

SUSTAINABLE DEVELOPMENT Initiatives

2020—2021 Report



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The social and economic crises aggravated by the COVID-19 pandemic marked an inflection point in our recent history. They made our human fragility very clear, but also brought lessons of solidarity, collaboration, and the sense of urgency that we can have when our society most requires it.

This report is being published at a time when the health crisis is beginning to decrease, while other crises intensify: the climate crisis, environmental degradation, poverty, inequality, and social polarization

Tecnológico de Monterrey is an institution of society for society. The Tec community has shown its vocation of service throughout the years, built on the ideals of integral education, leadership, entrepreneurship, innovation, and a social vision. This vision has remained in effect for the close to 80 years of Tec's existence.

Today, our Strategic Plan for 2025 encompasses those ideals in seven strategic initiatives. One of them, known as Human Flourishing, aims at conscious individual development to allow self-fulfillment in all spheres of life while exerting a positive influence on society.

This vision has permeated the Tecnológico de Monterrey community, materializing in action and projects of high impact. Many of Tec's initiatives contribute directly to the social and environmental challenges that we face as a society.

The Sustainable Development Initiatives 2020-2021 Report presents 820 projects, activities, and programs that were mapped during the period. All of the initiatives promote or generate social and/or environmental transformation..

- The initiatives have enabled us to contribute to the seventeen Sustainable Development Goals (SDGs) of the United Nations.
- The SDG with most initiatives was the fourth—Quality Education—with 218 initiatives, followed by the third—Good Health and Well-being—with 119 initiatives..
- We identified more than 300 initiatives that contributed to the mitigation of COVID-19 and more than 250 that helped to protect the environment and/or deal with climate change.

The results emphasized in this report include giving more than 530,000 COVID-19 vaccines, planting more than 4,000 trees, and collecting more than eleven tons of trash.

Together, our students, teachers, employees, EXATEC alumni, and allies have made this report possible. They are the individuals who have made our academic institution what it is today, and thanks to their passion and commitment to society, Tecnológico de Monterrey is an active institution in transforming our nation.

We recognize and appreciate the outstanding work done, as only in joint form can we be a true detonator of sustainable development in México.



David Garza
Rector and Executive
President at
Tecnológico de
Monterrey



Introduction

The adoption of the 2030 Agenda of the United Nations, in 2015, provided a framework for redirecting the world's population toward a sustainable, peaceful, prosperous, and egalitarian future. Its seventeen Sustainable Development Goals (SDGs) and 169 targets "which are integrated and indivisible," address the major economic, social, and environmental problems that afflict our world.

Since 2015, citizens, companies, institutions, academia, governments, and international organizations have implemented diverse actions to contribute to the progress of education, social protection, employment opportunities, efforts against climate change, and many other areas.

In particular, universities play a fundamental role in this mission. Through our teaching and research capacities, or our operations, governance, and outside leadership, we are key facilitators in attaining these global objectives.

At Tecnológico de Monterrey, we have assumed this leadership role in each area and level of the institution. Our social action reaches most of México's states, thanks to members of the Tec community (employees, teachers, students, and alumni).

This second *Report on Sustainable Development Initiatives* presents the major results of the mapped activities carried out during the first quarter of 2022. The compilation identified the most relevant projects and programs in which Tecnológico de Monterrey or the members of our community participated: projects and programs that promote or generate social transformation and the sustainable development of individuals and their environment.



This year we made progress in measuring and classifying the results. We identified targets in each SDG and contributed to them through our sustainable development initiatives. We also quantified important variables to determine their impact, including the number of beneficiaries, the number of trees planted, and other variables. Based on the circumstances we experienced in 2020 and 2021, we identified the initiatives that contributed to mitigating the crises of the COVID-19 pandemic and climate change.

We documented 820 initiatives from three of our institutions, taking into account institutional initiatives, academic projects with social significance, social entrepreneurship, research, social service, volunteering, student groups, and EXATEC alumni.



The mapping also allowed us to identify the allies in our efforts—social organizations, governments, companies, educational institutions, among others—and the scope of our alliances. Collaboration with international organizations occurred in almost 200 initiatives.

This report has various purposes. First and foremost, it recognizes and celebrates the actions that the Tec community has carried out in conjunction with our allies. The creativity, dedication, and effort invested have been key ingredients in innovative solutions that contribute to social transformation.

In second place, the report reveals the sustainable development initiatives so that we can continue promoting outreach opportunities that strengthen and broaden the initiatives' scope.







Lastly, we hope that this document will inspire more people, both within and outside of our community, to consider our joint responsibility in creating environments favorable for human flourishing.

Working together, with shared goals and a firm commitment to the common good, will be the way to progress toward a sustainable future and a more fair society.



Results in THE Impact Ranking

This section presents the results we obtained in the fourth edition of the *Times Higher Education (THE) Impact Ranking*¹ in which we are listed in the top three positions in six sustainable development goals.

SDG	Position relative to Latin American universities
 SDG 13: Climate Action	1
 SDG 17: Partnerships for the Goals	1
 SDG 6: Clean Water and Sanitation	2
 SDG 12: Responsible Consumption and Production	2
 SDG 1: No Poverty	3
 SDG 11: Sustainable Cities and Communities	3

These positions reflect our work in research, policies, and institutional programs, as well as the scope of our alliances with actors in society in working toward SDGs. Some of these efforts are detailed in this report.

To learn more about THE Impact Ranking and its methodology, consult [here](#) 

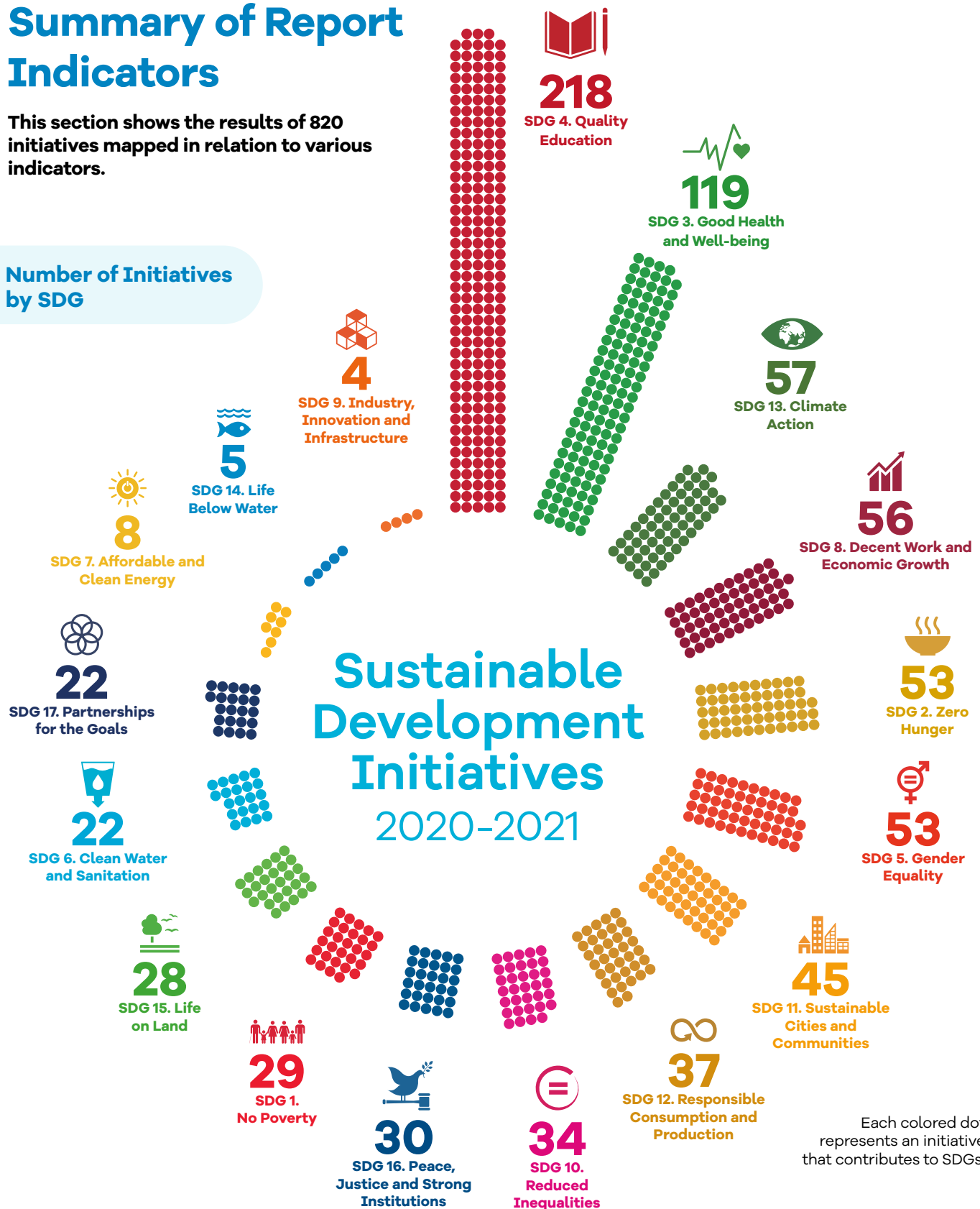
¹ THE Impact Ranking measures the positive impact of universities as they contribute to the seventeen SDGs in their research, use of resources, and their scope of work in conjunction with the community and government. As in previous years, we participated in sixteen of the seventeen SDGs. (The exception is SDG 14: Life below Water, where we have no activity.)



Executive Summary of Report Indicators

This section shows the results of 820 initiatives mapped in relation to various indicators.

Number of Initiatives by SDG



Each colored dot represents an initiative that contributes to SDGs.



Main Indicators of the Initiatives' Results

In 2020 and 2021, **1,055,950 repeat users** consulted our material on education, entrepreneurship, social innovation, and COVID-19.*

In 2020 and 2021, **we benefitted 198,972 people** through training, advising, workshops, conferences, and other actions.*



From May to September 2021, **104,000 people** visited an urban art exhibit on Avenida García Roel.

In 2020-2021, **people from outside of the institution finished 8,074 Coursera courses.**



In 2021, **we gave 539,403 COVID-19 vaccines.**



By 2022, this figure had increased to more than **642,000.**

In 2020, **in conjunction with the public and private sectors, we provided 500,000 medical kits** to 275 hospitals in México's 32 states.



In 2020 and 2021, we offered **64,317 health services**, such as consultations, studies, surgeries, and prostheses, to **29,232 patients.***



Each year **we avoid the use of 845,000 PET bottles**, thanks to the use of drinking fountains on campus.



Following the first year of implementation of Ruta Azul, **63% of the energy used at Tec de Monterrey and TecSalud was from renewable sources.°**

Following the first year of implementation of Ruta Azul, **we reduced our greenhouse gas emissions by 28%** with respect to 2019.°

In 2020-2021, **we delivered 20,891 rations, meals, and grocery packages.**



In 2020 and 2021, **we collected 11,864 kilos of waste.**



In 2020 and 2021, **we planted 4,036 trees and plants.**



In 2020 and 2021, **we benefitted 938 small- and medium-sized businesses (SMEs)** through consulting, marketing plans, advising, and training.*

* Services were provided at low or no cost.

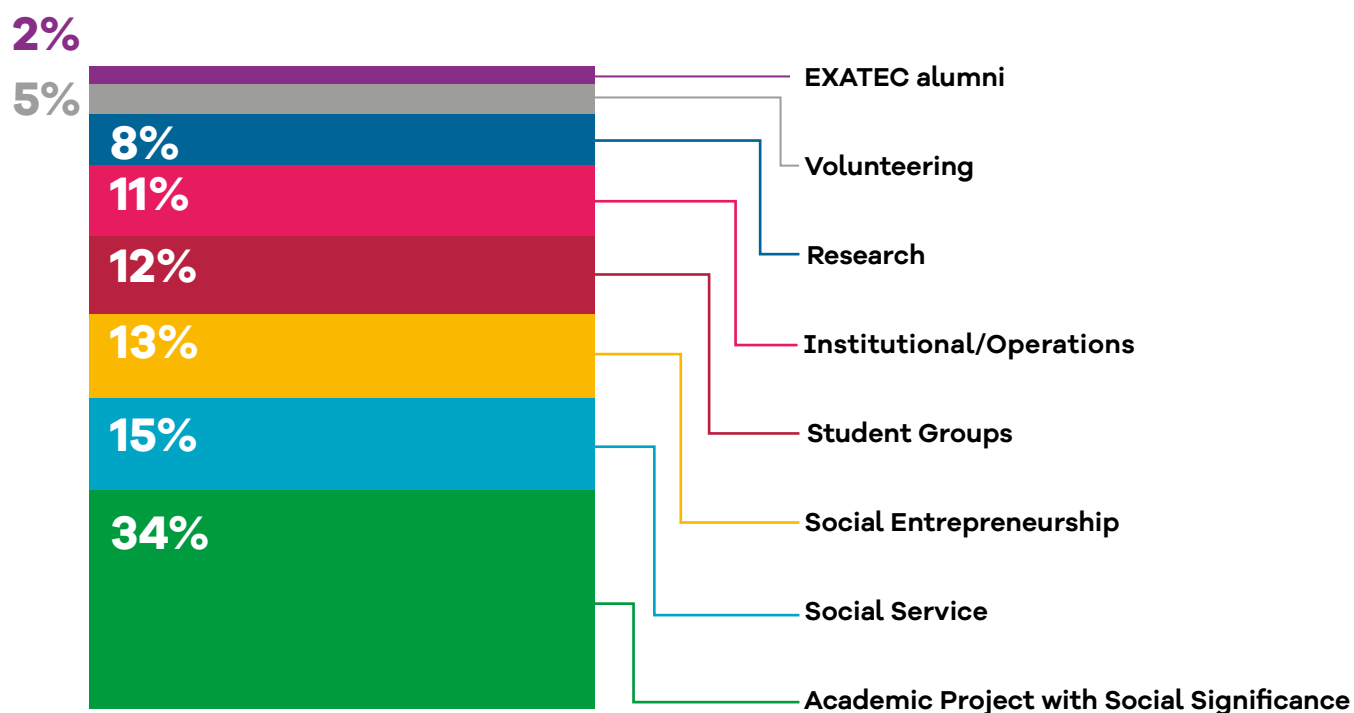
° Indicators as of April 22, 2022, the date of publication of *Ruta Azul Annual Progress Report, Sustainability and Climate Change Plan 2025*.



Number of Initiatives by Area or School



Percentage of Initiatives by Type



Percentage of Initiatives by Type of Leader



37%
Teachers



33%
Employees



20%
Students



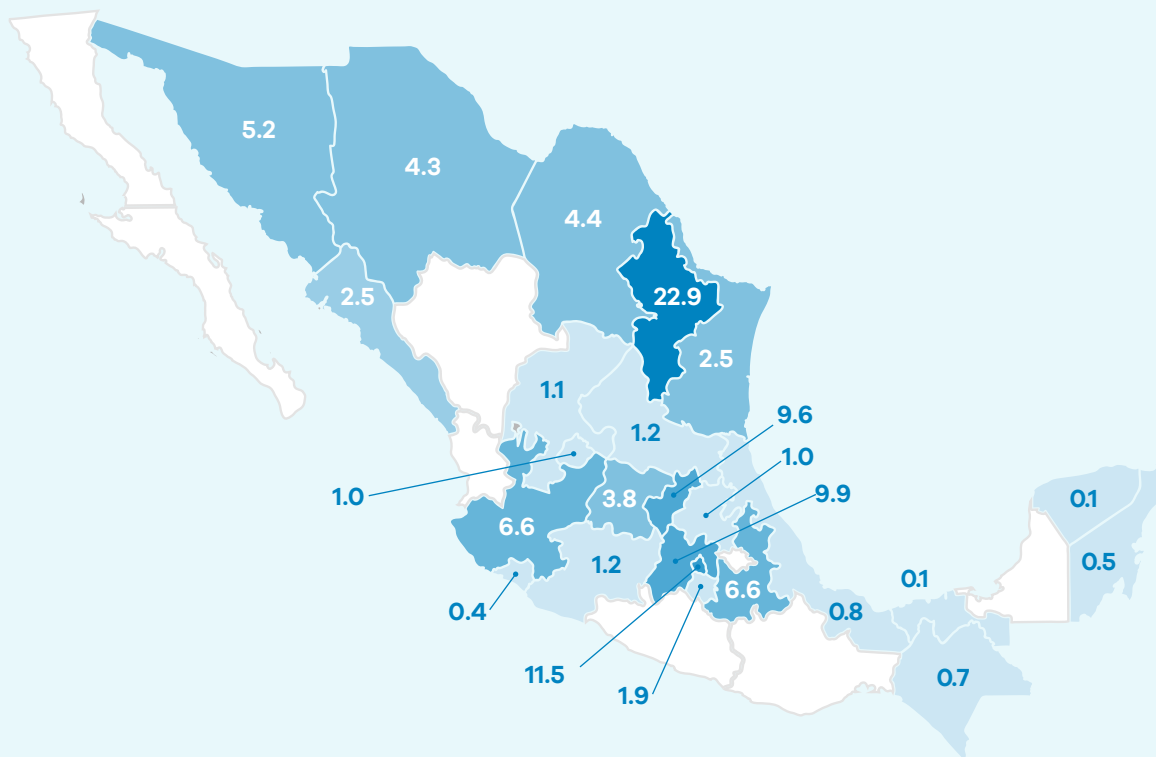
7%
Teacher-
Researchers



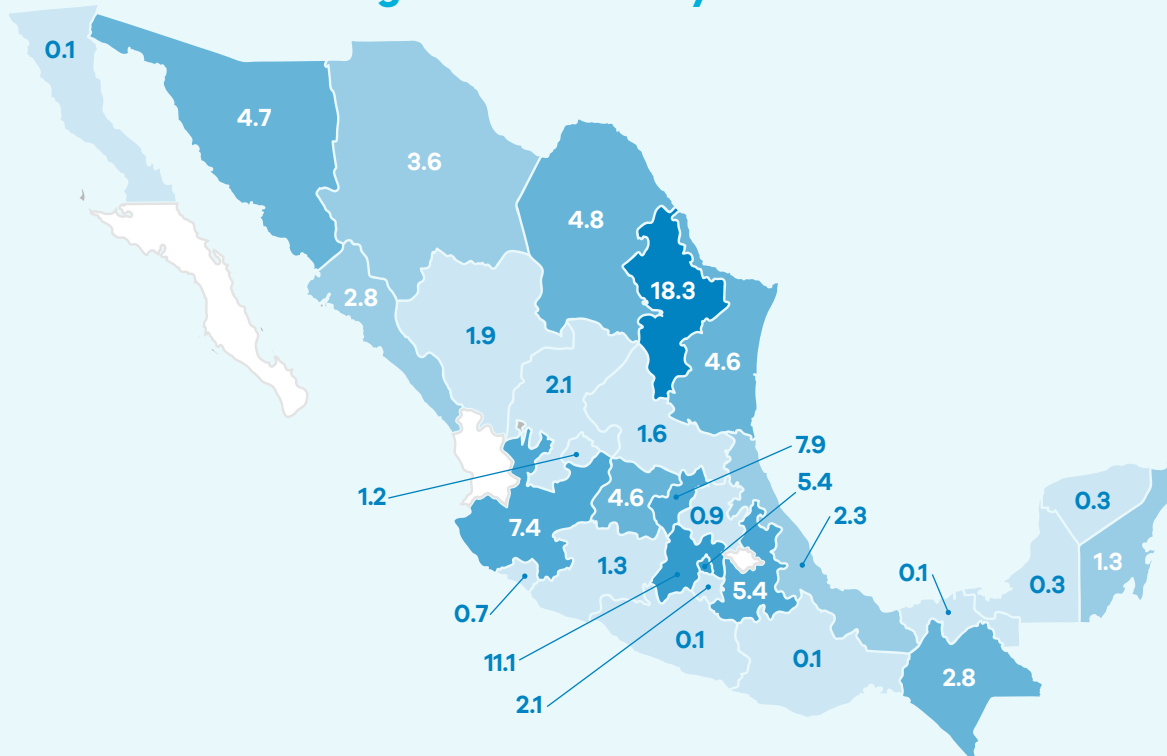
3%
EXATEC Alumni



Percentage of Initiatives by State of Origin*



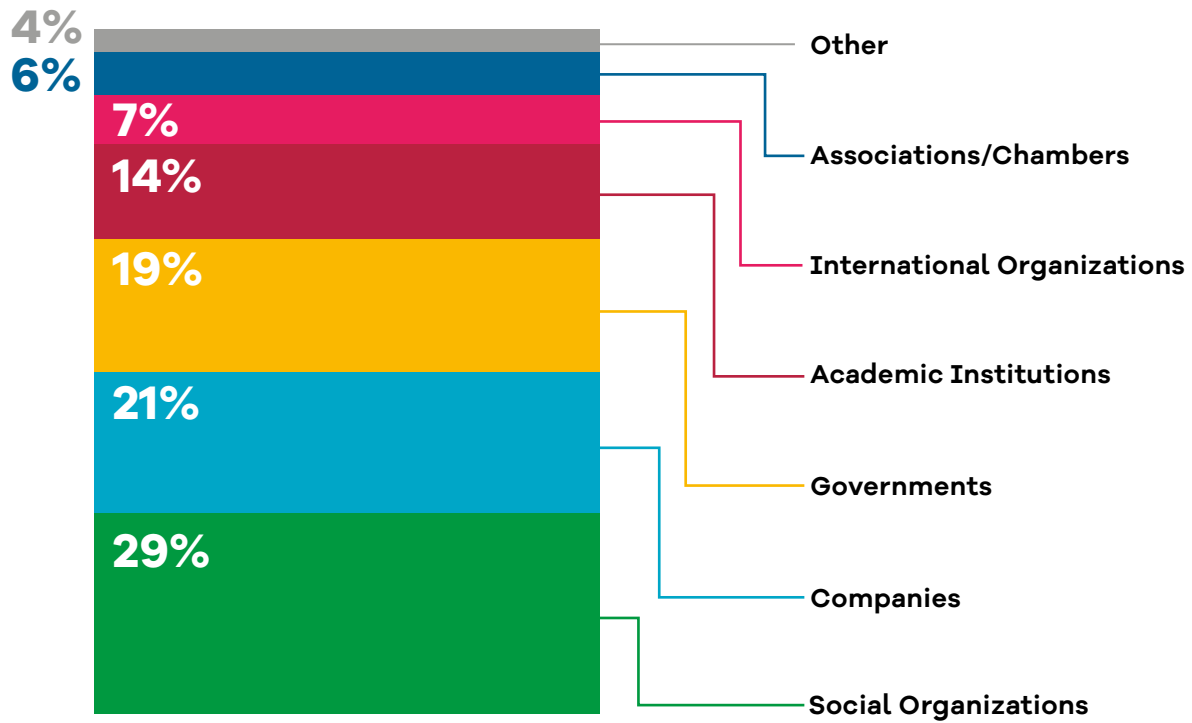
Percentage of Initiatives by State Served*



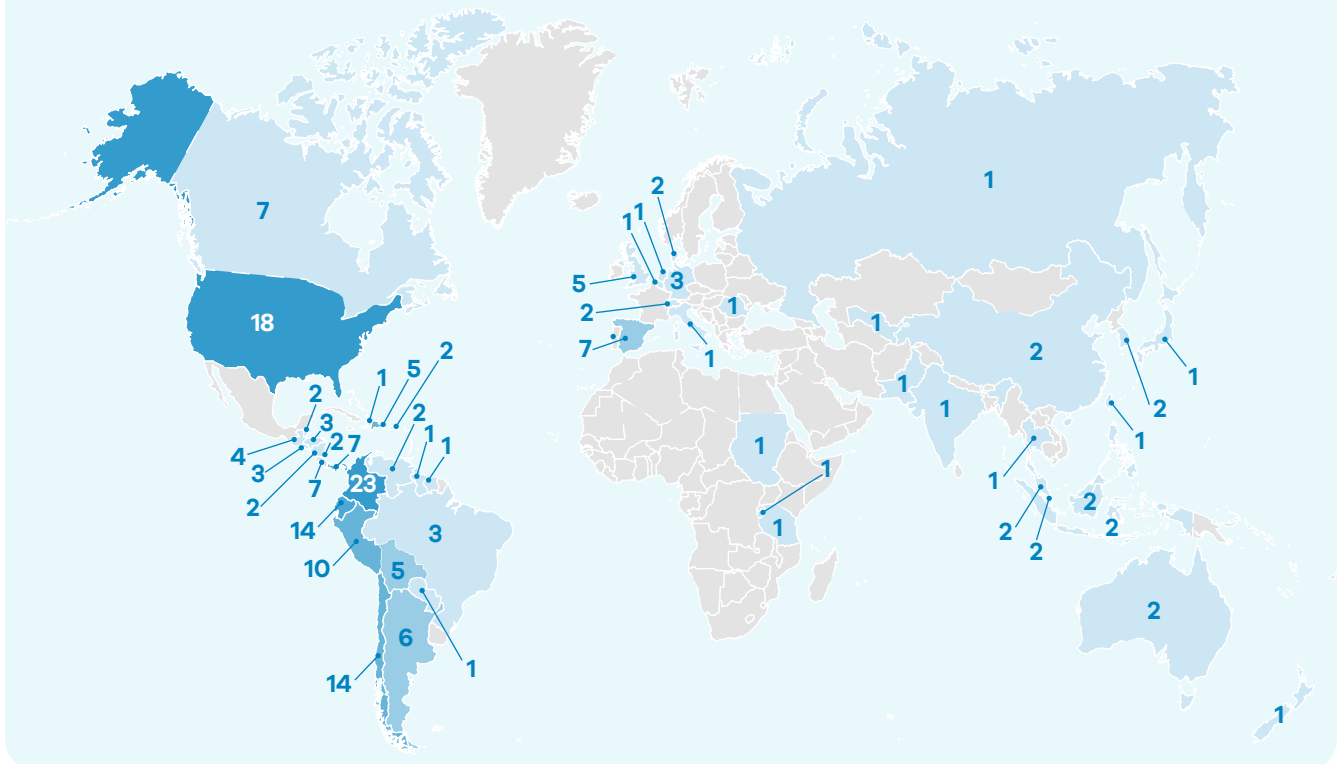
*The numbers on the map represent percentages.



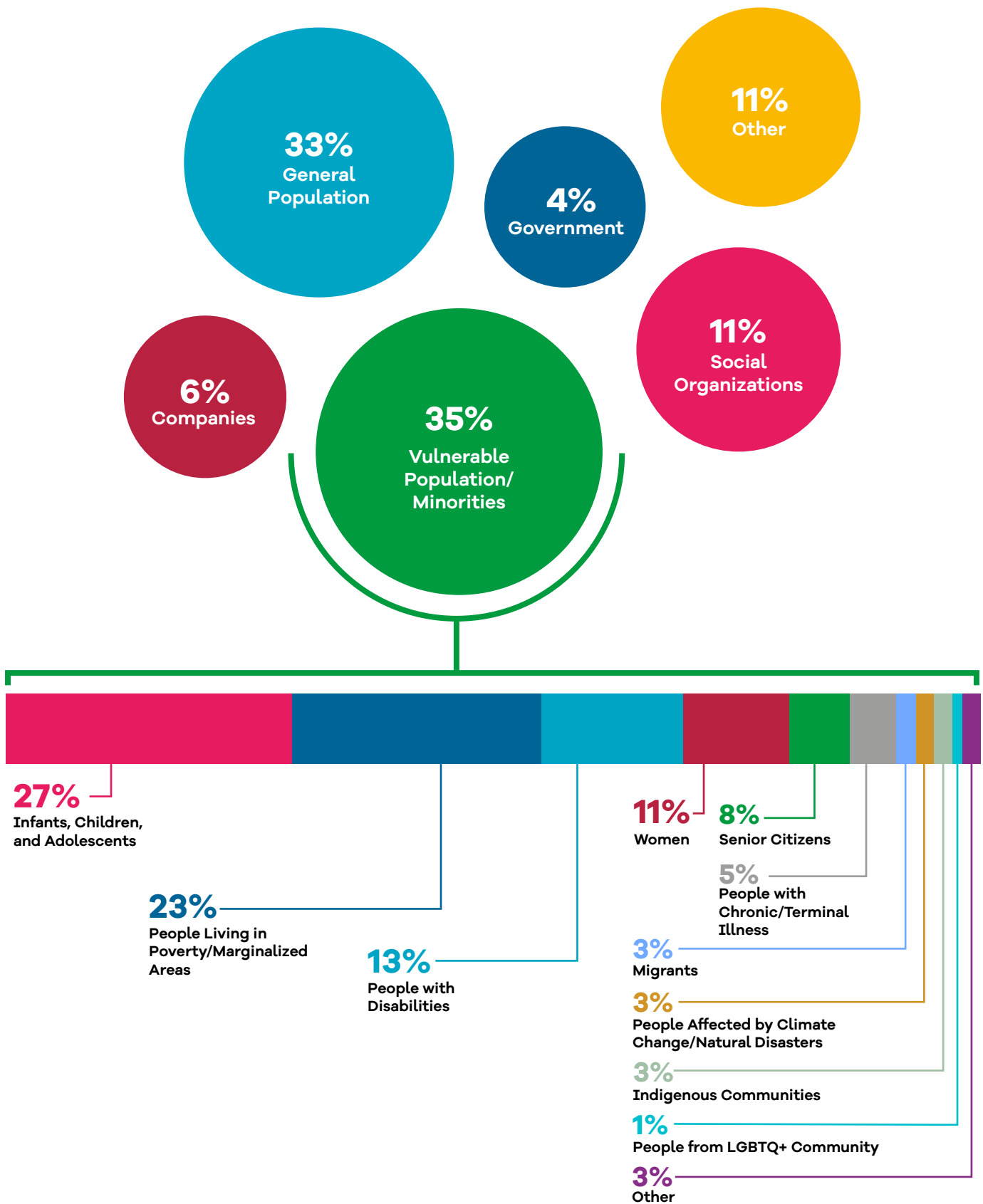
Percentage of Initiatives by Type of External Alliances



Number of Initiatives with Alliances in Other Countries



Percentage of Initiatives by Population Served



1



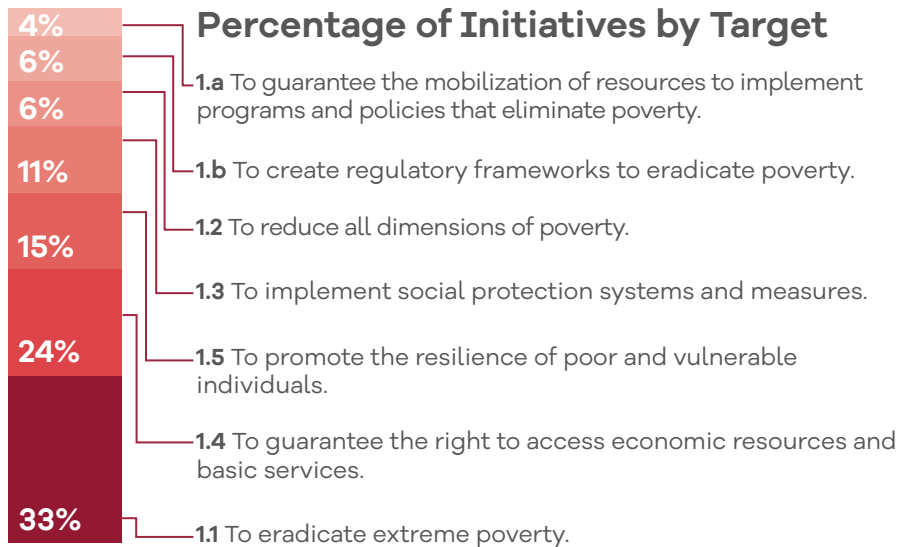
Sustainable Development Goal Addressed

No Poverty



1. No Poverty

29 initiatives



Main Indicators of Results

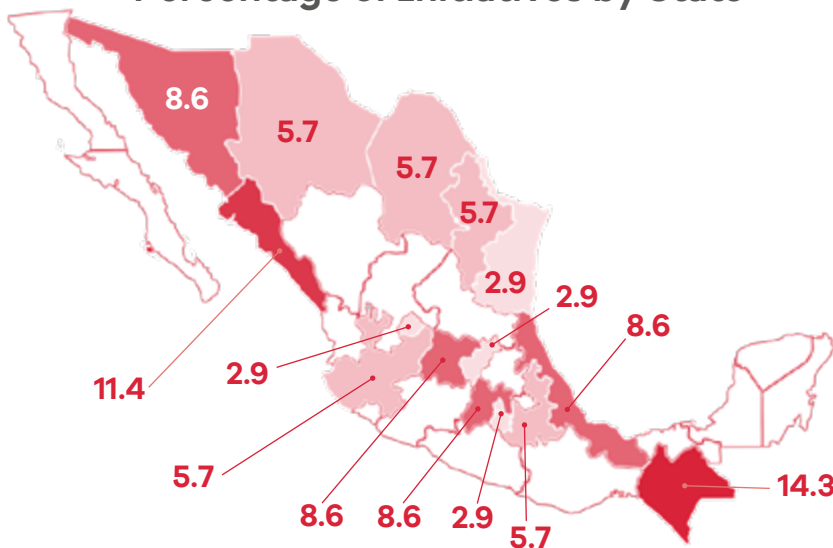


With an impact on approximately (~)

6,000

children, adolescents, teachers, parents, and senior citizens.

Percentage of Initiatives by State*



Percentage of Initiatives by Vulnerable Population

29%

People living in poverty/marginalized areas

12%

Women

10%

Senior citizens

21%

Infants, children, and adolescents

12%

People with disabilities

16%

Other



Percentage of Initiatives Directed by Area or School

24%

PrepaTec

10%

Leadership and Development

28%

Other

17%

Tecmilenio

14%

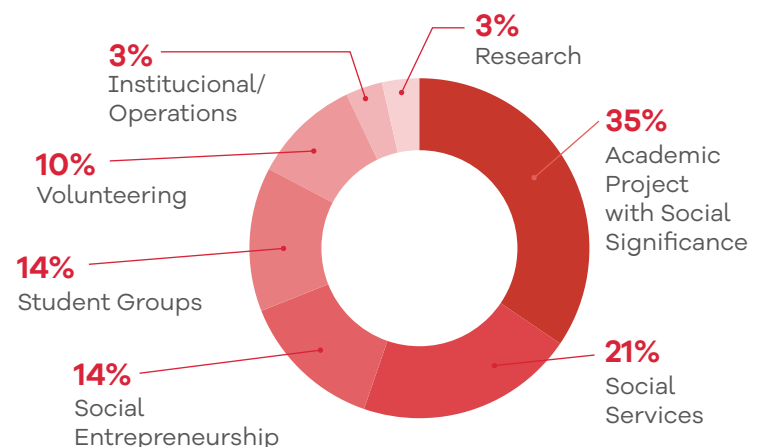
Schools of Social Science and Government

7%

Institute of Entrepreneurship Eugenio Garza Lagüera



Percentage of Initiatives by Type



*The numbers on the map represent percentages.



Campana Altamira Initiative



Since 2015, the government of the state of Nuevo León, the municipality of Monterrey, CEMEX, and Tecnológico de Monterrey have combined forces to “improve the quality of life in a sustainable manner by intervening, activating, and empowering the community [of Campana Altamira] with innovation, co- responsibility, trust, and resilience, and the contribution of abilities, attributions, and resources.”³

In 2020 and 2021, we carried out 183 projects in improving infrastructure and capacities in the community of Altamira. These projects have **impacted** approximately **5,000 individuals**, including children, adolescents, parents, teachers, and senior citizens.

In addition, students, student groups, teachers, and employees at our institution have completed **134 actions and projects in favor of this initiative**.

The most relevant are listed below:

- **Altamira FC:** promotes the culture of sports among preschool and elementary school children.
- **Computers for All:** offers computer classes to young children and senior citizens.
- **My World and I:** offers English classes and tutoring to elementary and junior high school students.
- **Project 99:** takes actions to prevent dropping out of high school.
- **Creating Society:** researches the importance of investing in public spaces in the area to achieve integrated development and well-being.

To learn more about these initiatives, consult our **interactive report**.

Website:

www.inixar.com/u/iniciativa-campana-altamira

Contact: Tania Arrambide Reyna,

tarrambide@tec.mx

National Context:

In 2020, 55.7 million people in México were living in poverty (43.9% of the total population). Of those living in poverty, 44.9 million people (35.4%) were living in moderate poverty and 10.8 million (8.5%) in extreme poverty.²



Type of Initiative:

Institutional, Student Groups, Research and Social Service

Intervening Institutions:



Benefitted Zone:

Campana-Altamira (Nuevo León)



Benefitted Population:

Infants, children, and adolescents; women; migrants; senior citizens; people with disabilities; people with chronic and/or terminal illness; people with addictions; people living in poverty



Participating Areas/Schools:

Operations Office, Leadership and Development, TecSalud, Business School, School of Engineering and Science, School of Architecture, Art, and Design



Campus:

Monterrey



Targets addressed:

1.1, 1.2, 1.3, 1.4, 1.5



Outstanding Participants:

Víctor José González Fregoso, Arturo Zamarrón Rodríguez, and Raquel Méndez Pineda

² CONEVAL. (2020). Pobreza en México.

³ <https://www.coneval.org.mx/Medicion/Paginas/PobrezaInicio.aspx>

³ <https://www.inixar.com/u/iniciativa-campana-altamira>





Closing Gaps: A Digital Inclusion Program



This program aims to bring digital opportunities to the communities in the state of Chiapas that are served by the Center for Social Innovation. The initiative works with community organizations to close the gaps of social exclusion.

During the summer of 2020, with the help of students and teachers, **we worked with six organizations in these regions**, training them in technological skills. We also provided them with identity manuals and supported their continued learning and/or launching of social networks and the design of media campaigns.

Website: www.chs.itesm.mx/experiencia-i/

Contact: Martha Lucía Velázquez Díaz,
martha.velazquez@tec.mx



Participating Areas/Schools:
Operations Office



Campus:
Chiapas



Targets addressed:
1.3, 1.4, 1.5



Outstanding Participants:

José Manuel Islas Pacheco, Manuel de Jesús Villalobos García, Julio Ernesto Rubio Barrios, and Judith Aurora Ruiz Godoy Rivera



Type of Initiative:
Academic Project with Social Significance

Intervening Institutions:



Tecnológico de Monterrey



Benefitted Area:
San Cristóbal de las Casas, San Juan Chamula, La Trinitaria, and Comitán (State of Chiapas)



Benefitted Population:
Women, rural communities/marginalized zones; indigenous communities; and people living in poverty





Reach Alliance–University of Toronto

The Reach Alliance network—founded by the University of Toronto, with collaboration from universities around the world, including Tecnológico de Monterrey—generates information by researching successful programs that have served marginalized populations through innovation and technology. This information can be useful for government and for both private- and public-sector organizations.

At the present time, we are participating in three cases with twelve students and two advisers. One of these cases is in the final stage of research and the other two are beginning.

Website: reachalliance.org/news/case-study/resilience-of-migrant-indigenous-communities-in-mexico/

Contact: Iza María Sánchez Siller,
iza.sanchezsiller@tec.mx



Type of Initiative:
Research

Intervening Institutions:



Benefitted Zone:
México

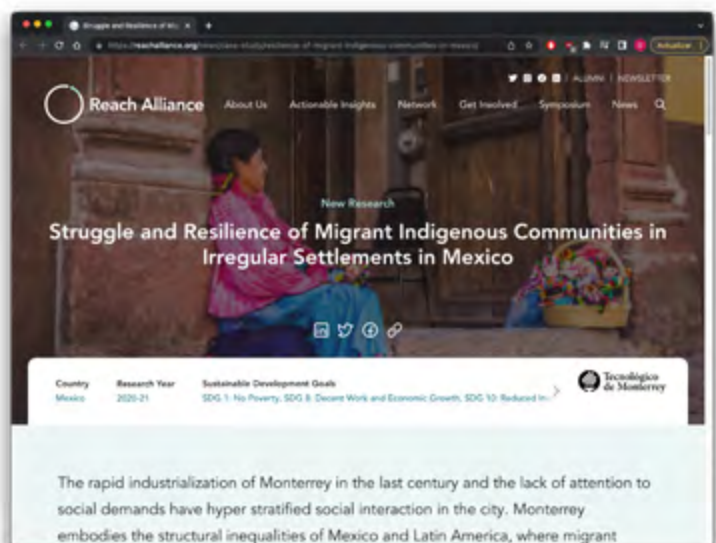


Tecnológico de Monterrey



Benefitted Population:

Rural communities/marginalized zones; indigenous communities; and people living in poverty



Participating Areas/Schools:

School of Government and Public Transformation



Campus:
National



Targets addressed:
1.1, 1.3, 1.4, 1.a



Outstanding Participants

Gustavo Merino, Guillermo Navarro, Lucía Tarriba, Giovanna Villalobos, and Marisa Terán

2



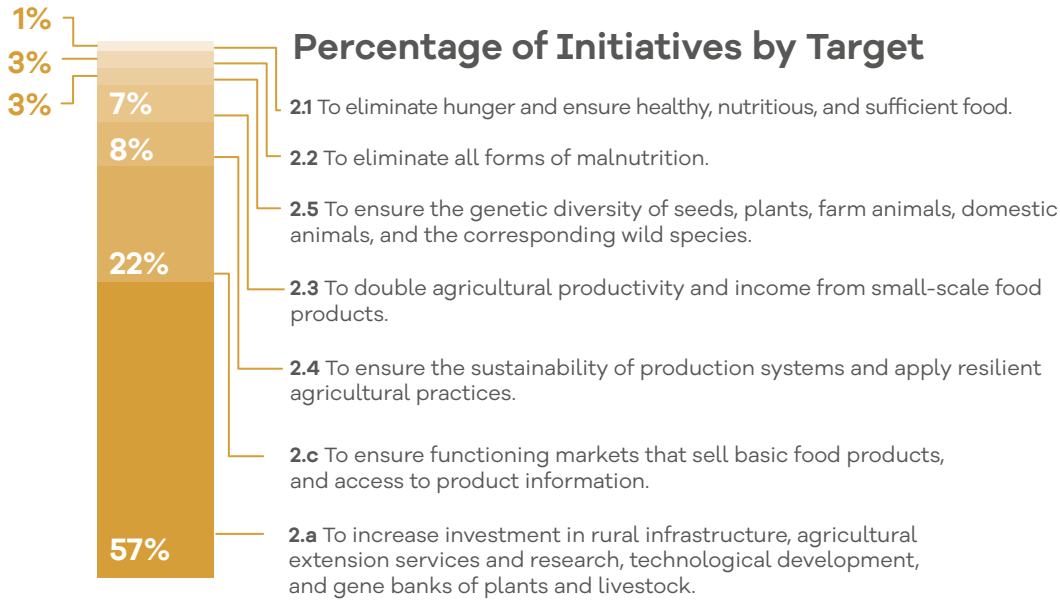
Sustainable Development Goal Addressed

Zero Hunger



2. Zero Hunger

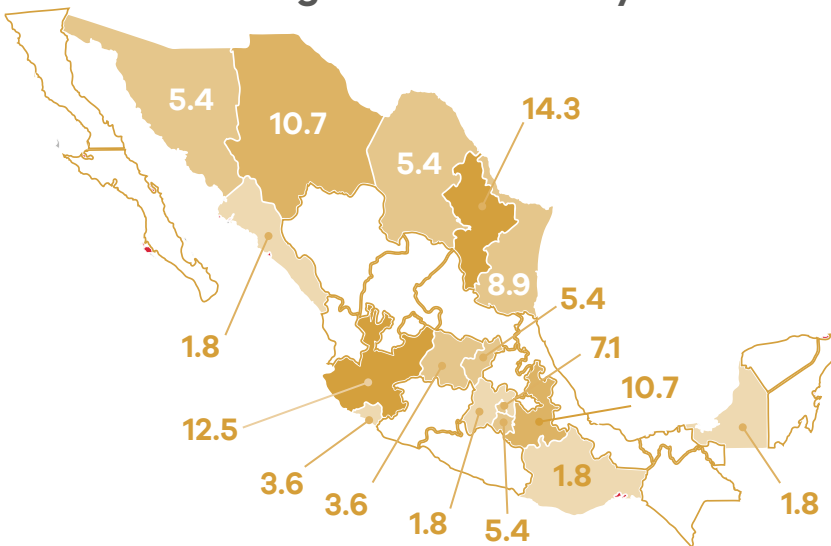
53 Initiatives



Main Indicators of Results

20,000 rations
and **more than 200 meals** delivered
and **3,200 crops** planted.

Percentage of Initiatives by State*



Percentage of Initiatives by Vulnerable Population Served

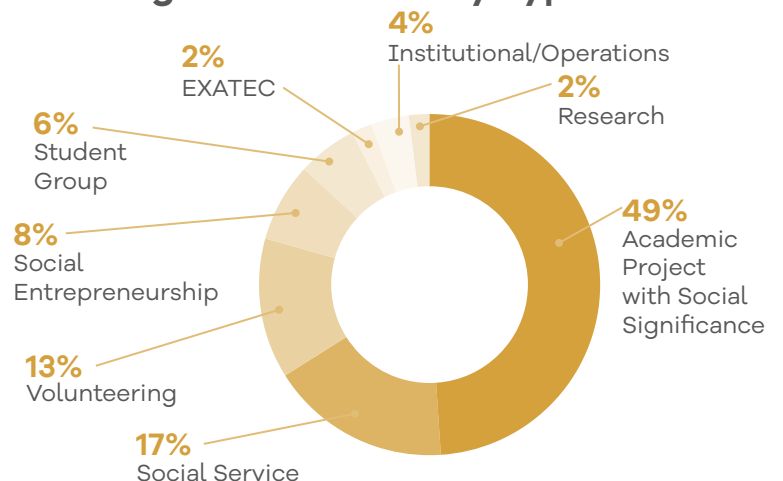
32% People living in poverty/ marginalized zones
26% Infants, children, and adolescents
14% Senior citizens

8% Women
5% People with disabilities
14% Other

Percentage of Initiatives Directed by Area or School

32% Tecmilenio
21% PrepaTec
15% School of Engineering and Science
8% Leadership and Development
6% School of Medicine and Health Science
19% Other

Percentage of Initiatives by Type



*The numbers on the map are percentages.



Zero Hunger Nuevo León

Zero Hunger Nuevo León is an interinstitutional initiative in collaboration with the Food Bank, Cáritas Monterrey, and other universities. Its goal is for the state to be declared México's first state to have a culture of "no food waste," with no food shortages. To do so, food is collected and delivered to marginalized populations in the state. **In 2020, 596 people were benefitted** by food deliveries.

Website: hambreceronl.mx/
Contact: Pablo Ayala Enríquez,
pabloayala@tec.mx



National Context:

According to 2020 data, 22.5% of México's population lacks access to nutritional food of acceptable quality.⁴



Type of Initiative:
Institutional/operations

Intervening Institutions:



Benefitted Zone:
Nuevo León



Tecnológico de Monterrey



Benefitted Population:
People living in poverty



Participating Areas/Schools:
Vice Presidency of Inclusion, Social Impact and Sustainability



Campus:
Monterrey



Targets addressed:
2.1



Outstanding Participants:
Claudia Alejandra Ordaz González, Graciela Caffarel, Nancy Rivas, Rebeca García, Crisantos Manuel Martínez Trujillo, Érika Calles Barrón, Manuel Gómez Candiani, Rodrigo Ponce Díaz, and Yésika Arteaga

⁴ CONEVAL. (2020). *Pobreza en México*.
<https://www.coneval.org.mx/Medicion/Paginas/PobrezaInicio.aspx>



Mobile Teaching Kitchens

During the August-December semester of 2021, undergraduate students in Nutrition and Integral Well-being, with support from NNEdPro Global Centre for Nutrition and Health, México City's public health services, and Guadalajara's Xamixtli community center, developed and implemented **fourteen mobile kitchens**. Their mission is to provide education in nutrition, hygienic and healthy food preparation, and economic food purchasing. The initiative **benefitted 52 people**.

Website:

[sites.google.com/tec.mx/](https://sites.google.com/tec.mx/mobileteachingkitchentecmt/credits?authuser=0)

[mobileteachingkitchentecmt/credits?authuser=0](https://sites.google.com/tec.mx/mobileteachingkitchentecmt/credits?authuser=0)

Contact: María Verónica Flores Bello,

veronica.flr@tec.mx



Participating Areas/Schools:

School of Medicine and Health Science



Campus:

Monterrey, Guadalajara, and México City



Targets addressed:

2.1, 2.2



Outstanding Participants:

Claudia Alejandra Ordaz González, Graciela Caffarel, Nancy Rivas, Rebeca García, Crisantos Manuel Martínez Trujillo, Érika Calles Barrón, Manuel Gómez Candiani, Rodrigo Ponce Díaz, and Yésika Arteaga



Type of Initiative:

Academic project with social significance

Intervening Institutions:



Tecnológico de Monterrey



Benefitted Zone:

Monterrey, Guadalajara, and México City



Benefitted Population:

Women and rural communities/marginalized zones





Two initiatives that promote local consumption and have the following characteristics in common:



**ENVIROMENTAL
Initiative**

**Intervening
Institutions:**



Participating Areas/Schools:
Student Interaction



Targets addressed:
2.1, 2.3

Aranda

This initiative promotes the consumption of fruits and vegetables produced by the local farming community. By the end of 2021, **it had benefitted thirty families** in San Pedro, Cholula, with product deliveries.

Contact:

Samantha Mastachi Torres,

mastachi.Samantha.t@gmail.com



Type of Initiative:
Social Entrepreneurship



Campus:
Puebla



Benefitted Zone:
Cholula (Puebla)



Benefitted Population:
General Population

Rehabilitation of Farming Area and Cultivation of Urban Garden

In collaboration with Instituto Tecnológico de Torreón and Universidad Autónoma Agraria, land was plowed and an irrigation system installed to plant a garden to feed the children at Casa del Niño.

Contact:

Allan Jair de la Cruz González,

al02959440@tecmlenio.mx



Type of Initiative:
Social Service



Campus:
Laguna



Benefitted Zone:
Torreón (Coahuila)



Benefitted Population:
Infants, children, and adolescents



Outstanding Participants:

Javier López Vidal, Jorge Luis Salty Galván, and Guillermo Vitela Cortinas

3



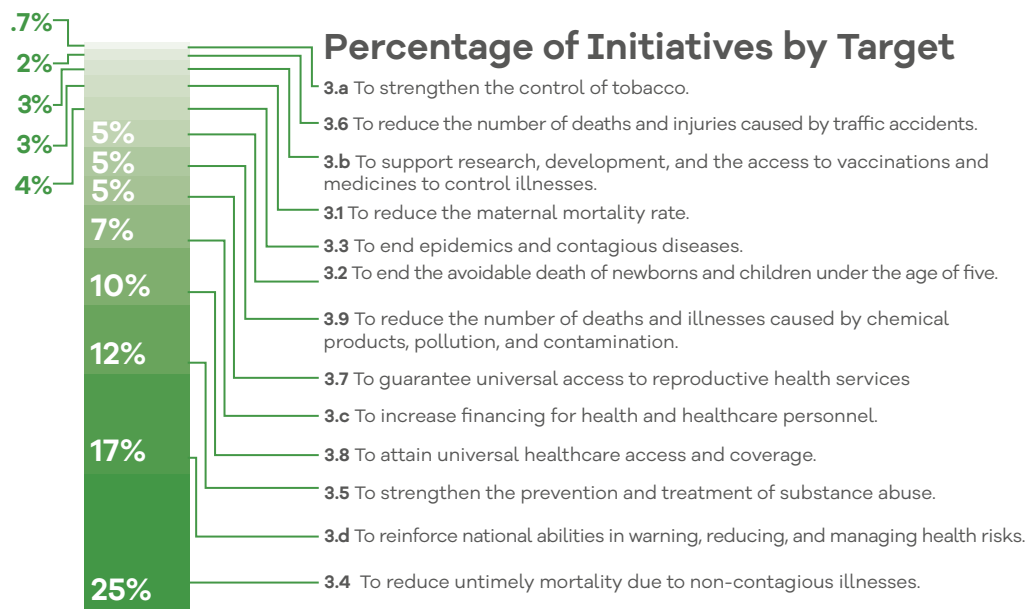
Sustainable Development Goal Addressed

**Good Health
and Well-being**



3. Good Health and Well-being

119 Initiatives

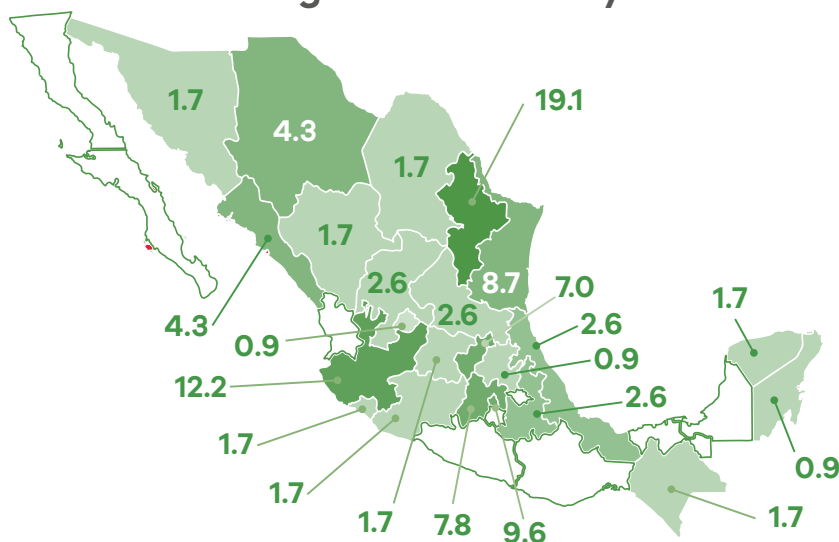


Main Indicators of Results



As of 2021,
more than 530 thousand
COVID-19 vaccines* had been given and **more than 60 thousand health services** provided at low or no cost.

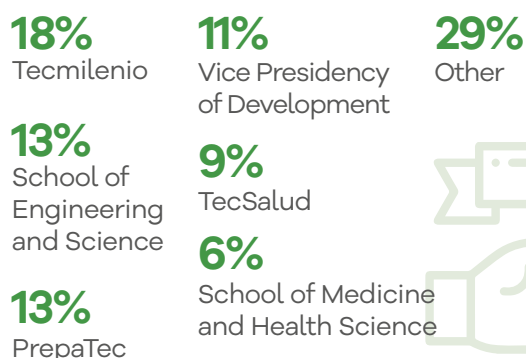
Percentage of Initiatives by State*



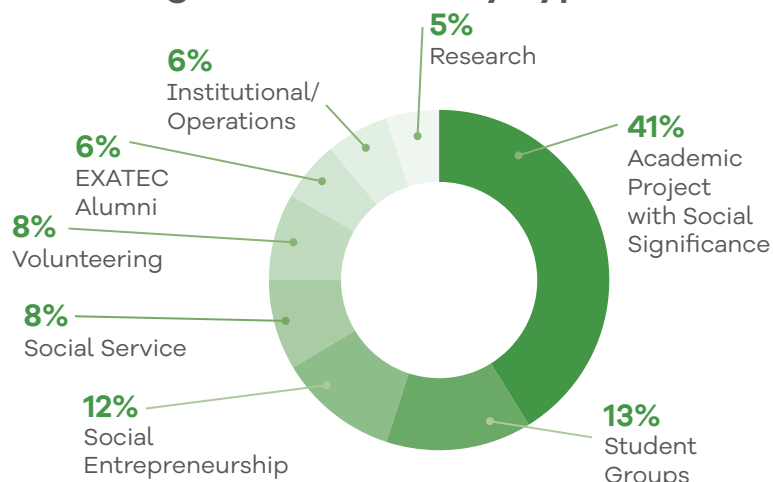
Percentage of Initiatives by Vulnerable Population Served



Percentage of Initiatives Directed by Area or School



Percentage of Initiatives by Type



*The numbers on the map are percentages.

*As of 2022, 640 thousand COVID-19 vaccines have been given.



In this edition, speaking of Good Health and Well-being implies speaking of the **COVID-19 pandemic**.

We would like to take advantage of this section to **recognize and thank the physicians and nurses on the front line of health care**, as well as our **teachers, employees, students, and EXATEC alumni** who, in various parts of México, joined forces with civil society and other allies to confront the scarcity of resources and knowledge to manage and contain the effects of the virus.

To publish information about community support during the pandemic, we created the **Website of actions of social impact on COVID-19**, which includes more than 250 initiatives that Tec and its community promoted during the pandemic.

The website emphasizes initiatives such as the transformation of our hospitals and **the intersectoral coordination of efforts** like "**Juntos por la Salud**" ("Together for Health"). Information is shared on **high-impact research projects** related to COVID and its health, social, and economic effects, as well as an important number of **webinars** and **training courses**, free of charge and in a digital format directed to the general community and health professionals.



The website published our academic, scientific, and human abilities during the contingency of 2020 and 2021.

Listed below are initiatives that our community promoted **in addition to those listed on the website**.





Intervening Institutions:



Targets addressed:
3.3, 3.d



Academic Project

Professor Mariel Alfaro and students from the School of Engineering and Science adapted and delivered **more than 2,000 diving masks** with HEPA filters for medical personnel to use as face shields in the public hospitals of México City and the states of Tabasco and Guerrero.

Volunteers

The ALBA project, with Francisco Pérez and Luis Madriz (student and mentor) from the Morelia Campus, and a citizen collective, coordinated with **more than 100 volunteers**, (some from the School of Engineering and Science) to donate in less than two months **4,138 face shields and more than 100 video laryngoscopes** to **171 healthcare institutions in twelve states of México**.

EXATEC Alumni

EXATEC Alumni clubs and associations from various parts of México raised **\$117,800 pesos** for public health institutions. They also delivered **1,280 units of personal protection equipment** (face shields and masks); **215 liters of antibacterial gel**; **1,200 surgical caps**; **1,300 disposable gloves**; **250 disposable shoe coverings**; **20 liters of germicide**; **13 pairs of certified coveralls** with cap; **1 covering for moving patients** and **one acrylic box** for protection during intubation.



**National Context:**

In México, 35.7 million people, or 28.2% of the total population, did not have access to health services in 2020.⁵



TecSalud and TecSalud Foundation

TecSalud, which is Tecnológico de Monterrey's health system, integrates innovative clinical, educational, and research services in its academic centers. The institution includes the TecSalud Foundation, its social branch.

Together, the two organizations **offer high-quality medical and hospital service to people with limited resources**, through an integrated health center, programs, and medical funds. Examples in 2020–2021 are listed below.

Comprehensive Health Center

Served **23,465 patients** during **37,914 consultations**; completed **21,848 studies** and **2,114 ophthalmological surgeries**; and delivered **590 medicines** to treat diabetes.

⁵ CONEVAL. (2021, agosto). *Nota técnica sobre la carencia por acceso a los servicios de salud, 2018–2020*. https://www.coneval.org.mx/Medicion/MP/Documentos/MMP_2018_2020/Notas_pobreza_2020/Nota_tecnica_sobre_la_carencia_por_acceso_a_los_servicios_de_salud_2018_2020.pdf

**Type of Initiative:**

Institutional/operations

Intervening Institutions:**Benefitted Zone:**

México

**Benefitted Population:**

Infants, children, and adolescents; women; migrants; senior citizens; people with disabilities; people with chronic/terminal illness; rural communities/marginalized zones; indigenous communities; people living in poverty; general population; social organizations





Invincible Hearts Program

Served **48 socioeconomically vulnerable infants** with congenital cardiopathy by performing, **35 catheterization procedures** and **18 surgeries**.

Medical Attention Funds

Offered pain management and surgical/nonsurgical procedures for **more than 3,500 people** in vulnerable conditions.

“United for Your Health” Fund

A fundraising campaign, spearheaded by TecSalud and Tecnológico de Monterrey’s Director of Philanthropic Development, resulted in monetary contributions from **more than 1,000 donors** to acquire **380 thousand personal protection items** for healthcare personnel on the front lines of the COVID-19 contingency. The beneficiaries of diagnosis and treatment were **1,420 patients**. In addition, the fund supported **eleven research projects** focused on COVID treatments and **33 adaptations of hospital infrastructure** for treating COVID patients.

For further details on these and other initiatives of TecSalud and TecSalud Foundation, click [here](#) or see our [interactive report](#)

Contact: María Guadalupe Grijalva Salazar,
lupita.grijalva.s@tecsalud.mx



Participating Areas/Schools:
TecSalud Foundation



Targets addressed:
3.4, 3.8



Campus:
San José Hospital and Zambrano Hellion Hospital





Sonidoc: Hearing Test Campaign for Elementary School Students

The project was created thirteen years ago in a physics class, and now involves students from various majors. Its goal is to respond to the need to test children's hearing. By 2021, **more than 10,800 children** had been tested.

Contact: Juan Manuel Campos Sandoval,
juan-manuel.campos@tec.mx



Type of Initiative:
Academic project with
social significance

Intervening Institutions:



Tecnológico
de Monterrey



Benefitted Zone:
Aguascalientes



Benefitted Population:
Children and adolescents; people with disabilities;
people living in poverty; general population



Participating Areas/Schools:
School of Engineering and Science



Campus:
Aguascalientes



Targets addressed:
3.d



Outstanding Participants:
Edson Alejandro Lozano García, Jesús Guillermo
Calderón Vega, José Eduardo Ortega Navarro, Jesús
Urzúa González, and Laura Elena Morales Garza

4



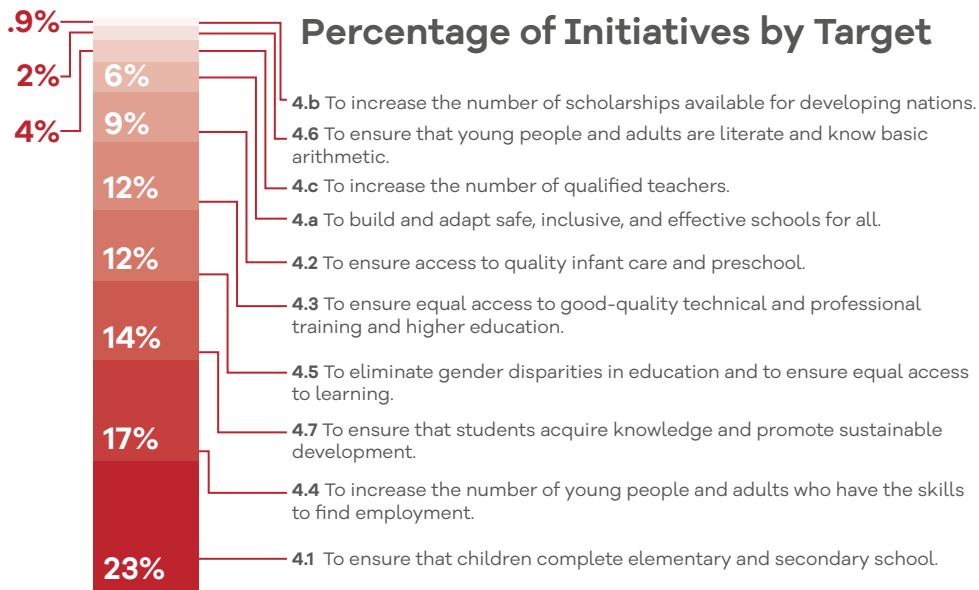
Sustainable Development Goal Addressed

Quality Education



4. Quality Education

218 Initiatives



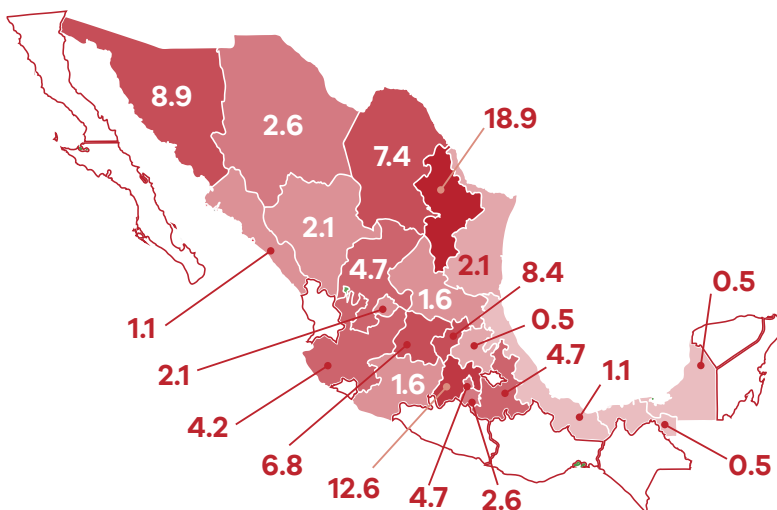
Main Indicators of Results



**more than
120,000**

people benefitted by training, advising, and workshops offered at low or no cost.

Percentage of Initiatives by State*



Percentage of Initiatives by Vulnerable Population Served

40%

Infants, children, and adolescents

6%

Women

17%

People with disabilities

5%

Senior citizens

17%

People living in poverty/ marginalized zones

14%

Others



Percentage of Initiatives Directed by Area or School

18%

PrepaTec

9%

School of Humanities and Education

15%

Tecmilenio

6%

School of Engineering and Science

11%

Social Service

10%

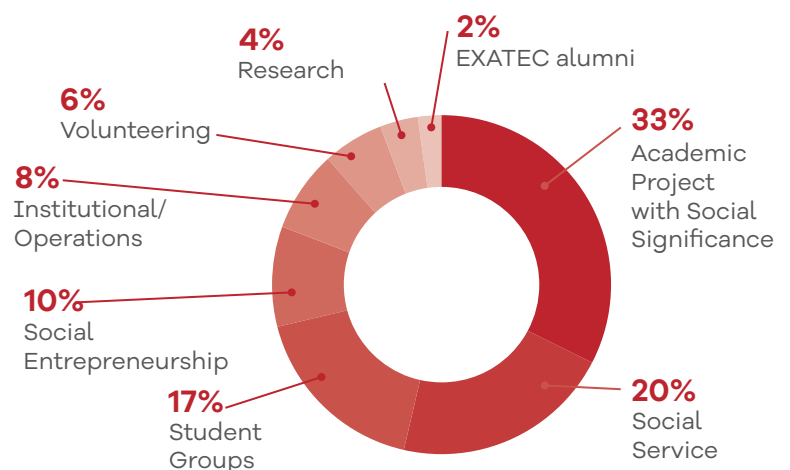
Leadership and Development

31%

Others



Percentage of Initiatives by Type



*The numbers on the map are percentages.



líderes del mañana

Since 2014, this program of inclusion, mobility, and social transformation has supported talented young people with a 100% college scholarship at Tec de Monterrey. As of the first semester of 2022, *Líderes del Mañana* ("Leaders of Tomorrow") had granted scholarships to **1,528 students**. Since its implementation, the program has graduated **539 young people**, who have gained seven deciles of social mobility in income distribution, with respect to their original position. The program has attained an internal rate of return (IRR) of 52%⁷ on its educational investment.

The project has led to other large-scope sustainable development initiatives, such as **HUB para Líderes del Mañana**, which invites scholarship recipients to generate proposals in social entrepreneurship that have an impact on reaching United Nations SDGs.

Líderes del Mañana is possible thanks to support from government sectors, foundations, and donors, including contributions from the Sorteos Tec raffle. EXATEC alumni play an active role in **raising funds** for the program, totaling **more than two million pesos in 2020 and 2021**.

Website: lideresdelmanana.com
Contact: Laura Ruiz Pérez,
laruiz@tec.mx

National Context:

Social issues observed in México in 2020 included educational gaps that affected 24.4 million people, or 19.2% of the total population.⁶



Type of Initiative:
Institutional

Intervening Institutions:



Benefitted Zone:
Apodaca (Nuevo León)

 Tecnológico de Monterrey



Benefitted Population:
Children and adolescents

 TecSalud
Sistema de Salud del Tecnológico de Monterrey



Participating Areas/Schools:
Vice Presidency of Inclusion, Social Impact, and Sustainability



Campus:
Monterrey



Targets addressed:
4.3, 4.4, 4.5



Outstanding Participants:
Abraham Rea Ponce, Jorge Méndez, Mariana Ortega, Elizabeth Garza, Graciela Ordoñez, Rosa Elena Álvarez, Libertad Bernal

⁶ CONEVAL. (2020). Pobreza en México. <https://www.coneval.org.mx/Medicion/Paginas/PobrezaInicio.aspx>

⁷ For more about the methodology of calculating IRR, see: <http://lideresdelmanana.itesm.mx/TIR/>





Initiative for Education with Equity and Quality

The initiative's participants are Tec de Monterrey researchers who coordinate their work on interdisciplinary projects. Their projects support educational policy proposals of high impact that aim for maximum attainment in learning, competencies, and skills, regardless of students' socioeconomic or cultural level or their place of residence in México.

From 2019 to 2021, the group published twenty articles, gave six workshops to train high school teachers, organized two cycles of academic tutoring for public high school students, generated dozens of research documents, carried out the diagnostic assessment of high school learning in the state of Nuevo León, and conducted research to evaluate and support the Academic Dean in learning strategies for the School of Social Science and Government.

Website: iieec.mx

Contact: Marco Antonio Fernández Martínez,
marco.a.fernandez@tec.mx



Type of Initiative:
Institutional/operations

Intervening Institutions:



Benefitted Zone:
México

 Tecnológico de Monterrey



Benefitted Population:
Adolescents and academia



Participating Areas/Schools:
School of Government and Public Transformation



Campus:
National



Targets addressed:
4.4



Outstanding Participants:
Alejandro Poiré Romero and Juan Pablo Murra



The pandemic had a negative impact on education as well as on health. One such impact was the widening educational gap in vulnerable populations. Below we present some of our initiatives focused on offering quality education during the COVID-19 contingency.

Learning for All



This program forms part of the Initiative for Education with Equity and Quality. Aimed at closing gaps in the learning process, the program consists of training teachers, directors, and student tutors at public high schools. The training is given by Tec de Monterrey students in collaboration with educational authorities and teachers.

By **2021**, the program had benefitted **5,991 students** and **110 teachers and directors** of high and middle public schools.

Website: ieec.mx/aprendizajes-para-todos/
Contact: Marco Antonio Fernández Martínez,
marco.a.fernandez@tec.mx



Type of Initiative
Social Service

Intervening Institutions:



Benefitted Zone:
Nuevo León



Tecnológico de Monterrey



Benefitted Population:
Children and adolescents; rural communities/marginalized zones; people living in poverty



Participating Areas/Schools:
School of Government and Public Transformation



Campus:
Mixcoac, Monterrey



Targets addressed:
4.4, 4.5, 4.6, 4.7, 4.c



Outstanding Participants:
Education for Development, LiFE, PrepaTec, Tecmileno, and Social Service at the Monterrey Campus





Virtual Learning Center



By researching new teaching technologies, the Center created a distance education model that is accessible and unlimited in time and space, and that incorporates the new languages and media of information technology to generate educational opportunities for progressing communities in México, the rest of Latin America, and the United States.

Because of the pandemic, the Center added to its independent learning activities by moving courses and workshops to a virtual format, **benefitting 23,917 participants**.

Website: www.cca.org.mx
Contact: Ana Cecilia Torres González,
actorres@tec.mx



Type of Initiative:
Institutional

Benefitted Zone:
Colombia, Ecuador, El Salvador, United States, Guatemala, México, Nicaragua, Panama, Paraguay, and Dominican Republic

Benefitted Population:
Children and adolescents; women; migrants; senior citizens; people affected by natural disasters unrelated to climate (earthquakes, volcanic eruptions); people affected by climate change (drought, fire, flooding, hurricanes); people with disabilities; people with addictions; rural communities/marginalized zones; indigenous communities; people living in poverty; general population

Intervening Institutions:
 Tecnológico de Monterrey



Participating Areas/Schools:
School of Humanities and Education

Campus:
Monterrey

Targets addressed:
4.4, 4.5, 4.6, 4.7, 4.c

Outstanding Participants:
Karina Elizabeth Martínez Argüello and Dora Elizabeth García Olivier



Adux, Leaders in Education



A peer learning model in which students from the *Líderes del Mañana* program accompany junior high and high school students to reinforce their learning in mathematics, science, and English.

This initiative, a winner of the RISE U21 prize **tutored 843 students** from October 2021 to January 2022.

Social network:

www.instagram.com/adux_led/?hl=es-la

Contact: Eréndira Rodríguez de León,

a00827317@tec.mx



Type of Initiative:
Social Service

Intervening Institutions:



Benefitted Zone:
Apodaca (Nuevo León)

 Tecnológico de Monterrey



Benefitted Population:
Children and adolescents



Participating Areas/Schools:
Business School and School of Engineering



Campus:
Monterrey



Targets addressed:
4.4, 4.5, 4.6, 4.7, 4.c



Outstanding Participants:
Andrea Mercedes Ortiz Díaz, Luis Ángel Cárdenas García, Pedro Pablo Ortiz López, and Laura Ruiz Pérez



Observatory of the Institute for the Future of Education

The observatory is a unit within the Institute for the Future of Education (IFE) that is dedicated to analyzing and publishing the latest trends in the intersection of education, innovation, and technology.

Since it appeared in the first *Report on Sustainable Development Initiatives* (2018-2019), the observatory has increased its scope of influence. The number of visits on its website increased from two to seventeen million, and subscribers to its weekly bulletin grew from 180 thousand to 225 thousand.

Website: observatorio.tec.mx/
Contact: Esteban Venegas Villanueva,
evenegas@tec.mx

DigiEduHack- Tec de Monterrey Edition

In its organizing role, Tec de Monterrey motivates students to participate in this **global hackathon** to create solutions in education. Thanks to the event, these solutions multiply their potential for impact. Through innovation, proposals empower groups of users in vulnerable situations.

In the **2020 and 2021 editions**, students generated **more than 35 solutions** to defined problems.

Website: digieduhack.com/en/
Contact: Jan Rehak, janrehak@tec.mx



Type of Initiative:
Institutional/operations

Intervening Institutions:



Benefitted Zone:
Spanish- and English-speaking nations



Tecnológico de Monterrey



Benefitted Population:
Teachers and administrators at educational institutions



Participating Areas/Schools:
Rectorate of Higher Education



Campus:
National



Targets addressed:
4.4, 4.7, 4.c



Outstanding Participants:
Karina Fuerte, Christian Guijosa, Rubí Román, Paulette Delgado, Javier Estrada, Nohemí Vilchis, and Sofía Garza Bulle



Type of Initiative:
Social Entrepreneurship

Intervening Institutions:



Benefitted Zone:
México



Tecnológico de Monterrey



Benefitted Population:
Children and adolescents; educational institutions



Participating Areas/Schools:
Business School



Campus:
National



Targets addressed:
4.1, 4.2, 4.3



Outstanding Participants:
Romain Pouzou, Eder Estrada Villalba, Neri Elia Ríos Enríquez, César Manuel Sánchez Rodríguez, and Geraldina Silveyra León

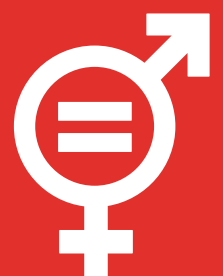


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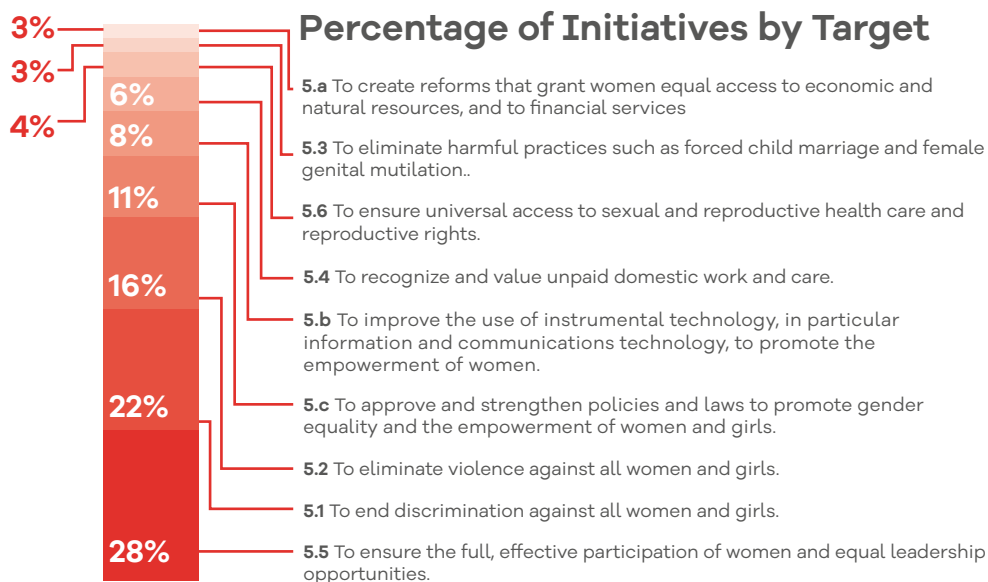
Sustainable Development Goal Addressed

**Gender
Equality**

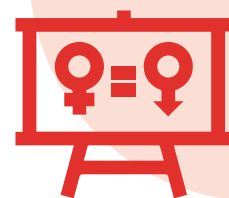


5. Gender Equality

53 Initiatives

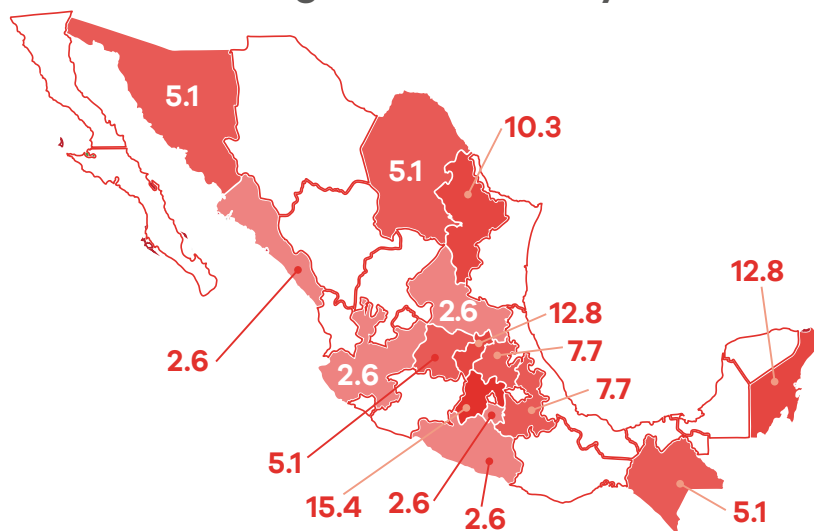


Main Indicators of Results



more than 60 thousand people benefitted by conferences, workshops, courses, and webinars offered at low or no cost.

Percentage of Initiatives by State*



Percentage of Initiatives by Vulnerable Population Served

48%
Women

7%
Indigenous communities

21%
Infants, children, and adolescents

4%
Senior citizens

9%
People living in poverty/marginalized zones

10%
Other



Percentage of Initiatives Directed by Area or School

15%
Institute of Entrepreneurship Eugenio Garza Lagüera

9%
School of Humanities and Education

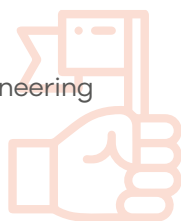
34%
Other

13%
Tecnilenio

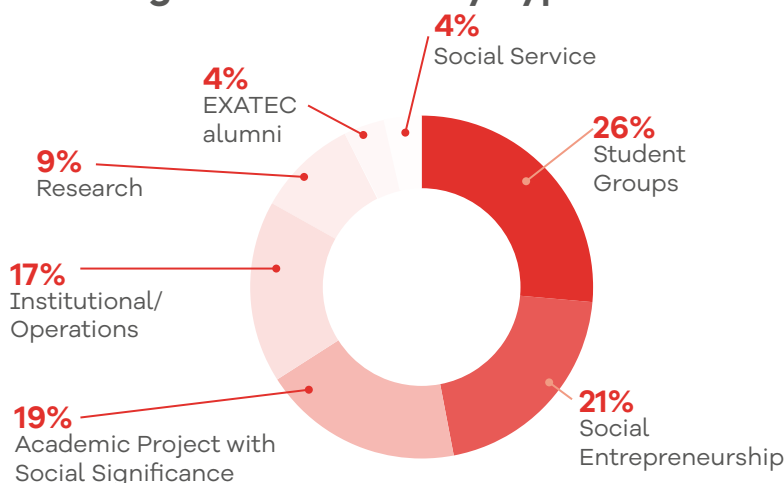
9%
School of Engineering and Science

11%
Leadership and Development

9%
Business School



Percentage of Initiatives by Type



*The numbers on the map are percentages.



The struggle for women's rights, as well as women's participation and representation in social, political, and economic settings, have always been important. With today's growing technification, women's involvement has become even more relevant in science, technology, engineering, and mathematics (STEM disciplines). We present three initiatives below that pursue this goal

Incubating Feminist AI

In 2021, we opened a space for students to participate in *Incubating Feminist Artificial Intelligence*. As part of an international project of research and action, it addresses historical biases in gender, race, and social class, rethinking the creation of prototypes, pilot tests, and AI solutions to guarantee that technology satisfies the needs of women and girls in vulnerable communities.

In this three-year project, the involved teachers have published one research article and one book, and are working on a research project.

Website: aplusalliance.org/es/pages/network
Contact: Paola Ricaurte Quijano, pricaurt@tec.mx



National Context:

In México, women studying engineering, manufacturing, and construction total only 29.8% of total enrollment, and in agronomy and veterinary science, 40.2%.⁸



Type of Initiative:
Research

Intervening Institutions:



Benefitted Zone:
Latin American and the Caribbean

 Tecnológico de Monterrey



Benefitted Population:
Children and adolescents; women; indigenous communities



Participating Areas/Schools:
School of Humanities and Education



Campus:
México City



Targets addressed:
5.1, 5.c

⁸ INEGI. (2021). *Mujeres y hombres en México 2020*. https://www.inegi.org.mx/contenidos/productos/prod_serv/contenidos/espanol/bvinegi/productos/nueva_estruc/889463900009.pdf



Beautiful Patterns

This initiative is a summer camp developed in conjunction with the Massachusetts Institute of Technology (MIT) Geospace Facility and the School of Engineering and Science at Tecnológico de Monterrey. The objectives include motivating girls to enroll in undergraduate majors in STEM areas. In **2020 and 2021, 554 girls from twelve countries participated.**

Website: patroneshermosos.com

Contact: Leticia Almaguer Flores,

leticia.almaguer@tec.mx



Type of Initiative:

Institutional/operations

Intervening Institutions:



Tecnológico de Monterrey



Benefitted Zone:

Germany, Argentina, Bolivia, Colombia, Costa Rica, Chile, Ecuador, United States, México, Peru, Uzbekistan, and Venezuela



Benefitted Population:

Girls ages 13-17



Participating Areas/Schools:

School of Engineering and Science



Campus:

National



Targets addressed:

5.5



Outstanding Participants:

Julio Noriega Velasco and Patricia Jacques Menchaca

WitCode

The Women in Technology student group offers basic and advanced programming classes in the Ciudad de los Niños de Monterrey ABP educational center. The intention is to promote the use of technology while inspiring and empowering children through the development of technical skills that will offer them future professional opportunities.

The group's efforts have led **more than 40 girls** in elementary school and **20 adolescents** in secondary school to **reach a 70% understanding of programming**, and **develop seven functional mobile applications.**

Social network: www.instagram.com/wit.mty/?hl=es

Contact: Julio Adrián Morales Villarreal,

julioa.morales@tec.mx



Type of Initiative:

Student Groups

Intervening Institutions:



Tecnológico de Monterrey



Benefitted Zone:

Guadalupe (Nuevo León)



Benefitted Population:

Children and adolescents; women



Participating Areas/Schools:

Leadership and Development



Campus:

Monterrey



Targets addressed:

5.c





Dignified Menstruation

The *Girl Up* student group at the Querétaro Campus held workshops to combat disinformation about menstruation and eliminate related taboos in the Mexican society. The groups **supported 200 women** from Sierra Gorda, **by giving them kits with sanitary napkins**.

Social network:

www.instagram.com/girlup_prepatecqr/

Contact: María Ángeles Gallegos González,

magallego@tec.mx



Type of Initiative:
Student Groups

Intervening Institutions:



Benefitted Zone:
Querétaro



Benefitted Population:
Women and general population



Participating Areas/Schools:
Leadership and Development



Campus:
Querétaro



Targets addressed:
5.6



Outstanding Participants:
Fernanda Reyes



Gender Smart Entrepreneurship Education & Training Plus (GEET+) Action Strategy Pilot Study Country Report: México

This pilot project adapted and documented the GEET+ tool used to evaluate if educational initiatives in entrepreneurship consider a gender perspective with inclusion, equity, and diversity. In addition, it promotes the use of indicators in this sense.

Female teachers and researchers from Tec Monterrey contributed to **translating and adapting the instrument in eleven organizations in México**, integrating the project as a strategy in the *Gender Equality Plan 2021-2024* for our institution.

Contact: Patricia Esther Alonso Galicia,

pealonsog@tec.mx



Type of Initiative:
Research

Intervening Institutions:



Benefitted Zone:
México



Benefitted Population:
Women



Participating Areas/Schools:

Institute of Entrepreneurship Eugenio Garza Lagüera



Campus:
National



Targets addressed:
5.5



Outstanding Participants:

Geraldina Silveyra León, Lizbeth Ortiz López, and Mónica Rodríguez Díaz

6



Sustainable Development Goal Addressed

Clean Water and Sanitation



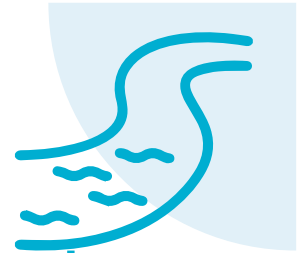
6. Clean Water and Sanitation

22 Initiatives

Percentage of Initiatives by Target



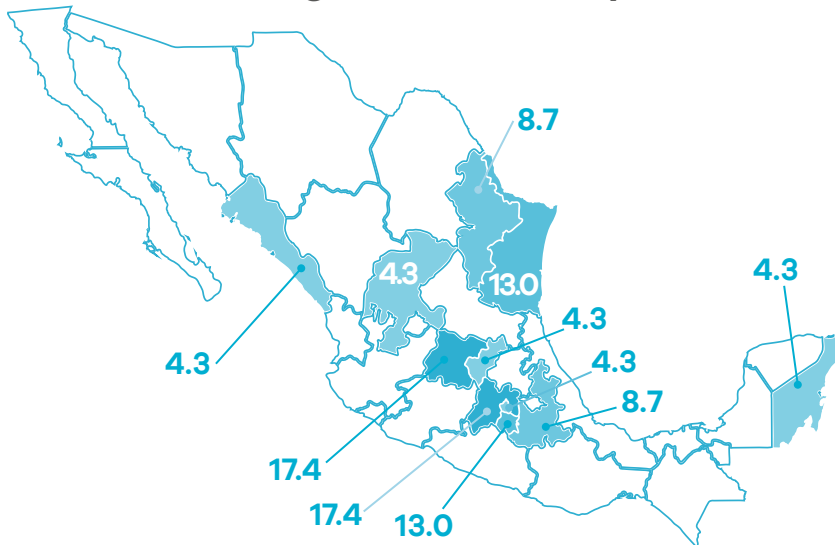
Main Indicators of Results



**more than
10,000**

**bottles and bags collected
from rivers, riverbeds, parks,
and beaches.**

Percentage of Initiatives by State*



Percentage of Initiatives by Vulnerable Population Served

27%
People affected by
climate change/
natural disasters

13%
Women

27%
People living in
poverty/marginalized
zones

7%
Migrants

13%
Infants, children,
and adolescents

13%
Other



Percentage of Initiatives Directed by Area or School

45%
School of
Engineering
and Science

5%
EGADE
Business
School

18%
Other

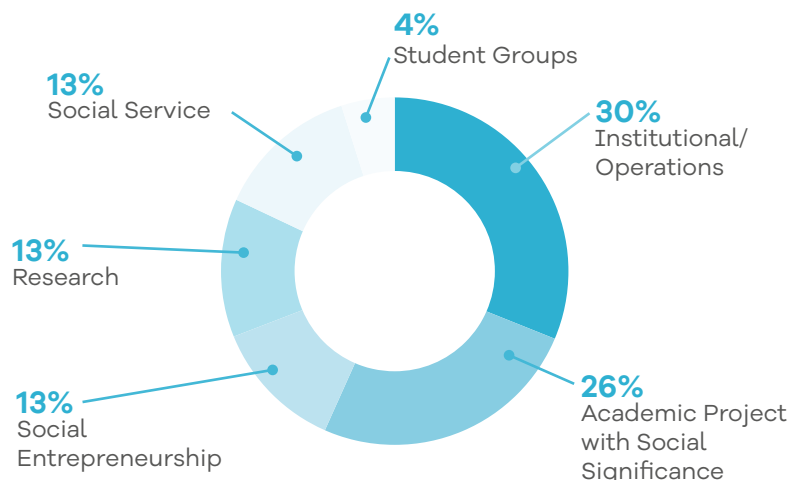
18%
Tecnológico

5%
Institute of
Entrepreneurship
Eugenio Garza
Lagüera

9%
School of Social
Science and
Government



Percentage of Initiatives by Type



*The numbers on the map represent percentages.



Water Center for Latin America and the Caribbean



This initiative is an association of Tec de Monterrey, FEMSA Foundation, and the Inter-American Development Bank. Its goals are to transfer knowledge, in addition to creating and implementing sustainable solutions for the utilization of water, energy, and food.

By the year 2021, the initiative had published 498 scientific articles and had promoted multiple initiatives, which will be mentioned in this report.

Website:

tec.mx/es/investigacion/donde-se-realiza-la-investigacion
Contact: Alberto Mendoza Domínguez,
mendoza.alberto@tec.mx

E2 Off-Grid



This project by the Water Center for Latin America and the Caribbean is currently underway. Its objective is to implement a system for collecting and treating rainwater, condensation from ambient humidity, and wastewater treatment in the E2 parking lot of Monterrey Campus, so that the building can self-supply its annual water demand.

The program has the potential of saving 500 m3 of water per year.

Contact: Alberto Mendoza Domínguez,
mendoza.alberto@tec.mx



Type of Initiative:
Institutional/operations

Intervening Institutions:



Benefitted Zone:
Argentina, Brasil, Colombia, United States, México and Peru



Benefitted Population:
People affected by climate change, rural communities/marginalized zones, government, companies, and organizations



Participating Areas/Schools:
School of Engineering and Science



Campus:
Monterrey



Targets addressed:
6.3, 6.4, 6.5, 6.a, 6.b



Outstanding Participants:
Jürgen Mahlknecht, Alejandro Montesinos, Eduardo Santillán, and Andrea Nucamendi



Type of Initiative:
Institutional/operations

Intervening Institutions:



Benefitted Zone:
Monterrey (Nuevo León)



Tecnológico de Monterrey



Benefitted Population:
General Population



Participating Areas/Schools:
School of Engineering and Science



Campus:
Monterrey



Targets addressed:
6.3, 6.4



Outstanding Participants:
Nadhiely Martínez Bello





Clean Water and Sanitation for All



To participate in this academic project, students designed and presented a potable water distribution network for the town of Chignahuapan, as well as a rainwater drainage network and a sewer network. For the community of Apaxco de Ocampo, they developed a potable water network and a sewer network to deal with the scarcity of water resources.

In Chignahuapan, the students built a water collection and pumping system with support from founding participant REX Irrigación y Agroequipos.

In Apaxco de Ocampo, the designs were presented to the town's Public Services Director for inclusion in the municipality's 2022 budget.

Contact for Puebla Campus:

Romeo Ballinas González, rballinas@tec.mx

Contact for Estado de México Campus:

Rosa María Concepción Murillo Torres, rmurillot@tec.mx

National Context:

Approximately 10% of México's population does not have access to potable water, especially in rural areas and marginalized zones.⁹



Type of Initiative:

Academic Project with Social Significance

Intervening Institutions



Tecológico de Monterrey



Benefitted Zone:

Chignahuapan (Puebla) and Apaxco de Ocampo (Estado de México)



Benefitted Population:

Children and adolescents; women; migrants; senior citizens; rural communities/marginalized zones



Participating Areas/Schools:

School of Engineering and Science



Campus:

Puebla, México City, and Estado de México



Targets addressed:

6.1, 6.4, 6.5, 6.b



Outstanding Participants:

Haydée Tapia, Daud Efrit Romero, Mario Gutiérrez, Kevin Centeno, Karina Alely Espinobarros, and Víctor Herrera

⁹ López, P. (2019). Gaceta UNAM: Sin acceso al agua potable, 10% de los mexicanos. Gaceta UNAM. <https://www.gaceta.unam.mx/sin-acceso-al-agua-potable-10-por-ciento-de-mexicanos/>



7



Sustainable Development Goal Addressed

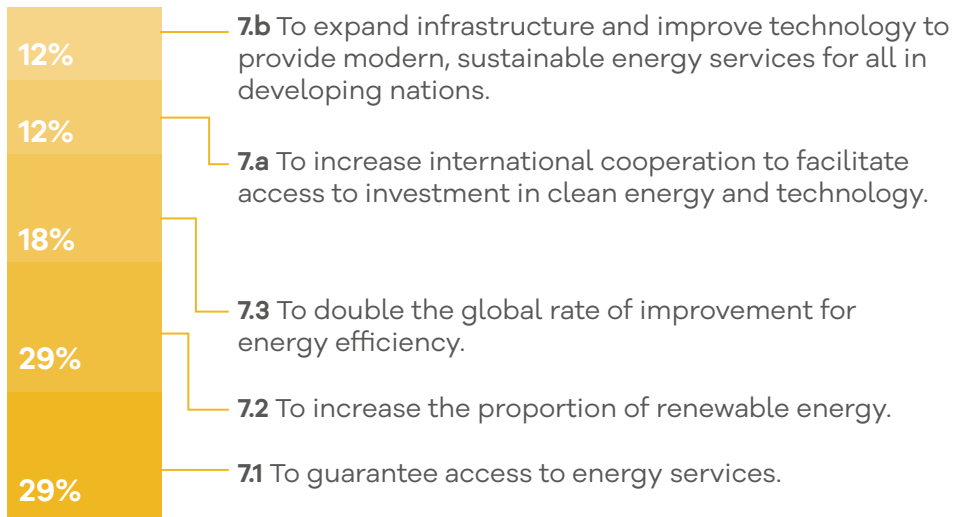
Affordable and Clean Energy



7. Affordable and Clean Energy

8 Initiatives

Percentage of Initiatives by Target



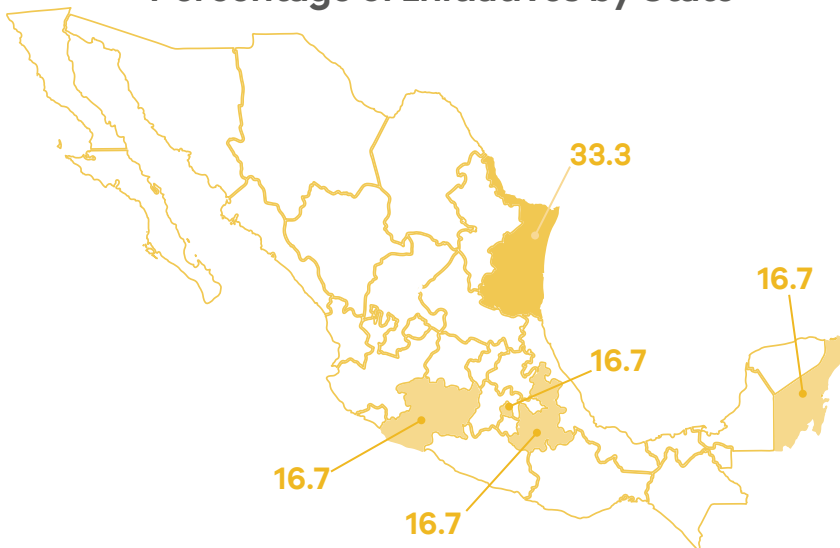
Main Indicators of Results



63%

of the energy used at Tec de Monterrey and TecSalud is from renewable sources.*

Percentage of Initiatives by State*



Percentage of Initiatives by Vulnerable Population Served

60%

People living in poverty/marginalized zones

10%

Senior citizens

10%

Infants, children, and adolescents

10%

People affected by climate change/natural disasters

10%

Women



Percentage of Initiatives Directed by Area or School

25%

School of Social Science and Government

13%

School of Engineering and Science

25%

Operations Office

13%

Vice Presidency of Development

25%

Tecmilenio



Percentage of Initiatives by Type

13%

Academic Project with Social Significance

13%

EXATEC alumni

13%

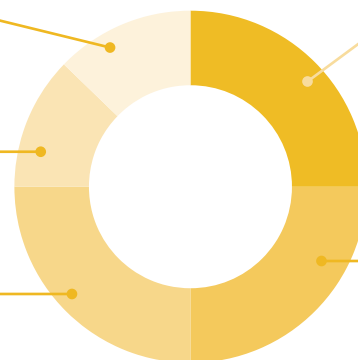
Research

26%

Social Entrepreneurship

26%

Institutional/operations



*The numbers on the map represent percentages.

*Indicators as of April 22, 2022, the date of publication of the Annual Report on Ruta Azul Progress, Sustainability and Climate Change Plan 2025.



Use of Clean Energy at Tec de Monterrey and TecSalud



In April of 2021, we launched the *Sustainability and Climate Change Plan 2025*, referred to since 2022 as *Ruta Azul*. As part of this plan and the institutional commitment to attain carbon neutrality by 2040, we have implemented diverse efforts to generate a sustainable energy system for three of our institutions. Thanks to these efforts, **100%** of the **energy** used in the **Zambrano Hellion and San José Hospitals** is **renewable**. In addition, we have **five solar energy systems** on the **Tecmilenio Campuses** and **one photovoltaic system** at the Tec de Monterrey **library** on the **México City Campus**.

Contact: Víctor Gutiérrez, victorgc@tec.mx



National Context:

In 2020, 25.64% of México's electricity was from clean energy sources, such as solar/photovoltaic energy, wind energy, and efficient co-generation.¹⁰



Type of Initiative:
Institutional/operations

Intervening Institutions:



Benefitted Zone:
México

Tecnológico de Monterrey



Benefitted Population:
General Population

TecSalud



Participating Areas/Schools:
Operations Office



Campus:
National



Targets addressed:
7.1, 7.2, 7.3



Outstanding Participants:

Héctor Manuel Benavides, Saúl Aguilar Sánchez, Javier Torres López, Martín Chavarín, Daniel Rodríguez, and Eduardo Watanabe

¹⁰ Secretaría de Energía (2021). *Balance nacional de energía 2020*. Subsecretaría de Planeación y Transición Energética. https://www.gob.mx/cms/uploads/attachment/file/707654/BALANCE_NACIONAL_ENERGIA_0403.pdf



Energy Storage and Distribution System Using Supercapacitors (SADES)



Four mechatronics students at the Tampico Campus created SADES, a system for storing energy through supercapacitors. The aim is to replace conventional lithium batteries with supercapacitors.

Carried out on a large scale, the project would provide electrical energy to rural communities, since the supercapacitors last approximately ten years and pollute less than regular batteries, which have a maximum lifespan of two years.

At the present time, supercapacitors are used to monitor bodies of fresh water to decrease pollution and scarcity.

Website:

tec.mx/es/noticias/tampico/investigacion/adios-de-sechos-alumnos-desarrollan-proyecto-para-sustituir-baterias

Contact:

Marcos Abdiel Peña Hernández, a01412248@tec.mx



Participating Areas/Schools:

School of Engineering and Science



Campus:

Tampico



Targets addressed:

7.1, 7.b



Outstanding Participants:

Fabio Esteban Chale, Edwin Hernández, Luis Ángel Lara, and Juan Gabino Díaz



Type of Initiative:

Social Entrepreneurship

Intervening Institutions:



Tecnológico de Monterrey



Benefitted Zone:

Altamira and Ciudad Madero (Tamaulipas)



Benefitted Population:

Rural communities/marginalized zones and people living in poverty





Grünstrom



This project is a prototype that takes electrical energy to marginalized communities, thanks to a generator that transforms flowing water into clean, affordable electricity. Created by Tecmilenio students with help from Liph Energy, the project **won the third COPARMEX “Cuna de Emprendedores” (“Cradle of Entrepreneurs”)** competition, and has been a finalist in other contests.

At the present time, the individuals in charge of the project are developing the Grünstrom business model with mentoring from the BIC and KPMG companies.

Contact:

Josiane Rojas Romero, al02949171@tecmilenio.mx



Participating Areas/Schools:
Student Experience



Campus:
Puebla



Targets addressed:
7.1, 7.2, 7.b



Type of Initiative:
Social Entrepreneurship



Benefitted Zone:
Cuautinchán (Puebla)



Benefitted Population:
Rural communities/marginalized zones

Intervening institutions:



8



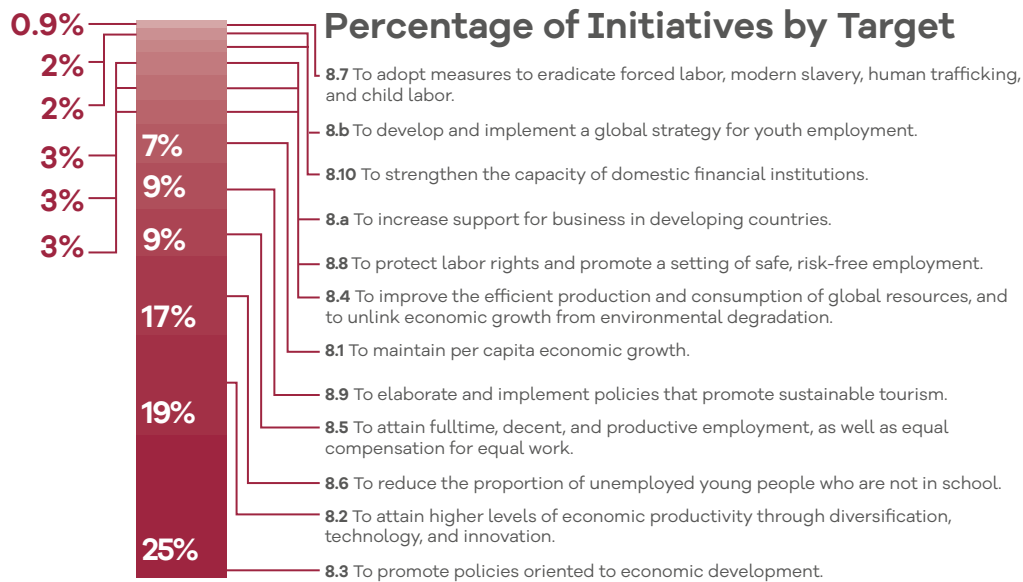
Sustainable Development Goal Addressed

Decent Work and Economic Growth



8. Decent Work and Economic Growth

56 Initiatives

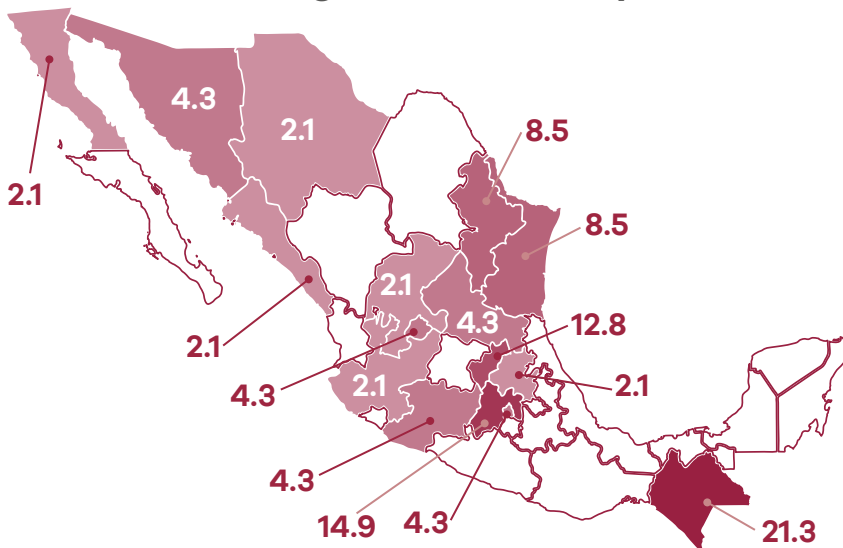


Main Indicators of Results



more than 2,400 people trained and **more than 900 SMEs** benefitted by free or low-cost advising.

Percentage of Initiatives by State*



Percentage of Initiatives by Vulnerable Population Served

24% People living in poverty/ marginalized zones

8% Senior citizens

8% People with disabilities

17% Women

12% Indigenous communities

31% Other



Percentage of Initiatives Directed by Area or School

18% Institute of Entrepreneurship Eugenio Garza Lagüera

11% EGADE Business School

11% Business School

9% School of Social Science and Government

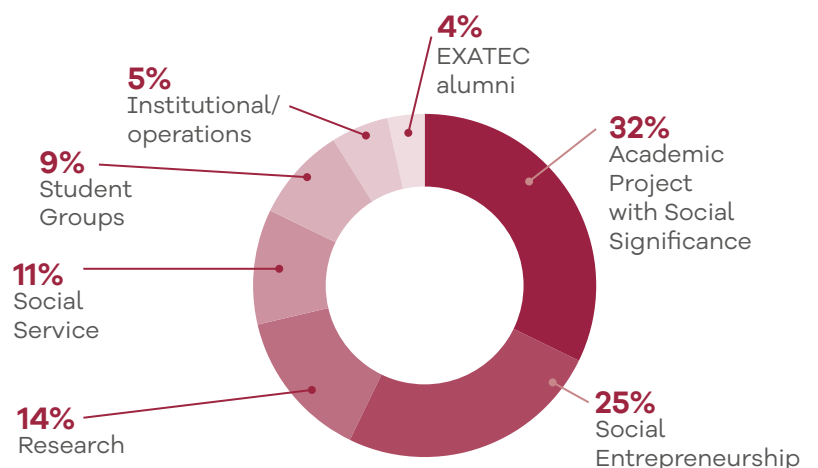
9% PrepaTec

9% Tecmilenio

34% Other



Percentage of Initiatives by Type



*The numbers on the map represent percentages



SMEs and "Third Sector SOS"



A product of the pandemic, this program employs Tec de Monterrey teachers and consultants to conduct training on continued growth at SMEs and organizations of civil society. Tec students also provide advising in digital marketing and the development of business models.

By 2021, the program had attended **750 Companies in México and 100 organizations of civil society in ten states in México and four other nations in Latin America.**

Social Network:

www.facebook.com/pymesos/

www.facebook.com/tercersectorsos/

Contact: Christian Hernando Salazar Mantilla,

csalazar@tec.mx

National Context:

In 2020, México's central bank registered shrinkage of approximately 9% in the nation's economy.¹¹



Type of Initiative:

Social Entrepreneurship

Intervening Institutions:



Benefitted Zone:

Bolivia, Colombia, Costa Rica, Ecuador, and México



Benefitted Population:

SMEs and organizations in civil society



Participating Areas/Schools:

Institute of Entrepreneurship Eugenio Garza Lagüera



Campus:

Monterrey



Targets addressed:

8.2, 8.3

¹¹ Esquivel, G. (2020). *Los impactos económicos de la pandemia en México*. Banco de México. <https://www.banxico.org.mx/publicaciones-y-prensa/articulos-y-otras-publicaciones/%7BD442A596-6F43-D1B5-6686-64A2CF2F371B%7D.pdf>

Attaining ongoing social transformation over the long term requires making structural changes that address the multifactorial and multidimensional causes of social exclusion.

Below we present three of the more than forty initiatives dedicated to decreasing social exclusion, through business models that offer employment and self-sufficient incomes to members of marginalized and/or indigenous communities.





Cricket Farm for Kumiai

Tec students delivered a business plan to evaluate the viability of establishing a cricket farm on land belonging to the Kumiai community. The project would offer an economic activity to the population, which has been displaced by the development of winegrowing in the region.

Contact: Yerly Flores García, yerly_fgarcia@tec.mx



Type of Initiative:
Academic Project with Social Significance

Intervening Institutions:
 Tecnológico de Monterrey



Benefitted Zone:
Ensenada (Baja California)



Benefitted Population:
Infants, children, and adolescents; women; senior citizens; people affected by climate change; rural communities/marginalized zones; indigenous communities; people living in poverty



Participating Areas/Schools:
School of Engineering and Science



Campus:
Toluca



Targets addressed:
8.4, 8.5, 8.6



Outstanding Participants:
Jaqueline Belén Espinoza, Adriana Margarita Estrada, Patricia Nadezda Mendieta, Viviana Moreno, Jimena Anaya, Jocelyn Herrera, Luis Fernando García, Lizbeth Valdés, and Mariana Villafranco

Jamut Tekil

Students developed and delivered a business plan for the indigenous women of Huerta en Cocorit, in the state of Sonora. The plan details the costs of materials used to prepare sausage and tamales, and the adequate retail price for generating real income. The document will help the women increase their productive activities and income.

Social Network: www.facebook.com/EcomunidadAC
Contact: María Eugenia Ballesteros Félix, maru_ballesteros@tec.mx



Type of Initiative:
Social Service

Intervening Institutions:
 Tecnológico de Monterrey



Benefitted Zone:
Cajeme (Sonora)



Benefitted Population:
Women and indigenous communities



Participating Areas/Schools:
Social Service



Campus:
Ciudad Obregón



Targets addressed:
8.5



Outstanding Participants:
Hadi Shaddai Bolaños, Andrea Michelle Fernández, Sebastián Martín, Gerardo Gutiérrez, and Edna Marlene Pérez





Business Model for the Lagos de Colores Cooperative

During the special “i” semester of 2021, students from various majors rehabilitated the agroecological center at the Lagos de Colores cooperative. The center offers learning materials on agroecology and ecotechnology. The students also adapted five areas (cabins, restaurant, and palapas) of the cooperative's ecotourism project and advertised it on social media and travel sites. The project will allow the community to diversify and increase its income.

Social Network: es-la.facebook.com/lagosdcollres/

Contact: José Manuel Islas Pacheco,

jose.islas@tec.mx



Type of Initiative:
Academic Project with Social Significance

Intervening Institutions:



Benefitted Zone:
San Cristóbal de las Casas,
La Trinitaria y Comitán (Chiapas)



Benefitted Population:
Rural communities/marginalized zones
and indigenous communities



Participating Areas/Schools:
Operations Office



Campus:
Chiapas



Targets addressed:
8.2, 8.5, 8.9



9



Sustainable Development Goal Addressed

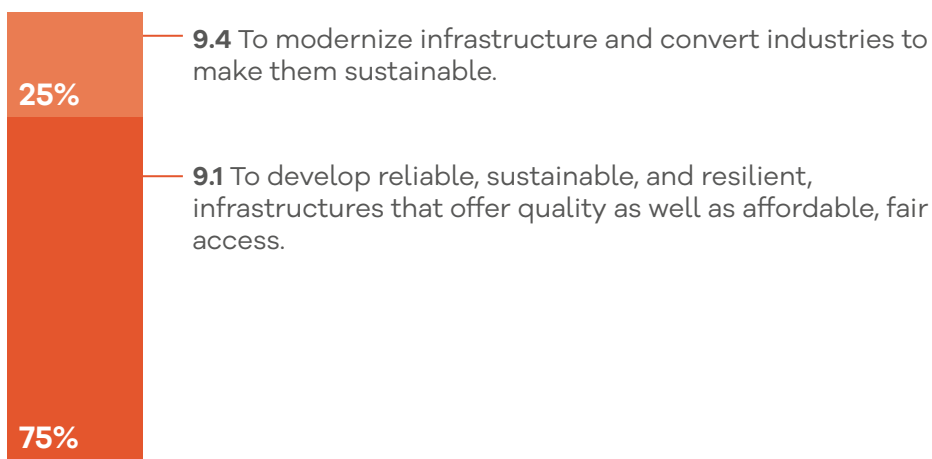
**Industry,
Innovation and
Infrastructure**



9. Industry, Innovation and Infrastructure

4 Initiatives

Percentage of Initiatives by Target



Main Indicators of Results



We reduced our greenhouse gas emissions by

28%

with respect to 2019.*
We have obtained
35 patents since 2007.

Percentage of Initiatives by State*



Percentage of Initiatives by Vulnerable Population Served

40%

General Population

20%

Other

20%

Social Organizations

20%

People with disabilities



Percentage of Initiatives Directed by Area or School

50%

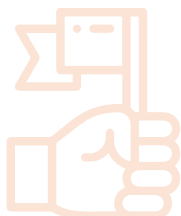
School of Engineering and Science

25%

Operations Office

25%

Social Service



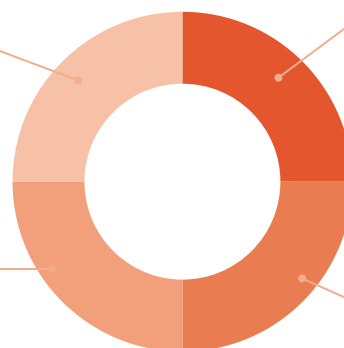
Percentage of Initiatives by Type

25%
Social Service

25%
Institutional/operations

25%
Academic Project with Social Significance

25%
Research



*The numbers on the map represent percentages

*Indicators as of April 22, 2022, the date of publication of the Annual Report on Ruta Azul Progress, Sustainability and Climate Change Plan 2025.



Biotechnology Center-FEMSA



The FEMSA Biotechnology Center is a bioplatfrom of scientific innovation for the development of high-impact technology regarding bioprocesses, integrative omics, and synthetic biology. It provides specialized services and solutions for academia, industry, government, and society, using the SDGs as a reference.

The program's **achievements**, include **more than thirty patent applications submitted for review**.

Website: www.tec-cbfemsa.com/
Contact: José González-Valdez,
jose_gonzalez@tec.mx



Type of Initiative:
Research

Intervening Institutions:



Tecnológico de Monterrey



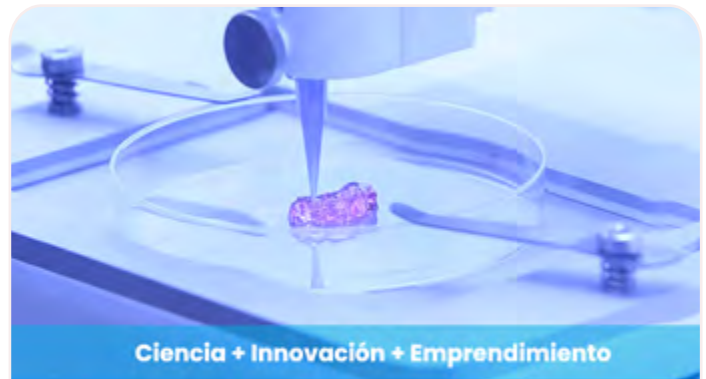
Benefitted Zone:

Canada, Colombia, Costa Rica, Denmark, Ecuador, and United States



Benefitted Population:

Children; people with chronic/terminal illness



CENTRO DE BIOTECNOLOGÍA FEMSA



Participating Areas/Schools:

School of Engineering and Science



Campus:

Monterrey



Targets addressed:

9.5



Outstanding Participants:

Aydee Coronado and Berenice Enríquez



Development of an Autonomous Hydroponic System



Researchers from Tec de Monterrey's School of Engineering and Science developed a prototype for an autonomous recirculating hydroponic system. The goal is to take advantage of plant nutrients and water. The system uses primarily solar energy.

The functional prototypes were validated by a group of researchers from Universidad Autónoma Agraria Antonio Narro. The results were **75% water savings in six months and 100% energy savings** with respect to conventional growing systems.

Social Network:

www.facebook.com/rdrsaid/posts/10157604366856765

Contact: Roberto David Rodríguez Said, rd.rodriguez.said@tec.mx



National Context:

Approximately 69% of the world's fresh water usage is for agriculture, the main cause of aquifer depletion and low water levels in rivers.¹²



Type of Initiative:
Research

Intervening Institutions:



Tecnológico de Monterrey



Benefitted Zone:
Saltillo (Coahuila)



Benefitted Population:
General population, agricultural producers and consumers



Participating Areas/Schools:
School of Engineering and Science



Campus:
Saltillo



Targets addressed:
9.4



Outstanding Participants:

Luis Fernando Espinoza de León, Dayanna Liñán, Airy Misael Benavente, Jorge Antonio Acosta, José Javier López, and Aarón Aguilar

¹² Organización de las Naciones Unidas para la Educación, la Ciencia y la Cultura (2021, 25 junio). Valorar el agua para la economía. *Informe Mundial sobre el Desarrollo de los Recursos Hídricos de 2021*. <https://www.unesco.org/reports/wwdr/2021/es/valorar-el-agua-para-la-economia>



The final part of the section describes institutional initiatives for sustainable campuses.



Annual Report on Greenhouse Gas Emissions

This report allows all Tecnológico de Monterrey institutions to measure the gases generated at each location in energy, fuel, and institutional travel, and to define areas of opportunity for reducing emissions. The resulting Ruta Azul document reports that Tec de Monterrey and TecSalud have reduced **annual greenhouse gas emissions by 28%**.

Contact: Martín Carlos Sánchez Gutiérrez,
martincarlos.sanchez@tec.mx

Water Purifiers

The objective of this initiative is to reduce Tec de Monterrey's carbon footprint in water consumption, by replacing bottled water with water purifiers.

To date, we have installed sixty purifiers throughout México, equivalent to 35% of the requirement and a **decrease of 1,860 kg of CO₂eq/m³**.

Contact: Sergio Gerardo Otero Montoya,
sergio.otero.m@tec.mx

Type of Initiative:
Institutional/operations

Benefitted Zone:
México

Benefitted Population:
General Population

Intervening Institutions:

Tecnológico de Monterrey

Universidad Tecmilenio

TecSalud
Sistema de Salud del Tecnológico de Monterrey

Replacement of Previous Technologies

This initiative replaces lighting and sanitation equipment with products that save energy and water and also have a longer useful life. From 2021 to date, **we have reduced energy consumption in lighting by 86%, with 50% savings in water**.

Contact: Víctor Gutiérrez,
victorgc@tec.mx

For further details, consult *Ruta Azul* [here](#).



Participating Areas/Schools:
Operations Office and Vice presidency of Finance



Campus:
National



Targets addressed:
9.1, 9.4



Outstanding Participants:
Ana Yael Vanoye, Ahiram Cruz Martínez, María José Ceja, Susana Arriaga Ortega, Elizabeth Leyva, and Luis Eduardo Contreras



10



Sustainable Development Goal Addressed

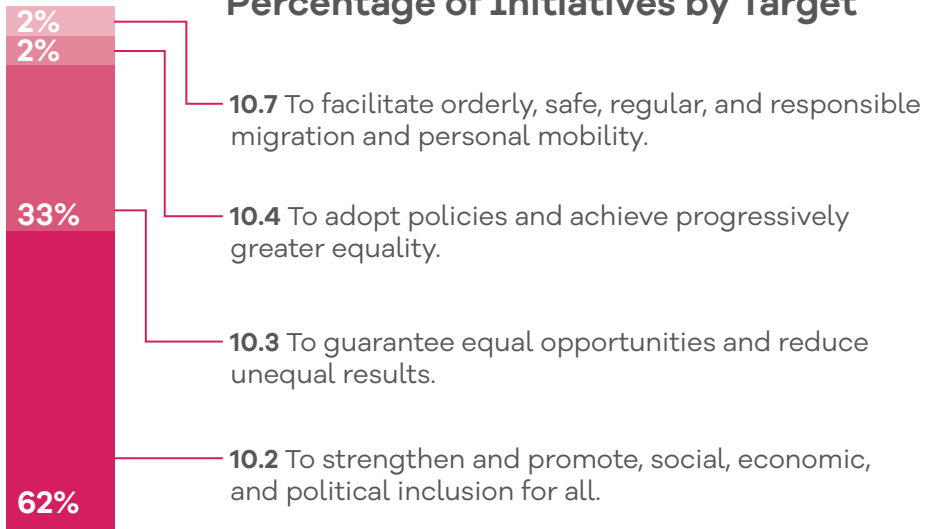
Reduced Inequalities



10. Reduced Inequalities

34 Initiatives

Percentage of Initiatives by Target



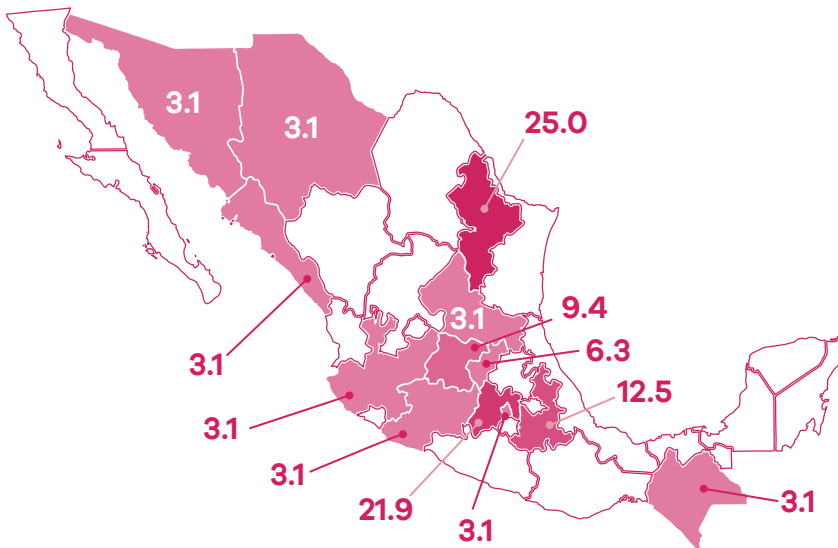
Main Indicators of Results



more than 100,000

urban art viewers and more than 650 people benefitted by prostheses and assessments.

Percentage of Initiatives by State*



Percentage of Initiatives by Vulnerable Population Served

35%

People with disabilities

8%

People living in poverty/marginalized zones

23%

Infants, children, and adolescents

5%

People with chronic/terminal illness

13%

Migrants

17%

Other



Percentage of Initiatives Directed by Area or School

21%

School of Humanities and Education

12%

Leadership and Development

15%

PrepaTec

12%

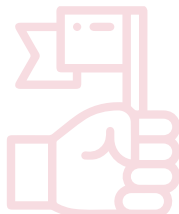
Social Service

12%

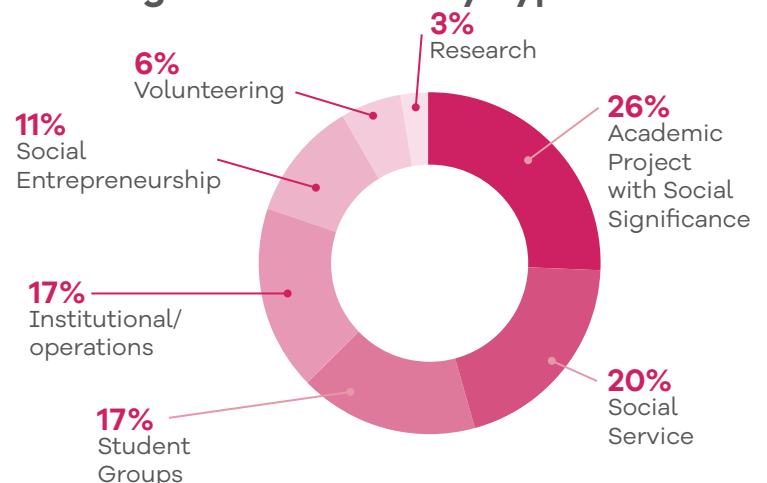
School of Engineering and Science

29%

Other



Percentage of Initiatives by Type



*The numbers on the map represent percentages



In an attempt to recognize and promote diversity, we continue to work for the inclusion of increasingly more people with disabilities, both within and outside of our institution. As part of this task, we use technology to generate initiatives that have a positive impact on social inclusion. We emphasize some of these initiatives below.

Electromechanical Toys for People with Disabilities

Students from the School of Engineering and Science **designed and delivered one hundred prototypes of electromechanical toys** that create fun activities for people with disabilities.

Contact: Elena Gabriela Cabral Velázquez,
gcabral@tec.mx



Participating Areas/Schools:

Business School, School of Humanities and Education, School of Engineering and Science

Intervening Institutions:



"Hello World" Technologies for Disabilities

This student-led project of social entrepreneurship won the Eugenio Garza Sada prize in 2021 in the category of "Social Innovation by Students." It consists of a **cell phone app** that **converts voice messages into text**. It also offers a medical assistant for visual support during medical consultations and offers pictograms to express ideas to **increase autonomy and inclusion** for people with hearing disabilities.

At the present time, the participating students are working to incorporate a Mexican sign language interpreter into the app for use in real time. **"Hello World" has benefitted fifty people with hearing disabilities.**

Social Network:

www.instagram.com/helloworld_incluir/

Contact: Jairo Enrique Ramírez Sánchez,
jairoenrique_ramirez@tec.mx



Type of Initiative:

Social Entrepreneurship



Benefitted Zone:

Estado de México, Michoacán, and Nuevo León



Benefitted Population:

People with Hearing disability



Outstanding Participants:

Laura Ruiz Pérez, Ana Laura Centeno, and Edgar Barroso



Campus:

Estado de México



Targets addressed:

10.2, 10.3





Migration is a social phenomenon motivated by the search for a better life. The México-to-United States migration corridor is the world's most traveled, according to the UN International Organization for Migration. As a result, migration is of special importance for México.

Below we present initiatives aimed at meeting the challenges migrants face on traveling through México.

Humanizing Deportation, a File of Digital Narratives

This initiative represents collaboration between Tec de Monterrey and a community project at University of California, Davis. The initiative documents, from migrants' perspectives, the consequences of current systems of border and migratory control in the United States and México.

The records consist of open-access, bilingual digital narratives. Students from our institution have participated in **recording more than three hundred narratives**.

Website:

humanizandoladeportacion.ucdavis.edu/en/

Contact: María de la Cruz de Fátima Castro Ricalde,
maricruz.castro@tec.mx



Benefitted Population:
Migrants

Intervening Institutions:



Tecnológico
de Monterrey



Type of Initiative:
Academic Project with
Social Significance



Benefitted Zone:
United States
and México



Participating Areas/Schools:
School of Humanities
and Education



Campus:
Toluca



Outstanding Participants:
Roberto Domínguez, Jacob Israel Bañuelos,
Salvador Leetoy, Óscar Mario Miranda, Juan
Manuel Fernández, and Cristina Reynaga



Targets addressed:
10.2, 10.3, 10.7



FrontIR

The undergraduate global business society offers two English classes weekly to migrants at the Casanicolás and Paso de Esperanza AC centers. The purpose of the classes is to teach migrants basic vocabulary in English that will help them communicate in the United States and have access to opportunities.

Since its beginnings in August of 2020, the initiative **has benefitted approximately 800 migrants.**

Social Network:

www.instagram.com/frontir.mty/?hl=es-la



Migrant Reality

This project was developed by the undergraduate international relations society. One of its objectives is to encourage migrants at the Casanicolás and Paso de Esperanza AC centers to participate in community actions so that they feel more accepted within the community of the state of Nuevo León.

Since its creation, the initiative **has benefitted more than 1,500 migrants**, who **have improved their communication skills, leadership, and adaptability.**

Social Network:

www.instagram.com/salricampusmonterrey

Contact: Julio Adrián Morales,

julioa.morales@tec.mx



Type of Initiative:
Student Groups



Benefitted Zone:
Monterrey and San Nicolás de los Garza (Nuevo León)



Participating Areas/Schools:
Leadership and Development



Campus:
Monterrey



Targets addressed:
10.2, 10.3, 10.7



Sustainable Development Goal Addressed

Sustainable Cities and Communities



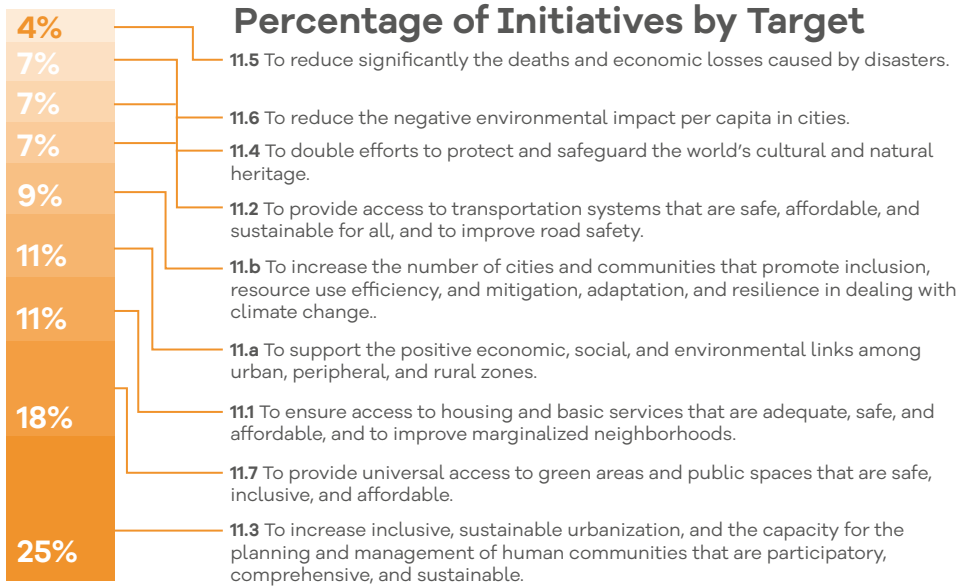
11. Sustainable Cities and Communities

45 Initiatives

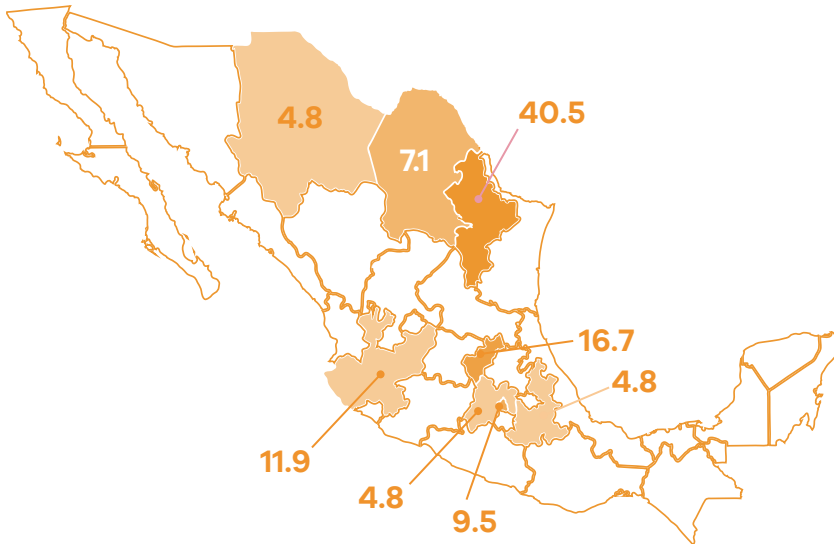
Main Indicators of Results



More than 34 thousand trees were inventoried and more than 300 children, adolescents, and young people were benefitted by low-cost or free courses.



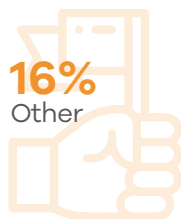
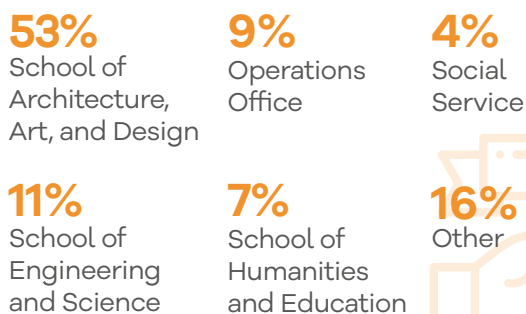
Percentage of Initiatives by State*



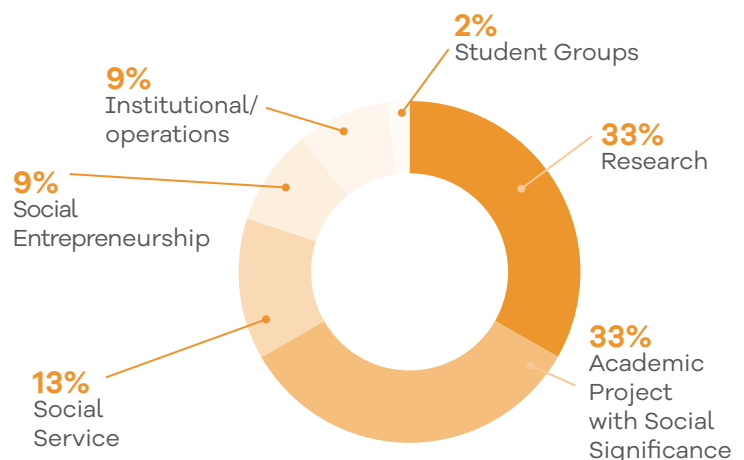
Percentage of Initiatives by Vulnerable Population Served



Percentage of Initiatives Directed by Area or School



Percentage of Initiatives by Type



*The numbers on the map represent percentages



Distritotec

Distritotec is an urban regeneration initiative that we have promoted in coordination with citizens, organizations, and authorities.

In 2020-2021, we carried out the following actions:

- **The design and required steps to implement a network of streets and bicycle lanes that increase traffic safety**, to benefit pedestrians, cyclists, and users of public transportation around the Monterrey Campus.
- **The strengthening of the neighborhood board of distritotec**, which represents the residential associations of the district's neighborhoods and is recognized by the authorities as a link for communicating and agreeing on actions.
- **The creation of an open gallery** on García Roel street, with twenty exhibition frames for **democratizing the visual arts** and encouraging all individuals to access culture in public space.
- **Neighborhood reforestation with 500 trees and the opening of Parque Central**. The park has three hectares of open space for local residents to interact and carry out multiple open-air activities. It also functions as a location for water collection.

Website: distritotec.itesm.mx

Contact: Ana Lorena González,

csalazar@tec.mx



Type of Initiative:
Institutional/operations



Benefitted Zone:
Monterrey (Nuevo León)



Benefitted Population:
General Population

Intervening Institutions:



Participating Areas/Schools:
Operations Office



Campus:
Monterrey



Goals Addressed:
11.2, 11.3, 11.4, 11.7, 11.a



Outstanding Participants:

Eduardo Aguilar, Mariana Ramírez, José Aquino Eloah, Melissa Toussaint, Laura de los Santos, Sheila Ferniza, Carolina Villarreal, María Teresa Nevares, Félix Lavín, Mariana Castro, Mario Adrián Flores, Víctor Gutiérrez, José Antonio Torre, Lorena Pulido, Diana Gutiérrez, Jaide Rivera, and Alejandro Acosta





Below we present three research initiatives in which data analysis and its visualization enable decision making for cities' sustainable urbanization and growth

City Observatory



This open-access digital platform was created by a team of researchers at the School of Architecture, Art, and Design, thanks to the support from the FEMSA foundation. Its function is to analyze the impact of local conditions (accessibility of services and equipment) on the quality of urban life.

The platform was used for a study on proximity during the COVID-19 lockdown in 74 Mexican cities. The proximity methodology was also applied to the new operating rules of México's public housing institution (Instituto del Fondo Nacional de la Vivienda para los Trabajadores-INFONAVIT).

Website: observatoriodeciudades.mx

Contact: Alfredo Hidalgo, ahidalgor@tec.mx



Benefitted Zone:
México



Benefitted Population:
General Population



Participating Areas/Schools:
School of Architecture, Art, and Design



Campus:
National



Outstanding Participants:
Rossana Valdivia, Luis Natera, Edgar Egurrola, and Sebastián Fajardo

National Context:

In México, 79% of the population lives in urban areas and only 21% in rural areas.¹³



Type of Initiative:
Research

Intervening Institutions:



Tecnológico de Monterrey

Morgenstadt Initiative of Global Smart Cities: Local Focus, Local Solutions

This initiative is part of the Water Center for Latin America and the Caribbean. It analyzes cities through the Morgenstadt methodology, based on sustainable performance indicators and climate viewpoints. The goal is to create custom solutions and the local appropriation of innovative projects and proposals.

The initiative's objective is for Saltillo to become a sustainable, resilient city through the implementation of innovative projects.

Website: mgi-iki.com/en

Contact: Eduardo Santillán, eduardo.santillan.gt@tec.mx



Benefitted Zone:
Saltillo (Coahuila)



Benefitted Population:
People affected by climate change, governments, social organizations, and local universities



Participating Areas/Schools:
School of Engineering and Science



Campus:
Monterrey



Outstanding Participants:
José Ignacio Huertas, María Elena Huertas, and Mónica José Cruz Prieto

¹³ INEGI (2020). *Población rural y urbana*. Población. https://cuentame.inegi.org.mx/poblacion/rur_urb.aspx?tema=P#:7E:text=En%201950%2C%20en%20M%C3%A9xico%2043,es%20de%2079%20por%20ciento





Urban Information System: Case of Monterrey Metropolitan Area

The project features a graphic interface on a digital platform that was designed by researchers at the School of Government and Public Transformation. The interface permits documenting the process of residential growth and employment in the Monterrey Metropolitan Area, based on data analysis and a quantitative methodology for the spatial diagnosis of information.

The interface identified a displacement pattern of the city's young population from downtown to urban areas on the outskirts, where new houses are sold at affordable prices.

Contact: Roberto Ponce López, rpl@tec.mx

**Benefitted Zone:**

Nuevo León

**Benefitted Population:**

General Population

**Participating Areas/Schools:**

School of Government and Public Transformation

**Campus:**

San Pedro

**Outstanding Participants:**

José Antonio Torre and Diego Fabián Lozano

**Type of Initiative:**
Research**Intervening Institutions:**

Tecnológico de Monterrey

**Environmental Initiative****COVID Initiative****Targets addressed:**

11.1, 11.3, 11.5, 11.a, 11.b



12



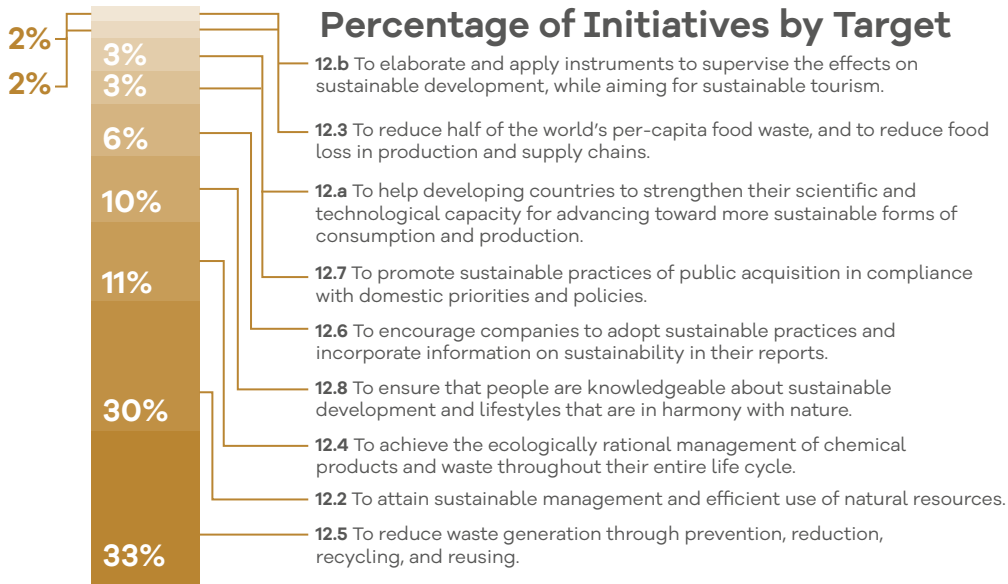
Sustainable Development Goal Addressed

Responsible Consumption and Production



12. Responsible Consumption and Production

37 Initiatives



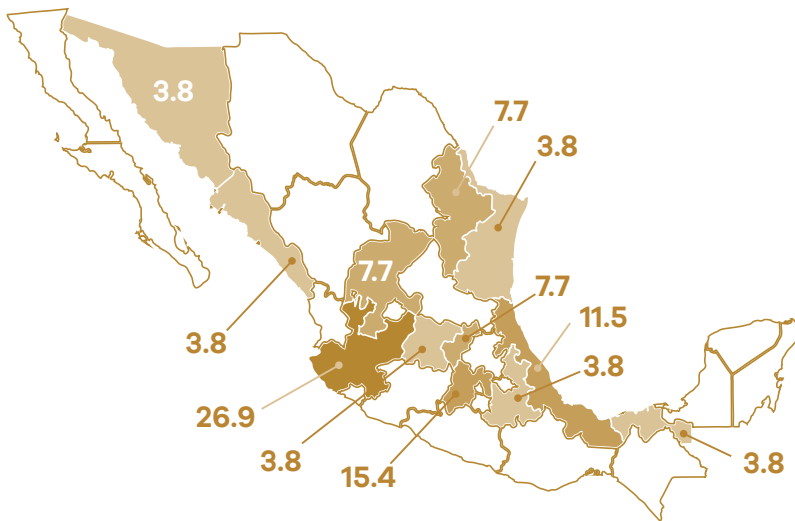
Main Indicators of Results



845,000

plastic bottles were avoided thanks to the use of campus drinking fountains.
Production of **1,612 ecobricks**.

Percentage of Initiatives by State*



Percentage of Initiatives by Vulnerable Population Served

50%
People living in poverty/ marginalized zones

13%
People affected by climate change/natural disasters

25%
People with chronic/ terminal illness

13%
Indigenous communities



Percentage of Initiatives Directed by Area or School

19%
Institute of Entrepreneurship
Eugenio Garza Lagüera

14%
Vice Presidency of Finance

19%
PrepaTec

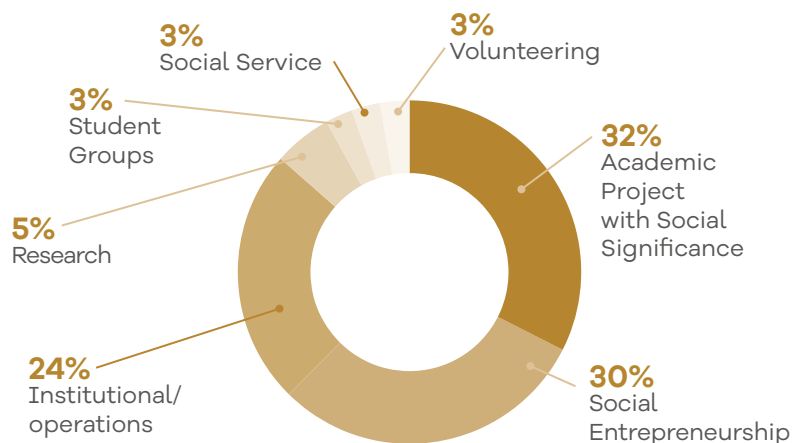
8%
School of Architecture, Art, and Design

14%
Operations Office

27%
Other



Percentage of Initiatives by Type



*The numbers on the map represent percentages



Sustainable Wealth Creation based on Innovation and Technology



The SWIT method, designed by researchers from the EGADE Business School, is focused on using innovation and technology to create conditions, capacities, synergies, and policies that favor sustainable wealth generation.

The program has achieved **twenty-four successfully implemented projects at the national and international levels**. These projects include a circular system for coffee production and another for palm oil in Colombia, a sustainable model for single-use plastics in México and Ecuador, and the development of a circular economy in a community in Higuera, Nuevo León.

Website: egade.csf.itesm.mx/ci/swit/

Contact: Carlos Scheel,

csheel@tec.mx



Type of Initiative:
Research

Intervening Institutions:



Benefitted Zone:
Latin America



Benefitted Population:
Regions and industries in developing nations

SWIT

SWIT Research Group: Sustainable Wealth Creation based on Innovation and Technology.
Towards sustainable prosperity for emerging economies.



Participating Areas/Schools:
EGADE Business School



Campus:
National

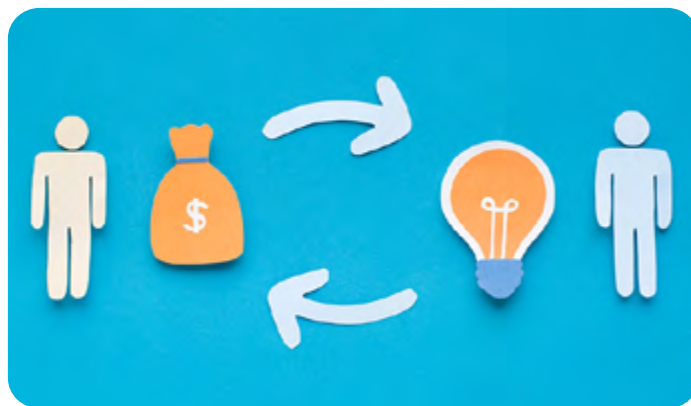


Targets addressed:
12.a



Outstanding Participants:

Eduardo Aguiñaga, Christiane Molina, Andrea Cantú, Tatiana Elizondo, Bernardo Bello, and David Pérez





Agave bioplastic



This project, developed by student Fernanda Ordorica in the Design II class, consists of creating a material derived from agave fiber. Due to its thinness and resistance, it is a **bioplastic for potential use in the textile industry**.

Website: cumulusgreen.org/agave-bioplastic/
Contact: Fernanda Ordorica Bechelany,
A01655227@tec.mx



Type of Initiative:
Academic Project with
Social Significance



Benefitted Zone:
National



Benefitted Population:
General population

**Intervening
Institutions:**



Participating Areas/Schools:
School of Architecture, Art, and Design



Campus:
México City



Targets addressed:
12.2, 12.5



Outstanding Participants:
Ian Ortega

National Context:

Since the worldwide plastic recycling rate is less than 10%, it is not a definitive solution for reducing plastic waste and production.¹⁴

Biointellectus



Based on actions in the entrepreneurship HUB and personal efforts, this EXATEC alumni initiative created a Mexican startup that produces bioplastics. By 2021, Biointellectus had achieved the **transition of five tons of plastic into bioplastics** winning the INCmty prize for two consecutive years.

Website: biointellectus.company.site/
Contact: Víctor Antonio Flores Santana,
victorantonio.flsa@gmail.com



Type of Initiative:
Social Entrepreneurship



Benefitted Zone:
National



Benefitted Population:
General population

**Intervening
Institutions:**



Participating Areas/Schools:
Entrepreneurship Institute Eugenio Garza Lagüera



Campus:
México City



Targets addressed:
12.2



Outstanding Participants:
Antonio Flores Santana

¹⁴ United Nations Environment Programme (2021). *From Pollution to Solution: A global assessment of marine litter and plastic pollution*. Nairobi. <https://www.unep.org/resources/pollution-solution-global-assessment-marine-litter-and-plastic-pollution>





Below we present two initiatives that use ecobricks to reduce the generation of waste.

Grick



Created by Tec students, this initiative won the international #ClimateTalks Global Hackathon. Grick builds houses from PET bottles to reduce the carbon footprint of construction and offer low-cost housing.

Website: www.youtube.com/watch?v=MyBIr4t3sb4

Contact: Sofia Azcona, a01252031@tec.mx

Ecobricks



High school students produced 1,612 ecobricks, which they hope to use next semester to build a perimetral bench 29 meters in length, at the José Luis María Mora public secondary school.

Website: www.ecobricks.org

Contact: María del Pilar Torija, pilartorija@tec.mx



Type of Initiative:

Academic Project with Social Significance



Benefitted Zone:

México



Benefitted Population:

Rural communities/marginalized zones, people living in poverty, general population

Intervening Institutions:



Type of Initiative:

Volunteering



Benefitted Zone:

Toluca (Estado de México)



Participating Areas/Schools:

PrepaTec



Participating Areas/Schools:

School of Engineering and Science



Campus:

Sonora Norte



Targets addressed:

12.2, 12.5



Outstanding Participants:

Ena Sofía Azcona, Marina Guadalupe Hernández, José Antonio Zepeda, and Ronaldo Beltrán



Campus:

Toluca



Targets addressed:

12.5, 12.8



Outstanding Participants:

Ana Paula Suárez



13



Sustainable Development Goal Addressed

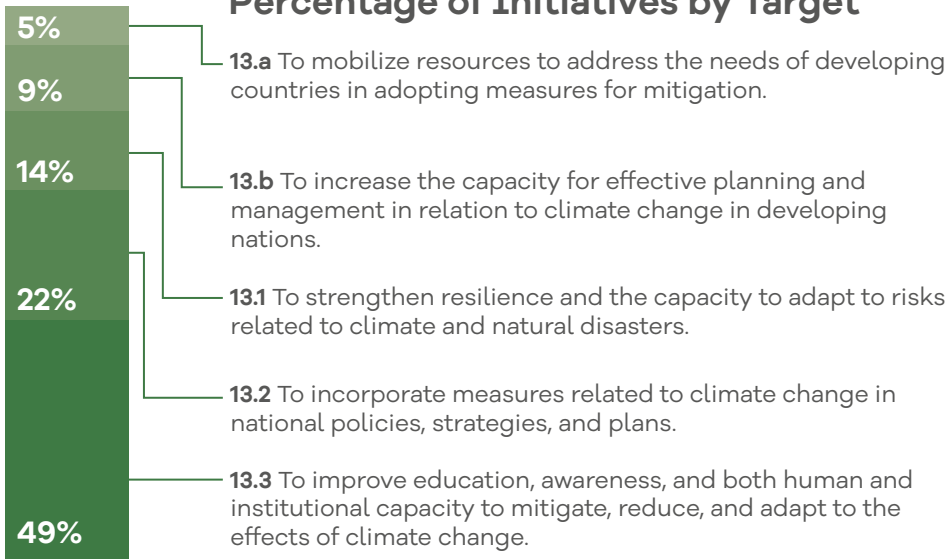
Climate Action



13. Climate Action

57 Initiatives

Percentage of Initiatives by Target

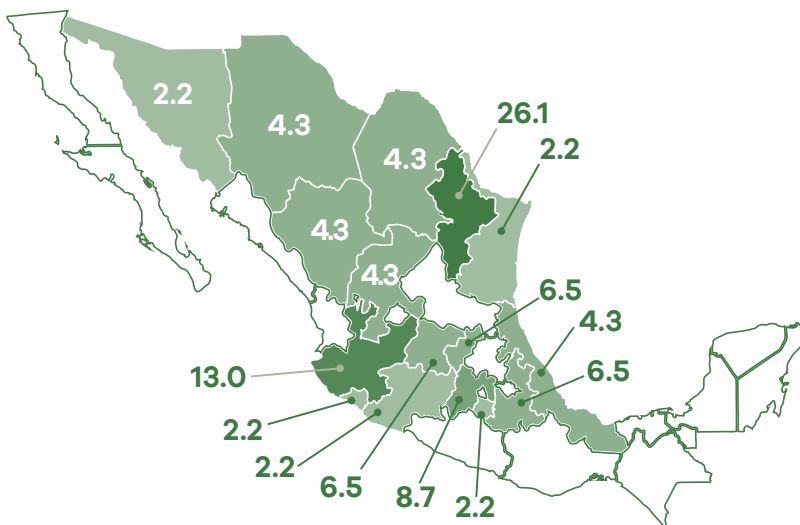


Main Indicators of Results



**More than
+11,800**
kilos of waste collected

Percentage of Initiatives by State*



Percentage of Initiatives by Vulnerable Population Served

23%

People living in poverty/marginalized zones

9%

Women

7%

People with disabilities

23%

Infants, children, and adolescents

19%

People affected by climate change/ natural disasters

19%
Other



Percentage of Initiatives Directed by Area or School

16%

PrepaTec

16%

Tecmilenio

12%

School of Engineering and Science

12%

Vice Presidency of Inclusion, Social Impact, and Sustainability

9%

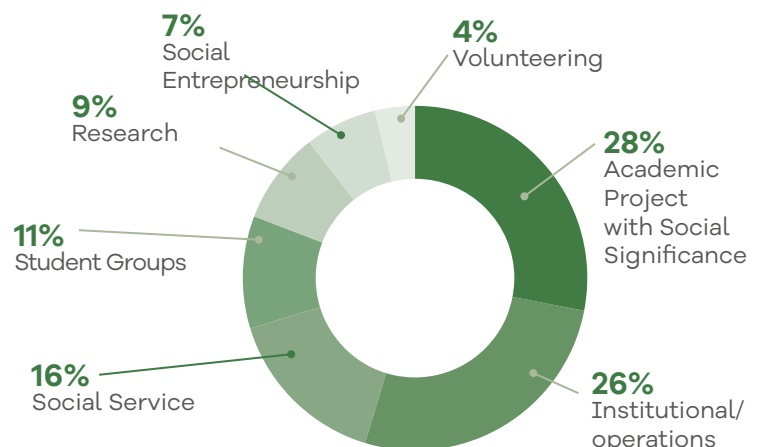
Operations Office

35%

Other



Percentage of Initiatives by Type



*The numbers on the map represent percentages



Ruta Azul



In *Ruta Azul* we define the path that we plan to follow to reach a sustainable future. Our goal is to become a model institution of sustainability as we adopt a proactive culture to deal with the climate emergency.

One of the plan's six areas, "Outreach," creates and promotes coalitions among universities, companies, NGOs, and governments to encourage climate action on a large scale. As a result, **our institution**, a member of Alliances for Climate Action (ACA-MX), serves as an **accelerator of Race to Zero**. In this role, we have supported 14 municipalities in the Monterrey metropolitan area and four universities as they have joined the initiative. In addition, we invited the State Government of Nuevo León to participate and are providing assistance in the process of its inclusion.

Website: www.youtube.com/watch?v=gEesMbUQZ8A

Contact: Perla Martínez,

perla.mtz@tec.mx



Type of Initiative:
Institutional/operations



Benefitted Zone:
México



Benefitted Population:
General Population

Intervening Institutions:



Participating Areas/Schools:
Operations Office and Vice presidency of Inclusion, Social Impact and Sustainability



Campus:
Monterrey



Targets addressed:
13.1, 13.2, 13.3, 13.b



Outstanding Participants:
We appreciate the more than 90 students, teachers, and collaborators who have participated in this initiative.





Climate Terror: Survival Kit



This project involves an exhibition produced by Museo Urbano Interactivo (MUI). The exhibit reveals the environmental and psychosocial implications that we are facing as a result of global warming, along with possible solutions. The installation has four sections, which show the joint creations of resident artists and Tec de Monterrey researchers. The works guide viewers in experiencing episodes of eco-anxiety upon “living” the implications of climate change and learning to mitigate them.

The project's goal is to present the public with a survival kit for climate terror (consisting of a podcast, TikTok videos, and measurement of climate emotions). In this manner, people are able to transform their emotions into possible actions for mitigating the effects of global warming.

From its opening in August of 2021, through June 15, 2022, the exhibit registered 15,930 in-person visits and 11,000 digital interactions.

Social Network: www.facebook.com/elmuitec
Contact: Victorino Morales Dávila,
victorino.morales@tec.mx



Type of Initiative:
Research

Intervening Institutions:



Benefitted Zone:
Puebla (Puebla)



Benefitted Population:
Children, adolescents, women, indigenous communities, general population



Participating Areas/Schools:
School of Architecture, Art, and Design



Campus:
Puebla



Targets addressed:
13.1, 13.3



Outstanding Participants:
Juan Carlos Montes, Yuliana Vázquez, Paola Marsella Jiménez, Janet Gutiérrez, and Pabel Antonio Cervantes





AIoT Platform to Generate an Epidemiological Risk Index for the Southern Zone of the Guadalajara Metropolitan Area



Researchers from the School of Engineering and Science designed, developed, and deployed an artificial intelligence platform to generate predictive models and visualize an epidemiological risk index based on environmental and health variables.

Currently, the platform has **a monitoring network of ten fixed points to measure air quality, and three points for water**. It is able to issue a risk index in 48 hours, which is used by the Secretary of the Environment and Development in the state of Jalisco to make decisions in public policy.

Website: semadet.ciateq.net.mx/

Contact: Alfredo Figarola, alfredo.figarola@tec.mx

National Context:

Before 2018, no international record had shown atmospheric carbon dioxide (a GHG) concentration greater than 400 parts per million (ppm). In 2018, this concentration was 407.8 ppm of CO₂; in 2021 it increased to 415.¹⁵



Type of Initiative:
Research

Intervening Institutions:



Benefitted Zone:
Jalisco



Benefitted Population:
Girls, boys and adolescents; older adults;
people affected by climate change;
General population; government



Participating Areas/Schools:
School of Engineering and Science



Campus:
Guadalajara



Targets addressed:
13.2, 13.3, 13.b



Outstanding Participants:
Miriam Pérez, Janneth Alejandra Salamanca, Jesús Antonio Moreno, Arturo López, and Miguel Pérez

¹⁵ Secretaría de Medio Ambiente y Recursos Naturales. (2021). *México trabaja en la reducción de CO₂ y en fortalecer la adaptación al cambio climático*. Gobierno de México. <https://www.gob.mx/semarnat/articulos/dia-mundial-por-la-reduccion-de-las-emisiones-de-carbono-co2?idiom=es:%7E:text=Al%20respecto%2C%20el%20secretario%20General,en%202021%20ha%20alcanzado%20415ppm>





Xignux Challenge



This initiative, part of the Water Center for Latin America and the Caribbean, was created in 2018 through an alliance of Fundación Xignux and Tec de Monterrey. Its goal is to provide seed capital to students from our institution to develop projects that aid in mitigating climate change. These projects include:

Vélo: a project of sustainable electromobility that offers bicycle rentals.

MAMU: a network of mobile meteorological stations that use various technologies to monitor urban air quality.

Sol verde: a project that designs and implements solar lamps for Casa Paterna La Gran Familia, with a pilot project for children's environmental education.

Website: xignuxchallenge.net

Contact: María Gabriela Ortiz, gabriela.ortiz@tec.mx



Type of Initiative:
Academic Project with Social Significance

Intervening Institutions:



Benefitted Zone:
National



Benefitted Population:
General Population



Participating Areas/Schools:
School of Engineering and Science



Campus:
Monterrey



Targets addressed:
13.3



Outstanding Participants:
Alberto Mendoza, Mónica Delgado, Yasmany Mancilla, and Marcel Hernández

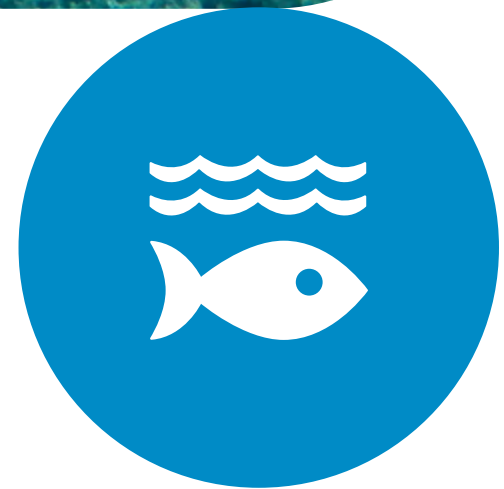


14



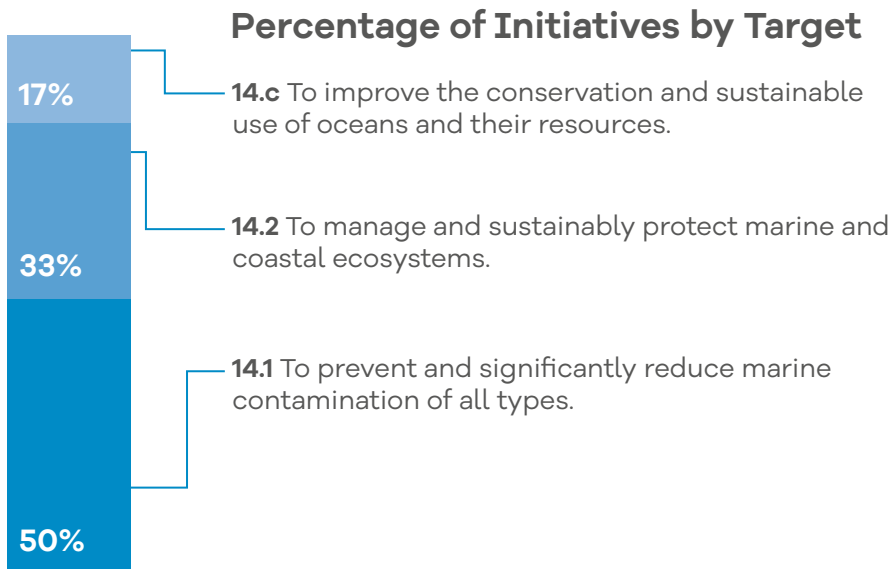
Sustainable Development Goal Addressed

Life Below Water



14. Life Below Water

5 Initiatives



Main Indicators of Results



Winner of
Marine Debris Program Awards
from the U.S. National Oceanic and Atmospheric Administration (NOAA) and collection of two tons of bladderwrack.

Percentage of Initiatives by State*



Percentage of Initiatives by Vulnerable Population Served

100%
General Population



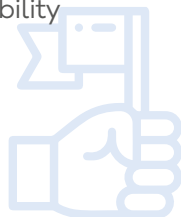
Percentage of Initiatives Directed by Area or School

40%
Tecnilenio

20%
School of Engineering and Science

20%
PrepaTec

20%
Vice Presidency of Inclusion, Social Impact, and Sustainability



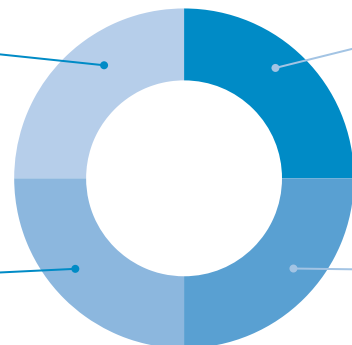
Percentage of Initiatives by Type

25%
Research

25%
Volunteering

25%
Academic Project with Social Significance

25%
Institutional/operations



*The numbers on the map represent percentages



Implementation of CAP Methodology (Circular Assessment Protocol) in México



A group of researchers from the Water Center for Latin America and the Caribbean implemented in México for the first time a methodology developed by the University of Georgia to evaluate the circularity of plastics. The objective is to report on waste management and prevent ocean pollution.

The methodology was used in five locations: México City, Querétaro, Monterrey, San Cristóbal de las Casas, and Tuxtla Gutiérrez.

Website:

www.conecta.tec.mx/es/noticias/nacional/investigacion/implementara-tec-metodologia-para-el-manejo-de-residuos-en-mexico-0

Contact: Gabriela Ortiz Martínez,
gabriela.ortiz@tec.mx

National Context:

Within a year, approximately eleven million metric tons of plastic are expected to reach the ocean.¹⁶



Type of Initiative:
Research



Benefitted Zone:
México



Benefitted Population:
General Population

Intervening Institutions:



Tecnológico de Monterrey



Participating Areas/Schools:
School of Engineering and Science



Campus:
Monterrey



Targets addressed:
14.1



Outstanding Participants:
Alberto Mendoza, Mónica Delgado, Carlos Ortiz, Mario Alberto Trujillo, and Yasmany Mancilla

¹⁶ United Nations Environment Programme (2021). *From Pollution to Solution: A global assessment of marine litter and plastic pollution*. Nairobi. <https://www.unep.org/resources/pollution-solution-global-assessment-marine-litter-and-plastic-pollution>



Inclusive Recycling Model, Campana Altamira and distritotec Initiatives



This project is part of the Mitigation and Outreach areas of *Ruta Azul*. In cooperation with allied organizations, the initiatives' goal is to organize and formalize the work of a community of urban recyclers from distritotec and Campana-Altamira. Project actions include:

- training
- workdays for urban solid waste remediation at Arroyo Seco
- analysis of public policy
- collaborations with key actors
- remodeling of recycling center at Monterrey Campus.

The project won a Marine Debris Program Award from the U.S. National Oceanic and Atmospheric Administration (NOAA).

Website: tecreview.tec.mx/2021/09/10/liderazgo-1/noaa-premia-proyecto-del-tec-para-descontaminar-arroyos-en-monterrey/

Contact: Perla Martínez, perla.mtz@tec.mx



Type of Initiative:
Institutional/operations

Intervening Institutions:



Benefitted Zone:
United States and México

 Tecnológico de Monterrey



Benefitted Population:
General Population



Participating Areas/Schools:
Operations Office and Vice Presidency of Inclusion, Social Impact, and Sustainability



Campus:
Monterrey



Targets addressed:
14.1



Outstanding Participants:
José Antonio Torre, Ana Lorena González, Cynthia Villarreal, Delia Gutiérrez, Tania Arrambide, Mariela Rivas, and Sheila Quintanilla





Below we present two projects from Tecmilenio students in the *Becas con propósito* program ("Scholarships with a Purpose"). The program, a philanthropic initiative of the university and Heineken, grants full scholarships to talented young people who have the potential to become agents of positive change.



Participating Areas/Schools:
Becas con propósito



Targets addressed:
14.1

Bladderwrack Boxes

Within the *Becas con propósito* scholarship program at Tecmilenio, student José Ángel Santos created a project for volunteers, **to remove trash and two tons of bladderwrack from five beaches in Quintana Roo**. The bladderwrack was **used to make ecological boxes**.

Social Network: www.facebook.com/Sargazbox/
Contact: José Ángel Santos Oxe,
al02996129@tecmilenio.mx



Type of Initiative:
Academic Project with Social Significance

Intervening Institutions:



Benefitted Zone:
Benito Juárez (Quintana Roo)



Benefitted Population:
General Population



Campus:
Cancún



Cleaning of Mazatlán Beaches

With support from the municipality of Mazatlán, the student Yocelin Nohemí Mora used the project to raise awareness about caring for beaches. The municipality provided ecological bags for tourists and local residents to deposit waste; it also imposed fines on litterers. Yocelin, with the help of volunteers, **collected fifty bags of trash**.

Social Network: www.facebook.com/Limpia-la-playa-Mazatl%C3%A1n-104538494948169
Contact: Yocelín Nohemí Morales,
Al02961230@tecmilenio.mx



Type of Initiative:
Academic Project with Social Significance

Intervening Institutions:



Benefitted Zone:
Mazatlán (Sinaloa)



Benefitted Population:
General Population



Campus:
Mazatlán



15



Sustainable Development Goal Addressed

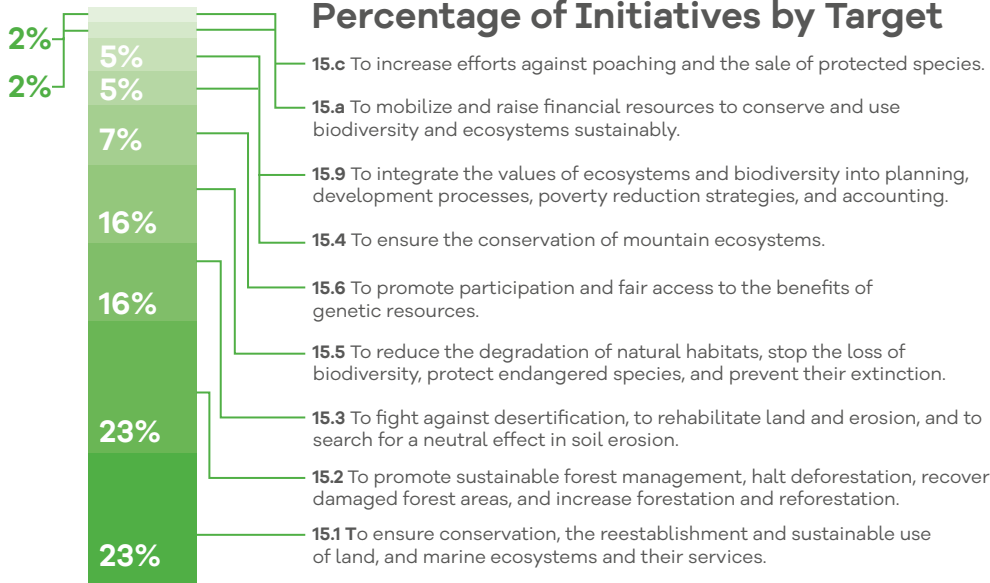
Life on Land



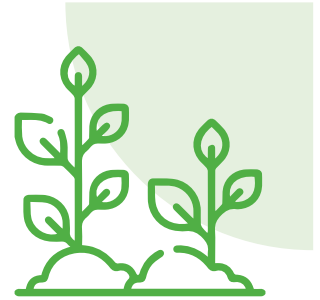
15. Life on Land

28 Initiatives

Percentage of Initiatives by Target



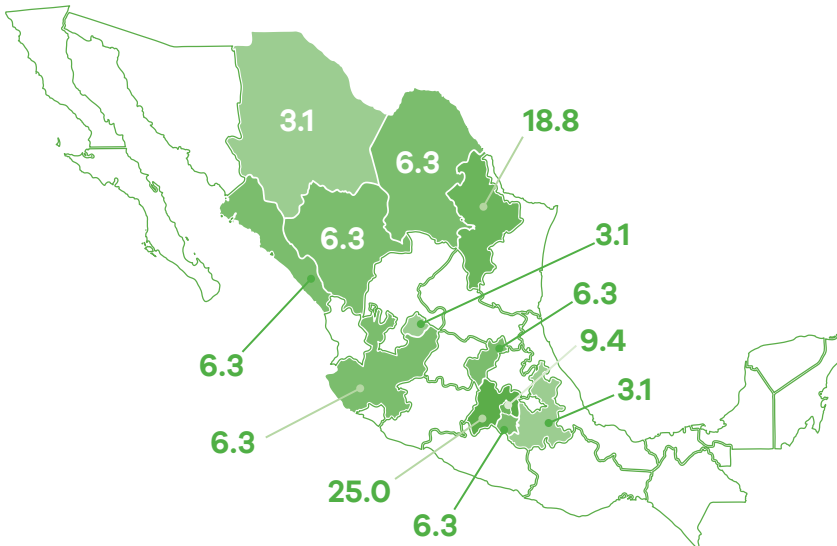
Main Indicators of Results



4,000

trees planted and ten hectares reforested

Percentage of Initiatives by State*



Percentage of Initiatives by Vulnerable Population Served

35%

People living in poverty/marginalized zones

12%

People affected by climate change/natural disasters

29%

Infants, children, and adolescents

6%

Women

18%

Other



Percentage of Initiatives Directed by Area or School

39%

Tecmilenio

14%

PrepaTec

7%

School of Humanities and Education

7%

School of Engineering and Science

4%

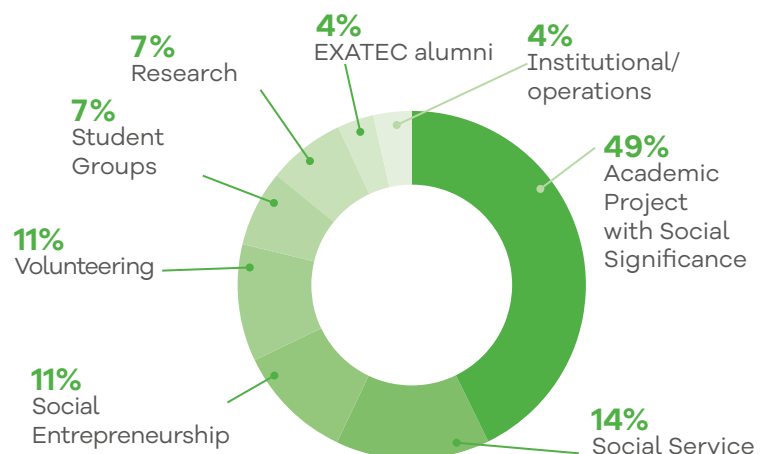
School of Architecture, Art, and Design

29%

Other



Percentage of Initiatives by Type



*The numbers on the map represent percentages



Biodiversity is of vital importance for ecospheric equilibrium. The conservation of species is a collective commitment that must be treated with a comprehensive focus. Listed below are initiatives dedicated to biodiversity.

Jimulco AC Foundation



This exercise in governance was promoted by the Laguna Campus, the municipal government of Torreón, two business chambers, four universities, and the association of communal landowners at the Sierra and Cañón de Jimulco municipal and ecological reserve. The project's goal is to maintain the reserve to benefit the region's inhabitants, as well as the current and future generations of the state of Coahuila, and to contribute to improving the lifestyles of its rural communities.

The participants in the Jimulco AC Foundation **have halted the extraction of flora**, while monitoring the pollution of the Aguanaval River to **oversee the quality of the zone's aquifer**, and to **prevent wildfires by** creating a fire brigade.

The foundation is benefitted by the trust and confidence of the reserve's inhabitants, who have organized to make decisions to preserve their resources and **reforest five hectares**.

Website: fundjimulcoac.com.mx
Contact: Ana Olga Rodríguez Betancourt,
ana.olga.rodriguez@tec.mx

National Context:

México is catalogued as one of the world's twelve most diverse nations, which as a whole contain 70% of the world's terrestrial flora and fauna.¹⁷



Type of Initiative:
Social Entrepreneurship

Intervening Institutions:



Benefitted Zone:
Torreón (Coahuila)

 Tecnológico de Monterrey



Benefitted Population:
Rural communities/marginalized zones, government and social organizations



Participating Areas/Schools:
Business School



Campus:
Laguna



Targets addressed:
15.1, 15.5, 15.7



Outstanding Participants:
Jacqueline Giacomán Arratia

¹⁷ Secretaría de Medio Ambiente y Recursos Naturales. (2020). PROGRAMA ESPECIAL DERIVADO DEL PLAN NACIONAL DE DESARROLLO 2019–2024. Programa Nacional Forestal 2020–2024. https://www.dof.gob.mx/nota_detalle.php?codigo=5609275&fecha=31/12/2020#gsc.tab=0





Pollinating Gardens



This joint project of society and government, PrepaTec students, the General Coordination of Ecological Conservation, and personnel from the zone's environmental parks, **planted 700 native plants** known to be **pollinating**. The objective is to **convert urban spaces into a habitat** for different types of insects that distribute pollen.

Social Network: www.facebook.com/394464343913290/posts/5135657493127261

Contact: María del Rosario Noemí Ahumada,
nohemi.ahumada@tec.mx



Type of Initiative:
Academic Project with Social Significance

Intervening Institutions:



Benefitted Zone:
Metepec (Estado de México)



Benefitted Population:
General Population



Participating Areas/Schools:
PrepaTec



Campus:
Metepec

Freebees



In this initiative, the student Isabel Ramos, along with the community's beekeeping families, is attempting to preserve the bees of Jilotepec. They are relocating the hives from high-risk zones to a protected area, and are generating jobs by producing certified honey.

Freebees has a **location for the four hives** has formed a **team of forty-nine beekeepers** and has involved government associations in **certifying the Mexican honey in the state**.

Social Network:

www.facebook.com/Freebees-104778968430513

Contact: Isabel Ramos Arciniega,
al02988982@tecmlenio.mx



Type of Initiative:
Social Entrepreneurship

Intervening Institutions:



Benefitted Zone:
Jilotepec (Estado de México)



Benefitted Population:
General Population



Participating Areas/Schools:
Student Experience



Campus:
Querétaro





Below we present initiatives dedicated to the reforestation and preservation of wooded areas.

EXATEC Reforestation of Toluca Campus



The main participants in this project—EXATEC alumni—were accompanied by organizations, private companies, students, teachers, and parents in **planting more than 2,200 trees in the Toluca Valley** in 2020 and 2021.



Reforestation of Barranca de Chapultepec, Morelos

The event was promoted by PrepaTec at the Cuernavaca Campus, in coordination with the state government's Director of Sustainability, **to plant one hundred Montezuma cypress trees**.

Ecozone

The student Paulina Martínez, from Tecmilenio, **collected and sold recyclable waste** to raise funds for **buying and planting fifteen trees in Santa María, Tequepexpan**.

Collaboration with Amauni Foundation

This PrepaTec project was supported by volunteers in Tepoztlán, Morelos, **planting thirty trees and raising the awareness of more than three thousand people** about the prevention and control of forest fires.



Your Green Space

The student Eliot Leija, also from Tecmilenio, involved the community of García, Nuevo León, informing **in the rescue and planting of 16 trees**.



16



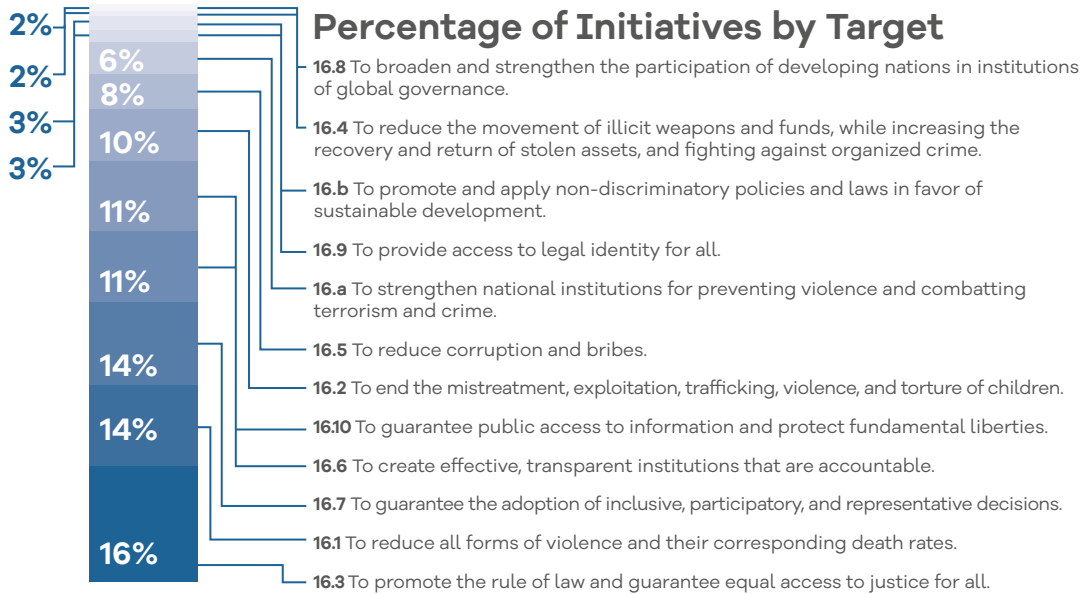
Sustainable Development Goal Addressed

Peace, Justice and Strong Institutions



16. Peace, Justice and Strong Institutions

30 Initiatives



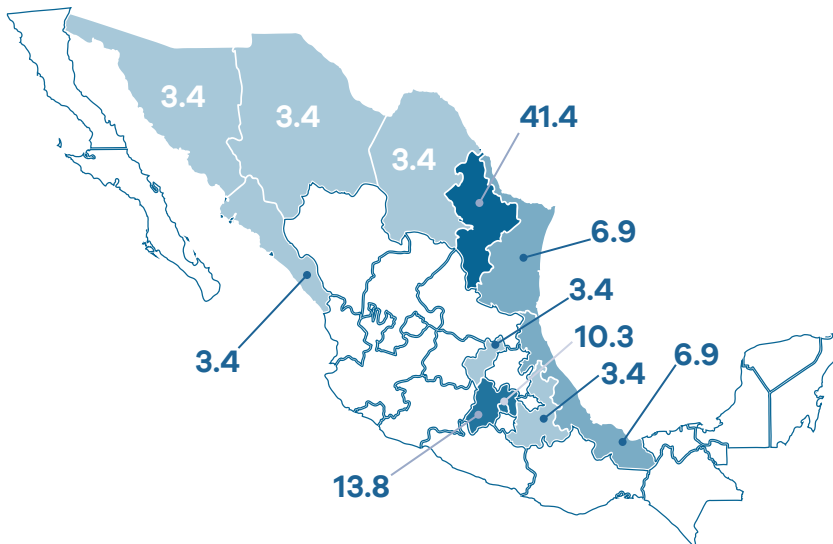
Main Indicators of Results



32

Anticorruption Prosecutors in México were evaluated.

Percentage of Initiatives by State*



Percentage of Initiatives by Vulnerable Population Served

18%

Women

13%

Senior citizens

16%

People with disabilities

11%

People living in poverty/marginalized zones

16%

Infants, children, and adolescents

26%

Other



Percentage of Initiatives Directed by Area or School

43%

School of Social Science and Government

7%

Social Service

17%

School of Humanities and Education

7%

Vice Presidency of Inclusion, Social Impact, and Sustainability

7%

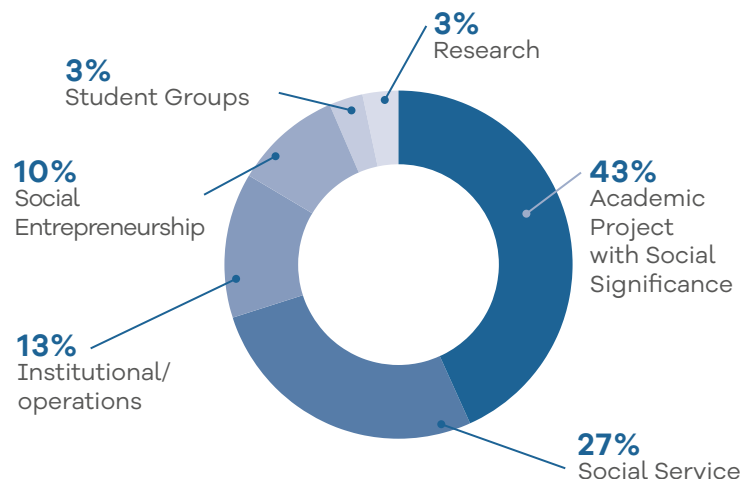
PrepaTec

20%

Other



Percentage of Initiatives by Type



*The numbers on the map represent percentages



Casa Naranjos

This meeting space facilitates building and strengthening our community. Neighbors from distritotec, students, representatives of organizations in civil society, and other city actors promote efforts in three areas:

- 1.- Encounters and interactions
- 2.- Art and culture
- 3.- City and citizens

Their goal is to have a social impact on the zone.

In 2020 and 2021, Casa Naranjos was the site of **2,071 activities**, including workshops, classes, conferences, and round tables, which **impacted more than ten thousand users**.

Website:

distritotec.itesm.mx/proyectos/casa-naranjos-2/

Contact: Mariana Ramírez Padilla,
mariana.ramirezpadilla@tec.mx



National Context:

"Addressing inclusion through spatial, social, and economic inclusion and eliminating barriers to participation and decision-making processes, while sharing the benefits of public space, sustains justice and social equity. Equity for public spaces involves people from all economic levels, genders, national origins, health conditions, and interests."¹⁸



Type of Initiative:

Institutional/operations

Intervening Institutions:



Benefitted Zone:

Monterrey (Nuevo León)



Benefitted Population:

General Population



Participating Areas/Schools:

Operations Office



Campus:

Monterrey Campus



Targets addressed:

16.1, 16.7



Outstanding Participants:

Paola Anahí García Ortiz and Kenya Dinorah Ruiz Martínez

¹⁸ O'Donnell, P. M. (2017). Facilitar el acceso a los espacios públicos para impulsar beneficios económicos, medioambientales y sociales [Libro electrónico]. En N. Lahbil Tagemouati, R. Stephens, & M. Hender (Eds.), *Cultura: futuro urbano, informe mundial sobre la cultura para el desarrollo urbano sostenible* (p. 187). Organización de las Naciones Unidas para la Educación, la Ciencia y la Cultura.



Parliamentary Bureau

This initiative began as a digital political platform to increase citizens' knowledge of politics and facilitate their participation in public decisions. The platform shares impartial information about candidates running for public office as independents or party members.

In **2021**, the platform registered **more than two million visits and eighty thousand downloads**.

Social Network:

www.facebook.com/BuroParlamentario/

Contact: Sergio Bárcena, sergio.barcena@tec.mx



Type of Initiative:
Social Entrepreneurship

Intervening Institutions:



Benefitted Zone:
Colombia, United States, and México

 Tecnológico de Monterrey



Benefitted Population:
General Population

ESTADÍSTICA LEGISLATIVA: EN EL PRIMER AÑO DE LA LXV LEGISLATURA EL SENADO DE LA REPÚBLICA APROBÓ 206 PROYECTOS DE LEYES O DECRETOS



Reformas
Constitucionales

3



Nuevas Leyes

10



Leyes reformadas

155



Otros decretos

38

Total: 206

Fuente: Senado de la República.

 BURO
REALIZADO



Participating Areas/Schools:
School of Humanities and Education



Campus:
México City



Targets addressed:
16.7, 16.a



Outstanding Participants:
Francisco Méndez Sánchez





Initiative of Transparency, Anticorruption, and Digitalization



In this institutional effort, we work in coordination with the public, private, and social sectors. The objective is to design and implement public policies, contribute to legislative action and reform, and carry out academic research on transparency, the rendering of accounts, open government, digital government, reports of corruption, business integrity programs for SMEs, public bidding, international jurisdiction in anticorruption, and the National Anticorruption System.

As of 2021, through this initiative **we have evaluated México's 32 anticorruption prosecutors**, in addition to developing a methodology to identify probable acts of corruption in social programs, and participating in the Paris Forum with the #DenunciaCorrupción project. This project is included in the list of 100 projects to consider for rebuilding society after the COVID-19 pandemic.

Website: www.transparenciayanticorrupcion.mx/
Contact: María de los Ángeles Estrada,
angelese@tec.mx



Type of Initiative:
Research



Benefitted Zone:
México



Benefitted Population:
General Population

Intervening Institutions:



Tecnológico de Monterrey



Participating Areas/Schools:

School of Government and Public Transformation



Campus:
National



Targets addressed:
16.3, 16.6



Outstanding Participants:

Juan José Tena, Mariana Cendejas, Sophia de Micah González, Ana Elena Vélez, and Diego Amílcar Díaz





Agreement between Secretary of Inclusion and Social Wellbeing and Tec de Monterrey

In this collaboration with the Ministry of Inclusion and Social Wellbeing (SIBISO), we prepare, train, and support the development of officials who serve vulnerable populations. Likewise, we refine intervention models so that public servants can attend to priority populations with the highest standards of quality and human warmth.

Contact: Julio Rubio, jerb@tec.mx



Type of Initiative:
Institutional/operations



Benefitted Zone:
México City



Benefitted Population:
Children and adolescents; women;
senior citizens; people with addictions;
people living in poverty

Intervening Institutions:



Tecnológico de Monterrey



Participating Areas/Schools:
School of Humanities and Education



Campus:
México City



Targets addressed:
16.7



Outstanding Participants:
Benito Sotelo, Julio Ernesto Rubio Barrios, Juana Julieta Noguez Monroy, Julieta Adriana León López, Juan Carlos Olmedo, María Fernanda Gallegos Juárez, Francisco Daniel Bañuelos Cuéllar y Miriam Alicia Gleason Rodríguez



17

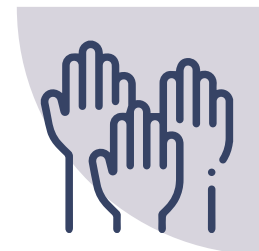


Sustainable Development Goal Addressed

Partnerships for the Goals



22 Initiatives



+12,800

**people participated
in our institutional
volunteer programs**



Served
17%

People living
in poverty/
marginalized
zones

17%

Infants, children, and adolescents

17%
Women

17%

1770 Senior citizens

11%

People with disabilities

22%
Other



School of Social
Science and
Government

14%

Business School

9%

Social Service

9%

Tecmilenio

9%

Other



5% — Student Groups

18% Social Service

23%
Social
Entrepreneurship

5%
Research

27% Institutional/operations

23%
Academic
Project
with Social
Significance

*The numbers on the map represent percentages



Tec de Monterrey Volunteer Program



Through the permanent listing of programs and the institution's Volunteer Day, we raise our community's awareness of the social problems we can address.

Volunteer Day includes activities aimed at serving disadvantaged public schools. In **2020, sixty-two national and international sites participated** with **more than 4,000 volunteers serving more than one hundred public schools**. In **2021**, participation totaled **more than 3,000 volunteers**. The beneficiaries were **36,000 students in public schools**.

Through the permanent listing of programs, we matched initiatives with members of our community interested in participating in projects that address social and environmental problems. In **2,900 volunteers participated in the twenty-nine initiatives** listed. As a special project, **1,380 volunteers collaborated in vaccinating more than 180,000 people** at our **COVID-19** vaccination centers.

Website:

tec.mx/es/floreCIMIENTO-humano/voluntariado-tec

Contact: Verónica Gámez, veronica.gamez@tec.mx



National Context:

The organizations from civil society consulted in the Informe nacional voluntario 2021, Agenda 2030 en México, mention that their work is closely related to the SDGs and that all SDGs must be emphasized.¹⁹



Type of Initiative:
Institutional

Intervening Institutions:



Benefitted Zone:
México

Tecnológico de Monterrey



Benefitted Population:
Infants, children, and adolescents; rural communities/marginalized zones



Participating Areas/Schools:

Vice Presidency of Inclusion, Social Impact, and Sustainability



Campus:
National



Targets addressed:
17.16, 17.17



Outstanding Participants:

Karla Paulina Salazar, Rocío Gutiérrez Martínez, and the participants who have made this program a reality.

¹⁹ Secretaría de Economía. (2021). Informe Nacional Voluntario 2021, Agenda 2030 en México. Disruptivo.tv. https://www.gob.mx/cms/uploads/attachment/file/654347/INV2021_web_1.pdf





Site of Actions with Social Impact on COVID-19



In May of 2020, we launched a website to compile initiatives, projects, programs, webinars, and workshops that the Tec community has carried out to deal with the COVID-19 pandemic. The site's objective is to make these resources available to the general public.

In five areas, **84 social actions** have been registered, in addition to **181 webinars**. As of **2021**, the page had **registered 13,957 visitors**.

Website: tec.mx/es/acciones-de-impacto-social
Contact: Sandra Esteli Reyes Vásquez,
sandra.reyes@tec.mx



Type of Initiative:
Institutional/operations

Intervening Institutions:



Benefitted Zone:
México

Tecnológico de Monterrey



Benefitted Population:
General Population



Participating Areas/Schools:
Vice Presidency of Inclusion, Social Impact, and Sustainability



Campus:
National



Targets addressed:
17.17



Outstanding Participants:
Cynthia Villarreal and Jessica Lizeth Fonseca

Stanford Social Innovation Review in Spanish

The *Stanford Social Innovation Review* is a leading journal and global reference for inspiring and spreading information about social innovations. The Spanish version, in addition to translating and publishing articles from the English edition, creates original content in Spanish to reflect the challenges of the Spanish-speaking world. Its objective is to make this knowledge available to the local population and raise awareness of the work carried out in social innovation.

As of **2022** four quarterly issues and more than **170 articles** have been published.

Website: ssires.tec.mx/es
Contact: Andrea González,
andreagonzalezaguilar@tec.mx



Type of Initiative:
Institutional/operations

Intervening Institutions:



Benefitted Zone:
Spanish-speaking Nations

Tecnológico de Monterrey



Benefitted Population:
General Population



Participating Areas/Schools:
Vice Presidency of Inclusion, Social Impact and Sustainability



Campus:
National



Targets addressed:
17.6, 17.17, 17.18



Outstanding Participants:
Cynthia Villarreal, Daniela González, Enrique Barillas, Carla Aguilar, Sandra Reyes, Dariela Parra, José Guadalupe de los Santos, and the journal's translating team.





SDG Initiative at Tec



This strategic initiative of the School of Social Science and Government is focused on generating and developing innovative solutions for implementing the United Nations Sustainable Development Goals in our institution and in México.

The initiative also contributes to mobilizing the Tec community's work in sustainable development, generating projects of multisectoral and multi-actor collaboration to implement SDGs at the local, national, and international levels.

In cooperation with UNAM, the initiative coordinates the Mexican chapter of the Sustainable Development Solutions Network (SDSN México), the network of universities and research centers that create solutions to favor sustainable development in México.

Outstanding among these projects are:

- Developing the **digital platform for local SDG action** which presents current information with geographical references on the implementation of SDGs in México.
- Preparing and proposing **two legislative strategies** for SDGs and recovery from the COVID-19 pandemic, in collaboration with various actors, including México's Chamber of Deputies.
- Coordinating the report on the implementation of SDGs in the academic sector, as part of the third *Informe nacional voluntario de México*.
- **Participating on the National Agenda Council 2030** and its four working committees to represent the national academic sector.
- **Organizing and participating in conferences and webinars with more than sixty panelists and 20,000 individuals connected in sixteen nations.**

Website: odseneltec.com/
 Contact: Miguel Ruiz Cabañas,
miguel.ruizcabanas@tec.mx



Type of Initiative:
Institutional

Intervening Institutions:



Benefitted Zone:

Argentina, Belize, Chile, Colombia, Costa Rica, Ecuador, El Salvador, United States, Guatemala, Honduras, México, Nicaragua, Panama, and Dominican Republic



Benefitted Population:
General Population



21

Emprendimientos

2076

Investigaciones

2076

Cursos

2076

Políticas Públicas



Participating Areas/Schools:

School of Social Science and Government



Campus:
Santa Fe



Targets addressed:

17.9, 17.14, 17.15, 17.16, 17.17, 17.19



Outstanding Participants:

Mariajulia Martínez Acosta and Karina Mayela Ruiz Aguilar



In Closing

As we mentioned at the beginning of this report, **universities** play a critical role in constructing a better future. Besides generating and transferring knowledge, **universities strengthen leadership, innovation, and the formation of citizens with awareness**. These elements are fundamental for attaining the United Nations Sustainable Development Goals, and as a result, global progress and wellbeing.

Our **Report on Sustainable Development Initiatives 2020-2021** is a sample of the actions of the Tec community and its external allies in attaining their goals. The report shows us that:

- The disciplinary focus of the diverse schools and areas of Tecnológico de Monterrey are essential in covering all seventeen SDGs.
- Our institution's presence throughout México gives us access to populations in most of México's states.
- Research and innovation in designing and implementing prototypes, methodologies, and processes are key for generating short- and long-term solutions for the social and environmental problems we currently face.
- The passion, dedication, and commitment of teachers, students, EXATEC alumni, employees, and allies were the driving force behind the proposals and projects that moved beyond the classroom to benefit **more than 190,000 people in 2020-2021**.

The challenges of climate emergency and social exclusion are large and complex: We need to double our efforts. At risk is not only the wellbeing of millions of inhabitants in México and around the world, but also the survival of the species and the conservation of life itself.

We invite all readers to take part in the initiatives presented in this report, and to create their own initiatives to participate in the efforts of change.

As stated by political activist Angela Davis:

***I am no longer accepting
the things I cannot change.
I am changing the things
I cannot accept.***





SUSTAINABLE DEVELOPMENT

INITIATIVES

2020—2021

