Ministry of Tertiary Education, Science and Research

Report of the

National Committee on Science Diplomacy

2025 HIGHER EDUCATION summit

Table of Content

1 Introduction

Mauritius stands at a defining moment in its development journey as it transitions from a traditional, services-based economy to a dynamic, knowledge-driven nation. The National Science Diplomacy Roadmap for Mauritius presents a bold and strategic framework to integrate science, technology, and innovation (STI) into the country's diplomatic engagements, economic policies, and short-to-long term development vision.

As a small island nation with limited natural resources, Mauritius must leverage its human capital, strategic geographic positioning within Africa and among Small Island Developing States (SIDS), and international partnerships to secure sustainable growth and resilience. Science diplomacy serves as a powerful enabler of informed decision-making by promoting global collaboration, facilitating access to advanced technologies, and positioning Mauritius as a regional leader in key areas such as climate resilience, ocean sciences, and digital transformation.

This roadmap comes at a crucial time as Mauritius strives to regain its high-income status post-pandemic and navigates complex global challenges including climate change, technological disruption, and shifting geopolitical dynamics. By embedding STI at the heart of its foreign policy and economic strategy, Mauritius can unlock new opportunities for investment, talent attraction, and innovation-led development, ensuring its place as a competitive and forward-thinking nation in the decades ahead.

The following sections will explore the key pillars of this strategy, the opportunities it presents, and the challenges that must be addressed to realise its full potential.

1.1 Context and Justification

Mauritius, a Small Island Developing State (SIDS), faces unique challenges including : vulnerability to climate change, concerns over food and energy security, brain drain, and limited domestic markets. At the same time, with an Exclusive Economic Zone (EEZ) of some 2.3 million km^2, it boasts a relatively stable democratic framework, a multilingual and multicultural population, and rising levels of tertiary education.

In this globalised context, science diplomacy, defined as the use of scientific collaboration with research-into-action among nations to address common problems and build constructive international partnerships, emerges as a powerful tool for national development.

It emcompasses three interdependent dimensions:

- Diplomacy for Science: scientific cooperation, e.g. S&T agreements, bilateral scientific exchanges;
- Science for Diplomacy: scientific relations/cooperation that foster diplomacy
- Science in Diplomacy: foreign policy issues requiring scientific insights, e.g. international conventions implementation

1.1.1.1 Strategic Benefits

1. **Global Visibility:** By actively engaging in science diplomacy, Mauritius can strengthen its presence in key international forums such as UNESCO, African Union, European Union, SADC. COMESA, OECD, Commonwealth and the Indian Ocean Rim Association (IORA) . This elevated visibility will position the nation as a thought leader in science and innovation, opening doors to new partnerships and influence in global policymaking.

2. **Technology Transfer:** Science diplomacy facilitates access to advanced technologies in artificial intelligence (AI), health tech, and marine sciences. Through strategic collaborations with leading research institutions and tech-driven economies, Mauritius can accelerate its digital transformation and innovation ecosystem.

3. **Climate Diplomacy:** As a small island state, vulnerable to the impacts of climate change, Mauritius can leverage science diplomacy to champion ocean economy initiatives and climate adaptation financing. Leading regional discussions and research on sustainable blue economies, it can secure international support while driving ecological resilience with global lessons from Indigenous cultures.

4. **Capacity Building:** International exchange programmes, joint research initiatives, and academic partnerships will enhance local expertise in critical fields. By fostering skill development and knowledge-sharing, Mauritius can cultivate a highly skilled workforce ready to compete in a technology-driven global economy.

5. **Leveraging the Diaspora:** Mauritius boasts a valuable yet underutilised asset; its global diaspora of scientists, engineers, and academics working in leading institutions worldwide. Science diplomacy provides a structured mechanism to engage this talent pool through virtual research networks, joint funding schemes, and targeted knowledge repatriation programmes. By systematically connecting diaspora experts with local institutions, Mauritius can accelerate technology transfer, strengthen research capabilities, and create mentorship pipelines for emerging scientists, effectively turning brain drain into "brain gain" for national development priorities.

6. **Science for Peace and Stability:** In an era of geopolitical tensions, Mauritius is uniquely positioned to serve as a neutral convener for science-based dialogues in the Indian Ocean region and across Oceania. By establishing platforms for collaborative research on shared challenges, Mauritius can foster trust and stability through STI cooperation. This approach aligns with the nation's historical role as a bridge between Africa and Asia while creating new avenues for conflict prevention through joint scientific endeavours in ocean governance and food security.

1.1.1.2 Vision Statement:

Mauritius envisions becoming:

"A globally respected innovation-driven island nation, recognised for its leadership in science diplomacy, sustainability, and inclusive development across the Indian Ocean and beyond."

1.1.1.3 Strategic Objectives

Mauritius' science diplomacy roadmap is anchored in five key strategic objectives designed to transform the nation into a knowledge-driven economy.

1. Institutionalise Science Diplomacy

Mauritius will establish formal mechanisms to integrate science, technology and innovation (STI) considerations across all government sectors. This involves creating dedicated science diplomacy structures within ministries, developing policy frameworks for STI integration in foreign relations, and implementing monitoring systems to track science diplomacy outcomes. The institutionalisation process will ensure long-term commitment beyond political cycles.

2. Forge Strategic STI Partnerships

The nation will pursue targeted collaborations with global innovation leaders through bilateral science agreements and multilateral platforms. Priority areas include partnerships with regional organisations for innovation and developed nations for technology transfer. These partnerships will be structured to ensure mutual benefits while protecting Mauritius' strategic interests.

3. Develop Innovation Infrastructure

Mauritius plans to build world-class research facilities, technology parks and digital infrastructure to support its transition to a knowledge economy. This includes upgrading existing institutions, establishing specialised centres and creating innovation hubs that connect academia with industry. The infrastructure development will focus on addressing SIDS-specific challenges.

4. Strengthen Human Capital

A comprehensive human resource development strategy will focus on STEM education reform, targeted diaspora engagement programmes, and youth-driven innovation initiatives. Mauritius will implement scholarship schemes in cutting-edge fields, create incentives for expatriate experts to contribute remotely or return home, and launch regional innovation challenges to identify and nurture young talent. Special emphasis will be placed on promoting gender equity and increasing the participation of women and girls in science.

5. Lead in SIDS-Specific Innovation

Positioning itself as an innovation leader among Small Island Developing States, Mauritius will pioneer solutions for climate adaptation, sustainable tourism and the development of a blue economy. This involves creating demonstration projects for island resilience, hosting regional innovation forums, and developing adaptable technologies that address common SIDS challenges while showcasing Mauritian expertise.

1.1.1.4 Guiding Principles

Principle	Description
Inclusiveness	Embrace diversity across geography, gender, and sectors
Sustainability	Prioritise short-to-long-term environmental and social resilience with inclusion
Excellence	Invest in high-quality research and innovation practices
Openness	Commit to transparency, data-sharing, and global engagement
Equity	Ensure STI benefits are equitably distributed among all Mauritians

2 Methodology (of the Report)

A comprehensive three-pronged methodology was adopted to formulate the recommendations underpinning the Science Diplomacy Roadmap for Mauritius. These include:

1. Extensive Desk Research
2. Establishment of the National Committee on Science Diplomacy
3. Multi-stakeholder Engagement through Dialogues and Consultations

.

2.1 Extensive Desk Research

The foundation of the Science Diplomacy Roadmap was established through a rigourous desk research process. This involved a comprehensive review of global and regional science diplomacy strategies, international cooperation models, and relevant policy frameworks. Particular attention was paid to the roles of Small Island Developing States (SIDS) within multilateral scientific platforms, emerging trends in technology governance, and successful bilateral and multilateral science diplomacy initiatives. This research phase enabled the identification of critical success factors, policy gaps, and opportunities for Mauritius to position itself as a proactive and connected player in global science and innovation ecosystems. The insights gathered helped tailor the roadmap to local priorities while drawing inspiration from tested international approaches.

2.2 Establishment of the National Committee on Science Diplomacy

The establishment of the National Committee on Science Diplomacy institutionalises Mauritius' commitment to STI-led development. This Committee serves as a national engine of transformation, galvanising institutions, aligning research with development priorities, attracting international partnerships, and embedding science into the heart of national strategy. It ensures that Mauritius speaks with a strong, informed, and respected voice in global scientific fora. Additionally, it cultivates a society where science is not confined to laboratories but is integrated into everyday decision-making, education, and public discourse.

Membership comprises leading figures from academia, government agencies, industry, and non-governmental organisations Committee members have demonstrated exceptional scientific credentials, reflected through high-impact research, cross-sectoral engagement, and thought leadership. The Committee also welcomes distinguished international collaborators aligned with its mission.

Committee Members:

- Prof (Dr) T. Bahorun, GOSK (Chairperson), Mauritius Research and Innovation Council
- Prof (Dr) Paul Arthur Berkman, Harvard Law School and Science Diplomacy Center, Inc.
- Dr Abdess Salem Saumtally, Mauritius Academy of Science and Technology
- Dr Devina Lobine, Mauritius Institution of Biotechnology Ltd
- Dr Anwar Bhai Rumjaun, Mauritius Institute of Education
- Mr Roshan Seebaluck, Polytechnics Mauritius Ltd
- Dr Aman Kumar Maulloo, Rajiv Gandhi Science Centre
- Prof (Dr) Yashwantrao Ramma, Université des Mascareignes
- Dr Vidushi Neergheen, University of Mauritius
- Prof (Dr) Chandradeo Bokhoree, University of Technology, Mauritius
- Excellency Mr Mevin Chedumbarum, Ministry of Foreign Affairs, Regional Coope
- Mr Koushul Narrain, Mauritius Research and Innovation Council
- Dr Aveeraj Peedoly, Mauritius Research and Innovation Council
- Dr Kiran Tatoree, Mauritius Research and Innovation Council
- Ms Siddhee Bhojoo (Secretary), Mauritius Research and Innovation Council

Preliminary Discussions

The meetings of the National Committee on Science Diplomacy were held in May and June 2025. An overview of the Committee's mandate and strategic importance was provided, and members were introduced together with their roles. Discussions were made regarding the Terms of Reference and to formally endorse them. Furthermore, a presentation took place regarding a Roadmap for Science Diplomacy. Points highlighted during the presentation included Institutional Architecture for Science Diplomacy, Science, Technology, and

Innovation (STI) Framework, Strategic Global Partnerships, Flagship Programs and Campaigns, National Innovation Infrastructure, Capacity Building and Public Engagement, Research and Innovation Scouting, and Resource Mobilisation. The way forward was for the committee members to review the various propositions presented and to share their views, comments and recommendations.

2.3 Multi-stakeholder Engagement through Dialogues and Consultations

Public participation and expert dialogue formed a crucial pillar in the formulation of the Science Diplomacy Roadmap. During the Higher Education Summit 2025, a series of thematic panel discussions were organised, bringing together leading voices from academia, international organisations, diplomatic missions, and the private sector. These panels addressed a wide range of topics; from global scientific collaboration and innovation ecosystems to the role of diplomacy in climate action and technology transfer. The deliberations offered actionable insights into how Mauritius could leverage science diplomacy to build strategic partnerships and advance national priorities.

Complementing these expert contributions was the People's Voice initiative, a public consultation exercise designed to collect ideas, concerns, and expectations from a broader cross-section of society.

This dual-track approach ensured that the roadmap was not only informed by high-level expertise but also rooted in the aspirations and lived realities of the Mauritian population. The feedback from both the panel discussions and the People's Voice significantly enriched the policy recommendations, reinforcing the roadmap's inclusivity, democratic legitimacy, and long-term sustainability.

3 Recommendations

As Mauritius embarks on implementing its National Science Diplomacy Roadmap, success will depend on translating vision into action across six critical pillars. These interconnected recommendations form a comprehensive framework for institutional transformation, global engagement, and sustainable innovation. From establishing robust governance structures to securing long-term funding, each pillar addresses key components necessary to position Mauritius as a leader inscience and technology in the Indian Ocean region.

The recommendations emphasise practical implementation strategies while maintaining flexibility to adapt to emerging global trends and local priorities. By systematically developing these six areas, Mauritius can create a virtuous cycle of innovation that drives economic transformation, enhances global relevance, and delivers tangible benefits for its citizens. The following sections outline concrete steps to operationalise each pillar, with particular attention to creating synergies between domestic capabilities and international opportunities.

3.1 Pillars for Scientific Diplomacy:

1. Institutional Architecture for Science Diplomacy
2. Strategic Global Partnerships
3. Science, Technology and Innovation (STI) Framework
4. Flagship Programs and Campaigns
5. Capacity Building and Public Engagement
6. Research and Innovation Scouting
7. Resource Mobilisation

3.2 INSTITUTIONAL ARCHITECTURE FOR SCIENCE DIPLOMACY

3.2.1 Development of a Science Diplomacy Framework for Mauritius

A structured Science Diplomacy Framework will serve as the foundation for Mauritius' strategic integration of science, technology, and innovation (STI) into its foreign policy and economic development. This framework will outline clear objectives, governance mechanisms, and implementation pathways to ensure that STI collaborations align with national priorities. It will include policy guidelines for international research partnerships, technology transfer protocols, and metrics for evaluating diplomatic outcomes. By formalising this framework, Mauritius can systematically leverage scientific cooperation to address global challenges, such as climate crisis/resilience, pandemic, food security, energy crisis and digital transformation, while strengthening its position as a knowledge-based economy. The framework will also establish Mauritius as a credible partner in multilateral STI forums, ensuring that its contributions are both impactful and aligned with its developmental goals.

3.2.2 National Science and Innovation Diplomacy Council (NSDC)

The National Science and Innovation Diplomacy Council (NSDC) will function as the apex body responsible for coordinating and overseeing Mauritius' science diplomacy efforts. Comprising high-level representatives from government, academia, industry, and international partners, the NSDC will provide strategic guidance, approve major STI partnerships, and ensure policy coherence across ministries, aligned with national policies. Its mandate will include:

- **Policy Coordination:** Aligning science diplomacy with national development plans
- **Priority Setting:** Identifying key focus areas where Mauritius can lead or benefit from global collaborations.
- **Monitoring & Evaluation:** Tracking the impact of science diplomacy initiatives through measurable outcomes, such as research partnerships secured, investments attracted, and innovations commercialised.

The NSDC will also collaborate with regional bodies to amplify Mauritius' influence in shaping transnational STI agendas.

3.2.3 Science Diplomacy Desk

A dedicated Science Diplomacy Desk will operate as the operational hub for Mauritius' international STI engagements. Its functions will include:

- **International Engagement:** Managing participation in global science summits to showcase Mauritian expertise and forge partnerships.
- **STI Connect Platform:** Curating a digital portal ("Mauritius STI Connect") to link local researchers with diaspora scientists, funding opportunities, and international labs.
- **Diplomatic Support:** Providing real-time STI intelligence to embassies, facilitating scientist exchanges, and assisting foreign delegations seeking collaborations.

This desk will ensure Mauritius proactively identifies and capitalises on emerging opportunities in fast-evolving fields

3.2.4 Science Advisors in Diplomatic Missions

Embedding Science Advisors in key diplomatic missions will enhance Mauritius' ability to identify and negotiate STI opportunities abroad. Their roles will include:

- **Opportunity Mapping:** Scouting for R&D trends, funding calls, and partnership openings in host countries.
- **Networking:** create linkages with STI related institutions such as science technology centres, research labs and discovery centres.
- **Agreement Facilitation:** Supporting negotiations on joint research programmes, technology transfers, and innovation accords.
- **Academic Diplomacy:** Exploring opportunities for Mauritian researchers to work with foreign institutions and vice versa, fostering long-term collaboration.

Secondment of researchers in service could be considered for Science Advisors

3.3 STRATEGIC GLOBAL PARTNERSHIPS

Mauritius' transition to a knowledge-driven economy requires robust international collaboration in science, technology, and innovation (STI). Strategic partnerships (both bilateral and multilateral) will be essential for accessing cutting-edge research, securing investment, and positioning Mauritius as a regional leader in critical fields. By forging targeted alliances with key nations having shared interests, institutions, and research consortia, Mauritius can amplify its scientific capabilities, attract high-value expertise, and drive sustainable development. This section outlines a structured approach to cultivating these partnerships, ensuring they align with national priorities while delivering measurable benefits for economic growth and global influence.

3.3.1 Priority Bilateral Partnerships

Mauritius will pursue focused, high-impact collaborations with certain nations that have complementary strengths in STI. These partnerships will be structured around:

Key Focus Areas:

- India: Deepening cooperation in AI, ICT, and pharmaceuticals through expanded research exchanges and startup incubation programmes.
- France & EU: Strengthening marine research, renewable energy, and climate adaptation projects, leveraging EU Horizon Europe funding.
- China & Singapore: Advancing smart city technologies, fintech, and green infrastructure development.
- South Africa & Kenya: Building regional capacity in biotechnology, agri-tech, indeifenous science and public health innovation.
- Astronomy and Astrophysics with SARAO (e.g SKA)

Implementation Mechanisms:

- **Joint Research Funds**: Establishing co-funded grant schemes to support collaborative R&D.
- **Technology Transfer Agreements:** Negotiating access to patented innovations in priority sectors (e.g., solar energy, precision agriculture).
- **Diaspora Engagement:** Tapping into Mauritian expatriate scientists and entrepreneurs in partner countries to facilitate knowledge exchange.

3.3.2 Multilateral Engagement Strategy

To maximise its global reach, Mauritius will actively participate in multilateral STI initiatives, ensuring its priorities are reflected in international agendas:

Thematic Consortia for Leadership:

- **Climate Resilience:** Joining SIDS-led coalitions to advocate for adaptation financing and host a regional climate innovation hub.
- **Ocean Economy:** Partnering with IOC-UNESCO and IORA to advance sustainable blue economy research and policy frameworks.
- **Digital Governance:** Contributing to AU-EU dialogues on AI ethics and data sovereignty as a voice for small states.

Institutional Participation:

- **UN Platforms:** Securing advisory roles in UNESCO's STEM education initiatives and the UN Technology Bank for LDCs.
- **Regional Bodies:** Leading IORA task forces on marine biotechnology, sustainable fisheries, renewable energy, disaster management and India-Africa health tech partnerships.

3.4 Science, Technology and Innovation (STI) Framework

Mauritius stands at a pivotal juncture in its economic evolution, transitioning from a services-driven economy to a knowledge-based powerhouse. A robust Science, Technology, and Innovation (STI) Framework is essential to guide this transformation, ensuring that innovation becomes a cornerstone of national development. This framework will provide the strategic direction, governance structures, and implementation mechanisms needed to harness STI for sustainable growth, digital advancement, and inclusive prosperity. By aligning with global best practices while addressing local priorities, the framework will position Mauritius as a regional leader in climate resilience, ocean sciences, and digital transformation. Below is a comprehensive breakdown of the proposed components, designed to foster a dynamic, future-ready innovation ecosystem.

3.4.1 Policy and Strategic Direction

The foundation of Mauritius' STI Framework will be a revised National STI Policy, designed to integrate innovation across all sectors of the economy. This policy will:

- Align with Vision 2030 and SDGs, ensuring STI contributes to sustainable development, climate resilience, and social equity.
- Promote digital transition, building on Mauritius' success in ICT and Ebene Cybercity to drive smart infrastructure, AI, and fintech advancements.
- Enhance inclusivity, ensuring women, youth, and marginalised communities benefit from STI-driven opportunities

Implementation Mechanisms:

- **Joint Research Funds**: Establishing co-funded grant schemes to support collaborative R&D.
- **Technology Transfer Agreements:** Negotiating access to patented innovations in priority sectors (e.g., solar energy, precision agriculture).
- **Diaspora Engagement:** Tapping into Mauritian expatriate scientists and entrepreneurs in partner countries to facilitate knowledge exchange.

3.4.2 Benchmarking and Global Alignment

To ensure Mauritius' STI Framework remains competitive, it will incorporate:

- **Comparative analysis of innovation ecosystems**: drawing on case studies from the EU, African tech hubs, and SIDS.
- **Adoption of international standards**: for STI policy mapping, to enhance transparency and governance.
- **Lessons from the EU-Africa STI Roadmaps**: to align with Mauritius' focus areas.

3.4.3 Priority-Setting Framework

A data-driven approach will identify Mauritius' STI priorities through:

Stakeholder engagement:

- Workshops with researchers, industry leaders, and diaspora experts to identify high-impact sectors
- Youth innovation challenges to crowdsource grassroots ideas

Foresight tools:

- Scenario planning for emerging technologies to anticipate future opportunities.
- Horizon scanning to assess global trends and risks, such as climate-induced disruptions

Evidence-based prioritisation:

- Metrics such as R&D investment intensity, patent filings, and STEM graduate rates can guide resource allocation.

3.5 Flagship Programs and Campaigns

To accelerate Mauritius' transformation into a knowledge-driven economy, targeted Flagship Programs and Campaigns will serve as high-impact platforms to foster innovation, attract global talent, and position the nation as a regional leader in science and technology. These initiatives will combine competitive challenges, collaborative research, and international partnerships to stimulate creativity, solve pressing challenges, and showcase Mauritius' capabilities on the global stage. Below are the key proposed components designed to catalyse innovation and strengthen Mauritius' STI ecosystem.

3.5.1 Regional Innovation Challenge (RIC)

A bi-annual competition designed to stimulate entrepreneurship, creativity, and cross-border collaboration, the Regional Innovation Challenge (RIC) will invite startups, researchers, and students from across the Indian Ocean and Africa to develop solutions in priority areas such as climate resilience, digital transformation, and sustainable agriculture. Winners will receive seed funding, mentorship, and access to Mauritius' innovation hubs, fostering long-term regional partnerships.

3.5.2 Regional/International Innovation Campaigns

To attract top-tier researchers and innovators, Mauritius will launch targeted campaigns promoting the country as a premier hub for cutting-edge research. These initiatives will highlight Mauritius' strategic advantages such as its advanced digital infrastructure, political stability, and niche expertise in ocean sciences while offering incentives like tax breaks, research grants, and streamlined visa processes for international talent.

3.5.3 Island Innovation Challenge

A global competition co-funded by partners like the World Bank and UNDP, the Island Innovation Challenge will focus on climate adaptation technologies tailored for Small Island Developing States (SIDS). This initiative will position Mauritius as a leader in climate resilience, attracting innovators worldwide to pilot solutions in renewable energy, coastal protection, and disaster preparedness.

3.5.4 Ocean Science Diplomacy Initiative

Mauritius plans to establish a regional marine research platform in partnership with Indian Ocean nations (e.g., Seychelles, Maldives) and regional/international organisations like IOC-UNESCO. This initiative will advance sustainable blue economy solutions, from coral reef restoration to deep-sea mining ethics, while reinforcing Mauritius' role as a diplomatic and scientific leader in ocean governance.

3.5.5 Regional Science Fair

Mauritius to network with regional organisations/countries such as SAASTA (South African Association for Science and Technology Advancement), & SAASTEC (South African Association of Science and Technology Centres) to organise science fairs to promote science and technology and sharing of knowledge every couple of years in member countries.

3.6 Capacity Building and Public Engagement

For Mauritius to truly become a science-driven society, it must foster a culture where innovation is accessible, exciting, and inclusive. Public engagement and science communication play a crucial role in demystifying STEM, inspiring future generations, and ensuring that citizens understand how STI impacts their daily lives. Through exhibitions, media campaigns, and education reforms,at all levels, including higher education, Mauritius will cultivate a scientifically literate population that actively participates in and benefits from the nation's innovation ecosystem. Below are the key initiatives designed to bring science to the people and empower communities through knowledge.

3.6.1 Training of Mauritians in Science Diplomacy

To strengthen Mauritius' role in global STI collaborations, specialised science diplomacy training programs will be introduced for government officials in negotiating science-backed agreements, researchers, and diplomats. These programs will cover negotiation skills, international STI policy frameworks, and

technology transfer strategies, enabling Mauritius to effectively engage in high-level scientific partnerships.

3.6.2 Human Capital Development

Key Actions:

- Presidential Scholarships for Science and Technology: Merit-based awards for top STEM students to pursue advanced degrees with mandatory return clauses to retain talent.
- Joint PhD and Postdoc Programmes: Partnerships with leading global universities to provide cutting-edge research opportunities for Mauritian scholars.
- TVET-STEM Pathways & Micro-Credentials: Expanding technical and vocational education in emerging technologies through industry-aligned short courses and certifications.
- Continous Professsional Development in STI for Entrepreneurs and active professionals to keep them abreast with latest trends.

3.6.3 Diaspora Engagement

Key Strategies:

- Return Incentives for Researchers: Tax holidays, startup grants, and fully equipped research labs to attract Mauritian expatriate scientists and technologists back home.
- Diaspora Innovation Platform (DIP): A digital hub connecting overseas experts with local projects, enabling virtual collaboration, facilitate knowledge transfer and joint research, mentorship, and investment in Mauritian STI initiatives.

3.6.4 Annual Mauritius Science, Technology, and Innovation Festival (MSTIF)

A flagship event showcasing cutting-edge research, startups, and interactive exhibits to make science engaging for all ages. The festival will feature:

- Tech demos
- Panel discussions with leading scientists and entrepreneurs
- Hands-on workshops for students and families

3.6.5 Regional Roadshows on STI and SDGs

Mobile exhibitions visiting towns and villages through Municipal and District Councils to explain how science and innovation align with the Sustainable Development Goals (SDGs). Topics may include:

- Climate-smart agriculture
- Renewable energy for communities
- Digital literacy for inclusive growth

3.6.6 "Science in Creole" Media Campaigns

Breaking language barriers by delivering science content in Kreol Moricien through:

- TV/radio segments on local breakthroughs and ongoing local and regional activities on STI
- Podcasts featuring scientists explaining complex topics in a simple way
- Social media challenges (e.g., #AskAScientist)

3.6.7 Education Integration

School Curriculum Reforms:

- Innovation literacy modules featuring problem-solving and design thinking.
- Student-led innovation clubs with seed funding for prototypes.
- National science fairs with awards for top youth projects.
- Awareness of science diplomacy
- Out of classroom assignments in STI environments
- Encourage more extracurricular activities and outings to research centres, industries, etc

3.6.8 Strengthening Science Culture

Collaborating with NGOs, libraries, and businesses to:

- Expand National Science Week with more interactive exhibits.
- Elevate science competitions (e.g., robotics leagues, hackathons).
- Train teachers in multidisciplinary/transdisciplinary hands-on STEM pedagogy.
- Encourage holiday activities in scientific environments for youth to acquire STEM Skills

3.7 RESEARCH AND INNOVATION SCOUTING

To accelerate Mauritius' transition into a knowledge-driven economy, a proactive approach to Research and Innovation Scouting is essential. This involves systematically identifying emerging technologies, facilitating industry-academia collaboration, and ensuring that cutting-edge research translates into real-world solutions. By establishing dedicated structures for innovation tracking and extension services, Mauritius can stay ahead of global trends while maximizing the commercial and social impact of its scientific investments. Below are the key components designed to create a dynamic pipeline from lab to market.

3.7.1 Bureau for Innovation Scouting and Extension (BISE)

A dedicated unit tasked with horizon scanning to anticipate technological disruptions and opportunities. BISE will:

- Conduct tech foresight studies to guide national R&D priorities.
- Map innovation ecosystems across universities, startups, and industries to identify gaps and synergies.
- Validate early-stage pilots through proof-of-concept funding, de-risking scalable solutions.
- Match researchers with industry partners to commercialize discoveries
- Prepare monthly innovation briefings for policymakers, highlighting actionable insights

3.7.2 Extension Services (Modelled on Agricultural Extension)

Adapting the proven agricultural extension model to broaden STI adoption across SMEs and startups:

- On-demand diagnostics: Assess firms' innovation readiness and recommend tailored tech upgrades.
- Startup coaching: Pair entrepreneurs with technical mentors and provide access to national labs for prototyping.
- R&D adoption training: Workshops on intellectual property, grant writing, and lean experimentation methods.
- Regional SME mentorship: Deploy "innovation agents" to rural businesses, facilitating partnerships with research institutions.

3.8 RESOURCE MOBILISATION

To realise its vision of becoming a knowledge-driven economy, Mauritius must secure sustainable funding and strategic partnerships that support its science, technology, and innovation (STI) agenda. Effective resource mobilization requires a multi-pronged approach combining domestic financial instruments, international donor collaborations, and public-private synergies to ensure long-term investment in research, infrastructure, and human capital. Below are the proposed mechanisms designed to attract, allocate, and leverage resources that will drive Mauritius' STI transformation.

3.8.1 National Science Diplomacy Fund

A flexible funding pool to enable rapid responses to emerging STI opportunities and crises. This fund will:

- Support strategic diplomatic initiatives, such as hosting international science summits or fast-tracking research collaborations.
- Allocate seed grants for high-potential projects in climate resilience, digital innovation, and blue economy sectors.
- Maintain a reserve for urgent needs, such as pandemic-related R&D or disaster-response technologies.

3.8.2 Innovation Venture Facility

A risk-sharing mechanism desgined to attract private investment in cutting-edge technologies by:

- Offering co-investment grants to startups and SMEs working on AI, renewable energy, and biotech.
- Providing loan guarantees to reduce investor hesitation in early-stage innovation.
- Partnering with local banks and venture capitalists to create a pipeline of scalable STI ventures.

3.8.3 Public-Private Matching Grants

Incentivising corporate participation in STI through:

- 1:1 or 1:2 matching funds for industry-led R&D projects aligned with national priorities.
- Tax rebates for companies that collaborate with universities or research centres.
- Sector-specific challenges, where the government matches private funding

3.8.4 Donor Engagement Strategy

1. Bilateral Partnerships

Targeted collaborations with key nations:

- **France (AFD):** Climate adaptation and ocean research funding.
- **India:** Joint ICT and pharmaceutical innovation grants.
- **China:** Infrastructure and renewable energy project financing.
- **UAE:** Green tech and smart city investments.

2. Multilateral Programs

Leveraging global institutions for large-scale support:

- **AUDA-NEPAD:** Access to pan-African STI grants and capacity-building programs.
- **UNESCO:** Participation in global science policy initiatives and funding calls.
- **World Bank:** Loans for digital transformation and human capital development.
- **Green Climate Fund:** Financing for climate-resilient infrastructure and clean energy projects.

3. Philanthropic Foundations

Engaging major science-focused donors:

- **Gates Foundation:** Grants for health innovation and agricultural R&D.
- **Wellcome Trust:** Funding for infectious disease and genomics research.
- **Open Society Foundations:** Support for inclusive STI policies and education.

4 Proposed Timeline Recommendations

These time-lined recommendations have been developed following discussions during the Higher Education Summit. They were then refined and streamlined during further discussion of the National Committee on Science Diplomacy following a request from the Ministry. Though presented in short and long term, it is understood that the measures form a continuum.

4.1.1 Short Term

Actions that lay the foundational architecture and initiate immediate engagement:

1. Establish the National Science and Innovation Diplomacy Council (NSDC)
2. Launch the Science Diplomacy Desk
3. Adopt the National Science Diplomacy Framework
4. Begin Training Programmes in Science Diplomacy
5. Initiate Pilot Diaspora Engagement Platform (DIP)
6. Launch the second edition of the Regional Innovation Challenge
7. Establish the Bureau for Innovation Scouting and Extension (BISE)

4.1.2 Long Term

1. Operationalise Flagship Campaigns and Challenges
2. Implementation of STI Framework & Policy Reforms
3. Expand the Science Advisor Network Abroad
4. Organise the First Mauritius STI Festival & Regional Roadshows
5. Create Joint R&D Funding Mechanisms
6. Launch the Innovation Venture Facility and National Science Diplomacy Fund
7. Secure Multilateral STI Leadership Roles
8. Institutionalise STI Education and Gender-Inclusive Innovation
9. Embed STI in all development planning

5 Conclusions

Science diplomacy is no longer a luxury for nations; it is a necessity for resilience, relevance, and sustainable progress in a rapidly evolving world. For Mauritius, embracing science diplomacy means more than participating in global dialogues; it means actively shaping them. It involves transforming scientific excellence into diplomatic capital, leveraging innovation to foster partnerships, and aligning research with national and global priorities. Science diplomacy also gives the rightful place of the scientist in society. As a small island developing state with outsized ambition, Mauritius has the unique opportunity to position itself as the "Innovation Lighthouse of the Indian Ocean." By uniting policy, research, and international collaboration under a single strategic framework, Mauritius will not only future proof its development pathway but also contribute meaningfully to solving shared global challenges. This roadmap marks the beginning of that transformative journey.