



# TRIPLE HELIX

JUNE 26-29 XXI CONFERENCE

## Book of Special Sessions

# PARTNERS

demã JOVEN



XARXA DE PARCS  
CIENTIFICS I TECNOLÒGICS  
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# PRESENTATION

Dear readers,

It is with great pleasure and enthusiasm that we present this book, which showcases the 17 Special Sessions held during the Triple Helix Conference 2023 on “Entrepreneurial and Engaged Universities for Sustainable Development: Linking education, research, and innovation to achieve the SDGs & ESGs.” This conference provided a unique platform for scholars, policymakers, industry professionals, and passionate students to convene and explore the pivotal role of universities in driving sustainable development by fostering entrepreneurial mindsets, community engagement, and the integration of the United Nations Sustainable Development Goals (SDGs) and Environmental, Social, and Governance (ESG) principles into their core activities.

This year’s special sessions took on a focused approach, centering around the Sustainable Development Goals proposed by the United Nations (SDGs). Our aim was to create dynamic discussions involving the three main agents of the Triple Helix—Government, Academy, and Industry—for each of the 17 SDGs. The objective was to present the best strategies and practices where these three agents have collaborated and worked together to achieve tangible progress towards some of the most critical global challenges.

The SDGs encompass a wide range of pressing issues, from eradicating poverty and hunger to promoting gender equality, sustainable cities, and responsible consumption and production, among others. It is evident that tackling these challenges requires a collective effort, and universities play a crucial role in driving innovation, research, and education for sustainable development.

In each of the 17 Special Sessions, experts from various disciplines, backgrounds, and sectors came together to share their knowledge, experiences, and success stories. These sessions became melting pots of transformative ideas, where the participants explored innovative ways to address the complex interplay of societal, economic, and environmental dimensions inherent in the SDGs.

Through these pages, you will find a wealth of insights, case studies, and examples of how the Triple Helix model has been applied successfully to address specific SDGs. We hope that the strategies and practices presented in this book will serve as valuable references and inspiration for future endeavors in sustainable development.

We extend our deepest gratitude to all the speakers, contributors, and participants who generously shared their expertise and contributed to the success of the 17 Special Sessions. Their dedication to advancing sustainable development and their passion for the Triple Helix approach have made this book possible.

As we navigate the path towards a greener and more inclusive future, we hope that the knowledge shared within these pages will encourage greater collaboration and understanding among the Government, Academy, and Industry. Together, let us strive to forge innovative partnerships that leverage the power of entrepreneurship, engagement, and research to achieve the SDGs and create positive impacts on a global scale.

We sincerely hope that this book becomes a valuable resource for all those committed to making the world a more sustainable and equitable place for future generations.

THC Team

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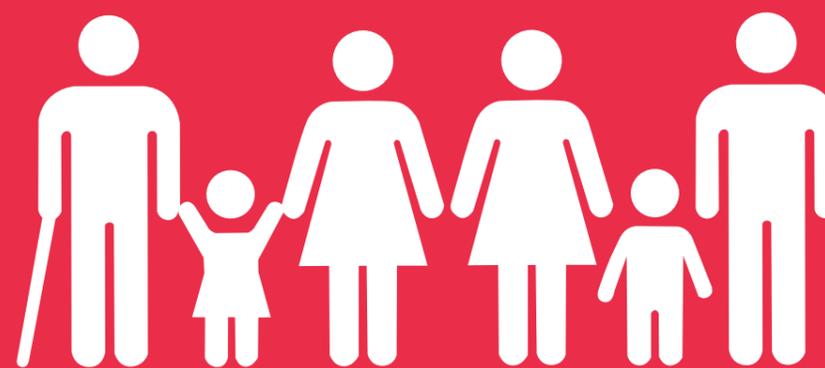
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# 1 NO POVERTY



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DEMÀ JOVEN

## 01. SDG 1: NO POVERTY

### DEMÀ JOVEN

“Global social technology for youth inclusion and social transformation through training, work and income”



#### 01.1 SDG

The Sustainable Development Goal (SDG) 1 aims to “End poverty in all its forms everywhere.” It sets targets to eradicate extreme poverty, reduce the proportion of people living in poverty, and establish social protection systems. The 2030 Agenda for Sustainable Development builds upon the Millennium Development Goals (MDGs) but addresses their unfinished business due to persistent inequalities and uneven progress. Poverty eradication has been a priority across various UN development agendas, including Agenda 21 and the Johannesburg Plan of Implementation. The goal is to combat poverty through sustainable livelihoods, access to basic social services, empowerment of those living in poverty, and international cooperation. However, despite efforts, the number of people in absolute poverty has increased in developing countries post-Rio Conference, making poverty a significant global challenge with far-reaching consequences.

#### 01.2 DEMÀ JOVEN

Demà Jovem is a global social technology fostering youth inclusion through education, employment, and income. RENAPSI, a non-profit institution in Brazil, executes the Demà Jovem learning program nationwide. It is the largest learning network in Brazil, currently benefiting over 30,000 youngsters in 22 states, including the Federal District. With 30 years of experience, Demà Jovem by RENAPSI combines education, vocational training, work, income, and innovative technology to create opportunities for young people, companies, and society. Through Social Learning Programs, it has positively impacted the lives of over 250,000 vulnerable youths and their families. The program adheres to Law 10,097/2000, ensuring comprehensive development, professional education, and job placement with all rights protected.

#### 01.3 THEME

Social innovation arises in response to complex social, environmental, and demographic challenges. It involves new arrangements, products, or services to address social issues and promote transformation. However, current practices have limitations in sustainability and expansion.

Scalability is crucial for enhancing social impact, achieved when a project reaches planned performance levels and can be implemented on a larger scale. The personalized service for young people focuses on education, family, and work, addressing issues like drug prevention and school dropout.

The youth social inclusion project can be adopted by medium-large companies and governments at various levels, offering socio-educational, anti-drug, and professional qualification programs. Fundesplai adapted this approach in the “Jove Valor” program and subsequently created the Erasmus+ project: Yopeva, aiming to establish a European framework.

With the emergence of the SOC FPODual project line in 2021, the “Jove Valor” project evolved into “El Demà Joven.” The goal is to scale and expand this initiative for broader impact.

#### 01.4 GOOD PRACTICES

A global social technology of youth inclusion offering, at the same time, vocational training, employability, and income generation, being a powerful tool for eradicating poverty. Demà Jovem is inspired by a pioneering model in Brasil and led in Europe by Fundesplai, with partnerships in six other countries: Spain, Portugal, Italy, Sweden, Romania, and the Netherlands. In Brazil, Demà Jovem offers a 2-year program in vocational training and employability to youngsters between 14 and 24 years old.

Demà Jovem developed an in-house technology using learning and HR platforms to select, hire and train youngsters in a more efficient and scalable manner. 30.000 young people are currently registered in the program throughout the national territory. 250.000 young people and their families have been impacted by the program in 30 years. 5.000 training courses validated and certified by the Ministry of Labor and Employment 1.500 private companies and public administration partners. 55 education centers in Brazil and 01 in Spain. 1.500 cities served by the program out of 5.500.

Reimagining the connection between youth and opportunities: Young people as protagonists in the battle against poverty. The program turns the youngster into a protagonist and opens the doors to his

future through transformation and social inclusion and based on 3 pillars: TRAINING, EMPLOYMENT, AND INCOME GENERATION. The program creates opportunity and income that transforms the lives of thousands of youngsters, increasing a social protection system that directly combats poverty of the most vulnerable families, with a high positive Social Impact.

How it works? Briefly, clients (private companies and public administrations) hire RENAPSI as a human resources organization, Demà Jovem runs the program: hires with contract and trains the youngster (theoretical training), the youngsters have the opportunity to work in the client's company (practical training), and receive a salary for the time dedicated to work.

According to the Social Impact Investigative Study 2019 (RENAPSI), the presumed income of young graduates from the Young Apprentice Program is, on average, R\$ 967.59. In 20 years, the average presumed income individual increased by 2.4 times. The presumed income of participants who COMPLETED the Young Apprentice Program 20 years ago is now, on average, R\$ 2,388.26. After 10 years of graduation from the apprenticeship program, the youngster who were categorized as class D, become PART of the Brazilian class C. Also, according to this Investigative Study, 62% of youngsters are hired in the first 12 months after finishing the program. 30% less evasion than the Brazilian average - Reduction of school evasion. This all means that youngsters also have a greater chance of social ascension, improving their own living conditions and finding a way out of poverty and vulnerability.

### 01.5 CHALLENGES

- Scalability from the perspective of companies and private corporations - private sector. How to create a scalable model in the private sector?

- Scalability from the perspective of vulnerable NEET young people. How to create a model that is scalable and attractive to young people? fourth helix - civil society

#### Target group

The users of Demà Jovem program, as receivers of the activities, are the young people at risk of social exclusion: NEETs.

#### Characteristics

- Low or no formal training.
- Low or no work experience.
- Lack of basic social skills.
- Belonging to marginal groups, ethnic minorities, etc.

- Scalability from the perspective of public administration. As a guarantor of public policies aimed at welcoming vulnerable young citizens as a measure of social transformation.

### 01.6 PROPOSED SOLUTIONS

The idea is to search for cases in Brazil of young individuals who have emerged from favelas and now hold high-ranking positions, conducting comprehensive research on these cases, and subsequently transforming these individuals into ambassadors of the program. With this, these ambassadors can become key figures in the communication process in the countries where Demà Jovem is present. Additionally, the proposal involves creating a Demà Jovem

label to be placed on various products and establishing partnerships with supermarkets. These supermarkets would use this label to identify products that support the Demà Jovem cause.

### 01.7 CONCLUSIONS

In conclusion, this solution focuses on addressing the empowerment of youth who have risen from disadvantaged backgrounds in six different countries. To achieve this goal, it is recognized that the strategy must be tailored to the specific needs and contexts of each country. The approach involves conducting thorough research in Brazil to identify success stories of young individuals who have emerged from favelas and now hold high-ranking positions. These individuals would then be transformed into ambassadors of the Demà Jovem program. These ambassadors can play a pivotal role in the communication process in the countries where Demà Jovem operates.

Furthermore, the proposal includes the creation of a Demà Jovem label that can be applied to various products. Partnerships with supermarkets are sought to encourage the use of this label on products that support the Demà Jovem cause. This approach aims to enhance the visibility and support for the Demà Jovem initiative while also generating financial support through commercial partnerships.

By customizing the strategy to suit the unique needs and contexts of each country, this solution maximizes the effectiveness and relevance of the Demà Jovem program in diverse regions.

### 01.8 SPEAKERS

#### Chairman:

- Adair Meira – Co-President of Demà Global and founder of RENAPSI and Pró-Cerrado Foundation. An environmental and social inclusion activist, in the 1990s he established the Pró-Cerrado Foundation and created the 'Apprenticeship Program', an award-winning social technology for youth promotion that is currently replicated in Brazil through Demà Jovem by RENAPSI. His work is recognized and awarded by international organizations such as Ashoka Social Entrepreneurs, Avina Foundation and Schwab Foundation.

- Josep Gassó – Co-President of Demà Global and Fundesplai president.

He has dedicated his entire life to promoting education in leisure time for children and young people, especially for those who are at risk of exclusion in Catalonia. He has been working for the social cause for 50 years when, in 1996, he founded Fundesplai. He actively participated in the creation of the Social Action NGO Platform of Spain, which he chaired in its first stage between 1998 and 2003.

#### Speakers:

- Ana Carolina Silva – Director of Demà Europe, Master in Arts and Communication, Public Relations and Director of Art and Creation for educational projects and solutions in Brazil.

- Oscar Beltran - Head of Digitalization and Educational Innovation Programs - Department of Social and Educational Action of Fundesplai.

# 2 ZERO HUNGER



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XP CAT

## 02. SDG 2: ZERO HUNGER

### XP CAT

“Food waste reduction”

#### 02.1 SDG

The number of people experiencing hunger and food insecurity has increased since 2015, reaching 768 million in 2021. Projections show that by 2030, around 670 million people will still face hunger. Malnutrition in children remains a concern, with insufficient progress in reducing stunting rates. The COVID-19 pandemic worsened food insecurity, affecting approximately 2.3 billion people in 2021. Stunting rates among children have improved slightly, but the prevalence of overweight children remains stagnant. Despite progress in preserving plant genetic resources, 71% of local livestock breeds are at risk of extinction. Agricultural investment has declined globally, except in Northern America and Europe. WTO Members agreed to eliminate agricultural export subsidies, and food price volatility decreased slightly in 2021, but it remains above pre-pandemic levels, particularly in sub-Saharan Africa and least developed countries (LDCs). Urgent and intensified efforts are necessary to achieve zero hunger by 2030, including transforming food systems, ensuring food security, and investing in sustainable agriculture.



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#### 02.2 XPCAT

The Network of Scientific and Technological Parks of Catalonia (XPCAT) brings together significant spaces for knowledge production, transfer, dissemination, and utilization, acting as a bridge between the research and innovation communities. It integrates university research groups and centers, technological centers, business incubators, large companies with their associated R&D centers, innovation-focused companies, and knowledge-based startups. This network involves numerous individuals engaged in research, development, and innovation across a wide range of fields. It is equipped with state-of-the-art physical and technological infrastructure and specialized services for new structures and management systems to address global challenges in the knowledge economy. The Network of Scientific and Technological Parks of Catalonia is a fundamental instrument for the science, technology, business, and market system, serving as a collaborative formula for Catalonia's scientific, technological, economic, and social future.

#### 02.3 THEME

The agri-food system contributes 35% of greenhouse gas emissions, and agriculture consumes 70% of fresh water and 38% of the Earth's surface. 33% of produced food is wasted, leaving 768 million people hungry annually. The price of food at its destination is 4.5 times higher than at its origin, revealing supply chain issues. Only 3% of food sector energy comes from renewables, impacting sustainability efforts. In Catalonia, the agri-food sector represents 14% of GDP, but only 28% of companies are innovative.

#### 02.4 GOOD PRACTICES

CER agroTech aims to create an innovation ecosystem for a more resilient, competitive, and sustainable agri-food system, embracing technology such as robotics and AI while addressing food waste, water management, and green energies.

## 02.5 CHALLENGES

- Valorization of organic waste through energy generation and others.
- Measures to reduce food waste from the farm to the consumer.

## 02.6 PROPOSED SOLUTIONS

- **Implement Smart Farming Practices:** Introduce smart farming technologies within the agri-food sector through initiatives like CER agroTech. Encourage the use of precision agriculture, IoT devices, and data analytics to optimize farming processes, reduce overproduction, and minimize food waste at the source.
- **Supply Chain Optimization:** Develop and implement technologies that enhance the efficiency of the entire food supply chain. Utilize blockchain and IoT to improve traceability, transparency, and real-time monitoring, enabling stakeholders to identify and address inefficiencies that contribute to food waste.
- **Educational Programs:** Launch educational programs within the XPCAT network to raise awareness about food waste and promote best practices at every stage of the agri-food supply chain. Provide training for farmers, distributors, retailers, and consumers on proper storage, transportation, and utilization of food products.
- **Incentivize Innovation in Agri-Food Companies:** Create financial incentives, grants, or awards for agri-food companies within Catalonia that implement innovative technologies and practices to reduce food waste. This could stimulate the adoption of sustainable solutions and encourage more companies to join the 28% that are already considered innovative.

## 02.7 CONCLUSIONS

The proposed solutions for addressing food waste challenges in the agri-food sector reflect a comprehensive and multi-faceted strategy aimed at transforming the industry into a more sustainable and efficient system. The integration of smart farming practices, supply chain optimization, educational programs, and incentives for innovation demonstrates a holistic approach that spans from the production stage to consumer awareness.

The introduction of smart farming technologies, such as precision agriculture, IoT devices, and data analytics, not only enhances the productivity of farms but also directly contributes to the reduction of overproduction and minimization of food waste at the source. The emphasis on technology, including blockchain and IoT, in supply chain optimization adds an extra layer of efficiency by improving traceability and real-time monitoring, addressing inefficiencies that contribute to food waste throughout the entire supply chain.

Educational programs play a crucial role in raising awareness about food waste and promoting best practices. By targeting stakeholders at every stage of the agri-food supply chain, from farmers to consumers, these programs empower individuals with the knowledge to make informed decisions about storage, transportation, and utilization of food products, ultimately reducing waste.

Furthermore, the proposal to incentivize innovation in agri-food companies within Catalonia acknowledges the pivotal role of the private sector in driving change. By offering financial incentives, grants, and awards, the aim is to stimulate the adoption of innovative technologies and practices, creating a positive cycle where sustainable solutions become not only environmentally responsible but economically advantageous.

The combination of technological advancements, educational initiatives, and incentivizing innovation presents a synergistic and actionable approach to tackle food waste challenges in Catalonia. By implementing these solutions collaboratively, the agri-food sector has the potential to significantly reduce its environmental impact, foster sustainability, and contribute to a more efficient and responsible food system.

## 02.8 SPEAKERS

Elisabet Jorda Llosada

Elisabet is President of the Catalan Network of Science & Technology Parks (XPCAT) and Director of Strategy and Innovation of the Mediterranean Technology Park. Her expertise focuses on innovation and strategy issues and she has held positions as a board member at Additio Ventures. Her expertise focuses on the area of innovation, having worked in the field for more than 10 years. She is also a mentor for the M2m program of the Club de Dones Politècniques of the UPC Alumni.

# 3 GOOD HEALTH AND WELL-BEING



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TAMESIS

## 03. SDG 3: GOOD HEALTH AND WELL-BEING

**TAMESIS**  
“DNA for Health.”



### 03.1 SDG

The pandemic and other crises hinder SDG3 progress, exacerbating health inequalities and threatening universal health coverage. About 68 million children are un- or under-vaccinated, and TB and malaria cases increased. Maternal mortality decreased slightly, but it remains far from the 2030 target. Under-5 mortality rates have improved, but many countries need greater progress to meet the target. Progress against communicable diseases varies; HIV infections decreased, but TB and malaria cases increased. Family planning coverage has increased, but universal access remains elusive. Childhood vaccinations declined significantly, and the global health workforce still faces shortages, especially in sub-Saharan Africa. Urgent actions are needed to strengthen health systems and achieve SDG3 targets.



### 03.2 TAMESIS

Tamesis Corporate Services is a financial firm with a distinct mission: to establish, promote, and enforce high-quality standards for competence and ethical conduct within the financial advisory sector. Their approach prioritizes making the best decisions, and at Bizipress, they ensure that these decisions are made without product bias.

The firm takes pride in its reputation and integrity, recognizing that a well-thought-out business strategy is crucial in achieving desired objectives. With a culturally diverse and forward-thinking team, they actively seek talented individuals who have ideas, goals, and dreams, aiming to turn those dreams into reality.

### 03.3 THEME

The project's focus is on mobilizing volunteers, utilizing technology, and securing funding to combat the various challenges posed by the COVID-19 pandemic. This includes addressing logistical, social, and psychological needs while accelerating initiatives that leverage the expertise of cross-domain teams to amplify their impact in the fight against COVID-19.

### 03.4 GOOD PRACTICES

To maintain the battle against COVID 19 Tamesis created Covid Warriors to mobilize volunteers, use technology, secure funding for social and psychological needs.

### 03.5 CHALLENGES

- How to keep the interest of the volunteers?
- Securing funding from sponsors and donors, especially during or after the COVID-19 pandemic, may require a dedicated effort.
- Coordinating the efforts of volunteers with diverse backgrounds and skill sets may require effective communication and project management strategies

### 03.6 PROPOSED SOLUTIONS

The challenge that COVID Warriors will have is to maintain volunteers, its necessary to capture the lesson learn with the current project and then capture them for being able to see what attract the volunteers at first. It is necessary to give positive feedback to the volunteers, letting them have a way to engage.

**Appreciation Programs:** Implement a comprehensive volunteer recognition program to acknowledge and celebrate the efforts of volunteers. This can include regular shout-outs, awards, or certificates of appreciation to highlight their contributions, fostering a sense of accomplishment and value.

**Skill Development Opportunities:** Offer continuous learning and skill development opportunities for volunteers. Provide workshops, webinars, or online courses related to their areas of interest or professional growth. This not only enhances their skills but also keeps them engaged and invested in the cause.

#### Solution to challenge 2

**Diversify Funding Sources:** Explore and tap into various funding sources beyond traditional sponsors and donors. This could include grants, crowdfunding campaigns, corporate partnerships, and government funding. Diversifying sources reduces dependence on a single channel and enhances financial stability.

**Engage Corporate Social Responsibility (CSR) Programs:** Collaborate with corporations that have robust CSR programs. Demonstrate how the project aligns with their social responsibility goals and values. Develop customized partnership proposals showcasing the tangible benefits of their support, such as positive public relations and community impact.

#### Solution to challenge 3

**Clear Communication Channels:** Implement effective communication channels that facilitate clear and timely information exchange among volunteers. Utilize collaboration tools, project management platforms, and regular team meetings to ensure that everyone is on the same page regarding goals, tasks, and progress.

**Diversity and Inclusion Training:** Provide training on diversity and inclusion to enhance understanding and collaboration among volunteers with diverse backgrounds. This training can promote a culture of respect, open-mindedness, and appreciation for different perspectives, fostering a more cohesive and effective team.

**Skill-based Team Formation:** Leverage volunteers' diverse skill sets by forming teams based on complementary abilities. This ensures that tasks are allocated efficiently, with each team member contributing their expertise. Encourage cross-training to promote flexibility and collaboration within the team.

**Project Management Support:** Offer training or support in effective project management techniques.

This includes defining roles and responsibilities, setting clear objectives, and establishing realistic timelines. Providing guidance on project management helps ensure that the diverse volunteer efforts are well-coordinated and aligned with project goals.

### 03.7 CONCLUSIONS

The effectively managing and sustaining a volunteer-driven project requires a multifaceted approach. Firstly, recognizing and nurturing the personal and professional growth of volunteers is key to maintaining their engagement and commitment. This can be achieved through appreciation programs and skill development opportunities, which not only acknowledge their contributions but also invest in their personal growth.

Secondly, securing stable funding is crucial for the longevity of the project. Diversifying funding sources and engaging in partnerships with corporate social responsibility (CSR) programs can provide financial stability and align the project with broader social responsibility goals.

Lastly, managing a diverse group of volunteers efficiently calls for clear communication, inclusivity, and strategic team formation. Implementing effective communication channels, providing diversity and inclusion training, and leveraging the diverse skill sets of volunteers through skill-based team formation and project management support are essential. These strategies not only ensure that tasks are allocated efficiently but also foster a culture of respect and collaboration, ultimately leading to a more cohesive and effective team and successful project outcomes.

### 03.8 SPEAKERS

Patricia Ripoll

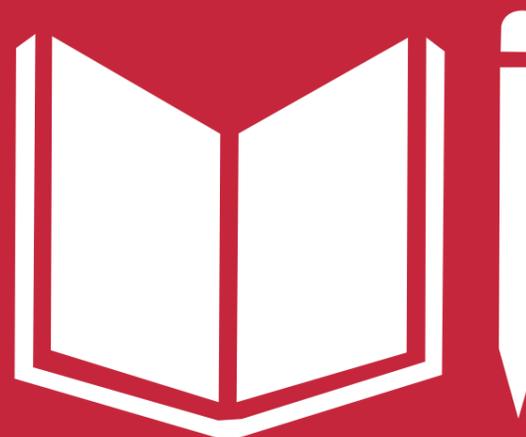
Patient Advocate, Health adviser in health and patient experience. Chief Patient Officer.

Bachelor of Business Administration and Management and PDD from IESE Business School.

She is the founder of MamaTieneMigraña, BeOriginal.es and Co-founder of COVIDWarriors and AIREAMOS.org.

Founder and President of VISIBLE Foundation.

# 4 QUALITY EDUCATION



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LA SALLE - RAMÓN LLULL

## 04. SDG 4: QUALITY EDUCATION

### LA SALLE - RAMÓN LLULL "Social Entrepreneurship"



#### 04.1 SDG

Before COVID-19, global education progress was already off-track to achieve SDG4. Without additional measures, only one in six countries will reach universal access to quality education by 2030. Approximately 84 million children and young people will remain out of school, and 300 million students will lack essential numeracy and literacy skills. School completion rates improved but at a slower pace, and global learning levels stagnated between 2015-2019. Participation in pre-primary education is stagnant at around 75%. Participation in formal or non-formal education and training remains low for adults aged 25-55. Basic school infrastructure is lacking in about a quarter of primary schools globally, and over 14% of teachers are still unqualified according to national norms. Reimagining education systems and prioritizing education financing are essential to deliver SDG4.

#### 04.2 LA SALLE - RAMÓN LLULL

La Salle Campus Barcelona, a member of Ramon Llull University, offers diverse educational programs in Architecture, Engineering, Computer Science, Multimedia, Management, Digital Art, and Animation & VFX, with technology as a core aspect.

In response to the post-Covid scenario, La Salle Campus Barcelona introduces Smart Learning and the Smart Campus, catering to students' evolving needs. Starting from September 2020, all programs adopt Smart Learning, a personalized, flexible, and interactive model, ensuring high-quality education regardless of location. The implementation of technology allows remote participation for on-campus students.

The Smart Campus project utilizes technology to create sustainable and eco-friendly campus infrastructures, accommodating in-person, blended, remote, and online learning. It also fosters awareness, training, innovation, research, and technology transfer across key areas: architecture, business, engineering, and art and animation.

#### 04.3 THEME

EduEmprèn, organized by La Salle Technova Barcelona, stimulates entrepreneurial skills and instills core values in young people. Launched in Nov 2016, it calls on 3rd-year ESO students from La Salle Catalunya schools to seek innovative solutions for UN's Sustainable Development Goals.

With 4 editions and over 4,500 students participating, the program fosters social business projects within the FAIG subject throughout the academic year in groups of 3 to 6 students.

Targeted at 14-16-year-olds, EduEmprèn fosters cooperation between students, teachers and schools. Through the Candy Innovation Model methodology, students and teachers were trained to develop projects related to the SDGs.

#### 04.4 GOOD PRACTICES

To ensure education remains aligned with the evolving needs of society, La Salle has introduced the EduEmprèn program. This innovative initiative empowers students to apply their skills and creativity towards finding innovative solutions for the United Nations' Sustainable Development Goals (SDGs). Through EduEmprèn, students actively engage with real-world challenges, fostering a dynamic learning environment that not only enhances their knowledge but also contributes meaningfully to addressing global issues.

#### 04.5 CHALLENGES

Sub Challenge: Scalability

- How could you scale this program in some of your countries?

Sub Challenge: Financing

- How would you finance this program?

Sub Challenge: Engagement

- How to engage students and schools so that they find the real value of this project?

#### 04.6 PROPOSED SOLUTIONS

The challenges of Eduempren are internationalization, financing and engagement. Possible solutions could be:

International Expansion Strategy beginning with adapting the program to suit the educational systems and cultural contexts of different countries where La Salle operates. Customize content and challenges to make them relevant to local needs and goals, to achieve this there should be a clear channel between teachers of the different countries and the ones implementing the program to achieve this there should be forge partnerships with local educational institutions, governmental bodies, and private organizations that share an interest in promoting entrepreneurship and sustainable development goals among young people. Finally create pilot programs in select countries to test the scalability and cultural suitability of the initiative. Collect feedback and refine the program based on the lessons learned (engagement).

To finance the Program It is necessary to explore various funding sources, including grants from international organizations, corporate sponsorships, philanthropic foundations, and alumni donations. Establish a dedicated fundraising team or office to manage these efforts. Investigate the possibility of attracting impact investors who align with the program's goals. Develop a business model that demonstrates both social impact and financial sustainability. Another solution could be a fee structure for participating schools or students, while ensuring that scholarships or subsidies are available for those facing financial constraints. Revenue generated can be reinvested in program expansion.

Student and School Engagement collaborate with schools to integrate the program into their curricula or extracurricular activities. Showcase how the program aligns with educational goals and enhances students entrepreneurial and problem-solving skills. Provide comprehensive training to teachers and educators on how to facilitate the program effectively. Offer resources, lesson plans, and ongoing support to ensure their engagement and enthusiasm. To attract the attention of students it is necessary to offer incentives such as scholarships, awards, or recognition for outstanding projects. Encourage friendly competition among participating schools to foster student engagement.

#### 04.7 CONCLUSIONS

The proposed solutions offer a comprehensive strategy to tackle the challenges facing EduEmpren, can be successfully scaled with different strategies regarding internationalization, engagement and financing the strategy outlines the importance of adapting the program to suit different countries' educational systems and contexts, fostering collaborative partnerships with local stakeholders, and conducting pilot programs to ensure relevance and effectiveness. Scaling will allow the initiative to reach a broader audience and contribute to global youth empowerment and sustainable development.

Financing the program is a critical aspect of its sustainability. Diverse funding sources, including grants, corporate sponsorships, impact investment, and revenue generation through fees, can ensure the program's long-term viability and growth.

Engaging students and schools effectively is another vital component. By integrating the program into school curricula, providing teacher training, offering incentives, and emphasizing real-world impact, La Salle can ensure that students and schools find genuine value in the initiative.

In essence, this solution not only addresses the challenges of scaling, financing, and engagement but also paves the way for La Salle to expand its entrepreneurial skills program internationally while making a meaningful impact on young people's lives and fostering a culture of entrepreneurship and social responsibility on a global scale.

#### 04.8 SPEAKERS

Verónica Vargas Espinoza

Verónica is the Project Manager in La Salle Technova Barcelona the Innovation Park from La Salle Ramon Llull University.

She worked in international contexts in America and Europe. Her experience includes leading projects that help startups to achieve market success to equalizing opportunities of scaling-up them across Europe, coordinating the implementation of large-scale events, projects related with university students and connecting the university with schools, mostly been related to the area of social entrepreneurship, STEM skills and innovation.

Verónica holds an MBA and master's in project management by La Salle Ramon Llull University and she holds a degree in Business Administration from the Salesian Polytechnic University in Ecuador

# 5 GENDER EQUALITY



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APTE



## 05. SDG 5: GENDER EQUALITY

**APTE**  
**“Science and Technology in Feminine”**



### 05.1 SDG

Achieving gender equality by 2030 is a distant prospect as the world falls short of its targets. None of the 18 indicators “met or almost met” the goals, and only one is “close to target.” At the current rate of progress, it could take up to 286 years to close legal protection and discriminatory gaps, 140 years for women to achieve equal representation in positions of power and leadership in the workplace, and 47 years to achieve equal representation in national parliaments. Existing gender inequalities have been amplified by cascading global crises, such as unequal access to healthcare, education, and economic opportunities. Political leadership and comprehensive policy reforms are urgently needed to dismantle systemic barriers and advance the achievement of SDG5.

### 05.2 APTE

The Association of Science and Technology Parks of Spain (APTE) is a non-profit organization whose main objective is to collaborate in the revitalization and diversification of productive activity, technological progress, and economic development by promoting and disseminating scientific and technological parks.

It is located at the Málaga TechPark headquarters and was founded in 1989 by the managers of the first 6 parks established in Spain. APTE is an associate member of the International Association of Science Parks and Areas of Innovation (IASP).

Currently, it has 58 members spread across Spain, including 50 fully operational Partner Parks, 7 Associate members, and 1 Honorary Partner.

Out of these parks, 22 are promoted by universities, and all 44 Spanish universities collaborate with them. As of late 2022, these parks housed 5,780 entities with a total revenue of 25,148 million euros. These companies provide employment to 150,624 people, of whom 34,190 are engaged in R&D activities.

### 05.3 THEME

Project proposal aimed at creating a comprehensive document that consolidates all the scientific and technical studies offered by Spanish universities. The document’s primary objective is to provide in-depth information about the various career opportunities available in these fields. Additionally, the project seeks to highlight the crucial role of science and technology parks in fostering scientific and technological vocations while supporting talent retention and creation. To effectively engage the target audience of girls aged 11 to 13, the project incorporates a visually appealing design and language tailored to their preferences. Notably, the collaboration of renowned illustrator Alejandro Villén adds a unique touch to the project. The initiative also includes an illustrated guide specifically designed for young audiences, showcasing the current career prospects in scientific and technological fields. The project aims to connect with and captivate the attention of young girls, ultimately inspiring them to pursue scientific and technological careers.

### 05.4 GOOD PRACTICES

By actively presenting diverse scientific and technical studies to young girls, APTE is working diligently to dismantle the barriers that have traditionally deterred girls from entering the scientific world. By showcasing the vast array of opportunities available in science and technology, APTE is empowering young girls with knowledge and self-confidence, enabling them to envision themselves as future scientists, engineers, and innovators.

### 05.5 CHALLENGES

- How can we get a greater impact on our target audience?
- What other activities could be more interesting for our target audience than the ones we are currently developing in the program?
- How can we convince (new claims) our target audience that it is important for them to get involved in STEAM studies and jobs because they are the jobs of the future?

### 05.6 PROPOSED SOLUTIONS

- Possible solutions about the challenges: create a STEAM Ambassador Program featuring successful female scientists, engineers, and technologists who can serve as role models these ambassadors can visit schools, conduct interactive workshops, and share their personal stories to inspire students.
- Introduce in the programme interactive Workshops and Hackathons, organize hands-on workshops and hackathons designed to generate interest of students. In collaboration with secondary school teachers to integrate these events into the curriculum.
- STEAM Career Fairs host annual STEAM career fairs with interactive exhibits and informative sessions. Invite universities, companies, and public entities to showcase opportunities for STEAM careers. Emphasize the demand for women in STEM fields due to their importance for the future.
- To capture the interest of women in STEAM (Science, Technology, Engineering, Arts, and Mathematics), it is essential to elucidate its purpose and convey the ultimate goal of being part of the dynamic world of STEAM. Women play a pivotal role in shaping this future, and understanding how they contribute to achieving this end is paramount.

### 05.7 CONCLUSIONS

In conclusion, the proposed solutions offer a multifaceted approach to address the challenges of engaging the target audience of students from 1st to 3rd year of ESO (11 to 14 years), secondary school teachers, associations, and organizations focused on women's rights and development in science and technology, as well as public entities supporting these efforts within the context of science and technology with a gender-focused approach.

These solutions aim to foster a deeper interest in STEAM (Science, Technology, Engineering, Arts, and Mathematics) studies and careers while emphasizing the importance of gender diversity in these fields, particularly for the future workforce. By implementing a combination of role models, hands-on experiences, educational resources, and community support, the program seeks to inspire, educate, and empower both students and educators.

The strategies proposed include leveraging the expertise of STEAM ambassadors, creating interactive workshops and online learning platforms, fostering mentoring relationships, organizing career fairs and community events, and implementing long-term tracking and assessment measures. These initiatives are designed to not only capture the attention and enthusiasm of the target audience but also provide ongoing support and encouragement to pursue STEAM fields.

Ultimately, these solutions offer a comprehensive and holistic approach to bridge the gender gap in STEAM education and careers. They aim to cultivate a diverse, inclusive, and empowered generation of students who are well-prepared to embrace the opportunities presented by science and technology, thereby contributing to a more equitable and innovative future.

### 05.8 SPEAKERS

Soledad Díaz

Soledad Díaz has served as the managing director of APTE for 21 years, actively engaging in numerous projects throughout this period. They hold a degree in journalism and have completed an EMBA – Executive Master in Business Administration at ESIC Business & Marketing School. Additionally, they have recently accomplished an advanced program in Digital Marketing.

In their role at APTE, their primary responsibilities include overseeing association services, with a specific emphasis on brand communication. They also manage cooperation projects among members, handle international initiatives, and collaborate with other innovation networks at both national and international levels.

# 6 CLEAN WATER AND SANITATION



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ESAN

## 06. SDG 6: CLEAN WATER AND SANITIZATION

### ESAN “Water Management”



#### 06.1 SDG

Despite some progress, billions of people still lack access to safe water, sanitation, and hygiene. Water scarcity, pollution, and climate change exacerbate the issue. Achieving universal coverage by 2030 requires significant increases in progress rates. Targets 6.1 and 6.2 reveal millions without safe drinking water, sanitation, or hygiene services, mostly in rural areas. Target 6.3 shows little progress in safely treating wastewater. Water use efficiency increased by 9% globally (2015-2020), but regional water stress varies greatly. Lack of cross-sector coordination and sustainable water management frameworks hinder progress. Many countries lack arrangements for transboundary waters (Target 6.5). Surface water bodies are rapidly changing in one-fifth of river basins. ODA disbursements to the water sector decreased, and community participation remains low in Targets 6.a and 6.b. Addressing these challenges and investing in infrastructure is crucial to meeting SDG6.

#### 06.2 ESAN

ESAN University is a non-profit private Peruvian university, renowned for its leadership in business education and entrepreneurial careers. Located in Lima, it was founded in 1963 as the Graduate School of Business Administration (ESAN), a product of a three-way agreement involving the Government of Peru, U.S. Agency for International Development, and Stanford Graduate School of Business, becoming the first graduate institution in business administration in the Spanish-speaking world and Peru. Over the years, ESAN has maintained its prominent role in Peru and Latin America, offering quality MBA programs, specialized master's degrees, advanced management programs, executive education, the most ranked open-access Latin American indexed scientific journal (SJR, JCR) in the economics and business category: Journal of Economics, Finance and Administrative Science (JEFAS), among others.

In 2003, ESAN became ESAN University and launched its first undergraduate programs in business, economics, and engineering in 2007. Currently, in addition to its master's and executive education programs, it offers a Doctoral Program in Administration through its graduate school, ESAN Graduate School of Business. It also provides 9 undergraduate programs and two professionalization programs for adults.

#### 06.3 THEME

Water governance is a complex issue that varies from region to region, but there are several justifiable concerns and perspectives that can be applied to understanding the water governance issue, particularly in the context of Latin America and the specific case of Peru. Water governance issues in Latin America, including the specific case of Peru, can be complex and multifaceted. These problems can be justified based on various factors, including the OECD water governance principles.

Although Peru has made good progress in water management, significant water security challenges remain in terms of floods, droughts, pollution and universal access to drinking water and sanitation. Peru is currently not on track to meet the targets of the United Nations (UN) Sustainable Development Goal (SDG) 6 “Clean water and sanitation” by 2030. According to the most recent data (2017) from the UN Water monitoring system, only 50% of the population use a safely managed drinking water service (SDG indicator 6.1.1) and 43% use a safely managed sanitation service (SDG indicator 6.2.1a). Overall, 3 million Peruvians (9.2% of the population) lack access to water services and 8.2 million Peruvians (25.2%) lack access to sewerage services, with a large urban-rural divide. Between 2000 and 2020, floods affected an estimated 4 million people, while 10 moderates to extreme drought events occurred in 20 departments between 1981 and 2018. The inadequate management of solid waste and informal and illegal mining affect water quality, leading to severe public health issues, and social conflicts, including with indigenous communities (OECD, 2021).

#### 06.4 GOOD PRACTICES

Peru has introduced a legal framework for Payments for Ecosystem Services (PES). PES may be broadly defined as a voluntary transaction where ecosystem managers (e.g. landowners, rural entrepreneurs) are compensated through conditional payments by ecosystem beneficiaries (often governments, with the public being the general beneficiary), for the additional cost of maintaining ecosystem services above legally required levels (Asquith, Vargas and Wunder, 2008), particularly in developing countries (Engel, Pagiola and Wunder, 2008), at least as economically attractive to the landowner as conversion to pasture. This maintains water and, with it, biodiversity and carbon

sequestration services.

In 2015, Peru's Ministry of the Environment (Ministerio del Ambiente, MINAM) introduced an innovative PES mechanism, called Ecosystem Services Compensation Mechanism (Mecanismo de Retribución por Servicios Ecosistémicos, MERESE). The MERESE Act No. 30215 of 2014 and its regulation (Supreme Decree No. 009-2016-MINAM) aim to channel financial resources towards the conservation, recovery and sustainable use of sources of ecosystem services through agreements between parties. It encourages the involvement of the public and private sectors in conserving sources of ecosystem services and stipulates that the actions of those who retain these services can be remunerated. Implemented by MINAM, the law aims to ensure the permanence of the benefits generated by urban-rural ecosystems.

### 06.5 CHALLENGES

- How to strengthen multilevel water coverage?
- How to develop better economic instruments for water irrigation management?
- How to strengthen the regulatory framework for water supply and sanitation services?

### 06.6 PROPOSED SOLUTIONS

#### **Strengthen multi-level governance**

- Assess the legislative framework and its implementation, in order to translate the aspirations of the law into realistic and workable objectives that evolve as institutional capacity develops.
- Ensure sufficient capacity in terms of staff and technical expertise at national, regional and local level, including to make the existing 6 River Basin Management Plans (RBMPs) fully operational.
- Enhance strategic planning for more effective public investment by matching the "Optimised City Masterplan", which includes investment projects, with the municipal sector plan, which includes urban development projects; but also streamlining investment evaluation procedures within the National Multi-Year Programming and Investment Management System.

#### **Effectively implement economic instruments for water risk management**

- Increase the use of payments for ecosystem services (PES) to protect headwaters by, amongst others, carrying out a water risk analysis for an effective use of the funds from the existing Compensation Mechanism for Ecosystem Services (PES) (Mecanismo de Retribución por Servicios Ecosistémicos, MERESE); ensuring full adherence to PES projects by populations living in the upper parts of the basin (often farming communities); and enhancing the willingness to pay for beneficiaries of ecosystem services and coherence between the various PES systems.
- Strengthen policy coherence between the economic instruments deployed to manage water risks and instruments related to sectoral and environmental policies, such as in the case of agricultural production, renewable energy and policies aimed at promoting carbon sequestration.
- Launch a policy of "river rehabilitation" to improve water supply, ensure natural protection against floods and protect nature.

#### **Strengthen the regulatory framework towards universal coverage of water supply and sanitation**

- Implement a high-level pact between all actors involved in the water supply and sanitation (WSS)

policy design, implementation, regulation and delivery to present a unified implementation plan for the country's 2030 policy goals.

- Improve clarity in the allocation of regulatory functions, such as in the case of regulatory norms and frameworks to ensure financial sustainability and good corporate governance of water and sanitation service companies.
- Improve data collection and management for the WSS sector, through defining specific targets with regard to burden reduction on WSS actors for data submission, clarifying sanitation-related data collection responsibilities, and better coordinating public sector data collection and sharing.

### 06.7 CONCLUSIONS

Here are some key points to consider:

- Sustainable Resource Management: Justified concerns revolve around the sustainable management of water resources. Water is a finite and essential resource, and sustainable governance practices are necessary to ensure long-term availability. In Latin America, the sustainable use of water resources is crucial for agriculture, industry, and the well-being of local communities.
- Equitable Access: Water governance should prioritize equitable access to water for all citizens. This means addressing issues of water scarcity, unequal distribution, and access to clean and safe drinking water. In many Latin American countries, including Peru, there are often disparities in access to water resources, which need to be rectified.
- Infrastructure and Investment: Justifiable concerns also include the need for investment in water infrastructure and services. Many Latin American countries face challenges in maintaining and expanding their water infrastructure. Investments in modernizing infrastructure and improving water quality are essential.
- Regulatory Framework: Having a well-defined and transparent regulatory framework is crucial for effective water governance. In many cases, there's a need for comprehensive regulations that cover water allocation, usage, pollution control, and quality standards. These regulations should be enforced to ensure responsible water management.
- Community Involvement: Local communities often have valuable knowledge about their water resources and can play a significant role in water governance. Justified concerns center around the importance of involving local communities in decision-making processes and ensuring that their rights and interests are considered.
- Data and Technology: Effective water governance also relies on data and technology for monitoring and managing water resources. Utilizing data-driven approaches and modern technology can help make more informed decisions regarding water allocation and management.
- Public Awareness and Education: Raising public awareness and educating communities about the importance of water conservation and sustainable practices is another justified concern. This can foster a culture of responsible water use.

In the context of Latin America, these conclusions can be seen in various forms, and countries like

Peru face unique challenges and opportunities. The key to effective water governance is to address these concerns comprehensively, involving all relevant stakeholders, and ensuring that policies and practices are environmentally sustainable and socially equitable. In addition, the OECD and other international organizations provide valuable insights and resources to support countries in addressing these water governance challenges.

### 06.8 SPEAKERS

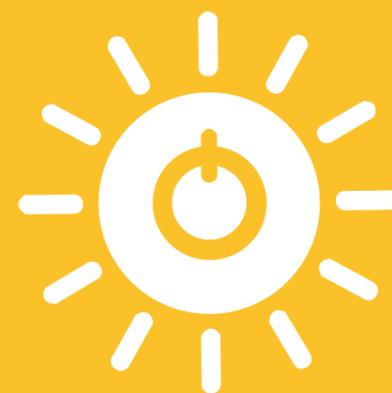
Nestor U. Salcedo, Ph.D.

As an Adjunct Professor at ESAN University & Graduate School of Business and a Research Fellow at ESADE Center for Corporate Governance, he has over 15 years of experience in teaching and conducting research in the fields of Corporate Governance and Information Technology (IT). His professional interest lies in exploring the internal mechanisms of corporate governance, such as ownership and leadership structures, and their impact on IT investments, knowledge management, and innovation. He uses new institutional theories and data analysis techniques to examine these topics in different contexts and sectors.

Nestor has also been involved in coordinating and developing research and consulting projects for public and private organizations, applying quality standards and best practices. He has published several papers in international journals and proceedings, and participated as a guest speaker and panelist in various academic and professional events. Editor in Chief of the Journal of Economics, Finance and Administrative Science (JEFAS). Member of the Editorial Boards of the Journal of Economics and Development (JED) of the UK and the Corporate Governance and Organizational Behavior Review (CGOBR) of Ukraine. Academic Member of the European Corporate Governance Institute (ECGI) and the International Corporate Governance Society (ICGS). Vice-director of the Education Quality Accreditation Agency (EQUAA). He enjoys building and maintaining international networks and collaborations with other researchers, institutions, and stakeholders. His mission is to advance the knowledge and practice of corporate governance and IT, and to contribute to the development and education of future leaders and managers.

Ph.D. in Economics, Management and Organization at Universitat Autònoma de Barcelona - UAB (2023). Master of Research in Management Sciences (2015) and Master of Business Administration with major in International Business (2008) at ESAN Graduate School of Business, BSc with major in Architecture and specialization in Urban Planning at National University of Engineering (2006).

# 7 AFFORDABLE AND CLEAN ENERGY



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UNIVERSIDAD DEL DESARROLLO



**Universidad del Desarrollo**

## 07. SDG 7: AFFORDABLE AND CLEAN ENERGY

**UNIVERSIDAD DEL DESARROLLO**  
"Tha Haru Oni Case"



### 07.1 SDG

Despite improvements in electricity and clean cooking fuel access worldwide, significant challenges remain. Around 675 million people lack electricity connection, and 2.3 billion still rely on unsafe and polluting fuels for cooking. The ongoing war in Ukraine and economic uncertainties impact energy prices, leading some nations to invest in renewables while others turn to coal, jeopardizing the green transition. At the current pace, about 660 million people will still lack electricity access, and nearly 2 billion will continue using polluting fuels by 2030. To achieve universal energy access, electrification must be accelerated, renewable energy investments increased, and electricity grids improved. Progress on targets for access to electricity and clean cooking fuels has been slower than desired, particularly in less developed countries and sub-Saharan Africa. While the share of renewable energy has grown globally, heat and transport sectors show limited progress. Primary energy intensity improvement has declined, requiring significant efforts to meet SDG 7.3. International financial support for clean energy in developing countries has decreased, hindering progress. Despite a record-breaking growth in renewable capacity in developing nations, overall progress toward SDG7 by 2030 is insufficient, with the most vulnerable countries being left behind.

### 07.2 UNIVERSIDAD DEL DESARROLLO

The University of Desarrollo (UDD) is an autonomous private university in Chile, with campuses in Concepción and Santiago. It was founded by a group of academics in 1990. Currently, it is accredited by the National Accreditation Commission (CNA) for 6 years (out of a maximum of 7), from October 2021 to October 2027, being the first private Chilean university to receive such accreditation in all areas.

Currently, UDD has 93,273 m<sup>2</sup> of built-up area distributed in Santiago (Campus Rector Ernesto Silva Bafalluy and Plaza de la Investigación) and Concepción (Campus Ainavillo and Campus Pedro de Valdivia). As of 2021, it has over 15,000 undergraduate students and 1,555 postgraduate students, offering 26 undergraduate programs, 3 bachelor's programs, 22 master's programs, and 4 doctoral programs.

### 07.3 THEME

A National Energy Strategy enabled this private endeavor, driven by the public sector and university experts.

### 07.4 GOOD PRACTICES

The "Haru Oni" project aims to use wind resources in Chilean Patagonia to produce hydrogen. A chemical plant will combine CO<sub>2</sub> with green hydrogen to create synthetic fuels exported to Germany for Porsche testing.

### 07.5 CHALLENGES

- What role can artificial intelligence play in optimizing the production processes and resource utilization of the “Haru Oni” project, and how can it be effectively integrated into the project’s operations?

- Considering the key drivers presented in this successful Triple Helix collaboration case, What are the insights and opportunities that could facilitate technology transfer, promote of policy frameworks to accelerate the scaling of this kind of project worldwide?

Access to nearby energy sources (e.g: water, clean energy)

Public incentives for private investments

Institutional stability and legal certainty

- How can the three dimensions of Triple Helix help to foster the engagement and support of different stakeholders for this project?

Local Bureaucracy

Communities

NGO’S

### 07.6 PROPOSED SOLUTIONS

To address the challenges presented in the “Haru Oni” project, which aims to use wind resources in Chilean Patagonia to produce hydrogen and synthetic fuels, as well as promote technology transfer and stakeholder engagement, we can propose the following solution:

**Integration of Artificial Intelligence (AI): AI for Resource Optimization:** Implement AI-driven solutions to optimize the production processes and resource utilization of the project. This involves using AI algorithms to predict wind patterns, energy generation, and hydrogen production efficiency. AI can also be employed for predictive maintenance of equipment, reducing downtime and enhancing operational efficiency.

**Real-time Monitoring:** Utilize AI-powered monitoring systems to continuously collect and analyze data from the chemical plant and wind farms. This real-time data analysis can lead to better decision-making, reduced energy waste, and improved safety. **Energy Management** Deploy AI-based energy management systems to balance energy supply and demand. This includes optimizing the conversion of green hydrogen into synthetic fuels according to market demand, weather conditions, and energy prices.

**Facilitating Technology Transfer and Scaling: Knowledge Sharing and Capacity Building:** Organize workshops, seminars, and knowledge-sharing sessions involving experts from the public sector, universities, and private industry. Encourage international collaboration by sharing insights and best practices related to renewable energy projects. **Policy Framework Development:** Collaborate with policymakers to develop a robust policy framework that supports similar projects worldwide. Share the success story of the “Haru Oni” project as a model for promoting clean energy and sustainable technology transfer. Advocate for incentives and regulations that encourage private investments in clean energy ventures. **Global Partnerships:** Establish partnerships with international organizations, renewable energy associations, and clean tech companies. These partnerships can facilitate

technology transfer, funding, and market expansion opportunities.

**Triple Helix Engagement: Academia-Industry Collaboration:** Foster closer collaboration between universities, research institutions, and the private sector. Encourage joint research projects, student internships, and technology development initiatives to leverage academic expertise for the project’s benefit. **Government Support** Engage with the public sector to ensure institutional stability and legal certainty. Advocate for ongoing support and incentives for clean energy projects. Collaborate with government agencies to streamline permitting processes and reduce regulatory hurdles. **Community Involvement** Promote community engagement and benefits sharing. Invest in local workforce development, job creation, and sustainable community initiatives. Transparently communicate the project’s positive impacts on the region.

### 07.7 CONCLUSIONS

In conclusion, the proposed solutions for the “Haru Oni” project represent a multifaceted approach to address its challenges and leverage its opportunities. This innovative project in Chilean Patagonia, focused on harnessing wind resources to produce hydrogen and synthetic fuels, stands at the intersection of renewable energy, technology transfer, and collaborative stakeholder engagement.

The integration of Artificial Intelligence (AI) offers the potential to significantly enhance the project’s efficiency and resource utilization. By utilizing AI for real-time monitoring, predictive maintenance, and energy management, the project can optimize its operations, reduce waste, and improve safety. This not only ensures the project’s success but also positions it as a technological leader in the renewable energy sector.

Facilitating technology transfer and scaling is essential to promote similar initiatives worldwide. Sharing knowledge, building capacity, and collaborating on policy frameworks can accelerate the adoption of clean energy projects globally. The success of the “Haru Oni” project can serve as a blueprint for governments, industries, and institutions seeking to address the challenges of affordable and clean energy while fostering sustainable technology transfer.

Triple Helix engagement, involving academia, industry, and government, is crucial for the project’s success. Close collaboration between universities, research institutions, and the private sector can drive innovation and knowledge sharing. Government support, including legal certainty and incentives, ensures a conducive environment for private investments in clean energy. Additionally, community involvement underscores the project’s commitment to social and environmental responsibility.

In summary, these solutions not only address the immediate challenges faced by the “Haru Oni” project but also position it as a global leader in renewable energy and technology transfer. By embracing AI, facilitating knowledge sharing, and fostering collaboration across sectors, the project can not only fulfill its objectives but also inspire similar initiatives worldwide, ultimately contributing to the global goal of achieving affordable and clean energy for all.

### 07.8 SPEAKERS

Speakers include Joaquín Lavín, a Professor and former Minister of Education, Klaus Schmidt-Hebbel, an economist and consultant, Francisco López Díaz, a former Vice-Minister of Energy, and Clara Bowman, COO of HIF Global with expertise in infrastructure projects.

Chair: Joaquín Lavín, Full Professor and one of the founders of Universidad del Desarrollo (Chile). Former Mayor of the Municipality of Santiago (2000-2004), and Las Condes (1992-1999; 2016-2021). Minister of Education (2010-2011), Minister of Social Development (2011-2014), and candidate for the Presidency of Chile in 1999, and 2005. He is an Economist at Universidad Católica de Chile and holds a Master's in Economics from the University of Chicago.

HELIX (University): Klaus Schmidt-Hebbel, is an international consultant, advisor, and public speaker. He is Professor of Economics at Universidad del Desarrollo. He was Chief of Economic Research at the Central Bank of Chile during the previous 12 years. Before that, he was Principal Economist in the Research Department of the World Bank in Washington. He was elected "2008 Economist of the Year" by his peers in Chile. Mr. Schmidt-Hebbel holds a PhD in Economics from the Massachusetts Institute of Technology, and a BA and a MA in Economics from the Catholic University of Chile.

HELIX (PUBLIC SECTOR): Francisco López Díaz, Former Vice-Minister of Energy (2019-2022). Mr. López is a lawyer from the Pontificia Universidad Católica de Chile and holds an LL.M. and Certificate in Business Administration from Northwestern University School of Law. During the first government of President Sebastián Piñera (2010-2014), he served as legal adviser to the Undersecretary of Public Health, and as chief of staff of the Budget Office of the Ministry of Finance. He is one of the founders of CHASS, an innovative Start-up dedicated to the operation and provision of charging services for electric vehicles.

HELIX (PRIVATE SECTOR): Clara Bowman, COO of HIF Global, in charge of the eFuels company operations worldwide. She also serves as Director of AUSCHAM, the Australian Chilean Chamber of Commerce. Clara has degrees in law and environmental science from Murdoch University, Western Australia. Clara has significant experience in leading teams in the development of large-scale infrastructure projects in Latin America. Prior to moving to Chile, Clara worked in Perth, Australia as a corporate attorney at Freehills, a prestigious Australian law firm, where she specialized in acquisitions, mergers, and other transactions in the energy and natural resources sectors.

# 8 DECENT WORKS AND ECONOMIC GROWTH



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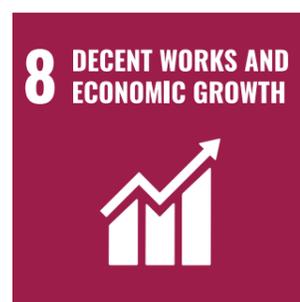
PORTO ALEGRE



## 08. SDG 8: DECENT WORK AND ECONOMIC GROWTH

### PORTO ALEGRE

“ Pact for innovation – Pacto Alegre”



#### 08.1 SDG

The progress towards achieving SDG8 faces challenges due to the lingering effects of COVID-19, trade tensions, rising debts in developing countries, and the war in Ukraine. The global economy is at risk, with forecasted slowdowns in real GDP per capita, affecting employment and income.

To achieve SDG8, a reform of the financial system is necessary to address debts, economic uncertainties, and trade tensions while promoting equitable pay and decent work for young people. It is also necessary to think about creative ways to promote workability and develop 21st century skills to greater portions of the population, specially in more vulnerable areas.

However, some targets have shown improvement, such as a rebound in global real GDP per capita in 2021 and increased adoption of digital solutions for financial access. Nonetheless, issues persist, like informal employment affecting 2 billion workers, a gender pay gap of approximately 14%, and an increase in child labor. Efforts are needed to tackle these challenges and advance progress towards SDG8.

#### 08.2 PORTO ALEGRE

Porto Alegre is the capital and largest city of Rio Grande do Sul, the southernmost state in Brazil. With a population of around 1.4M people, the city has a great blend of Brazilian, Italian, German, Spanish and Portuguese culture elements, which results in a lively and international atmosphere. Porto Alegre is a wealthy city, with good shopping, excellent restaurants, and exciting bars.

A thriving hub of academic and cultural activity, in recent years Porto Alegre has become one of the hotspots of innovation in Brazil. It harbors 4 of the most prestigious Science and Technology Parks (STP) in Brazil: TECNOPUC, TECNOSINOS, ZENIT/UFRGS and FEEVALE TECHPARK, besides INSTITUTO CALDEIRA, the most renowned innovation hub created in recent years in Brazil, and many incubators, accelerators, coworkings and innovation hubs, such as NAU, FABRICA DO FUTURO, IMPACT HUB, FEEVALE HUB ONE, CO.NECTAR, LAB FECOMÉRCIO, and others. The powerful local ecosystem was a driver for the creation, in 2019, of PACTO ALEGRE, a quadruple helix movement that has unite most of the more important stakeholders of the city in a INNOVATION PACT that aims to use innovation to promote local development, improve the quality of life for all and foster a better, more inclusive e attractive city.

PACTO ALEGRE has become a great example of how to use the logic of abundance and commit city forces towards a collective and collaborative agenda for city development. It has inspired many cities and states and is nowadays a landmark of Porto Alegre.

Another important local feature of the city it´s the very powerful local academic cluster, composed of more than 40 Higher Education institutions, among them the best federal University (UFRGS) and 2 of the Top 5 Private Universities in Brazil (PUCRS and UNISINOS), which have united to form the ALLIANCE FOR INNOVATION, the most important pillar that supports PACTO ALEGRE.

The very strong connection among local players - from government, academia, private companies, the financial sector, and social organizations – was a key aspect that enabled the city to bring SOUTH SUMMIT, a top ranked global innovation conference that was born in Madrid, to Latin America, via Porto Alegre.

The event has brought special attention to the movement of renaissance through innovation that marks the city and has increased the international links of the city, specially with venture funds and innovation players from all around the world. It is important yet the +4D urban renewal project that aims to foster the transformation of an old industrial area into a structured and vibrant innovation neighborhood.

QUARTO DISTRITO, as locally known, is experiencing strong developments, with the creation of Caldeira and the arrival of many technological players, including international data centers. The city administration has already put in place tributary incentives, special urban planning directives and pursued way to deliver financial support to local entrepreneurs and infrastructure improvement to accelerate the development of the area, which has been invited by IASP to become a founding member of a GLOBAL NETWORK OF INNOVATION DISTRICTS, together with other 17 locations, including PORTO DIGITAL in Recife, Brazil.

For all its strengths, Porto Alegre has also many challenges, some specially related to SDG 8.

**08.3 THEME**

Better jobs for youth inclusion and social transformation.

**08.4 GOOD PRACTICES**

Porto Alegre has an historic tradition of civic engagement, represented by the world renown PARTICIPATORY BUDGET, a process that was born in the city and became an inspiration and a best practice that has been reproduced in many other cities.

Nowadays the city administration is quite engaged in promoting innovation with a very strong inclusive view. To this end many different policies are being implemented.

For example, the very successful one-stop shop for entrepreneurs (that helped reduce time to open of new low impact business from more than 30 days to less than 1-hour) is being decentralized and will start to circulate among communities, to reach local businesspeople.

An unprecedented survey of local business from poorer neighborhoods was also conducted by the city council, in conjunction with SEBRAE-RS (the national service for small and medium enterprises), to understand needs and perceptions of these budding entrepreneurs.

New policies that promote digital literacy and establish local community innovation hubs (to create a local connection to public policies and innovation projects) is also being put in place.

An extraordinary secretary was also recently created to increase job opportunities and qualification for the unemployed. A special program of job reskilling with more than 3000 places was recently put in place and the expectative is to reach more than 10000 in 2024.

Inclusive innovation programs are being put in place to bring to the peripheral communities better digital access and more access to public services, with free wi-fi illumination and delivery of more public services through digital channels. In fact, Porto Alegre has one of the most active DIGITAL GOVERNMENT PROGRAMS in Brazil, the main reason why the city was chosen to represent the south region in the 1st cohort of the DIGITAL ACCELERATION PROGRAM FOR MUNICIPALITIES, financed by CAF, that brought 5 of the most advanced cities in terms of digital transformation to exchange best practices, accelerate deliveries and inspire other cities.

For all these efforts, and due to the impacts in mindset generated by PACTO ALEGRE, the city was chosen as one of the bases for the IMPACT COALIZION, a national project run by ICE that aims to dynamize local impact entrepreneurship ecosystems.

PACTO ALEGRE is also running TERRITORIES OF INNOVATION, a project supported by many institutions that aims to engage local communities into cocreating a plan for local development.

All these measures are expected to help promote more employability and support people to attain better and more fulfilling jobs.

**08.5 CHALLENGES**

The proposed questions for the SDG workshop were:

- How to identify and develop strategic innovation clusters in economic sectors related to the future economy and that can offer more qualified job opportunities for the citizens of Porto Alegre?
- How to develop innovative public policies for qualification, retraining and qualification that offer opportunities for talent development, reskilling and attracting digital nomads to Porto Alegre, qualifying the local job market, and expanding the city's creative and entrepreneurial talent pool?
- How to develop innovative public policies seeking to promote social inclusion based on encouraging digital literacy, entrepreneurial education and innovation, with impacts on expanding opportunities,

promoting diversity and increasing the inclusion of peripheral or needier social segments?

**08.6 PROPOSED SOLUTIONS**

The session explored the possibility of establishing even stronger partnerships between schools and business of technology, aiming to provide technical education with access to good labs, where children have access to IOT, connectivity and other facilities that enable learning.

This might help qualify people that would be able to attain more qualified jobs.

It was highlighted that there are already organizations in Brazil where this kind of education is provided, for example SEBRAE and SENAI.

It was also deemed important to establish partnerships between companies and universities.

It was discussed the possibility of creating incentives that would target companies in the steam area, identify gaps in the current strengths in the region, and fill those gaps forming partnerships with companies willing to make major investments, work with local government to improve legislation and partner with universities to create special programs to support steam activities.

The improvement of basic education in arts, science, technology, engineering, math, entrepreneurship, and English language skills was also discussed as important to qualify the young talent, preferably since basic education, to result in students more prepared to go to the university and to reduce the dropout rates.

To make this happen the suggestion would be to create a special program, coordinated by Pacto Alegre, to introduce special formation programs in public schools, with the support of the secretary of education and the secretary of Innovation of the city of Porto Alegre, and with the investment of the private sector.

**08.7 CONCLUSIONS**

In conclusion, the proposed solutions emphasize the critical need for collaboration and innovation in the education and technology sectors to foster economic growth and human capital development in Brazil.

These solutions center around partnerships, incentives, and investments with the 3 agents of the Triple helix Conference Education, business, and government. These solutions underscore the interconnectedness of education, innovation, and economic development.

By fostering collaboration among educational institutions, businesses, and government entities and by strategically investing in both technical and foundational education, Brazil can cultivate a highly skilled workforce, drive technological advancement, and ultimately contribute to long-term economic growth and competitiveness in the global arena.

**08.7 SPEAKERS**

Luiz Carlos Pinto da Silva Filho

Full Professor of Civil Engineering at UFRGS

Secretary of Innovation of the city of Porto Alegre

Coordinator of the Digital Government Program of the City of Porto Alegre

Coordinator of PACTO ALEGRE - Quadruple Helix Pact for City Innovation of Porto Alegre

Jorge Nicolas Audy

Superintendent of Innovation and Development at PUC-RS

CEO of TECNOPUC Science and Technology Park

PUC Representative in the operational committee of the ALLIANCE FOR INNOVATION

Member of the Leaders' Forum of the National Industrial Movement for Innovation.

# 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



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ZONA FRANCA BARCELONA

## 09. SDG 9: INDUSTRY, INNOVATION AND INFRASTRUCTURE

### ZONA FRANCA BARCELONA “Industry 4.0 – D-FACTORY”



#### 09.1 SDG

SDG 9 advocates for the development of reliable and sustainable infrastructure, including transportation systems, energy networks, and communication technologies. Accessible and efficient infrastructure is vital for economic growth, social development, and environmental sustainability.

SDG 9 promotes inclusive and sustainable industrialization by encouraging the growth of industries that create jobs, enhance technological capabilities, and have a low environmental impact. Sustainable industrialization can drive economic prosperity while minimizing harm to the environment and local communities.

SDG 9 emphasizes the importance of research, technological development, and innovation. Investments in research and innovation can lead to the creation of new technologies, industries, and job opportunities. Innovation is considered a key driver of economic growth and competitiveness in the global market.

It is important to mention that SDG 9 promotes Small and Medium-sized Enterprises (SMEs) on supporting small and medium-sized enterprises, which are essential for economic development and job creation. Access to affordable credit, technical assistance, and market opportunities for SMEs are crucial components of SDG 9.

SDG 9 also highlights the significance of enhancing access to information and communication technologies (ICTs) worldwide. Improving internet connectivity and digital literacy can bridge the digital divide and create opportunities for education, healthcare, and economic participation.

SDG 9 is essential for fostering sustainable economic growth, reducing inequality, and promoting innovation and infrastructure development in both developed and developing countries. Achieving the targets outlined in this goal can create jobs, improve living standards, and enhance overall economic and social well-being while ensuring that these advancements are environmentally sustainable and inclusive for all. By investing in resilient infrastructure, sustainable industrialization, and innovation, societies can pave the way for a more prosperous and equitable future.

#### 09.2 ZONA FRANCA BARCELONA

In Zona Franca Barcelona, they manufacture opportunities for the future. They are an active agent, serving as a driving force in the constantly evolving Barcelona metropolitan area.

They create opportunities for the development of the industry of the future, an industry connected with sustainability, innovation, and international projection.

With over 100 years of experience since their establishment in 1916, they manage the industrial park of the Zona Franca and its customs area. Additionally, they promote numerous projects in other areas of the city and the metropolitan area, always linked to activities with high added value and a strong component of innovation.

Zona Franca de Barcelona provides spaces to companies that generate employment for more than 137,000 workers and offer global business opportunities in an industrial real estate of 6 million m<sup>2</sup>. With over 176 companies, these contribute 9,112 million euros to the GDP.

#### 09.3 THEME

Zona Franca is creating the DFactory Barcelona, a new hub of 4.0 technologies that provide technological, sustainable, and innovative solutions to manufacturing industries. Its ecosystem 4.0 has attracted companies to coworking and to digital and collaborative projects that will lead the industry and the economy of the future. Successfully occupied, Dfactory I is the first cornerstone of the future 4.0 industry District Dfactory II, an area about 72,500 m<sup>2</sup> that will be added.

#### 09.4 GOOD PRACTICES

- Creation of the first European technological center for incubating 3D technology companies and startups, named 3D Incubator, which has incubated more than 100 companies and startups in record time.

- Construction of DFactory Barcelona I and the expansion project DFactory Barcelona II.

- Establishment of the Logistics 4.0 Incubator, a startup incubator focused on 4.0 technology logistics.

Creation, coinciding with the COVID crisis, of the hybrid event generating a new economy called Barcelona New Economic Week (BNEW). In its four editions, it has generated business opportunities, boosted innovation and digitalization, positioning Barcelona as an international hub for new economy and sustainability.

### 09.5 CHALLENGES

- Which technologies must be prioritized in phase II and how to seduce its international leading companies?
- How to include the pharma/biomèdic sector to this new district?
- What minimum percentatge of the land should be kept for energy and resource infrastructures as well as for connectivity, mobility and data base, etc?

### 09.6 PROPOSED SOLUTIONS

- Technology Prioritization in Phase II: Technology Assessment, conduct a comprehensive assessment of emerging and high-impact technologies relevant to the 4.0 industry. This assessment should consider factors such as market demand, scalability, and potential for innovation. International Partnerships, forge strategic partnerships with international leading companies in the identified technology sectors. Highlight the benefits of investing in the project, such as access to a skilled workforce, research collaborations, and proximity to potential clients. Finally Innovation Grant to attract startups and research teams working on cutting-edge technologies. Create an innovation ecosystem within the district.

- Integration of the Pharma/Biomedical Sector: Market Analysis: Conduct a market analysis to understand the potential for growth in the pharma/biomedical sector within the district. Identify existing companies, research centers, and startups in this field. Infrastructure Development: Allocate specific zones or buildings within the pharma/biomedical companies. Ensure that the infrastructure meets the sector's specialized requirements, including laboratories and cleanroom facilities. collaboration Platforms: Create collaboration platforms to facilitate partnerships between existing 4.0 industry companies and pharma/biomedical entities. Encourage knowledge sharing and joint research projects.

- The minimum percentage of land to allocate for energy and resource infrastructures, connectivity, mobility, and database facilities, as well as for the creation of privative spaces, technological solutions, ecosystem events, general services, coworking, showrooms, and labs, will depend on various factors, including the specific goals and requirements of the Zona Franca Barcelona project, as well as the available land area, budget, and overall design considerations. In the planning and development of mixed-use projects like Zona Franca Barcelona, land allocation is determined through a comprehensive master planning process. This process involves various stakeholders, including urban planners, architects, engineers, and project managers. They assess the project's objectives and constraints to arrive at a suitable land allocation strategy. To make this decision is necessary to consider such asi infrastructure, connectivity and mobility, data infrastructure, private spaces and others. Ultimately, there is no one-size-fits-all answer to the minimum percentage of land allocation for these purposes. It will depend on the specific details of the Zona Franca Barcelona project. A professional master planning team should conduct a detailed assessment to determine the optimal land allocation based on project goals, budget, and local regulations.

### 09.7 CONCLUSIONS

In conclusion, the proposed solutions address the multifaceted challenges faced by Consorci Zona Franca in the development of DFactory II, the next phase of the 4.0 industry district. The challenges of prioritizing technologies for Phase II, integrating the pharma/biomedical sector, and determining the optimal land allocation for infrastructure were tackled through a strategic and comprehensive approach.

The prioritization of technologies involved thorough assessment and collaboration with industry experts, ensuring that the district remains at the forefront of innovation. Establishing international partnerships and offering incentives to attract startups and research teams will contribute to the district's competitive advantage and attractiveness to leading global companies.

The inclusion of the pharma/biomedical sector required market analysis, specialized infrastructure development, and regulatory support. This approach positions the district as a conducive environment for the growth of this sector, promoting collaborations and knowledge sharing.

The strategic planning for land allocation and infrastructure takes into account sustainability, connectivity, mobility, and adaptability. By dedicating land to sustainable energy solutions, efficient transportation, and data infrastructure, the district can remain agile and responsive to changing industry needs while prioritizing environmental responsibility.

Overall, these solutions not only address the immediate challenges but also set the stage for DFactory II to become a thriving, innovative, and profitable 4.0 industry district. They establish a framework for continued growth, competitiveness, and international recognition, aligning with Consorci Zona Franca's investment objectives and the district's potential as a driver of economic and technological advancement.

### 09.8 SPEAKER

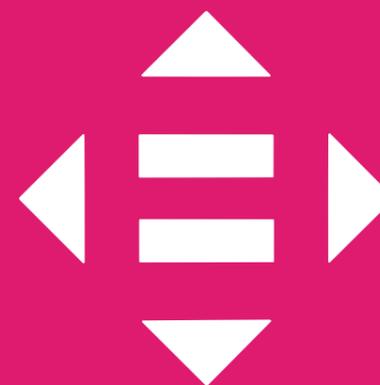
Montserrat Novell

Corporate Social Responsibility and Sustainable Development Goals Manager in El Consorci de la Zona Franca of Barcelona.

In charge of reporting and managing activity around sustainability and CSR.

Journalist and very concerned about the climate emergency.

# 10 REDUCED INEQUALITIES



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BANRISUL



## 10. SDG 10: REDUCED INEQUALITIES

### BANRISUL

“DEVOLVE Program, Tax refund to lower income people”



### 10.1 SDG

The pandemic threatens to reverse the pre-pandemic trend of income growth for the bottom 40% of the population in most countries, exacerbating global inequality. Record numbers of people are becoming refugees due to conflicts and economic hardships. SDG 10 aims to address wage disparities and inequality within and between countries. Target 10.1 shows that, before the pandemic, more than half of 119 countries achieved income growth for the bottom 40% higher than the national average. Target 10.2 indicates a decline in the share of people living below half the median, partly due to social assistance programs during COVID-19. However, this share remains high in several countries. Target 10.4 highlights a decline in the share of economic output earned by workers, impacting the vulnerable disproportionately. Target 10.7 reveals alarming deaths on migratory routes, with an increase in refugees and forcibly displaced persons. In 2021, 63% of countries reported policies to facilitate safe migration. However, the cost of remittances (at 6.3% in 2021) still exceeds the SDG 10.c target of 3%.

### 10.2 BANRISUL

Banrisul, the State Bank of Rio Grande do Sul S.A., founded in 1928, is a southern government-owned bank in Brazil, serving as a key player in the state's economic and social development. It operates as a mixed-economy corporation with the State of Rio Grande do Sul holding the majority of shares. With a widespread presence, it serves individuals from all economic segments.

Functioning as a provincial multiple bank, Banrisul offers various financial services, including commercial, financial, and investment credit, real estate credit, leasing, and development. It actively supports investment projects, nurtures relationships with the public sector, agribusiness, micro, small, and medium-sized enterprises, as well as the service sector. The bank also plays a significant role as a facilitator of businesses and a promoter of social projects in areas like education, culture, sports, and the environment.

Banrisul caters to over 4 million clients through an extensive network of over a thousand points, including branches, service points, and electronic facilities. With a dedicated team of 8928 employees, Banrisul continues to be an influential financial institution under the leadership in the last four years of Claudio Coutinho and since 2023 of its current president, Fernando Guerreiro de Lemos.

### 10.3 THEME

The Devolve ICMS program in Rio Grande do Sul, Brazil, addresses public policy, inequality, and tax refund issues.

One of the characteristics associated with indirect taxes on consumption, such as the ICMS, is their regressive nature, that is, the burden is proportionally greater on the income of relatively poorer families.

Devolve ICMS is an initiative that aims to return part or all of the tax collected to families with an income of up to three minimum wages or a monthly per capita income of less than half the national minimum wage. The Revenue Office of RS played a leading role in the creation and management of the program.

In the first stage, 432,000 families benefited, with a fixed return of BRL 100.00 per quarter. In the second stage, the number of families was increased to 527 thousand families, all beneficiaries of the Bolsa Família Program, which, in addition to the fixed portion, began to receive a variable portion, determined according to the consumption formalized in Electronic Consumer Invoices. In the first moment, around 79,000 low-income families from Rio Grande do Sul who asked for CPF on invoices for purchases received a credit on their card. The extra amounts were, on average, BRL 73.78. The variable portion is added to the fixed BRL 100.00.

The results observed until now, in April 2023. The total of families benefited of DEVOLVE ICMS is 608 thousand. Based on the Program's data, it was observed, among other relevant aspects, that for families with income of up to one minimum wage (89% of the total), refunds represented 13% of their income, average.

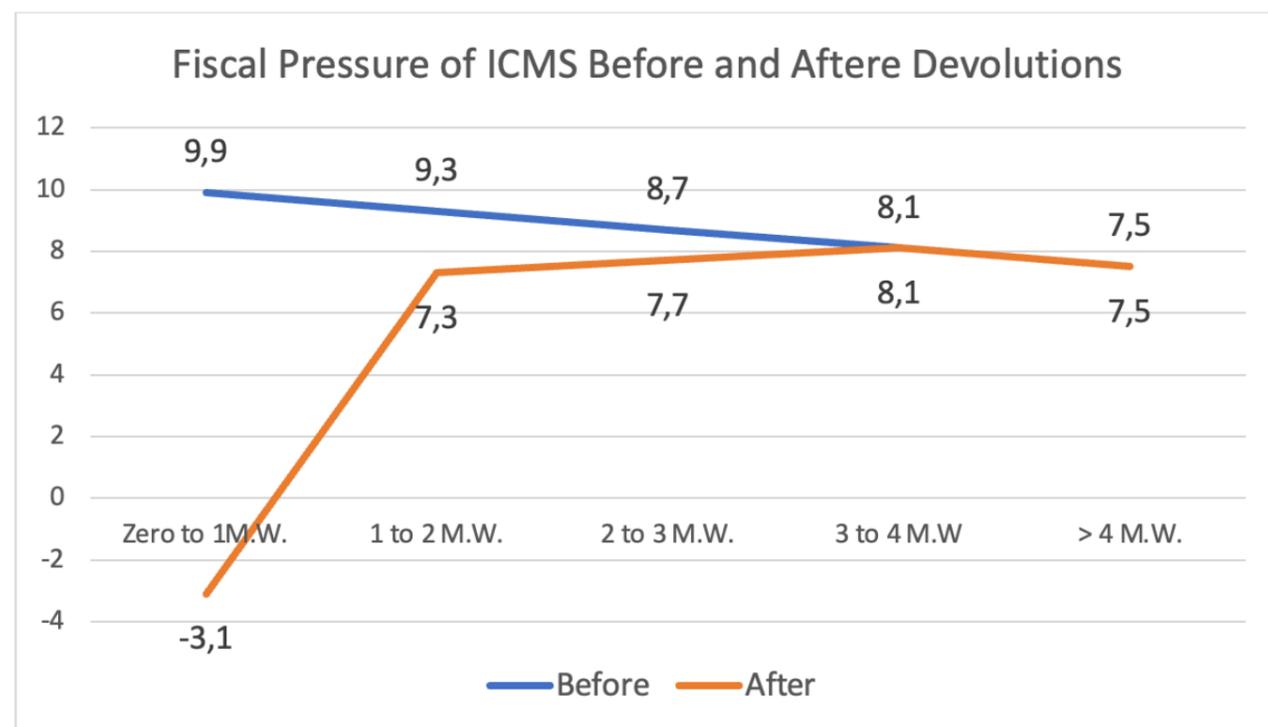
The beneficiary who receives the card where the values of the DEVOLVE-ICMS Program are refunded, through a shopping card (debit), can use it in more than 140 thousand establishments distributed throughout the State, such as supermarkets, bakeries and pharmacies, without the need for an account banking.

The participation of Banrisul (Bank of the State of Rio Grande do Sul) has been fundamental for the execution of the program, since it has already involved more than a thousand people in the delivery of cards in its branches throughout the State. These deliveries continue permanently across the

state, as there are still a significant number of beneficiaries who have not sought their cards. In the last year, more than 100,000 cards had to be issued due to the economic issues that resulted from the pandemic.

#### 10.4 GOOD PRACTICES

Through partnerships with the Finance Secretariat and Banrisul bank, the program has disbursed BRL 344,198,980.98 to beneficiaries. The program provides benefits to around 600,000 families through these debit cards. It aims to strengthen the local economy and alleviate financial burdens caused by the pandemic.



Note: Minimum Wage = M.W.

#### 10.5 CHALLENGES

Reach the maximum number of people who can benefit from tax refund, quickly and effectively, with a simple system of use and traceability.

#### 10.6 PROPOSED SOLUTIONS

1. Utilize supermarkets as convenient distribution points for the system card, eliminating the need for a bank visit. Simply visit a supermarket to obtain your card.
2. Establish a social identification number like CPF in Brazil, ensuring that possession of this number automatically grants access to a debit card. Collaborative efforts with other banks are essential to seamlessly link your Citizen card number with your debit card.
3. Address the issue of financial literacy by implementing financial education programs in high schools. Equipping students with financial knowledge as they transition to independence and entrepreneurship is crucial.

#### 10.7 CONCLUSIONS

In conclusion, the proposed solution presents a comprehensive approach to simplifying the process of obtaining a debit card and promoting financial inclusion:

Using supermarkets as distribution points for system cards offers a practical and accessible alternative to visiting a bank, enhancing convenience for individuals seeking financial services.

In the other hand establishing a social identification number, akin to Brazil's CPF, streamlines the process by automatically granting access to a debit card. Collaboration with other financial institutions ensures a seamless integration of this system, making it easier for individuals to access banking services.

Addressing financial literacy through high school education is a proactive step toward empowering the next generation with essential financial knowledge. This educational initiative supports young people as they embark on their journey toward financial independence and entrepreneurship.

Collectively, these measures aim to simplify financial access, enhance financial literacy, and foster greater economic inclusion within the community, ultimately contributing to a more financially empowered society.

#### 10.8 SPEAKER

Jorge Luis Tonetto

He held the positions of Deputy Secretary of Finance of the State of RS (2019 -2022), and Municipal Finance Secretary of Porto Alegre (2014 – 2016). He is PhD candidate in economics and has a master's degree in development economics (PUCRS). He is Professor of Economics of International Finance and Public Finance at PUCRS.

Giovanni Padilla da Silva

He holds the position of Deputy Undersecretary of the Revenue Office. He is PhD in economics and business management from the Universidad de Alcalá (2017).

Fabricio Nunes Gomes

Executive technology and information manager in BANRISUL. He has a bachelor's degree in business administration and has a MBA in Technology and Innovation.

André Luís Perini.

Bank Superintendent for State and Municipal Government Assumptions in BANRISUL. He has a bachelor's degree in business administration with an MBA in administration with an emphasis on foreign trade, and an MBA in banking and competitiveness management.

# 11 SUSTAINABLES CITIES AND COMMUNITIES



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SENAI

## 11. SDG 11: SUSTAINABLES CITIES AND COMMUNITIES

### SENAI

**“A technology park focused on Intelligent Mobility, bringing together and promoting connections between anchor companies, startups, universities, research institutes, and government”.**



### 11.1 SDG

The pandemic has led to significant migration shifts, impacting the goal of sustainable cities. Slum populations in urban areas have grown, posing challenges to achieving adequate housing for all by 2030. Access to public transportation remains limited, with only 51.6% of the urban population having convenient access globally. City expansion has outpaced population growth, leading to a decline in open public spaces. Municipal solid waste collection rates vary globally, with sub-Saharan Africa and Oceania having rates below 60%, contributing to pollution and infections. In 2022, only 55% of MSW was managed in controlled facilities. Compliance with National Urban Policies is mixed, with most countries meeting population dynamics and balanced territorial development criteria, but fewer providing increased local fiscal space. However, there has been progress in disaster risk reduction strategies, with 102 countries reporting local government strategies by the end of 2022, up from 51 in 2015. To achieve SDG 11, efforts must prioritize urban development planning, public transportation, waste management, and disaster risk reduction.

### 11.2 SENAI

SENAI is a Brazilian private institution with public interest, functioning as a non-profit entity independent of the Public Administration. Its main goal is to support 28 industrial zones by providing human resources training and technical services. They offer various professional training programs, including distance learning options. Established in 1942, SENAI has 738 operational units and 320 educational kits, covering 25 different occupations. SENAI's reputation is evident as the Paraná branch was recognized as one of the twenty best companies to work for in Paraná by the Great Place to Work Institute.

### 11.3 THEME

The Technology Park of Industry is a technology park that focuses on Intelligent Mobility. It fosters connections and collaboration among anchor companies, startups, universities, research institutes, and the government. The park facilitates the nationalization of technologies and provides infrastructure to create an ecosystem that supports businesses, from product development on a pilot scale to real environment testing of solutions.

Participants include SENAI PR (IST) as the sponsor and executor, along with main partners such as UFPR (University), SENAI/SC (IST), IPPUC (Local Government), and SESI PR (IST). The infrastructure comprises laboratories, maker spaces, a semi-industrial plant for module and battery pack production, offices for pilot batch production by companies and startups, and space for networking and a café.

The park's focus is on various verticals, including public transport, light vehicles, micro-mobilities, and smart cities. As the first Intelligent Mobility Park in the country within the Federation of Industries, its purpose is to develop technologies that generate innovation, wellness, economic growth, and social development.

### 11.4 GOOD PRACTICES

The park is incentivized through partnerships with the existing Innovation Ecosystem, strategic planning of Senai Technology and Innovation, the request and contribution of the Automotive Council, and project approval for public funding in Brazil for innovation projects through FINEP.

### 11.5 CHALLENGES

- How can we change the production of large industries, related to mobility, in order to reduce their carbon footprint and make them more environmentally sustainable?
- How mobility can be thought for golden agers?
- How to engage in an effective way the vulnerable community around the tech park in the construction of a more inclusive innovation environment?

### 11.6 PROPOSED SOLUTIONS

#### Challenge 1: Reducing the Carbon Footprint of Large Industries in Mobility

**Technology Adoption and Innovation:** Encourage large industries within the Technology Park of Industry to adopt cleaner and more sustainable technologies. Promote research and development initiatives focused on electric and hybrid vehicles, alternative fuels, and energy-efficient manufacturing processes.

**Collaborative Research Projects:** Facilitate collaborative research projects between anchor companies, startups, and research institutes within the park. Create a platform for knowledge exchange and joint projects that address the specific challenges of reducing the carbon footprint in the mobility sector.

**Government Incentives:** Work with government bodies to provide incentives for industries that invest in sustainable practices. Advocate for tax breaks, grants, or subsidies for companies adopting eco-friendly technologies and practices. Collaborate with the Automotive Council to lobby for favorable policies and regulations.

#### Challenge 2: Designing Mobility for Golden Agers

**Inclusive Design Workshops:** Organize inclusive design workshops involving seniors, designers, and mobility experts. Use a human-centered design approach to identify and address the specific mobility needs and challenges faced by the aging population. This can include accessible transportation, user-friendly interfaces, and safety features.

**Pilot Programs for Senior-Friendly Mobility Solutions:** Implement pilot programs within the Technology Park to test and refine mobility solutions designed for seniors. Collaborate with startups and companies to develop and showcase innovations such as accessible vehicles, on-demand transportation services, and user-friendly mobility apps.

**Collaboration with Health and Senior Care Organizations:** Partner with health institutions and organizations dedicated to senior care. Establish connections with experts in geriatrics to understand the unique mobility requirements related to health conditions and aging. This collaboration can inform the development of tailored solutions.

**Public Awareness Campaigns:** Launch awareness campaigns targeting both seniors and the general public to promote understanding and acceptance of mobility solutions designed for golden agers. Emphasize the societal benefits of inclusive mobility, fostering a positive perception of these innovations.

#### Challenge 3: Building an Inclusive Innovation Environment for Vulnerable Communities

**Community Engagement Programs:** Develop community engagement programs to involve the vulnerable community around the Tech Park in the innovation process. Conduct outreach initiatives,

workshops, and information sessions to understand their needs, aspirations, and potential contributions to the innovation ecosystem.

**Skill Development and Training:** Offer skill development and training programs for the local community, focusing on areas related to the activities within the Tech Park. This can include technical training, entrepreneurship workshops, and programs that enhance digital literacy, providing community members with the tools to actively participate.

**Inclusive Innovation Competitions:** Organize competitions and challenges that invite ideas and solutions from the local community. Provide platforms for individuals and groups to showcase their innovations, offering mentorship and support for the development and implementation of promising ideas.

**Social Impact Partnerships:** Establish partnerships with social impact organizations and NGOs to address specific needs within the vulnerable community. Collaborate on projects that leverage technology and innovation to enhance quality of life, create economic opportunities, and address social challenges.

### 11.7 CONCLUSIONS

The proposed solutions for the challenges faced by SENAI and the Technology Park of Industry reflect a comprehensive and strategic approach to fostering innovation, sustainability, and inclusivity. By addressing the specific challenges outlined—reducing the carbon footprint of large industries in mobility, designing mobility solutions for the aging population, and building an inclusive innovation environment for vulnerable communities—the suggested solutions aim to create a positive and lasting impact.

The emphasis on collaborative efforts, involving key stakeholders such as anchor companies, startups, research institutes, universities, and government bodies, underscores the importance of a united front in tackling complex issues. Initiatives like collaborative research projects, inclusive design workshops, and public awareness campaigns not only promote knowledge sharing but also ensure that diverse perspectives are considered, leading to more holistic and effective solutions.

The integration of government incentives, training programs, and public engagement strategies demonstrates a recognition of the broader ecosystem in which these challenges exist. By advocating for supportive policies, providing education and skill development opportunities, and actively involving local communities, the solutions seek to create a sustainable and inclusive foundation for the long-term success of the Technology Park of Industry and its initiatives.

In summary, the proposed solutions align with the overarching goals of SENAI and the Technology Park—advancing technology, promoting innovation, fostering sustainability, and creating a positive impact on society. Through these initiatives, the organizations are poised to contribute significantly to the development of intelligent mobility, address pressing societal challenges, and serve as a model for collaborative and inclusive innovation ecosystems.

### 11.8 SPEAKER

Patricia Garcia Martins

Manager of Habitat Senai and Innovation Center of Sesi in Paraná, business units responsible for consultancies in productivity, innovation and sustainability. She works with innovation since 2010, having worked with large industries (Whirlpool and EMBRAER), with innovation in the public sector and communication for NGOs. Working at the Industries Federation in Paraná since 2019, Patricia is also one of the leaders involved in the implementation of a Technology Park in Curitiba.

She has a degree in Product Design from Instituto Federal de Santa Catarina, a Masters in Social Anthropology from The University of Manchester, with a focus on Social Business and International Development, and an MBA in Business Management from Fundação Getulio Vargas. She did volunteer work in Ukraine, through AIESEC in 2009, and was a volunteer English teacher in a black community in Florianópolis, Brazil.

# 12 RESPONSIBLE CONSUMPTION AND PRODUCTION



SWIT

## 12. SDG 12: RESPONSIBLE CONSUMPTION AND PRODUCTION

**SWIT**  
“Circular Economy”



### 12.1 SDG

The world is failing to reduce per-capita food waste and losses by 2030. The COVID-19 pandemic disrupted supply chains and consumption patterns, necessitating responsible consumption and production in the recovery. Economic growth needs to be decoupled from resource use for sustainable practices. Corporate sustainability reporting has increased, but improvement is needed to align with SDGs. Targets for sustainable consumption and production have been reported, but reporting has declined by 30% annually since 2019, with Europe reporting the most. Disparities exist in material footprints between regions. Post-harvest food losses remain at 13.2%, far from the halving target. While more companies publish sustainability reports, only 10% address all 17 SDGs. Sustainable Public Procurement policies saw progress. Fossil fuel subsidies rose in 2021, reaching pre-2015 levels due to high energy prices.

### 12.2 SWIT

The SWIT (Sustainable Wealth creation based on Innovation and enabling Technologies) research group at EGADE Business School of the Tecnológico de Monterrey, Mexico. It is a think tank focused on finding a viable model with the purpose to maintain the balance between economic growth, improvement of the quality of life of the population, and with the regeneration of the natural resources of communities of developing countries.

The specific goal is to make sustainability a viable, profitable, and competitive strategy, capable to create necessary and sufficient conditions and capabilities, to achieve a sustainable supplying, production, consumption and recovering, system perfectly articulated with the stakeholders of the three dimensions of the biosphere: economic, social (human), and environment, to achieve a shared prosperity for all.

The SWIT provides a “circular business driven sustainability” framework for the harmonic transitions of firms, industries, and communities, to a viable sustainable economy. More than 20 projects have been delivered in several developing countries, where the “circular value extended systems” approach seeks to replace the environmentally harmful linear model, regenerating natural systems and creating new business opportunities for economic and social prosperity on the region.

Besides research, methodologies and practices the SWIT train circular economy experts through PhD and master programs, as well as a new generation of CE entrepreneurs, for the creation of sustainable startups.

### 12.3 THEME

The final purpose is to decouple economic growth from environmental damage of a specific region, through a “circular business driven sustainability” approach, focused on the creation of a holistic development prosperity; environmentally recoverable and durable, socially equitable and responsible, and economically viable and competitive.

Prosperity that can be shared among all the participants within a region.

In this way, the SWIT provides the transition towards the sustainable society of the future: interconnected, democratic, transparent, inclusive, and resilient.

### 12.4 GOOD PRACTICES

Basically, the SWIT has produced several practices oriented toward the creation of sustainable wealth for developing regions. The SWIT framework:

- Decouples economic growth from environmental damage and social inequality: Key issue on the sustainable growth of cities and industries of developing countries.
- Creates circular extended value system structures, that transforms linear value chains into circular systems.
- Generates a dynamic, sustainable increasing returns mechanism, that produces benefits to the triple bottom: Economy, environment, and society
- Incubates a cluster of new startups of non-usual circular economy entrepreneurships.

Some of the current deliveries of the members of the SWIT have been the report “Circular Economy Best Practices.” Led by Eduardo Aguiñaga and Bertha Leticia Treviño; the document highlights best

practices in Mexico's private sector, providing tools for companies to transition to a circular economy and promote sustainable development.

"Gestión Sostenible de Plásticos". Análisis regulatorio y técnico en el marco de la iniciativa de economía circular en la Alianza del Pacífico y Ecuador. Regulatory and financial status of plastic residues management for five LA Pacific countries. (June 2021) IDB Washington. Technical Report with the description of the Mexican industry of recyclable plastic. (Andrea Cantu, Carlos Scheel)

Also, the methodology for the "Design of new circular economy businesses" which is being offered through an on-line program for LATAM audience.

## 12.5 CHALLENGES

- The no-strategy strategy. To leave the market to lead the change and pay the fines (Carbon bonus, etc).

- The Green washing strategy. Go over the "dirtiest" processes and transform them...slowly.

- Redesign a sustainable (and/or green) strategy and make it economically viable.

## 12.6 PROPOSED SOLUTIONS

### Challenge 1: The No-Strategy Strategy

1. Advocacy and Awareness Campaigns: Develop and implement advocacy campaigns to raise awareness about the long-term benefits of sustainable practices. Engage with businesses, industries, and communities to communicate the importance of adopting sustainable strategies, emphasizing the potential for economic growth, improved quality of life, and environmental regeneration.

2. Incentive Programs: Create incentive programs that reward businesses and industries for voluntarily adopting sustainable practices. These incentives could include tax breaks, recognition, or access to special funding opportunities. Encourage participation by showcasing success stories of organizations that have successfully embraced sustainability.

3. Collaboration with Regulatory Bodies: Work closely with regulatory bodies to encourage the development of policies that promote sustainability. Advocate for regulations that reward sustainable practices and penalize environmentally damaging behaviors. Collaborate with government agencies to create a regulatory environment that supports sustainable wealth creation.

### Challenge 2: The Green Washing Strategy

1. Transparent Sustainability Reporting: Encourage businesses to adopt transparent sustainability reporting practices. Develop guidelines and standards for reporting, ensuring that companies accurately represent their environmental and social impact. Support the dissemination of this information to the public to prevent greenwashing.

2. Independent Audits and Certifications: Establish independent audit processes or certifications for businesses claiming to adopt sustainable practices. This can involve third-party assessments to verify and validate sustainability claims, providing consumers and stakeholders with trustworthy information about a company's environmental and social responsibility.

3. Consumer Education: Launch educational campaigns to inform consumers about greenwashing

and how to identify it. Empower consumers to make informed choices by promoting awareness of credible certifications, transparent reporting practices, and the importance of supporting businesses with genuine commitments to sustainability.

### Challenge 3: Redesigning a Viable Sustainable Strategy

1. Research and Development Support: Allocate resources to support research and development efforts focused on creating economically viable sustainable strategies. The SWIT can collaborate with universities, startups, and research institutions to explore innovative technologies, business models, and practices that align with circular business-driven sustainability.

2. Business Incubation: Expand the SWIT's role in incubating startups and entrepreneurs working on sustainable solutions. Provide mentorship, funding, and resources to support the development of businesses that aim to redesign processes and strategies for economic viability within the framework of circular business-driven sustainability.

3. Capacity Building Programs: Offer capacity building programs for businesses and industries to enhance their understanding of sustainable practices and their economic viability. These programs can include workshops, training sessions, and educational resources that guide organizations in developing and implementing sustainable strategies.

4. Public-Private Partnerships: Foster collaborations between the SWIT, government agencies, and private enterprises to create an ecosystem that supports the redesign of sustainable strategies. Establish platforms for dialogue, information exchange, and joint initiatives that drive the adoption of economically viable sustainability practices.

By addressing these challenges with strategic solutions, the SWIT can further its mission of creating sustainable wealth for developing regions, promoting circular business-driven sustainability, and contributing to the decoupling of economic growth from environmental damage and social inequality. These solutions align with the SWIT's holistic approach, emphasizing economic, environmental, and social prosperity within interconnected, democratic, transparent, inclusive, and resilient societies.

## 12.7 CONCLUSIONS

In conclusion, the proposed solutions for the challenges faced by the SWIT (Sustainable Wealth creation based on Innovation and enabling Technologies) and its mission to foster sustainable wealth in developing regions through circular business-driven sustainability reflect a comprehensive and forward-thinking approach. The challenges presented, including the no-strategy strategy, greenwashing, and the need to redesign economically viable sustainable strategies, demand innovative solutions that balance economic growth, social equity, and environmental regeneration.

The solutions presented emphasize the importance of advocacy, awareness, and incentives to drive voluntary adoption of sustainable practices, promoting a positive shift in industries and communities. Collaboration with regulatory bodies, independent audits, and transparent reporting mechanisms are pivotal in ensuring that claims of sustainability are credible, preventing greenwashing and fostering trust among consumers and stakeholders.

Moreover, the emphasis on research and development, business incubation, and capacity building reflects a commitment to fostering innovation and supporting the growth of startups

and entrepreneurs aligned with circular business-driven sustainability. The creation of public-private partnerships underscores the importance of a collective effort to create a conducive ecosystem for sustainable strategies, addressing economic, environmental, and social dimensions.

Overall, these solutions align with the SWIT's mission to create a sustainable society of the future, emphasizing interconnectedness, democracy, transparency, inclusivity, and resilience. By addressing these challenges strategically, the SWIT is well-positioned to contribute significantly to the transition towards a sustainable society, offering viable and profitable models that balance economic growth with environmental and social responsibility. Through its dedication to research, education, and practical implementation, the SWIT continues to be a driving force in advancing circular business-driven sustainability and shared prosperity in developing regions.

### **12.8 SPEAKER**

Carlos Scheel Mayenberger

Professor Emeritus, Tecnológico de Monterrey, EGADE Business School, Mexico. In the areas of: Technological Innovation, Circular Economy, Systems Dynamics, and Sustainable Innovation Systems.

As technology consultant of UNIDO, USAID, PNUD, UNEP, WB, IC2 (U.Texas) and IDB; he developed the approaches Compstrac®, and Compstrat® (1992) for clustering and assembling regional poles of innovation and technology for different industrial sectors; also, since 1990, based on these approaches he created the framework for the incubation of multiple technology based entrepreneurship, applied on more than 20 projects in 11 countries.

He is currently working on the SWIT framework: Sustainable Wealth creation based on Innovation and enabling Technologies; model used for the formulation of sustainable strategies and policies for the creation of circular extended value systems, as well as sustainable sharing societies and communities for developing regions; based on a "Disruptive, Systemic and Circular (DiSC)" sustainable innovation approach.

Lastly, he developed an online workshop for the "Design of Circular Economy Business Models" to train circular economy entrepreneurs, for LAC countries' based on their conditions and capabilities. He is the author of more than 60 papers and 15 books.

# 13 CLIMATE ACTION



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CONSELL ASSESSOR PER AL DESENVOLUPAMENT  
SOSTENIBLE GENERALITAT DE CATALUNYA

## 13. SDG 13: CLIMATE ACTION

**CONSELL ASSESSOR PER AL DESENVOLUPAMENT SOSTENIBLE - GENERALITAT DE CATALUNYA**  
**“Global social technology for youth inclusion and social transformation through training, work and income”**



### 13.1 SDG

The world faces a climate catastrophe, and current actions are insufficient. Without transformative action within this decade, the 1.5°C target is at risk, endangering over 3 billion lives. Urgent and transformative efforts are needed to reduce greenhouse gas emissions significantly. Global temperatures have already risen to 1.1°C, with emissions reaching record highs. Many countries lack policies for disaster risk reduction, but some show policy coherence with global frameworks. Climate change education is lacking in national curriculum frameworks, and teachers and young people have limited knowledge about its effects. Developed countries provided \$83.3 billion in climate finance to developing nations in 2020, falling short of the \$100 billion target, with adaptation finance lagging behind mitigation funding.

### 13.2 CONSELL ASSESSOR PER AL DESENVOLUPAMENT SOSTENIBLE - GENERALITAT DE CATALUNYA

The Advisory Council for Sustainable Development of Catalonia (CADS) is the strategic advisory body on sustainability for the Government of Catalonia. Established in 1998 by DECREE 11/1998, it was based on resolution 679/V of the Parliament of Catalonia, urging its creation. CADS comprises a president and 15 advisers, including a vice president. Past presidents include Mr. Pere Duran Farell, Dr. Gabriel Ferraté i Pasqual, Mr. Ferran Rodés i Vilà, and Mr. Ramon Roca y Enrich. Its members are distinguished in academia, institutions, and business, supported by a sustainability professional team. CADS actively promotes environmental values and a sustainable culture in Catalan society, seeking to integrate sustainability into decision-making and make it a fundamental aspect of the country's social capital.

### 13.3 THEME

The Advisory Council for Sustainable Development (CADS) serves as a strategic advisor to the Government of Catalonia, assisting in the implementation of the 2030 Agenda and facilitating the Catalonia 2030 Alliance. One of its key responsibilities is calculating the Sustainable Development Goal (SDG) indicators for the region, providing official statistics. Additionally, CADS actively participates in science-policy-society interfaces in both Europe and the Mediterranean Basin.

### 13.4 GOOD PRACTICES

The council is working on a self-initiated reflection with recommendations to accelerate the decarbonization entails a gradual reduction of dependence on carbon-containing fossil fuels, a crucial step in the pursuit of sustainability and combating climate change in the region. By providing strategic guidance and fostering cooperation among various stakeholders, CADS aims to accelerate the transition towards a low-carbon future for Catalonia.

This process primarily targets the main sectors heavily reliant on fossil fuels:

- International Mobility.
- Regional and Local Mobility.
- Electric Sector.
- Industry.
- Services and Households.
- Primary Sector.

### 13.5 CHALLENGES

-Our proposals must contribute to the reduction of greenhouse gas emissions, the improvement of the competitiveness of the economy, the well-being of the population and social justice. The social dimension must be a central axis of the reflection.

The horizon of our recommendations is 2030, coinciding with the deadline of the European Commission Fit for 55 Package.

Our recommendations must generate synergies in the binomial mitigation / adaptation to climate change.

The recommendations must be addressed to the Government, as well as to other public administrations and actors in Catalan society (in this case, the Government can take actions to facilitate these actors to promote decarbonisation actions).

- Reflection must be proactive (there are already many previous diagnoses).

The aim of the reflection is to INFLUENCE the Government to accelerate decarbonisation. This involves identifying ONLY 10 strategic recommendations for each block.

The recommendations must be based on 5 criteria adopted by the advisory council:

- a) Feasibility (technological and social)
- b) Credibility
- c) Effectiveness
- d) Economic efficiency (better cost-benefit)
- e) Contribution to resilience

### 13.6 PROPOSED SOLUTIONS

During the session, the following solutions were proposed by the participants:

- Electric train subsidize by the government Green electric Train, public regional green electric train or private but subsidized that replace individual cars,

- A solution in 6 years could be buses it is flexible way, the advantages of using buses is that the cost of an electric bus has similar costs of the diesel or biogas this would be also a solution for waste turn the waste to energy

- Capture carbon and create a molecule that is based on 1C and 4HH4C. Then there is a no consumption of energy when there is a production of that is a capture of carbon when it is created.

- Create a parking outside the city that is point of connection to stop the city being the car center.

-Subsidizing bicycles, e bikes and e mobility so low-income people can use this kind of transportation

- In France there is app where the user can announce that they need a car by free you don't paid anything for using the service, but the one who gives the service (drivers) they get paid for giving the service, this is subsidise by the government.

### 13.7 CONCLUSIONS

In conclusion, the challenges and solutions presented highlight the complex task of addressing transportation-related issues while simultaneously reducing greenhouse gas emissions, improving economic competitiveness, ensuring societal well-being, and promoting social justice. The proposals aim to meet these goals by 2030, aligning with the European Commission Fit for 55 Package and emphasizing the need for synergies between climate change mitigation and adaptation. These recommendations are directed not only at the government but also at various public administrations and stakeholders in Catalan society to facilitate collaborative efforts in promoting decarbonization actions.

The proposed solutions include:

1. Subsidized Electric Trains: Encouraging the use of green electric trains, whether public regional or privately operated but subsidized, as a replacement for individual cars to reduce emissions and ease congestion.

2. Electric Buses: Implementing electric buses as a flexible and cost-effective alternative to traditional diesel or biogas buses. Additionally, the conversion of waste to energy through buses helps address waste management challenges.

3. Carbon Capture: Developing technology to capture carbon and create a molecule based on a carbon structure that requires no energy consumption during production, contributing to emissions reduction.

4. Park-and-Ride Facilities: Establishing parking areas outside the city to reduce car traffic within urban areas and promote the use of public transportation or other eco-friendly modes of transport.

5. Subsidizing Sustainable Mobility: Providing subsidies for bicycles, e-bikes, and e-mobility options to make them more accessible to low-income individuals, thus reducing reliance on private cars.

6. Ride-Sharing Apps: Implementing ride-sharing apps where users can request rides for free, with drivers being compensated by the government. This approach promotes shared transportation and reduces the need for private vehicle ownership.

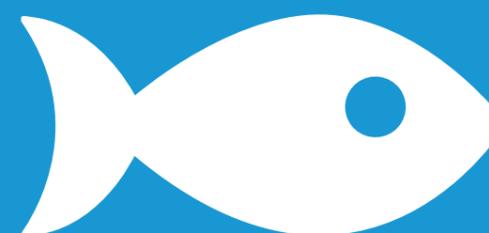
Addressing these challenges and implementing these solutions requires a coordinated effort between various stakeholders, with a strong focus on social dimensions and sustainability goals. It is crucial to work together to achieve a more environmentally friendly, economically competitive, and socially just transportation system by 2030.

### 13.8 SPEAKER

Arnau Queralts-Bassa

Director of the Advisory Council for Sustainable Development of Catalonia (CADS). He has a degree in Environmental Sciences from the Autonomous University of Barcelona (UAB), a Master's degree in Public Administration in the Interuniversity Programme for Government and Public Administration (ESADE, UAB and UPF) and a Diploma in European Affairs from the Diplomatic School of the Ministry of Foreign Affairs and Cooperation and the Catalan Pro-Europe Board, of which he was director. He has been a member of the Board of Governors and Academic Council of the Institut Universitari d'Estudis Europeus (University Institute for European Studies).

# 14 LIFE BELOW WATER



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GRANDE PACTO DE INNOVAÇÃO

## 14. SDG 14: LIFE BELOW WATER

### GRANDE PACTO DE INNOVAÇÃO

“Global social technology for youth inclusion and social transformation through training, work and income”



#### 14.1 SDG

The ocean's health faces numerous destructive trends, including rising acidification, eutrophication, declining fish stocks, and plastic pollution. While some progress has been made in expanding marine protected areas and combating illegal fishing, urgent global action is needed to advance towards SDG14. Coastal eutrophication has increased above baseline conditions, especially in the Arabian Sea. Ocean acidification is escalating due to rising CO2 emissions, posing a threat to marine ecosystems. Overfishing, pollution, and poor management continue to endanger fishery resources, with 35.4% of global stocks overfished in 2019. The Agreement on Port State Measures aims to combat illegal fishing and has made progress, while frameworks for protecting small-scale fisheries have been applied to the highest degree globally. Despite the ocean's significant contributions to the planet, only a small fraction of national research budgets are allocated for ocean science (1.1% between 2013-2021). Urgent and coordinated efforts are necessary to ensure ocean sustainability and achieve SDG14.

#### 14.2 GRANDE PACTO DE INNOVAÇÃO

The Innovation Grand Pact is a collaborative initiative involving the four pillars of the innovation helix: public authorities, academia, private sector, and civil society.

Through cooperative efforts among these societal segments, diagnoses are conducted, and project proposals are presented, capable of transforming the city's reality and fostering economic, social, and sustainable development through the lens of innovation.

#### 14.3 THEME

The project aims to transform Rio Grande's innovation ecosystem from a reactive state to a thriving and proactive environment, with a strong emphasis on fostering a culture of innovative entrepreneurship focusing in blue economy.

#### 14.4 GOOD PRACTICES

Transforming Rio Grande into an innovative state that encourages the blue economy.

#### 14.5 CHALLENGES

- Entrepreneurship and innovation: Development of entrepreneur culture from the Basic Education, creating proactive professionals and generating employment and income. Encouragement to the Innovation culture, bringing new methods to solve current and future problems.

- Internationalization and enterprises attraction: Review of legislation, specially at the Environmental area, with more objective and less bureaucratic methods for promotion of new operations. With the fiscal and bureaucratic competitiveness guarantee, to instigate the increase of current business and the search for new companies to establish at the City.

- Blue economy strategy and sustainability: Long term planning, with short and mid-term deliverables, focused on Blue Economy and its potentialities: tourism, fishing, shipping industry, port activities, nautical sports, renewable energy, among others. It's very importante to guarantee the synergy among all economic, social and environmental development, respecting ESG rules and to pursue the Sustainable Development Goals (SDGs), from the UN 2030 Agenda.

#### 14.6 PROPOSED SOLUTIONS

To address the challenges of entrepreneurship and innovation, internationalization and enterprise attraction, blue economy strategy, and sustainability within Rio Grande's emerging innovation ecosystem, you can implement the following solutions:

**Innovation Hub and Incubator Network:** establish an Innovation Hub creating a physical space within Rio Grande dedicated to innovation and entrepreneurship. This hub can serve as a central point for startups, innovators, and researchers to collaborate, access resources, and develop their ideas. Also develop a network of incubators and accelerators specializing in different sectors, including blue economy initiatives. Provide mentorship, training, and funding opportunities to support local startups and early-stage companies.

**Internationalization and Enterprise Attraction:** investment to promote Rio Grande as an attractive investment destination for national and international investors interested in blue economy and sustainability initiatives. Host investor summits and roadshows to showcase local opportunities.

For Blue Economy Strategy:

**Blue Economy Cluster:** Develop a specialized blue economy cluster within the innovation ecosystem. This cluster can bring together companies, research institutions, and government agencies focused on sustainable marine and aquatic resources management.

**Green Certification Program:** Introduce a green certification program for businesses in Rio Grande that demonstrate environmentally responsible practices. This can create a competitive advantage for sustainable enterprises.

**Circular Economy Promotion:** Encourage businesses to adopt circular economy principles, such as waste reduction, recycling, and product lifecycle extension. Offer support and incentives for businesses transitioning to more sustainable practices.

#### 14.7 CONCLUSIONS

In conclusion, the proposed solutions offer a comprehensive strategy to address the challenges facing Rio Grande's emerging innovation ecosystem. As Rio Grande seeks to transition into a hub for entrepreneurship, innovation, sustainability, and blue economy initiatives, these solutions provide a roadmap for its transformation: The establishment of an Innovation Hub and a network of specialized incubators and accelerators creates a fertile ground. Promoting Rio Grande as an investment destination and fostering international collaborations, the city can attract both national and global investors and enterprises interested in sustainability and blue economy projects. This will drive economic growth and knowledge exchange. Blue Economy Strategy these initiatives will support the growth of industries such as aquaculture and renewable energy from marine sources.

Collectively, these solutions align with Rio Grande's vision for a thriving, sustainable, and innovative future. The time to create Rio Grande's future is now, and by implementing these strategies, the city is well-positioned to realize its potential as a beacon of innovation, sustainability, and blue economy growth.

#### 14.8 SPEAKER

Guilherme Estima Suchuch

Luciane Campiano Branco

# 15 LIFE ON LAND



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LA SEU TECH CITY

## 15. SDG 15: LIFE ON LAND

### LA SEU TECH CITY “Pirineu Tech Mountain”



#### 15.1 SDG

The world faces a triple planetary crisis of climate change, pollution, and biodiversity loss. Forest area continues to decline, with agricultural expansion driving nearly 90% of deforestation. While there has been progress in sustainable forest management, the loss of healthy land threatens food and water security, affecting 1.3 billion people. Without action, an additional 1.5 billion hectares of degraded land could result by 2030. Species extinction is accelerating, with the Red List Index declining by about 4% from 2015 to 2023. Efforts to halt biodiversity loss and protect threatened species are falling short. Measures for fair sharing of genetic resources have increased, as have actions to control invasive alien species. Many countries have incorporated biodiversity values into national accounting, but only a third are on track to meet their targets. The Global Biodiversity Framework may expand the implementation of environmental-economic accounting in more countries. Urgent and substantial changes are needed to preserve the health of the planet and its inhabitants.

#### 15.2 LA SEU TECH CITY

La Seu Tech City is an association driving Pirineu Tech Mountain—a tech hub for rural and mountain tech development, respecting the environment. It includes public and private institutions with nonprofit goals. The hub aims to boost the economy, attract talent, and enhance infrastructure, collaborating with Andorra. Sectors like tourism, sports, agriculture, and natural resources will benefit from tech advancements. The project offers coworking spaces, offices, incubators, training, and R&D activities. These approved statutes signal a bright future for the city and region.

#### 15.3 THEME

The Pirineu Tech Mountain HUB’s operation is defined through a comprehensive process. Firstly, they validate the future vision of the center, envisioning it as an economic and social engine of the Pyrenees, attracting and retaining talent to promote repopulation. The HUB aims to boost the Pyrenees’ economy and history, improve connectivity, mobility, and energy infrastructures, and foster technological entrepreneurship and pedagogy projects, creating shared value.

Dynamic sessions are held with territorial agents, working in groups. In the first session, they review the main clients/users of the Center in each area or function of the Ecosystem, identifying their demands and needs, and prioritizing solutions. They also identify the main solvers, based on mapping agents and functions. Through this process, the Pirineu Tech Mountain HUB aims to strategically coordinate and promote projects that will transform the region and establish itself as a thriving innovation center in the Pyrenees.

#### 15.4 GOOD PRACTICE

By establishing La Sue Tech City, Seu d’Urgell will significantly bolster its economic and innovative landscape. This initiative will attract investments and position the city as a hub of innovation, making it an appealing destination for professionals seeking cutting-edge opportunities. La Sue Tech City will not only boost the local economy but also create an environment where creativity and expertise thrive, making Seu d’Urgell a magnet for forward-thinking individuals and businesses alike.

### 15.5 CHALLENGES

- How to Analysis of the results of the sessions.
- Contrast with the previous analysis of diagnosis and identification of the agents.
- Identification of challenges presented by the Innovation Ecosystem of the La Seu Area and that the Pirineu Tech Mountain HUB can contribute to achieving.

### 15.6 PROPOSED SOLUTIONS

- Vision-Driven Ecosystem Alignment: To define the operation of the Pirineu Tech Mountain HUB, we propose establishing a Vision-Driven Ecosystem Alignment approach. This entails convening a diverse stakeholder group to validate and refine the future vision of the HUB. Once the vision is clear, we will map the existing functions in the region and identify those needing promotion to align with the HUB's mission. Collaboratively agreeing on projects that directly support this vision, and coordinating the relevant agents for their implementation, will be integral. By continuously analysing results and contrasting them with previous diagnostics, the HUB can adapt swiftly to changing conditions. Moreover, this approach would involve identifying specific challenges within the La Seu Area's innovation ecosystem that the HUB can contribute to resolving, culminating in a comprehensive action proposal that reflects the validated vision and maximizes the HUB's positive impact.

- Data-Driven Decision Hub: For defining the Pirineu Tech Mountain HUB's operation, a Data-Driven Decision Hub could be established. This solution involves leveraging data analytics and artificial intelligence to validate and fine-tune the HUB's future vision. By systematically mapping existing functions and identifying areas that require promotion based on data insights, the HUB can make informed decisions. The data-driven approach extends to project selection, ensuring alignment with the validated vision. Coordinating agents for project implementation is streamlined through data-driven collaboration platforms. The HUB continuously analyzes session results, contrasts them with historical data, and identifies challenges in the innovation ecosystem to guide its actions. This innovative solution ensures agility and evidence-based decision-making.

- Cross-Sector Collaborative Taskforces: To define the Pirineu Tech Mountain HUB's operation, we propose forming Cross-Sector Collaborative Taskforces. These taskforces consist of experts, stakeholders, and community representatives who work collectively to validate and shape the HUB's future vision. Simultaneously, they assess existing functions within the territory and proactively identify functions to be promoted to achieve alignment with the vision. Taskforces agree on projects that span various sectors and harness multidisciplinary expertise, promoting innovation. Efficient coordination among these taskforces ensures effective project implementation. Regular analysis of session outcomes, coupled with contrasting data from past diagnoses, allows the HUB to adapt dynamically. Moreover, these taskforces are essential for identifying and addressing challenges within the La Seu Area's innovation ecosystem, leading to a well-rounded action proposal that embodies the validated vision.

### 15.7 CONCLUSIONS

In summary, the three innovative solutions for defining the operation of the Pirineu Tech Mountain HUB share a common framework: validating the HUB's vision, mapping existing functions, selecting projects in line with the vision, and coordinating implementation. The first solution prioritizes vision alignment, the second leverages data-driven decision-making, and the third emphasizes cross-sector collaboration. The timing for the implementation of the projects is a key factor that can determine the actions to make ins this case. The choice depends on specific needs and preferences of the innovation ecosystem, but all three offer adaptable approaches to achieve the HUB's goals and support the La Seu Area's innovation ecosystem.

### 15.8 SPEAKER

Josep Miquel Piqué

Executive President of La Salle Technova Barcelona, the innovation park of La Salle-URL.

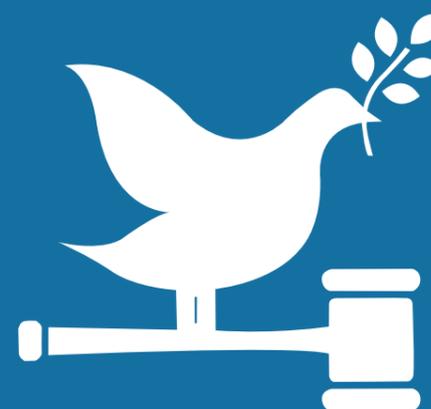
Doctor in Innovation Ecosystems from the Ramon Llull University. Telecommunications Engineer from La Salle / UPC and MBA from ESADE. Graduated from MIT and UC-Berkeley.

He is an expert at the Directorate General for Regional and Urban Policy (DG REGIO) of the European Commission and a member of the team of specialists in innovation and competitiveness policies of the United Nations Commission for Europe (UNECE). He has been CEO of 22 @ Barcelona and director of the Economic Growth Office of Barcelona City Council.

Founding President of the Network of Science and Technology Parks of Catalonia (XPCAT), Vice President of the Association of Science and Technology Parks of Spain (APTE) and XVII President of the International Association of Science Parks and Innovation Areas (IASP). Since 2022, he has chaired the Triple Helix Association (THA), an international non-governmental non-profit organization that works to promote good interaction between academia, industry and governments.

He has published in international journals and conferences and is the author of five books. His current interests are oriented to the areas of innovation ecosystems, science parks, entrepreneurship and open innovation.

# 16 PEACE, JUSTICE AND STRONG INSTITUTIONS



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CÁRITAS DIOCESANA BARCELONA

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

### CÁRITAS DIOCESANA BARCELONA “Affordable Housing”



#### 16.1 SDG

The world faces ongoing violent conflicts, hampering progress towards SDG 16 for peace and inclusivity. Conflict-affected areas are home to a quarter of humanity, with a record 100 million people forcibly displaced. Access to justice and basic services is challenging due to ineffective institutions. Rising inequalities and human rights issues further hinder peaceful societies. Homicide rates reached a 20-year high in 2021, with economic and social factors contributing to the increase. The number of civilian killings in armed conflicts rose by 53% in 2022, with heavy weapons and explosives causing more deaths. Many feel unsafe walking alone at night, particularly women. Child violence remains pervasive, and trafficking victim detection declined due to COVID-19 disruptions. Sexual violence against children is prevalent in certain regions. The global prison population remained stable, but unsentenced detainees' access to justice is still lacking. Tracing illicit firearms is a challenge, and bribery requests from public officials affect 15% of businesses worldwide. Budget credibility declined in some regions during crises. Youth representation in parliaments is low in most regions except Europe. Around 25% of children under five lack legal identity proof. Access to information laws expanded in 136 countries in 2022. Urgent actions are needed to address these issues and achieve SDG 16 by 2030.

#### 16.2 CÁRITAS DIOCESANA BARCELONA

Caritas is a non-profit organization affiliated with the Catholic Church. Its mission is to welcome and work with individuals facing poverty and need, empowering them to become agents of their own liberation within the Christian community's commitment. This includes social outreach, raising society's awareness, and denouncing social injustices.

Their goal is to help these individuals break free from their suffering and provide them with tools and resources to gain confidence, security, and the ability to lead their own life projects. Caritas believes in the potential of every person.

The organization's three objectives are to promote, guide, and coordinate social action, raise awareness in society, and speak out against social injustices. Their vision is to create a world where Earth's resources are shared among all of humanity with dignity, through the pursuit of social justice, solidarity, and fraternal sharing.

#### 16.3 THEME

The right to decent housing is a fundamental human right, inseparable from other rights. However, speculation often exploits this right, treating it as a private commodity. Ensuring access to this right is crucial, with the State obligated to defend, protect, and promote non-discrimination. Decent housing encompasses more than just a roof, including legal tenure, access to services, affordability, utilities, habitability, and environmental considerations.

Inadequate housing affects supported households, with 67% lacking decent homes. Subletting is a significant issue in urban areas for vulnerable individuals.

#### 16.4 GOOD PRACTICES

Caritas supports by assisting with rent payments and providing apartments to families. Public housing is essential due to the large number of evictions, with 38,266 in 2022 and 532,760 in Spain from 2013 to 2022. Addressing these challenges is vital in fulfilling the right to shelter and improving the well-being of vulnerable populations.

## 16.5 CHALLENGES

According to the FOESSA report, in 2022, 35% of Catalonia's population faced some form of housing-related social exclusion. Specifically, 584,000 households (19.3%) experienced severe poverty after paying for housing and utilities, with excessive housing expenses.

Catalonia's public social rental housing stock currently stands at 1.7%, according to the latest available data. There is a need to expand this public housing stock to provide affordable alternatives for individuals based on their income levels, ensuring access to decent housing.

Social organizations have observed that vulnerable individuals struggle to transition from protected social integration projects to the regular housing market.

To achieve an expansion of Catalonia's public social rental housing stock to the European average (around 15%), specific proposals need consideration, including the associated costs, financing sources, a communication plan, and the potential for scalability at the national level.

## 16.6 PROPOSED SOLUTIONS

In Barcelona, there exists a substantial number of vacant properties with no clear policy in place to determine their optimal utilization. It is imperative to revisit and revise the existing policies to transform these vacant properties into much-needed social housing units.

Implement a tourist tax or housing-related taxes. Allocating a portion, such as 5%, of these revenues towards social programs could be a significant step in addressing the housing crisis. This approach not only serves to generate financial resources but also reinforces the idea of responsible tourism, where visitors contribute to the welfare of the local community.

Use of public spaces for the construction of social housing units is a promising solution. Repurposing public areas can efficiently accommodate new housing developments, particularly in areas where land availability is limited. This approach not only addresses the pressing issue of housing shortages but also ensures that public spaces are utilized in ways that benefit the broader community.

## 16.7 CONCLUSIONS

In conclusion, the proposed solutions for addressing the housing challenge represent a multifaceted approach aimed at achieving both social and economic benefits for the city. The presence of vacant properties, coupled with the lack of clear utilization policies, presents a unique opportunity to create positive change.

The revisiting and revision of existing policies to transform vacant properties into social housing units not only addresses the critical issue of housing accessibility but also contributes to social inclusion and equitable access to shelter, aligning with the principles of responsible urban development.

Implementing a tourist tax or housing-related taxes, with a portion earmarked for social programs, not only generates much-needed financial resources but also fosters a sense of responsibility among tourists. This approach aligns with the concept of responsible tourism, where visitors contribute to the overall well-being of the local community and reinforces transparency and accountability in revenue allocation.

The repurposing of public spaces for social housing construction is a promising strategy, offering a sustainable solution to housing shortages, particularly in areas with limited land availability. Beyond addressing housing needs, this approach promotes community benefit, social cohesion, and the efficient utilization of public resources.

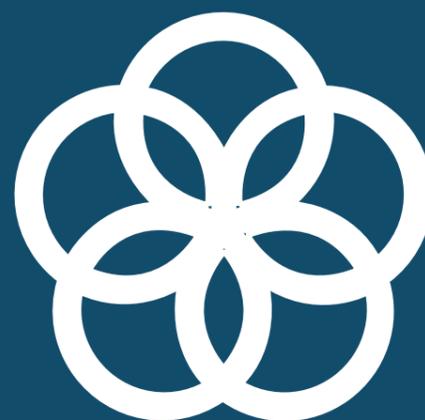
In sum, these solutions collectively represent a comprehensive and holistic approach to addressing the housing crisis in Barcelona. By revising policies, generating revenue through responsible tourism practices, and repurposing public spaces, the city can work toward a more equitable, inclusive, and sustainable urban environment that benefits both its residents and visitors.

## 16.8 SPEAKER

Míriam Feu

Responsible for the social analysis and advocacy program of Càritas Diocesana of Barcelona, she has collaborated in the preparation of various reports such as the report *La llar és la clau* (2018) on the situation of residential exclusion in Barcelona or the Foessa report.

# 17 PARTNERSHIPS FOR THE GOALS



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NETWORK IQ ALLIANCE



## 17. SDG 17: PARTNERSHIP FOR THE GOALS

### NETWORK IQ ALLIANCE "Network IQ"



#### 17.1 SDG

Progress towards achieving SDG17 has been mixed. Development aid, remittances, and technology access have improved, but funding for development remains challenging, especially in low-income countries. Geopolitical tensions and nationalism hinder international cooperation. Developing nations face inflation, debt burdens, and limited fiscal space. Government revenue averaged 33% of GDP, with tax burdens at 26% for advanced economies and 17% for emerging markets in 2021. ODA flows reached \$206 billion, but still fell short of the 0.7% GNI target. Debt levels soared during the pandemic, posing risks to economic growth. Internet usage increased, but digital divides persist. Fixed-broadband subscriptions grew, but low-income countries lag due to high costs and limited infrastructure. Trade in Environmentally Sound Technologies rose by 5% since 2015. Tariffs declined to 2%, but higher rates persist in agriculture and clothing. LDCs' share of global merchandise trade remained stagnant at 1.05%. National statistical planning improved, but funding for data and statistics declined by 16% since 2015.

#### 17.2 NETWORK IQ ALLIANCE

The Network IQ Alliance is a global community of entrepreneurial universities, research institutes, industry networks, and technology parks. They focus on mainstreaming network intelligence (niQ) to develop digital competencies for innovation and networking at the ecosystem level. Their vision for 2030 is to integrate innovation and entrepreneurship into higher education institutions' strategies, connecting them with city-level ecosystems and global networks.

The project aims to empower purpose-driven entrepreneurs, enhancing growth opportunities through effective networking, faster innovation, and long-term resilience. They seek to optimize existing networks, build better physical and digital ecosystems, and promote responsible leadership. The alliance aims to accelerate health, manufacturing, green, and digital transformations while integrating industrial regions.

Key initiatives include supporting innovative SMEs, providing niQ training for students and academic staff, establishing 'train the trainer' centers, and forming new collaborative partnerships. The Network IQ Alliance aligns its efforts with EIT Manufacturing, EIT Health, EIT Digital, and EIT Climate to create real-world impact through technology-driven innovation.

#### 17.3 THEME

The consortium is committed to mainstream Network Intelligence (niQ) – a system-change methodology developing digital competencies at the ecosystem level for innovation and networking.

#### 17.4 GOOD PRACTICES

Network IQ Alliance aims to accelerate green and digital transformation in health and manufacturing. We want to deepen the integration of industrial regions, which are Emerging Innovators with regions that reinvented themselves and became Moderate and Strong Innovators. The consortium is funded by the European Institute of Innovation and Technology (EIT) HEI Initiative building innovation capacity for higher education.

## 17.5 CHALLENGES

### Achieving Scalability and Long-term Resilience

The goal of embedding Network Intelligence in entrepreneurship education and management training brings up the question of scalability and long-term resilience. Given the diversity of stakeholders and the international scope of the consortium, scaling the methodology while maintaining its integrity is a critical challenge. Using Network Intelligence, identify key nodes or 'network champions' within the ecosystem who can facilitate the dissemination of the methodology. Also, use the Network IQ™ Skills assessment to evaluate the scalability readiness of different stakeholders, thereby informing targeted strategies for sustainable scaling.

## 17.6 PROPOSED SOLUTIONS

- Identifying 'network champions' through Network Intelligence will accelerate the scaling process and ensure that it remains contextually relevant.

- The Network IQ™ Skills maps can be continually updated to monitor the progress of scaling efforts, thereby offering a dynamic tool for long-term resilience.

- Scalability Evaluation use the Network IQ™ Skills assessment to evaluate the readiness of different stakeholders for scalability, categorize stakeholders based on their scalability readiness into groups such as early adopters, potential adopters, and those needing more support, tailor your approach and resources according to each group's needs.

## 17.7 CONCLUSIONS

In conclusion, addressing Challenge 1, which revolves around achieving scalability and long-term resilience while embedding Network Intelligence in entrepreneurship education and management training, requires a strategic and adaptable approach. This challenge is particularly complex due to the diversity of stakeholders and the international scope of the consortium. The following solutions have been proposed:

Identifying 'Network Champions: Leveraging Network Intelligence to identify and engage 'network champions' within the ecosystem is a critical strategy. These champions will play a pivotal role in accelerating the scaling process and ensuring that Network Intelligence remains contextually relevant as it expands.

Dynamic Skills Mapping: The use of Network IQ™ Skills maps provides a dynamic tool for monitoring the progress of scaling efforts. By continually updating these maps, the initiative can stay aligned with evolving skill gaps and strengths, thereby enhancing its long-term resilience.

Scalability Evaluation: Employing the Network IQ™ Skills assessment to evaluate the scalability readiness of different stakeholders is essential. Categorizing stakeholders into groups based on their readiness levels allows for a tailored approach. Early adopters can be empowered to champion the methodology, potential adopters can receive targeted support, and those needing more assistance can be provided with the resources necessary to bridge skill gaps.

These solutions collectively address the challenge by fostering engagement, adaptability, and alignment with the diverse range of stakeholders involved. By maintaining a focus on identifying key champions, regularly updating skills mapping, and implementing scalability evaluations, the initiative can not only achieve scalability but also ensure its long-term resilience in the dynamic landscape

of entrepreneurship education and management training. This approach is poised to maximize the impact and sustainability of Network Intelligence methodology within the consortium and beyond.

## 17.8 SPEAKER

### Daria Tataj

Dr. Daria Gołębiowska-Tataj (Entrepreneur Motivational Speaker), Founder & CEO of Tataj Innovation, is the world expert on innovation networks. Tataj Innovation empowers entrepreneurs through Network Thinking, a methodology based on 15+ years of Daria's research done in collaboration with Prof. Manuel Castells. Prof. Castells endorsed her book 'Innovation and Entrepreneurship' as a fundamental book that will reshape the way we think about innovation. He now acts as an advisor to Tataj Innovation.

Daria's research impacted Europe's innovation ecosystems. She is one of the architects of the EIT (European Institute of Innovation & Technology) and EIC (European Innovation Council), two key funding institutions for entrepreneurship and disruptive innovation in Europe, as well as a mission-oriented policy approach. Daria held senior roles as a Chair of Advisors to EU Commissioner for Research, and WEF's Digital Leader in 2017. She founded Vital Voices Chapter in Poland and is currently an Advisory Board Member of two do-tanks: Re-Imagine Europa in Paris and Digital future Society in Barcelona.

She is an inspirational keynote speaker with a mission of making Europe more entrepreneurial. She publishes frequently to foster her values: equal access to opportunities, empowerment and collaboration. She regularly publishes on LinkedIn and has over 22,000+ global audience.

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# TRIPLE HELIX

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