



# ruta azul

2025 SUSTAINABILITY AND  
CLIMATE CHANGE PLAN

## ANNUAL PROGRESS REPORT



Version 2.0, April, 2022



# CONTENT

## Prologue

Message from David Garza..... 3

Message from Inés Sáenz ..... 4

**Our Key Progress..... 5**

**Sustainability and Climate Change Plan 2025..... 15**

**Culture..... 16**

**Mitigation..... 23**

**Adaptation..... 35**

**Education..... 39**

**Research..... 46**

**Outreach..... 51**

**In Closing..... 64**





## David Garza

Rector and Executive President  
at Tecnológico de Monterrey

Follow at:

 @david\_garza

**S**ustainability is a priority for Tecnológico de Monterrey. One year ago, we launched the *Sustainability and Climate Change Plan 2025*, which unifies our learning and aspirations to contribute to reducing the impact of climate change.

Through this plan, we want to strengthen our culture of sustainability, so that all of us in the Tec community commit not only to reaching institutional targets, but also to living the culture of sustainability in every sphere of life.

One of the most relevant advances of this first year was ensuring that **63% of our institutional energy portfolio is supplied by clean sources, with a spotlight on the 100% clean energy at our hospitals**. We signed the Hamburg Declaration 2021 to face the major challenges of climate change and sustainability, and have generated international alliances with leaders in the field, including the Alliance for Climate Action: Race to Zero and University Global Coalition.

We still have far to go, but the progress made this first year proves that the targets and goals we set for ourselves are attainable. I would like to express my recognition to those who worked to

make these goals a reality. With passion, commitment, and tenacity, we are making a remarkable transformation.

We hope that the actions described in this report inspire the entire Tec community to join in our efforts to achieve the Plan's objective: for Tecnológico de Monterrey to be a model sustainable institution as it adopts a proactive culture to confront climate emergencies, generating ideas, technologies, and high-impact actions, and preparing leaders committed to creating a sustainable future.

Every decision and action carried out at Tecnológico de Monterrey must consider the commitment to sustainability. I invite you to be ever more ambitious, to devote even more effort to confronting the climate crisis, and to aim at a sustainable future with well-being and dignity for all.

The global crisis is a problem for all sectors. Universities, companies, NGOs, and governments must join forces, as some have already done, to work toward improvement. **A spirit of collaboration and cooperation will be the primary requirement to offer comprehensive solutions for society, our nation, and the world.**



## Inés Sáenz

Vice-President of Inclusion, Social Impact, and Sustainability

Follow at:

 @inesaenz

**T**he climate emergency has presented us with new challenges that we must address without delay. The actions and efforts carried out at Tecnológico de Monterrey in recent years have resulted in the *Sustainability and Climate Change Plan 2025*, which defines the path to follow as we aspire to become a model sustainable institution. On the first anniversary of the plan's publication, we are pleased to offer a report of the progress made in the plan's six strategic areas.

"The greatest threat to our planet is the belief that someone else will save it," emphasizes environmentalist Robert Swan. He urges all of us to take forceful action to meet the environmental challenges that face us as a planetary society.

Systemic, clear, and focused effort is required to motivate us to change. Proactive involvement is imperative in dealing with the climate crisis. We need other learning experiences, another lifestyle, and other values to adopt and live a sustainable culture.

If our Tec community is convinced of this need, our convictions and certainties can inspire people outside of our immediate environment, and generate changes of yet unimagined scope.

We are at the beginning of this journey. Our first progress report on the Sustainability and Climate Change Plan 2025 presents the achievements of a year of work. We know that united, as a community, we can do more. We have major lessons to learn and areas of opportunity to focus on for the next four years.

**May our aspirations to reach a sustainable world encourage us to join forces as we face the most significant challenge that humanity has known.**

# Our **Key** **Progress**



**T**his report includes a description of the progress made in the first year of existence of the *Sustainability and Climate Change Plan 2025*, a listing of ongoing actions, and mention of actions to be implemented by 2025.

The Plan is an evolving strategy that will be adapted to include further actions to achieve our goal:

**FOR TECNOLÓGICO DE MONTERREY TO BE A  
MODEL SUSTAINABLE INSTITUTION BY ADOPTING A  
PROACTIVE CULTURE TO CONFRONT CLIMATE EMERGENCIES,  
GENERATING IDEAS, TECHNOLOGIES, AND  
HIGH-IMPACT ACTIONS, AND PREPARING LEADERS  
COMMITTED TO FORGING A SUSTAINABLE FUTURE.**

# THE PLAN HAS **6 AREAS:**

## **CULTURE:**

To promote decision-making with sustainability awareness.

## **MITIGATION:**

To reduce the environmental impact of our institution's operations.

## **ADAPTATION:**

To minimize the effects of climate change on our community and on neighboring communities.

## **EDUCATION:**

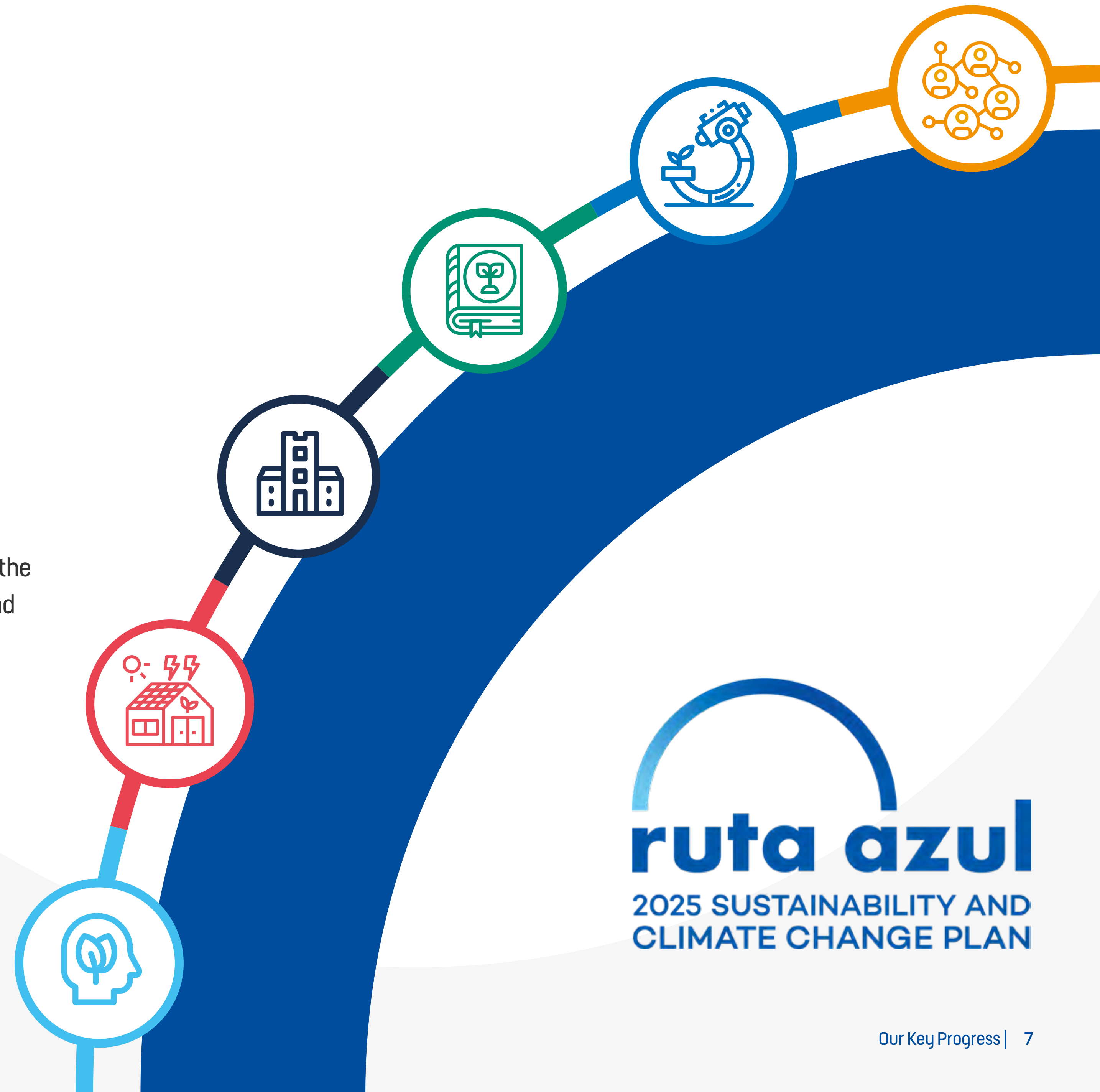
To train leaders committed to forging a sustainable future.

## **RESEARCH:**

To promote interdisciplinary research in order to provide systemic solutions that address the complexity of climate change and favor sustainable development.

## **OUTREACH:**

To catalyze climate action in society as a whole.



**ruta azul**  
2025 SUSTAINABILITY AND  
CLIMATE CHANGE PLAN

## KEY PROGRESS:

We have reduced greenhouse gas emissions by **28%** since 2019.<sup>1</sup>



<sup>1</sup> Last year of normal operations before the Covid-19 pandemic.

We achieved

**100%**



renewable energy consumption at TecSalud hospitals: Zambrano Helli6n and San Jos6.



We climbed

**+178**



positions on the Green Metric ranking at the Monterrey Campus.



We collaborated with

**14 municipalities**

in the state of Nuevo Le6n in the "Cities Race to Zero" initiative as they established their commitment to being carbon neutral by 2050.







# AREA 1 CULTURE

## OUTSTANDING PROGRESS:

WE CREATED THE:

### *Sustainable Events Guide*

with recommendations  
for planning sustainable  
events.



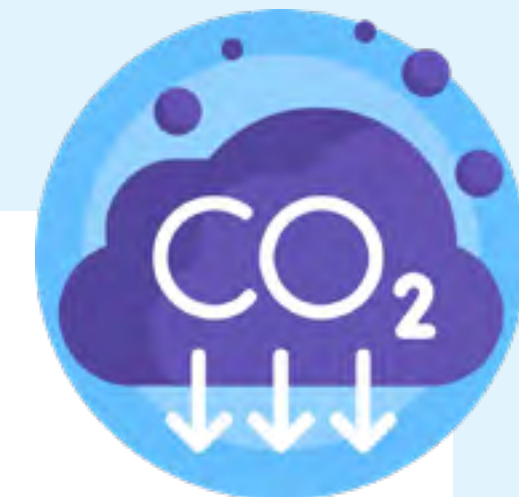
The 2022 Board Meeting  
was the first pilot event:

We banned disposables,  
composted organic waste, and  
recycled unavoidable waste.

We prevented  
the generation of

**115.84 kg**  
of CO<sub>2</sub>.

All CO<sub>2</sub> measurements in this document  
adhere to the equivalences, scopes, and  
calculations of the Greenhouse Gas Protocol.



We surveyed the current level of sustainability culture  
among our teachers, employees, and students to construct the

### *Index of Change of Sustainability Culture*

The index will measure the changes in sustainability culture after implementing the actions in this Plan.



# AREA 2 MITIGATION

## OUTSTANDING PROGRESS:

Based on the results, mitigation plans **will be designed** for each campus.



SELF-EVALUATIONS AND SUSTAINABILITY PLANS ON EACH CAMPUS

We implemented the

# 1<sup>st</sup> self-evaluation of sustainability

in terms of:



Energy



Fuel



Water



Generation of waste



Inventory of vehicles  
in operation in 2019

We increased our annual consumption of **renewable energy**

by **9%**

to reach approximately

# 63%

of clean energy at Tec and TecSalud.



# AREA 3 ADAPTATION

## OUTSTANDING PROGRESS:

A NATIONAL TREE INVENTORY AT ALL TECNOLÓGICO DE MONTERREY PROPERTIES.



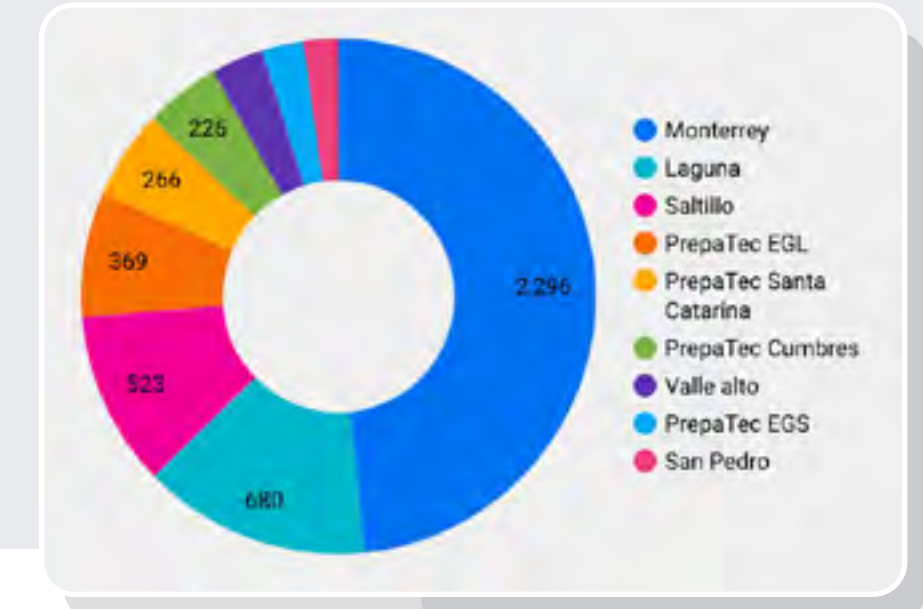
Taking into account:

- species
- tree health
- risk of each tree

We registered  
**+34**  
thousand trees



The inventory can be consulted at:  
<https://bit.ly/InvArb>





# AREA 4 EDUCATION

## OUTSTANDING PROGRESS:

We established  
the baseline for  
including

Sustainable Development  
Goals in the curriculum,  
mapping the first  
**5 semesters**  
of the Tec 21 model.



We advanced in the design and  
implementation of pilot programs:

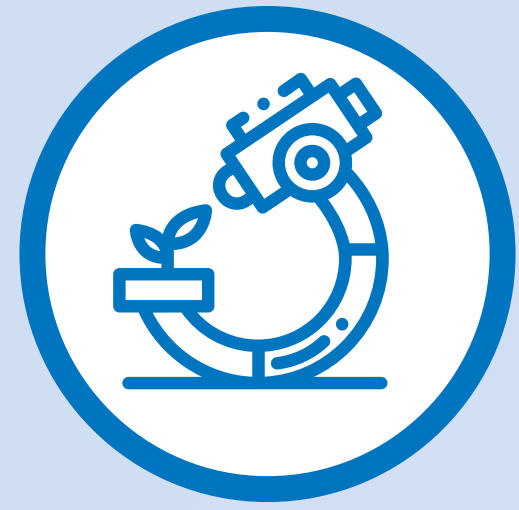
- Tec Week
- Faculty Training
- Course Design Teams



The result of  
this mapping  
can be consulted at:  
<https://bit.ly/ODSenTEC21>



**SUSTAINABLE  
DEVELOPMENT  
GOALS**



# AREA 5 RESEARCH

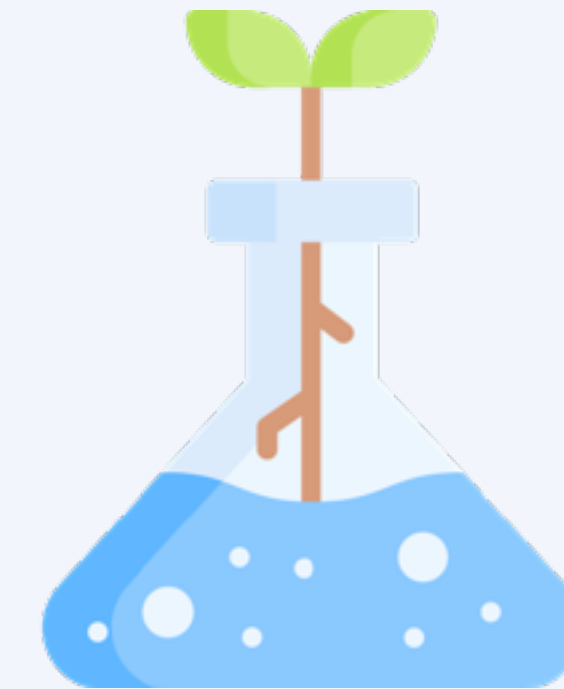
OUTSTANDING PROGRESS:

Mapping of  
**research  
projects**  
on climate change and  
sustainability

.....



Carried out jointly with the Deans at our  
**6 national schools**  
to design the Interdisciplinary and Applied  
Research Fund for projects that provide  
climate change solutions on campuses,  
which serve as living laboratories





# AREA 6 OUTREACH

## OUTSTANDING PROGRESS:

Presentation of our

*Sustainability and Climate  
Change Plan 2025*

**at COP26**

in Glasgow, Scotland



Inés Sáenz at the  
presentation of the plan

We worked with the Vice Rectory of Lifelong Learning to create the

*LLL Green Academy,*

a project that **trains private-sector leaders** in sustainability and climate change.



# Sustainability and Climate Change Plan 2025

Each of the six areas in the Plan has a mission and one or more goals for 2025.



# AREA 1 CULTURE

## MISSION:

To promote institutional decision-making with sustainability awareness.



## Goal for 2025:

To govern our administrative and operational processes with guidelines of environmental sustainability, and to involve our teachers, employees, and students in activities inherent to sustainable development.

In this initial stage of the plan, we are working simultaneously in four areas: **Communication and Awareness campaigns, Experience, Measurement, and Recognition.**





## COMMUNICATION AND AWARENESS CAMPAIGNS

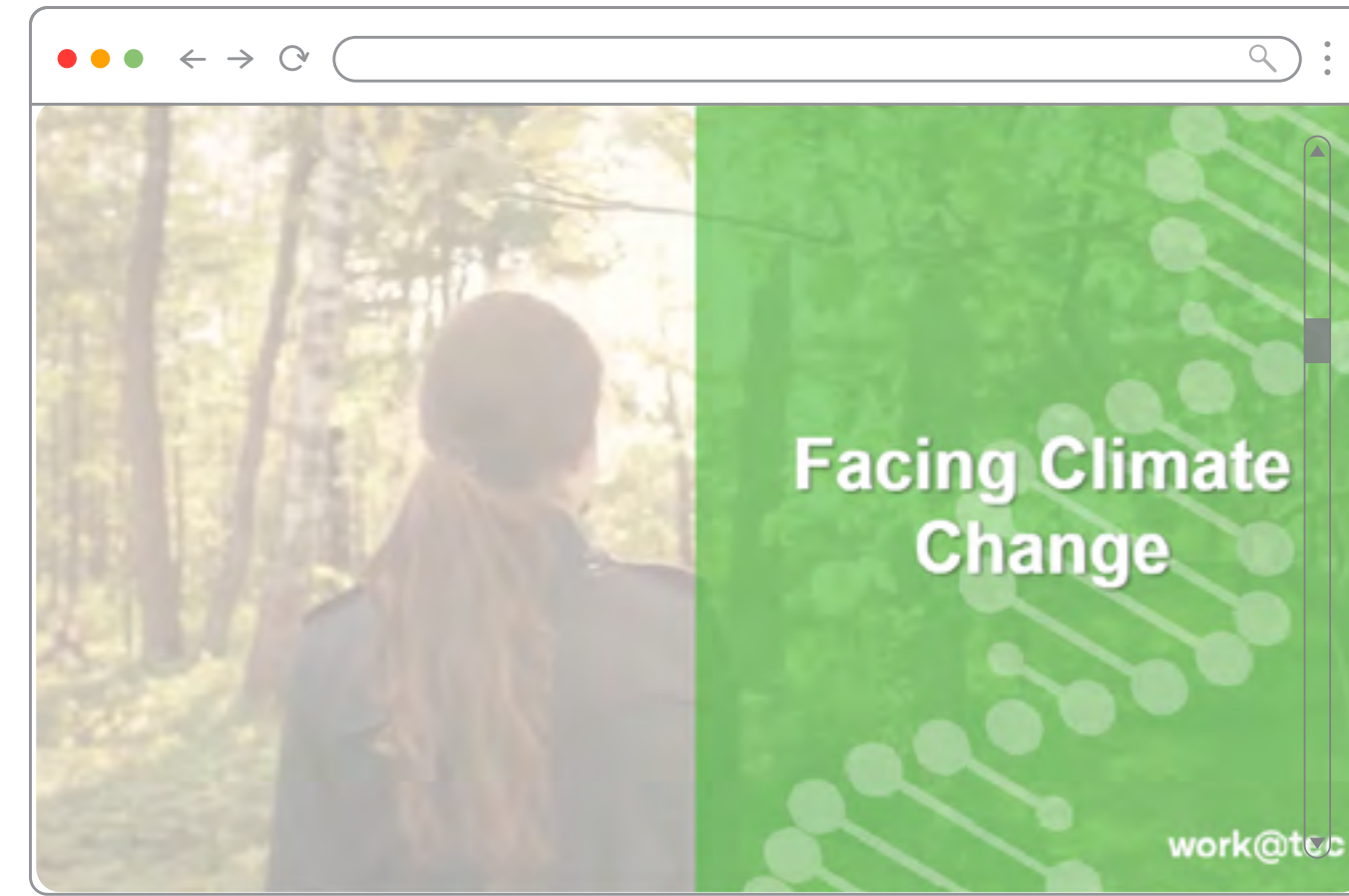
### MISSION:

For the Tec community to develop **sustainability awareness** and to be familiar with the basic concepts of sustainability, our institutional strategy, and actions in environmental sustainability.

Because of the importance of **creating a new culture** for catalyzing changes in our actions and attitudes, we have established a medium-term goal for this area.

### GOAL FOR 2023:

For more than **80% of the Tec community** to be familiar with the ***Sustainability and Climate Change Plan 2025***.



Climate Change Module in My Commitment to Integrity

### ACTIONS

In ***My Commitment to Integrity***, an exercise directed to more than 30,000 teachers and employees, we included a learning module on climate change to invite them to commit to the plan.

In the ***Transforming Leadership*** program directed to 3,700 leaders, we added a module dedicated to the plan's sustainability efforts.

**With support from GIZ, Germany's main provider of international cooperation services**, we trained 45 team members from operations, administration, physical plant, infrastructure, security, and other strategic areas on sixteen campuses, to introduce the underlying concepts of global warming and adaptation to climate change.



## COMMUNICATION AND AWARENESS CAMPAIGNS

We took part in the institutional campaign for "A Conscious, Sustainable Return" (to in-person classes after the pandemic) by adding "Seven Key Actions for Caring for the Environment." Further information is available [here](#).

We reiterated at two crucial moments the value and importance of our plan and the planet's sustainability:

- Following the catastrophic scenario that the IPCC<sup>1</sup> report revealed in 2021, **we called on our community to contribute actively** to solutions that limit global warming.
- On October 24, United Nations Day and the International Day Against Climate Change, **we used social networks to make the Tec community aware of the effects and risks of climate change in our country**, inviting users to reflect on the role our actions play in this major challenge.

<sup>1</sup> United Nations Intergovernmental Panel on Climate Change

In April 2022, we launched a **monthly newsletter** to share the progress made on our plan and the actions we are carrying out on our campuses throughout Mexico. We also present expert commentaries on the fundamental challenges of climate change and environmental sustainability.



National Campaign:  
A Conscious,  
Sustainable Return

# EXPERIENCE

## MISSION:

To encourage the Tec community to experience sustainability in all spheres of life.

## GOAL FOR 2025:

For administrative and operational processes to follow environmental sustainability guidelines. To involve our teachers, employees, and students in activities that have a favorable impact on sustainable development.

Since implementing the plan, we have promoted actions that align our processes in terms of sustainability.



## ACTIONS

The ***Sustainable Events Guidelines*** includes recommendations for implementing sustainable actions in the planning and management of in-person events. This guide encouraged:

- Implementing sustainable practices at the 2022 Board Meeting, **the first pilot event** with sustainable waste management.
  - » We eliminated disposable products from food and beverage services.
  - » We composted 30 kg of organic waste (61.5% of the event's total waste), preventing 105.84 kg of CO2 emissions.
  - » We recycled PET and aluminum from the event, saving more than 200 liters of water and preventing 10 kg of CO2 emissions.
  - » We treated 25 liters of liquid waste in the wastewater treatment plant.



## EXPERIENCE

- As part of the Tec Volunteer Day 2021, we designed and offered the **Conscious, Sustainable Return** workshop. Twenty-five public schools throughout Mexico participated with 760 volunteers to prepare their students' safe, sustainable return to in-person classes.

We have also begun work on actions that promote personal experience with sustainability. With the support of the Tec's food service department, **TecFood**, we designed and implemented the first **Diagnosis for Caterers and Concessionaires** to identify their current practices and define a strategy for them to align with our plan.

On multidisciplinary teams, we are planning the **elimination of environmentally harmful products, such as single-use PET containers** and disposable products and packaging.

We established spaces for collaboration with FETEC and various student groups to define sustainable actions on our campuses.



**During the 2022–2023 academic year, we have continued to focus our efforts on:**

- Ensuring the sustainability of our flagship events as we eliminate the use of environmentally harmful products like PET and disposable products.
- Organizing volunteer projects that promote and encourage sustainability in all spheres of life.
- Identifying internal resource management processes that need to be aligned with a sustainable perspective.

## MEASUREMENT

### MISSION:

To measure the institution's maturity in sustainability awareness.

### GOAL FOR 2025:

To monitor the way these actions influence **change in the Tec community's awareness, attitudes, and behavior.**

### ACTIONS

After implementing the plan, we designed a **survey to discover the sustainability awareness of teachers, employees, and students.** The survey showed the need to reinforce personal, professional, and civic dimensions of sustainability, to dispel myths, and to promote comprehensive visions free from ideologies and biases.



In joint form with experts in sustainability and statistics from the School of Humanities and Education, we are constructing the ***Index of Change in Sustainability Culture*** to be deployed in 2022 and 2023. The index will measure the Tec community's knowledge, values, attitudes, and behaviors in sustainability and the changes caused by implementing the plan's proposed actions.

# RECOGNITION

## MISSION:

To showcase and honor our community's contributions to sustainability.

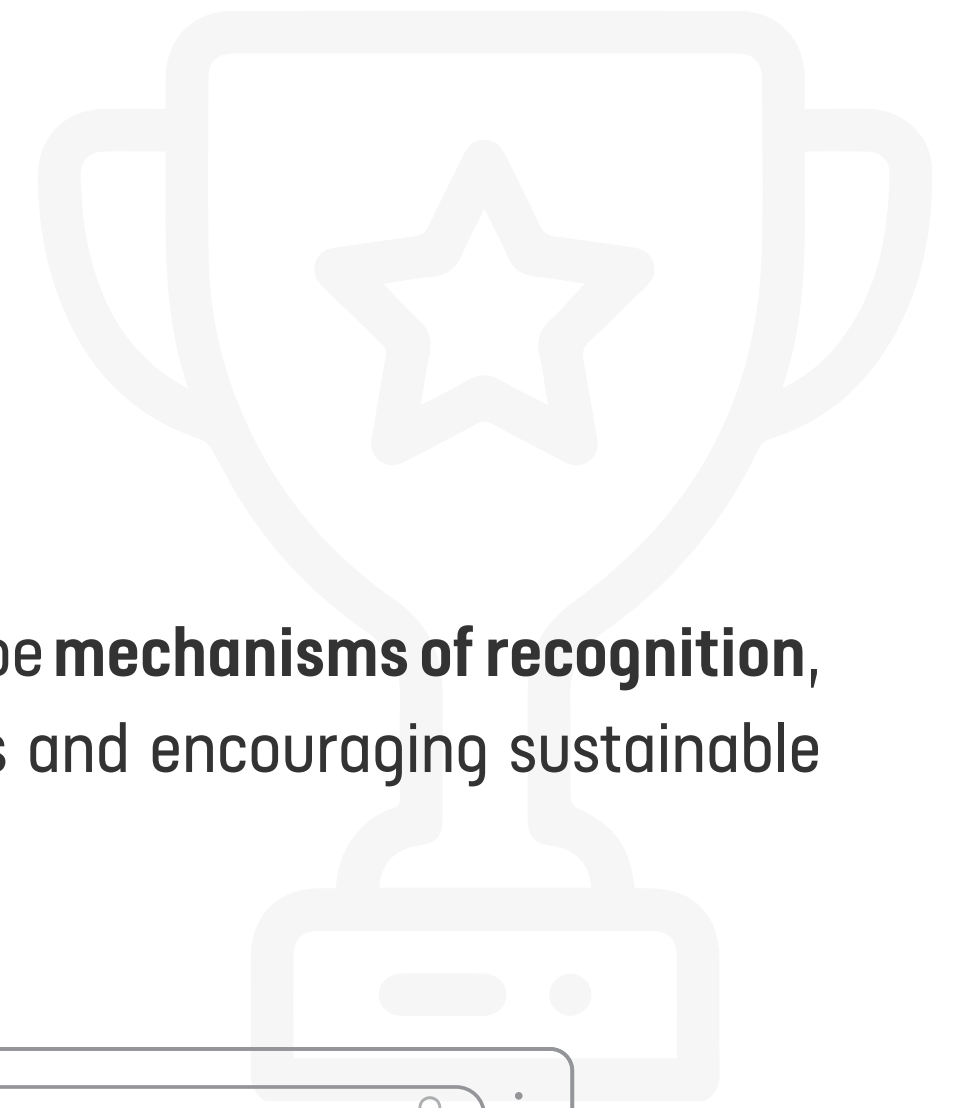
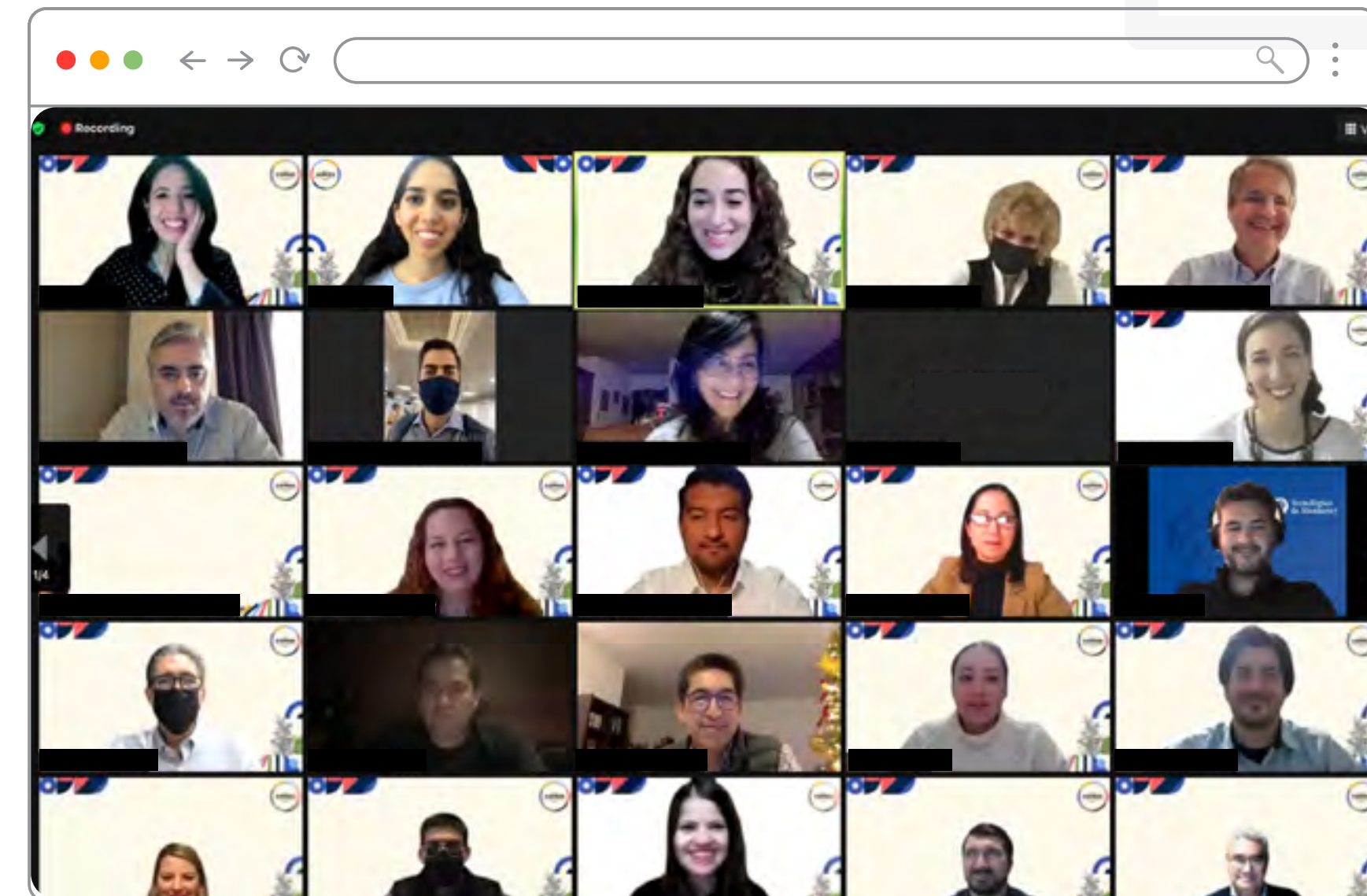
Since culture is a strong influence on attitudes and actions, we established a medium-term goal for this area.

## GOAL FOR 2023:

To implement systems that recognize the Tec community's contributions to the *Sustainability and Climate Change Plan 2025*.

## ACTIONS

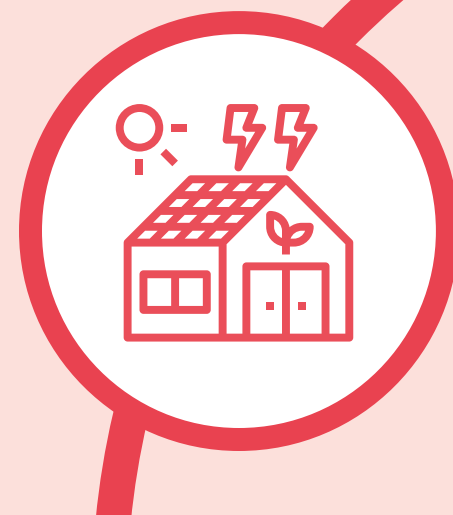
The most significant action in this area will be **mechanisms of recognition**, which are key in making cultural changes and encouraging sustainable practices in the community.



# AREA 2 MITIGATION

## MISSION:

To reduce the environmental impact of our institution's operations.



## Goal for 2025:

To reduce our carbon footprint by **50%** and our water consumption by **20%**, and to ensure a sustainable waste management model at 100% of our facilities.

Since we are signatories of **Race to Zero** (see Outreach section), we have established an additional goal:

## Goal for 2040:

To achieve carbon neutrality.

To reach these goals, we are working simultaneously in four areas: **Emissions**, **Energy and Fuel**, **Water**, and **Waste**.



Photovoltaic Plant,  
Sonora Norte Campus

# EMISSIONS

## MISSION:

To measure and reduce our greenhouse gas emissions.

## GOAL FOR 2025:

To reduce our greenhouse gas emissions by 50% in comparison with 2019.

## GOAL FOR 2040:

To achieve carbon neutrality.

## ACTIONS

In 2021, we estimated a 28% reduction in greenhouse gas emissions in comparison with 2019.<sup>1</sup> This reduction represented 56% progress in reaching our 2025 emissions goal.<sup>2</sup>

Our national report on greenhouse gas emissions, which we publish annually to comply with the *Greenhouse Gas Protocol* and the Annual Operations Certificate (COA) of Mexico's Secretary of the Environment and Natural Resources (SEMARNAT), is available at: <https://bit.ly/ReporteGEI>

During the 2022-2023 academic year, we have continued working on:

- Preparing the greenhouse gas emissions report, GEI 2021, available on our website in May of 2022. The report defines our progress toward carbon neutrality and the required steps for achieving our annual reduction goals.

<sup>1</sup> We selected 2019, the most recent year of normal operations before the COVID-19 pandemic, as the baseline for our indicators.

<sup>2</sup> To calculate this percentage, we took into account the 2020 emission factors of our non-renewable energy sources, since the 2021 factors will not be available until after the publication of this report.



## EMISSIONS

- The calculation of absorbed CO<sub>2</sub>, based on the institution's tree inventory of 2021 allows our campuses to define initiatives for managing and maintaining trees and green areas efficiently and responsibly.
- A new, user-friendly and functional digital platform to host the Institutional Report on Greenhouse Gas Emissions in a clear, transparent, and detailed manner, will be launched in the 2022–2023 academic year.
- Another action in the Mitigation area is the **development of a transportation strategy to reduce air travel at the institutional level** and decrease our third-party emissions. The strategy will also reduce emissions from our vehicle fleet and the direct consumption of fossil fuels, gradually replacing gasoline- and diesel-powered vehicles with hybrid and electric models.



Wooded  
area on  
Mexico City  
Campus

## ENERGY AND FUEL

### MISSION:

To reduce energy consumption and promote migration toward clean energy.

### GOALS FOR 2025:

To obtain **80% of our energy from renewable sources.**  
To reduce our energy consumption by **20%** per square meter in comparison with 2019.

### ACTIONS

**100% of the energy consumed at the TecSalud's Zambrano Hellion Hospital and San José Hospital has been from renewable sources since February 2022.** We estimate an annual increase of 6.5% in energy consumption from renewable sources.



Zambrano Hellion Hospital



San José Hospital

## ENERGY AND FUEL

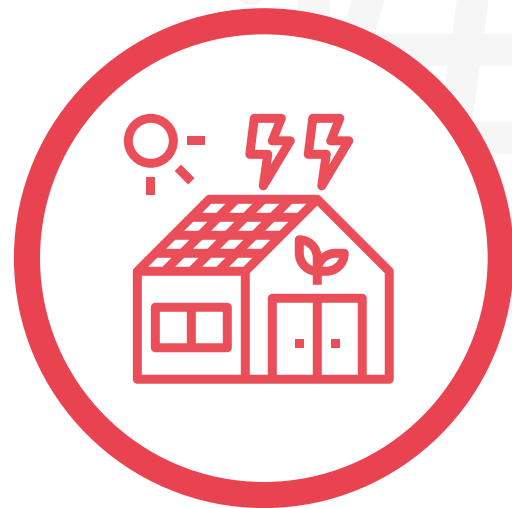
We integrated eight new consumption points of renewable energy—100% wind power—to attain an annual increase of 2% in the consumption of renewable energy.

We installed a photovoltaic system on the Mexico City Campus to generate solar energy, to increase our renewable energy consumption by 0.5% at the institutional level.

We defined the action plans for each campus and the operations strategies for energy efficiency based on the results of the self-evaluations of sustainability.<sup>3</sup> Support was provided by **Energy Managers**, who follow up on strategic projects to generate and save energy.

As a result of these actions, we increased our annual consumption of renewable energy by 9%, attaining approximately 63% of the energy consumed by Tec and TecSalud from clean energy sources.

<sup>3</sup> Further information on these self-evaluations can be found in the section on SELF-EVALUATIONS AND SUSTAINABILITY PLANS BY CAMPUS.



Solar panels on dormitory building, Monterrey Campus



## ENERGY AND FUEL

During the 2022-2023 academic year, work will continue on:

- Integrating three new consumption points of wind energy, to increase our annual consumption of renewable energy by 1%.
- Designing an efficient chilled water generator for the Monterrey Campus, *GreenShip*, to reduce energy consumption by 20-30% in comparison with other chilled water generators.
- Replacing conventional streetlights with low-consumption LED streetlights at our Monterrey facilities.
- Replacing older air-conditioning systems in Monterrey with energy efficient systems.
- Establishing a pilot program to generate and visualize energy consumption indicators in



Wellness Center, Monterrey Campus

real time at the Monterrey Campus Wellness Center, and utilizing the pilot project's results at the national level to identify inefficient equipment and implement strategies and technologies to optimize our operations.



Photocells on lamp posts, Central Park, Monterrey Campus

## ENERGY AND FUEL

### Until 2025, our focus will be on:

- **Implementing photovoltaic systems** to generate renewable energy on sixteen campuses, to increase our renewable energy supply by 6.5% and mitigate emissions by approximately 8.5%.
- **Replacing older air conditioning systems** with energy efficient systems at all institutional facilities.
- **Replacing conventional streetlights with LED lights** at all institutional facilities.
- **Installing sensors and smart power meters** to reduce energy consumption per square meter.
- To carry out **in-house campaigns** to reduce energy and fuel consumption.



Wind system, Querétaro Campus



Solar panels, TecMilenio

# WATER

## MISSION:

To achieve circular water management.

## GOAL FOR 2025:

To reduce our water consumption by 20% in comparison with 2019. To have a **water treatment system on 80% of our campuses.**

## ACTIONS

In October 2021, we created the Environmental Area to support our campuses and facilities in sustainable water management and integrated waste management.

Based on the campuses' self-evaluations of sustainability,<sup>4</sup> we generated a **baseline** of water sources and consumption for all campuses,



Wastewater treatment plant, Guadalajara Campus

and determined the areas of opportunity for efficient water usage. We inventoried water usage equipment and analyzed water consumption to identify the processes that use the most water and to define strategies and projects for reducing water consumption and attaining circular water management.

We refurbished the equipment at the wastewater treatment plants to provide a water treatment system at 57% of our campuses and facilities.

<sup>4</sup> Further information on these self-evaluations can be found in the section on SELF-EVALUATIONS AND SUSTAINABILITY PLANS BY CAMPUS.

## WATER



### During the 2022-2023 academic year, work will continue on:

- Supporting the 38 campuses and facilities of Tecnológico de Monterrey to **establish and evaluate goals for reducing water consumption.**
- Constructing a **management platform for water services, treatment, and consumption** to consume and reuse water in a proactive, timely manner at our facilities.
- Beginning, in August 2022, the operation of **two projects on the Monterrey Campus in collaboration with Monterrey's municipal water and sewer system.** The projects consist of delivering good-quality water to the campus' neighboring community, treating city wastewater at our wastewater treatment plant, and returning it to the system as irrigation water.

### Until 2025, our focus will be on:

- **Starting up the wastewater treatment plant at the Zambrano Hellion hospital** to produce good-quality water for the hospital's processes and the irrigation of green areas.



Reutilización de agua tratada en áreas verdes, Campus Guadalajara

- **Implementing the circular water management project** in the E2 parking area, to collect rainwater for treatment and use, starting in May, 2022.
- Computerizing irrigation systems in the 2022-2023 academic year.
- **Installing water meters for the timely detection of leaks**, with the pilot project startup on the Monterrey Campus in July 2022.
- Replacing current equipment with **water saving devices.**
- Carrying out **awareness campaigns** for conserving water.
- Implementing actions **to conserve water** on the Monterrey Campus, in response to current drought conditions: reusing water, adjusting irrigation processes, improving shower heads, sinks, dishwashers, and other cleaning equipment, and modifying logistics in sanitation processes.

# WASTE

## MISSION:

To achieve sustainable waste management.

## GOAL FOR 2025:

To design a sustainable waste management model at 100% of our facilities.

## ACTIONS

We performed a due diligence process on the waste management infrastructure of our campuses, including solid urban waste, special waste, and hazardous waste.

We created a national waste management committee and a national committee for managing infectious and biological waste to guarantee correct waste management on all campuses, from the generation of waste until its final reuse or disposal.



Waste segregation bins



# WASTE

For the remainder of the 2022-2023 academic year, work will continue on:

- Designing a **waste management platform** to compile and process information on the generation, reuse, recycling, composting, and final disposal of waste at the national level. This information will help us to establish indicators and actions to reach our goals.
- Developing **sensitization campaigns** so that waste generators become involved and participate more in reducing waste and attaining sustainable waste management.

Our focus through 2025 will be on:

- Supporting our operations and maintenance areas in selecting effective waste segregation bins.
- Designing and constructing a **new waste collection center** at the Monterrey Campus, to be replicated as required at other campuses and facilities.
- Creating operational guidelines for achieving sustainable waste management at the national level.



Permanent campaign on recycling awareness and correct waste disposal, Guadalajara Campus



Wastewater treatment plant, Monterrey Campus

## SELF-EVALUATIONS AND SUSTAINABILITY PLANS BY CAMPUS

Through the teams at our campuses, high schools, sites and facilities of Tecnológico de Monterrey and in conjunction with the Mitigation area, **during the second half of 2021 we carried out the first sustainability self-assessment of operations in order to have a baseline.** This would allow us to design the plans required to achieve our goals for 2025.

The self-evaluations included **energy and water consumption and waste generation in 2019**, plus fuel consumption and the number of vehicles in operation.

Based on the results of the self-evaluation, we are constructing mitigation action plans by campus, to design the projects and initiatives for reaching our proposed goals for 2025. These action plans form part of the leaders' and directors' goals on our campuses in the 2022-2023 academic year.



Library,  
Mexico City  
Campus

# AREA 3 ADAPTATION

## MISSION:

To minimize the effects of climate change on our community and on neighboring communities.



## Goal for 2025:

For 100% of our campuses to have an analysis of projected climate change impacts in order to develop adaptation plans based on cities and regions vulnerability and climate risk diagnoses.

To reach this goal, we are working simultaneously in three areas: Climate Risks, Planning, and Training.



PIIT building with LEED gold certification, Chihuahua Campus

# CLIMATE RISKS

## MISSION:

To diagnose climate vulnerability for all campuses.

## GOAL FOR 2025:

For 100% of our campuses to have a diagnosis of present and future vulnerability to the impacts of climate change.

## ACTIONS:

We conducted a national tree inventory at all Tecnológico de Monterrey facilities (high schools, campuses, offices), to record the species, health, and risk of more than 34 thousand trees. Thanks to this project, we are able to promote actions for tree care and maintenance, **reduce the heat island effect**, and calculate the total CO2 absorption of our green areas. The tree inventory can be consulted at: <https://bit.ly/InvtArb>



Black walnut tree at Central Park, Monterrey Campus

Work will continue in 2022 on taking a tree inventory at the institution's nature preserves and properties, and on creating actions for their management. This second phase of the inventory will result in a more precise calculation of the total CO2 absorbed by our institution's green areas.

# PLANNING

## MISSION:

To develop risk-based adaptation plans for climate change and to supervise their implementation.

## GOAL FOR 2025:

To have an adaptation plan on 100% of our campuses to minimize the effects of climate change.

## ACTIONS:

In collaboration with the infrastructure and development area, we plan to review and strengthen design standards, materials, and sustainable construction, maintenance, and operations systems, and facilitate their application.

We aim to create climate change adaptation plans for our campuses, taking into account the diagnoses of their regional climate risk and



LEED gold certification of library, Monterrey Campus, and PITT (Innovation and Technology Transfer Park), Chihuahua Campus



vulnerability. In joint form with the national director of risk management, we plan to design a system to monitor and evaluate the actions proposed in the campuses' adaptation plans.

We plan to promote the design and application of each campus' master plan, prioritizing the bases of sustainability and adaptation to climate change.

# TRAINING

## MISSION:

To generate and strengthen teams' abilities to identify risks and implement actions to mitigate the impact of climate change at our campuses and facilities.

## GOAL FOR 2025:

To train 100% of our employees in Mexico in the basic concepts of adapting to the impact of climate change.

## ACTIONS:

In 2021, in joint form with the culture area and in collaboration with GIZ, we held workshops in diverse strategic areas of our campuses for teams in operations, administration, operations and maintenance, infrastructure, urban design, and security, to raise awareness of climate change impacts, in order to jump start initial actions to mitigate them.



Guadalajara Campus.

## During the 2022-2023 academic year, work will continue on:

- Developing a working plan and follow-up to promote the initiatives and projects from the GIZ workshops, and to strengthen the operational and administrative teams on our campuses.
- Creating and promoting courses, workshops, and digital resources related to the effects of climate change for local campus teams.

# AREA 4 EDUCATION

## MISSION:

To train leaders committed to forging a sustainable future.



In this area, our actions are organized according to a general goal and various specific goals that will be reached by 2025. They will be published in upcoming curricula.

## General Goal:

**To integrate education on climate change and sustainable development into future undergraduate curricula.**



Students on  
Guadalajara Campus

## SPECIFIC GOALS

We established the following specific goals:

- To map the inclusion of the Sustainable Development Goals in current study plans to define a baseline.
- To implement pilot programs that include education on climate change and sustainable development.
- To complete the design of an institutional plan to include climate change and sustainable development in future curricula.
- To provide training in concepts, methodology, and pedagogy to teachers who will design and teach educational units on climate change and sustainable development.
- To develop an evaluation and certification mechanism for educational units related to climate change and sustainable development.
- To develop an evaluation and certification mechanism for teachers trained in the methodology and pedagogy of education in climate change and sustainable development.

### ODS por Escuelas

Escuela ▲	Unidades de Formación	ODS Incluidos
Arquitectura, Arte y Diseño	15	36
Ciencias Sociales y Gobierno	18	39
Humanidades y Educación	15	41
Ingeniería y Ciencias	53	173
Medicina y Ciencias de la Salud	18	23
Negocios	14	22

\* ODS Incluidos representa la cantidad de ODS totales que son declarados por cada UF por escuela. Por ejemplo, 1 UF puede declarar 1 o más ODS.

Source: Table of SDGs in Tec 21, available at: <https://bit.ly/ODSenTEC21>





# ACTIONS:

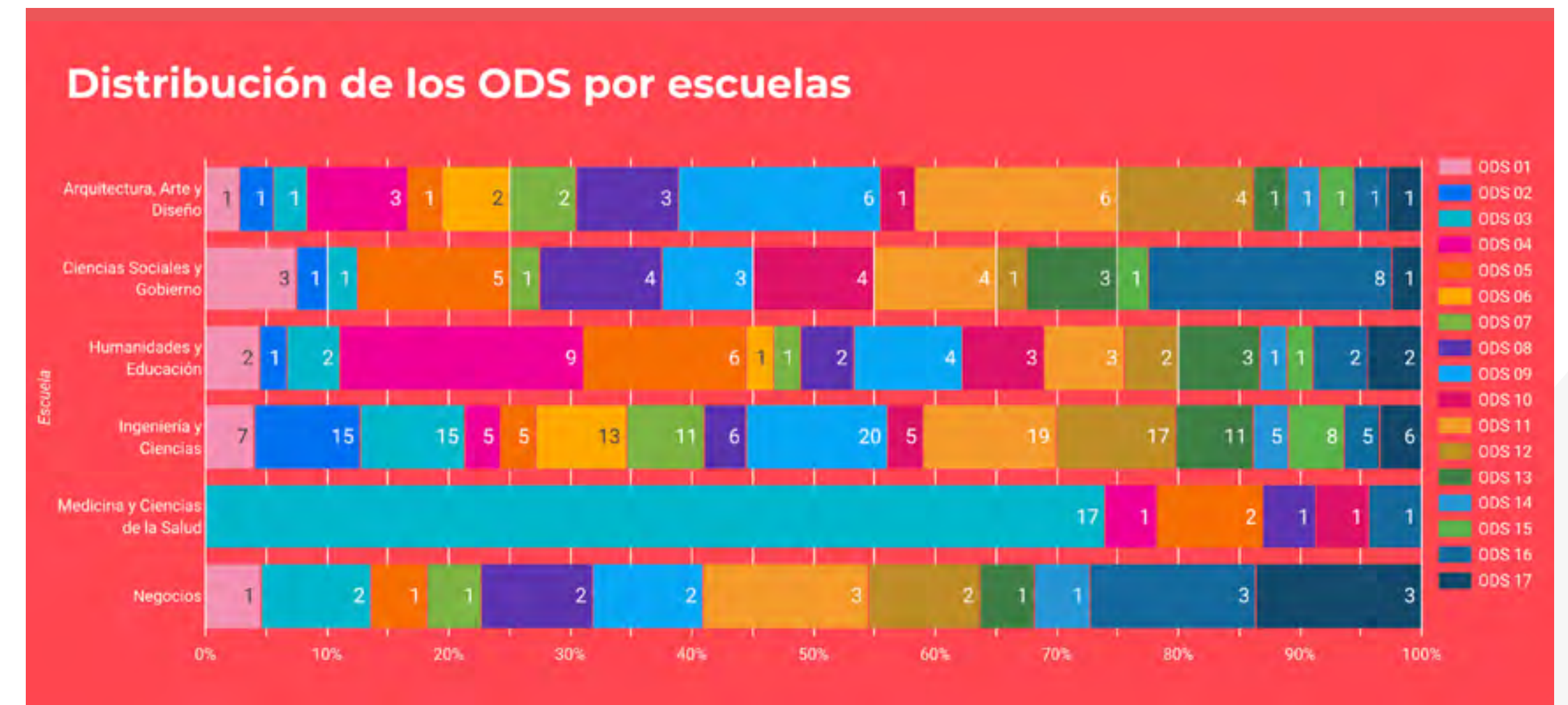
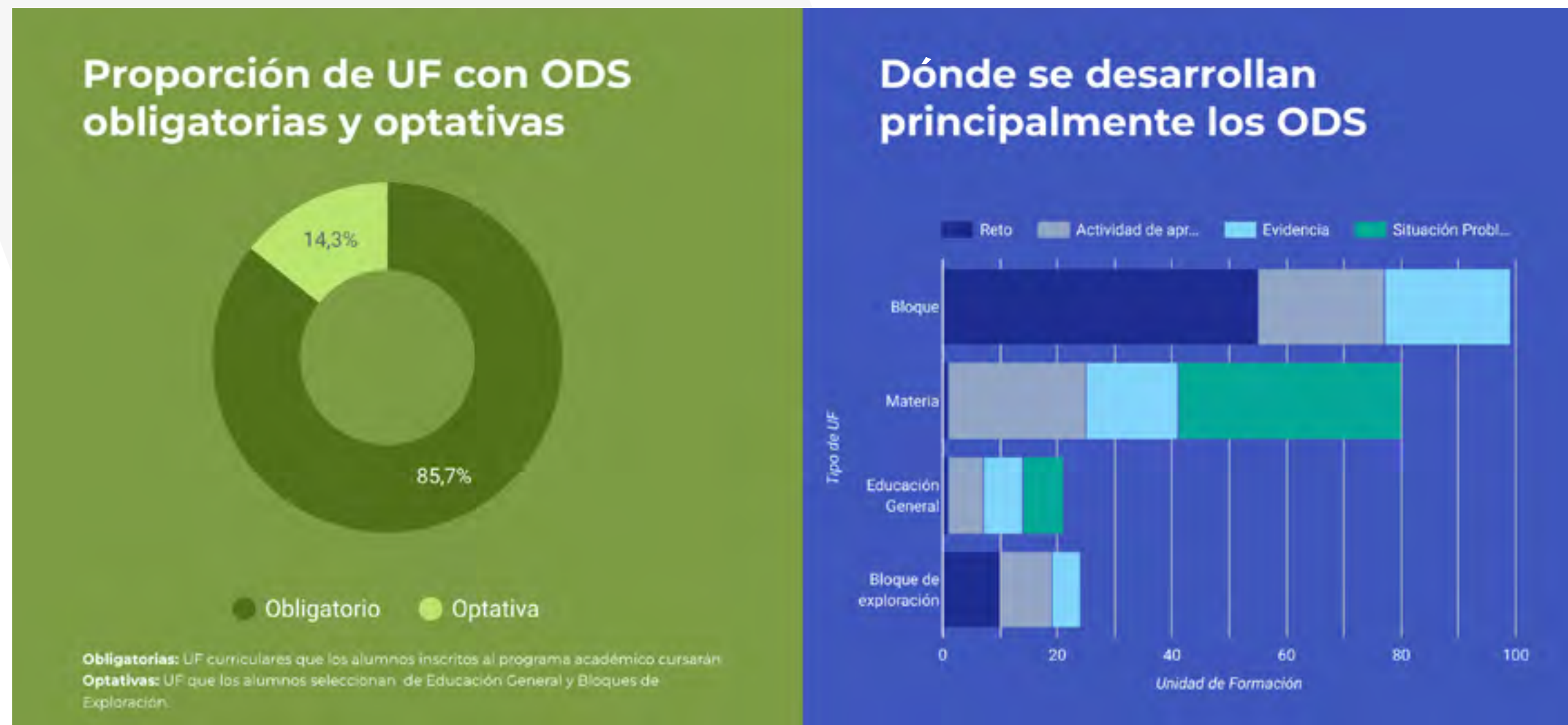
## Mapping of academic courses

We established the baseline for including SDGs in the curriculum by mapping the educational units from the first to the fifth semester in the 2019 undergraduate curriculum (Tec 21 Model).

- We identified that 19% of all courses include SDGs.

- We designed and published a dashboard that presents institutional results by school and academic program. For further information, consult:

<https://bit.ly/ODSenTEC21>



Source: Table of SDGs in Tec 21, available at: <https://bit.ly/ODSenTEC21>

## ACTIONS:

### Pilot Programs

On implementing pilot programs to include climate change and sustainable development in the curriculum, we designed and deployed various initiatives:

- **For students:** *Tec Week with a Humanistic Outlook: Climate Emergency and Culture of Sustainability*, an immersive, theoretical, and practical experience in which **824 students participated** in August-December 2021.

**Formación para Semana  
Tec con SH:  
EMERGENCIA  
CLIMÁTICA**



- **For teachers:** five training sessions in education for sustainable development in collaboration with UNESCO, the Earth Charter International Secretariat, Georgia Institute of Technology, and the School of Humanities and Education at Tec de Monterrey. **We trained more than 150 teachers from July 2021 to March 2022.**

## ACTIONS:

### Training

We advanced in training the teams that design educational units, through the following activities:

- Designing and preparing the materials, checklists, and reference sites in collaboration with the Academic Vice Rector's team. For further information, consult: <https://sites.google.com/tec.mx/eds/inicio>
- Imparting the course *Designing for Sustainable Development* to the teams in charge of designing multidisciplinary blocks in the eighth semester for undergraduates. More than 30 teachers participated.



These efforts will allow us to start designing the educational units for the eighth semester of the current curriculum, and include education on climate change and sustainable development.

In conjunction with UNESCO and Georgia Institute of Technology, we completed the **first track of sustainable development education** in the framework of the International Congress on Educational Innovation (CIE) in December of 2021. The track included:

- **Keynote discussion panel on *Visions and Perspectives on Education for Sustainable Development*** with Rosa Wolpert (UNESCO), Alicia Jiménez (International Earth Charter Secretariat), and Tania Alonso (Universidad Complutense de Madrid). **The event registered 43,761 connection points.**
- **Master conference on *Opportunities and Challenges of Implementing Education for Sustainable Development in Universities***, given by Alexander Leicht, head of the UNESCO Education Sector for Sustainable Development de la UNESCO. **The event registered 34,649 connection points.**

## ACTIONS:

### Training

- **Training Workshop: Education for Sustainable Development**, directed by Luis Ricardo Fernández, the sustainability coordinator of Tecnológico de Monterrey, in conjunction with UNESCO Mexico and teachers from Georgia Institute of Technology. The workshop was given to 49 teachers.

#CIETec2021

**EDUCAR PARA EL DESARROLLO SOSTENIBLE**

**JUEVES 16 DE DICIEMBRE 16:00-19:00 H (CST)**

IMPARTIDO POR:

- Adolfo Rodríguez Guerrero, UNESCO México
- Rebecca Watts Hull, Jennifer Hirsch, Ravi Subramanian y Jennifer Leavey, Georgia Institute of Technology
- Luis Fernández Carril, Tecnológico de Monterrey

¡Participa! [www.ciie.itesm.mx](http://www.ciie.itesm.mx)

Número limitado de BECAS, escribe a [lfernandezcarril@tec.mx](mailto:lfernandezcarril@tec.mx)

PLAN DE SOSTENIBILIDAD Y CAMBIO CLIMÁTICO 2025

EDUCACIÓN

Tecnológico de Monterrey | CIIE CONGRESO INTERNACIONAL DE INNOVACIÓN EDUCATIVA | Institute for the Future of Education | unesco | GT | Serve-Learn-Sustain

**CADI: Enseñar para el Desarrollo Sostenible**

- Alicia Jiménez, Centro Carta de la Tierra de Educación para el Desarrollo Sostenible
- Adolfo Rodríguez Guerrero, UNESCO México
- Luis Fernández Carril, Tecnológico de Monterrey

3 y 4 de febrero de 2022

**SUSTAINABLE DEVELOPMENT GOALS**

The SDG Initiative at Tec de Monterrey's School of Social Science and Government designed and directed from February 1-4, 2022, a disciplinary update (CADI) called "**Facing the Climate Crisis in Universities**" to provide training on climate change and the challenges and solutions that universities visualize. **The participants were 29 teachers and 10 instructors from Mexican and international organizations linked to the climate agenda**, including the World Resources Institute (WRI) and the World Wildlife Fund (WWF).

## ACTIONS:

The SDG Initiative at Tec de Monterrey, in collaboration with "La Tríada" universities, also offered a CADI course (disciplinary update) on education for sustainable development. The goal was for teachers to become familiar with SDGs and their connection with Tec de Monterrey's academic programs and contents, and to identify possible strategies to integrate SDGs into university teaching. **The course was given twice, on January 19-20 and June 29-30, 2021. In total, 68 teachers participated.**

**In the 2022-2023 academic year, progress will continue to be made on pilot programs.** Their content will serve to strengthen the design of the curriculum inclusion strategy in upcoming academic years.

We also continue to advance toward specific goals related to training, evaluation, and certification processes.

"La Tríada" is a consortium of three Latin American universities: Universidad de Los Andes in Colombia, Pontificia Universidad Católica in Chile, and Tecnológico de Monterrey.

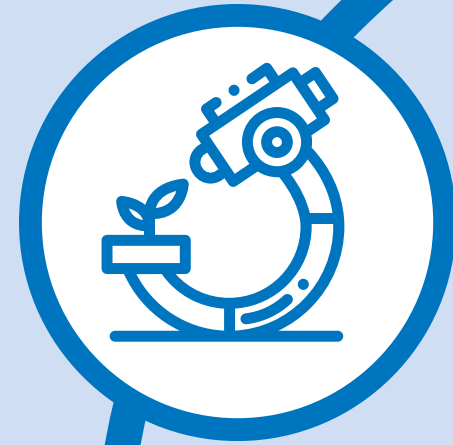
**LA TRÍADA**  
UNA ALIANZA EN LA EDUCACIÓN  
SUPERIOR Y LA INVESTIGACIÓN PARA  
LA PROSPERIDAD DE AMÉRICA LATINA



# AREA 5 RESEARCH

## MISSION:

To promote interdisciplinary research in order to provide systemic solutions that address the complexity of climate change and favor sustainable development.



## Goals for 2025:

To create a fund to promote interdisciplinary research in sustainability and climate change.

To make our campuses **living labs** for research.



Students in laboratory

# RESEARCH

For decades, sustainability has been a highly relevant topic for research at our institution. The *Sustainability and Climate Change Plan 2025* hopes to **convert research into action**, using research to innovate processes and solutions that promote sustainability, and applying research on campuses so that they serve as living laboratories.

To reach these goals, our first step is to **focus on articulating and strengthening projects that arise from our research**. The Vice President of Research and the National Schools have implemented numerous research institutes and strategic focus groups (GIEE) related to climate change and sustainability.

Outstanding GIEE include:

- Conscious Business Center
- Water Center for Latin America and the Caribbean
- Water Science and Technology
- Economic and Environmental Development
- Sustainable Territorial Development

- Energy and Climate Change
- Ethics and Human Flourishing, Sustainability and Anthropocene subgroup
- Social Innovation

Below is a listing of some of the initiatives and research projects related to environmental topics that have been promoted:

## **IN THE SCHOOL OF HUMANITIES AND EDUCATION:**

**Index of Sustainability Culture:** An instrument to measure the institution's visions, values, attitudes, and behaviors related to sustainability (detailed in Culture area).

**Education for Sustainable Development:** Training for teachers and citizen laboratory. Project centered on developing communities and constructing a culture of participation through a citizen laboratory, which promotes cultural transformation and solutions for problems related to sustainable development (prototypes).

# RESEARCH

## SCHOOL OF ENGINEERING AND SCIENCE:

**MARTEC Project:** To monitor COVID-19 cases or outbreaks, samples of wastewater from campuses are analyzed to detect viral particles and determine the level of existing risk.



Wastewater monitoring project (MARTEC), Monterrey Campus

**Campus City:** To encourage teachers and students to use their campus and neighboring communities as living laboratories for developing, implementing, and testing their innovations; and to prove that innovations contribute to creating more intelligent societies through technology that offers sustainable solutions.

**Tec-Fundación FEMSA Off-Grid Program:** To make Parking Lot 2 (E2) on Monterrey Campus a net-zero living laboratory.

## BUSINESS SCHOOL AND EGADE BUSINESS SCHOOL:

**International Research: The Role of Latin America's Institutions of Higher Education in Education and Training in Business and Impact Investing:**

A project organized by Tecnológico de Monterrey (Mexico) in conjunction with Sistema B Internacional and Academia B, under the auspices of the Canadian government's International Development Research Centre (IDRC) and in collaboration with Universidad de los Andes (Colombia) and Universidad Continental (Peru). Goal: to analyze the role of higher education institutions in Latin America in terms of their experience in promoting programs and their initiatives related to entrepreneurship, social innovation, and impact investing.



## RESEARCH

***Sustainable Wealth Creation based on Disruptive Innovation and Enabling Technologies (SWIT):*** An initiative based on a systemic model that proposes solutions to problems of extreme social inequality, environmental deterioration, and concentration of economic wealth; in general, the initiative addresses issues of poor sustainable wellbeing and low prosperity in emerging and developing economies.

### **SCHOOL OF SOCIAL SCIENCE AND GOVERNMENT:**

***System of Metropolitan Urban Information, ZM Monterrey Case (SIUM-Mty):*** A digital platform for telling the story of the city's urbanization process based on data, empirical evidence, and spatial analysis, in order to generate a collective community discussion on citizens' visions for the future of Monterrey and its metropolitan area.

***Decarbonization in Latin America and the Caribbean:*** A project that describes decision making under deep uncertainty (DMDU), an approach used to estimate the costs and benefits of multisectoral LTS (long-term decarbonization strategies) for 26 Latin American countries.

***Legislative Agenda 2030:*** A program that mainstreams the perspective of sustainability in the framework of national legislation with a view to 2030. To promote legislative reforms in the 64th and future legislatures, the program identifies areas of opportunity in Mexico's federal legislation in line with the principles of the United Nation's 2030 Agenda and its 17 sustainable development goals.

### **SCHOOL OF ARCHITECTURE, ART, AND DESIGN:**

***Vulnerable Socio-eco Tones:*** A research project focused on studying the territorial phenomena related to social and environmental vulnerabilities, with an emphasis on the relations among dimensions and the implications for urban architecture.

***Biosphere Schools. Spaces for Learning and Reconnecting with Nature in Emerging Natural Environments:*** A project centered on developing environmental sensitivity and awareness for designing regenerative cultures that recover, restore, and balance ecosystem biodiversity, with a positive impact.

# RESEARCH

## SCHOOL OF MEDICINE:

*A systems approach to study obesity and diabetes mellitus in four of Mexico's geographical and cultural niches: rural and urban indigenous communities and rural and urban mestizo communities:* A line of health research that addresses the social problems of vulnerable populations with limited access to health systems.

*Metabolomics of Environmental Pollutants:* A line of research on environmental pollutants in the blood, based on clinical metabolomics.

In addition to the research carried out in the above schools, an outstanding achievement was the creation of the Institute of Advanced Materials for Sustainable Manufacturing in 2022. The Institute will collaborate with Massachusetts Institute of Technology (MIT), University of California, Berkeley,

and Southwest Research Institute (SWRI) in San Antonio, Texas, to work toward the following goals:

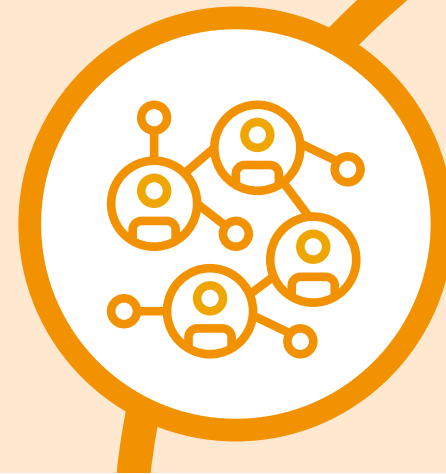
- The development and creation of advanced materials for sustainable manufacturing, to contribute to a carbon-neutral economy
- The accelerated development of materials
- Competitive intelligence and public policy for sustainable manufacturing
- Manufacturing processes for advanced materials
- Assistive technologies for advanced materials

Another part of the plan is to **issue in 2022 a call for projects with the Interdisciplinary Climate Change Research Fund**, to support applied research programs that offer practical solutions to urgent problems in climate change, and that use our campuses as living laboratories.

# AREA 6 OUTREACH

## MISSION:

To catalyze climate action in society as a whole.



## Goal for 2025:

To be a leading actor in mobilizing climate action in Mexico.

To reach this goal, we are working simultaneously in four areas: **Alliances and Networks, Education, Outreach, and Intersectoral and Interdisciplinary Projects.**



From left to right: Miguel Ruiz-Cabañas, Inés Sáenz, Patricia Espinosa, and Cynthia Villarreal

# NATIONAL AND INTERNATIONAL ALLIANCES AND NETWORKS

## MISSION:

To promote participation in national and international alliances that favor climate action.

## GOAL:

To participate actively in national and international networks that let us **connect, share, and learn from actors who work in climate action for society as a whole.**

## ACTIONS:

We participate actively in the following alliances, playing a strategic role in **proposing and implementing initiatives:**

- Alliance for Climate Action Mexico (ACA-MX), part of WWF global initiative
- University Climate Change Coalition (UC3), initiative of Second Nature
- International Sustainable Campus Network (ISCN)
- University Global Coalition (UGC)
- Sustainable Development Solutions Network (SDSN).

We also form part of various national and international commitments, initiatives, and forums:



# NATIONAL AND INTERNATIONAL ALLIANCES AND NETWORKS

## Hamburg Declaration

On June 4, 2021, with forty-five universities from twenty-seven nations, we signed the Hamburg Declaration of **Facing the Grand Challenges of Climate Change and Sustainability**, at the Global University Leaders Council 2021 in Germany.

On signing the declaration, we committed to making ongoing reductions of our institution's ecological footprint, to promoting curricular inclusion and research on sustainability and climate change, and to forging links with diverse communities to support continuous mitigation of climate change.



The image shows a digital representation of the Hamburg Declaration document and a news article snippet. The document is titled "The Hamburg Declaration 'Facing the Grand Challenges of Climate Change and Sustainability'" and includes the Spanish translation "Declaración de Hamburgo 'Afrontar los grandes retos del cambio climático y la sostenibilidad'". It features logos for GUC Hamburg, Tecnológico de Monterrey, HEK German Rectors' Conference, Körber Stiftung, and Universität Hamburg. The news article below the document is titled "Sustainability! Tec signs global agreement to look after the planet" and includes a sub-headline: "The Tec and the world's leading universities have signed the Hamburg Declaration of 2021, reaffirming their commitment to taking sustainable actions." The article is attributed to Ricardo Treviño from Conecta National News Desk, dated 06/22/2021.

## NATIONAL AND INTERNATIONAL ALLIANCES AND NETWORKS

### RACE TO ZERO

#### Race to Zero

Race to Zero (RTZ) is a global campaign backed by the United Nations to join and strengthen the efforts of thousands of organizations, financial institutions, investors, universities, and municipal and state governments in **attaining a carbon-neutral future.**

As part of the campaign, we have undertaken the following actions:

- In 2019, we set the goal of reaching carbon neutrality by 2040, under the Paris Agreement. **We were one of the first organizations in Mexico to make this commitment.**
- As a member of ACA-MX, our institution is an accelerator of RTZ. In this role, **we support fourteen municipalities in Monterrey's metropolitan area and four Mexican universities in adhering to the initiative;** we also invited the Nuevo León state government to participate and are assisting in its inclusion.
- At the 2022 board meeting of Tecnológico de Monterrey, we invited board members to involve their companies and organizations in RTZ.



Photograph from the official website of the Nuevo León state government; to read the article, click [here](#).

- At the present time, we are working on increasing intersectoral and interinstitutional collaboration to carry out initiatives in education, research, mobilization, and impact for climate action. We have set the following goals for 2025:
- To formalize the commitment to **attain carbon neutrality by 2050 in the metropolitan area of Monterrey**, in conjunction with the Monterrey metropolitan collaboration board.
- To promote **the creation of a Metropolitan Climate Action Plan** that includes the necessary actions to reach carbon neutrality, along with the Government of the State of Nuevo León, the local governments of the municipalities of the Monterrey Metropolitan Area, the British Embassy, Iniciativa Climática de México and other non governmental organizations.
- To add more local and national actors to the RTZ initiative.

## NATIONAL AND INTERNATIONAL ALLIANCES AND NETWORKS

### Conference of the Parties, United Nations Climate Change Conference (COP26)

In November of 2021, we presented our Sustainability and Climate Change Plan 2025 as a Mexican university and member of the Alliance for Climate Action Mexico. Our commitment is to reach carbon neutrality in the Race to Zero initiative.

Our goal in participating in COP26 was to be a catalyzing university in global climate action.

In preparation for COP26, held in Glasgow, Scotland, Tec's SDG Initiative organized a webinar on May 18, 2021, with the convention's executive secretary, Patricia Espinosa Cantellano, who spoke to students and teachers from Tec de Monterrey and other universities about COP26 perspectives. A related event was carried out with the Italian Embassy in Mexico on youth participation in COP26.



## NATIONAL AND INTERNATIONAL ALLIANCES AND NETWORKS

As an active participant in this forum, our achievements were:

- **To observe the negotiations** and hear the positions of other voices.
- To receive information on the state of the art of projects dealing with cities and universities, climate financing, sustainable mobility, and the relationship between gender equality and climate change.
- **To connect directly with other local, national, and international actors** to create opportunities for collaborative climate action, including the Alliance for Climate Action in Argentina, Chile, and the United States, the governments of the city of Monterrey and the state of Jalisco, World Resources Institute (WRI), Second Nature, and Glasgow School of Arts.
- Subsequent to COP26, the Tec's SDG Initiative held a webinar with Tecnológico de Monterrey directors to report on the COP26 experience, results, and planned future actions.



From left to right: Perla Matínez, Cynthia Villarreal, Donaldo Colosio, and Inés Sáenz

To increase our participation in COP27 through more collaborative climate action projects, we have joined a working group in University Climate Change Coalition (UC3), a network of twenty-three of the world's leading research universities.



# NATIONAL AND INTERNATIONAL ALLIANCES AND NETWORKS

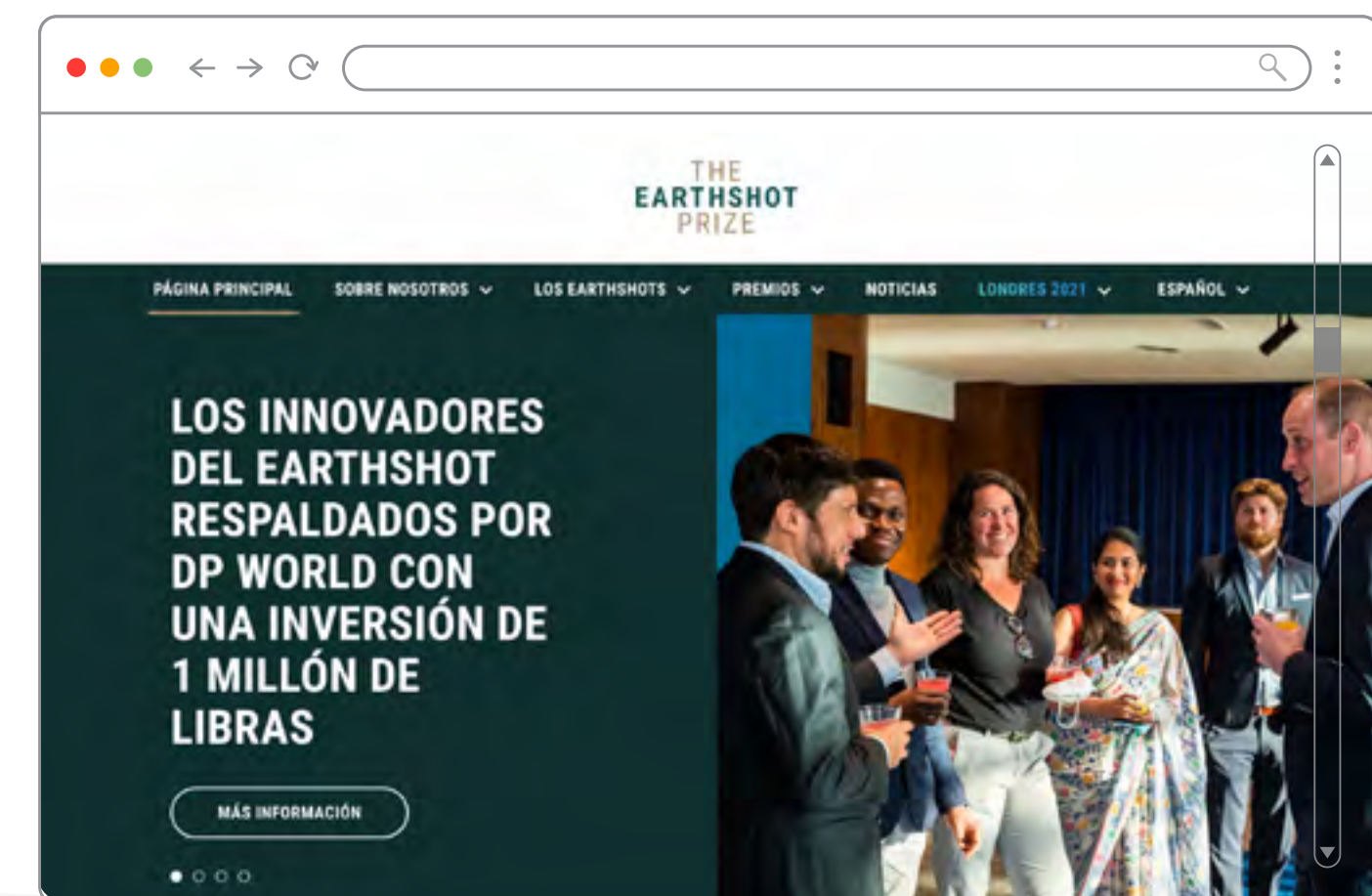
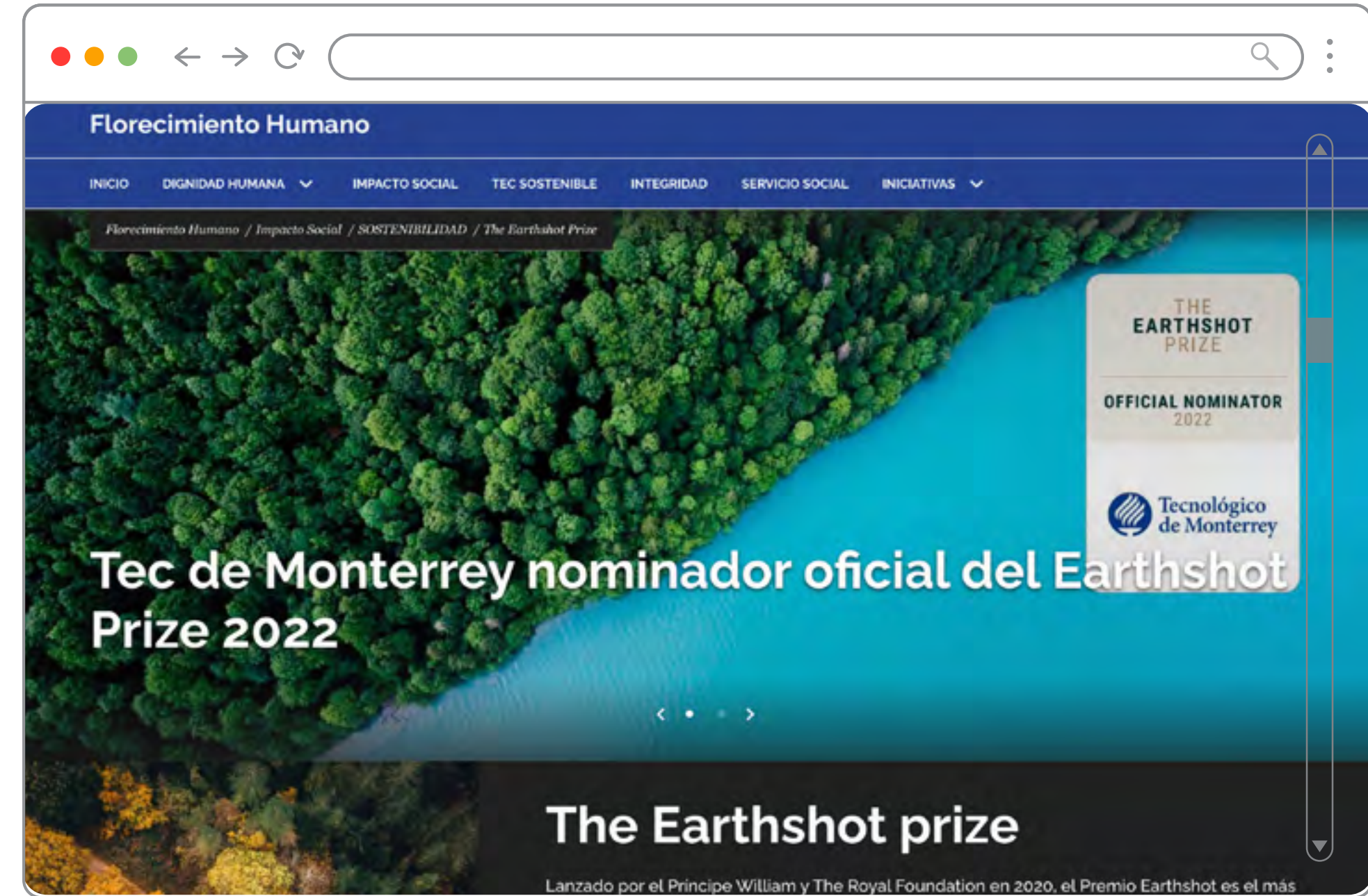
## *The Earthshot Prize 2021 and 2022*

On the invitation of The Royal Foundation of the Prince and Princess of Wales, we were selected as a Nominator for The Earthshot Prize, the world's most prestigious environmental prize.



The prize grants a total of five million pounds to the most innovative and disruptive environmental initiatives in five categories: **Protect and Restore Nature, Clean Our Air, Revive Our Oceans, Build a Waste-free World, and Fix Our Climate.**

As a Nominator, for the second consecutive year we made a call for initiatives, in which more than forty projects from Mexico and other countries participated. At the end of the process, we sent the organizing committee a list of five nominations, which included students, members of civil society, and researchers. **The results will be announced in October of 2022.**



## NATIONAL AND INTERNATIONAL ALLIANCES AND NETWORKS

### Working Group with the University of San Diego

Tec's SDG Initiative participated in a working group with the University of San Diego, along with experts from Mexico and the United States, in analyzing both countries' actions and areas of opportunity in climate change, mitigation, and adaptation. The group's report will be presented to authorities from both nations.

### Banorte Sustainability Week

Believing that the financial sector is fundamental for sustainability, we participated in Banorte's Sustainability Week by offering **three conferences on sustainability to an audience of 350 individuals** from Banorte and Tecnológico de Monterrey.



# EDUCATION FOR THE EXTENDED COMMUNITY

### MISSION:

To offer the outside community education in climate change and sustainable development.

### GOAL:

By 2025, to ensure and promote the design and implementation of educational programs to raise the outside community's awareness to climate change, through continuing education, consulting, and volunteer programs.

### ACTIONS:

#### *Life Long Learning Green Academy and Green Academy Webinar Series*

In conjunction with the Vice Rector of Continuing Education, we designed courses and training programs on climate change and sustainable development for the private sector. The contents include the *Lifelong Learning Green Academy*, a comprehensive project aimed at training leaders in sustainability and making the private sector aware of relevant topics, such as identifying climate risks. As part of the initiative, we designed the *Green Academy Webinar Series* to broaden diffusion and discussion of relevant environmental topics. To date, four monthly webinars have been held.



## EDUCATION FOR THE EXTENDED COMMUNITY

### **Climate Governance Courses**

Faced with the need to prepare corporate boards of directors to lead climate agendas, Chapter Zero Mexico, an initiative of the World Economic Forum, and the EGADE Business School joined forces to offer the first climate governance program.

The program will be implemented throughout 2022 and will consist of thirty class hours in three modules. Directed by specialists in climate change and sustainability, the program will feature speakers who are environmental leaders in various fields.



## Voluntariado Tec

### **Volunteer Programs**

In collaboration with our volunteer area, we are working on a strategy that will train Tecnológico de Monterrey employees in climate change and sustainable development so that they can raise awareness among students and teachers at public schools.

### **Webinars from the SDG Initiative at Tec**

On March 22, 2022, the SDG Initiative organized a webinar on corporate roles and challenges in climate change and sustainable development. The participants were representatives from UN Global Compact Mexico, EGADE Business School, Sistema B Mexico, and Indra Sistemas México. On March 29, the SDG Initiative in collaboration with Instituto Matías Romero at Mexico's Secretariat of Foreign Affairs, hosted a virtual seminar on climate governance and challenges for 2030, with participants from Mexico's chancellery.

## OUTREACH

### MISSION:

To involve the Tec community in implementing the *Sustainability and Climate Change Plan 2025*.

### GOAL:

To design processes and mechanisms to **motivate and ensure the Tec community's involvement** in the *Sustainability and Climate Change Plan 2025*.

### ACTIONS:

In January of 2021, we invited interested teachers and employees to participate and contribute to the plan, according to their areas of experience. **To date, we have received responses from 264 individuals.**



We are working on the design of a mechanism to include students in sustainability actions at Tec de Monterrey. To this end, we have implemented the following activities:

- On March 1, 2021, we participated in the FETEC's national meeting at the Monterrey Campus, where we presented the *Sustainability and Climate Change Plan 2025* to student leaders from all Tec de Monterrey campuses. We agreed that they would work on their campuses to promote sustainable practices and establish communication channels among students and the plan's leaders.

We continue working so that students, employees, and teachers have the opportunity to participate in developing environmental actions, since active participation by all is vital for advancing toward our 2025 goals.

## INTERSECTORAL AND INTERDISCIPLINARY PROJECTS

### MISSION:

To implement collaborative climate actions that result in projects related to climate change.

### GOAL:

To create mechanisms to promote the cooperative design of climate solutions in close collaboration with civil organizations, the private and public sectors, and Tec and alumni communities.

### ACTIONS:

**Implementing an inclusive recycling model in the Campana-Altamira and DistritoTec interinstitutional initiatives.**

We began a pilot program aimed at designing, building, and implementing an inclusive recycling model to organize and formalize the work of an



urban recycling community in Monterrey's Campana-Altamira district. In cooperation with allied organizations, actions have included training, work at Arroyo Seco, the creation of public policy, collaborations with key actors, and the remodeling of the Monterrey Campus recycling center.

## INTERSECTORAL AND INTERDISCIPLINARY PROJECTS

Co-created with WWF Mexico, la Sociedad Sostenible AC: SOSAC, and our allies at Alliance for Climate Action in the Monterrey Metropolitan Area, this project won the Marine Debris Program Award from the United States' National Atmospheric and Oceanic Administration (NOAA). The project was funded by NOAA, FEMSA, and Tecnológico de Monterrey, and implemented by DistritoTec with the participation of the governments of Monterrey and the state of Nuevo León.



**From the 2022-2023 academic year until 2025, our focus will be on:**

- Continuing to participate actively in national and international networks and alliances that promote and make progress in climate action.
- Promoting the national interuniversity climate change network, in order to join forces and meet Mexico's commitments under the Paris Agreement.
- In cooperation with the public sector, working toward the goal of codesigning public policies and legislation aimed at sustainable development.
- Developing climate consulting services in conjunction with the private sector.

One year ago, we launched the *Sustainability and Climate Change Plan 2025*. Having activated a plan that would lead Tecnológico de Monterrey to sustainability filled us with happiness yet paradoxically, with uncertainty about the path we would need to follow to attain our goals.

A sense of urgency and the need for transformation have been our motivation, in spite of our not knowing the implications of attempting to move an entire institution. What we did know was that we would be required to make pressing changes and cede to certain ideas and habits, as we looked for new strategies to confront our planet's climate emergency.

We have strengthened the design of the plan—a living document—and have reflected our progress in its goals. We celebrate achievements under the plan, while still reflecting on its teachings during this first year. The most important lesson may be the importance of recognizing that our commitments for 2025 require collective, systemic efforts that take root in the culture of sustainability.

We extend a permanent invitation to students, teachers, employees, directors, and the neighboring community of Tecnológico de Monterrey to join us in promoting this ongoing change.

**THANK YOU**



The progress we have made this year has been due to the passion, knowledge, and drive of the dedicated individuals who have formed the team that has worked untiringly to inspire and attract more key allies from both within and outside of our institutions.

We have a long road of actions ahead of us to address the climate crisis as 2025 approaches. We envision efforts that are ever more ambitious, innovative, collaborative, and disruptive.

Thank you very much for walking alongside us this year.

We extend our appreciation to the base team, to the vice presidents of Tecnológico de Monterrey, to our guiding group, and to the teams from Operations, Strategic Purchasing, TecFood, TecStore Event @Tec, Training, Tec Volunteers, Students Groups, Student Mentors, FETEC, and SAPREPA. Thank you to all of the participating areas and people not mentioned above. Thank you for contributing your abilities and dedicating your time to climate action.

Our numbers continue to grow, as they should.



**Cynthia Villarreal Muraira**

Director of Sustainable Development and Outreach  
Co-leader of *Sustainability and Climate Change Plan 2025*



**José Antonio Torre Medina**

Director of Urban Planning, Sustainability, and Property  
Co-leader of *Sustainability and Climate Change Plan 2025*



# ruta azul

2025 SUSTAINABILITY AND  
CLIMATE CHANGE PLAN

**The course is set.**

<https://tec.mx/ruta-azul> 