ 6%
Relative to 2023



● Mixed waste ● Recyclable waste ● Biowaste ● Glass ● Plastic ● Paper

Figure 4- Total waste produced in 2023 and 2024, by waste category

SCHOOLS' OVERVIEW

Figure 5 illustrates the amount of total waste produced by each school in the two years. Particularly, NOVA FCT and NOVA SBE show higher numbers compared with 2023, which can partially be justified by a more accurate registration method. Due to different activities and to varying Campuses populations, the use of indicators as waste production per capita deliver a better figure per school. These indicators differ amongst the Campuses, as shown on Figure 6, which highlights the challenge of decoupling the expansion of programs and initiatives from an increase in waste generation.

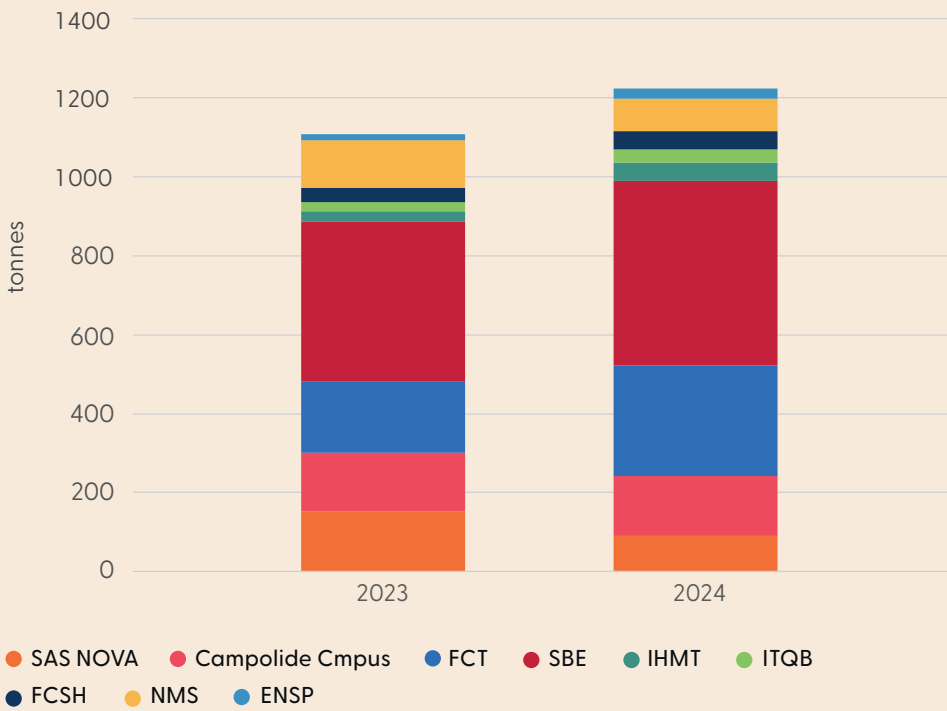


Figure 5- Total waste produced by NOVA Schools in 2023 and 2024

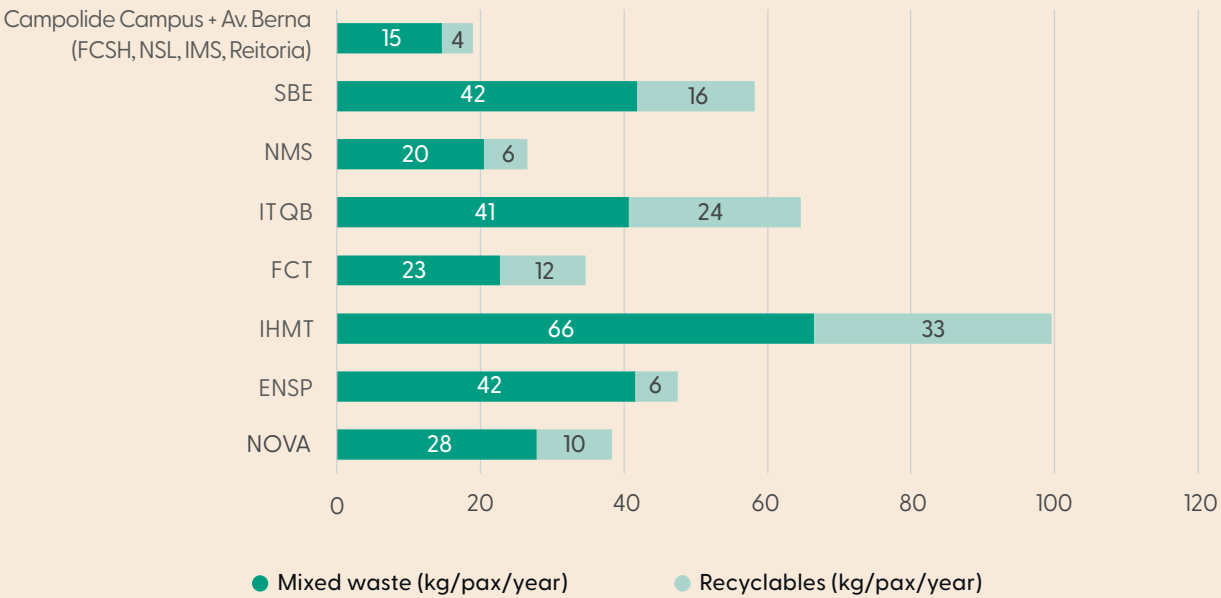


Figure 6- Estimated annual waste production per capita in 2024, by type of waste and Campus

HIGHLIGHT!

Zero Waste Group Joins Urban Waste Management Entities in the Lisbon Metropolitan Area

In May 2024, the NOVA Zero Waste Group organized the "NOVA Zero Waste: Collaboration for a Sustainable Future" workshop, held at NOVA SBE campus. The workshop brought together representatives from all NOVA schools, as well as key partners, including waste management entities, as TratoLixo, Valor Sul and AmarSul, the municipalities of Lisbon, Oeiras, Cascais, and Almada and ZERO, and environmental NGO. Participants engaged in working sessions aimed at identifying potential improvements and synergies in waste management practices. A key highlight of the event was the signing of a Cooperation



Agreement between the Lisbon City Council and NOVA University Lisbon, particularly devoted to the biowaste collecting and composting options. This agreement strengthens collaboration for a more efficient and sustainable waste management system across the university and its surrounding communities.

HIGHLIGHT!

In 2023, through the open innovation RE-SOURCE program of Sociedade Ponto Verde, NOVA FCT started a partnership with NUDGD, a Swedish start-up specialized in behavioural changes through nudging methods. Towards the end of 2024, a series of surveys targeting the NOVA FCT student population were conducted, with the aim of understanding their perceived barriers towards recycling, motivations to recycle, knowledge and attitudes around the topic. Preliminary results indicated the majority of inquired students looked for recycling opportunities, mostly moved by a higher sense of individual responsibility and higher perception of environmental impact. Barriers identified included low availability of



recycled bins in the campus, poor visibility and bad communication of such areas. In the months to come, NUDGD will create the waste behavioural profile of NOVA FCT students and propose communication measures and tools to increase waste reduction and recycling.

● Paper use

Since the significant decrease in paper usage (-61%) after the Covid pandemic in 2020 and subsequent digital transition, consumption has stabilized around 3 million sheets a year, as shown in Figure 7. In 2024, 6 595 reams of paper were used across all NOVA schools, corresponding to 3,3 million paper sheets. Most paper use is attributed to services at schools (e.g. financial processes), exams and answering sheets. The University is actively working on strategies to address paper consumption through its Zero Waste Group, focusing on digitalization strategies and raising awareness.

SCHOOLS' OVERVIEW

Figure 7 shows the evolution of paper use, from 2019 to 2024, considering all NOVA schools. However, this evolution should be approached carefully, since some schools, like NSL, did not report any paper in 2024 because the school used leftover paper from the previous year. NMS has significantly reduced paper consumption, achieving a 98% reduction compared with 2019. NOVA SBE and NOVA FCT have registered increases compared with 2023, respectively 21% and 57%. Evolving from the current state of stabilized paper usage requires additional and active measures targeted at the most significant consumption sources, such as the project management and research divisions. Options include the adoption of processes and behavioral changes within these services, and the dematerialization of academic evaluation methods.



ITQB NOVA, Carcavelos Campus

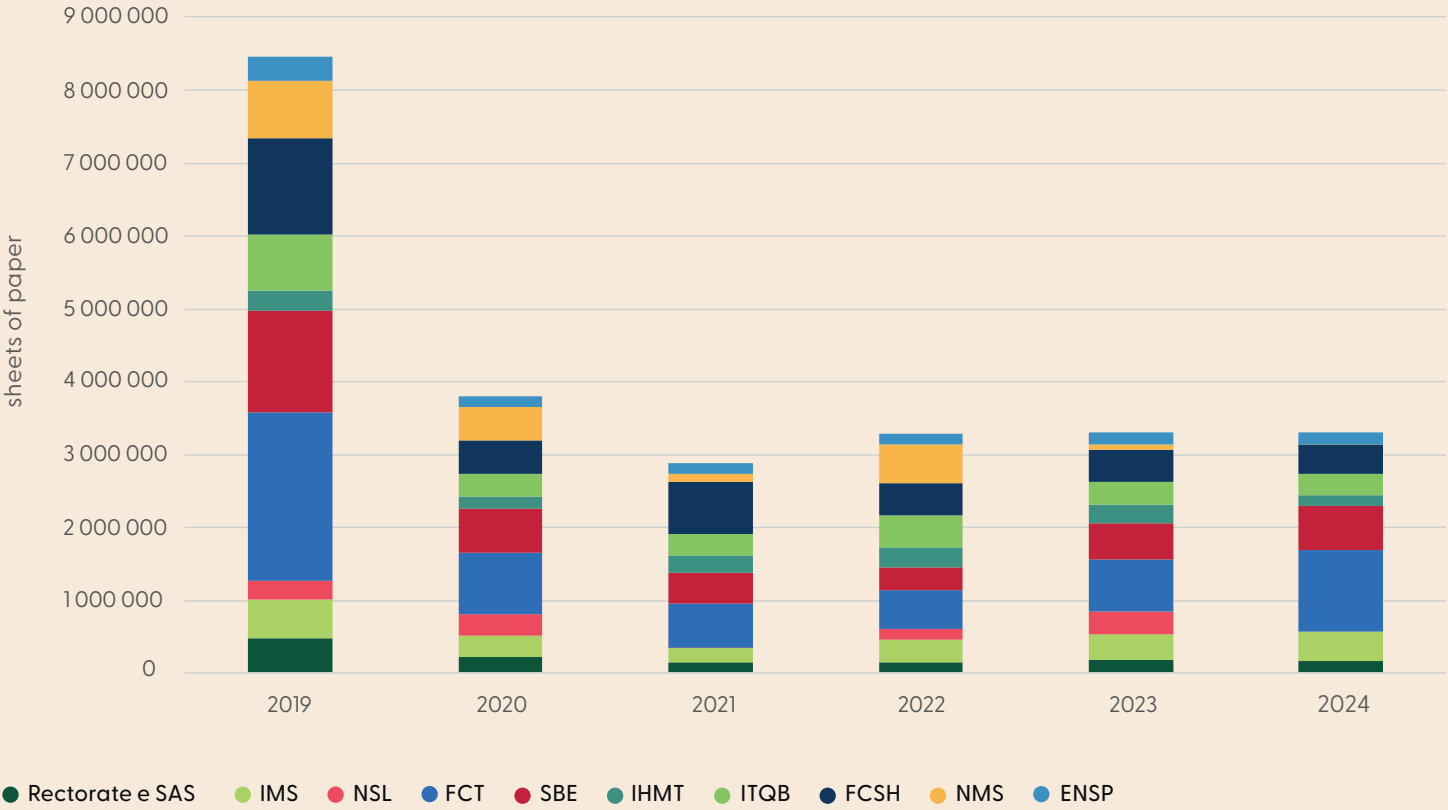
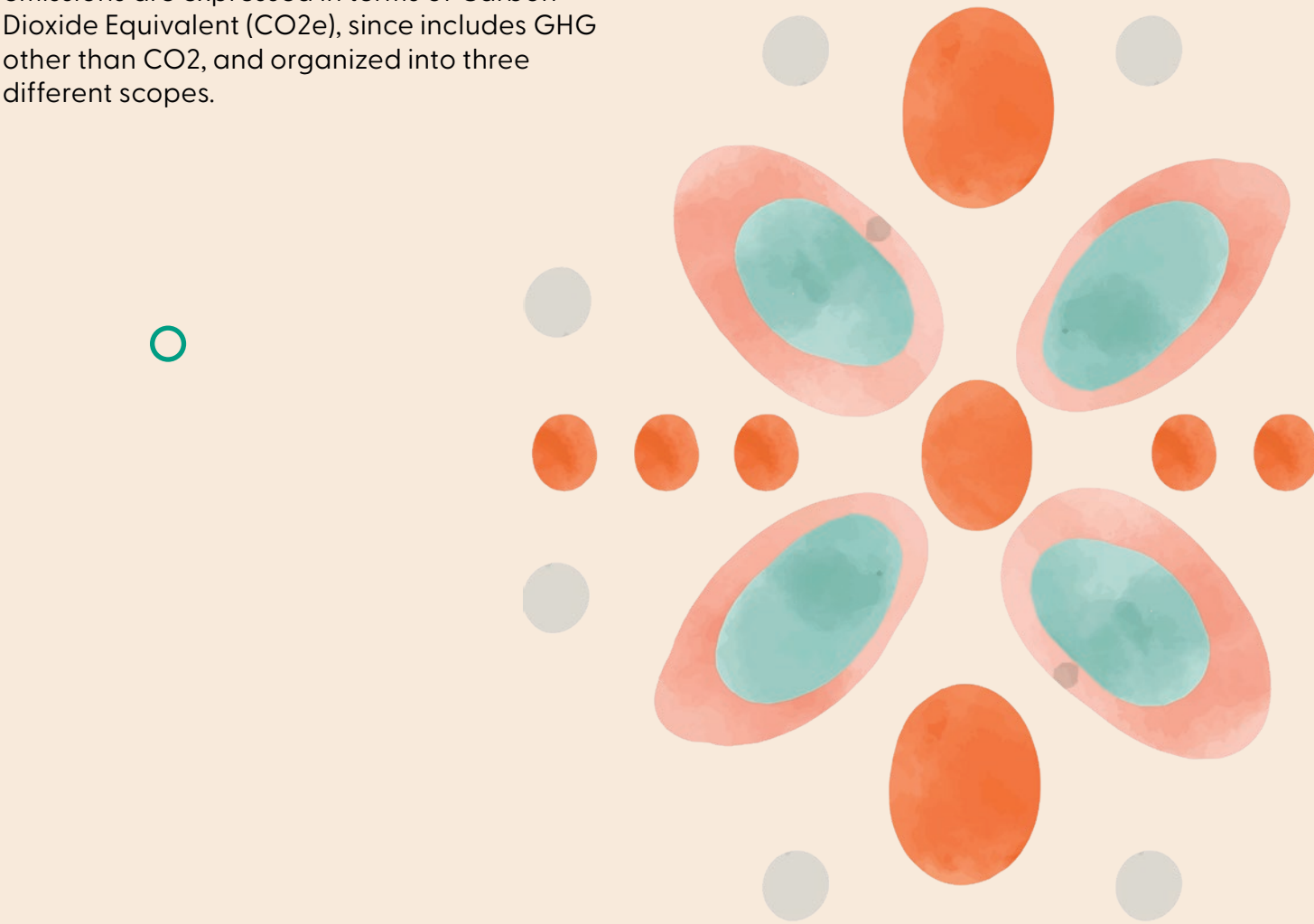


Figure 7- Paper use by NOVA school for the period 2019 to 2024

● **Inventory of Greenhouse Gas Emissions**

METHODOLOGY

NOVA greenhouse gas (GHG) emissions inventory uses the GHG Protocol standards, as the accounting methodology⁶. The GHG Protocol is a global standard companies and organisations globally adopted to estimate, manage and report their GHG emissions. Greenhouse gas emissions are expressed in terms of Carbon Dioxide Equivalent (CO₂e), since includes GHG other than CO₂, and organized into three different scopes.

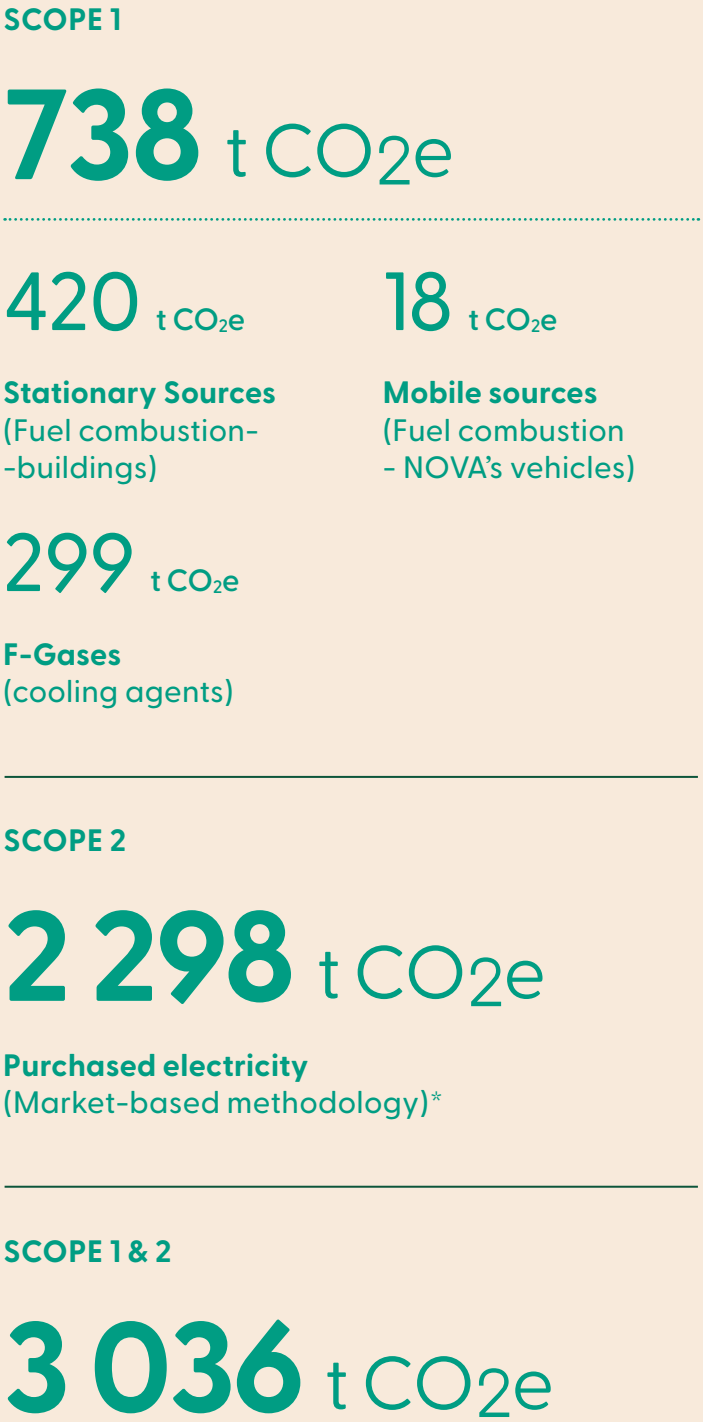


SCOPE 1 & 2 EMISSIONS

Scope 1 emissions are direct emissions that occur due to NOVA activities, in facilities/ equipment/vehicles owned by NOVA, therefore scope 1 emissions are under control of the organization. Scope 2 emissions are indirect emissions generated by power plants from fossil fuel combustion when producing electricity, NOVA acquires from the national grid, therefor scope 2 emissions are beyond the organization’s control.

All the activities under Scope 1 & 2 were considered in NOVA inventory, namely fuel combustion (stationary and mobile sources) and fugitive F-Gases (refrigerant leakages). For purchased electricity, the two methodologies suggested by the GHG Protocol (Market- and Location-based) were calculated. Fuel combustion data was reported directly by NOVA Schools and based on their accounting records. Refrigeration leakages data was based on information provided by equipment maintenance services, under their reporting obligations to the Portuguese Environmental Agency. Data on electricity consumption was collected from *Barometro EcoAP*, a smart digital platform that reads directly electricity consumption by power delivery point at each NOVA school, SAS and rectory. For 2024, the total GHG emissions from scope 1 and 2 amounted to 3 043 tCO₂e, a reduction of 13%, in comparison with 2023 (estimated with the same methodology).

NOVA GHG emissions, scope 1 and 2 (2024):



⁶ GHG Protocol – A Corporate Accounting and Reporting Standard; Corporate Value Chain (Scope ³) Accounting and Reporting; and GHG Protocol Scope ² Guidance

* Location-based methodology – 2 310 t CO₂e

SCOPE 3 EMISSIONS

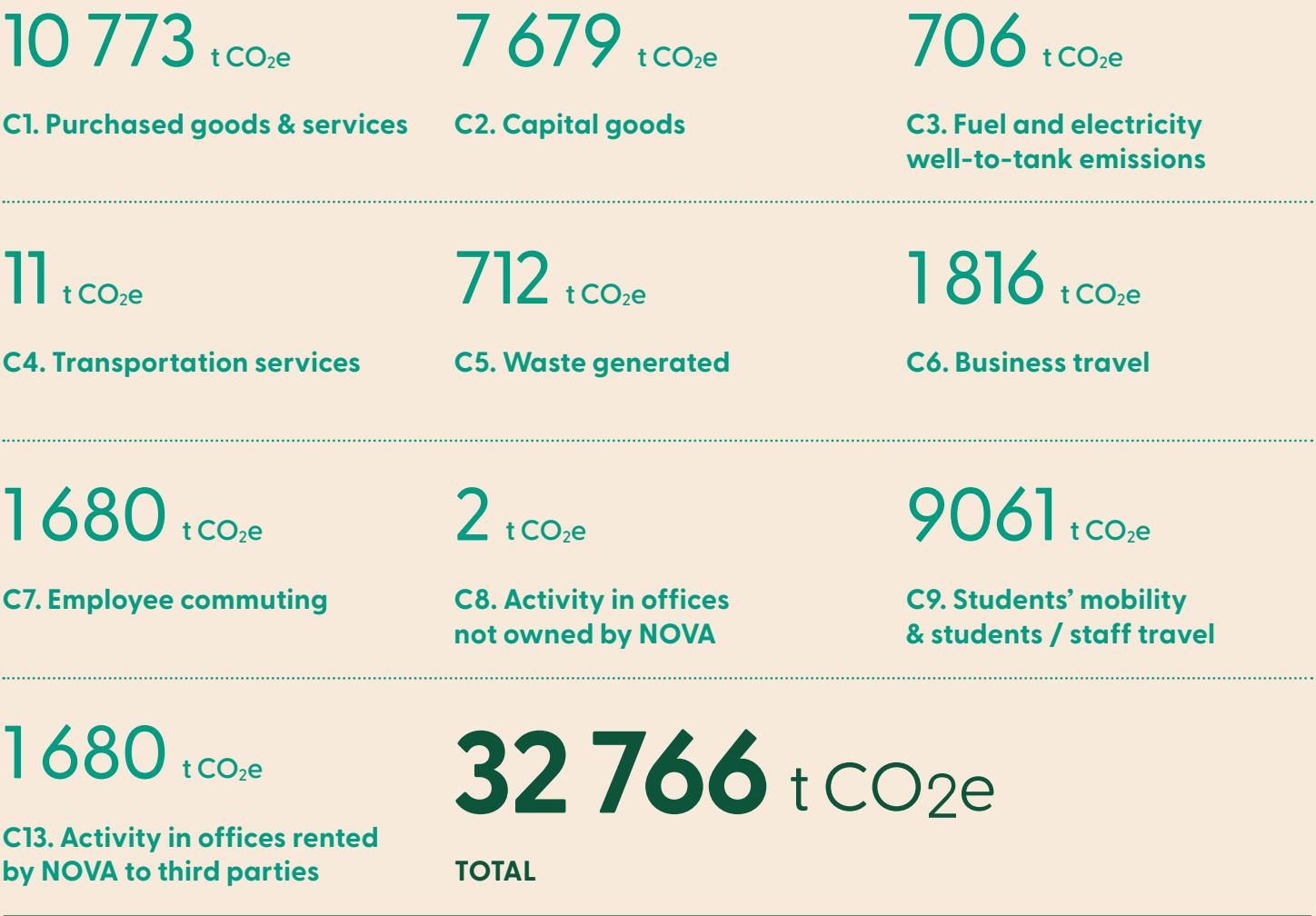
Scope 3 refers to GHG indirect emissions, for which NOVA has no direct responsibility but rather occur as a consequence of its activities to serve NOVA purposes, upstream or downstream. All Scope 3 categories were considered, except Categories 10 (Processing of sold products), 11 (Use of sold products), 12 (End-of-life treatment of sold products), 14 (Franchises) and 15 (Investments), since there are no such activities at NOVA. Purchased goods transportation in Category 4 (Upstream transportation) was considered in Category 1 (through "cradle-to-gate" emission factors).

- **Categories 1** (Purchased goods and services) **and 2** (Capital goods) associated GHG emissions were estimated using the spend-based method (see GHG Protocol), using centralized data provided by NOVA's Rectory. Although, this is a very popular methodology, its accuracy is relatively poor, and the results should be read carefully.
- **Category 3** (Well-to-Tank fuel- and energy-related activities) GHG emissions calculations used emission factors for the country, from the Portuguese National Inventory Report. To estimate
- **Category 5** (Waste generated) emissions, the urban and organic waste collected data from in-site sampling campaigns, with specific data per School, was considered, while the wastewater drained into the sewer system was based on water use data.

- **Category 6** (Business travel) considered travel and rent-a-car agencies data and NOVA administrative information to establish the road, rail and air travelled distances.
- **Category 7** (Employee commuting) and Students commuting (included in Category 9) were extrapolated from indicators produced from a survey on mobility conducted at the NOVA University in 2023.
- **Category 8** (Upstream leased assets) GHG emissions were estimated from external premises rented by NOVA.
- **Category 9** (Downstream transportation) also considered the emissions from student and staff international travel (e.g. participation in Erasmus-like activities), with data from administrative office.
- **Category 13** (Downstream leased assets) emissions are from NOVA rented premises to third parties, therefore the related activity data was excluded from the Scopes 1 & 2 emissions calculations.

In 2024, NOVA GHG emissions scope 3 totaled 32 766 tCO₂e, representing an increase of 21%, in comparison with 2023, justified by significant increase of emissions associated with capital goods (+87%) and with purchased goods and services (+25%), while emissions from business travel decreased (-28%).

NOVA GHG emissions, scope 3 (2024):



EMISSION FACTORS

The latest Portuguese [National Inventory Report](#) was used as the main source of information for Scope 1 and selected Scope 3 emission factors. Other international sources were also used like UK DEFRA (Department for Environment, Food and Rural Affairs), particularly for Scope 3 estimations. Electricity traders (Market-based) and ERSE - Energy Services Regulatory Authority (Location-based) were the source for the purchased electricity emission factors.

NOVA GHG EMISSIONS

Like most Higher Education Institutions (HEIs), the vast majority of NOVA emissions fall under Scope 3, representing 92% in 2024. This highlights the significant impact of the University’s supply chain, including goods and services, capital goods, and transportation. Scope 1 (Combustion & F-Gases) and Scope 2 (Electricity) emissions represent a smaller, although relevant, 2% and 6% respectively.

The detailed breakdown of NOVA GHG emissions for the year 2024 can be seen in Figure 8, providing a clear picture of NOVA profile. Categories 1, 2 and 3 constitute the largest portion of NOVA indirect emissions, accounting for a combined 58% of total emissions. Transportation and mobility (Categories 9, 6, and 7) are also substantial contributors, representing 39% of total emissions. Other significant Scope 3 categories, include waste and transportation Services (2%), and leased assets activity (1%).

35 806 t CO₂e

TOTAL

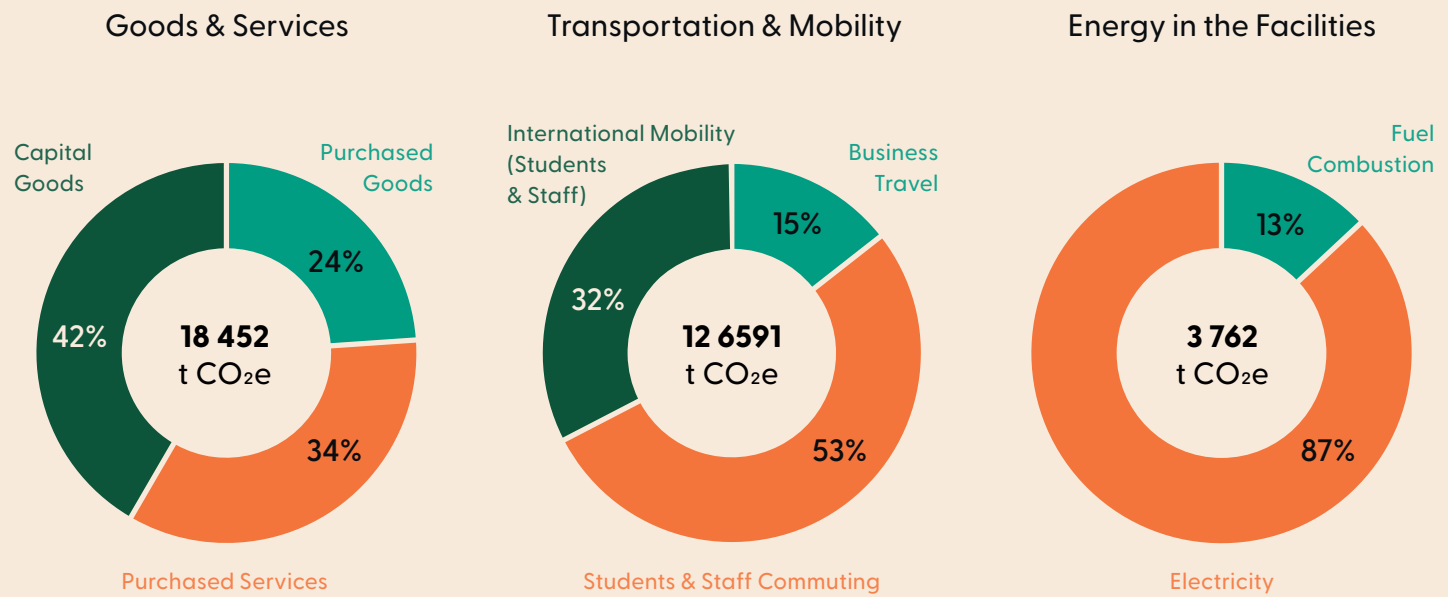
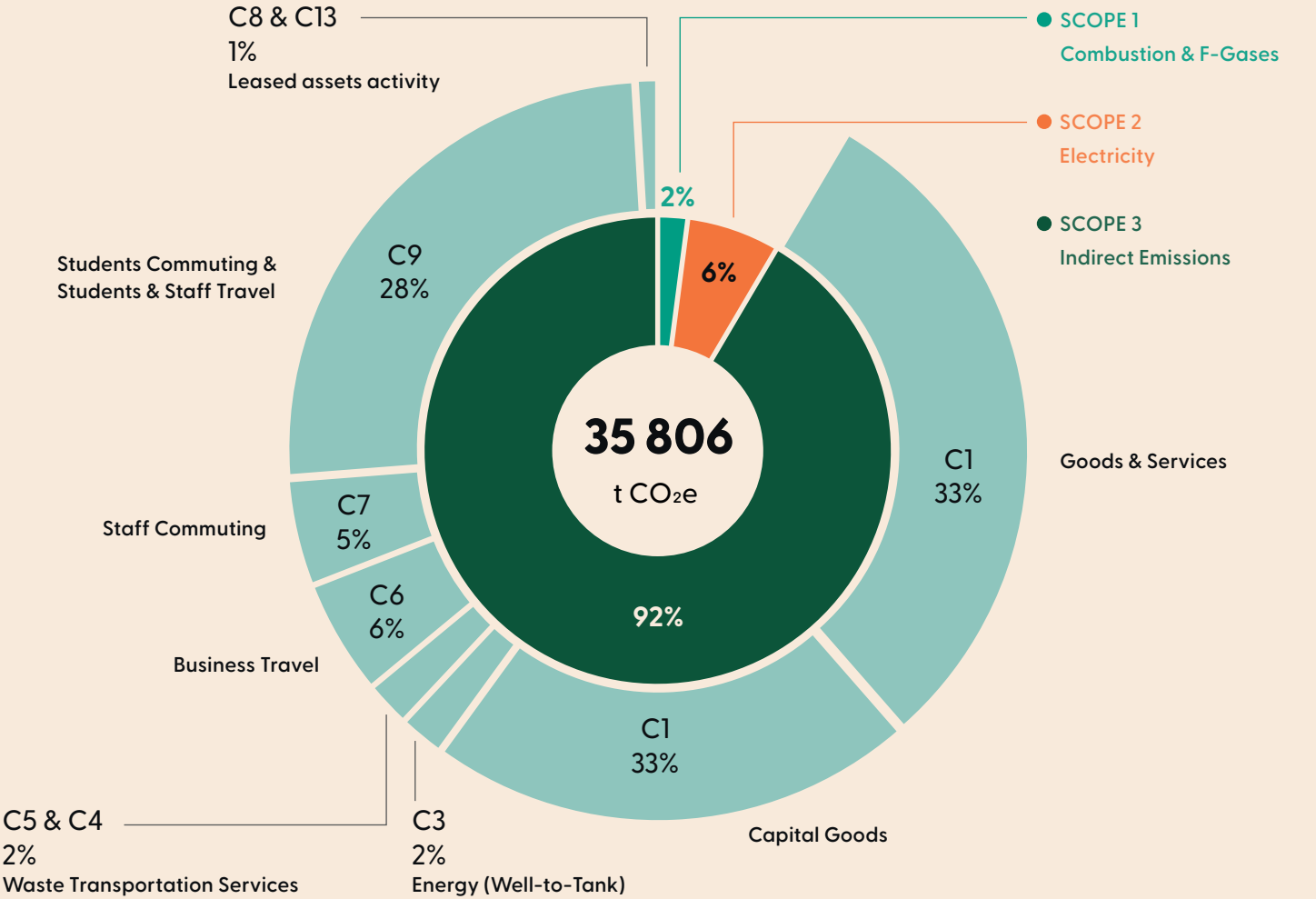


Figure 8- NOVA GHG emissions in 2024, for scopes 1, 2 and 3 (TOP) and breakdown in the most relevant activities (DOWN).

SCHOOL'S OVERVIEW

The disparity of dimension and of type of activities amongst all NOVA Schools is reflected in their respective GHG emission volume and profile (as showcased in Figure 9). Nonetheless, the emissions profile for all schools indicates scope 3 as the biggest source of emissions. It is no surprise that FCT is by far the biggest emitter, especially considering its big community and energy-intensive research and educational activities. ITQB exhibits a similar emissions profile, although on a smaller scale, with higher percentages of energy-related emissions. SBE, FCSH and NMS also contribute substantially to overall emissions, mainly due to large numbers of students and staff. The remaining schools, SAS NOVA and Rectorate are smaller, but still significant, emitters.

Figure 10 presents the evolution of GHG emissions NOVA was directly responsible (scope 1) or can act to control (scope 2) from 2019 through 2024, highlighting each School's contribution. Even with a 4% rise in electricity consumption in 2024 over 2023 (electricity representing 90% of total energy usage), emissions show a continued downward trend. This outcome is largely attributable to an 11% long-term decrease in electricity consumption since 2019, coupled with the decarbonization of the Portuguese electricity production system. Key factors include the closure of coal power plants in 2021 and 2023, and a substantial increase in renewables to electricity production, reaching 71% in 2024 (compared to 61% in 2023). On average, in comparison to 2019, the carbon intensity of the electricity purchased from the grid in 2024 decreased 80%, according to APREN⁷.

This data is essential to support the development of strategies to reduce NOVA environmental footprint and achieve the University's sustainability goals. Moving forward, targeted interventions within these key areas will be put in place to drive significant emission reductions.

Scope 1 and 2 emissions:

3 036 tCO₂e

↓ 13%
in comparison with 2023

Total emissions (scope 1, 2 and 3):

35 806 tCO₂e

↑ 17%
in comparison with 2023

Emission intensity
per student:

1,4 tCO₂e/student

Emission intensity
per built area:

0,16 tCO₂e/m²
(classrooms, services, labs,
common spaces)

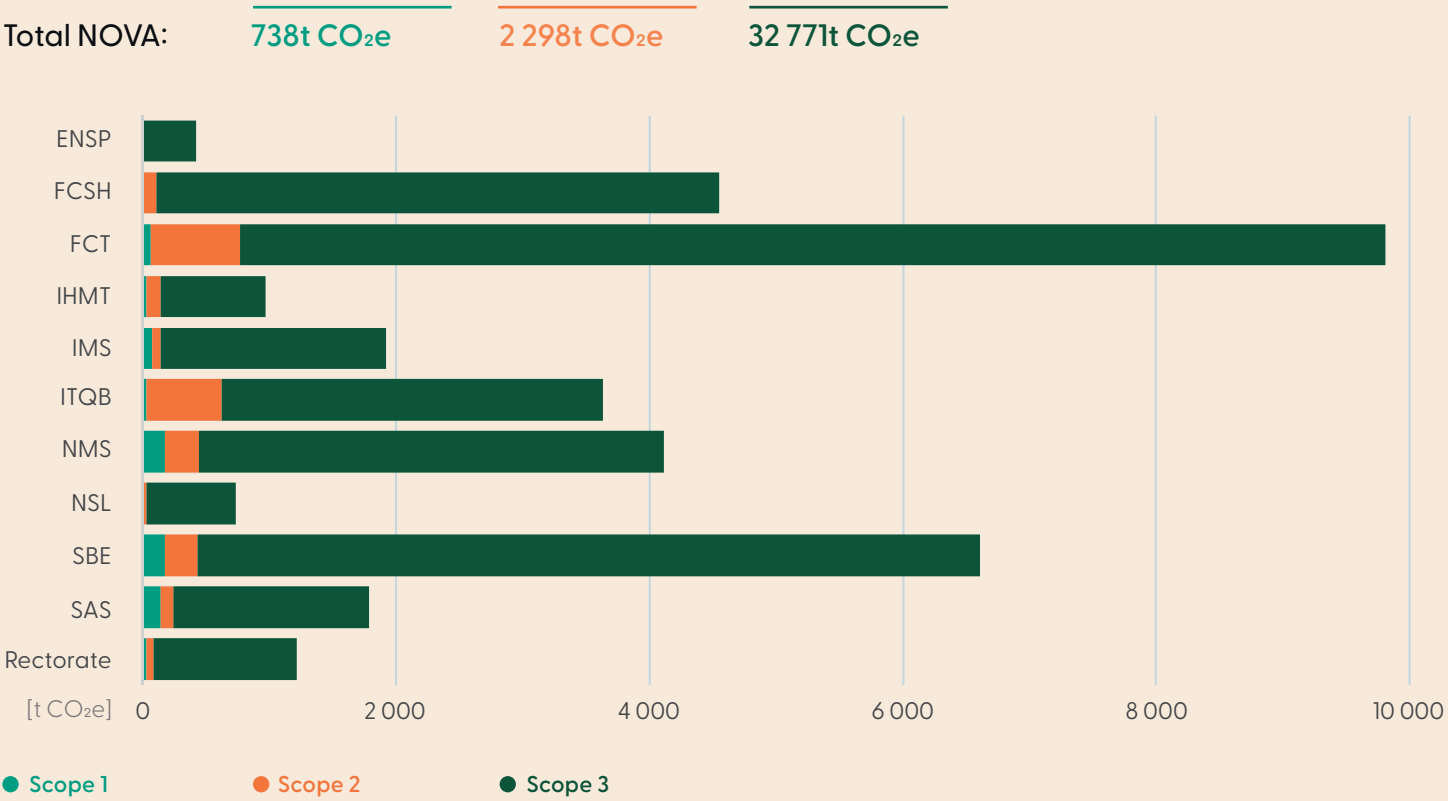


Figure 9- NOVA Schools Greenhouse Gas Emissions in 2024

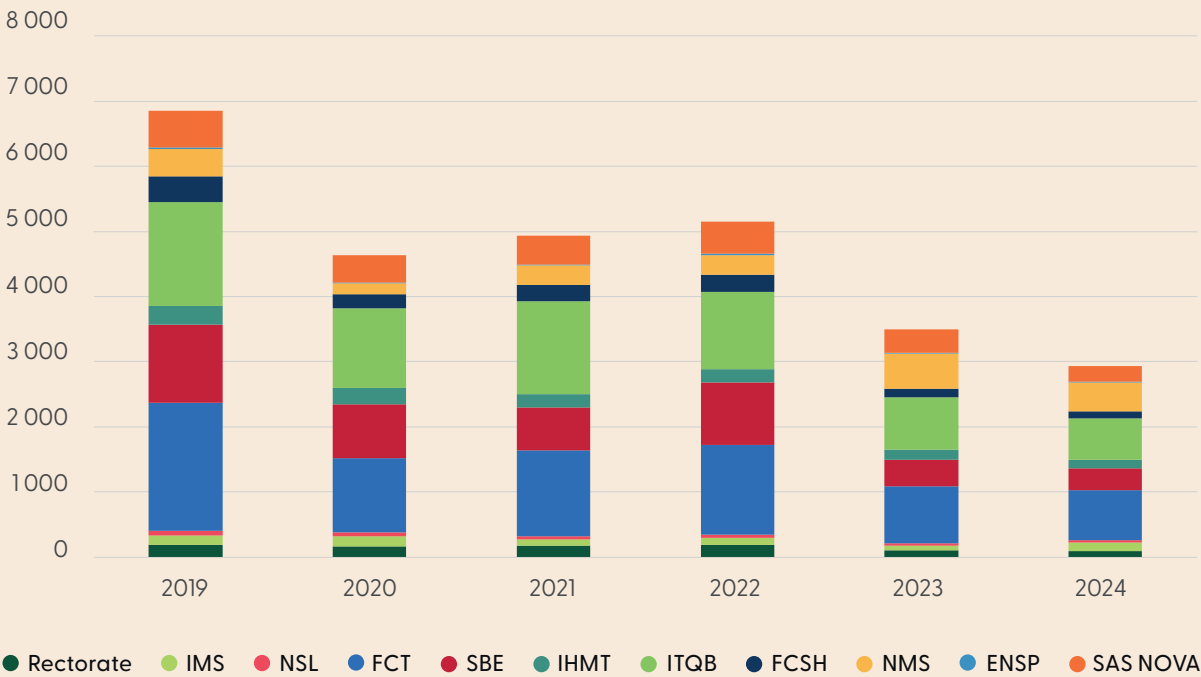


Figure 10- Scope 1 and 2 emissions per NOVA schools for the period 2019 to 2024 (t CO₂e)

⁷ <https://www.apren.pt/pt/energias-renovaveis/outros>

Laboratories practices

Created in 2022, the NOVA Green Labs working group joins multiple researchers and lab managers of wet labs from four schools, FCT, NMS, ITQB and IHMT. The first challenge was to map all the wet labs at NOVA, more than 300 in total, both for research and education activities. As addressing all of these would be a monumental feat, the working group decided to select a limited number of wet labs to undergo a sustainability certification process, serving as pilot projects for the others. This strategy contributes to reinforce NOVA's international reputation, attract talents committed to sustainability in science, and open doors to international funding that values sustainable research practices.

The wet labs selected to undergo a certification process were: the associate laboratory CENIMAT-i3N in the area of nanomaterials, LAQV analysis laboratory in the area of chemical engineering and the Resolution Lab laboratory in the area of environmental sciences, at NOVA FCT; the metabolism and nutrition laboratories at NMS; the Malaria laboratory at IHMT and the teaching laboratory and technical services at ITQB.

After a robust benchmarking exercise, the certification selected was the internationally recognized [My Green Lab program](#), with the on-site facilitation of the Portuguese NGO [Zero Waste Lab](#), to capacitate and support the teams along the journey. By the end of 2024, CENIMAT-i3N and LAQV completed the first assessment, which granted them a Gold e Silver classification, respectively. The certification process will continue throughout 2025, with the submission of the final assessments and with the scaling up for other laboratories.



NOVA FCT, Caparica Campus



Social impact

Social sustainability at NOVA University Lisbon centers on the well-being, equity, and inclusion of its academic community. Through indicators such as student mental health support, employment quality, diversity and gender equality measures, NOVA affirms its social responsibility.

EMPLOYMENT

Beyond creating jobs, NOVA University Lisbon is committed to fostering decent work conditions that promote long-term professional development. Values are presented in FTE – Full Time Equivalent, accounting for different type of contracts.

3 312

EMPLOYEES

534

Researchers

1 268

Professors
Senior
Faculty¹⁰: 53%

1 510

Staff

WELLBEING

NOVA's Social Welfare Services (SASNOVA) offers a wide range of services to students and staff ([check the list of services](#)). Some Schools also offer Psychology appointments to their students.

2 530

PSYCHOLOGY
appointments
at SAS NOVA

275

Students
involved

231

PSYCHIATRY
appointments
at SAS NOVA

101

Students
involved

4 585

PSYCHOLOGY
appointments
at NOVA
Schools

Equity, Diversity and Inclusion

DIVERSITY IN EDUCATION

NOVA schools attract a significant number of students from all over the world, including from developing countries. As part of the integration and inclusion process, NOVA Schools are increasing the number of degrees and courses offered both in Portuguese and English, or only in English.

1 559¹¹

STUDENTS from
developing countries

↑ 5%
relative to 2023

6%

of all students
in degree equivalent
programmes

5 528

INTERNATIONAL
STUDENTS from
degree equivalent
programmes

22%

of all students
in degree equivalent
programmes

125

NATIONALITIES

In its efforts to advance social inclusion, NOVA works in partnership with community organizations to support people with disabilities and individuals from immigrant and refugee backgrounds. Notable initiatives include the [Nova SBE inclusive Community Forum](#)—focused on expanding access to education and employment for people with disabilities – and the [NOVA Refugee Clinic](#), which offers legal support to migrant populations.

397

STUDENTS
with disabilities

89¹²

EMPLOYEES
with disabilities

2%

of employees

VOLUNTEERING AT NOVA

604

STUDENTS
with a Citizenship Mention
in the Diploma
(2,3 times more than in 2023)

242

Master
programs

362

Undergraduate
programs

¹⁰ Professors in a career track.

¹¹ Degree Equivalent Programs

¹² FTE – Full Time Equivalent

INCLUSION IN EDUCATION

Access to education is a major institutional concern, given its role in driving social mobility. To facilitate access, Portuguese state grants supported 8% of NOVA Students in 2024.

4 092 514 EUR

STATE GRANTS TO NOVA STUDENTS

↑ 15% relative to 2023

1 074 276 EUR

GERAÇÃO NOVA GRANTS

NOVA Social Welfare Services manages three Halls of Residency and Canteens across NOVA Campuses, aiming to promote inclusiveness, supporting vulnerable students. NOVA’s Halls of Residency are located in Lisbon and Almada and offer low-cost accommodation to students and faculty members. In the context of increasing accommodation prices in the Lisbon Metropolitan Area, this support is critical to students coming from other parts of the country, or abroad. In 2024, due to ongoing buildings refurbishment, only Alfredo de Sousa’s Hall of Residency kept its doors open. Canteens offer subsidized complete meals to students.

Halls of Residency

Alfredo de Sousa – Campolide Campus:

180 Total beds 130 Subsidized

Subsidized meals in the canteens⁸:

311 252 23% Vegetarian

⁸ Students’ meals only

HIGHLIGHT!

“Room 1/4” network to provide affordable student housing

On Thursday, November 28th, NOVA University Lisbon unveiled *Room 1/4*, an innovative initiative aimed at addressing the housing crisis affecting university students in Portugal. The programme connects hosts with available rooms to students in need of affordable accommodation.

Interested individuals can visit the official [website](#) to learn more and express their interest by filling out a form. A digital platform is set to launch in early 2025, allowing students to register and hosts to advertise their rooms.

[READ MORE](#)



GENDER EQUALITY

Gender equality in universities extends beyond achieving parity among employees, faculty, and students; it also concerns ensuring fairness in opportunities for career progression, leadership, and seniority. Promoting gender balance strengthens academic excellence and enriches institutional culture, while also aligning with global commitments such as SDG 5. In 2024, the balance between men and women, apart from the percentage of female graduates, didn’t change, when compared to 2023.

¹⁴ All Professors in a career track.

¹⁵ Degree Equivalent Programs.

¹⁶ STEM: Science, Technology, Engineering and Mathematics.

71%	50%	51% ¹⁵	53% ¹⁵
FEMALE STAFF	FEMALE FACULTY	FEMALE STUDENTS	FEMALE GRADUATES
	46%	71%	
	Female Senior Faculty ¹⁴	Health	
		37%	
		STEM ¹⁶	
		54%	
		Arts & Humanities/ Social Sciences	



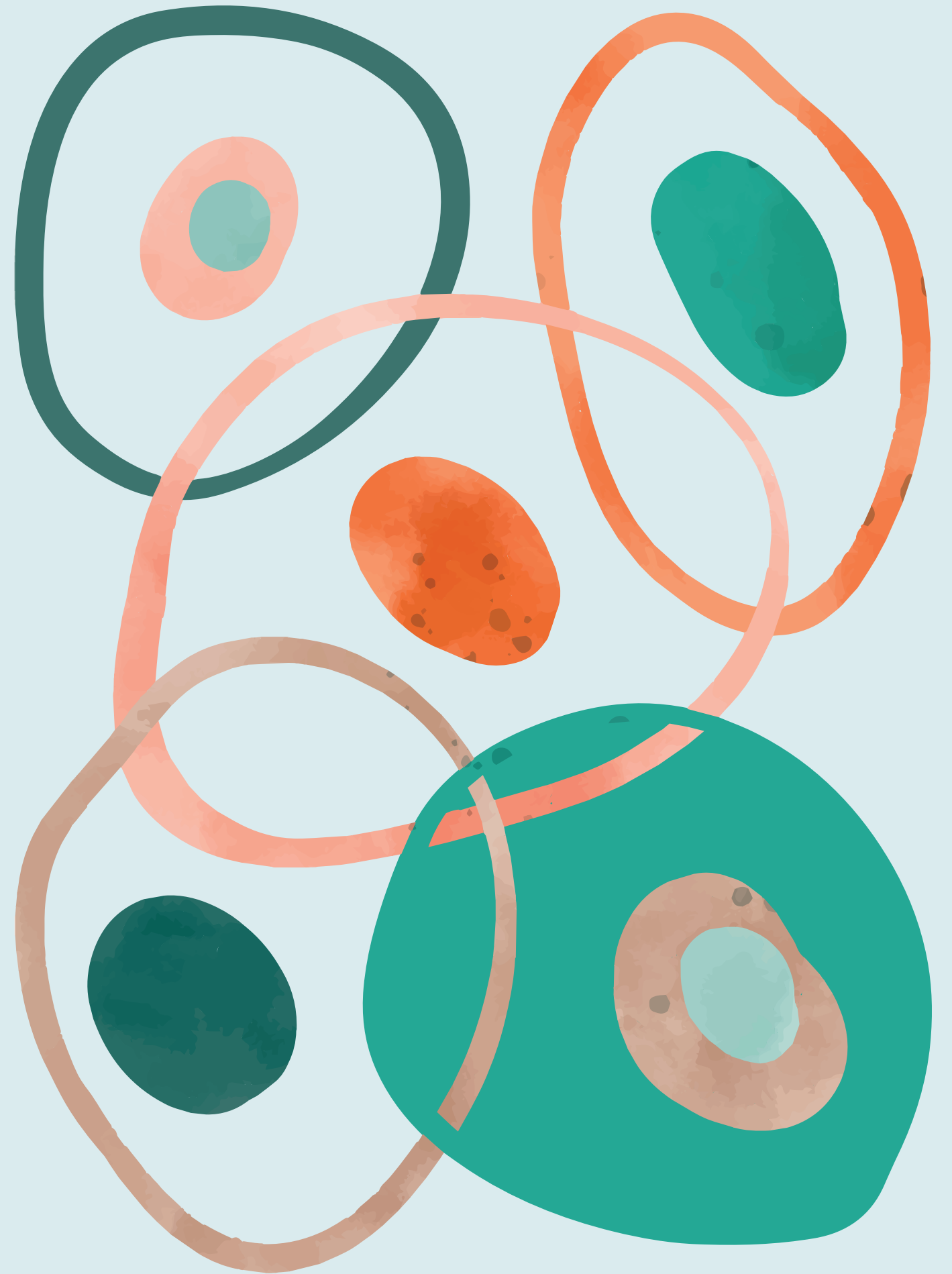


NOVA SCHOOLS AND SUSTAINABLE DEVELOPMENT GOALS

SELECTED CASES



NOVA University has been put the Agenda 2030 Sustainable Development Goals (SDG) at the center of many activities, either to raise awareness, to research or to disseminate, with a view of creating effective impact. All NOVA schools share this vision and then a selected number of publications and highlights were taken to illustrate how SDG benefitted from their activities in 2024. Scientific publications were selected through the application of [Elsevier Sustainable Development Goals Mapping Algorithm](#), and the [Field Weighted Citation Impact \(FWCI\)](#), over NOVA Research Portal. Each one of the selected highlight and publication were analysed in detail, considering each SDG's scope and respective targets.



GOAL 1
NO POVERTY

End poverty in all its forms
everywhere

Indicators

SDG related Research Outputs

26 1%
SCIENTIFIC PUBLICATIONS of total
SDG related publications

5 FCT	1 FCSH	1 SBE	3 NSL
9 IHMT	7 IMS		

SDG related Courses

30 7%
COURSES of total
SDG related courses

2 FCT	1 FCSH	23 SBE	1 NSL
3 ENSP			



Highlight!

NOVA SBE
Bruno P. Carvalho, João Fanha, Miguel Fonseca,
and Susana Peralta

Who Can Afford Essential Expenses? An Analysis
of Absolute Poverty in Portugal

A new study by Nova SBE, titled "Who Can Afford Essential Expenses? An Analysis of Absolute Poverty in Portugal", coordinated by Professor Susana Peralta as part of the Social Equity Initiative, offered a deeper understanding of poverty in Portugal by shifting from relative income comparisons to a cost-based approach. The researchers estimate that 12.6% of the Portuguese population—around 1.3 million people—live in absolute poverty. This measure captures households unable to meet essential expenses such as food, housing, energy, and water. The study highlights persistent vulnerabilities, particularly among the unemployed (25%) and families with children, where the rate reaches 21.2%, rising to 49.2% for families with more than three children. By adopting a methodology rooted in nationally defined needs, the work brings attention to poverty in its most tangible dimensions, supporting efforts to reduce its incidence across all age groups and social conditions.

SDG Target: 1.2

[IN THE NEWS](#)

Relevant Publication

NOVA IMS
Ian J. Scott

Financial scarcity and cognitive performance:
A meta-analysis

Financial scarcity undermines cognitive performance, with stronger effects observed among adults and in more severe conditions. A comprehensive analysis of over 110,000 individuals shows that limited resources affect mental bandwidth, reducing people’s ability to make decisions and manage daily challenges. Education significantly buffers this effect, highlighting its role in resilience. These findings emphasize the need to reduce poverty in all its forms and address barriers that limit equal access to resources and services. Ensuring fair opportunities for education, housing, and support systems is essential to empower individuals and improve well-being beyond material conditions alone.

SDG Target: 1.2 and 1.4

[READ MORE](#)

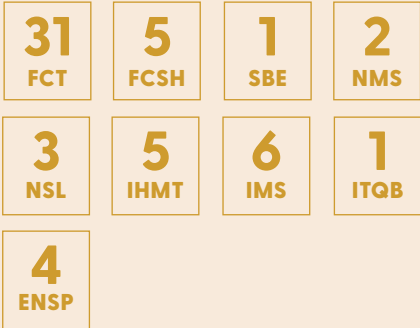
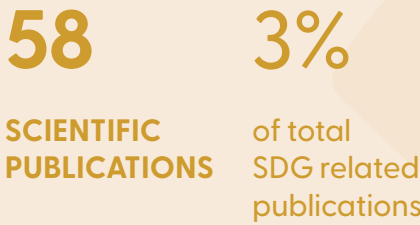
GOAL 2

ZERO HUNGER

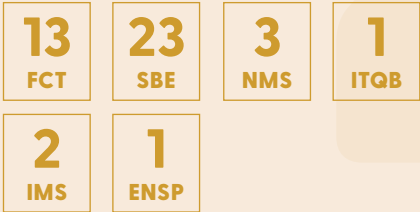
End hunger, achieve food security and improved nutrition and promote sustainable agriculture

Indicators

SDG related Research Outputs



SDG related Courses



Highlights!

ITQB NOVA

Oeiras Experimenta: climate-smart crops for sustainable food production

Oeiras Experimenta is a citizen science initiative that brings researchers and communities together to explore climate-resilient crops that support healthier, more sustainable food systems. By testing alternative and underused species like grass pea, sorghum, and quinoa in a restored historical agroecosystem, the project strengthens local agriculture’s capacity to adapt to drought and environmental stress. Citizens are actively involved in sowing, maintaining trials, gathering data, and contributing to food-related decisions in the Oeiras municipality. These efforts aim to enhance food security, improve agricultural sustainability, and promote nutritional diversity. By engaging over 2 000 participants the project supports inclusive practices and knowledge sharing across generations. Through this inclusive model, Oeiras Experimenta supports more productive, resilient food systems and empowers communities to contribute to the transition toward sustainable agricultural practices.

SDG Target: 2.4

[WEBSITE](#)



Relevant Publication

ENSP

Christopher Millett

The effect of nutrition-specific and nutrition-sensitive interventions on the double burden of malnutrition in low-income and middle-income countries: a systematic review

In many low- and middle-income countries, communities face the double burden of malnutrition—coexisting undernutrition and rising overweight. This global review examined how different nutrition-focused interventions affect both issues simultaneously. Drawing from 26 robust studies across maternal and child health programs, school-based initiatives, and social policies like cash transfers, it reveals mixed results. While some food supplement interventions may unintentionally contribute to overweight, especially among mothers and children, others—particularly those targeting behavior change in schools or households—show more promise in balancing nutritional outcomes. The findings stress the urgent need for more informed and adaptive strategies that protect children's growth while avoiding negative side effects.

Programs that are thoughtfully designed and monitored can support healthy development in early life and help communities transition toward long-term well-being. Ultimately, the research highlights how better policies and practices can ensure every child has a chance to grow free from hunger, stunting, and unhealthy weight gain.

SDG Target: 2.2

[READ MORE](#)

GOAL 3

GOOD HEALTH AND WELL-BEING

Ensure healthy lives and promote well-being for all at all ages

Indicators

SDG related Research Outputs

1088 57%

SCIENTIFIC PUBLICATIONS of total SDG related publications

185 FCT	34 FCSH	23 SBE	296 NMS
8 NSL	198 IHMT	57 IMS	42 ITQB
245 ENSP			

SDG related Courses

155 37%

COURSES of total SDG related courses

30,7 FCT	1 FCSH	27 SBE	43,6 NMS
4 NSL	15 IHMT	16,7 ITQB	17 ENSP

Highlights!

ENSP NOVA

Social Prescribing Network Portugal is formally launched

The Social Prescribing Network Portugal was formally launched in April 2024, marking a significant step in connecting health system users with community-based resources that promote well-being—from physical activity and gardening to cultural participation. This milestone builds on several years of collaborative work with local teams and pilot initiatives that demonstrated positive impacts on users’ mental health, reduced isolation, and decreased pressure on primary care services. The National School of Public Health (ENSP-Nova) has been central to this process, as it led the organization of the national network, brought together cross-sectoral partners, and developed the first national Social Prescribing Manual. Through this work, the School has helped shape a more preventive, person-centered approach to health that recognizes the importance of social, emotional, and everyday needs. The network now unites researchers, practitioners, citizens, and policymakers in a shared effort to create healthier, more connected communities.

SDG Target: 3.4

IN THE NEWS



Relevant Publication

ENSP NOVA

Luís Castelo-Branco

Artificial intelligence for predictive biomarker discovery in immuno-oncology: a systematic review

A systematic review of 90 studies, with 80% published in 2021-2022, explores how artificial intelligence is transforming cancer treatment by helping to predict which patients will benefit most from immunotherapy. By analyzing data across genomics, imaging, pathology, and real-world sources, the study highlights the potential of AI to uncover new biomarkers and enhance precision oncology. Although most studies remain retrospective and exploratory, the integration of diverse datasets signals progress toward more effective, personalized care. This approach supports better outcomes for patients with non-communicable diseases like cancer and contributes to the advancement of innovative, accessible healthcare solutions that can ultimately reduce mortality and improve quality of life.

SDG Target: 3.4, 3.8 and 3.b

READ MORE

ENSP NOVA

Partnerships for Science Education (PAFSE) Program reaches 100,000 Students

The Partnerships for Science Education (PAFSE), coordinated by ENSP NOVA, strengthened scientific and health literacy among more than 100,000 students across Europe. By addressing topics such as zoonotic diseases, antimicrobial resistance, cancer, cardiovascular disease, and pandemic preparedness, the program fostered the ability of younger generations to understand and respond to public health risks. Through partnerships with schools, universities, companies, and civic organizations, it equipped teachers and students with knowledge, digital tools, and collaborative skills. These efforts not only promoted evidence-based learning but also built resilience in communities, preparing them to face future health challenges more effectively.

SDG Target: 3.d

READ MORE

GOAL 4

QUALITY EDUCATION

Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

Indicators

SDG related Research Outputs

154 8%

SCIENTIFIC PUBLICATIONS of total SDG related publications

11 FCT	115 FCSH	1 SBE	4 NSL
2 IHMT	17 IMS	2 ITQB	2 ENSP

SDG related Courses

58 14%

COURSES of total SDG related courses

13,6 FCT	24 SBE	3 NSL	8,7 ITQB
5,7 NMS	1 IHMT	2 ENSP	

Highlights!

NOVA SBE

Scholarships increased 29% from the previous year

Nova SBE is set to award over 400 scholarships in the 2024–2025 academic year, investing €3,1 million in financial aid—a 29% increase from the previous year. This expansion in support reflects the school’s mission to ensure that no student is left behind due to financial constraints. By covering not only tuition but also essential living costs like accommodation and meals, Nova SBE is actively working to make tertiary education more affordable and accessible. This aligns with the broader goal of ensuring equal access to quality university education, especially for students who demonstrate academic merit but face financial hardship. Dean Pedro Oliveira emphasized that this is not just an investment in students but in society as a whole: “Every year, we increase our scholarship budget because we believe in transforming talent into leadership, regardless of financial background.” Nova SBE’s commitment positions it as a leader in inclusive higher education and a strong contributor to global development goals.

SDG target: 4.3

[READ MORE](#)



Relevant Publication

NOVA IMS

Ricardo Miguel Santos and Roberto Henriques

Generative AI for Customizable Learning Experiences

Exploring the transformative potential of accessible generative AI in higher education, the initiative enables personalized learning at scale by automatically generating tailored course materials aligned with specific learning outcomes. Delivered in three styles—including traditional academic and two pop culture-themed formats—the content caters to varied student preferences. The system also produces quizzes to assess comprehension. Initial testing with 20 volunteers showed increased engagement and study time, especially among students facing initial difficulties. This adaptive approach enhanced motivation and digital literacy, illustrating a scalable model for equipping learners with vital skills in a rapidly evolving digital landscape.

SDG target: 4.4

[READ MORE](#)

NOVA FCSH

Sustainability Master Classes

Reinforcing its long-term commitment to sustainability, NOVA FCSH launched in March a new cycle of Masterclasses where environmental awareness and responsible research take center stage. Starting with a session led by Júlia Seixas, Pro-Rector for Sustainability, on “The Dimensions of Sustainability at NOVA,” the initiative brought together 507 participants, namely from Portugal and Brasil. Aimed at fostering critical thinking and active engagement with the pressing challenges of our time, these Masterclasses were free to attend and opened to a wide audience—including students, educators, and environmentally conscious citizens. The sessions explored key areas such as renewable energy, circular construction, water management, biocultural heritage, climate change, and food waste. By integrating diverse perspectives and scientific knowledge into accessible public education, NOVA FCSH is contributing to the development of informed, proactive communities equipped to respond to environmental and societal transformations.

SDG Target: 4.7

[READ MORE](#)

GOAL 5

GENDER EQUALITY

Achieve gender equality and empower all women and girls

Indicators

SDG related Research Outputs

50 3%

SCIENTIFIC PUBLICATIONS of total SDG related publications

4 FCT	26 FCSH	2 SBE	3 NMS
7 NSL	1 IHMT	4 IMS	3 ENSP

SDG related Courses

34 8%

COURSES of total SDG related courses

2 FCT	24 SBE	3 NSL	2 IMS
1 ITQB	1 IHMT	1 ENSP	



Highlight!

NOVA SBE

Girls for Girls Bootcamp

The 2024's Edition of Girl for Girls Portugal Bootcamp at Nova SBE focused on empowering young women by providing them with leadership opportunities and fostering mentorship. Over 200 Nova SBE students have benefited from the global mentoring program, which connects young women with diverse role models, increasing their personal networks, leadership capabilities, and confidence. This initiative plays a key role in narrowing gender inequalities by fostering the personal and professional growth of young women, directly supporting efforts to promote gender equality in leadership positions.

SDG Target: 5.5

[READ MORE](#)

Relevant Publication

NOVA FCSH

Maria João Silveirinha and Filipa Subtil

Journalists are Prepared for Critical Situations ... but We are Not Prepared for This: Empirical and Structural Dimensions of Gendered Online Harassment

The study sheds light on the often-overlooked reality of online harassment faced by women journalists in Portugal. In-depth interviews highlight how their increasing visibility in the public sphere intersects with cultural norms and weak protection systems, making them more vulnerable to gendered abuse. Although many journalists do not initially attribute harassment to their gender, they recognize the deeply sexualized and targeted nature of the attacks, which differs markedly from those aimed at their male peers. The article points to the need for more effective and inclusive safety mechanisms and organizational responses, and emphasizes the urgency of addressing violence and discrimination against women in public and professional spaces.

SDG Target: 5.2

[READ MORE](#)

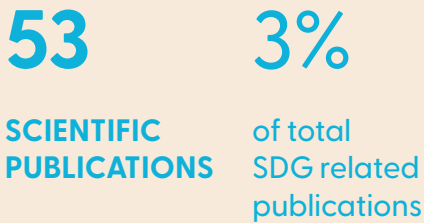
GOAL 6

CLEAN WATER AND SANITATION

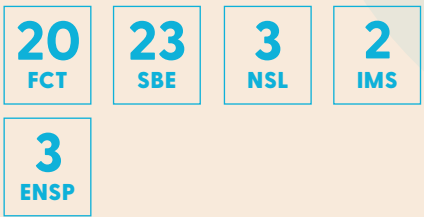
Ensure availability and sustainable management of water and sanitation for all

Indicators

SDG related Research Outputs



SDG related Courses



Highlight!

NOVA FCT and SBE

Postgraduate Program in Water Technologies and Management

EPAL, the public water supply company for Lisbon city, runs the *Águas Livres Academy* dedicated to provide training and capacity building to hundreds of water supply systems’ collaborators from the whole country. The Postgraduate Program in Water Technologies and Management aims to provide a solid training in technologies, strategic management and leadership geared towards creating value in the water sector and in the circular economy, and to contribute to achieve SDG 6 targets as well. Aiming for balanced and sustainable development in the urban water cycle, the Program provides the tools and capabilities to manage water supply companies, whether they are municipalities or private companies, within the national and international context, from an ecological, social, economic and technological perspective. This Postgraduate program delivered the 8th edition in 2024, is partnered with NOVA School of Science and Technology (FCT) and with NOVA School of Business and Economics (SBE), from NOVA University Lisbon.

SDG target: 6.5

[READ MORE](#)

Relevant Publication

NOVA FCT and ITQB NOVA

Hafiz M. Saif, Tewelde H. Gebregeorgis, João G. Crespo, Sylwin Pawlowski

The influence of flow electrode channel design on flow capacitive deionization performance: Experimental and CFD modelling insights

A promising water purification method that helps make water safer by removing salt and other unwanted particles is proposed based on the Flow Capacitive Deionization (FCDI) technology, that uses special carbon-based liquids to pull ions out of salty water. The design of the channels where the liquid flows is a key success component. Researchers tested different channel shapes using 3D-printed models and found a horizontal zigzag channel was the most effective, while vertical ones were more likely to get blocked. This research helps improve new water treatment technologies that can safely clean water using less energy and fewer chemicals, which supports the wider goal of reducing pollution and improving water reuse in a sustainable way.

SDG target: 6.3

[READ MORE](#)

GOAL 7

AFFORDABLE AND CLEAN ENERGY

Ensure access to affordable, reliable, sustainable and modern energy for all

Indicators

SDG related Research Outputs

215 11%

SCIENTIFIC PUBLICATIONS of total SDG related publications

171 FCT	5 FCSH	9 SBE	2 NMS
9 NSL	1 IHMT	10 IMS	5 ITQB
3 ENSP			

SDG related Courses

59 14%

COURSES of total SDG related courses

33 FCT	24 SBE	1 NSL	1 IMS
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Highlight!

NOVA FCT

Fighting energy poverty

Portugal ranks 5th in Europe for people unable to keep their homes adequately warm (15.7%), while over 38% experience thermal discomfort in summer. This double vulnerability poses serious risks to public health and community well-being. Calouste Gulbenkian Foundation continued to support the *Transition Point* initiative that operates at the municipal level, to test an innovative model to support vulnerable families on how to improve home energy performance and reducing energy bills. In 2024, Ponto Transição served populations at Barreiro, Montijo, Moita e Alcochete cities, with hundreds of people engaged.

SDG target: 7.3

[READ MORE](#)

Relevant Publication

NOVA FCT

Sónia A. C. Carabineiro

Understanding the unique Ohmic-junction for enhancing the photocatalytic activity of CoS2/MgIn2S4 towards hydrogen production

The study presents a breakthrough in the production of clean hydrogen fuel from sunlight. By forming a novel Ohmic junction between CoS2 (Cobalt Sulfide) and MgIn2S4 (Magnesium Indium Sulfide), the photocatalytic efficiency is significantly improved, by tripling hydrogen output compared to the original material. CoS2 also serves as an effective co-catalyst, facilitating efficient proton reduction. These advances contribute to develop more efficient, affordable and sustainable solar energy technologies, supporting the transition to cleaner energy sources and helping reduce reliance on fossil fuels, contributing directly to Target 7.2. The research is a collaboration with Chinese universities and supports Target 7.a of SDG 7, which calls for international cooperation to facilitate access to clean energy research and technologies.

SDG target: 7.2 and 7.a

[READ MORE](#)

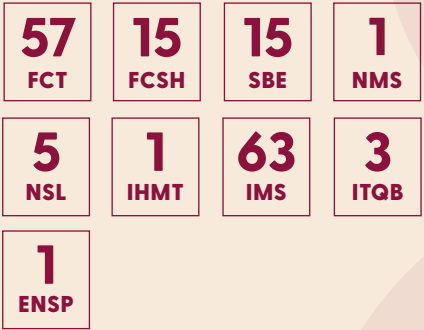
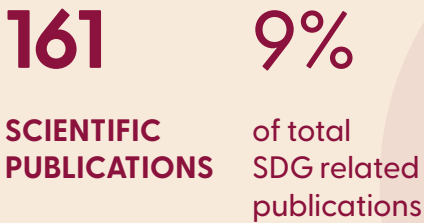
GOAL 8

DECENT WORK AND ECONOMIC WORK

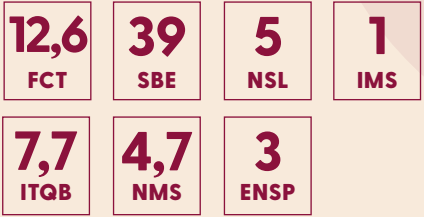
Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

Indicators

SDG related Research Outputs



SDG related Courses



Highlights!

NOVA SBE

Voice Leadership Initiative Strengthens the Future of Portuguese SMEs

The 1st anniversary of the Nova SBE *Voice Leadership Initiative* marked a significant milestone for a project aiming to strengthen the role of Portuguese SMEs in driving economic growth. With over 3 000 applications, 1 250 SMEs were selected, more than 400 certified mentors, and 20+ partners, the initiative is already halfway to its 2026 goal: engaging 5 000 SMEs and contributing a 2% boost to national GDP. Hosted on NOVA SBE campus in Carcavelos, the event gathered participants and stakeholders to reflect on progress and kick off the 2nd phase. As Dean Pedro Oliveira affirmed, “NOVA SBE is committed to being the home for every Portuguese SME eager to move the economy forward—through applied research and practical, high-impact programs.” Notably, 40% of participating firms are under 10 years old –those that statistically create the most jobs—yet many had no prior innovation routines. The initiative targets exactly this untapped potential, promoting sustainable growth and resilience for the long term.

SDG Target: 8.3

[IN THE NEWS](#)



Relevant Publication

NSL

International Conference: Challenges in the SDG Era

Hosted by NOVA School of Law, the 2nd *International Conference of the Jean Monnet Module on EU Insurance Law* brought together academics, practitioners, and policymakers to explore how sustainable insurance can promote inclusive growth, fair employment, and innovation. Discussions ranged from microinsurance to Artificial Intelligence in insurance governance, with a strong focus on public policy and youth engagement. The event fostered collaboration and knowledge exchange on the future of responsible insurance systems.

SDG Target: 8.3

[IN THE NEWS](#)

NOVA SBE

Graham Miller

The hidden power of sustainable tourism indicator schemes: Have we been measuring their effectiveness all wrong?

How do sustainability indicator schemes influence tourism destination management? Using a systems thinking approach, researchers found that these tools are not merely technical instruments but catalysts for deeper change. Rather than simply informing decisions, they stimulate dialogue, shared learning, and collaboration among local stakeholders. This fosters inclusive networks and mindset shifts essential for transforming tourism governance. By promoting participatory and adaptive management, sustainability indicators support more responsible tourism—one that respects local communities, enables decent work, and protects cultural and environmental heritage.

SDG Target: 8.9

[READ MORE](#)

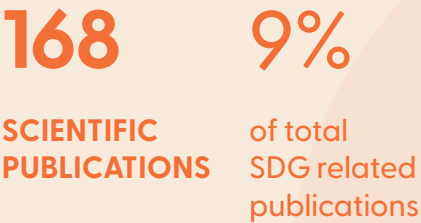
GOAL 9

INDUSTRY, INNOVATION AND INFRASTRUCTURE

Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

Indicators

SDG related Research Outputs



99 FCT	7 FCSH	4 NSL	8 IHMT
48 IMS	2 ITQB		

SDG related Courses



46,6 FCT	27 SBE	4 NSL	4 IMS
5,7 NMS	7,7 ITQB		



Highlights!

ITQB NOVA

Rita Ventura

Knowledge transfer in the origin of a new startup

Born from research at ITQB NOVA, ExtremoChem start-up emerged as a breakthrough response to the stability challenges of biopharmaceuticals. By designing a new class of protein stabilizers inspired by natural osmolytes, the startup introduced more efficient, reliable solutions for the production, storage, and transport of complex drugs. These innovations not only reduced waste and degradation but also enhanced the quality and accessibility of life-saving therapies. Through collaborations with major pharmaceutical players and the training of specialized talent, ExtremoChem advanced industrial innovation in Portugal. Its acquisition by Hovione in 2023 secured the global reach and continued development of this transformative technology. Rita Ventura was among six awardees of the 2024 “Research Impact Narratives” challenge, effectively showcasing how scientific research can drive industrial innovation.

SDG Target: 9.4 and 9.5

Relevant Publication

NOVA FCT

Mohammud H. Dewan and Radu Godina

Treble innovation firms: Antecedents, outcomes, and enhancing factors

International shipping contributes significantly to global greenhouse gas emissions, prompting the adoption of strategies to cut emissions drastically by mid-century. Over the past decade, seafarers worldwide have adjusted their work practices to support energy-efficient ship operations, including careful fuel monitoring, following maintenance schedules, and adopting energy-saving measures like slow steaming and efficient lighting. Despite successfully implementing these practices and helping shipping companies meet environmental targets, most seafarers receive little recognition or financial reward for their contributions. The study highlights the need for policies supporting seafarers through incentives and suggest integrating modern technologies to ease their workloads and improve compliance with energy-efficiency regulations, fostering a more sustainable and resilient maritime industry accessible and beneficial to all.

SDG Target: 9.1

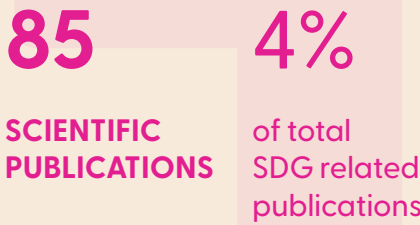
[READ MORE](#)

GOAL 10
REDUCED INEQUALITIES

Reduce inequality within and among countries

Indicators

SDG related Research Outputs



8 FCT	26 FCSH	8 SBE	3 NMS
6 NSL	17 IHMT	14 IMS	3 ENSP

SDG related Courses



4 FCT	25 SBE	1 NSL	2 IMS
3 ENSP			



Highlight!

NSL
Claire Bright

European Corporate Sustainability Due Diligence Directive

Human rights abuses –forced labour, child exploitation, unsafe working conditions –persist throughout global value chains, being source of several inequalities. Claire Bright contributed to a study for the European Commission on due diligence requirements through the supply chain, a study behind the EU Corporate Sustainability Due Diligence Directive, effective since July 2024. By requiring large firms to identify, mitigate, track, and report human-rights risks, the directive breaks down laws and policies that perpetuate inequality and opens opportunities for fair treatment across supply chains. Implementing these processes is cost-effective as due diligence averages under 0.01% of revenue for large companies. Embedding human-rights checks into corporate practices reduces legal and reputational risks while levelling the playing field, ensuring that economic progress uplifts all stakeholders rather than deepening existing divides.

SDG Target: 10.3

[READ MORE](#)

Relevant Publication

NOVA FCT
Tomás B. Ramos

The role of place in the development of a circular economy: a critical analysis of potential for social redistribution in Hull, UK

Circular economy initiatives in Hull, UK, reveal how local development can produce uneven social and economic outcomes despite efforts by public, private, and third-sector actors to promote sustainability. Existing policies often fail to guarantee broad inclusion in the transition, leaving some groups marginalized. However, the city's strong sense of place presents a valuable opportunity to connect actors across sectors and governance levels. These local ties can foster more inclusive practices, ensuring that underrepresented communities have a voice in decisions and access to benefits. Such an approach can help steer economic transformation toward reducing, rather than reinforcing, existing inequalities.

SDG Target: 10.2

[READ MORE](#)

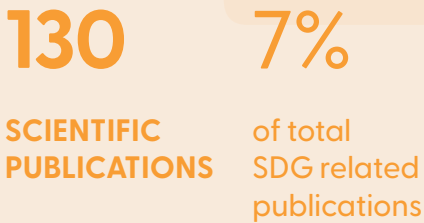
GOAL 11

SUSTAINABLE CITIES AND COMMUNITIES

Make cities and human settlements inclusive, safe, resilient and sustainable

Indicators

SDG related Research Outputs



37	44	2	1
FCT	FCSH	SBE	NMS
4	3	33	6
NSL	IHMT	IMS	ENSP

SDG related Courses



29	10	24	5
FCT	FCSH	SBE	NSL
3	1	4	
IMS	ITQB	ENSP	



Highlight!

NOVA IMS

Boosting urban sustainability through advanced digital technologies

Funded by the Horizon Europe WIDERA programme, the *NexTCity - Smart Sustainable Cities Moving forward with Digital Twins* project strengthens NOVA IMS’s leadership in digital twin research for sustainable urban development. In collaboration with institutions in Spain and Belgium, the project enhances technical capacity in urban data and AI through workshops, staff exchanges, and the creation of a Research Management Office. A major outcome is the development of a pilot digital twin for Lisbon’s Low Emission Zone, enabling participatory, data-informed planning and emissions monitoring. By fostering innovation and collaboration, NexTCity advances more inclusive, environmentally responsible urban management—contributing directly to smarter, cleaner, and more sustainable cities.

SDG Target: 11.3 and 11.6

[READ MORE](#)

Relevant Publication

NOVA FCT

Manuel A. Vieira, Manuela Vieira and Paula Louro

Enhancing Urban Intersection Efficiency: Visible Light Communication and Learning-Based Control for Traffic Signal Optimization and Vehicle Management

Visible Light Communication (VLC) is used to improve urban traffic flow and safety at intersections by enabling cars and infrastructure—like streetlights and traffic signals—to communicate via light signals. By sharing real-time information, the system adapts traffic signals using advanced learning methods, reducing waiting and travel times for both vehicles and pedestrians. This flexible, cooperative network helps manage diverse traffic movements more efficiently, easing congestion and making city travel smoother and safer. The solution is decentralized and scalable, meaning it can be applied across multiple intersections, helping create more efficient and reliable urban transportation systems that support easier, faster, and safer mobility for all.

SDG Target: 11.2

[READ MORE](#)

GOAL 12

RESPONSIBLE CONSUMPTION AND PRODUCTION

Ensure sustainable consumption and production patterns

Indicators

SDG related Research Outputs

131

7%

SCIENTIFIC PUBLICATIONS

of total SDG related publications

85 FCT	6 FCSH	7 SBE	2 NMS
6 NSL	1 IHMT	19 IMS	1 ITQB
4 ENSP			

SDG related Courses

61

15%

COURSES

of total SDG related courses

25 FCT	1 FCSH	27 SBE	2 NMS
2 NSL	2 IMS	2 ITQB	



Highlight!

NOVA FCT
Maria Helena Godinho

Researcher receives ERC Synergy Grant to develop innovative Liquid Crystalline Elastomers (LCEs) derived from renewable sources

A milestone in scientific excellence was the awarding of an ERC Synergy Grant to Maria Helena Godinho, researcher at CENIMAT and professor at NOVA FCT's Materials Science Department, reinforcing NOVA FCT leadership in cutting-edge, sustainable research. The funded project, ALCEMIST, brings together top European institutions to develop innovative Liquid Crystalline Elastomers (LCEs) derived from renewable sources such as cellulose and chitin to replace current petroleum-based options. LCEs have the ability to respond to external stimuli such as heat, light, humidity or tension, changing characteristics such as colour, shape, rigidity and damping properties. Currently, existing LCEs are generally produced from petroleum derivatives, which limits their potential for sustainability and scalability in ecological terms. With a focus on scalable production and circular design, ALCEMIST supports responsible resource use and waste reduction, advancing global efforts toward more sustainable consumption and production systems.

SDG Target: 12.2, 12.4 and 12.5

[READ MORE](#)

Relevant Publication

NOVA FCT
Samruddha Kokare, J. P. Oliveira, Radu Godina

Comparison of Wire Arc Additive Manufacturing and Subtractive Manufacturing Approaches from an Environmental and Economic Perspective

Wire arc additive manufacturing (WAAM) is an innovative metal 3D printing technique that uses metal wire and electric arcs to build parts, layer by layer. It is praised for its efficient use of materials and faster production compared to traditional methods. Researchers evaluate both the environmental footprint and economic costs of WAAM, including the effect of postprocessing, by examining a marine propeller made with WAAM and traditional CNC milling. Results show WAAM reduces environmental impact by 60% and is about 7% more cost-effective than CNC milling, especially when the post-processing machining allowance is kept low. Advanced manufacturing techniques like WAAM support efforts to minimize resource use and industrial waste, contributing to more responsible consumption and production practices.

SDG Target: 12.5

[READ MORE](#)

GOAL 13
CLIMATE ACTION

Take urgent action to combat climate change and its impacts

Indicators

SDG related Research Outputs

184

10%

SCIENTIFIC PUBLICATIONS

of total SDG related publications

97	16	12	2
FCT	FCSH	SBE	NMS
6	7	20	10
NSL	IHMT	IMS	ITQB
14			
ENSP			

SDG related Courses

56

14%

COURSES

of total SDG related courses

15	27	4	2
FCT	SBE	NSL	IMS
2	2	4	
ITQB	IHMT	ENSP	



Highlight!

NOVA FCT

Cascais Municipality launches the country's first municipal Green Fund with the support of NOVA FCT

In Portugal, 15.7% of the population cannot keep their homes warm in winter, and over 38% experience summer thermal discomfort—a dual vulnerability that poses serious public health risks. To address this, the Municipality of Cascais, in partnership with NOVA FCT and local social entities, launched the €3 million Green Fund (Fundo Verde Famílias) to support energy-efficient renovations, electrification, and the adoption of renewable energy sources in energy-poor households. It is the first municipal public fund in Portugal to offer advance payments (ex-ante). Grants cover up to €10,000 with up to 80% co-funding. Eligible upgrades include, e.g., insulation, efficient windows and appliances, heat pumps, solar panels for self-consumption, and gas-to-electric hot water replacements.

SDG Target: 13.1 and 13.2

[READ MORE](#)

Relevant Publication

IHMT NOVA

Carla Maia

The 2024 Europe report of the Lancet Countdown on health and climate change: unprecedented warming demands unprecedented action

The report provides an urgent overview of how climate change is already affecting health across Europe, from rising heat-related mortality to increased risks of vector-borne diseases, food insecurity, and mental health challenges. It underscores the widening inequalities in exposure and vulnerability, especially among low-income, marginalised, and at-risk populations. Despite the evidence, action remains too slow, emissions are falling at a fraction of the pace required, and policy and media engagement with climate-health connections are limited. The report calls for faster and more ambitious national responses that integrate health into climate policy, highlighting the co-benefits of emissions reduction. The report provides a roadmap to better assess risks and monitor progress, aiming to strengthen the capacity of governments and institutions to respond more effectively.

SDG Target: 13.1, 13.2 and 13.3

[READ MORE](#)

GOAL 14

LIFE BELOW WATER

Conserve and sustainably use the oceans, seas and marine resources for sustainable development

Indicators

SDG related Research Outputs

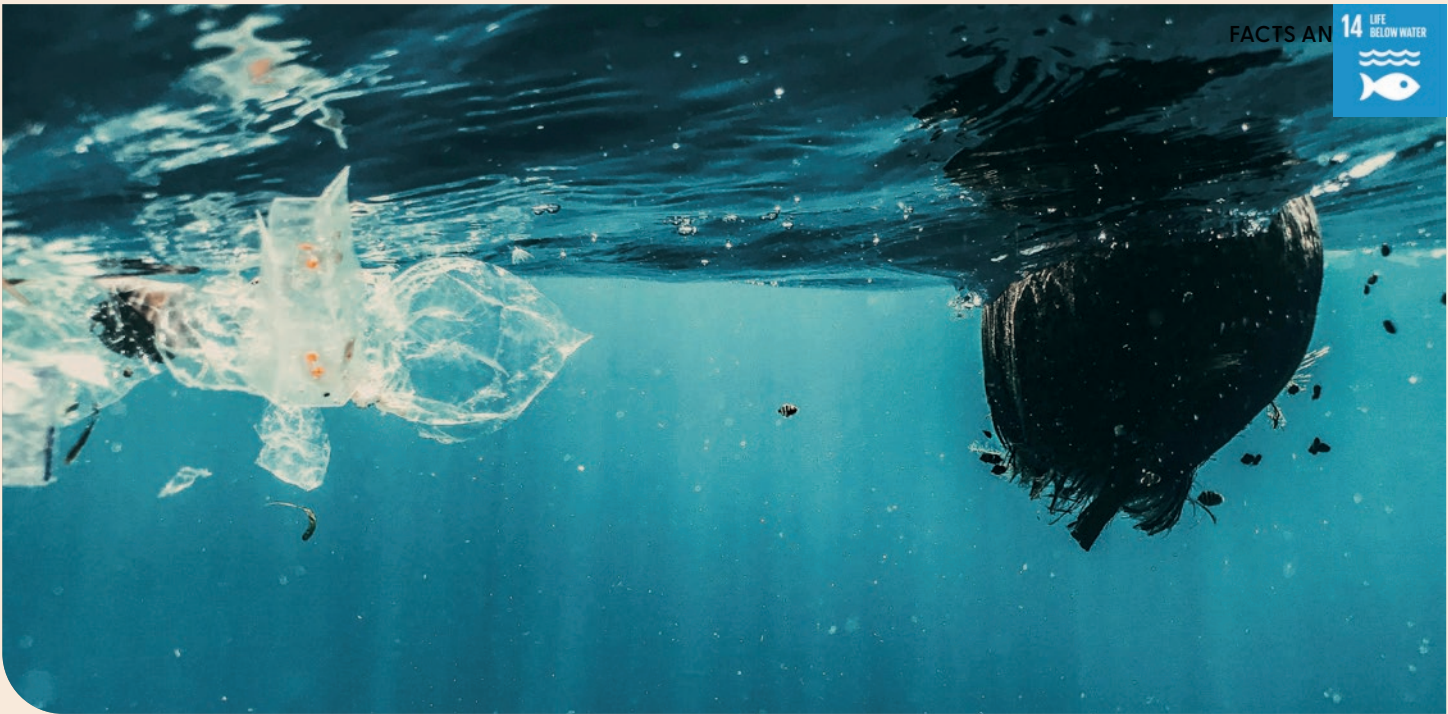
108 6%
SCIENTIFIC PUBLICATIONS of total SDG related publications

65 FCT	17 FCSH	4 SBE	8 NSL
1 IHMT	6 IMS	7 ITQB	

SDG related Courses

43 10%
COURSES of total SDG related courses

15 FCT	23 SBE	4 NSL	1 ITQB
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Highlight!

NOVA FCT

Investigating the ecosystem-level impacts of sea level rise

The project *SadoTrace* - Tracing ecosystemic impacts of sea level rise in the Sado estuary - funded by FEDER fund of the European Union, focuses on investigating the ecosystem-level impacts of sea level rise (SLR) on the Sado estuary, one of Portugal's most ecologically important yet least studied coastal wetlands. Using a multidisciplinary approach that integrates remote sensing, animal ecology, and ecotoxicology, the project aims to understand how SLR is reshaping estuarine habitats and affecting biodiversity. It will generate critical data on habitat transformation, species responses, and the remobilization of historical pollutants. These insights will guide conservation strategies and restoration planning, strengthen the resilience of ecosystem services, and support evidence-based policy development. Ultimately, the project will contribute to climate adaptation and align with global sustainability goals related to climate action, marine conservation, and biodiversity protection.

SDG Target: 14.2 and 14.5

[IN THE NEWS](#)

Relevant Publication

NOVA FCT

Naiara Casagrande, Carla O. Silva, Paula Sobral, and Graça Martinho

Ecotoxicity effect factors for plastic additives on the aquatic environment: a new approach for life cycle impact assessment

Plastic additives pose serious risks to aquatic life as they leach into water bodies, causing harmful effects on various species. Although many chemical toxicities are assessed in environmental studies, models specifically evaluating the impact of plastic additives are still developing. By analyzing extensive data from freshwater and marine species, researchers have calculated effect factors that estimate the potential harm these additives cause. This new approach helps quantify the toxicity of different additives, offering crucial insights for better environmental assessments. Such information supports decision-makers in creating stronger regulations and policies to control additive use in plastics. This work contributes to reducing pollution and protecting aquatic ecosystems, promoting a more sustainable plastic lifecycle and healthier oceans.

SDG Target: 14.1

[READ MORE](#)

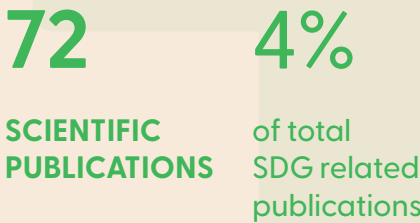
GOAL 15

LIFE ON LAND

Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

Indicators

SDG related Research Outputs



32 FCT	10 FCSH	2 SBE	4 NSL
2 IHMT	18 IMS	1 ITQB	3 ENSP

SDG related Courses



15 FCT	23 SBE	3 NSL	1 ITQB
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Highlight!

NOVA FCSH
Maria José Roxo

Experimental Center for Soil Erosion

The *Experimental Center for Soil Erosion of Vale Formoso* led by Professor Maria José Roxo at NOVA FCSH, represents a vital contribution to environmental education and sustainability research. Located in Mèrtola, within the Vale do Guadiana natural park, Alentejo, a semi-arid region prone to erosion and land degradation, the center serves as an open-air laboratory where students, researchers, technicians, and educators engage directly with pressing ecological challenges. By focusing on desertification, soil and ecosystem regeneration, and water resource management in the context of climate change, the initiative promotes the protection and sustainable use of terrestrial ecosystems. It also supports restoration efforts in degraded areas and fosters awareness and capacity-building on land resilience. This inclusive space for interdisciplinary learning strengthens the dialogue between science and society and reinforces the importance of preserving soil for biodiversity, food security, and climate adaptation—fully aligned with global efforts to halt land degradation and combat desertification.

SDG Target: 15.1, 15.3 and 15.9

[READ MORE](#)

Relevant Publication

NOVA FCT
Pilar C. Portela and Carlos A. Salgueiro

Widespread extracellular electron transfer pathways for charging microbial cytochrome OmcS nanowires via periplasmic cytochromes PpcABCDE

To survive in the absence of oxygen or other soluble electron acceptors, common soil and marine microbes of the family Geobacteraceae export electrons produced during respiration to external acceptors, a process called extracellular electron transfer (EET), or to syntrophic partners in a process called direct interspecies electron transfer (DIET). Both processes are essential for these microbes to survive in extreme environments. The study helps to resolve a long-standing mystery of how these microbes proliferate in diverse environments by performing EET at remarkably fast rates of million electrons per second, which cannot be explained by slow electron diffusion among periplasmic cytochromes. Understanding and potentially engineering this natural process can improve microbial technologies used to clean up polluted environments and support the restoration of healthy ecosystems.

SDG Target: 15.1

[READ MORE](#)

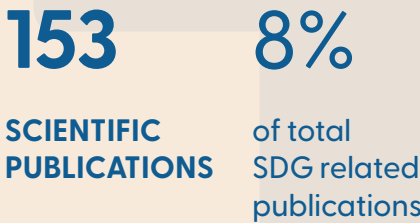
GOAL 16

PEACE, JUSTICE AND STRONG INSTITUTIONS

Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

Indicators

SDG related Research Outputs



10 FCT	66 FCSH	7 NMS	30 NSL
10 IHMT	17 IMS	1 ITQB	12 ENSP

SDG related Courses



6 FCT	3 FCSH	39 SBE	16 NSL
4 IMS			



Highlight!

NOVA SBE and NMS

Estoril Conferences: Time to Rethink

Co-organized and hosted by Nova SBE and over two days at Carcavelos Campus, the 9th Estoril Conferences convened global thought leaders to tackle urgent challenges—from peace and planetary health to technology and longevity. The event joined +4 600 participants (+1 100 online online), from policymakers, to scientists, business leaders, and civil society. Speakers—including former heads of state, ministers of health and education, and Nobel laureates—underscored that crafting solutions for war, climate change, and social fragmentation hinges on open negotiation, shared responsibility, and putting people at the center. By fostering a space where diverse perspectives converge and agreements are forged through respectful dialogue, the Estoril Conferences exemplify how participatory governance may narrow power imbalances and builds more just, resilient communities.

SDG Target: 16.7

[READ MORE](#)

Relevant Publication

NSL

Athina Sachoulidou

Harnessing AI for law enforcement: Solutions and boundaries from the forthcoming AI Act

New rules are being introduced to regulate artificial intelligence (AI) in law enforcement, aiming to balance innovation with protecting people’s rights. These rules categorize AI tools by risk, banning some uses like real-time facial recognition in public spaces unless strictly justified, and setting strict requirements for high-risk applications, such as those predicting crimes or evaluating evidence. The focus is on safeguarding fairness, transparency, and human oversight to prevent misuse or wrongful decisions. Despite this, certain AI systems used for crime data analysis have fewer rules, raising concerns about bias and lack of clear explanations for affected individuals. The new framework calls for stronger safeguards to protect individuals’ rights to a fair trial and effective remedies when AI affects legal decisions. Overall, the goal is to build trustworthy systems that support justice and public accountability in a digital era.

SDG Target: 16.3

[READ MORE](#)

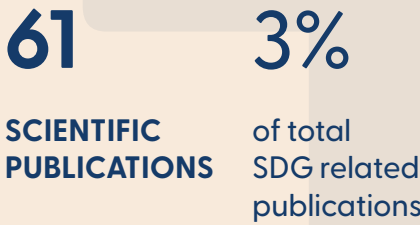
GOAL 17

PARTNERSHIPS FOR THE GOALS

Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development

Indicators

SDG related Research Outputs



21 FCT	3 FCSH	4 SBE	3 NSL
18 IHMT	9 IMS	2 ITQB	1 ENSP

SDG related Courses



3,7 FCT	46 SBE	0,7 NMS	2 NSL
0,7 ITQB	2 ENSP		



Highlight!

ENSP NOVA

White paper on Public Health

In response to the critical lessons from the COVID-19 pandemic, the National School of Public Health (ENSP-Nova) convened over 80 partners from public, private, and social sectors, both national and international, to co-create a bold action-oriented White Paper titled *"Leading the Way to a Healthy Future – Innovation at the Service of Public Health"*. The initiative underscores the power of collaboration in shaping resilient, inclusive health systems. The document puts forward ten consensus-based recommendations, as well as clear and practical actions aimed at transforming public health through innovation, citizen engagement, and cross-sectoral cooperation. Moreover, the “One Health” approach that links human, animal, and environmental health is highly promoted. ENSP leadership role showed how academic institutions can drive players in advancing sustainable, systemic responses to complex health challenges through strategic, long-term partnerships.

SDG Target: 17.7

[IN THE NEWS](#)

Relevant Publication

IHMT NOVA

Tiago Correia

Preparing for the ‘next pandemic’: Why we need to escape from our silos

The COVID-19 pandemic showed how tackling crises in isolated sectors weakens responses and harms vulnerable groups most. Health, environment, conflict, and social issues are linked but often handled separately, causing delays and gaps. Effective solutions need experts from many fields to work together, sharing knowledge and coordinating actions. When governments and organizations collaborate globally, they can better address complex challenges fairly and quickly. Breaking down silos and fostering cooperation builds trust and resilience, helping communities worldwide face future threats more effectively and ensuring no one is left behind.

SDG Target: 17.6

[READ MORE](#)

A glance on sustainability agenda in 2025

In 2025, with the conclusion of NOVA Route Zero project, we hope NOVA schools’ deans will decide on the net-zero commitment for 2040, at least, meaning the plans to develop and expand NOVA infrastructures and the expectation to increase research activities will consider options with no or a very small impact on greenhouse gas emissions. Also, exposition to climate risks and strategies to cope with climate extremes will be assessed for nOVA ITQB, representing an approach of losses prevention from expected more frquent extremes in the Iberia. By doing so, NOVA will align itself with notable international universities that have already adopted such a commitment, as an expression of its responsibility to future generations.

Also, we expect to launch the *Sustainability for All* first edition course in the first semester of 2025, hoping students from all NOVA schools will be enrolled.

Moreover, a new branch of work in the interface with research is expected, notably a course for PhD students to (re)align his/her research plan to maximize its impact on Agenda 2030, and a framework to develop guidance for researchers to consider high sustainable standards in all phases of research activities. Also, we expect some of the wet labs will get the international certification from MyGreenLab, hopefully with the top level, GREEN.

Finally, a mention to green procurement must be made, as people from the procurement office at rectory is willing to develop procedures and criteria to include sustainability in aquistions processes, namely in the following items: Paper (Photocopying); Computer equipment (Computers, laptops, and monitors); Food (Supplies for canteen production and service); HVAC (Heating and cooling equipment); Furniture (for dorms and offices); Cleaning products and services (Cleaning products and utensils, and disposables, services).

As has been the case in the last years, NOVA sustainability will rely on dedicated working groups, like NOVA ZeroWaste, NOVA Green Labs, and others, to advance and consolidated tasks and responsibilities: on monitoring the campus activities’ performance, on changing practices and behaviors to more sustainable ones, on engaging with stakeholders to adopt sustainable practices; while showing sustainability can be a cost-effective pathway and a social decisive option to improve NOVA well-being.

Finally, NOVA University is willing to increase its contribution in international networks with a sustainability scope, underlining the EUTOPIA alliance, the MetaRedS by Universia, and the SDSN Portugal, chaired by NOVA.



Colégio Almada Negreiros, Campolide Campus



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