



# **MANIFESTO**

Believe, imagine, and create...
this is our essence.
This is what defines us...
We are excited to start a project
knowing that history will change.
We see beyond excuses,
because even if we fail,
we continue to work without giving up.
We do not expect strokes of luck,
we work until we achieve it.
But this isn't just about us...
This is about you too!
How far do you want to go?

UPB Unlimited



# UPPER MANAGEMENT STATEMENT



Fr., Julio Jairo Ceballos Sepúlveda General President of the Universidad Pontificia Bolivariana

#### GRI 102-14

# UPB Unlimited: believe, imagine, and create

The Universidad Pontificia Bolivariana is 85 years old. This time has taught us many things, above all, to be brave. In 2021 we faced multiple challenges, but with sustainability as the flag and heart of our strategic direction we managed to continue being a national and international reference in the implementation of mechanisms to contribute to the reduction of climate change, waste management, sustainable mobility, measurement of social impacts, among other topics. As a milestone of great relevance, in November of last year, we presented a new image that adds to what we already were and that aims to promote our purpose as an educational institution. We are not leaving anything behind, we are evolving, because we know that in addition to the tradition and innovation that have always motivated our work, each one of you needs an ally to believe, imagine, and create unlimited, thanks to a vision focused to the future.

Today you are invited to test and challenge yourself, and to take that first step that will surely be a big step. Our facilities, the professors who accompany us, our trajectory, and the ambition that we must become the platform that fuels the talent of those future ideas and the new creations that live in your minds are part of our essence, that which will allow us to dream the way we do it. The University raised the following values as the foundations of its commitment to UPB Unlimited:

#### Creativity

We begin by talking about this value because we think it is very important and vital that the individuals who are part of UPB, and who come to be part of UPB, understand that this is one of its most powerful tools. Our institution hopes and works so that, from the first steps, students live under a creative irreverence, yes! irreverence, we repeat it because people tend to fear this word, or also tend to associate it with something negative, but we are convinced that it is through it that as human beings we can challenge and face our fears and limits, those that block us and do not allow us to develop our full potential. The creative irreverence of our students, professors, and graduates has allowed the University



to create solutions, projects, and tools that have gone around the world, that have led, won, and transformed things. Your sons and daughters will find in this institution an ally, in every sense of the word, one that will work insatiably to take them from wanting to be good at something, to wanting to be extraordinary, in fact, to being the best in their field.

The University has the willingness, but the question is... are you? How far do you want to go? What do you want to achieve? What do you fear and how do you plan to face it? Unlimited is not just a simple word, it is pure creativity, it is pure creativity, it is us challenging ourselves every day and challenging those whom we are waiting for to achieve what they dream of and what they have not yet dared to dream of.

#### Commitment

The commitment of our institution is situated at different points. Today, we want to talk to you about two very specific ones; let's start with our campus, an example for the city as a space and as an influence. The Multicampus High Quality Institutional Accreditation endorses what this space in which we move represents for us, so, if we talk about commitment, we must mention that the UPB is focusing a large part of its efforts on creating a



space that is responsible, friendly, and relevant for the environment.

And why do we refer to this? Well, it is important for you to know that our campus is up to the standards to the University campuses of the most prestigious and important institutions in the world, so it is also the perfect place for you to find everything you need for your process at UPB. After understanding what we just said, let's continue talking about that commitment we have, but in this case, about supporting your economy and providing tools that allow vigor, excellence, and extraordinary results. Our institution understands what students and their parents face economically when starting their studies, which is why an option that seeks to reward the great results of students in different disciplines and fields has been established.



#### Passion

The first step you take by getting into here may be the biggest step of all. Our brand manifesto says that this is not just about us...

When we talk about passion we think about our history, it has been 85 years that today have motivated us to evolve and demand more of ourselves.

That is true, we are the platform, but how far you will go depends on each one of you. You will be the ones in charge of getting to that place you always dreamed of, leading the industry you are passionate about or changing history, for you and for many. When we talk about passion we think about our history, it has been 85 years that have motivated us to evolve and demand more of ourselves. It has been very exciting to see the achievements we have accomplished thanks to our desire to be the best, but seeing those achievements is only a motivator to continue reaching new ones. Settling is not an option.

#### **Future**

You are the future. UPB's most valuable asset is you. Each person who has been in the institution, from first grade to postgraduate, has been in charge of writing a part of our history, nourishing us with achievements and challenges that, in the end, show us mutually that we are prepared and willing to make things happen. Within our vision of the future there are ever more bridges, paths, and places than walls. We want to be the ones who provide the solutions that the world needs, and that society will use to evolve. Today, more than ever, we repeat the phrase according to which "the sky cannot be the limit if we are part of an infinite space", because that is the proof of the desire we have to be truly influential to our environment. The specialties and paths that you will be able go through are many; here you will be able to explore from engineering, research, art, sports, law, theology, and much more, however, we repeat that these specialties are only the platform that will allow you to become that version that you dream of yourself, and above all, will allow you to align your vision for the future.

Fr., Julio Jairo Ceballos,

General President of the Universidad Pontificia

Bolivariana





GRI 102-16

# MISSION, VISION, VALUES, AND PRINCIPLES

#### Mission

GRI 102-1 The mission of the Universidad Pontificia Bolivariana is the comprehensive education of the people who are part of it through the evangelization of culture, constant search for truth in its teaching processes, research, social projection, and the reassurance of values from the Christian Humanism for the good of society.

#### Vision

The vision of the Universidad Pontificia Bolivariana is to be a Catholic Institution of academic excellence in the comprehensive education of people with ethical, scientific, corporate, and social leadership at service of the country.

#### Values

- » Solidarity
- » Justice
- » Honesty
- » Innovation and creativity
- Loyalty

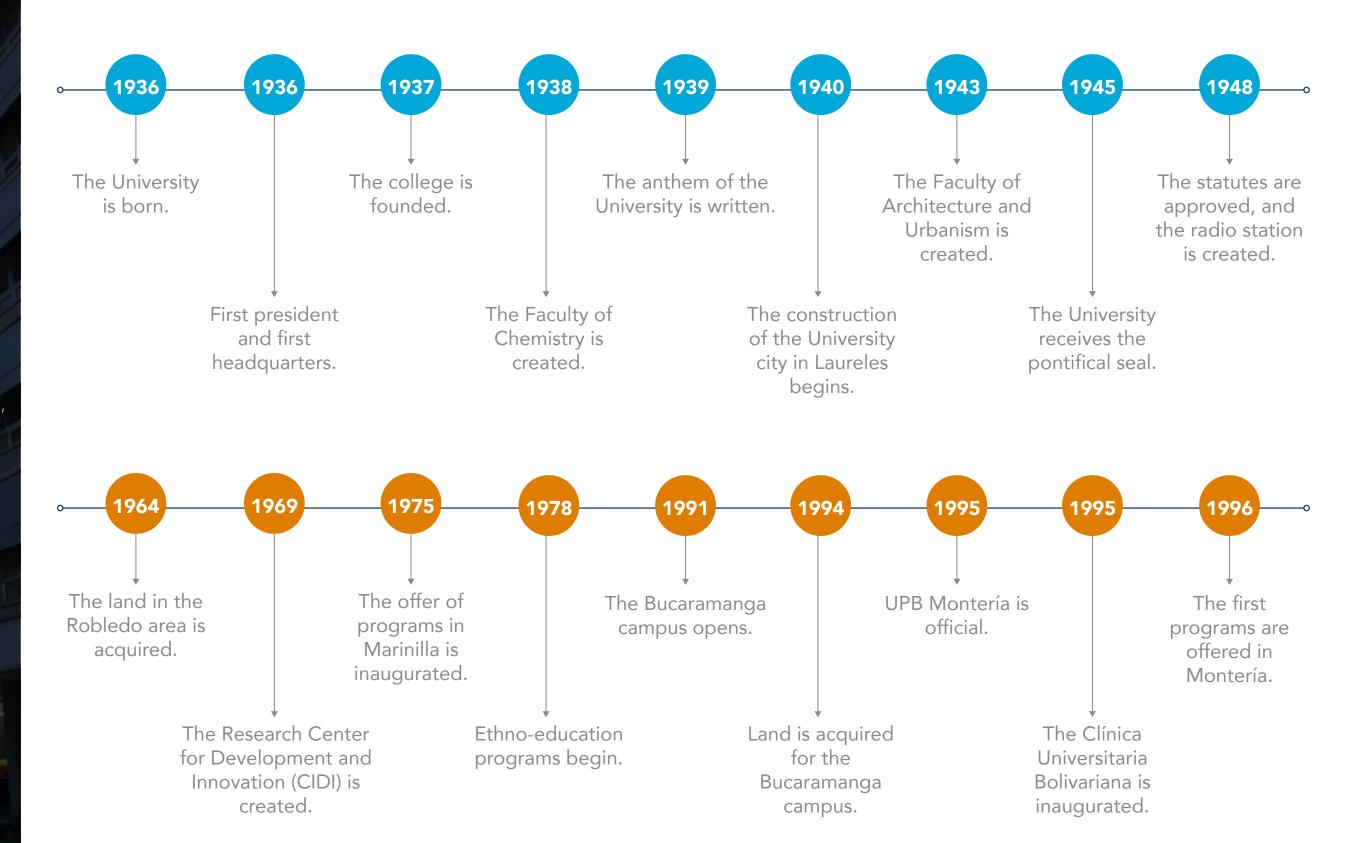
#### Principles

- » Respect and acknowledgment for each person, without any discrimination
- » Search for truth and knowledge
- » Commitment to peace and country development

GRI 102-5 UPB is a Higher Education Institution, of private character and non-profit. Founded in 1936 as Universidad Católica Bolivariana, and declared Pontifical in 1945, with legal status recognized through Resolution 48 from February 2, 1937, issued by the Ministry of Government.

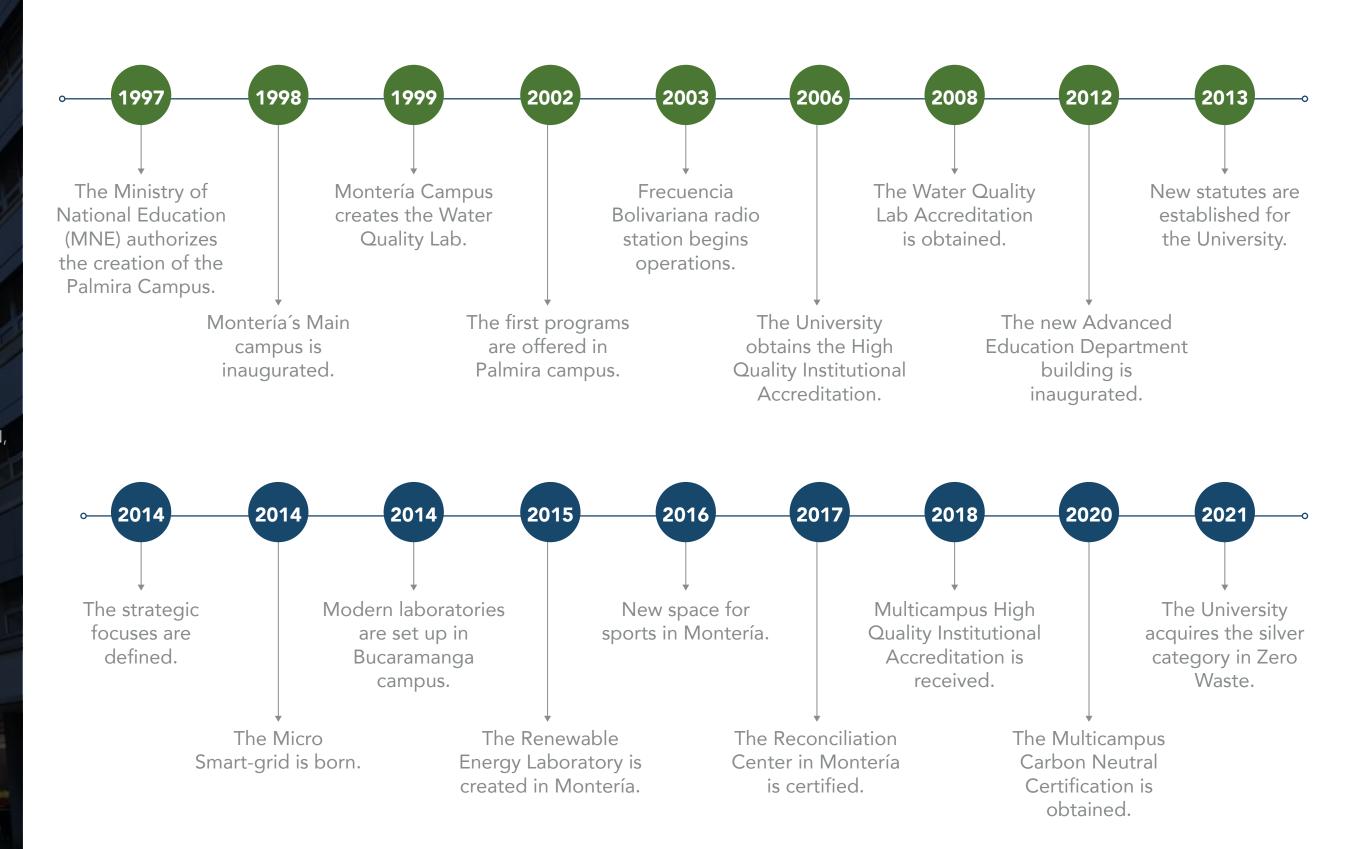
### **UPB SUSTAINABILITY REPORT 2021** 3 GOOD HEALTH AND WELL-BEING **GOOD HEALTH -**∕\**√**• AND WELL-BEING 4 QUALITY EDUCATION QUALITY EDUCATION 6 CLEAN WATER AND SANITATION CLEAN WATER AND SANITATION Q AFFORDABLE AND CLEAN ENERGY INDUSTRY, INNOVATION, AND INFRASTRUCTURE 13 CLIMATE ACTION **CLIMATE ACTION** PEACE AND JUSTICE STRONG INSTITUTIONS 17 PARTNERSHIPS FOR THE GOALS PARTNERSHIPS TO ACHIEVE THE GOALS

### THE UNIVERSITY IN TIME



### **UPB SUSTAINABILITY REPORT 2021** 3 GOOD HEALTH AND WELL-BEING **GOOD HEALTH -**∕\**√**• AND WELL-BEING 4 QUALITY EDUCATION QUALITY EDUCATION 6 CLEAN WATER AND SANITATION CLEAN WATER AND SANITATION Q AFFORDABLE AND CLEAN ENERGY INDUSTRY, INNOVATION, AND INFRASTRUCTURE 13 CLIMATE ACTION **CLIMATE ACTION** PEACE AND JUSTICE STRONG INSTITUTIONS 17 PARTNERSHIPS FOR THE GOALS PARTNERSHIPS TO ACHIEVE THE GOALS

## THE UNIVERSITY IN TIME



# UPB SUSTAINABILITY REPORT 2021 3 GOOD HEALTH AND WELL-BEING







AFFORDABLE AND CLEAN ENERGY

QUALITY EDUCATION



INDUSTRY, INNOVATION, AND INFRASTRUCTURE



CLIMATE ACTION

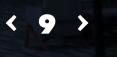


PEACE AND JUSTICE STRONG INSTITUTIONS



PARTNERSHIPS TO ACHIEVE THE GOALS





# **DECISION-MAKING BODIES**

#### GRI 102-18

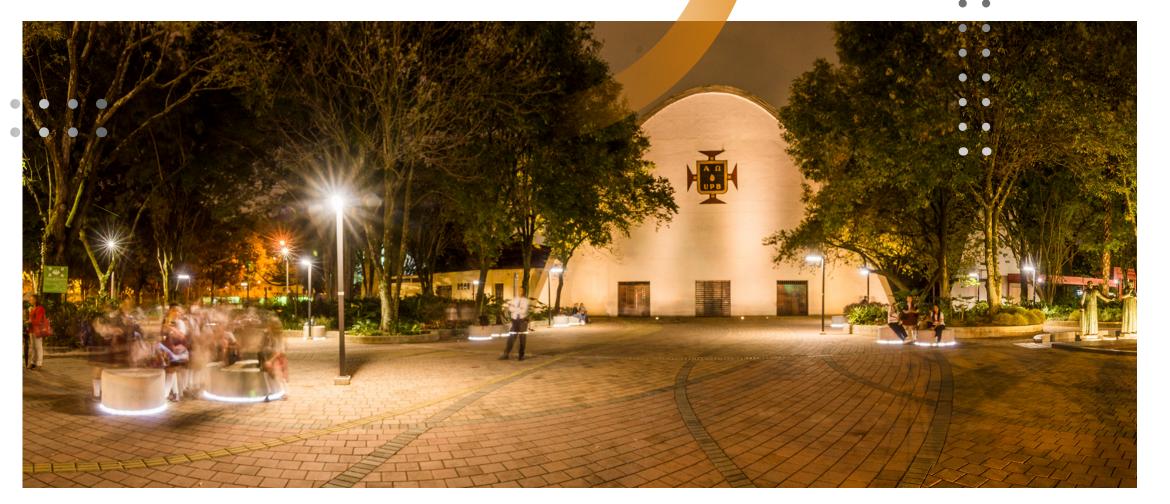
- » Governing Board
- » Academic Board
- » Pastoral Committee
- » Guiding Board
- » Multicampus Sustainability Strategic Committee
- » University Well-Being Committee
- » Presidency Committee
- » Library Committee



tatistics

310

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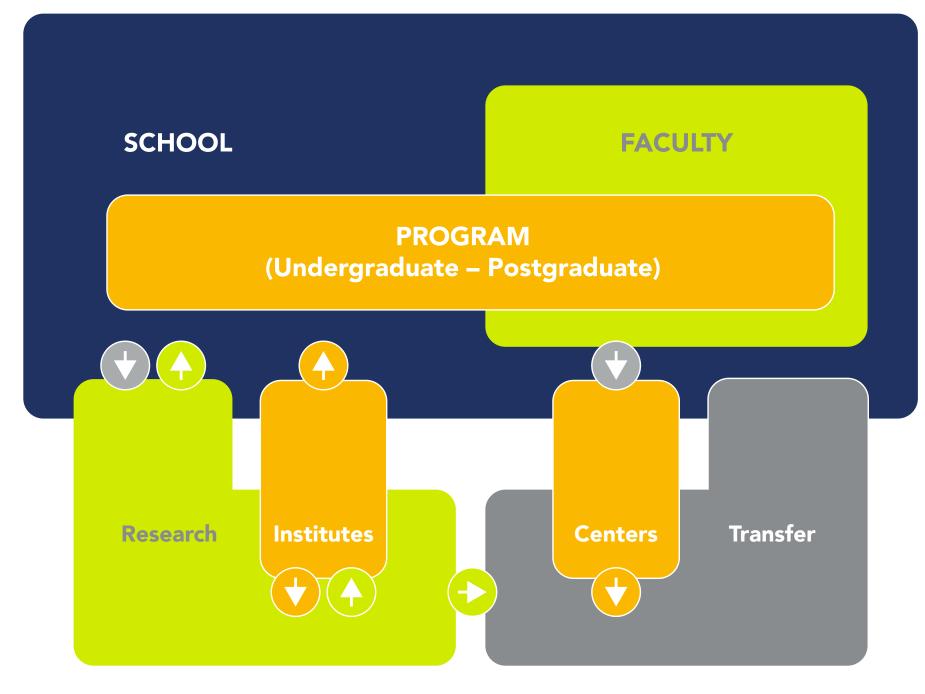
**ORGANIZATIONAL** 

REGULATION

# **ACADEMIC STRUCTURE**

**REGLAMENTO ORGANIZACIONAL** 

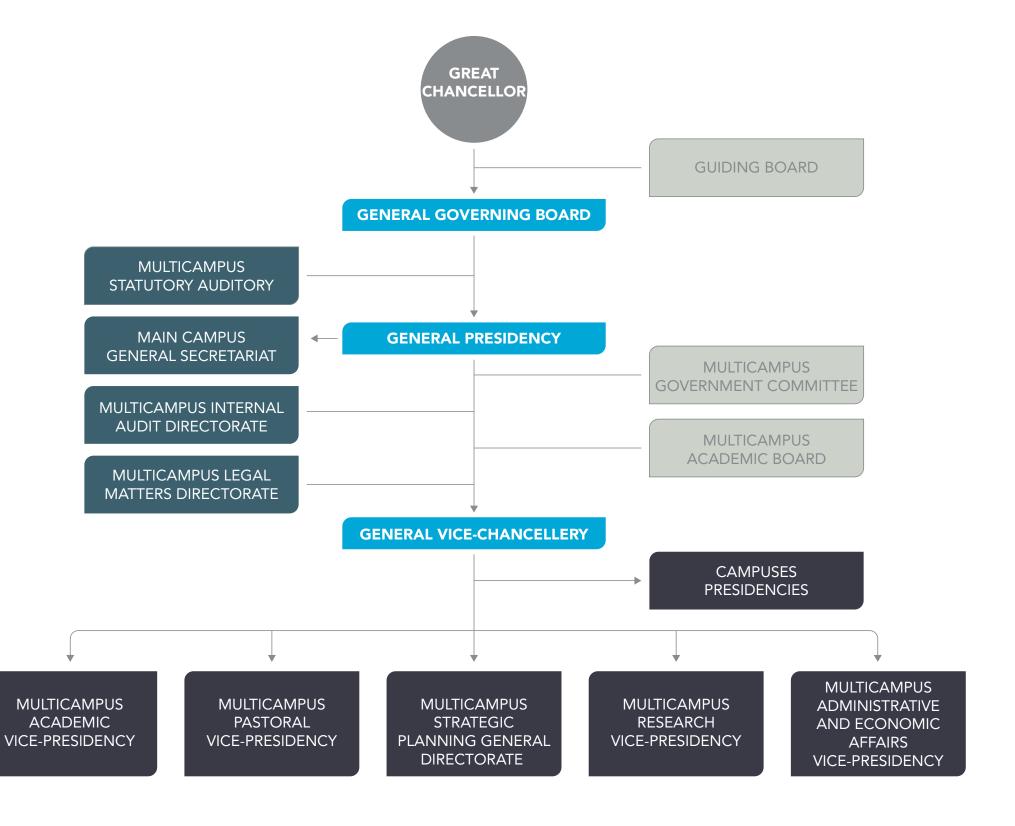
Innovation



**Social projection** 

#### **UPB SUSTAINABILITY REPORT 2021** 3 GOOD HEALTH AND WELL-BEING **GOOD HEALTH** AND WELL-BEING 4 QUALITY EDUCATION QUALITY EDUCATION 6 CLEAN WATER AND SANITATION **CLEAN WATER** Ŋ AND SANITATION AFFORDABLE -**Ö**(-AND CLEAN ENERGY INDUSTRY, INNOVATION, AND INFRASTRUCTURE 13 CLIMATE ACTION CLIMATE ACTION PEACE AND JUSTICE STRONG INSTITUTIONS 17 PARTNERSHIPS FOR THE GOALS PARTNERSHIPS TO 8 ACHIEVE THE GOALS < 11 >

## **MULTICAMPUS ORGANIZATION CHART**



#### **UPB SUSTAINABILITY REPORT 2021 MULTICAMPUS UPB FUNDAMENTAL AXES** 3 GOOD HEALTH AND WELL-BEING **GOOD HEALTH** AND WELL-BEING **EVANGELIZATION SUSTAINABILITY COMPREHENSIVE** OF CULTURE **EDUCATION** 4 QUALITY EDUCATION QUALITY EDUCATION **UNIVERSITY MODEL INSTITUTIONAL STRATEGIC** University with an emphasis in research **DEVELOPMENT PLAN -ISDP**and innovation for sustainability 6 CLEAN WATER AND SANITATION CLEAN WATER AND SANITATION Q **INSTITUTIONAL IDENTITY SUSTAINABILITY COMPREHENSIVE EDUCATION VALUE CREATION** AFFORDABLE STRATEGIC FOCUS AREAS AND CLEAN ENERGY INDUSTRY, INNOVATION, AND INFRASTRUCTURE Water, Food, and Territory Humanization and Culture Energy Health ICT 13 CLIMATE ACTION CLIMATE ACTION POLICIES E. PEACE AND JUSTICE STRONG INSTITUTIONS Strategic articulation Communication nd follow-up o transparent Sustainability of sustainabilit management Environmental 17 PARTNERSHIPS FOR THE GOALS PARTNERSHIPS TO SUSTAINABLE UPB 8 ACHIEVE THE GOALS **(((** ArtE Gesl ComS GenC MonV 12 >

#### **UPB SUSTAINABILITY REPORT 2021**



GOOD HEALTH AND WELL-BEING



QUALITY EDUCATION



CLEAN WATER AND SANITATION



AFFORDABLE AND CLEAN ENERGY



INDUSTRY, INNOVATION, AND INFRASTRUCTURE



CLIMATE ACTION



PEACE AND JUSTICE STRONG INSTITUTIONS

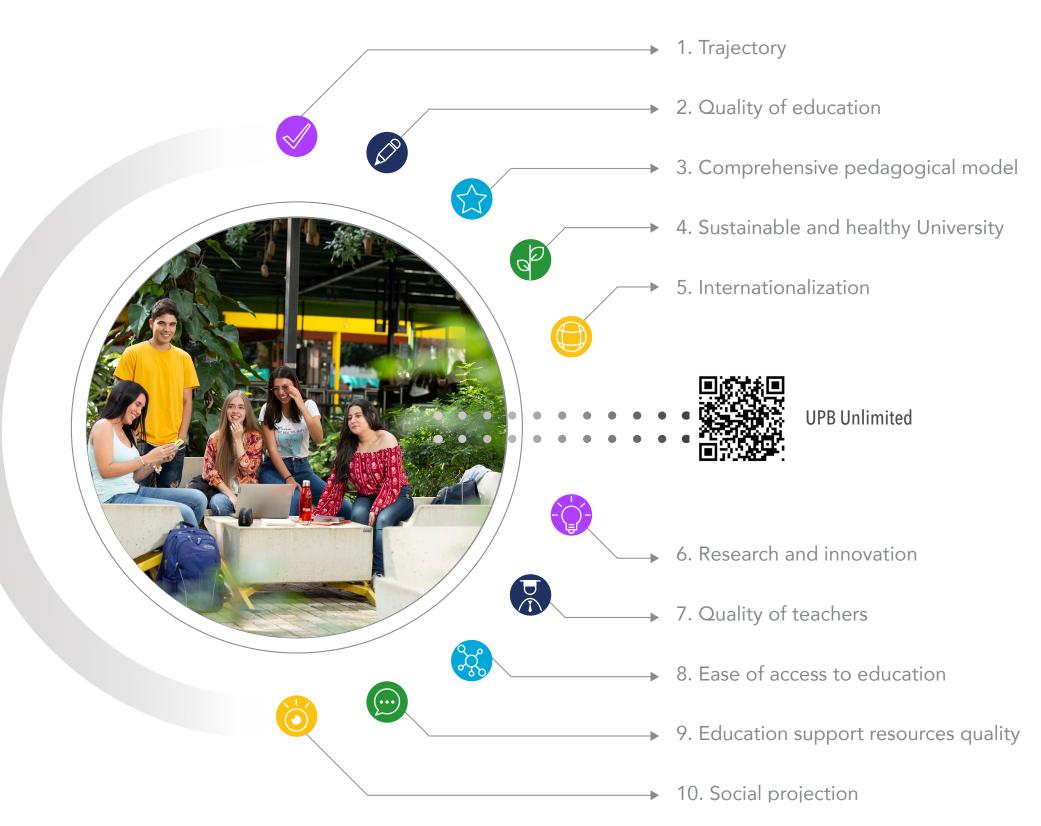


PARTNERSHIPS TO ACHIEVE THE GOALS

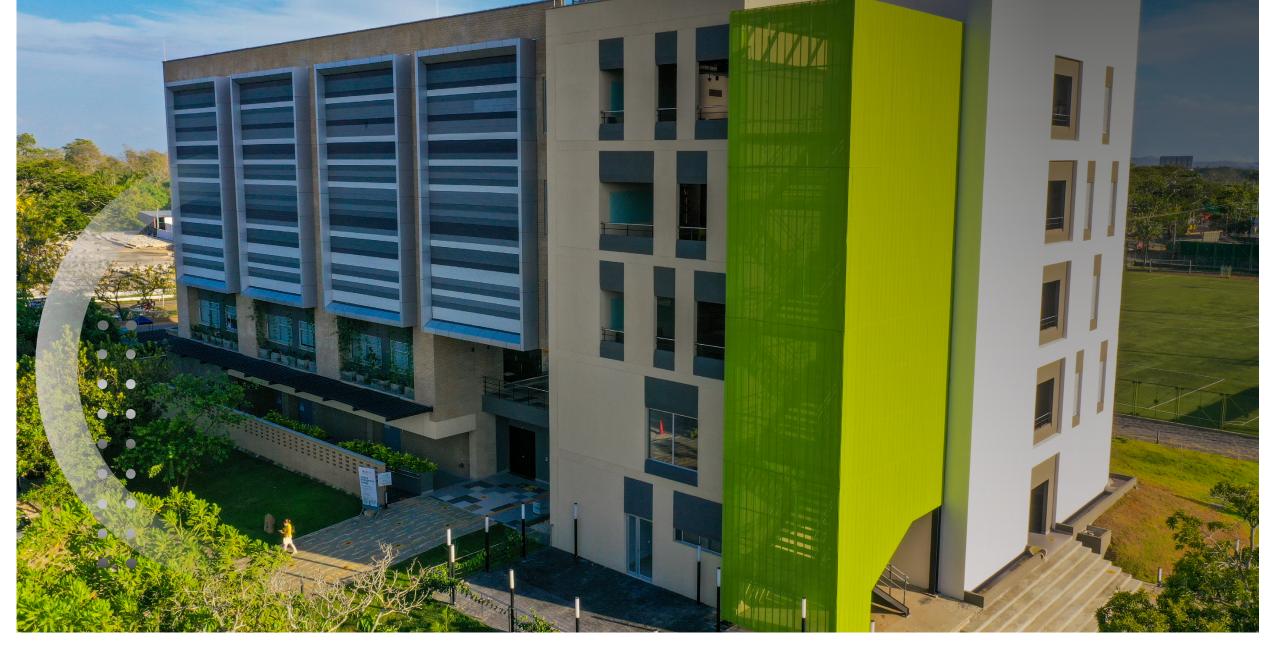


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#### **STAKEHOLDERS**

#### GRI 102-40

For the University, stakeholders are the actors in the ecosystem of which the UPB is a part of, with whom it must relate, and attend in a strategic and differentiated way through the development and transfer of its value offer, aiming to contribute to transformation, sustainability, and the achievement of everyone's purposes.

- » Students
- » Employees and Directives
- » Academic and Research Sector
- » Public Sector
- » Corporate Sector
- » Social Sector
- » Community

- » International Organizations
- Mass media, influencers, and value content generators
- » Archdiocese and Diocese
- Graduates
- » Donors and Benefactors
- » Union

# **UPB SUSTAINABILITY REPORT 2021** 3 GOOD HEALTH AND WELL-BEING GOOD HEALTH AND WELL-BEING **-**∕\**√**• 4 QUALITY EDUCATION QUALITY EDUCATION 6 CLEAN WATER AND SANITATION CLEAN WATER AND SANITATION Ø AFFORDABLE AND CLEAN ENERGY INDUSTRY, INNOVATION, AND INFRASTRUCTURE 13 CLIMATE ACTION CLIMATE ACTION PEACE AND JUSTICE STRONG INSTITUTIONS 17 PARTNERSHIPS FOR THE GOALS PARTNERSHIPS TO

## **SURVEY TO STAKEHOLDERS**



#### GRI 102-21 GRI 102-42 GRI 102-43 GRI 102-44 GRI 102-46

For the stakeholders' a sustainability survey was carried out, in which the perceptions about the eight Sustainable Development Goals that were prioritized by the University were recorded. The survey was available in the Banner System for students who answered it during the 2022-2 pre-enrollment perceptions.

riod. For professors and administrative staff, a Microsoft Forms survey was created, and it was published through the "De Interés" (Of your interest) newsletter and work meetings, this allowed to collect their appreciations.

In total, 9712 responses were obtained and are detailed later.

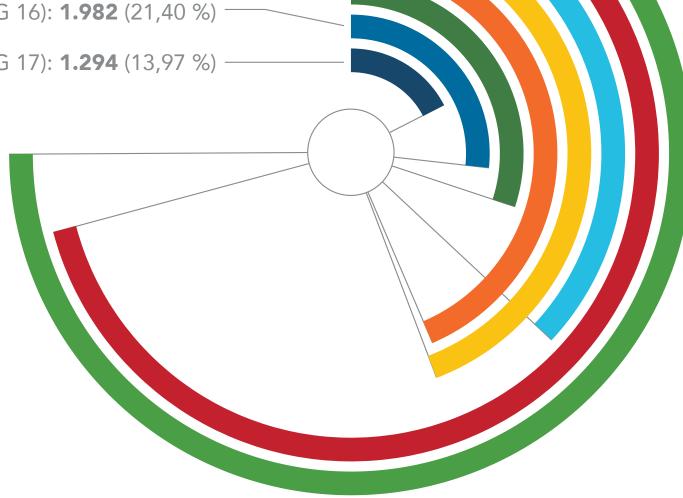
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#### **SURVEY TO STUDENTS**

SDGs of greatest interest



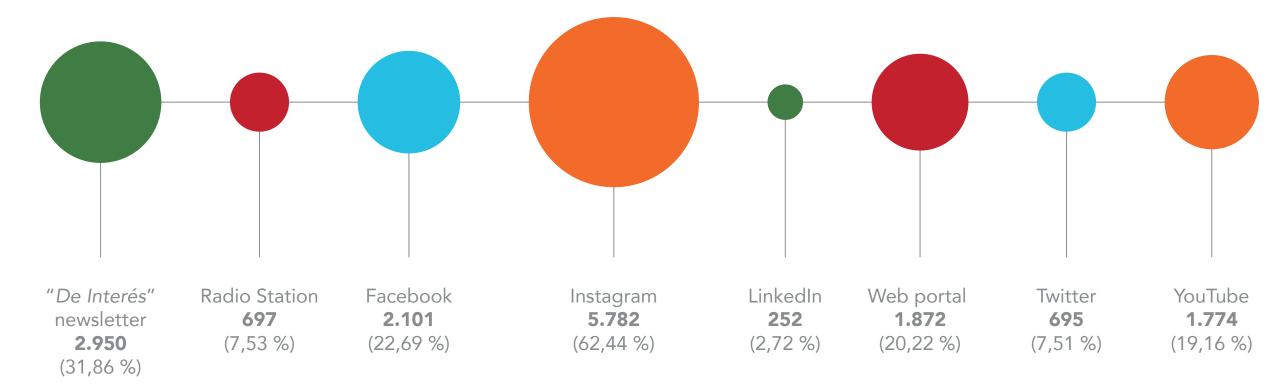
9.260
TOTAL RESPONDENTS





# SURVEY TO STUDENTS COMMUNICATION CHANNELS

Through which communication channel of the University would you like to find out about sustainability issues?

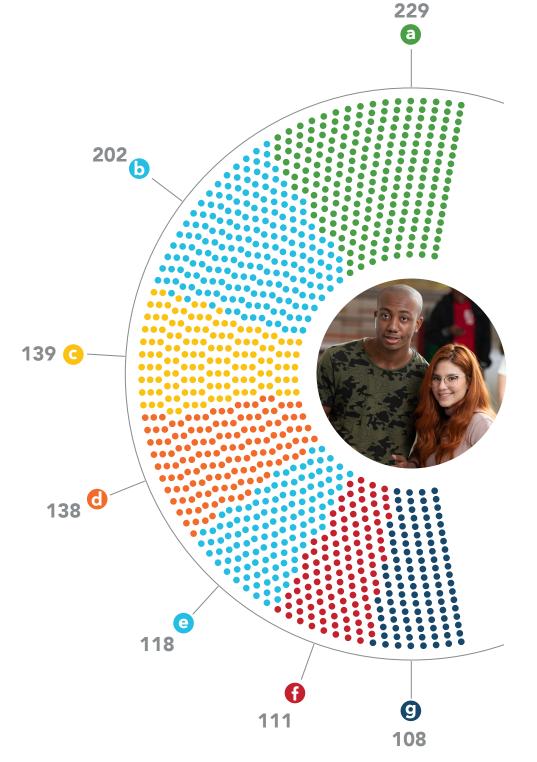




9.260
TOTAL RESPONDENTS

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# SURVEY TO STUDENTS SUMMARY OF MOST RELEVANT TOPICS





- a Health, well-being, and quality: psychological and mental support, sexuality, quality of life, well-being in general.
- **Biodiversity, ecosystem, ecology, and environment:** campus and surrounding areas fauna and flora, projects, emissions, pollution, sustainability and industry, conservation, and care.
- **© Sustainable energy:** panels, renewables, UPB Commitments.
- **Campus University EcoCampus:** plant expansion and physical plant repair, campus security, accreditation, sustainability, goals, and achievements as well as projects.
- Recycling and waste: forms, household waste, harnessing, garbage, classification.
- **f Education:** quality, in person attendance, virtuality, pedagogy, laboratories, courses, teaching aids.
- **9** Alliances: national, international, exchanges, companies.

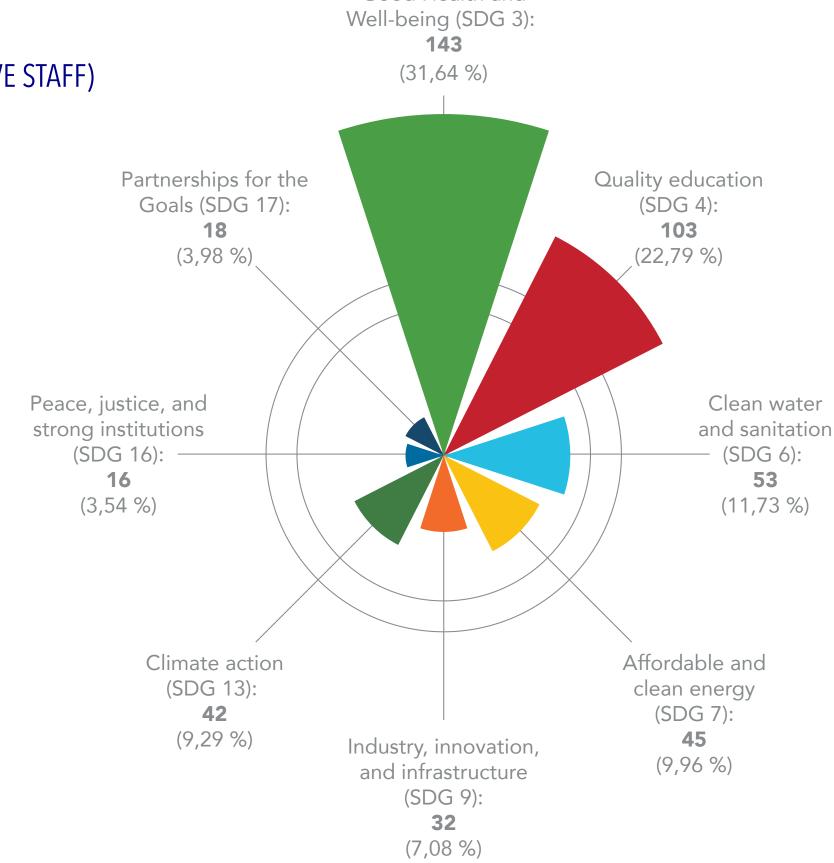




**TOTAL SURVEYED** 

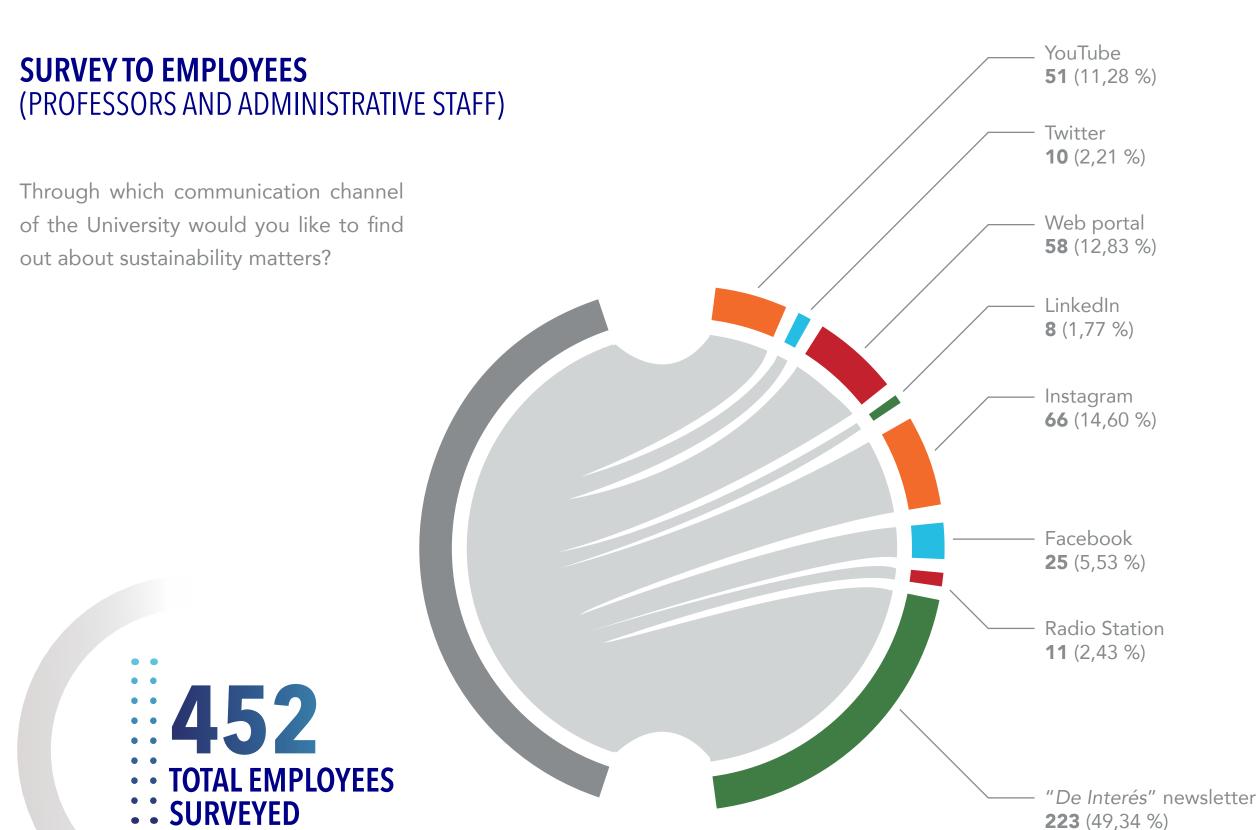
**EMPLOYEES** 

SDGs of greatest interest.



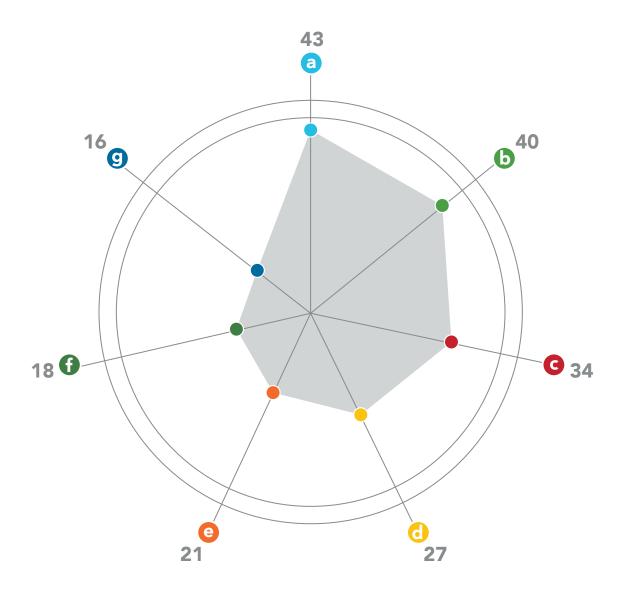
Good Health and





### **UPB SUSTAINABILITY REPORT 2021** 3 GOOD HEALTH AND WELL-BEING GOOD HEALTH AND WELL-BEING **-**∕\/**•** 4 QUALITY EDUCATION QUALITY EDUCATION 6 CLEAN WATER AND SANITATION CLEAN WATER AND SANITATION Q AFFORDABLE AND CLEAN ENERGY INDUSTRY, INNOVATION, AND INFRASTRUCTURE 13 CLIMATE ACTION CLIMATE ACTION PEACE AND JUSTICE STRONG INSTITUTIONS 17 PARTNERSHIPS FOR THE GOALS PARTNERSHIPS TO **ACHIEVE THE GOALS**

# SURVEY TO EMPLOYEES (PROFESSORS AND ADMINISTRATIVE STAFF) SUMMARY OF MOST RELEVANT TOPICS





- a Biodiversity, environment, and ecosystems: fauna and flora in the Main campus and other campuses, conservation actions, care, interaction with humans, reforestation, etc.
- **Others:** employee benefits, fourth industrial revolution, finance, economy, healthy habits, sports, country, science, and technology, return of investment, professors' training, clean city.
- **C University:** in person attendance, virtuality, teleworking, sustainability reports, comparatives, goals achieved, projections, sustainability.
- d Recycling, waste, and zero waste: harnessing, innovation, separation, waste management training, recycling of electronic devices.
- © **Sustainability:** within the Main campus and the other campuses, sustainable companies, UPB in general.
- **(f)** Carbon Neutral, zero paper, and carbon footprint.
- **9 Social:** sustainability, external communities, responsibility and social projection, education.





### SDGs PRIORITIZED AT UPB

"Under the current circumstances that humanity is going through, as a higher purpose of sustainability, the care of life in all its forms has become imperative. The UPB assumed the SDGs mandate as a strategic task understood as a safe path for a comprehensive human development for all of us who inhabit a common home. The UPB teaching, research, and innovation model is significantly committed to providing solutions that allow the climate crisis to be managed intelligently as an opportunity to transform our current development model from the consolidation of a sustainable institutional culture". Fr., Diego Marulanda, Pastoral Vice-President of the UPB.





Involvement Statement

# THE UPB PROMOTES THE PRINCIPLES OF THE UNITED NATIONS GLOBAL COMPACT



Through strategic direction, the University promotes compliance of the ten principles of the Global Compact in terms of human rights, labor rights, the environment, and the fight against corruption. This way, it contributes with positive social, economic, and environmental impacts through a management that is based on clear ethical principles, and that begins from the need to be responsible with present and future generations.



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- •

# THE UPB PROMOTES THE PRINCIPLES OF THE UNITED NATIONS GLOBAL COMPACT

#### **PRINCIPLES:**

- 1 Businesses should support and respect the protection of internationally proclaimed fundamental human rights within their sphere of influence.
- 2 Businesses must ensure that their partners and collaborators are not complicit in human rights abuses.
- 3 Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining.
- 4 Businesses should support the elimination of all forms of forced and compulsory labor.
- 5 Businesses should support the effective abolition of child labor.
- 6 Businesses should support the elimination of discrimination in respect of employment and occupation.
- 7 Businesses should support a precautionary approach to environmental challenges.
- 8 Businesses should undertake initiatives to promote greater environmental responsibility.
- 9 Businesses should encourage the development and diffusion of environmentally friendly technologies.
- 10 Businesses should work against corruption in all its forms, including extortion and bribery.

"The link with the United Nations Global Compact is very important for UPB; this is a commitment based on our principles, from the very genesis of our University, and also corresponds to the development of the principle of solidarity as this leads us to align the strategies and policies of our entire operation with the thematic axes that group four linestogehter: human rights, labor standards, environment, and the fight against corruption". Luis Eduardo Gómez, General Vice-Chancellor.



## **UPB SUSTAINABILITY REPORT 2021** 3 GOOD HEALTH AND WELL-BEING GOOD HEALTH AND WELL-BEING **-**∕\/**•** 4 QUALITY EDUCATION QUALITY EDUCATION 6 CLEAN WATER AND SANITATION CLEAN WATER AND SANITATION Q AFFORDABLE AND CLEAN ENERGY INDUSTRY, INNOVATION, AND INFRASTRUCTURE 13 CLIMATE ACTION CLIMATE ACTION PEACE AND JUSTICE STRONG INSTITUTIONS 17 PARTNERSHIPS FOR THE GOALS PARTNERSHIPS TO ACHIEVE THE GOALS



#### PG 1 y PG 2

- » Humanization and Culture Focus Area.
- » Effective health and safety procedures and safe and healthy working conditions.
- » Trained employees to respond to emergencies in the workplace; constant accompaniment of the COPASST (Joint Health and Safety at Work Committee for its acronym in Spanish).
- » UPB Labor Coexistence Committee.
- » In addition, academic research and outreach activities are developed such as:
  - i. Human Rights Seedbed in Bucaramanga campus that establishes an academic and research space about human rights in Colombia and their citizens' demands, so that students and professors undertake studies about social, political, economic, and cultural problematics of the country.
  - ii. Culture and Human Rights Study group whose mission is the outreach, education, and research about social processes of contemporary and ancient societies around culture and human rights topics.

#### PG 3 GRI 102-41

The Universidad Pontificia Bolivariana acknowledges the freedom of collective negotiation as a right of employees, including the decision to freely form or join the different groups of workers. UPB allows representatives to act independently without interference through reasonable access to information and resources, ensures an adequate work environment, and guarantees effective dialogue.

#### PG 4 y PG 5

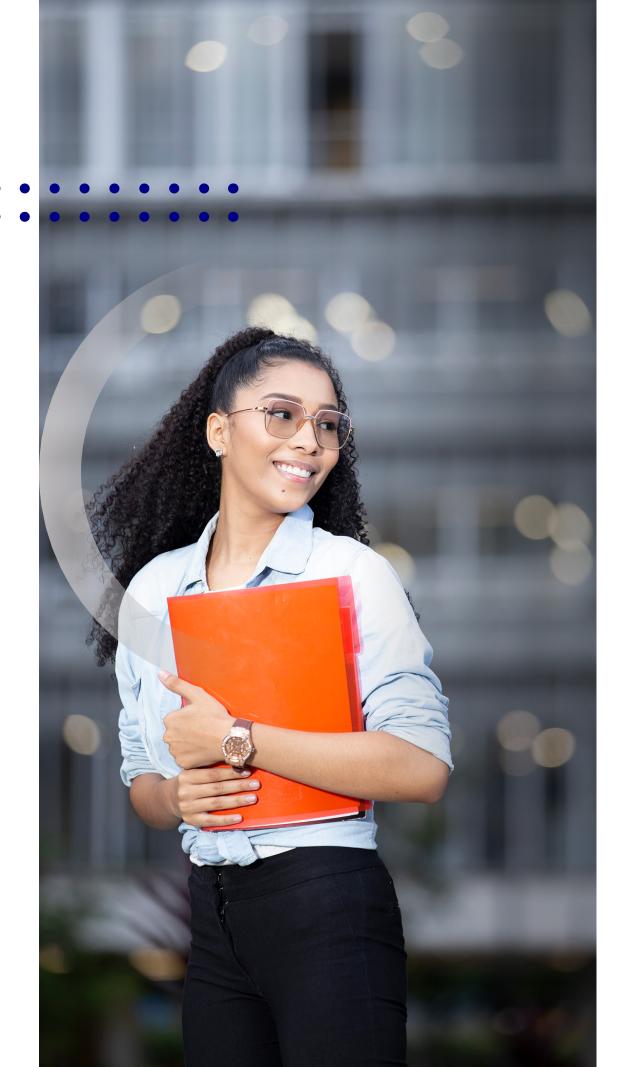
Humanization

and Culture

Focus Area

The University is committed to safeguard the rights and well-being of its employees, recognized not only as stakeholders, but also as the driving force that promotes the development and assertive continuity of its mission. For this purpose, in its hiring manual, the UPB aims to ensure that contractual processes at the University are carried out effectively, efficiently, with opportunity, and incorporate sustainability criteria from the pre-contractual stage, to mitigate, control, or eliminate the risks that, because of the contracting process, may compromise the assets and liability of the institution.

# **UPB SUSTAINABILITY REPORT 2021** 3 GOOD HEALTH AND WELL-BEING GOOD HEALTH AND WELL-BEING **-\\\\\\\\\** 4 QUALITY EDUCATION QUALITY EDUCATION 6 CLEAN WATER AND SANITATION CLEAN WATER AND SANITATION Ŋ AFFORDABLE AND CLEAN ENERGY AFFORDABLE AND CLEAN ENERGY INDUSTRY, INNOVATION, AND INFRASTRUCTURE 13 CLIMATE ACTION **CLIMATE ACTION** PEACE AND JUSTICE STRONG INSTITUTIONS 17 PARTNERSHIPS FOR THE GOALS PARTNERSHIPS TO ACHIEVE THE GOALS



#### PRINCIPLES OF THE HIRING MANUAL

- » Equality
- » Economy
- » Responsibility
- » Objectivity
- » Transparency
- » Solemnity of Contract
- » Planning
- » Confidentiality
- » Efficacy

The University has set up a worktable integrated by Human Resources Management and Sustainable UPB, whose objective is to identify in the human management sub-processes, programs, projects, and actions that account for the performance of the University in the field of contracting through a set of indicators obtained by the methodological application of criteria inspired by human rights, labor welfare, transparency in hiring, and decent work.





#### PG 6 GRI 405-2 GRI 406-1

Through the labor coexistence committee, the University promotes strategies to carry out joint actions around the health and safety of the entire University community and for the promotion of a safe and comfortable work environment, as well as the prevention and solution of work situations that contribute to the strengthening of human capital as a fundamental pillar of the UPB. During 2021, there were no cases of discrimination or other manifestations that affected the integrity of any employee at UPB.

#### PG 7, PG 8 y PG 9 GRI 102-11

The UPB has a robust governance that serves as the sustainability strategy action framework, a commitment to care for our common home: sustainability policy, environmental policy, sustainability as a fundamental axis in the processes map, and the inclusion of sustainability as one of its four lines of the Institutional Strategic Development Plan, account for this.

Some of the main actions with which UPB promotes environmental responsibility are:

» Sustainability and environmental policies as an action framework for planning and decision-making.

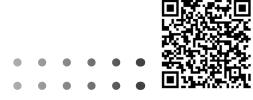


- The commitment to carbon neutrality.
- Implementation of the Integrated Zero Waste Management System.
- » The optimal and rational management of water and energy.
- » Caring for green areas as reservoirs for capturing CO2 and biodiversity sheltering in the EcoCampuses.
- » The multiple processes of environmental education that involve students from preschool to students in doctoral programs.

#### PG 10 GRI 205-1 GRI 205-2 GRI 205-3

#### The anti-corruption guidelines of the University

UPB maintains a permanent dialogue with its stakeholders through various communication channels, always monitoring the risks and alerts that may show corruption in any of the processes. Also, there is a Good Governance Code, whose objective is to structure a set of self-regulation provisions, and which is constituted as a guiding instrument to preserve the ethical integrity, ensure the proper administration of its affairs, and public knowledge of its management.



Good Governance



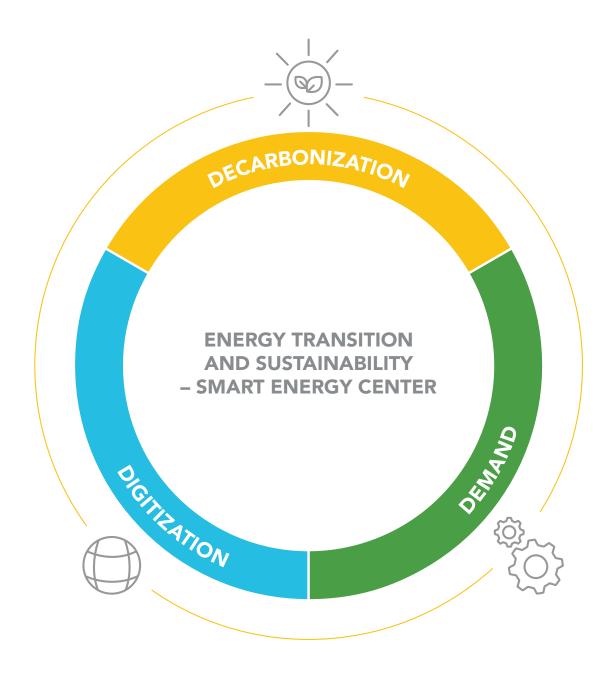


# SDG 7 AFFORDABLE AND CLEAN ENERGY

#### GRI 102-11 GRI 302-1 GRI 302-2 GRI 302-3 UPB 1 EFFICIENT POWER MANAGEMENT AND THE USE OF RENEWABLE ENERGIES IN THE UNIVERSITY

From a broad and multidisciplinary perspective, the Universidad Pontificia Bolivariana, through its research and teaching teams, offers answers to needs associated with different problems, all of them related to energy solutions that guarantee sustainability, the integration of renewable energies, mobility, the use of waste, and the development of intelligent management systems to optimize the so-called Environments 4.0 (cities and industries 4.0).

A large part of the management related to SDG 7 developed by UPB has been carried out through the Smart Energy Center (SEC), and a multidisciplinary program of energy transition and sustainability, with the participation of various focus areas of the University (Energy, ICT, Water). During 2021, this program had several lines of action:



- incorporation of alternative energy sources.
- iii Flexibility of energy systems.
- (iii) Smart networks and cities.
- iv Energy for sustainable development.
- V New energy markets.
- vi) Analytics and decision making.



# LINE 1. STUDY AND INCORPORATION OF ALTERNATIVE ENERGY SOURCES

The incorporation of alternative energies has been carried out progressively. For its immediate implementation, two types of energy have been prioritized: photovoltaic solar systems and bioenergy solutions. On the other hand, regarding feasibility and prototyping, the work on wind power energy is ongoing, and theoretical foundation of new nuclear energy technologies is expected to begin in 2022.

# ENERGY CONSUMPTION IN THE LAST FIVE YEARS - CONSUMPTION PER CAPITA



ITEM	INDICATOR	YEAR	2017	2018	2019	2020	2021
ENERGY	TOTAL CONSUMPTION	Medellín	4.096.688 kWh	4.274.967 kWh	4.889.091 kWh	2.878.529 kWh	3.036.712,45 kWh
		Bucaramanga	2.128.357 kWh	2.046.362 kWh	2.124.925 kWh	1.270.784 kWh	1.168.318,80 kWh
		Montería	2.250.957 kWh	1.589.724 kWh	1.292.052 kWh	828.324 kWh	926.995,10 kWh
		Palmira	161.481 kWh	191.766 kWh	196.611 kWh	91.088 kWh	68.324,00 kWh
		TOTAL	8.637.483,00 KWH	8.102.819,34 KWH	8.502.679,31 KWH	5.068.724,67 KWH	5.200.350,35 KWH
	STUDENTS PER CAPITA INDICATOR	Medellín	169,38 kWh/est	172,25 kWh/est	251,61 kWh/est	157,80 kWh/est	169,11 kWh/est
		Bucaramanga	334,23 kWh/est	316,19 kWh/est	434,37 kWh/est	267,36 kWh/est	249,69 kWh/est
		Montería	408,97 kWh/est	514,14 kWh/est	468,30 kWh/est	256,69 kWh/est	266,68 kWh/est
		Palmira	142,40 kWh/est	159,41 kWh/est	194,66 kWh/est	94,88 kWh/est	65,57 kWh/est





# RENEWABLE ENERGIES PARTICIPATION IN THE ELECTRICITY MATRIX OF 2021

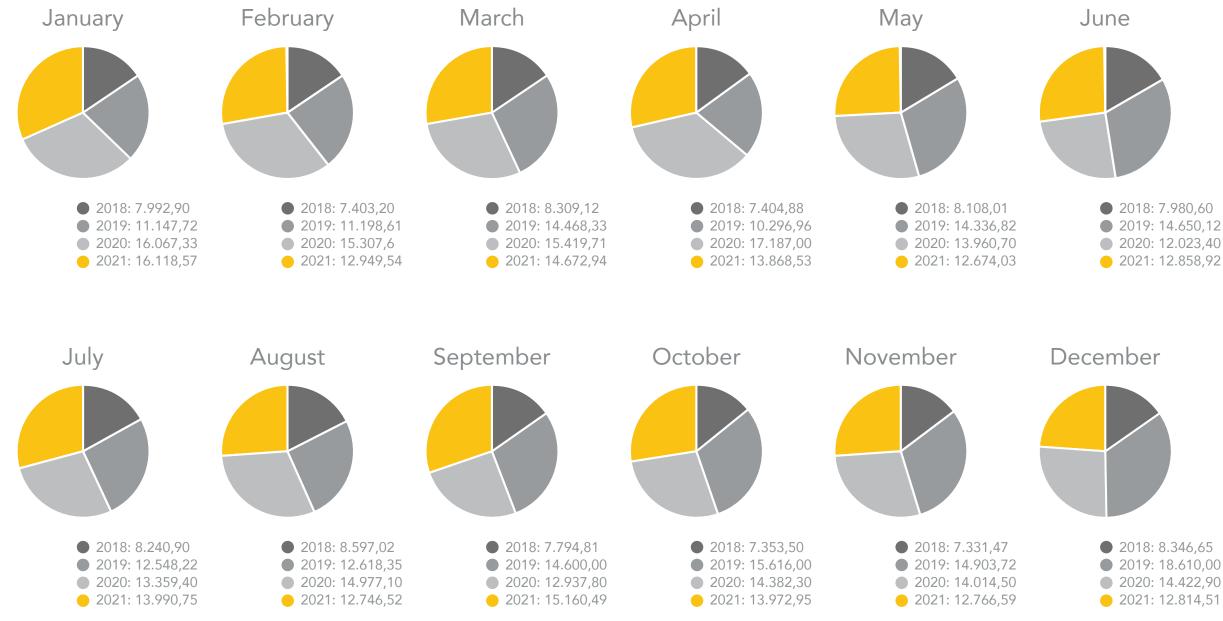
During 2021, the photovoltaic solar installed capacity of the EcoCampus was fully operational (140kWp). Given the reduction in demand, the verified contributions of renewable energies were very important. The total injection of energy from the six operating solar generators amounted to 164,594 kWh during 2021, 5.5% less than in 2020. The photovoltaic solar energy injected into the grid during 2021 represented between 4% (in the month with the highest demand) and 8% (in the month with the least demand) of the consumption of the EcoCampus which, translated into practical indicators, would allow powering 90 houses for a year, representing a reduction in CO2 equivalent to what 2,200 trees would capture in the same period.



# SOLAR PHOTOVOLTAIC ENERGY GENERATED (KWH) (2018-2021) TOTALS (KWH)



The aim is to make a transition that triples the capacity from 140 kWp to 440 kWp, which would represent a total energy contribution of at least 15% of the consumption in the Main campus. Likewise, the incorporation into the control center of the of the Montería and Bucaramanga campuses, which have already implemented photovoltaic solar systems, will be studied.





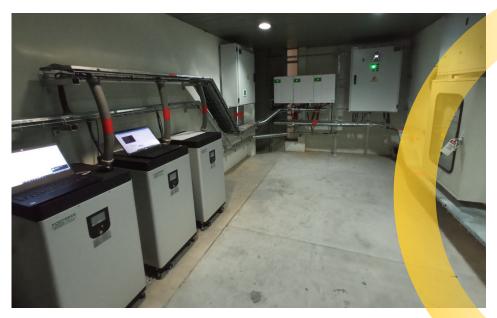
# DEVELOPMENT OF PROTOTYPES FOR WIND POWER GENERATION

Within the Project 5 framework of the 2030 Energy Alliance (Distributed Solar and wind power energy generation), and under the leadership of the UPB, a wind turbine prototype is being developed with Wavy Leading Edge technology. This system aims to improve efficiency and operation at low speeds, lower production costs, and materials associated with low-capacity wind turbines facilitating greater democratization of the use of this type of technology in society.

# LINE 2. FLEXIBILITY OF ENERGY SYSTEMS

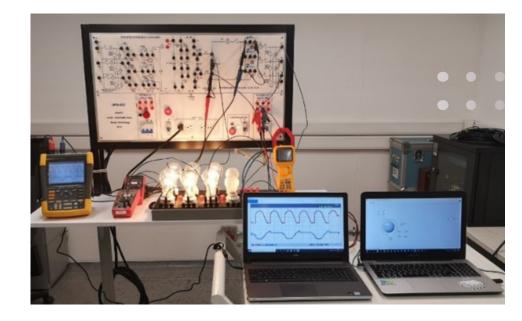
The integration of variable energy sources such as wind and photovoltaic, is enabled by flexibility and control strategies such as: storage systems with batteries, use of energy carriers like hydrogen, the implementation of devices based on electronics such as FACTS (Flexible Alternating Current Transmission System), and transmission of energy using direct current (HVdc - High-voltage direct current). Research and pilot tests are being carried out at the University that can be scaled for massive use.

# CONTROLLABLE ENERGY STORAGE SYSTEM IMPLEMENTATION WITH BATTERIES (BESS) IN THE ECOCAMPUS



Controllable Battery System (BESS) installed in the Main Library of the EcoCampus. Source: UPB. Energética 2030. Microgrids concept tests project in Colombia.

# DYNAMIC COMPENSATOR FOR INTEGRATION OF RENEWABLE ENERGIES



Dynamic compensator based on power electronics. Source: TyD-UPB Research Group.



Developing and testing energy and ICT solutions firstly on campus facilitates the sustainable transition towards their implementation in the city.

# LINE 3. NETWORKS AND SMART CITIES

The main advances in this line have been carried out by combining synergies between the UPB Micro Smartgrid project (Smart EcoCampus) and various initiatives of the 2030 Energy Alliance. The philosophy has been clear: a smart city must be made up of multiple smaller units that must also be smart. For this reason, developing and testing energy and ICT solutions first on campus, facilitates the sustainable transition towards their implementation in the city.



Aerial view of some systems integrated into the Smart EcoCampus.





Aware of its role as a pioneer and precursor of energy sustainability in the country, for nine years the Universidad Pontificia Bolivariana has been facing the challenge of implementing, operating, and optimizing the first Micro Smartgrid of its nature in Colombia. This microgrid has led to the progressive integration of ten centrally manageable subsystems for the rational and efficient use of energy resources, mobility, construction, and the consolidation of the campus as a living laboratory of smart city and industry 4.0 for the region and the country.

According to the Smart EcoCampus strategic planning, the R&D goals of the current and future stages aim to:

- » Consolidate and expand the subsystems that currently operate to continue to reduce the carbon footprint associated with the EcoCampus energy consumption.
- » Install new infrastructures for the use of organic waste at a Multicampus and residential scale. It is expected that this last one becomes a solution

- to ease access to energy in non-interconnected zones of the country.
- » Conduct applied research for the production, storage, and integration of green hydrogen. It is expected that a storage prototype with H2 is incorporated into the EcoCampus.
- » Integrate the thermal consumption monitoring of the cooling district, to the Smart EcoCampus control center.
- » Study the pre-feasibility to implement a green corridor with sustainable transportation that connects the EcoCampus with the Metro System for the Main campus.

# 2030 ENERGY ALLIANCE PROJECTS ASSOCIATED WITH SMART GRIDS AND SUSTAINABILITY

During 2021, the operation of the transformation strategy of the Colombian energy sector in the horizon of 2030 (Energy Alli-

the horizon of 2030 (Energy Alliance 2030), a winning program of the call of Scientific Colombia from Colciencias with resources from the World Bank.







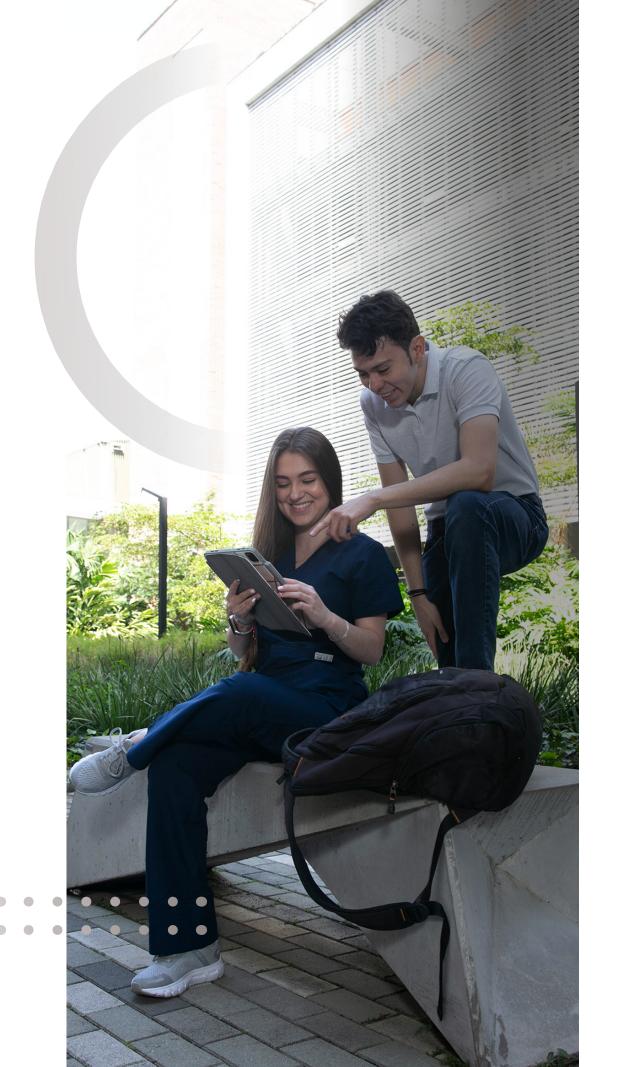
# LINE 4. ENERGY FOR SUSTAINABLE DEVELOPMENT AND LINE 5. NEW ENERGY MARKETS

Based on the experience acquired with the Eco-Campus energy management, the UPB Smart Energy Lab (SEC - UPB) was able to offer to the community advanced education courses in:

- » Integration of non-conventional renewable energies to power systems
- » Micro Smart-grids
- » Solar Energy (Two Certification Programs)
- » Sustainability (one module)
- » Wind power (Fundamentals course offered to Isagen S.A. ESP).

#### **LINE 6. ANALYTICS AND DECISION MAKING**

Meteorological stations, meters, and multiple energy generation and storage systems, installed at the UPB and allied institutions, are monitored from the control center of the Smart EcoCampus. Behind the visualization schemes, algorithms are programmed to optimize the operation of the systems allowing for proper decision making.





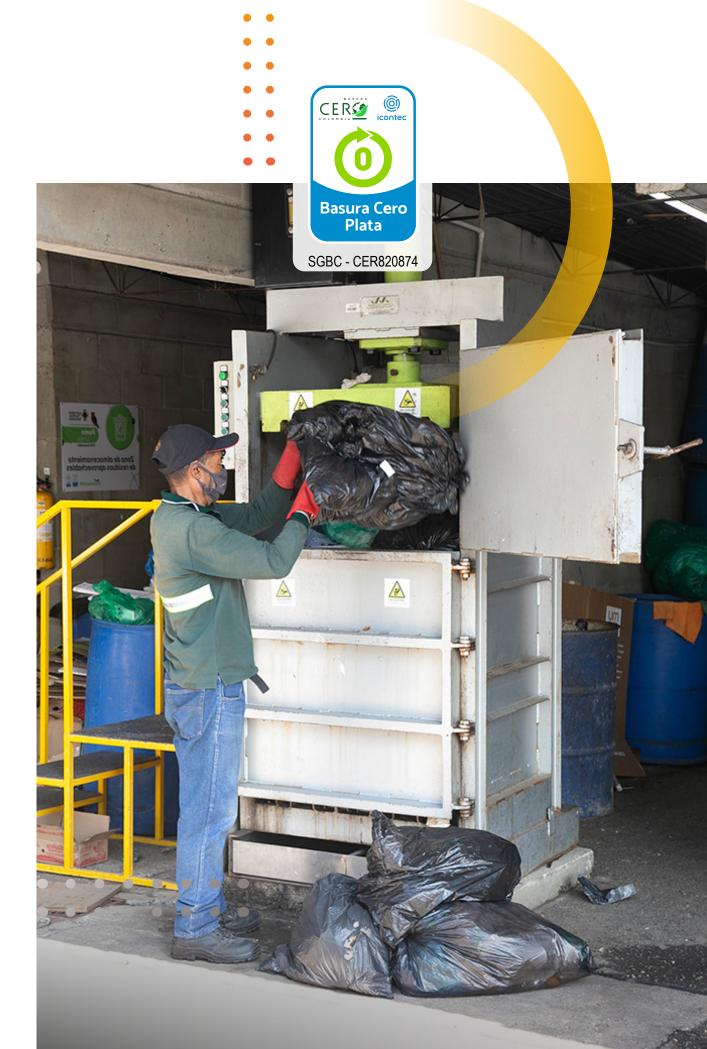
GRI 306-2 GRI 306-4

## COMPREHENSIVE MANAGEMENT OF HAZARDOUS AND NON-HAZARDOUS WASTE

The Universidad Pontificia Bolivariana obtained the silver category in ICONTEC (Colombian Institute of Technical Standards and Certification for its acronym in Spanish) Zero Waste Management System, one step closer to reaching the gold category and continuing to strengthen a sustainability culture. The strategies for the correct disposal of waste are of vital importance within UPB's sustainable actions.

These actions have been led by General Services and the Administrative Department, with the technical support of the Environmental Research Group in the Main campus, as well as the strategic vision of the Pastoral Vice-President through UPB Sustainable.

During 2021, the Bucaramanga, Montería, and Palmira campuses carried out the systematization of their waste processes impact, from generation at the source to their final disposal, beginning with the color code standardization for containers and bags according to Resolution 2184 of 2019. By doing so, the process is monitored both physically at the separation and collection points, as well as in documentary processes that account for the management, monitoring, verification of managers, and effective final disposal of waste according to its treatment type and hazardousness.



# **UPB SUSTAINABILITY REPORT 2021** GOOD HEALTH AND WELL-BEING QUALITY EDUCATION CLEAN WATER AND SANITATION AFFORDABLE AND CLEAN ENERGY AFFORDABLE AND CLEAN ENERGY INDUSTRY, INNOVATION AND INFRASTRUCTURE CLIMATE ACTION PEACE AND JUSTICE STRONG INSTITUTIONS PARTNERSHIPS TO

### WASTE MANAGEMENT PROGRESS IN MONTERÍA CAMPUS

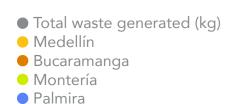
- » Alliances with certified waste managers for utilization and final disposal actions.
- » Installation of containers in accordance with resolution 2184 of 2019.
- » IX Post-consumption Conference organized by the environmental authority and delivery of 145.7 kg of WEEE waste (lights, peripheral parts, batteries).
- » Waste management proficiency standards

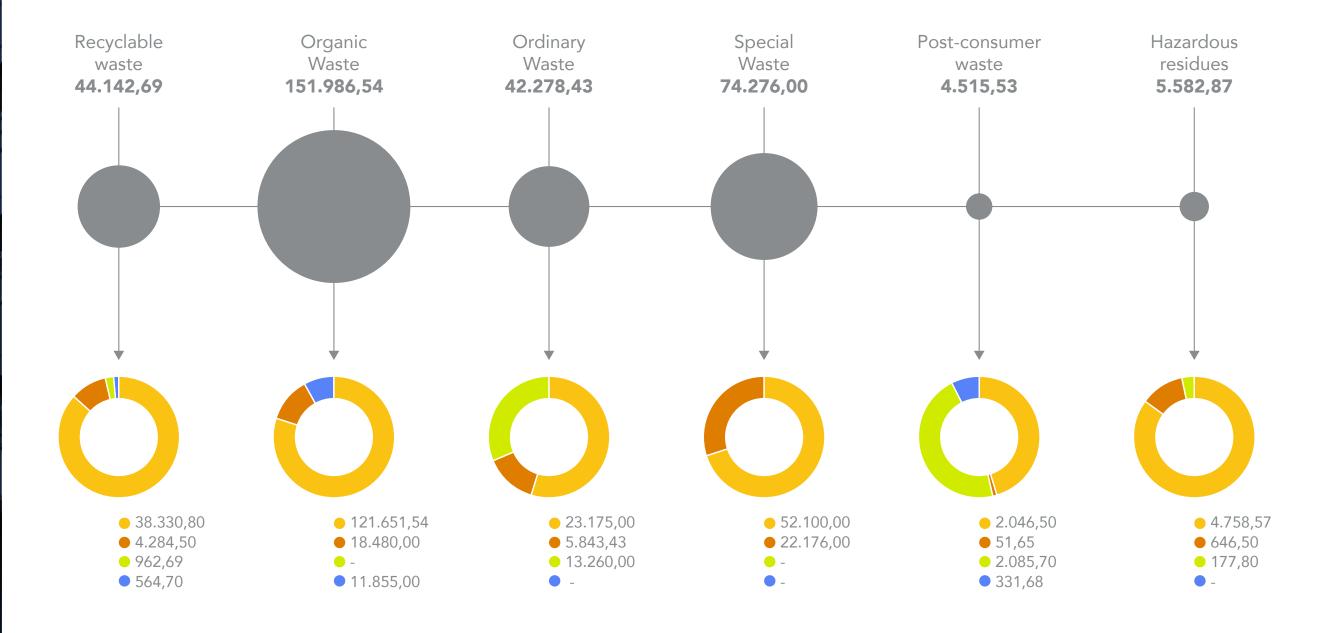
- certification by the National Training Service (Servicio Nacional de Aprendizaje -SENA for its acronym in Spanish) for the laboratories and general service staff.
- » Professors and administrative staff training on topics related to comprehensive solid waste management.
- » Updating of the specifications for contractors, including criteria for the management of construction and demolition waste (C&D).



# **UPB SUSTAINABILITY REPORT 2021** GOOD HEALTH AND WELL-BEING QUALITY EDUCATION CLEAN WATER AND SANITATION 7 AFFORDABLE AND CLEAN ENERGY AFFORDABLE AND CLEAN ENERGY INDUSTRY, INNOVATION, AND INFRASTRUCTURE **CLIMATE ACTION** PEACE AND JUSTICE STRONG INSTITUTIONS PARTNERSHIPS TO ACHIEVE THE GOALS < 39 >

### **MULTICAMPUS WASTE GENERATION**





# **UPB SUSTAINABILITY REPORT 2021** GOOD HEALTH AND WELL-BEING QUALITY EDUCATION CLEAN WATER AND SANITATION AFFORDABLE AND CLEAN ENERGY AFFORDABLE AND CLEAN ENERGY INDUSTRY, INNOVATION AND INFRASTRUCTURE CLIMATE ACTION PEACE AND JUSTICE STRONG INSTITUTIONS PARTNERSHIPS TO

# PRECAUTIONARY APPROACH AND COMPREHENSIVE MANAGEMENT OF WASTE BIOENERGY SYSTEMS FROM THE USE OF WASTE

With a purpose to develop sustainable solutions for the use of organic waste generated by a residential facility, a pilot plant for generating electricity from biogas is being implemented since October 2021. This system has the capacity to transform 20 liters of organic waste per day into 2.23 kWh/day of electric power. The plant consists of a 4m3 anaerobic bioreactor that incorporates a 1,200-liter low-pressure biogas storage tank, a

filtration system with iron filings and activated carbon to remove pollutants from the biogas, a compression and storage system of biogas at medium pressure (40 psi), and an Otto cycle electric generator modified to work with biogas. The energy generation process is autonomous and safe because it has an electrical control system that allows real-time visualization and control of biogas production.





A pilot plant for generating electricity from biogas is being implemented since October 2021. This system has the capacity to transform 20 liters of organic waste per day into 2.23 kWh/day of electric power.

Storage and control system for residential bioenergy solution.

Moreover, developments related to medium-scale bioenergy solutions are associated with a couple of projects:

- » A biodigester with manual agitation and its monitoring system, within the framework of the National Call Project to promote patent protection and its commercial use of technological advances in R&D&I that promote the economic empowerment of the business sector.
- » The project to scale up a biomuUPB biodigester to 34,000 liters.

# **UPB SUSTAINABILITY REPORT 2021** GOOD HEALTH AND WELL-BEING QUALITY EDUCATION CLEAN WATER AND SANITATION AFFORDABLE AND CLEAN ENERGY INDUSTRY, INNOVATION, AND INFRASTRUCTURE CLIMATE ACTION PEACE AND JUSTICE STRONG INSTITUTIONS PARTNERSHIPS TO ACHIEVE THE GOALS

### SDG 9 INDUSTRY, INNOVATION, AND INFRASTRUCTURE

GRI 102-10 GRI 203-1
SUSTAINABLE CONSTRUCTION
AND INVESTMENT IN PHYSICAL
INFRASTRUCTURE PROGRESS

Numerous infrastructure transformation projects began in 2021 in the Main campus. Among them, the boulevard remodeling with better specifications for furniture and urban equipment, and a greater offer of suppliers; the construction of the new book and coffee shop space that will be in the complex of building 11; and biosecurity improvements in building 9 with the installation of around fifty windows in all the offices and rooms of the building, thus contributing to air circulation and the entry of natural light.



UPB
Laboratories
- Innovation,
Science and
Development

### MASTER DEVELOPMENT PLAN INVESTMENT IN THE MAIN CAMPUS

Adaptations and local improvements	Investment Value
Civil adaptations to provide the temple with bathrooms and expansion of the sacristy.	\$55.477.396 (COP)
Adaptation of the Marketing Department offices, functional reorganization.	\$26 536 154 (COP)
Civil adaptations in bathrooms of building 19 – Sports.	\$15.802.412 (COP)
Adaptations of 7 new classrooms in building 5 to take care of high school classes	\$100.000.000 (COP)
Studies and designs	
Production of signage on campus.	-
Analysis of the signage, numbering, and nomenclature of all office spaces and classrooms on campus.	-
Consultations and proposals from various companies for the project for solar panels in buildings 10, 11, and 15.	
Geoelectric study to evaluate the aquifer characteristics of the Main campus subsoil.	\$3.808.000 (COP)
Infrastructure and furniture projects	
Remodeling of the Boulevard and construction of new premises in the study area, as well as the improvement of this space.	\$2.100.000.000 (COP)
Construction of new windows in building 9 and 10.	\$394.446.879 (COP)
Beginning of structural repowering works in buildings 5, 6, and 7.	\$1.428.956.081 (COP)
Construction of the Biomonitoring Laboratory at the School of Health Sciences.	\$982.467.119 (COP)
Book and coffee shop in building 11A design and start of work.	\$200.000.000 (COP)
Adaptation of the Human Resource Management and CIDI offices on the first floor, and the offices for administrative and support areas on the second floor.	\$40.000.000 (COP)
Purchase of 1,120 school desks to renovate all the furniture in buildings 7 and 11A.	\$901.612.544 (COP)



As a strategy to boost the economy of the city, it was possible to integrate local companies to take care of the Montería campus facilities maintenance.

Among those locally hired initiatives such as pest control services, internal floors adaptation of building 1, chapel ceiling adaptation in building 1, water storage tanks, and air conditioning maintenance of buildings 1 and 2, as well as the elevators maintenance stand out, all for a value that amounted to \$376,840,223 (COP).

With the general services staff accompaniment, activities such as painting in several areas where there was deterioration, remodeling and adaptation of internal gardens, and maintenance of sanitary devices were carried out for a value of \$12,500,000 (COP); moreover, the chiller in building 3 maintenance was carried out for \$66,219,366 (COP).

190 units of LED lighting were acquired in 2021 by the Montería campus, and three conventional R22 air conditioners were replaced by ecological refrigerants 410A Inverter.

190 units of LED lighting were acquired in 2021 by the Montería campus, and three conventional R22 air conditioners were replaced by ecological refrigerants 410A Inverter.

126
SOLAR PANELS, EACH WITH A POWER
OF 550 W, WERE INSTALLED IN
BUCARAMANGA CAMPUS

126 solar panels, each with a power of 550 w, were installed in Bucaramanga campus, with a capacity of 60 kw peak, this was carried out as part of the plan to strengthen the use of alternative energies. In this same line, investments were made to control the flow of drinking water that enters the campus through a meter in the University's inlet pipe and a water level sensor in the tanks to use the strictly required water. In the Palmira campus, investments were made in signage and equipment provision for \$10,052,393 (COP).



#### GRI 203-1

### PROGRESS IN INVESTMENT TO TECHNOLOGICAL INFRASTRUCTURE

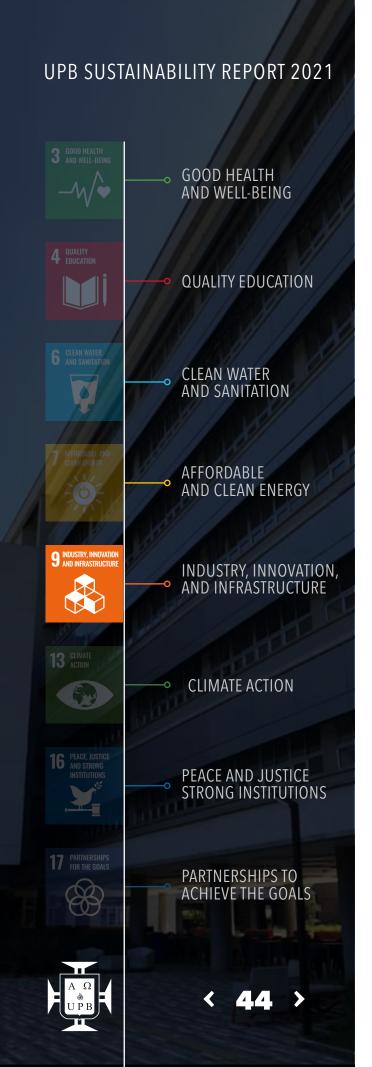
#### Main achievements:

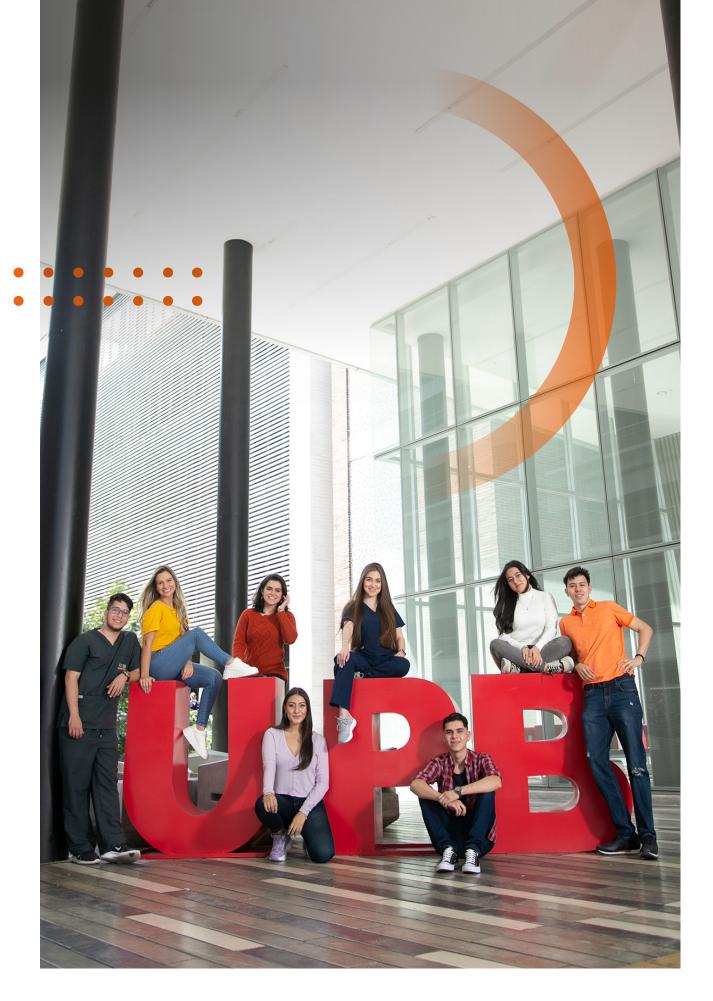
- » Consolidation of the government of technology and PMO of the ICTC (Information and communication technology center).
- » Application of the second phase of the Disaster Recovery Plan (DRP) implementation.
- » Adaptation of technological infrastructure for implementation of Data Warehouse.
- » Application integration governance definition.
- » Acquisition and implementation of a platform for curriculum management and learning outcomes.
- » Acquisition and implementation of a platform for research management.

- » Implementation of electronic invoicing and electronic payroll to comply with legal requirements.
- » Technological updating of the ERP database.
- Workflow for the control and monitoring of approval requests of grades changes.
- » Acquisition of a new tool for generating transactional reports.
- » Support in the implementation of techniques and technologies in the information system.
- » Software acquisition for contract management.
- » Software acquisition to automate internal audit processes.
- » Implementation of commercial invoicing for payment in other currencies.

### INFORMATION AND COMMUNICATION TECHNOLOGY CENTER INVESTMENTS

Listing	Main Campus	Bucaramanga	Montería	Palmira
Computer and communications equipment	\$2.851.000.895	\$983.873.000	\$180.372.050	\$82.972.253
Software	\$4.967.355.045	\$1.191.797.000	\$811.407.817	\$149.967.811
Technical support (maintenance of computer equipment and communications - connectivity)	\$1.213.273.462	-	-	\$2.237.120
Total	\$9.031.629.402	\$2.175.669.000	\$991.779.867	\$235.177.184



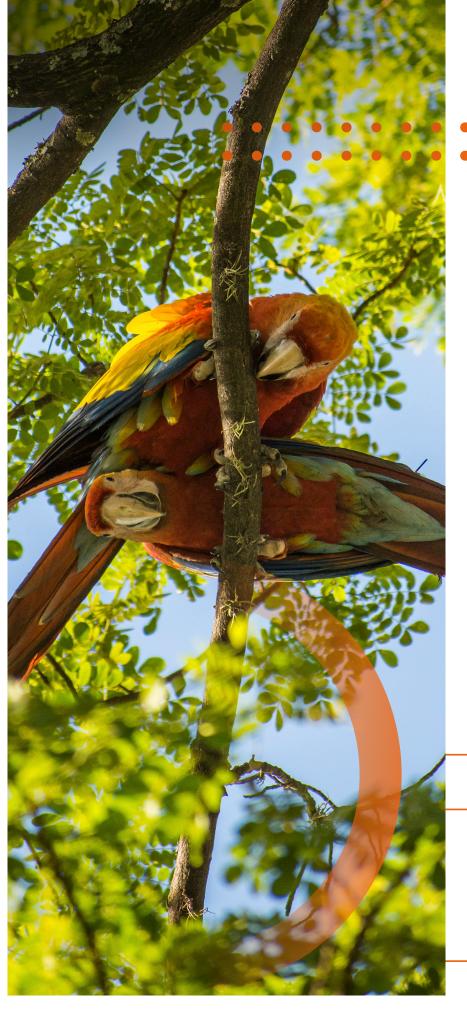


### GRI 102-9 UPB SUPPLIERS

In the Montería campus, acquisitions for a total of \$2,566,526,153 (COP) were made during 2021, of which \$971,701,057 (COP) relate to purchases made locally. In percentages, these local purchases es correspond to 38%. On the other hand, in the Main campus 557 suppliers were contracted with total purchases of \$27,415,297,212 (COP), of which \$9,138,114,796 (COP) relate to purchases made locally, meaning that 196 (54%) suppliers are in the metropolitan area of the Aburrá Valley, to achieve efficiency and effectiveness throughout the supply chain and to contribute to the economic development of the region and the country.

For its part, in the Bucaramanga campus, purchases were made for \$7,201,086,355 (COP), of which 56%, that is, \$3,996,877,096 (COP), correspond to purchases made locally in the Bucaramanga metropolitan area.





UPB 2

### INNOVATION UPB

## OUR PURPOSE: REDEFINE INNOVATION IN EDUCATION

### **Objectives**

- » Generate an innovation culture at the University in professors, administrative staff, students, and graduates.
- » Strengthen innovation abilities in a transversal way in the University to achieve a greater scope.
- » Increase the impact derived from innovation with different types of value for those involved.
- » Grow the number of new businesses, internal initiatives, and processes improvement to guarantee new income sources and resource optimization.
- » Produce and manage knowledge with the corporate strategy.

Our purpose is to break paradigms to generate solutions.

#### How do we innovate at UPB?

We receive needs or opportunities from the different stakeholders and the environment, to propose work routes for their leverage and possible implementation.

#### What is innovation for the UPB?

Generate solutions for social and human transformation.



### **INNOVATION COMMITTEE**

#### The committee members are:

- » Ángela María Vanegas, Innovation, Research, and Development Director, Andercol.
- » Mauricio Alejandro Vargas, ALSEC CEO
- » Alejandro Olaya, Innovation and Entrepreneurship National Manager of ANDI (National Business Association of Colombia for its acronym in Spanish)
- » Agustín Peláez, CEO/ Cofunder of UbiDots

### Team representing UPB:

- » Fr., Julio Jairo Ceballos, General President
- » Luis Eduardo Gómez, General Vice-Chancellor
- » Jorge Eusebio Arango, Guiding Board member
- » Juan Carlos Zapata, Strategic Planning Director
- » Innovation and Multicampus Knowledge Management Directorate



# **UPB SUSTAINABILITY REPORT 2021** GOOD HEALTH AND WELL-BEING QUALITY EDUCATION CLEAN WATER AND SANITATION AFFORDABLE AND CLEAN ENERGY INDUSTRY, INNOVATION, AND INFRASTRUCTURE **CLIMATE ACTION** PEACE AND JUSTICE STRONG INSTITUTIONS PARTNERSHIPS TO ACHIEVE THE GOALS 47 >

### **CULTURE**1. INNOVADORES UPB

### Objective:

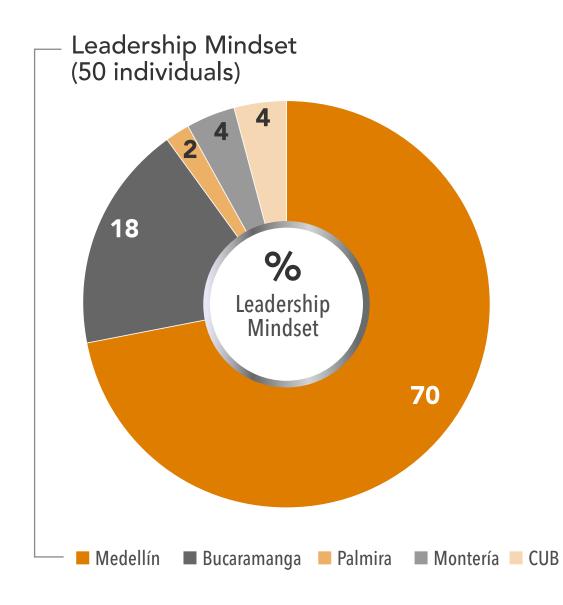
To instill the innovative culture, educate, promote, and accompany the University transformation leaders of the future.

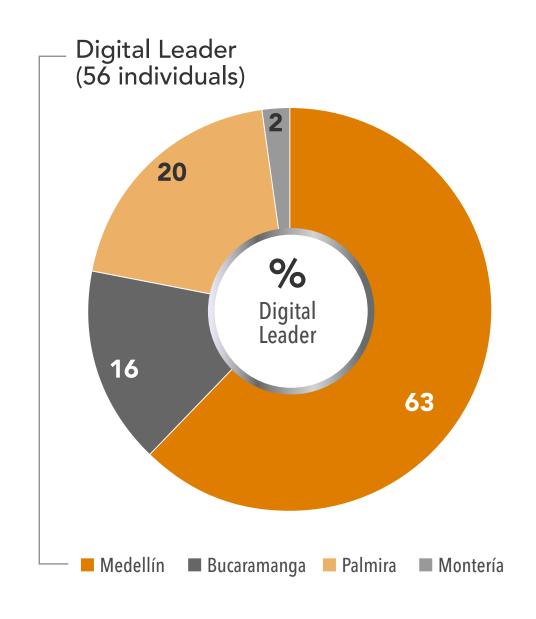
### Results:

More than 80 people multicampus educated in two courses, Leadership Mindset and Digital Leadership.











### 2. MOVING THE CITIES 2021



### Objective:

Solve global challenges derived from the 2030 agenda (SDG).

#### Results:

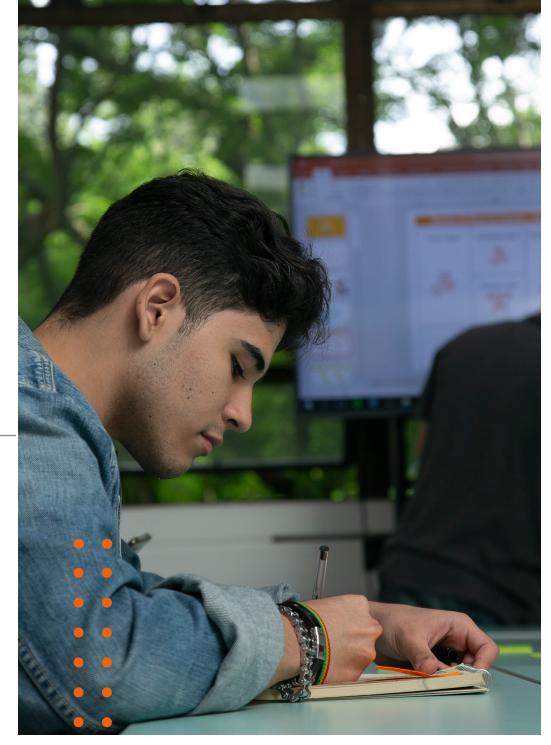
We participated as organizers for the second consecutive year, 11 UPB undergraduate students competed and were

certified, 11 world universities and more than 140 students participated..

### 3. ANDERCOL



We consolidated the alliance with Andercol - Grupo Orbis. The Andercol R&D area moved two cells of its research laboratories to the University, together we will carry out joint efforts in research, development, and innovation.



• •

### **INTRAPRENEURSHIP**

- » Intrapreneurship Second version, this time we call it: "UPB Creemos"
- » 78 individuals with 35 initiatives, 2 were selected for execution and incubation.

### **UPB SUSTAINABILITY REPORT 2021 GOOD HEALTH** AND WELL-BEING QUALITY EDUCATION CLEAN WATER AND SANITATION AFFORDABLE AND CLEAN ENERGY INDUSTRY, INNOVATION, AND INFRASTRUCTURE CLIMATE ACTION PEACE AND JUSTICE STRONG INSTITUTIONS PARTNERSHIPS TO **ACHIEVE THE GOALS**

### **TRANSFER**

- » We consolidated the process of Transfer, Innovation, and Extension to commercialize research results with transfer potential.
- In 2021, 19 capacities were raised, 10 technologies were diagnosed and prepared, and 7 technologies are making commercial efforts from extension to commercialization.
- There are 5 technologies in programs and calls to promote their commercialization with RutaN, Minciencias and Tecnnova.

TECHNOLOGIES IN THE CALL



**CTi Commercial Enlistment Program** 

Strategy around the essential elements of the business model and its financial, commercial, marketing, and intellectual property strategies.





JUMP Technnova Program
Promote the technological-pre-commercial enlistment and commercial management of the technological portfolio of Tecnnova partner HEIs.





**Minciencias Call** 

Support for the protection of inventions via intellectual property and their strategic and commercial enlistment.





**Minciencias** call

Promote the exploitation, commercialization and transfer of inventions protected or in the process of protection by patent. · Construction modular system

· Acoustic panel



UPB 3

# **ENTREPRENEURIAL ECOSYSTEM**WE PROMOTE AND STIMULATE BUSINESS DEVELOPMENT MAIN CAMPUS



Number of activities (workshops, talks): 23

Total number of attendees: 246

Incubated companies: 7

Accelerated Companies (2021-2): 2

Entrepreneurs served (initial orientation): 114

Advisory hours: 550

### BUSINESS INCUBATOR AND ACCELERATOR



Incubated since 2018 at Main Campus, and Bucaramanga and Palmira Campuses:

Batch	Phase	Year	Companies
0	Incubation	2018-2	VICO
1	Incubation	2019-1	Conecta, Deepco, Work university, Vida, and Work
2	Incubation	2019-2	Kambury, 4Patas, Torneos GG, Urban Profile, Escalante
2	Strengthening	2019-2	Lola, Frutos y Semillas
3	Incubation	2020-1	Winkel, Yugen, Palmina
3	Strengthening	2020-1	Cambulo, Punto Reflejo
4	Incubation	2020-2	Ecoproducciones, SARIBOT, Vamos con toda
5	Incubation	2021-1	Bitanna, Conicso, Bimoi
6	Incubation	2021-2	Sianttori, Pretto, Zule Coffee, Sigma Energías
1	Acceleration	2021-2	Frutos y semillas, Al Granel Panadería





Through our business incubator, we accompany the process of structuring, consolidation, and business strengthening with methodologies, mentoring, advice, and workshops. We have physical spaces that help entrepreneurs to strengthen their business.

### PARTICIPATION IN CALLS

Entity - Call 2021	Number of companies	Companies
Parque E	4	Clotheme, Organzación Juntos Imparables, Samaná, Exploralo
Proyecta Uruguay	1	VICO
Capital Semilla	9	Akasha, Influx, Origen, La Piña, Trasenda, Magiclean,Avo Oil, Hello Marcas, Vitta Snacks
Forbes Ranking Top 100 Colombian startups 2021	3	Vecindario, Vozzy, Melonn
Deep Space Food Challenge	1	ALSEC
Top 20 ANDI Innovation Ranking	1	ALSEC
Graduate, ANDI national award for the business of the future creation 2021	1	Netux



### PROGRESS IN THE ENTREPRENEURIAL ECOSYSTEM IN THE CAMPUSES

### **PALMIRA**

- » 17 courses and workshops provided to entrepreneurs.
- » 23 entrepreneurship events and talks.
- » 365 impacted entrepreneurs.
- » 1 incubated initiative.
- » 55 business ideas accompanied.

### **BUCARAMANGA**

- » Accompaniment to 59 entrepreneurs (12 graduates, 30 students, and 17 external) with 37 registered initiatives.
- » Joint work between the Center for Business Development and University Well-Being in the of formation, awareness, and strengthening phases of the family entrepreneurship project. 65 students were characterized and there were 30 participants in awareness talks, 49 in the workshop about business model and value proposition, and 68 in the talk on management and finances in the family business.
- » 11 talks and 9 education workshops and promotion of entrepreneurial culture.
- » Internship in entrepreneurship in which the creation of 5 companies and the business strengthening of another 10 were achieved.

### **MONTERÍA**

5 entrepreneurship workshops on topics associated with job skills, employability, and entrepreneurship, among others.



- » 7 talks among which stood out: Early start business; Commercial innovation based on the shopping experience in the case Éxito stores; Commercial reactivation for micro-businesses, activating the circular economy in times of change; I want to start my own business, but where do I begin?; Start a new business and innovate without borders, New business models in the digital age; and Empoderadas, UPB graduates.
- » Talks, webinars, and conferences in conjunction with the different schools of the Campus.
- » International Conference on Innovation, Technology, and Circular Processes.
- » Innovation and Entrepreneurship Week.
- » III Round of proposers.

# **UPB SUSTAINABILITY REPORT 2021** GOOD HEALTH AND WELL-BEING QUALITY EDUCATION CLEAN WATER AND SANITATION AFFORDABLE AND CLEAN ENERGY INDUSTRY, INNOVATION, AND INFRASTRUCTURE CLIMATE ACTION PEACE AND JUSTICE STRONG INSTITUTIONS PARTNERSHIPS TO ACHIEVE THE GOALS 53 >

### UPB 4 SUSTAINABLE PURCHASES

For the goods acquired in 2021 that are mentioned below, the University has developed Environmental Technical Profiles -ETP- that allow to establish a purchase criterion focused on causing minimum impact to society and the environment. It is highlighted in this strategy that Palmira campus reached 64.12% of purchases with sustainability criteria, followed by the Main campus with 19.82%. An important milestone for this year was the inclusion of computer equipment in the analysis, representing a significant volume of purchases at the University (in quantity and cost), and which implies determining the impacts in detail throughout their cycle of life.

Since 2018, the UPB has been adopting the sustainable purchasing approach, which contemplates the costbenefit approach in the life cycle of environmental, economic, and social impacts of goods, labor, and services hired and acquired by the University.

Total Purchases	Medellín	Bucaramanga	Montería	Palmira
Reams of paper	-	-	\$3.855.002	-
Markers	\$14.415.091	-	-	-
Lights	\$40.836.654	\$34.705.993	\$7.859.748	-
Toilet paper	\$18.739.537	\$25.048.402	\$11.929.824	\$309.440
Hand towels	\$47.454.891	-	\$12.158.304	\$593.076
Computers	\$3.515.589.955	\$ 983.873.000	\$180.372.050	\$82.972.253
Total	\$3.637.036.128	\$1.043.627.395	\$216.174.929	\$83.874.769
Total Purchases	\$18.354.340.065	\$7.201.086.355	\$2.566.526.153	\$130.811.438
% Sustainable purchases	19,82 %	14,49 %	8,42 %	64,12 %



## **UPB SUSTAINABILITY REPORT 2021** 3 GOOD HEALTH AND WELL-BEING GOOD HEALTH AND WELL-BEING **-**∕\**√**• QUALITY EDUCATION CLEAN WATER AND SANITATION AFFORDABLE AND CLEAN ENERGY INDUSTRY, INNOVATION, AND INFRASTRUCTURE **CLIMATE ACTION** PEACE AND JUSTICE STRONG INSTITUTIONS PARTNERSHIPS TO ACHIEVE THE GOALS 55 >

### SDG 3 GOOD HEALTH AND WELL-BEING

#### GRI 404

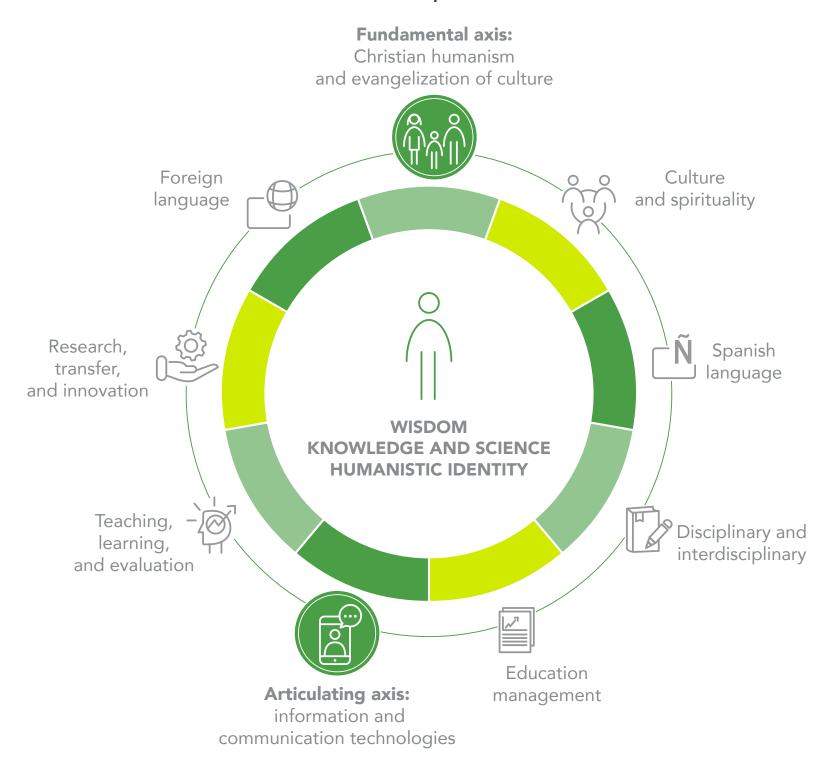
# THE RESULTS OF THE COMPREHENSIVE EDUCATION OF PEOPLE

The Human Talent Qualification and Development Program (HTQDP) settles a part of the mission by becoming a proposal for the education of all University employees, from the human skills and competencies approach.

### Qualification assistance by integrator nucleus

Name of education experience	Participants
Culture and spirituality	5403
Teaching, learning, and evaluation	2616
Research, transfer, and innovation	90
Spanish language	15
Foreign language	55
<b>Grand Total</b>	8179

### HTQDP Macrostructure Education experiences



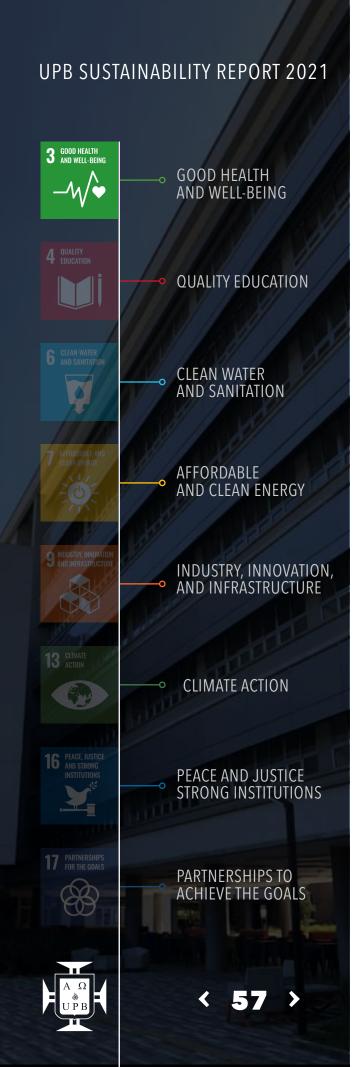
## **UPB SUSTAINABILITY REPORT 2021** 3 GOOD HEALTH AND WELL-BEING GOOD HEALTH AND WELL-BEING -⁄4/**♦** QUALITY EDUCATION CLEAN WATER AND SANITATION AFFORDABLE AND CLEAN ENERGY INDUSTRY, INNOVATION, AND INFRASTRUCTURE **CLIMATE ACTION** PEACE AND JUSTICE STRONG INSTITUTIONS PARTNERSHIPS TO ACHIEVE THE GOALS 56 >

### UPB 5

### **UPB'S COMMITMENT TO THE WELL-BEING OF ITS EMPLOYEES**

UPB recognizes the commitment of its employees as the engine that drives the missionary values and vision of the University, making a great contribution from the strategic, administrative, teaching, research, and operational aspects, and promoting growth scenarios from the human point of view. For this reason, the UPB contributes to the growth of its employees in their personal, family, and work settings by allocating resources for the implementation of various extralegal benefits.

Type of benefit	Number of employees benefited	Number of family members benefited	Costs assumed by the University
Christmas Bonus	1130		\$2.410.247.869
Professors Seniority Premium	68		\$251.199.886
Birth Aid	24		\$21.353.955
Administrative Seniority Premium	89		\$282.047.884
Eyeglasses Aid	223		\$57.403.768
Death Aid	30		\$57.375.490
Disability Aid	94		\$64.070.618
Undergraduate educational assistance - Family		194	\$2.192.291.803
Baccalaureate educational aid - Family		74	\$304.470.311
Primary educational aid - Family		50	\$227.576.800
Administrative Staff Undergraduate Educational Aid	47		\$374.184.841
Administrative Staff Postgraduate Educational Aid	6		\$44.843.100
Administrative Staff Postgraduate Educational Aid in agreement with other HEIs	4		
Total	1715	318	\$6.287.066.325



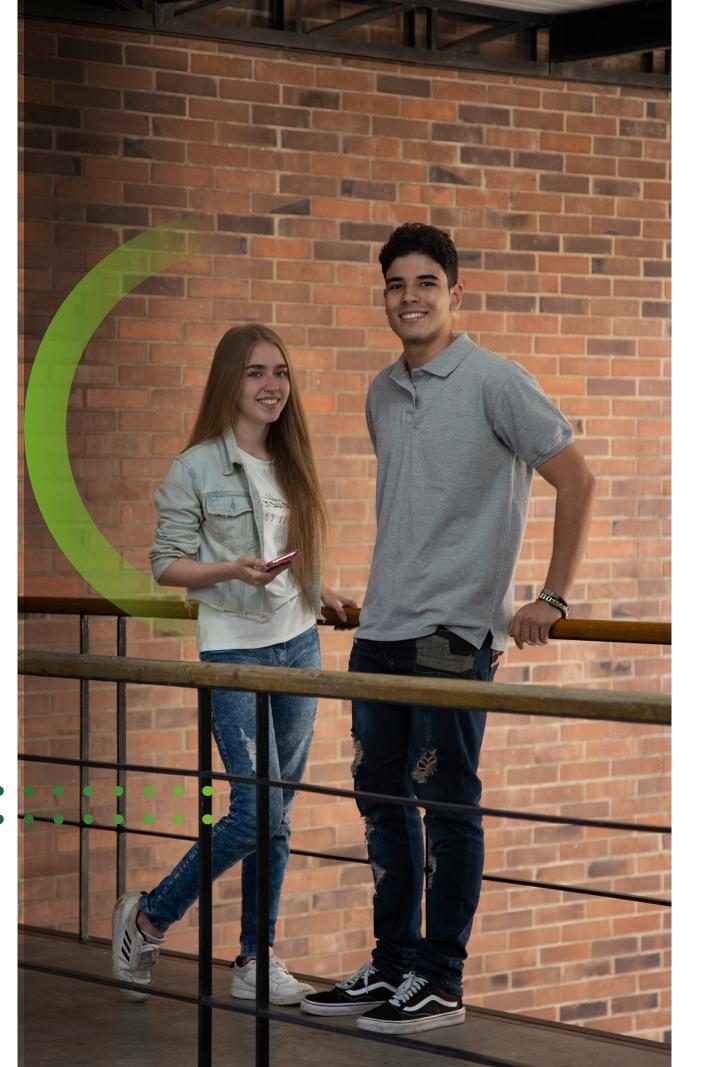


The UPB's mental health committee oversees the designing and monitoring strategies for prevention, mitigation, and overcoming risks.

### **CREATION OF THE MENTAL HEALTH COMMITTEE**

Mental health care is a responsibility of companies, especially when they are of an educational nature. The UPB's mental health committee oversees the designing and monitoring strategies for prevention, mitigation, and overcoming risks for administrative staff, as well as for professors and students. It is also a mechanism for designing, validating, and socializing the mental health and psychological emergencies care routes; promotes research on this topic and articulates different units of the institution to implement related projects.





### **MUÉVETE** PROGRAM

Muévete promotes health and disease prevention through knowledge and experimentation of movement as the cornerstone of healthy living habits. The program is aimed to the Medellín Campus UPB employees and seeks to encourage the practice of physical activity or exercise with a frequency of two to three times a week to generate a habit. In 2021 there were 3,099 employees enrolled.

### **Program activities**

- » Hidrofit: strengthening exercises in the pool.
- » Joint stability: exercises to strengthen the joints of the body.
- » Circuit training: exercises to develop physical abilities with moderate intensities.
- » Full body: exercises to concentrate specific work on the whole body.
- » Cross training: exercises to improve different physical capacities such as strength, power, flexibility, and resistance.
- » Cardio-tennis: recreational exercises in agreement with the Antioquia Tennis League to learn to play this sport while improving physical condition.



#### GRI 201-3

### **BENEFITS PLAN OBLIGATIONS**

In 2021, the University made a payment to the pension funds that amounted to \$20,911,873,700 (COP), of which \$9,223,539,100 (COP) were made to private funds and \$11,688,334,600 (COP) to state funds. In

accordance with law provisions, the percentage of pension contributions by the University was 12%, while the contribution of employees was 4%, for a total percentage of contributions equal to 16%.

Campus	Private funds	Public funds	Total
Medellín	\$6.218.676.700	\$7.976.588.600	\$14.195.265.300
Bucaramanga	\$1.190.707.400	\$2.447.792.000	\$3.638.499.400
Montería	\$1.566.026.700	\$955.653.400	\$2.521.680.100
Palmira	\$248.128.300	\$308.300.600	\$556.428.900
Total			\$20.911.873.700

#### GRI 401

### THE POLICIES OF DECENT WORK THAT UPB IS ADVANCING ON

In addition to its contribution to the development of society, in compliance with its mission commitment, UPB also generates positive impacts in terms of employability. It currently has a valuable human resource made up of more than 1,600 employees, 125 of which were new hires in 2021 (53 men and 72 women). In 2021, 12 parental postnatal permits were granted, with a return rate of 100% thanks to the comprehensive support of the Human Resources Management and University Well-being departments.

### Age ranges of new employees hired:

- » Under 30 years: 57 employees,46%
- » Between 30 and 50 years: 59 employees, 47%
- » Over 50: 9 employees, 7%





### UPB 6

### PREVENTIVE HEALTH CARE EVENTS

Support, orientation, and follow-up of positive COVID-19 cases, orientation to patients and their families; also, at home recommendations and instructions on measures within the institution were provided. Epidemiological barrier was also established:

Main Campus: 214
Palmira Campus: 449
Montería Campus: 64

Health prevention and promotion virtual training through the institutional channels in You-Tube, Facebook live, and Teams:

### Trained people

Main Campus: 53
Palmira Campus: 277

Bucaramanga Campus: 3,382

Montería Campus: 985





 Support from the safe line: institutional line that works 24 hours a day, 365 days a year, in which health guidance is offered to the entire community. In addition, strategic alliances were made for vaccination against COVID-19 days.



24
HOURS OF SERVICE IN THE SECURE LINE

### GRI 102-11

## HEALTHY AND SUSTAINABLE HABITS PRECAUTIONARY APPROACH

#### Health care line

In 2021, the virtual medical tele-orientation program was continued at a multicampus level, an alternative in health care during the social isolation caused by the pandemic. Currently, this type of orientation is maintained in general medicine, sports medicine, and physical activity.

#### Total attended in tele-orientation:

Medellín: 496 Montería: 970

Bucaramanga: 601

Face-to-face medical care: general medicine, sports medicine, and physical activity: 493

Optometric evaluation of the University students as support for continuity: 120



GRI 403-1

### REPRESENTATION OF WORKERS IN FORMAL WORKER-COMPANY HEALTH AND SAFETY COMMITTEES

The Joint Health and Safety at Work Committee -COPASST-, is an important way to promoting safety and health at work at all levels. COPASST contributes to the dissemination and support of healthy practices and motivates the acquisition of safe habits.



• • • • • • • •

Recommendations for remote working - Five tips to have a pleasant workspace

GRI 403-1

## MULTICAMPUS SYSTEM FOR EMERGENCY AND DISASTER RISK MANAGEMENT, AND PRE-HOSPITAL CARE (PHC)

UPB has a health, emergency, and disaster protection system, with 100% coverage of its facilities and multicampus spaces used by students, employees, and visitors. It has 73 brigade members who have been fundamental in supporting the PHC, and during 2021 took care of 205 musculo-skeletal emergencies and 529 medical requirements. Also, and as a commitment to promoting the culture "everyone attentive, everyone safe", training was provided to 400 individuals during the same year on the following topics:

### Training in emergency risk management, disasters, and pre-hospital care

Welcome - COVID-19 - vaccination plan (CUB)

Reanimation in COVID-19 patient

Theory of fire - knowledge - (firefighters)

Palmira evacuation plan

Emergency psychology

Brigade meeting

Management of fauna and flora in incidents

Bucaramanga emergency training

Simulation and drills

Montería emergency training

Meeting of brigades II



UPB Multicampus participated in the 10th National Drill, for this event, in which 3,252 people from the Main campus and other campuses were vaccinated, we had the participation of PHC, brigade members, and other institutional units.

# **UPB SUSTAINABILITY REPORT 2021** 3 GOOD HEALTH AND WELL-BEING GOOD HEALTH AND WELL-BEING **-**∕\**√**• QUALITY EDUCATION CLEAN WATER AND SANITATION AFFORDABLE AND CLEAN ENERGY INDUSTRY, INNOVATION, AND INFRASTRUCTURE CLIMATE ACTION PEACE AND JUSTICE STRONG INSTITUTIONS PARTNERSHIPS TO ACHIEVE THE GOALS

#### UPB 7

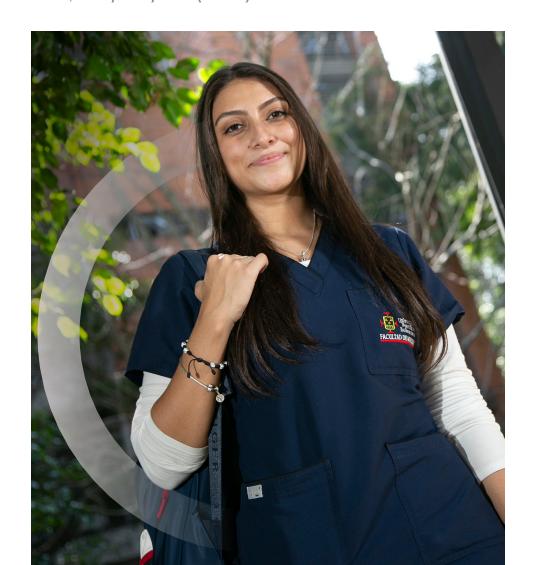
### PHYSICAL AND MENTAL HEALTH

- » UPB provides comprehensive support to its students to identify early warnings, offer timely psychosocial intervention, and promote continuity and inclusion.
- » During times of pandemic, a diagnosis of the technological and psychosocial needs of students as risk factors for the learning process was made, and from there, support and intervention strategies were generated for the comprehensive health, impact on continuity, mental health, identity, and loyalty of the University community.

Psychological care 2021			Total services in campuses
	Undergraduate	701	
Main Campus	Postgraduate	18	749
Main Campus	Employees	29	749
	Graduates	1	
Montería Campus	Undergraduate	167	170
	Graduates	3	170
	Undergraduate	310	
Pucaramanga Campus	Postgraduate	9	343
Bucaramanga Campus	Employees	19	343
	Graduates	5	
Palmira Campus	Undergraduate	157	157
Total	1419		

## **::562**

- STUDENTS BENEFITED WITH AN
  INVESTMENT OF \$173,164,396 (COP).
- » The UPB has ensured psychosocial and economic assistance to support our students, achieving an increase in investments, the number of beneficiaries and, therefore, greater coverage at the multicampus level. In 2021, 562 students benefited from this line with an investment of \$173,164,396 (COP).





### **PROGRAMS IMPLEMENTED IN 2021**

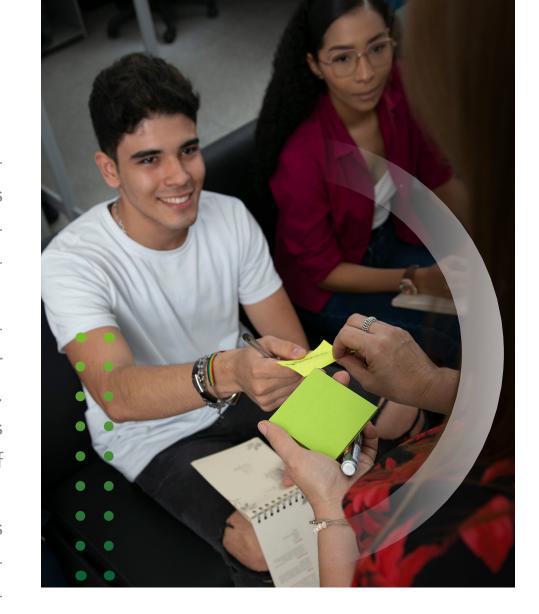
Desarrollo De La Persona – Inteligencia Emocional (Development of the person – Emotional Intelligence): the UPB makes the Emotional Intelligence line available to the University community, in which eight topics aimed at the comprehensive development of the being are strategically addressed.

Ágora Emocional: implements strategies that favor the assertive management of emotions and promote awareness of their impact on physical, mental, and spiritual health. Attendees: 102. Expresarte (Express Yourself): strengthens human capacities that promote the identification and assertive expression of emotions. Attendees: 25.

Habla Conmigo (Talk to Me): intervenes large and small groups of the University community from a creative, optimistic, and contemporary perspective motivating them to "heal", assuming positively the consequences and situations of life changes that arose from 2020, for the -COVID-19 pandemic. Attendees: 1112

Sexualidad: Cerebro y Corazón (Sexuality: Brain and Heart): education about myths and truths in sexual and reproductive health, responsible sexuality, sexual and reproductive rights. Attendees: 74 Siembra Palabras (Plant words): encourages the development of strategies for the prevention of violence and the promotion of relationships based on respect. Attendees: 13

EPM fund social service support: strengthens the line of social service accompaniment that must be carried out in exchange for the economic support received by the beneficiary students of the Medellín EPM Fund. Beneficiaries: 35



UPB Leaders: promotes leadership skills based on institutional principles and values that allow attendees to assume a dynamic and participatory role inside and outside the institution, serving as models and agents of transformation in the University environment and in the community in general. Attendees: 59

Consume sin consumirte (Consume without consuming yourself): program aimed at helping, creating healthy financial practices and critical postures towards the consumer society and its proclivity towards the debasement of being. Attendees: 396.



# SPORT VENUES WERE RENDERED 650 TIMES FREE OF CHARGE

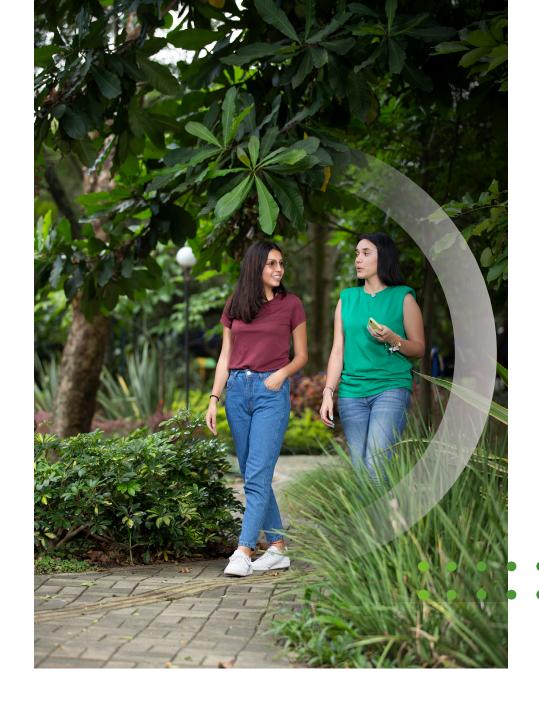
#### UPB 8

### ART AND SPORTS FROM UNIVERSITY WELL-BEING

The University maintains active free courses and representative groups in vocal technique, oral expression, musical reading, stage fright management, piano initiation, guitar, artistic appreciation, polyphonic choir, vallenato group, folkloric group, musical orchestra, dramaturgy, soccer, yoga, contemporary martial arts, chess, field tennis.

In addition, it offers elective courses in art and sports to enhance human capacities and contribute to the comprehensive education process.

Artistic and sports offer	Impacted students
Artistic elective courses	313
Sports elective courses	2526
Interfaculties	334
Free courses	368
Artistic workshops	1626
Total	5167



#### Inclusive initiatives 2021

- » Development of the film project entitled: Mujer mirando a la cámara, with the participation of artists from the cultural areas of the UPB.
- » Montería children's soccer school with 70 members.
- » Free of charge rendering of sports venues:650



UPB 9

## REMOTE WORK / VIRTUALITY FINANCIAL SAVINGS FOR EMPLOYEES AND STUDENTS

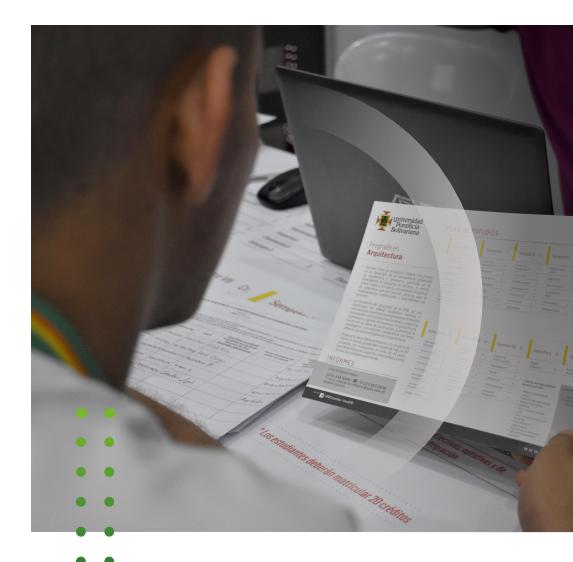
During the first semester of 2021, virtual education and work-from-home strategies were implemented benefiting a large part of the population from the University's Main campus. As part of the externalities program and based on the Sustainable Corporate Mobility Plan, the economic savings associated with students and employees travel were calculated considering the following items: fuel and parking payment for cars and motorcycles, and payment of Metro and bus tickets. This way, student's savings amounted to \$4,450,353,277 (COP) and for employees, \$1,069,498,988 (COP); adding both, a positive externality of \$5,519,852,265 (COP) is obtained.

A total of \$5,519,852,265 (COP) was saved by employees and students thanks to the virtuality processes implemented at the Main campus during 2021.

### **EMISSIONS GENERATED AND AVOIDED BY TRAVEL:**

Thanks to the work from home and virtual education processes implemented at the Main campus in 2021, the emission of about 6,170t CO<sub>2</sub>e associated with the commuting of students and employees was avoided.

A total of \$5,519,852,265 (COP) were saved by employees and students thanks to the virtuality processes implemented at the Main campus during 2021.



## **UPB SUSTAINABILITY REPORT 2021** GOOD HEALTH AND WELL-BEING QUALITY EDUCATION CLEAN WATER AND SANITATION AFFORDABLE AND CLEAN ENERGY INDUSTRY, INNOVATION, AND INFRASTRUCTURE 13 CLIMATE ACTION CLIMATE ACTION PEACE AND JUSTICE STRONG INSTITUTIONS PARTNERSHIPS TO 67 >

### **SDG 13 CLIMATE ACTION**

### MANIFESTO FOR SUSTAINABILITY



MD. Carlos Alberto Restrepo Molina Clínica Universitaria Bolivariana Director



Fr., Julio Jairo Ceballos Sepúlveda General President, Universidad Pontificia Bolivariana

We want to share with our stakeholders a manifesto for sustainability that challenges, transforms, and elevates us to a higher level. In 2018, we managed to be the first carbon neutral University in Latin America, and we understood this achievement as a starting point for the consolidation of programs and projects, as well as the implementation of a strategy to reduce our impacts associated with the effects of climate and the reduction of greenhouse gas emissions.

In 2021 we reiterate the capacity of our institution to generate value framed within the institutional values: creativity and innovation, we expanded the scope of the certification that transcends our Main campus and campuses, and we managed to incorporate the Clínica Universitaria Bolivariana as the first Carbon Neutral health institution in the Aburrá Valley.

The discipline in the implementation of this strategy has mobilized transformations that have resulted in the strengthening of our organization. Specifically, we had proposed to reduce our emissions by 20% by 2025, and it is pleasing to share that this goal was not only achieved by 2021, but that we also achieved a reduction of 28.2%, thanks to the implementation of the mitigation plan programs and projects and, of course, for



the displacement of academic and administrative activities to virtuality, due to the health emergency. Today we close the first cycle of carbon neutrality comprised between 2018 and 2021, and we design a new roadmap outlining a reduction pledge aligned with the national commitment, the update of the NDC (Nationally Determined Contribution), and the superior purpose of being a Carbon Neutral country by 2050.



Fr., Raúl Jordan Balanta Palmira Campus President



Fr., Gustavo Méndez Paredes Bucaramanga Campus Pesident



Fr., Juan Camilo Restrepo Tamayo Montería Campus Pesident

Thus, in this new cycle that begins in 2022 until 2024, goals are redefined committing to reduce 25% of emissions by 2024, and having by 2030 a sum in the reduction equivalent to 51%.

These strategic milestones, which demonstrate the resilience of our organization and its structural solidity represent new challenges, including the change of the base year to 2022, the definition of projects, the allocation of other resources, and the evolution of the initially proposed strategy, which today are the starting point for the consolidation of a sustainability culture in the organization under a key and specific premise: face the risks associated with climate change and positively transform the environment by implementing solutions with a social impact.

Welcome to an institution that works, thinks, and lives unlimited.

Fr., Julio Jairo Ceballos Sepúlveda

Welcome to UPB

General President, Universidad Pontificia Bolivariana

Welcome to an institution that works, thinks, and lives unlimited.
Welcome to UPB



GRI 305-1 GRI 305-2 GRI 305-3 GRI 305-4 GRI 305-5

## (CARBON NEUTRAL) MANAGEMENT OF CO<sub>2</sub> EMISSIONS, THE OZONE LAYER, AND CLIMATE CHANGE

The Universidad Pontificia Bolivariana received the recertification from ICONTEC as the first carbon neutral University in Latin America at a multicampus level, consolidating the rigorous work done by schools, research groups, and administrative units to acquire a culture of sustainability.

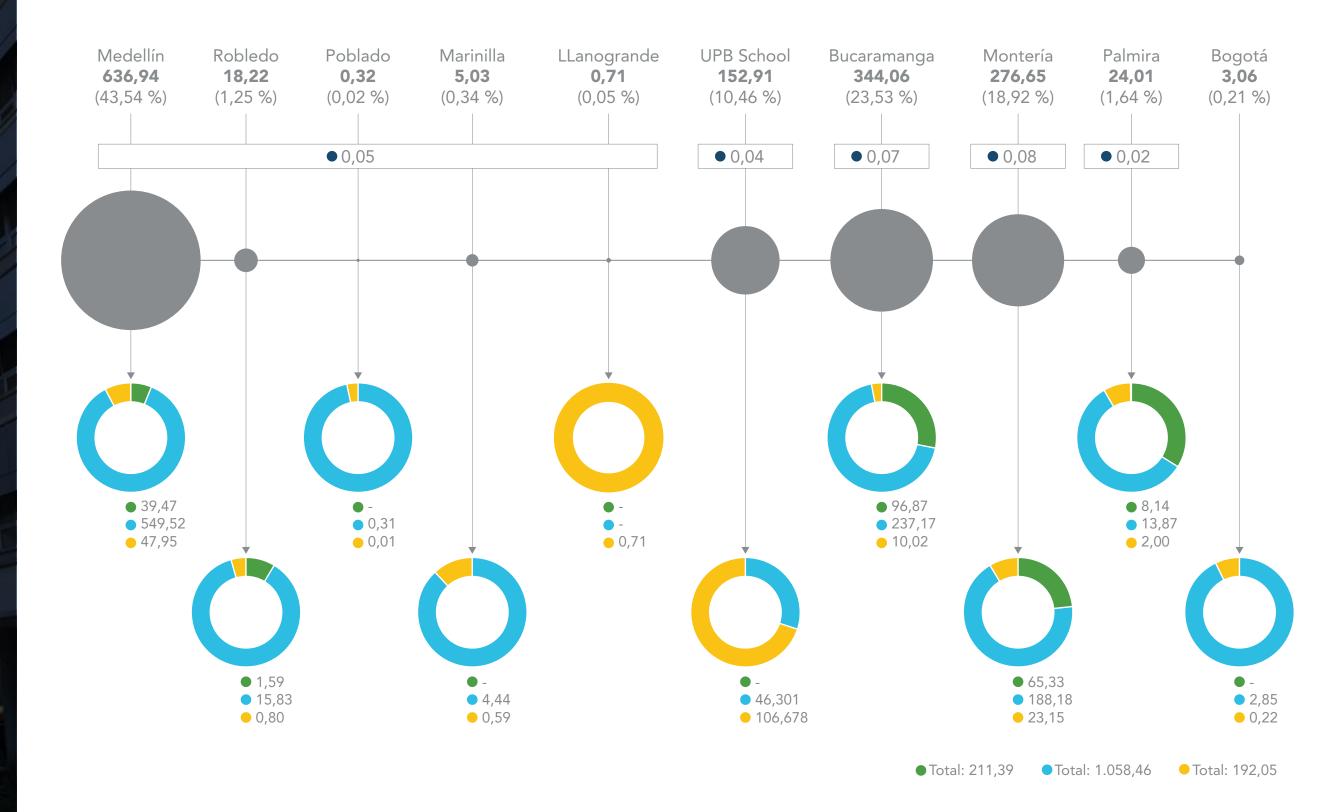
This certification was achieved after the measurement of the multicampus carbon footprint and its verification process, accompanied by the analysis of all the initiatives and institutional actions that are set out from teaching, research, and transfer and that allowed to mitigate the impacts of the University, to define the remainder to be compensated in a reforestation project called Custodiar. This project consists of the replacement of cattle farms with commercial forest plantations and the conservation of soil and water through the company South Pole. The University outlined the roadmap for the reduction and mitigation of greenhouse gas emissions for the following years in a document called the "Multicampus Mitigation Plan", which will make it possible to monitor resource consumption, lead awareness and education initiatives, and reduce the impacts associated with the development of activities in the Institution.



### **UPB SUSTAINABILITY REPORT 2021 GOOD HEALTH** AND WELL-BEING QUALITY EDUCATION CLEAN WATER AND SANITATION AFFORDABLE AND CLEAN ENERGY INDUSTRY, INNOVATION, AND INFRASTRUCTURE 13 CLIMATE ACTION CLIMATE ACTION PEACE AND JUSTICE STRONG INSTITUTIONS PARTNERSHIPS TO ACHIEVE THE GOALS 70 >

### **UPB MULTICAMPUS CARBON FOOTPRINT SUMMARY 2021**

- Total scope (1+2+3) per sectional
- Scope 1. Direct emissions
- Scope 2. Indirect emissions
- Scope 3. Other indirect emissions
- Per capita indicator





#### UPB 10

Masive

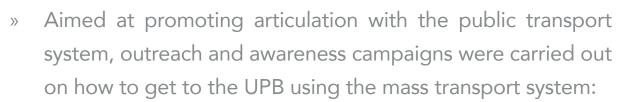
System

**Transport** 

**Strategies** 

## SUSTAINABLE BUSINESS MOBILITY PLAN (PMES-FOR ITS MEANING IN SPANISH)

An articulation process was carried out with the AMVA (Aburrá Valley Metropolitan Area) to articulate the internal bike path with the EnCicla stations, and to increase their number in the surrounding area of the University. Currently there are four nearby EnCicla system stations: Circular Primera, Carrera 70, San Joaquin, and Bulerías.



- » Progress in the implementation of a carsharing station within the campus in collaboration with Renault Mobility.
- » Progress in the implementation of a charging ecosystem for electric vehicles.
- » Dissemination strategies about alternative initiatives for sustainable mobility.
- The Aburrá Valley Metropolitan Area recognized the Universidad Pontificia Bolivariana for comprehensively managing its mobility through PMES, an initiative created by the entity so that companies could implement strategies to reduce the environmental impacts of employee travel.
- The PMES committee has been created in an inter-institutional effort to leverage sustainable mobility strategies, in



it you can find administrative staff and professors from different schools of the University.

» Parking fee exemption in the UPB EcoCampus for 100% electric vehicles



100% Electric Vehicles



GRI 304-1 GRI 304-2 GRI 304-3

## THE BIODIVERSITY PROTECTION MANAGEMENT PUT FORWARD BY THE UNIVERSITY



UPB signs international cooperation agreement for the conservation of nature and soil biodiversity

The UPB, aware of the efforts made to launch and consolidate programs and projects aimed at strengthening its sustainability strategic line, has participated in the Green Metric ranking since 2018, the metric with the highest positioning for universities on matters related to sustainability and the environment.

In 2021, the University gathered multicampus programs and projects, according to the different themes proposed by Green Metric, in which it is evident how the UPB executes and promotes actions for sustainability, our resources, and natural environments; assertively involving, within a common framework of synergy between the University and the environment, issues of infrastructure, energy, water, waste, mobility, education, and research.

#### Ranking Green Metric UPB 2021

Top 100 worldwide among 956 Universities

Top 10 Colombia

1st University in Colombia in sustainable infrastructure

1st University in Antioquia and 5th in Colombia in waste management

1st University in Antioquia and 3rd in Colombia in sustainable mobility

2nd University in Antioquia in education and research with a sustainable component

1st University in Córdoba in environmental and sustainable actions

1st University with a campus in the Valle del Cauca in infrastructure and mobility

1st University in Santander in infrastructure, waste, mobility, education, environmental and sustainable research

The Bucaramanga campus has always had a strong relationship with the water basins present in its area of influence, carrying out environmentally friendly processes both in catchment and discharge, and actions such as cleaning and protection of water areas. For its part, the Montería campus actively participated with students and administrative staff in the sowing event in alliance with the Office for the Environment from the city of Montería, a day in which 35 specimens were planted on the grounds of the UPB Montería campus. In addition, it is worth to highlight the inventory and georeferencing of flora and fauna on campus as well as the campaigns to protect our representative fauna, the iguanas, which account for 80% of the animals inventoried.



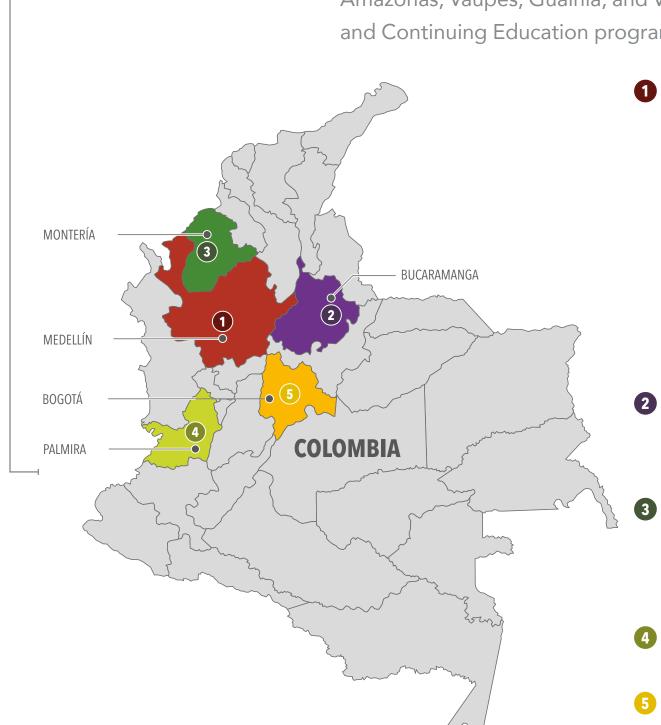
## **UPB SUSTAINABILITY REPORT 2021 GOOD HEALTH** AND WELL-BEING 4 QUALITY EDUCATION QUALITY EDUCATION CLEAN WATER AND SANITATION AFFORDABLE AND CLEAN ENERGY INDUSTRY, INNOVATION, AND INFRASTRUCTURE CLIMATE ACTION PEACE AND JUSTICE STRONG INSTITUTIONS PARTNERSHIPS TO **ACHIEVE THE GOALS** 74 >

### **SDG 4 QUALITY EDUCATION**

GRI 102-3 GRI 102-4

### **OPERATIONS AND CAMPUS**

The UPB is also present in Norte de Santander, Caldas, Risaralda, Quindío, Cauca, Putumayo, Amazonas, Vaupés, Guainía, and Vichada with undergraduate, postgraduate, Ethno-education, and Continuing Education programs thanks to the agreements we have with other institutions.



**1** MEDELLÍN:

Main Campus: Circular 1<sup>a</sup> N<sup>o</sup> 70-01 UPB's School: Circular 1<sup>a</sup> N<sup>o</sup> 70-01

Bioengineering (Building 54): Circular 1ª Avenida Nº 73-86

Reconciliation Center (Building 52): Circular 1<sup>a</sup> Avenida N° 73-66

Family Center (Building 50): Avenida 73 Circular N° 2-46

GIA (Environmental Research Group for its acronym in Spanish) (Building 55): Circular 1ª Transversal 74-50

GINUMA (New Materials Research Group for its acronym in Spanish) (Building 53): Circular 1ª Avenida N° 73-76

Energy and Thermodynamics Institute (Building 51): Circular 1<sup>a</sup> Avenida N<sup>o</sup> 73-30

Energy and Thermodynamics Institute (Building 51): Circular 1ª Avenida N° 73-34

Robledo: Calle 78b N° 72 – 157 Poblado: Carrera 43C N° 5 – 173

Llano Grande: Km 8.5, vía Llano grande – Rionegro, Offices 239

Marinilla School: Calle 31 N° 25 – 02

### 2 BUCARAMANGA:

Bucaramanga Campus: Kilómetro 7 vía Piedecuesta Social Projection Center Bucaramanga: Carrera 8 N° 6-37 Life and Family Institute Bucaramanga: Carrera 19 N° 37-67

#### 3 MONTERÍA:

Montería Campus: Carrera 6 Nº 97 a 99

Montería Transmitters: Calle 1 Nº 2-4 (Caño viejo)

Downtown Campus Montería: Calle 26 N° 5-12 (B-Chuchurubi)

El Cortijo Farm Montería: Calle 28 Nº 40-95 (U. Bonanza)

### 4 PALMIRA:

Palmira Campus: Calle 44 SN 120 Sector lógico Seminario Vía tienda Nueva

### 5 BOGOTÁ:

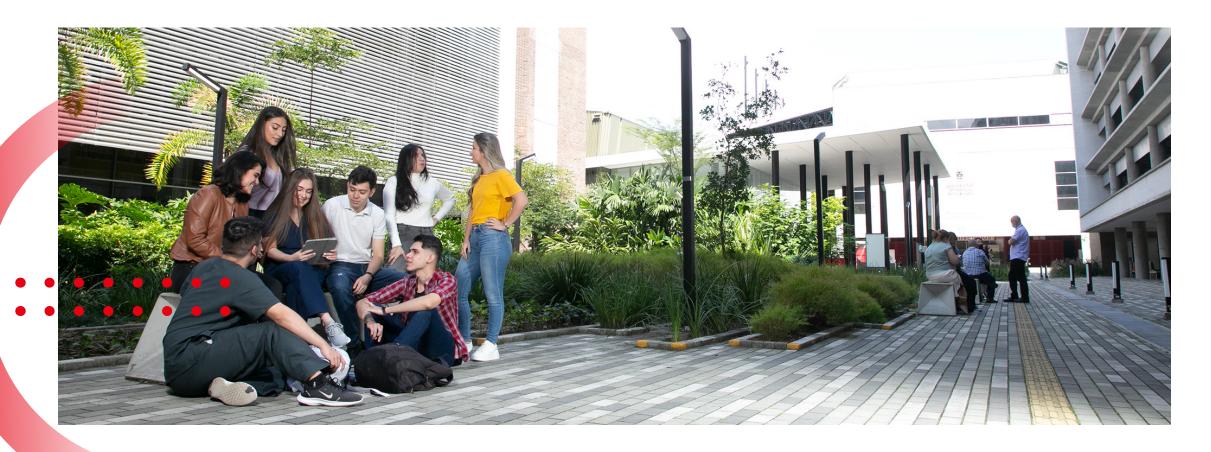
Carrera 7 N° 33 - 91

## **UPB SUSTAINABILITY REPORT 2021** GOOD HEALTH AND WELL-BEING 4 QUALITY EDUCATION QUALITY EDUCATION CLEAN WATER AND SANITATION AFFORDABLE AND CLEAN ENERGY INDUSTRY, INNOVATION, AND INFRASTRUCTURE **CLIMATE ACTION** PEACE AND JUSTICE STRONG INSTITUTIONS PARTNERSHIPS TO ACHIEVE THE GOALS < 75 >

### GRI 102-2

### **PROGRAMAS OFERTADOS**

Level of education	Medellín	Bucaramanga	Montería	Palmira	Multicampus Total
Doctorate Degrees	12	0	0	0	12
Medical-Surgical Specialty	27	0	0	0	27
University Postgraduate Certification Degree	74	17	17	3	111
Master's Degrees	65	11	2	0	78
University	45	14	12	2	73
Continuing Education (certification programs, courses, seminars)	792	90	39	27	948
Tailor-made programs with companies, corporations, public entities, among others.	1101	36	5	0	1142





### **UPB BRANDS**

























### **POPULATION**

UPB Population 2021							
	Medellín	Bucaramanga	Montería	Palmira	Total		
Undergraduate Students	11.129	3.741	3.125	937	18.932		
Postgraduate Students	3.103	938	351	105	4.497		
Highschool Students	3.725	-	-	-	3.725		
University Professors (Full-time employee, part-time employee, chair professor)	2.215	415	367	121	3.118		
Highschool Teachers (Medellín, Marinilla)	255	-	-	-	255		
Employees (heads of department, managers, professionals, technicians, technologists, assistants, and apprentices)	955	214	200	128	1.497		
Total UPB population 2021	21.382	5.308	4.043	1.291	32.024		



UPB 11

### **UPB 11 RANKINGS UPB**



**QS World University Rankings-2022** 
▶ Ranks in the top 700 of the best universities in the world and first private University in Antioquia.



**QS Latin American University Ran**kings - 2022

Among the best 100 Latin American Universities



**THE- World University Rankings** 2021

Ranks in the world's top best universities and top 10 of the best Colombian Institutions.



THE, World University Rankings

2022 by subject: Clinical and health
Ranks in the top 6 best universities in Colombia,

and first private University in Antioquia in the Health area.



Ranking Usapiens 2021-2
Ranked in the top 10 between Colombian Universities, and first private University in Antioquia in research and quality of its postgraduate degrees.



#### **UI GreenMetric**

Ranks in the top 100 worldwide among 956 universities (position 86) and top 10 in Colombia, first private University in Antioquia.





## UPB 12 VIRTUAL UPB

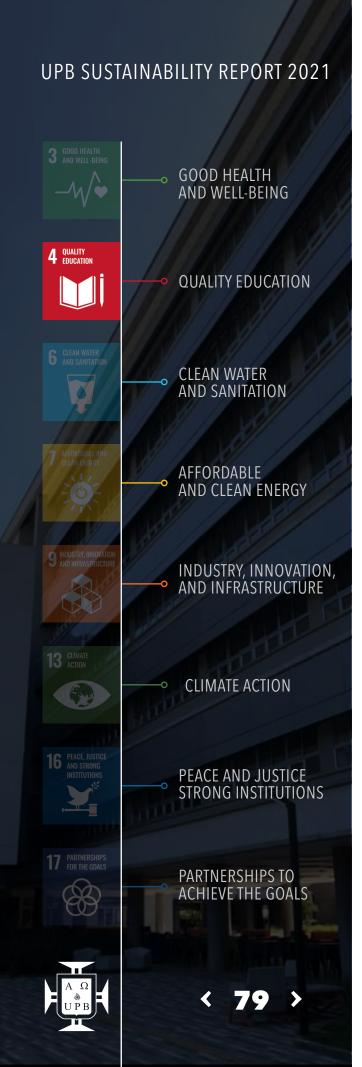
### Virtual campus:

- » 25 virtual postgraduate degrees requested or registered: 6 new qualified registrations obtained in the second semester, and 7 filed with the MNE in December 2021 pending for registration. 18 programs with qualified registration and on offer.
- » First virtual undergraduate program (Business Administration) filed for qualified registration application to the Ministry of National Education.
- » 10 instructional and content designers obtained the first certification with the international QM accreditor.
- » A content production model. Document with content production standards in accordance with QM.
- » Development and integration of a multichannel support system for students in the Virtual Campus and in the B-Learning Campus.
- » Competitive strategy and organizational model of UPB Virtual as OPM approved by the presidency committee.
- » 2 procedures integrated into the management system.



### Campus B-learning

- » 2,515 learning environments approved on the virtual campus.
- » 90% of undergraduate students at the multicampus level received an average of 4 courses through Campus B-learning.
- » 1,500 registered followers on UPB Virtual Instagram channel for students, and 160 posts.
- » Campus B-Learning was recognized as a pedagogical innovation practice by the Ministry of National Education within the framework of the National Educational Forum 2022, with a grading of 95/100.





### **Extension and Continuing Education:**

- » 17 projects developed for University Extension and Continuing Education (ICT Mission 2022; Sapiencia Specialized Talent; Innovadores UPB, APC-Colombia Project with the Language Center for 1,200 diplomats around the world; AIT-ICETEX Project; virtual course for La María Hospital; certification program in Textile Fundamentals in alliance with Camtex of El Salvador; induction for institutional directives, among others).
- » Signing of the agreement for the operation of virtual programs of the Educational Portal of the Americas with the OAS.
- » Functional Crai prototype with 3 services.

### Microlearning:

- » Signing of an alliance with Future Learn\_UK, the most important microlearning platform in Europe and the third worldwide.
- » 2 MOOC courses published as an open offer on the Future Learn international platform.
- » 15 micro courses in portfolio: Virtual education; Assessment and learning results; Digital Family and Innovadores UPB.



### UPB 13

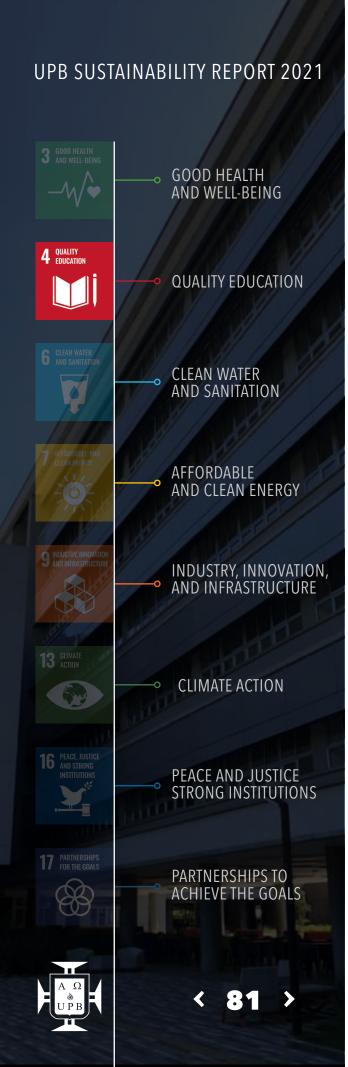
### **LANGUAGE CENTER**

- » Number of students served: 12,345.
- » Number of courses served: 503.
- » Number of classification tests: 3259.
- » Number of international conferences offered: 4.

### Other relevant data:

- » The English teacher training program was developed in 6 schools in the city and with the Secretary of Education of Sabaneta.
- » The Spanish program for foreigners was developed with the Ministry of Foreign Affairs of Colombia for 28 countries and 1,064 students.
- » 3 new elective courses were created for University students.
- » 3 new Certification Programs were created.
- » The agreement with the international platform Future Learn was signed, with 2,200 students to date.
- » 3 agreements were signed for the presentation of international tests.
- » The unit for both official and unofficial translations was created.
- » The English One to One program was created.





### UPB 14

### **RESEARCH AND TRANSFER**

There is great academic richness in the various areas of knowledge at UPB, and a permanent stimulus and drive for the development of undergraduate and postgraduate research projects, as well as the application of knowledge for the benefit of society. The growing research activity associated with teaching generates qualified and efficient levels of education. Thanks to the systematization of this activity, the undergraduate and postgraduate programs receive feedback, the groups are consolidated, and high-quality knowledge is produced in master's degrees and doctoral programs.

Research and transfer in figures:

### Software registered in 2021

#### **Software Name**

- 1 System for estimating break-even point
- 2 Automatic irrigation for urban agriculture
- 3 General purpose neural network applied to cancer diagnosis
- 4 Solve stent heat study
- 5 Visualization of cultural resources
- 6 Handy Interaction
- 7 Application for the generation of thermodynamic diagrams with iron species
- 8 Quatcam: single user 3d pose estimator







### **PATENTS GRANTED IN 2021**



The Research and Transfer System along with the University's research groups, have worked hard to protect the technologies that arise from research work.

	Patent Name
1	Natural Fiber Treatment Process
2	Sports Glove
3	Sport suit
4	Method for manufacturing an acoustic barrier comprising three layers joined by an acrylic binder with a third plastic layer with a matrix of perforations
5	System for pyrolysis of castor oil and batch production of heptaldehyde and undecylenic acid in a reactor with internal heater operating as a simple distillation unit
6	Mixed drying drum (infrared convective) for cocoa and other seeds
7	Geometric description of a rotor blade
8	Method to biosynthesize calcium carbonate from a bacterial inoculum with organic acids
9	Pesticide composition from tobacco and chili pepper extracts
10	Process for the separation and recovery of metals in solid matrices by leaching
11	Device for capturing samples

49 internal and external research projects signed in 2021

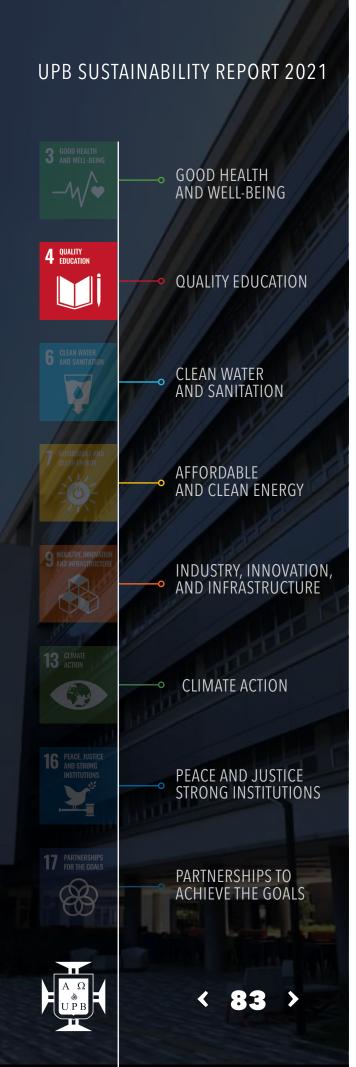
### Resources associated with projects executed or closed in 2021

Resources invested in research projects (external and internal) <sup>1</sup>						
Costs and expenses	\$10.157.650.911,45					
Investment (equipment)	\$350.366.453,78					
Scientific Colombia	\$7.036.062.469,11					
Total	\$17.544.079.834,34					

### UPB research seedbeds: 103 Multicampus seedbeds

Semilleros	
Medellín	59
Bucaramanga	20
Montería	14
Palmira	10

<sup>&</sup>lt;sup>1</sup> Information as of November 2021



### Classified Journals:

Category	Medellín	Bucaramanga	Montería	Palmira
Publindex Category A1	0	0	0	0
Publindex Category B	0	1	0	0
Publindex Category C	2	0	0	0
Publindex recognized journals without category	0	0	0	0
Scientific journals without indexing	4	0	0	0
Outreach Journals	4	0	1	1
Total	10	1	1	1



11 of the research groups are classified in category A1, and 22 in category A, the highest categories in the country, according to Minciencias.

### Research groups classified with Colciencias according to 2021 data: 56

Classification	Medellín	Bucaramanga	Montería	Palmira	Overall Total
A1	11				11
A	20	2			22
В	14	9	4	1	28
С	8	8	4		20
N/A				2	2
Did not apply		1			1
Overall Total	53	20	8	3	84

### Number of researchers

» Research professors: 415

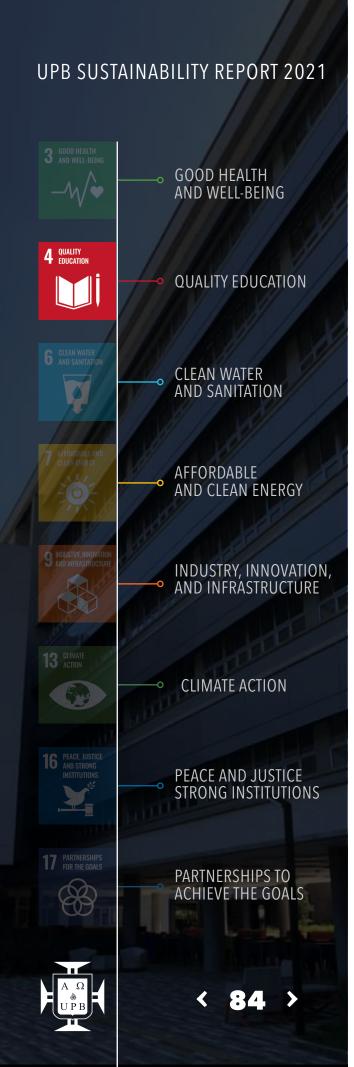
» Research students: 152

### Publications in Scopus

» 312 articles and conference papers

### Thesis supervision 2020

» 919 registered products associated with final degree project or thesis supervision (undergraduate, masters, doctorate)



### UPB 15

## CONTRIBUTION OF UPB PUBLICATIONS TO THE DEVELOPMENT OF THE SDGs

For the purpose of inquiring about the contribution of the publications made by UPB researchers to the Sustainable Development Goals, a review exercise of the articles published from 2016 to 2021 was carried out, these were classified according to the SDG to which they directly appoint to<sup>2</sup>.





Contributions to the SDGs according to scientific production:



<sup>2</sup> Source: Scopus and Qliksense. Scope: Scientific production (articles, book chapters, conferences, reviews) indexed in Scopus.

### UPB 16

## ENVIRONMENTAL EDUCATION AND LOCAL DEVELOPMENT PROCESSES

New trends are transforming the higher education and research panorama. UNESCO proposes that research systems should be organized in a more flexible way to promote science and interdisciplinarity at the service of society, looking for areas of research and teaching capable of addressing issues that concern the well-being of the population and creating solid bases for locally relevant science and technology. Additionally, it should be kept in mind that indigenous knowledge systems can broaden our understanding of new problems. Higher Education Institutions (HEIs) should establish mutually beneficial partnerships with communities and civil societies, to facilitate the exchange and transmission of appropriate knowledge.

The UPB is committed educate with a focus on sustainability, based on the understanding of the environmental, economic, and social dimensions, which is why programs of different characteristics are offered from the Department of Extension, expanding from these topics their academic offer.



### Conferences and trainings (attendance)

- » Do I also contribute to climate change? (20 people).
- » Where does the water that we consume in the metropolitan area of Bucaramanga come from? How and when should we wash the water storage tanks? (55 people).
- » What are your goals for 2030? The world has outlined Sustainable Development Goals. Are your goals compatible with those of Earth? (51 people).
- » They are here and so are we; ecological control of bees, bats, and other pollinators (8 people).
- » Smart separation of waste thanks to the new color coding (part of the activities of the multicampus sustainability week). (Over 100 views on YouTube).
- » Environmental guidelines in the development of mining projects in Colombia
- Participation in the radio program on Radio Católica Metropolitana.
- » Emprende Consentido conference.
- » Participation in the first CIDAE 2021 committee in virtual mode, led by the Mayor's Office of Girón.
- » Training VEOLIA-Chocoa Technological Park.

# UPB 17 ACCESS TO EDUCATION SOLIDARITY FOUNDATION



UPB School Graduates Fund Launch

We are committed to the mission of providing opportunities to improve the lives of our students. With the support of our allies and you, we can transform lives.

Solidarity Foundation 2021 grantees	
UPB undergraduate grantees	74
RI Program Grantees (Undergraduate)	23
UPB School Sofía Pérez Foundation Grantees	19
Total Grantees	116

The UPB School Graduates Classes from 1976 and 1977 collection for benefactors is managed through the Solidarity Foundation, with contributions of more than \$40,000,000 (COP) directed to support 52 students.

### **UPB Solidarity Family**

Investment of more than \$100,000,000 (COP) in the *Mercado Solidario* program for our academic community during the 2020-2021 period

Benefited Community	Beneficiaries		Amount
UPB School		131	\$91.762.564
UPB undergraduate		15	\$12.188.984
Total		146	\$103.951.548

## **UPB SUSTAINABILITY REPORT 2021** GOOD HEALTH AND WELL-BEING 4 QUALITY EDUCATION QUALITY EDUCATION CLEAN WATER AND SANITATION AFFORDABLE AND CLEAN ENERGY INDUSTRY, INNOVATION, AND INFRASTRUCTURE CLIMATE ACTION PEACE AND JUSTICE STRONG INSTITUTIONS PARTNERSHIPS TO ACHIEVE THE GOALS 86 >

### UPB 17

### **ETHNO-EDUCATION PROGRAM**

This program arises thanks to an agreement between the University and the Instituto Misionero de Antropología - IMA (Missionary Institute of Anthropology) for the education of professors. This program is designed from an interdisciplinary perspective in which linguistics, anthropology, pedagogy, and the knowledge of social sciences and research are interrelated, producing the knowledge that allows students to perform in contexts in which ancestral settlements are strong, such as indigenous, afro-descendant, and peasant territories. Currently, the IMA-UPB agreement has offices in Toribío (Cauca), Puerto Asís (Putumayo), Valle del Sibundoy (Putumayo), and Medellín, to which representatives of more than 48 ethnic groups attend. Among the programs offered are the Bachelor of Ethno-education and the undergraduate degrees in Economics and Social Work. Likewise, the Postgraduate Certification Degree in Human Talent Management, the Master's Degree in Business Administration, and the Master's Degree in Education. Also, we have been able to reach the departments of Vaupés, Amazonas, and Vichada.



### Program impacts:

- 1. Strengthens leadership.
- 2. Promotes the exchange of knowledge.
- 3. The knowledge acquired gives rise to social, economic, and environmental projects.
- 4. Promotes collaborative logics, self-management, and conservation of ethnic minorities.





# SDG 6 CLEAN WATER AND SANITATION

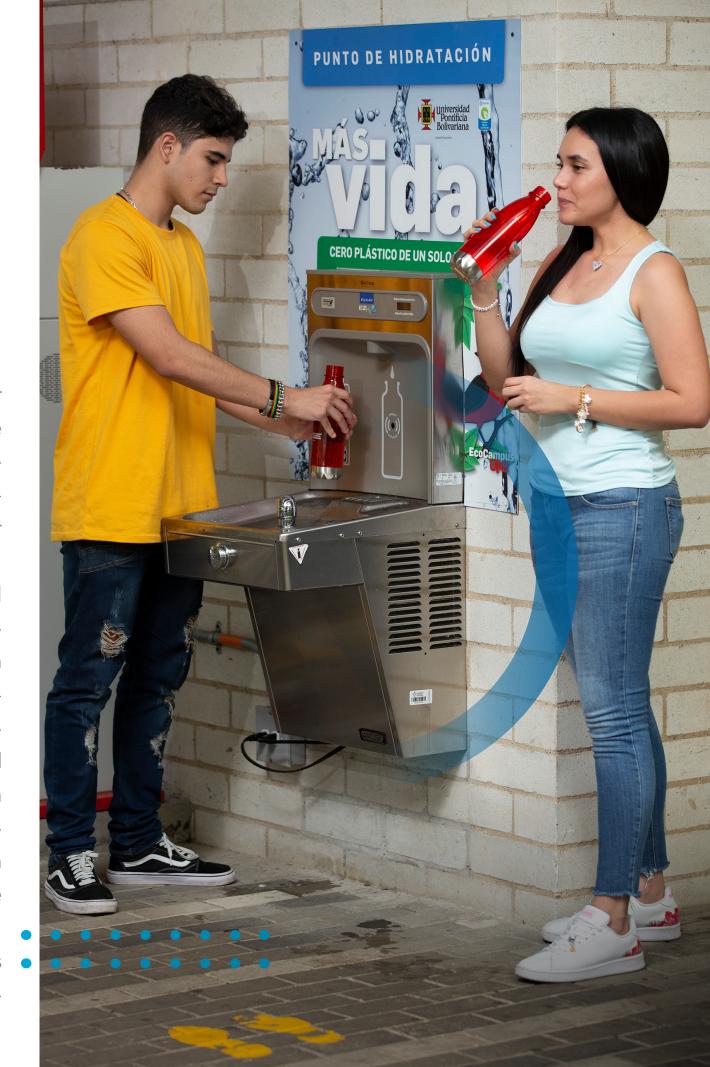
GRI 303-1 303-3 GRI 306-1 GRI 306-5

## EFFICIENT WATER MANAGEMENT AT THE UNIVERSITY - DISCHARGES

The University is fully committed to the proper care and management of water resources at the Main campus and campuses, seeking continuous improvements in its water collection and discharge systems, which generates benefits for our ecosystems.

The water used at the UPB Multicampus level comes from local water sources and is distributed by the aqueduct service providers in each city. The Main campus has the service of Empresas Públicas de Medellín - EPM (Medellín Public Utilities Company), and Montería is supplied by Veolia, Aguas de Montería S.A. Bucaramanga has the service provided by Acueducto Metropolitano de Bucaramanga S.A, and Piedecuesta de Servicios Públicos E.S.P. And in Palmira by the company Aqua Occidente S.A.

The UPB includes technical and human capacities • in water management through Wastewater Treat-





ment Plants (WWTP) in the Main campus and in the Bucaramanga campus, added to this it is highlighted that, in the year 2021, the Montería campus stopped pouring its wastewater into a septic tank and began to dispose it in sewage systems, thus achieving an effective discharge of water to the affluents of our areas of influence.

One of the commitments that are pointed out in terms of water use, is the collection, distribution, and use of rainwater, for this the Main campus and the Montería campus, include rainwater systems in their infrastructure, which is supported by technical and monitoring activities

that allow to properly distribute these waters into irrigation systems and sanitary units, then following up on the used amounts. Likewise, the Bucaramanga campus has a surface water license, this water is used for campus irrigation activities and the use of it is monitored by a meter that records the daily flow.

The University's water projects are monitored by the Efficient and Rational Use of Water program led by UPB Sustainable, and include workshops and training related to the correct management of water resources in their training and awareness-raising part.

### WATER CONSUMPTION IN THE LAST FIVE YEARS - CONSUMPTION PER CAPITA

ITEM	INDICATOR	YEAR	2017	2018	2019	2020	2021
		Medellín	61.314 m3	65.903 m3	93.913 m3	53.678 m3	43.051 m3
		Bucaramanga	24.935 m3	21.273 m3	19.350 m3	7.619 m3	6.667 m3
	TOTAL CONSUMPTION	Montería	0 m3	6.116 m3	8.365 m3	4.962 m3	5.177 m3
		Palmira	3.597 m3	3.005 m3	3.871 m3	3.291 m3	268 m3
WATER		TOTAL	89.845,500 M3	96.296,670 M3	125.499,411 M3	69.549,850 M3	55.162,710 M3
WATER		TOTAL  Medellín	<b>89.845,500 M3</b> 3,0 m3/est	<b>96.296,670 M3</b> 3,3 m3/est	<b>125.499,411 M3</b> 4,8 m3/est	<b>69.549,850 M3</b> 2,9 m3/est	<b>55.162,710 M3</b> 2,4 m3/est
WATER	DED CADITA INDICATOD						
WATER	PER CAPITA INDICATOR	Medellín	3,0 m3/est	3,3 m3/est	4,8 m3/est	2,9 m3/est	2,4 m3/est



### **UPB IN SEARCH OF BETTER WATER QUALITY FOR THE CITY**

In 2021, the Bucaramanga campus presented to the community the project called "Agua Cero", it is intended with it to evaluate the quality of the water and the presence of micro-contaminants from environmental variables, for the design of pollution prevention strategies in surface water sources of the Metropolitan Area of Bucaramanga.



UPB in search of better water quality for the city

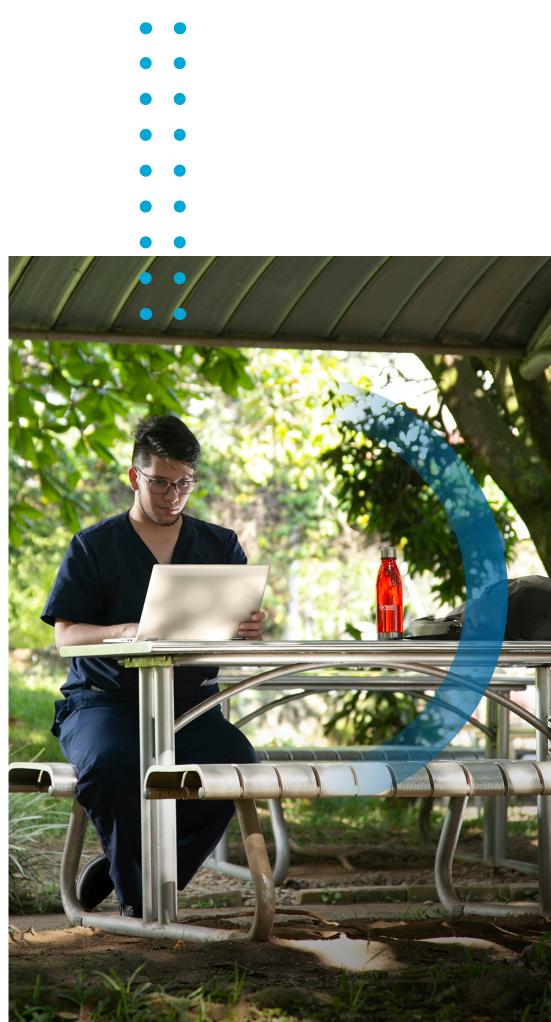
### GRI 102-11

## PRECAUTIONARY APPROACH AND INTEGRAL MANAGEMENT OF WATER

The University has as a challenge increasing its efforts in technical, educational, and strategic maters regarding water resources, although there are programs and projects currently implemented at the Main campus and other campuses, which account for our actions of use, monitoring, and technification of systems, it is necessary to consolidate a strategic plan that allows to monitor key variables, measurement of progress, and verifiable actions approach in the efficient use of this resource.



UPB contributes to the preservation of underwater life



## **UPB SUSTAINABILITY REPORT 2021** GOOD HEALTH AND WELL-BEING QUALITY EDUCATION 6 CLEAN WATER AND SANITATION CLEAN WATER AND SANITATION q AFFORDABLE AND CLEAN ENERGY INDUSTRY, INNOVATION, AND INFRASTRUCTURE **CLIMATE ACTION** PEACE AND JUSTICE STRONG INSTITUTIONS PARTNERSHIPS TO ACHIEVE THE GOALS < 91 >

### **MULTICAMPUS WATER FOOTPRINT**

Medellín	Bucaramanga	Montería	
41.602,4	<b>9</b> .131,0	5.177,0	
80.875,2	42.930,3	31.447,98	
80.745,9	46.166,5	*	
233.573,4	93.784,3	76.579,6	
440.796,8 m³	192.012,1 m³	113.204,6 m³	
24.55	41.04	32.57	
	41.602,4 80.875,2 80.745,9 233.573,4 440.796,8 m³	41.602,4 9.131,0 80.875,2 42.930,3 46.166,5  233.573,4 93.784,3  192.012,1 m <sup>3</sup>	41.602,4  9.131,0  5.177,0  80.875,2  42.930,3  31.447,98  46.166,5  *  40.796,8 m³  192.012,1 m³  113.204,6 m³

Analysis: ParThe indirect water footprint due to energy and paper consumption is considered for 2021

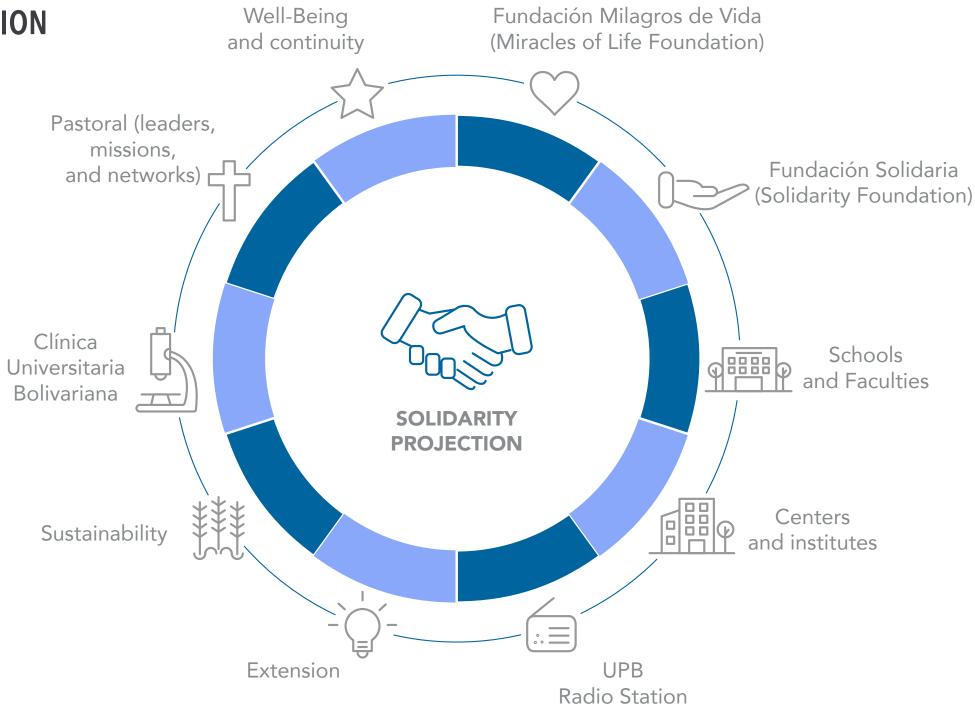
<sup>\*</sup>There are no water characterization data for the Montería campus, therefore the gray water footprint cannot be calculated.

# **UPB SUSTAINABILITY REPORT 2021** GOOD HEALTH AND WELL-BEING QUALITY EDUCATION CLEAN WATER AND SANITATION AFFORDABLE AND CLEAN ENERGY INDUSTRY, INNOVATION, AND INFRASTRUCTURE **CLIMATE ACTION** PEACE AND JUSTICE STRONG INSTITUTIONS PARTNERSHIPS TO ACHIEVE THE GOALS

### SDG 16 PEACE, JUSTICE, AND STRONG INSTITUTIONS

### UPB 20

EDUCATIONAL AND SOLIDARITY PROJECTION







### **GRADUATES**

The UPB works uninterruptedly in the relationship and visibility of our graduates at a national and international level, assuming the responsibility of growing together with these stakeholders who reflect in their environments the competences, values, strengths, and abilities that are forged at multicampus level in the University. Likewise, graduates continue to have a direct relationship with us by taking advantage of the different programs and projects designed for them.

- » Virtual and face-to-face meetings in Colombia and the United States, with a participation of 5,500 graduates.
- » Life Lecture and UPB Seal talks, initiatives that promote the telling of inspiring stories about the experience of our graduates to the entire University community. These initiatives have made possible to georeference 691 graduates in more than 35 countries.



### **ANNUAL MEDIA MANAGEMENT**

- » 60 radio programs broadcasted.
- » 5,647 openings of the "De Interés en la U" newsletter from Graduates.
- » 2,228 followers on Instagram.
- » 14,000 followers on Facebook.

### **FAMILIY CENTER**

This center connected to Social Projection has the capacity to monitor mental health problems in different populations and contribute to improving their quality of life.

### **TEACHING**

1 permeated undergraduate program.

2 postgraduate programs permeated.

70 hours of continuing education.

### **STRATEGY**

9 Discussion Panels.

14 national and international lectures.

30 radio broadcasts.

16,420 appointments attended.



### **RESEARCH**

Participation in the "Grupo de Investigación Familia – GIF" (Family Research Group for its acronym in Spanish)

14 posts.

2 books with recognition Bolivarian authors.

### **ALLIANCES**

24 units at the multicampus level.

41 allied institutions and companies nationwide.

### **UPB LEADERS**

Work with vulnerable communities to transmit a message of peace and love, with the culture of evangelization and the value of sharing. Students, professors, administrative staff, and chaplains of the University participate in the missions.

- » 48 personalized accompaniments.
- » Mental health videos filming.
- » Accompaniment to focus groups with students, as support for the institutional mental health committee.
- » 2 self-knowledge talks.
- » 3 emotional intelligence talks.

### **PSYCHOLOGICAL ASSISTANCE**

The Psychological Care Center contributes to improving the mental health of our stakeholders, external users, and alliances. It has a qualified human team with professionals educated in mental health and interns from the Faculty of Psychology, allowing to offer a broad portfolio of services.

### Clinical Line

- » 10,244 queries
- » Mintic-Seduca: 831 services
- » University Well-Being: 2,975 services
- » Business agreements: 60
- » 12 business talks
- » Participation in 3 national events

#### **Educational Line**

- » 18 courses carried out
- » Faculties and UPB unit's accompaniment
- » Advice and talks given by practitioners

### Research Line

- » Mental health research
- » Undergraduate student's mental health Characterization
- » Creation and conformation of students' mental health table
- » Product publication in "Narrativa acerca de las prácticas docentes" (Narrative about teaching practices)
- » Publication of 2 chapters on pandemic

### Organizational Line

- » 6 alliances
- » 3 inter-unit strategic programs

### Social Line

- » Radio program and Facebook live
- » Support to the Family Precinct of the Municipality of Itagüí
- » "Ser UPB" sports club

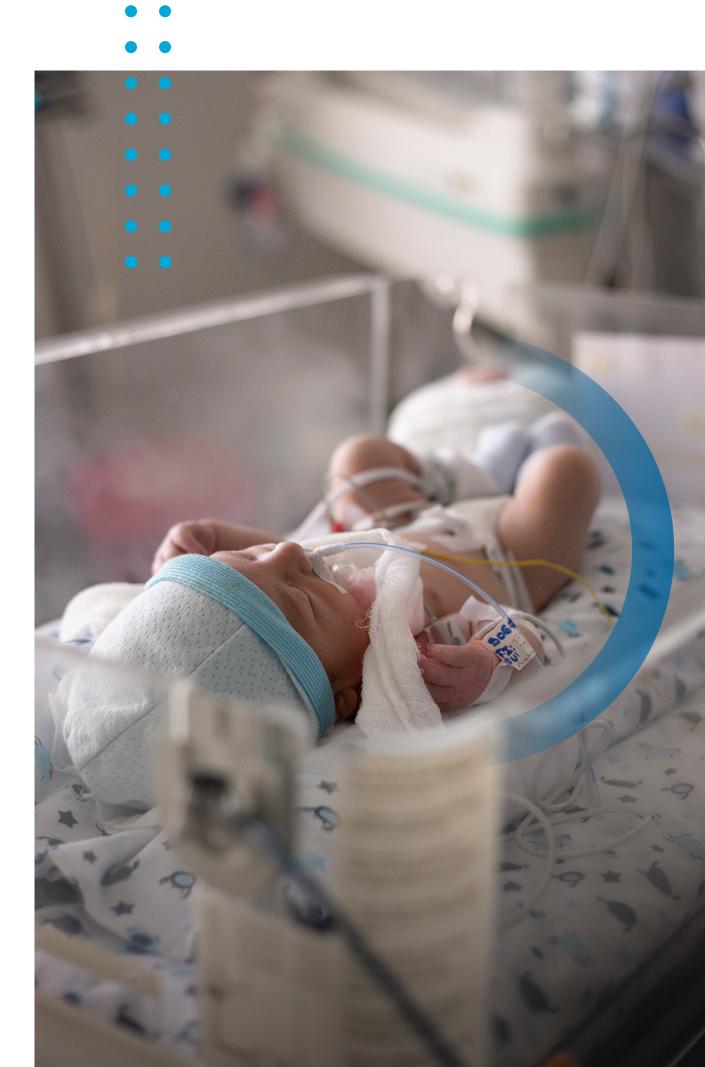


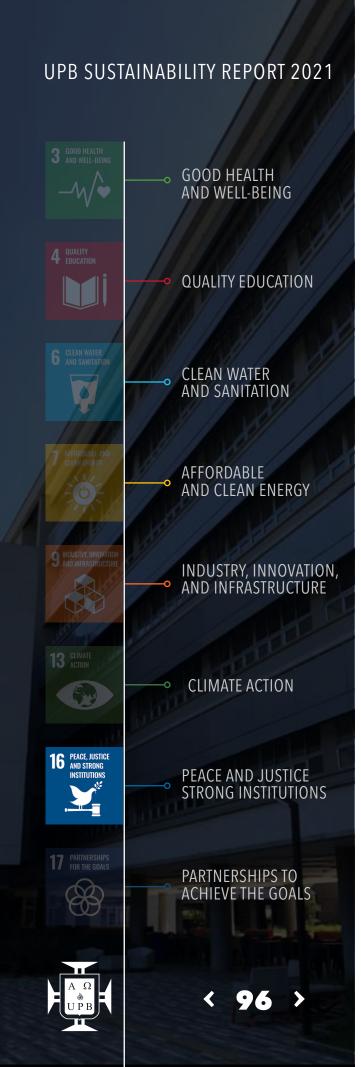
## THE FUNDACIÓN MILAGROS DE VIDA (MIRACLES OF LIFE FOUNDATION)

Contributes to the defense of life from its conception, accompanying and educating the families of babies born prematurely or in vulnerable health conditions, and who are treated at the Clínica Universitaria Bolivariana in its Neonatal Unit through the following programs:

- » Amor incondicional (Unconditional love): we promote spaces for accompaniment and family and individual guidance. 457 families accompanied.
- » Creciendo Juntos (Growing together): we offer contributions that promote better living conditions for babies and their families, through the delivery of trousseaus, transportation subsidies, food, foster homes, among other supports. 3394 contributions.
- » **Estamos Contigo** (We are with you): we provide education to parents and caregivers for the proper care and well-being of the baby at home.

Type of Benefit	Accompanied families
Admission	206
First aid	220
Kangaroo family	187
Breastfeeding	183







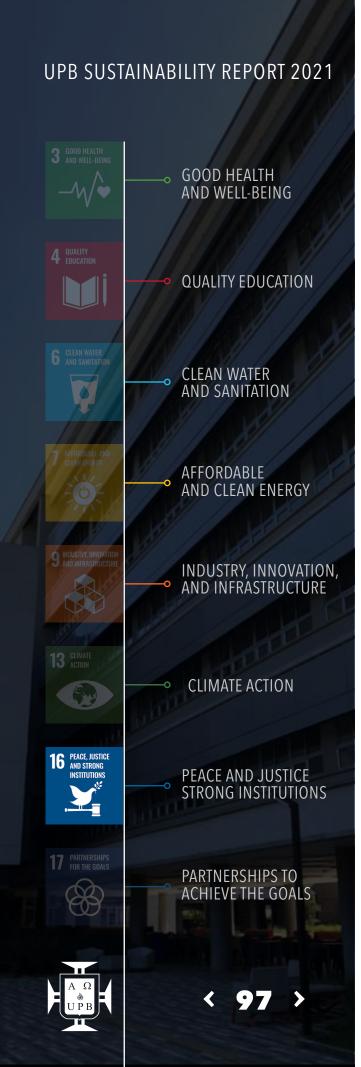
### **EVANGELIZATION**

Evangelization at UPB, as a missionary mandate, has been configured in a re-signified process which accounts for its maturation and evolution from the design and execution of its own pastoral model inspired by the spirituality of the Gospel that summons, and includes, all of us who are part of this alma mater. This pastoral model is in articulation with the University model.

### Significant experiences:

- » The curricular transformation of the Basic Cycle of Humanist Education (2014) and the excellent rating of the courses offered there, especially Christology.
- » New ways of cultivating dialogue, faith, and reason; through:
- a) Workshop course "Spirituality of the professions" (fourteen cohorts), aimed at professors and administrative staff.
  - b) Workshop course "I cultivate myself" (six cohorts), aimed to the Clínica Universitaria Bolivariana Staff.
- c) Active participation in the "Seminarios Permanentes de

- Educación Superior SEMPES" (Permanent Seminars of Higher Education), education in values, the Gospel, and in Christian ethics.
- d) Seminars addressed to Multicampus University senior management regarding the encyclicals Laudato si and Fratelli tutti.
- e) Reflection meetings and spiritual retreats offered to the entire University community in preparation for Easter.
- f) Daily meditation on the Gospel.
- g) Student leadership institutional program whose objective is the comprehensive education with the Christian and social meaning of the professions.
- h) Multicampus strategic project: Culture and UPB Seal aimed at consolidating the institutional identity.
- i) Joyful celebration of the act of faith (Eucharist, liturgical periods, and Marian spirituality).





### ECONOMIC GROWTH, GENERATION, AND DISTRIBUTION OF VALUE

### GRI 102-7 Net income, debt, and capital

GRI 102 – 5 As of December 31, 2021, total assets came to \$1,584,612,624,082 (COP), accumulated net sales at UPB amounted to \$510,799,788,519 (COP), and equity to \$1,351,347,147,300 (COP), all of which corresponds to equity consolidation. On the other hand, liabilities reached an amount of \$233,265,476,783 (COP), of which \$80,466,350,531 (COP) correspond to financial obligations.

- » Payment to multicampus providers in 2021 was (without payroll): \$119,850,442,608 (COP).
- » For exemptions in Industry and Commerce Tax in Medellín, 2021tax savings were of \$560,458,458 (COP).
- » For exemptions in income tax, by holding the non-profit organization title, savings in 2021 were of \$35,989,247,526 (COP).

### GRI 201 – 1 Produced and distributed direct economic value

The income generated by the University in 2021, allowed to cover the distribution, or costs and expenses, which derived a surplus of \$35,989.000 (COP) equivalent to 9.74% of the value stipulated as a contribution to next period's expansion and development projects (to attend investments in human development, and physical and technological infrastructures).

- » Value generated = operating and non-operating income: \$369,422,726,926 (COP).
- » Distributed value = Payroll + taxes + debt service + investment in community + others: \$333,433,479,400 (COP).
- » Generated value distributed value = Retained value: \$35,989,247,526 (COP).



### **GRI 203-2** Externalities in UPB

The externalities calculation in UPB seeks to identify the effects that costs and benefits of the University's activities represent to society, and that are unintentionally assumed by it.

### Carbon dioxide fixation in Multicampus UPB green areas

The public and green space conservation activities are intended to account for biodiversity preservation at the University, classifying it as a beneficial externality for society. To calculate carbon fixation, the following must be considered: the green area in hectares of the University and the inventory of tree species.

Campus (including all the land located in the departments of Antioquia, Córdoba, and Valle del Cauca)	ton/CO <sub>2</sub>	Costo social positivo (COP)
Medellín	374,05	\$94.115.372
Bucaramanga	60,57	\$15.239.464
Montería	98,85	\$24.870.575
Palmira	29,21	\$7.350.755
Total	562,68	\$141.576.166

### Evolución en el tiempo

Year of positive externality calculation	2017	2018	2019	2020	2021
Positive social cost (COP)	\$51.532.108	\$ 56.799.642	\$71.563.797	\$127.541.376	\$141.576.165
% Annual increase	-	10 %	26 %	78 %	11 %

All Campuses of the national UPB green areas captured a total of  $562,68 \text{ ton/CO}_2^3$ , which represented an indirect social benefit of \$127,541,376 (COP)

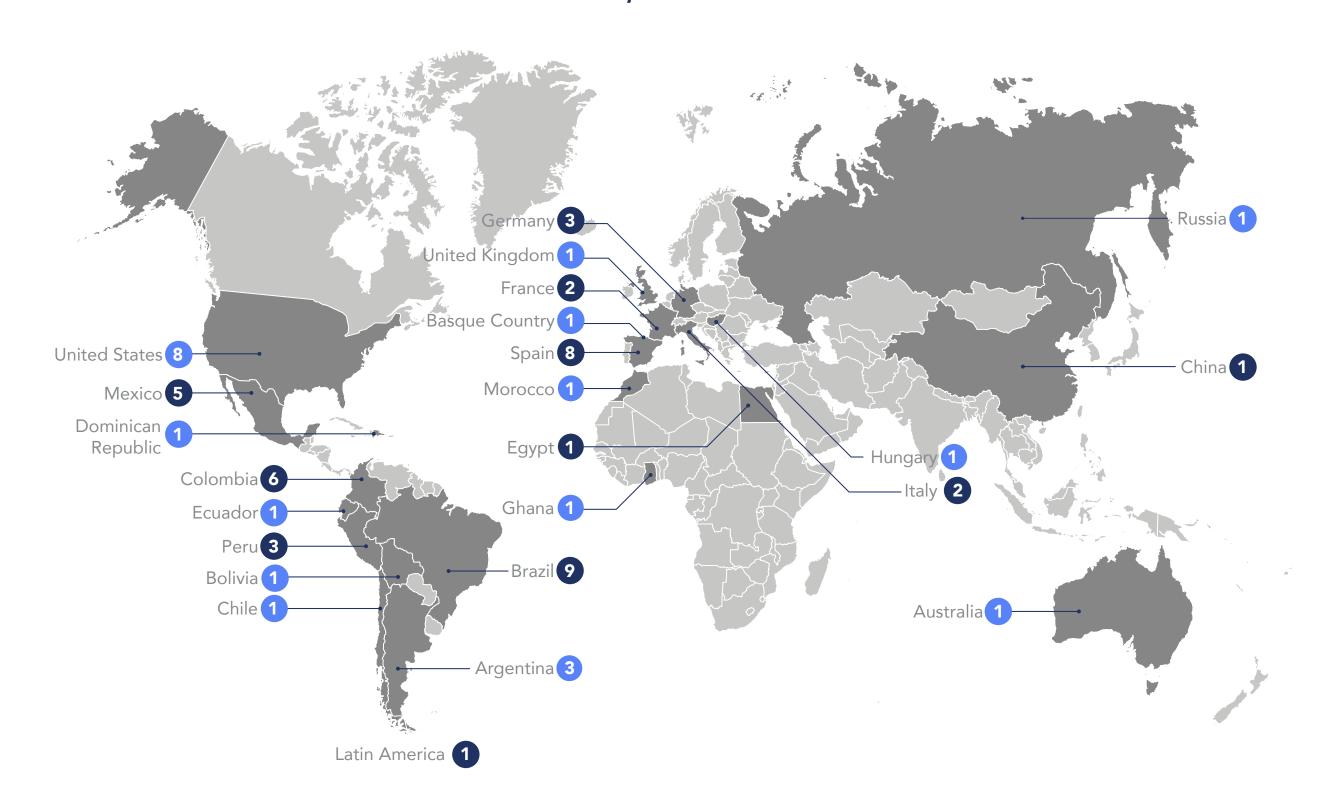
<sup>&</sup>lt;sup>3</sup> US Departament of Energy. Method for Calculating Carbon Sequestration by Trees in Urban and Suburban Settings. 1998. (https://www3.epa.gov/climatechange/Downloads/ method-calculating-carbon-equestration-trees-urban-and-suburban-settings.pdf.) (As a reference, a total of \$3.981,16 (COP) exchange per Dollar is taken as reference, this corresponds to December 30, 2021).

# **UPB SUSTAINABILITY REPORT 2021** GOOD HEALTH AND WELL-BEING QUALITY EDUCATION CLEAN WATER AND SANITATION AFFORDABLE AND CLEAN ENERGY INDUSTRY, INNOVATION, AND INFRASTRUCTURE CLIMATE ACTION PEACE AND JUSTICE STRONG INSTITUTIONS PARTNERSHIPS TO ACHIEVE THE GOALS

### SDG 17 PARTNERSHIPS TO ACHIEVE THE GOALS

GRI 102-12 GRI 102-13

NATIONAL AND INTERNATIONAL AGREEMENTS, AND THE AFFILIATION TO ASSOCIATIONS IN 2021









The program led by the Universidad Pontificia Bolivariana and called "Academic-scientific alliance for the strengthening of HEIs, focused on nanobioengineering for the prevention, diagnosis, and treatment of colon cancer" aims to form and consolidate a strategic alliance that articulates and strengthens the research capacities of Higher Education Institutions, the productive sector, and research centers.

### **COLOMBIAN STRATEGY CARBON NEUTRALITY**

In 2021, the Universidad Pontificia Bolivariana signed a concurrent of wills with the Ministry of Environment and Sustainable Development to take individual and collective actions as well as to participate in the National Carbon Neutrality Program. This program seeks to promote and strengthen the country's capacities to achieve environmental commitments in terms of greenhouse gas (GHG) emission mitigation and is aimed at the public and private sectors, and the public through a series of components and actions for the empowerment of climate action by all actors.

The University was selected to be part of group 4 of the program, in which organizations certified in neutral carbon are found.

The University was selected to group 4 of the program, in which organizations certified in neutral carbon and that have orientation to align with the NDC and E2050 are also found.

## Among the commitments acquired by the UPB in this strategy are:

- » Have the information and necessary staff for the construction and implementation of actions aimed at managing GHG emissions.
- » Establish goals and voluntary commitments to reduce GHG emissions gradually.
- Promote and communicate the benefits of implementing actions to reduce GHG emissions.
- » Provide information that feeds the monitoring indicators of the Carbon Neutrality Program.

## **UPB SUSTAINABILITY REPORT 2021** GOOD HEALTH AND WELL-BEING QUALITY EDUCATION CLEAN WATER AND SANITATION AFFORDABLE AND CLEAN ENERGY INDUSTRY, INNOVATION, AND INFRASTRUCTURE **CLIMATE ACTION** PEACE AND JUSTICE STRONG INSTITUTIONS 17 PARTNERSHIPS FOR THE GOALS PARTNERSHIPS TO 8 ACHIEVE THE GOALS < 101 >

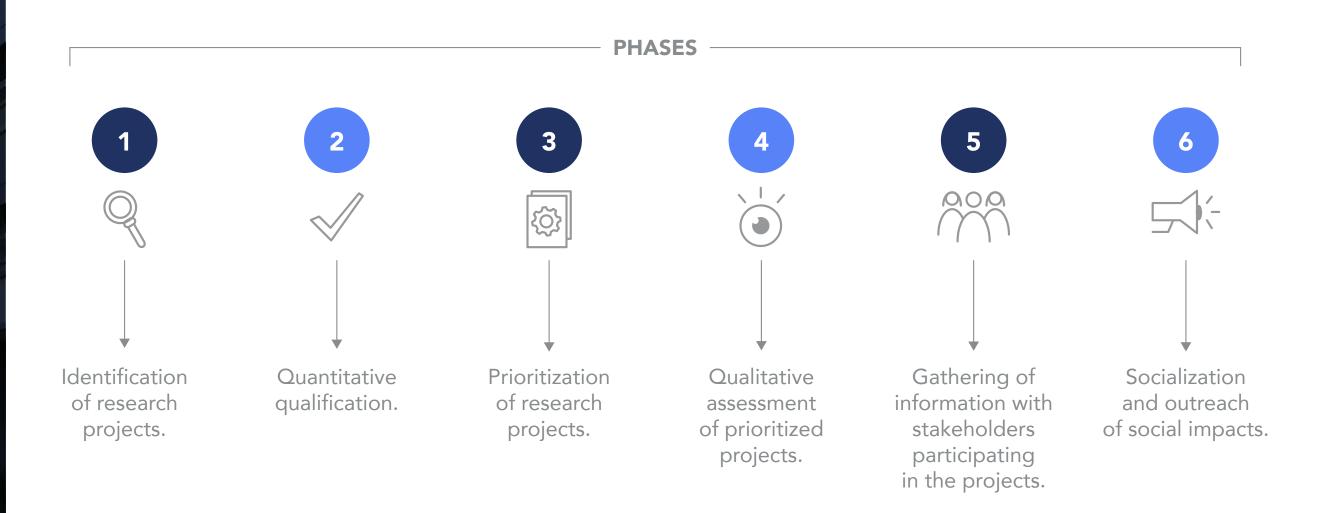
### UPB 21

### **SOCIAL IMPACT**

From the collaborative work carried out by academic and administrative units of the UPB, it has been possible to consolidate from the Pastoral Vice-presidency and the Research Vice-presidency, an institutional exercise that has allowed the definition of the

social impact potential derived from the Research Macro-process, aligning the capacities generated with national and international standards, which constitutes a commitment to comply with the 2020-2022 Institutional Strategic Development Plan.

### Social impacts in research measuring and assessing methodology





## POSTGRADUATE DEGREES IN THE TERRITORIES SPECIAL PROJECTS BASED ON ALLIANCES THAT TRANSFORM COMMUNITIES

The Advanced Education Department Special Projects team began in the second half of 2021 an exercise to assess the impact of postgraduate education processes in various departments of the country.

The purpose is to know the perception and changes of stakeholders where the University has had a presence in recent years with postgraduate programs, in distance and face-to-face education modalities.

Specifically, work is being done within the framework of the UPB alliance with the Ministry of National Education (MNE) and the secretariats of education of the departments of Amazonas, Antioquia, Córdoba, Guainía, Putumayo, Vichada, and Vaupés in the "Programa de Becas para la Excelencia Docente - PBED" (Scholarship Program for Teaching Excellence for its acronym in Spanish) that began in 2015 and is currently in the final stage of implementing the work of beneficiaries in the educational institutions where they work.





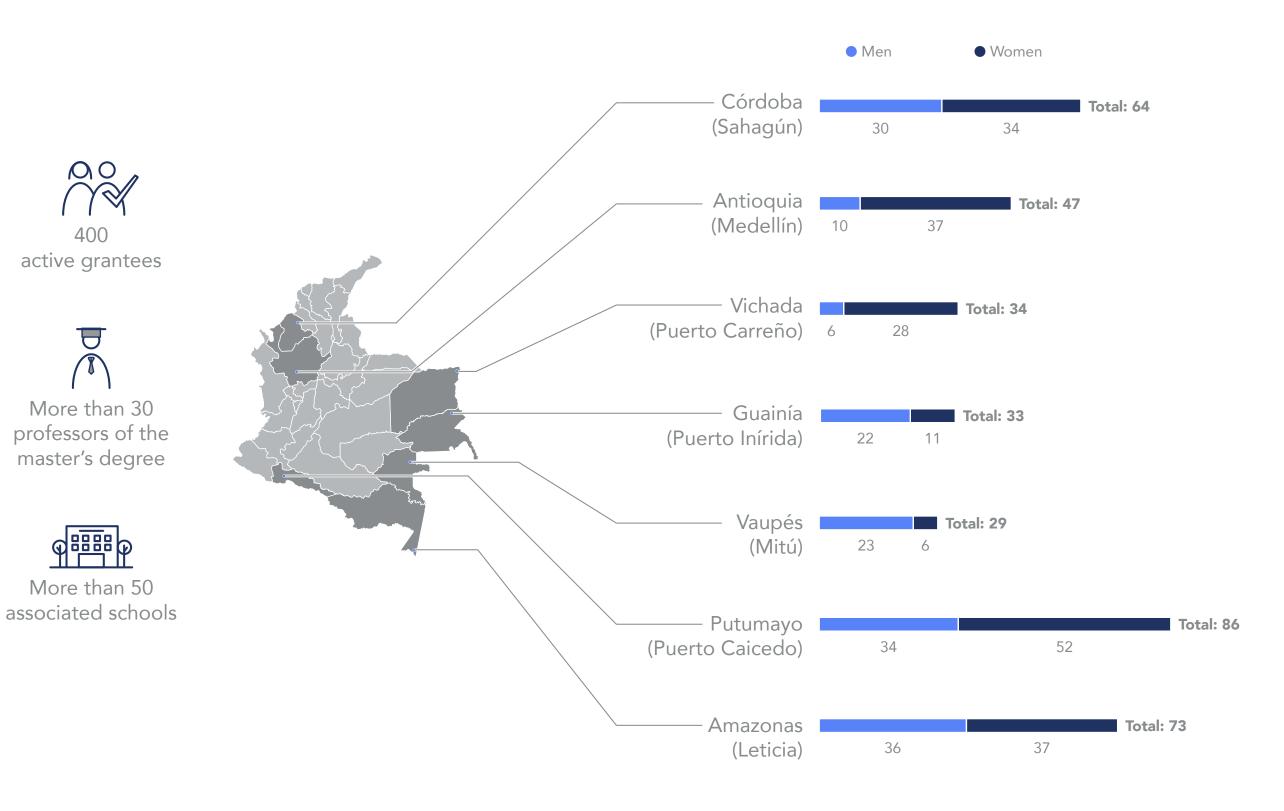
Testimonials of beneficiaries of the Programa de Becas para la Excelencia Docente

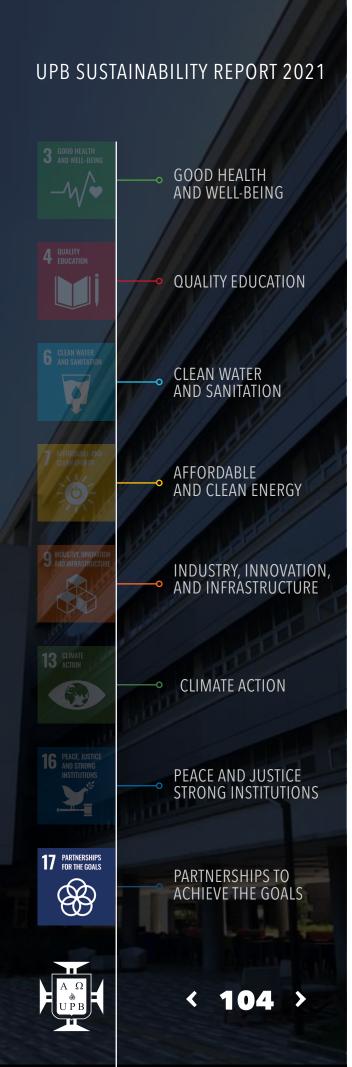
## **UPB SUSTAINABILITY REPORT 2021** GOOD HEALTH AND WELL-BEING QUALITY EDUCATION CLEAN WATER AND SANITATION AFFORDABLE AND CLEAN ENERGY INDUSTRY, INNOVATION, AND INFRASTRUCTURE **CLIMATE ACTION** PEACE AND JUSTICE STRONG INSTITUTIONS 17 PARTNERSHIPS FOR THE GOALS PARTNERSHIPS TO ACHIEVE THE GOALS 8 < 103 >

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### POSTGRADUATE DEGREES IN THE TERRITORIES SPECIAL PROJECTS BASED ON ALLIANCES THAT TRANSFORM COMMUNITIES





The target audience of the PBED are the professors and educational directors of the educational institutions of Colombia. Its purpose is to transform educational practices in the classroom, the application of their degree work in the institutions from which they come from, and the impact on the village communities and in the urban centers where they are located. Thanks to the recognized quality, and for the tradition of work for approximately forty years in the most distant territories from the country's capital, the MNE convened the University to create an alliance with the departmental education secretariats, from which 366 professors graduated from the Master's Degree in Education, and whose academic and research support is under the leadership of the School of Education and Pedagogy at the Main campus as well as the Postgraduate Coordination Office of the Montería campus.

The definition of the value promise that was focused on the creation of the MNE-UPB alliance, within a framework of empathy and trust, was the first stage for this special advanced training project that began in 2015.

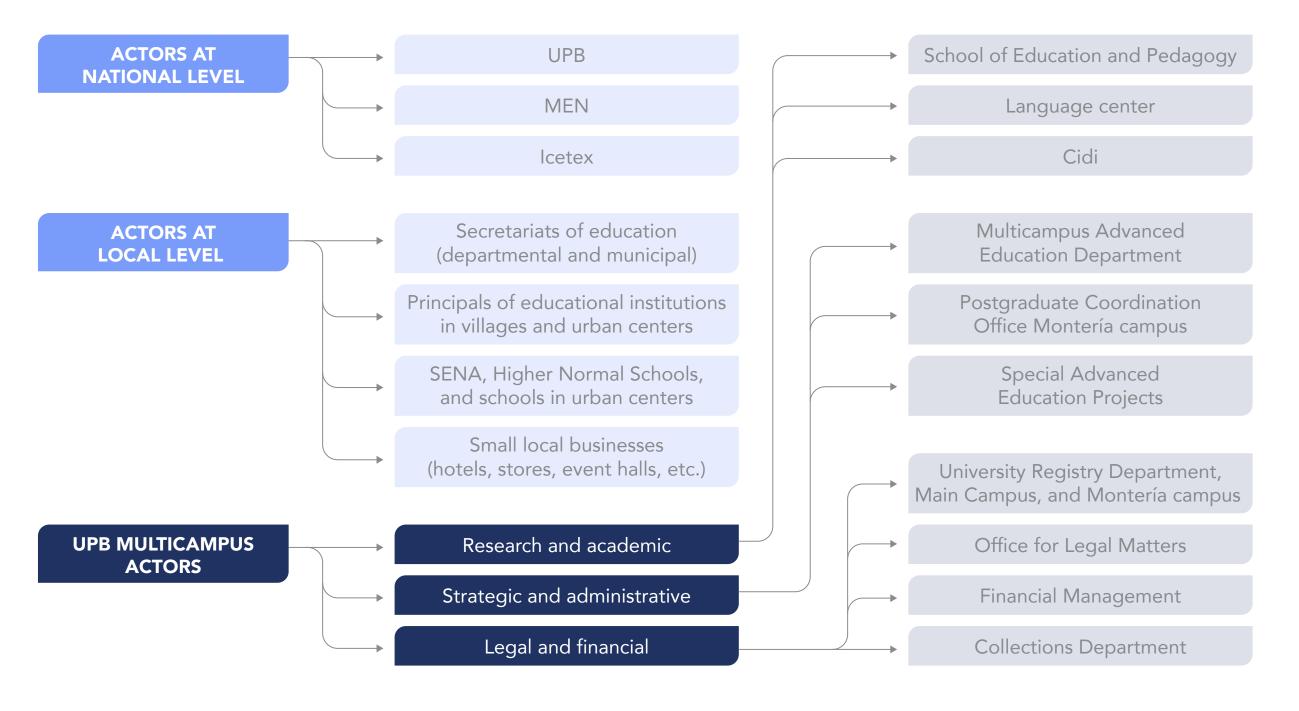
The secretariats of education (departmental and municipal), the presidents of institutions where the professors are assigned, the SENA and Higher Normal Schools, or representative schools in the most central urban centers that lent their infrastructure for the development of the classes, consultancies, presentation of the degree works and, finally, the local enterprises that helped with the logistics operation were added to these national level actors. From the Multicampus sphere, the actors evidenced the work as part of the Advanced Education





Department in which the School of Education and Pedagogy, the Language Center, and the CIDI (from academic and research aspects) were decisively linked.

The Postgraduate Coordination Office of the Montería campus, the University Registry Department at the Main campus and in Montería campus, Financial Management Office, Collections Department, and the Office for Legal Matters, were articulated to provide all the administrative, legal, and economic support.







Stage 1	Definition of the project and alliance creation value promise	2015
Stage 2	Formalization of beneficiaries, qualified registries, admissions, and cohorts' creation	2015 al 2017
Stage 3	Development of studies, preparation of degree, thesis work, and thesis work ceremonies	2015 al 2019
Stage 4	Closing of administrative processes and the start of loan waiving processes	2018 - 2021
Stage 5	Impact assessment and articulation with sustainability indicators	2021

The impact assessment (carried out with qualitative methodologies in field work typical of the social sciences, contrasted with quantitative statistical and administrative techniques with primary information) provides tangible and significant evidence of the transformations in the practices with students in the classrooms, at the level of discussions in the academic communities in educational institutions, in the resignification of resource allocation, and prospective and strategic plans from the secretariats of education and, especially, in the positive changes of the communities where the alliance has been reached.

All this has favored the parents of the students, entities with a local presence such as the SENA, Higher Normal Schools, or schools that provided the infrastructure and received in return from the University the high-quality qualification in accordance with the conditions and expectations of the context, and even the small local businesses that provided their services for the logistics operation. In the second semester of 2021, for the first time the impact assessment was implemented from Advanced Education Department for a special project focused solely on postgraduate studies. This pilot exercise will be systematized and adjusted to articulate it with the social impact indicators that the University is defining for its measurement, interpretation, and potentiation within the framework of the strategy that promotes a sustainable UPB.



PROGRESS REPORT OF THE PROGRAMS AND PROJECTS PORTFOLIO- ISDP

**PROGRAMS** 

General objectives of the projects and progress percentage in 2021

### **CULTURE AND IDENTITY PROGRAM**

### Qualitative achievements:

- » Presentation of the map that connects the policies, programs, and actors of the UPB linked to the Catholic identity.
- » Multicampus agreements associated with differentiating attributes and stakeholders.
- » Definition of attributes that will guide the strategy and that are susceptible to improvement.
- » Identification of the humanistic education routes for administrative staff and professors, the education areas and the courses that can strengthen the processes of institutional identity, cohesion with the culture and UPB seal.
- » Definition of criteria for prioritizing stakeholders.
- » Collaborative and fluid dialogue in the document construction that systematizes and describes the relationship between units and the contributions to the culture and the UPB seal appropriation.



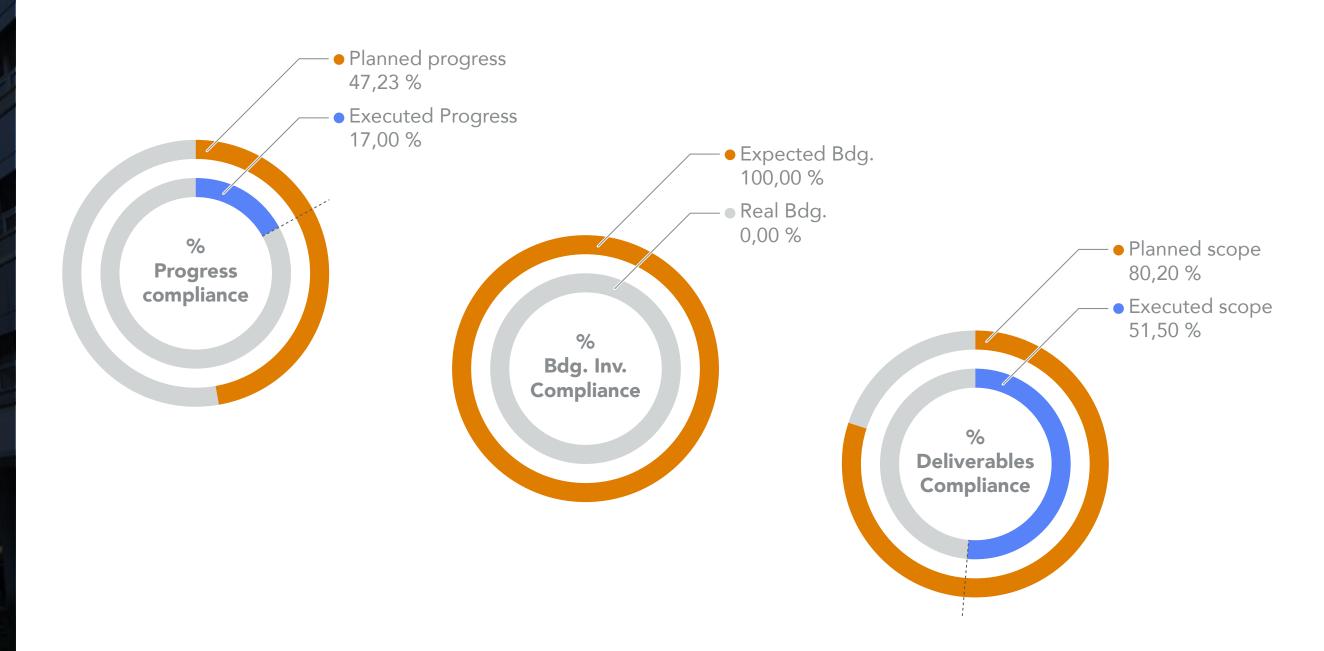


### **UPB SUSTAINABILITY REPORT 2021** 3 GOOD HEALTH AND WELL-BEING GOOD HEALTH AND WELL-BEING **-**₩ 4 QUALITY EDUCATION QUALITY EDUCATION 6 CLEAN WATER AND SANITATION CLEAN WATER AND SANITATION q AFFORDABLE AND CLEAN ENERGY AFFORDABLE AND CLEAN ENERGY 9 INDUSTRY, INNOVATION AND INFRASTRUCTUR INDUSTRY, INNOVATION, AND INFRASTRUCTURE 13 CLIMATE ACTION **CLIMATE ACTION** PEACE AND JUSTICE STRONG INSTITUTIONS 17 PARTNERSHIPS FOR THE GOALS PARTNERSHIPS TO ACHIEVE THE GOALS < 108 >

### 1. CULTURE AND UPB SEAL

Consolidate and appropriate in the UPB management system at the national level the components and stakeholders of the UPB seal and culture based on the institutional identity, the transformation of the organizational culture, and the pertinent social impact, with the purpose to reach new levels of institutional development.

GLOBAL PROJECT PROGRESS 17,00 %

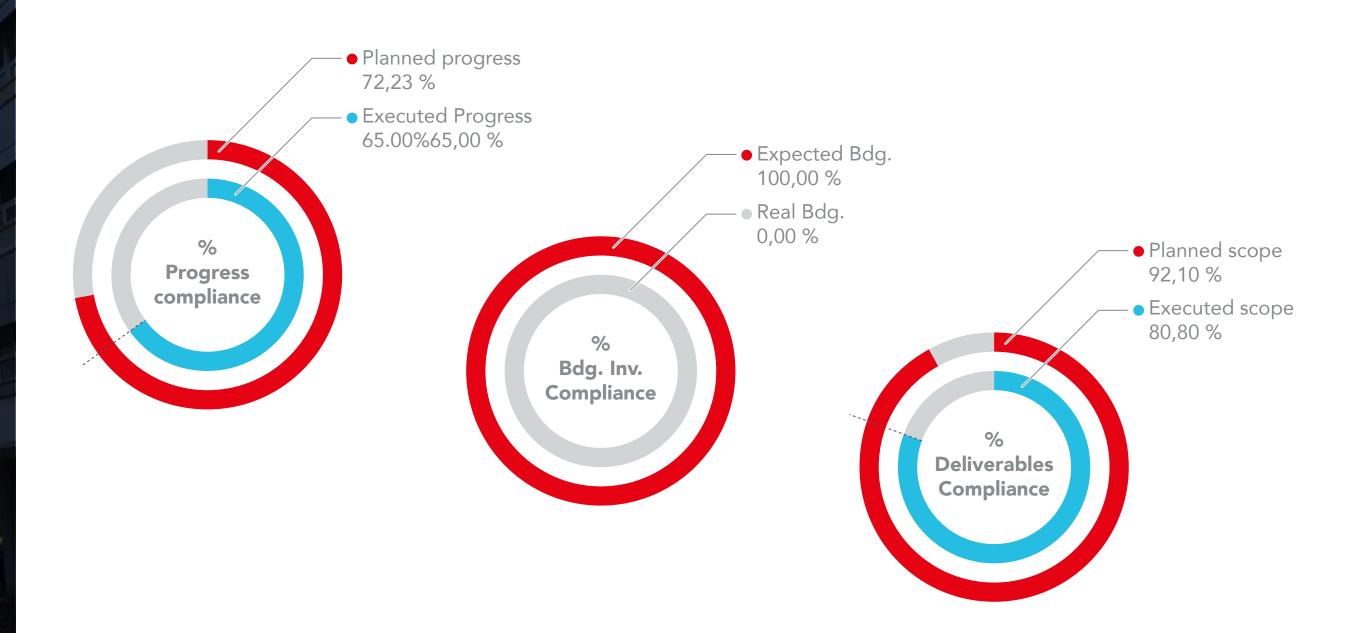


# **UPB SUSTAINABILITY REPORT 2021** 3 GOOD HEALTH AND WELL-BEING GOOD HEALTH AND WELL-BEING **-**₩ 4 QUALITY EDUCATION QUALITY EDUCATION 6 CLEAN WATER AND SANITATION CLEAN WATER AND SANITATION Ŋ AFFORDABLE AND CLEAN ENERGY AFFORDABLE AND CLEAN ENERGY INDUSTRY, INNOVATION, AND INFRASTRUCTURE 13 CLIMATE ACTION **CLIMATE ACTION** PEACE AND JUSTICE STRONG INSTITUTIONS 17 PARTNERSHIPS FOR THE GOALS PARTNERSHIPS TO ACHIEVE THE GOALS < 109 >

### 2. POSITIONING, VISIBILITY, AND RELATIONSHIP

Design and implement the multicampus model of visibility, positioning, and relationship aimed at enhancing the correlation with the Universidad Pontificia Bolivariana stakeholders.

GLOBAL PROJECT PROGRESS 65,00 %





# ORGANIZATIONAL TRANSFORMATION PROGRAM

#### Qualitative achievements:

- » Proposal to redesign the user experience for the registration form aimed at new undergraduate students.
- » Structuring of the undergraduate student route.
- » Creation of the admissions dashboard (semi-automated dashboard).
- » Ideation and co-creation workshops for the new University model (vision of the future and UPB transformation).
- » Education plan for digital leaders aimed at internal stakeholders.

# 1. VISION OF THE FUTURE AND UPB TRANSFORMATION

Project under construction, awaiting the schedule closing.

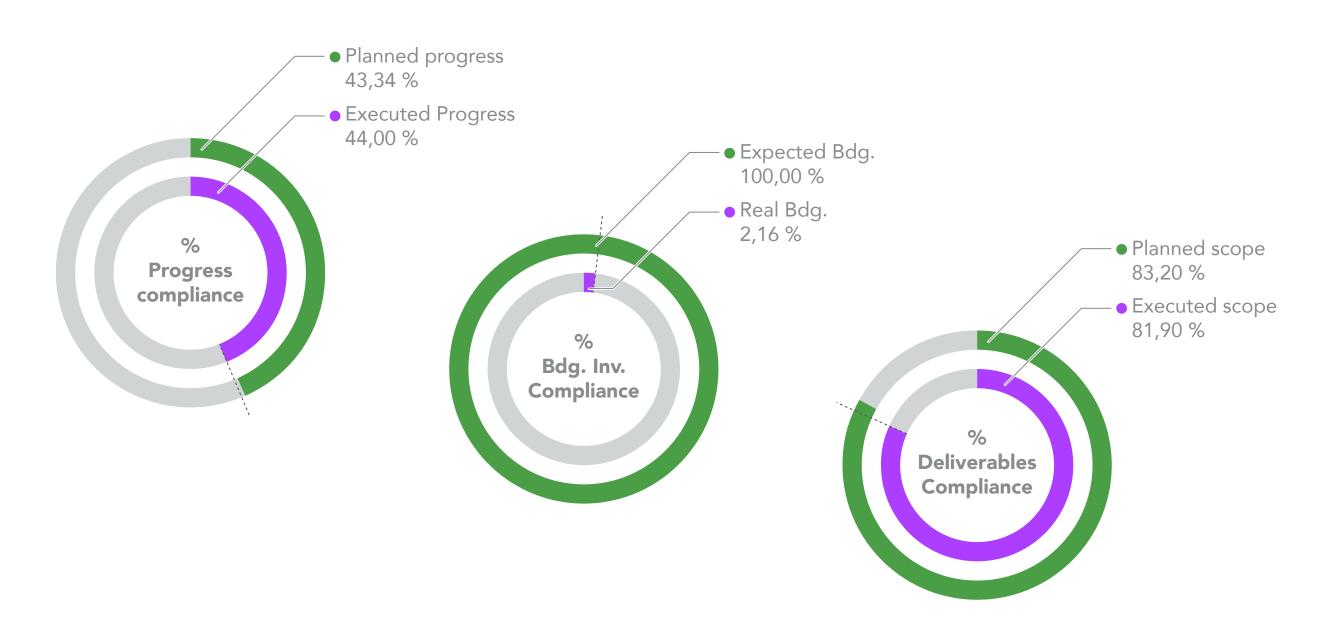




### 2. DIGITAL TRANSFORMATION

Generate an organizational transition through the structuring and implementation of a strategic digital transformation model focused on its four central areas: business, people, processes, and technology which responds in an innovative and sustainable way to changes in the environment and the needs of the different stakeholders of the University.

### GLOBAL PROJECT PROGRESS 44,00 %

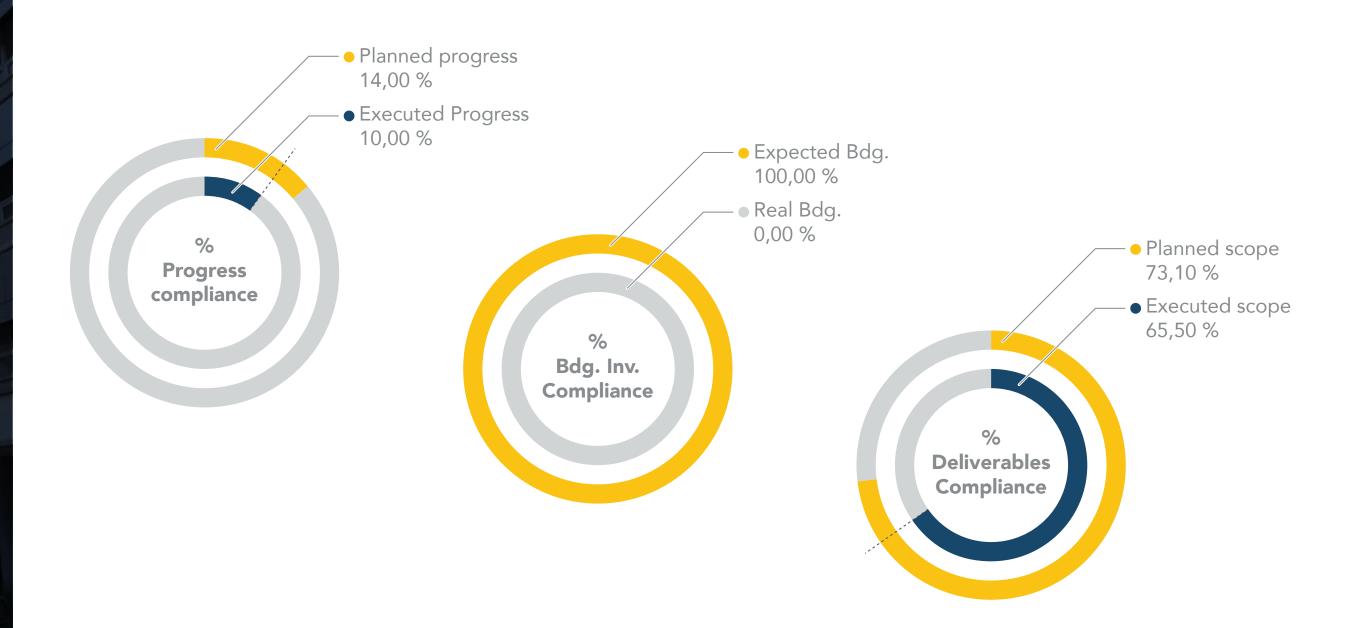


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### 3. STRATEGIC INFORMATION MANAGEMENT

Create a strategic information management system in the University that, based on the institutional generic strategy, processes, human talent, and technology, allows making appropriate decisions in front of the great challenges facing higher education.

GLOBAL PROJECT PROGRESS 10.00%



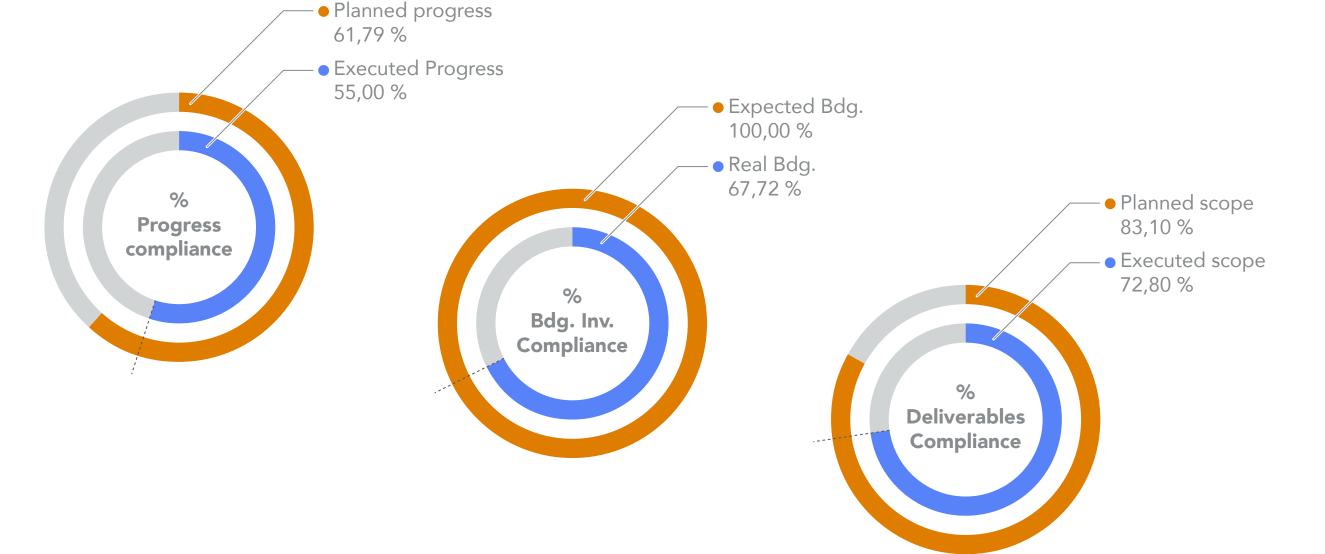
### **UPB SUSTAINABILITY REPORT 2021** 3 GOOD HEALTH AND WELL-BEING GOOD HEALTH AND WELL-BEING **-**∕\**√**• 4 QUALITY EDUCATION QUALITY EDUCATION 6 CLEAN WATER AND SANITATION CLEAN WATER AND SANITATION Q AFFORDABLE AND CLEAN ENERGY INDUSTRY, INNOVATION, AND INFRASTRUCTURE 13 CLIMATE ACTION CLIMATE ACTION PEACE AND JUSTICE STRONG INSTITUTIONS 17 PARTNERSHIPS FOR THE GOALS PARTNERSHIPS TO ACHIEVE THE GOALS < 113 >

### **VALUE CREATION PROGRAM**

#### Qualitative achievements:

- » Structuring of a proposal for multicampus royalties.
- » Progresses in the implementation of the new multicampus research system: Research Information Management System (Pure).
- » Analysis of the processes, policies, and guidelines of all the macro-processes.

### GLOBAL PROJECT PROGRESS 55.00%



### 1. RESEARCH, TRANSFER, AND INNOVATION SYSTEM

Consolidate the research, transfer, and innovation system (Sistema de Investigación, Transferencia e Innovación -SITi), through the integration of guidelines and practices in administrative, financial, and human resource management, the strengthening of knowledge structures and the implementation of the focus strategy, to stimulate collaborative work, the generation and transfer of scientific and creative production with positive impacts on stakeholders.





### 2. DIFFERENTIATED VALUE PROPOSAL

Project under construction, awaiting the schedule closing.

### **MEANINGFUL LEARNING PROGRAM**

### Qualitative achievements:

- » Human capacities and skills map update for 81 multicampus programs.
- » Inventories and analysis of multicampus institutional capacities.
- » Design of the desertion indicators model (Spadies) and progress in data validations.
- » Structuring of the reference document with the institutional learning evaluation system.
- » Report of the student's training route (from preschool to postdoctoral).
- » Software selection for predicting desertion and review of strategies for the consolidation of the Accompaniment System for Comprehensive Training (Sistema de Acompañamiento para la Formación Integral - Safi).
- » Adjustment in curricular management in accordance with the new quality assurance model for higher education guidelines (Decree 1330).
- » Report on target audiences (family, students, educational establishments, the elderly, and the productive sector) to understand their needs.

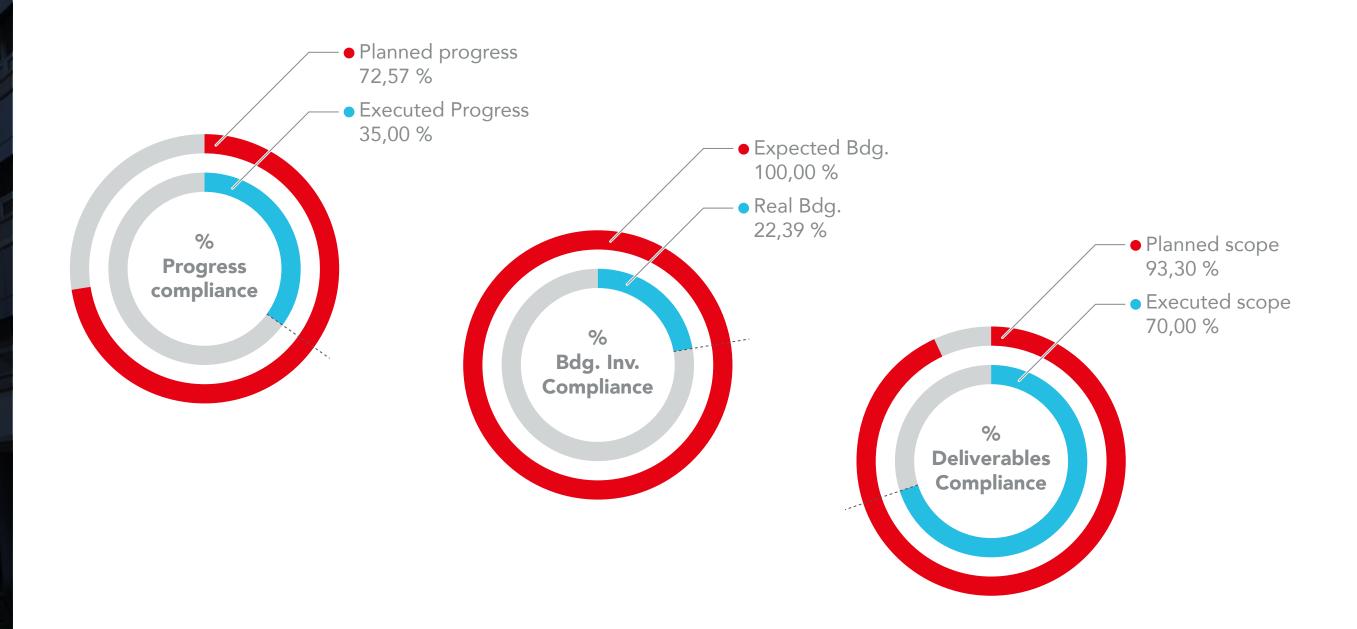


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### 1. SIGNIFICANT LEARNING FOR COMPREHENSIVE EDUCATION. PHASE 1.

Implement a software tool that enables the traceability of the learning results declared in the training process, coherent with the graduation profile for curricular self-regulation.

GLOBAL PROJECT PROGRESS 35.00%

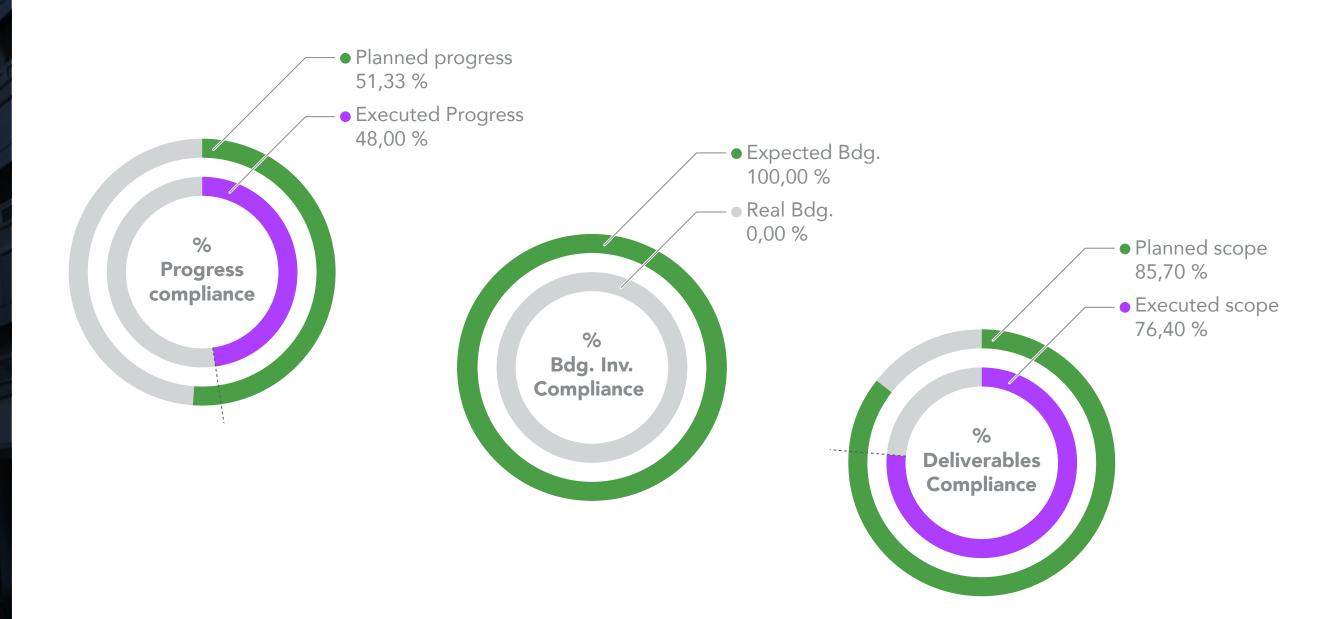


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### 2. TRANSITIONS WITH QUALITY

Strengthen, implement, and validate a management model for entry, continuity, and graduation articulated with the student's route, which allows timely prediction, prevention, and intervention of risk factors that affect the entry, continuity, and graduation of undergraduate students and contribute to comprehensive education.

GLOBAL PROJECT PROGRESS 48.00%

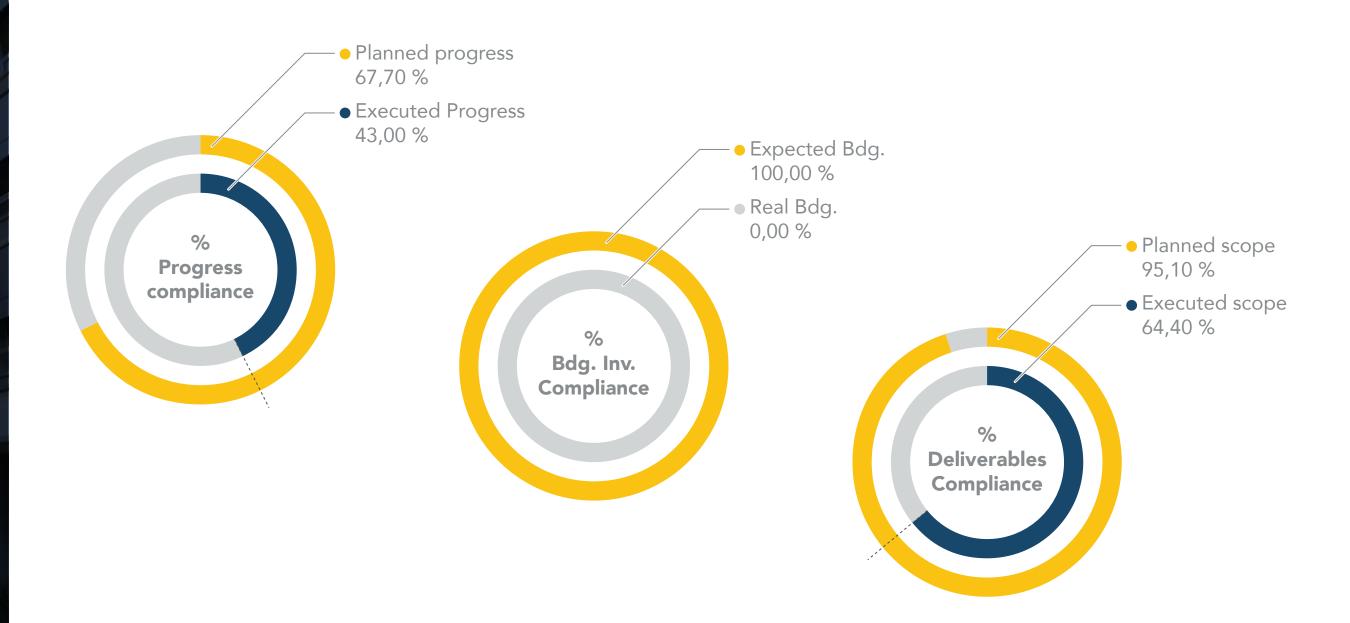


### **UPB SUSTAINABILITY REPORT 2021** 3 GOOD HEALTH AND WELL-BEING GOOD HEALTH AND WELL-BEING -4/<del>\*</del> 4 QUALITY EDUCATION QUALITY EDUCATION 6 CLEAN WATER AND SANITATION CLEAN WATER AND SANITATION Q AFFORDABLE AND CLEAN ENERGY AFFORDABLE AND CLEAN ENERGY INDUSTRY, INNOVATION, AND INFRASTRUCTURE 13 CLIMATE ACTION **CLIMATE ACTION** PEACE AND JUSTICE STRONG INSTITUTIONS 17 PARTNERSHIPS FOR THE GOALS PARTNERSHIPS TO 8 ACHIEVE THE GOALS < 117 >

### 3. CONTINUITY AND GRADUATION MANAGEMENT MODEL

Strengthen, implement, and validate a management model for entry, continuity, and graduation articulated with the student's route, which allows timely prediction, prevention, and intervention of risk factors that affect the entry, continuity, and graduation of undergraduate students and contribute to comprehensive education.

GLOBAL PROJECT PROGRESS 43.00%





GRI 102-50 - GRI 102-51. This Sustainability Report, accounts for the activities and processes carried out during 2021 and sets out challenges framed in the consolidation and growth of the mission areas of the institution and publishes the introduction of the Multicampus UPB strategic labor.

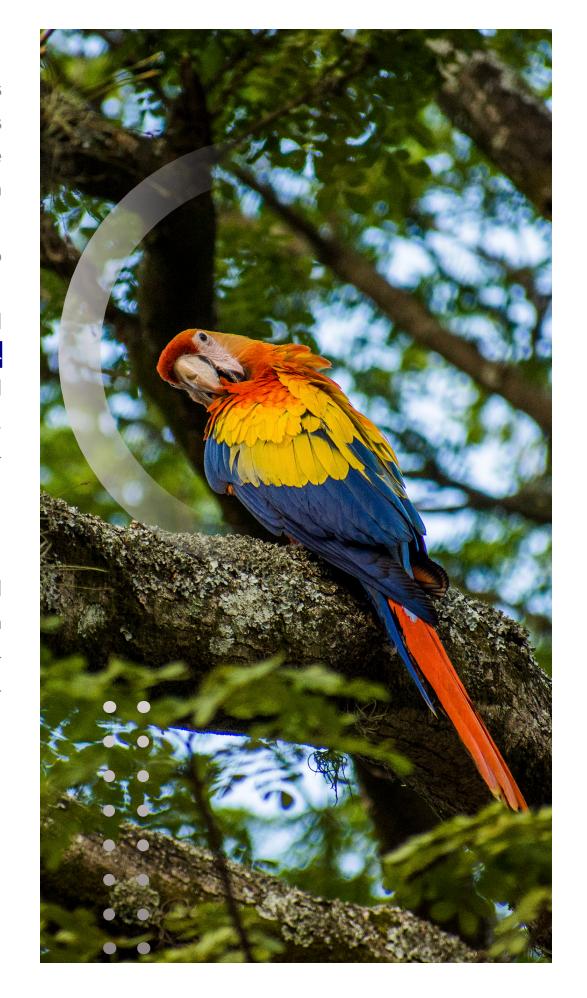
The last report was the 2020 version which was handed over to stakeholders during the first trimester of 2021.

GRI 102-52 This report is considered from the organizational strategy, and it will be carried out in annual cycles, GRI 102-54 has been prepared in accordance with standards GRI: essential option and GRI 102-56 does not have an external verification, but explicitly shows the institution contribution to the Sustainable Development Goals and the Global Compact.

### Point of contact for questions about the report

GRI 102-53 From Sustainable UPB strategy the e-mail upbsostenible@upb.edu.co has been established as the main communication channel with its interest groups, in which it is possible to go in depth about the Sustainability Report and its contents. Additionally, the sustainability office is in Building 9-216.







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Faculty of Advertising: B.S. Euler Vargas Hernández

Faculty of Psychology: Ph.D. Ivette Zamara Cuadro

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Dean of the School of Economics, Management, and Business: M. Aura Tatiana García Martínez

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