In Mexico City, 3ed July 2025

DECLARATION OF MEXICO CITY

Engineering for the Future of the Americas

We, engineers of the American continent, gathered at the XLIII Assembly of the PanAmerican Federation of Engineering Societies (UPADI), held in Mexico City on July 2 and 3, 2025, with the participation of delegations from member countries of the American continent and observer countries: Spain, Portugal, and Italy; the Board of Directors, former presidents, associated organizations, and guests; aware of the leading role that engineering plays in building sustainable, resilient, ethical, and technologically advanced societies, and considering the contributions of our regional organizations, we declare the following:

CONSIDERING

1. That engineering is a strategic driver for sustainable development, economically and socially, as well as for the digital transformation and competitiveness of the nations of the Americas and the world.
2. That technological advancement and innovation are essential to ensuring a better quality of life, reducing social inequalities, and strengthening the scientific and technical sovereignty of our peoples.
3. That professional ethics, transparency, and accountability are unshakable pillars for restoring public trust and combating corruption in all phases of infrastructure and service development.
4. That the commitment to achieving the Sustainable Development Goals (SDGs) and global challenges also require responsible, ethical, resilient, and innovative engineering.
5. That collaboration between countries must be strengthened through knowledge networks, the exchange of emerging technologies, shared solutions, and interdisciplinary cooperation.
6. That effective coordination between Ibero-American engineering organizations is required to facilitate professional mobility, the homologation of proficiency, and regional integration.
7. That it is strategic to establish regional professional certification and accreditation systems, with harmonized standards that facilitate the mobility of engineers, technical interoperability, and cross-borders recognition of skills.
8. That the development of infrastructure, as well as megaprojects, must prioritize positive social impact, respect for territories, inclusion, and the reduction of structural gaps in the most disadvantaged regions.
9. That it is crucial to promote the participation of engineers in strategic positions in

public management, based on principles of meritocracy and technical leadership, to ensure evidence-based decisions.

10. That the regulation of professional practice must be updated and harmonized among countries, guaranteeing quality, safety, and responsibility in the performance of engineering.
11. That natural phenomena, climate change, and environmental challenges require a preventive and resilient approach, with innovative and sustainable solutions led by technical knowledge.
12. That engineering education must be strengthened from the pre-university stage, with a STEM focus, gender inclusion, and programs that inspire future generations.
13. That curricula must evolve to integrate skills in artificial intelligence, data analysis, renewable energy, circular economy, robotics, and complex systems.
14. That the lack of data and metrics in some countries prevents strategic infrastructure planning, making it urgent to establish reliable technical information systems.
15. That there is an urgent need to develop regional infrastructure and engineering observatories that integrate open data, performance indicators, risk assessment, and technological foresight to support public and private decision-making.
16. That engineering should focus on solving priority social problems such as access to drinking water, sanitation, decent housing, clean energy, mobility, connectivity, and food security.
17. That the role of engineering is crucial in addressing the climate crisis, facilitating the transition to low-carbon economies and more adaptive and resilient territories.

WE RECOMMEND THAT GOVERNMENTS, ACADEMIC INSTITUTIONS, AND PROFESSIONAL ORGANIZATIONS:

1. Develop regional technical agendas that coordinate multilateral efforts to address structural and emerging challenges with a focus on sustainability, equity, and resilience.
2. Formulate public policies based on technical and scientific criteria, where evidence prevails over short-term political or economic interests.
3. Strengthen the link between higher education, applied research, and professional associations to consolidate an ecosystem of technological innovation.
4. Create Pan-American digital platforms for collaboration between engineering, academia, and industry that promote joint innovation projects, virtual laboratories, and networks of mentors and experts on emerging issues.
5. Establish modern legal and ethical frameworks that regulate the professional practice of engineering, promoting professional associations, continuous updating, and social responsibility.
6. Promote vocational programs aimed at primary and secondary school students, with a special emphasis on gender equality and access for historically excluded

communities.

7. Adapt university training programs to new technological and social demands, promoting systemic thinking, digital ethics, and purposeful engineering.
8. Prioritize infrastructure development by urging governments to apply technical criteria in the planning and execution of megaprojects that guarantee equitable access to essential services, such as water, sanitation, sustainable transportation, housing, energy, connectivity, and food.
9. Develop pilot projects and territorial innovation laboratories that allow for the testing of engineering solutions in real contexts of mobility, sustainability, and climate adaptation.
10. Implement technical governance and professional auditing systems, as well as anti-corruption mechanisms based on digital traceability to ensure that works and services meet the highest quality standards, with the proactive participation of professional associations.
11. Recognize the strategic role of engineering in climate change governance, supporting mitigation, adaptation, and environmental regeneration projects in partnership with local governments, communities, and businesses.
12. Backing and support for trade associations that, due to socio-political circumstances in their countries, have been affected in their administrative and trade activities in their nation, defending the human right to free association and professional practice, recognizing the importance of engineering throughout the continent.
13. Support and backing as a trade union of engineers on the continent for technical proposals and representation before international and global organizations, after analysis by each organization, recognizing the importance of a working group.

SINCERELY,

Proposing committee

Por Costa Rica:

Johnny Lopez Garcia

Vicepresident of Colegio de Ingenieros Civiles de Costa Rica

Edzon Jaire Moarles Maravilla

Vicepresidente Internacional de la Unión Méxicana de Asociaciones de Ingenieros

Por México: