



STRATEGIC PLAN  
(STRATEGIC ROADMAP)

2026 - 2030



Arthur C. Clarke Institute for  
Modern Technologies

Katubedda, Moratuwa

Under the purview of

Ministry of Science & Technology



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## ABBREVIATIONS

|         |   |
|---------|---|
| ABB     | : Activity-Based Budgeting  |
| ACCIMT  | : Arthur C. Clarke Institute for Modern Technologies                      |
| AI      | : Artificial Intelligence   |
| CEO     | : Chief Executive Officer   |
| COSTI   | : Coordinating Secretariat for Science, Technology and Innovation         |
| CPD     | : Continuous Professional Development                                     |
| CSSTEAP | : Center for Space Science and Technology Education in Asia Pacific       |
| CSSTEAP | : Center for Space Science & Technology Education in Asia and the Pacific |
| ERM     | : Enterprise Risk Management  |
| ESA     | : European Space Agency   |
| ESIA    | : Environmental and Social Impact Assessment                              |
| ETR     | : End-Term Review   |
| EU      | : European Union  |
| GDP     | : Gross Domestic Product  |
| GIS     | : Geographic Information System   |
| HR      | : Human Resource  |
| HRMS    | : Human Resource Management Systems                                       |
| ICT     | : Information Communication Technology                                    |
| ICTA    | : Information and Communication Technology Authority                      |
| IP      | : Intellectual Property   |
| ISD     | : Industrial Services Division  |
| ISO     | : International Standard Organization                                     |
| ISRO    | : Indian Space Research Organization                                      |
| ITI     | : Industrial Training Institute   |
| ITU     | : International Telecommunication Union                                   |
| JAXA    | : Japan Aerospace Exploration Agency,                                     |
| KPI     | : Key Performance Indicators  |
| LED     | : Light Emitting Diode  |
| M&E     | : Monitoring & Evaluation   |
| MEMS    | : Micro Electronic Mechanical Systems                                     |
| MOST    | : Ministry of Science and Technology                                      |
| MoU     | : Memorandum of Understanding   |
| MTE Mid | : Term Evaluation   |
| NASA    | : National Aeronautics and Space Administration                           |
| NDC     | : Nationally Determined Contributions                                     |
| NEDA    | : National Enterprise Development Authority                               |
| NERDC   | : National Engineering Research & Development Center                      |
| NGO     | : Non-Government Organization   |
| NIPO    | : National Intellectual Property Office                                   |
| NITA    | : National Information Technology Agency                                  |
| NRC     | : National Research Council   |

|          |  |
|----------|--|
| NTU      | : Nanyang Technological University   |
| PBMS     | : Performance-Based Management System  |
| PCB      | : Printed Circuit Board  |
| PESTEL   | : Political, Economic, Social, Technological, Environmental, Legal           |
| PPI      | : Public–Private–Innovation  |
| PPP      | : Private Public Partnership   |
| PV       | : Photo Voltaic  |
| R&D      | : Research & Development   |
| RBM      | : Results-Based Management   |
| SDG      | : Sustainable Development Goals  |
| SIS      | : Strategic Implementation Secretariat                                       |
| SLINTEC  | : Sri Lanka Institute of Nano Technology                                     |
| SOPs     | : Standard Operating Procedures  |
| SPR      | : Strategic Performance Report   |
| STEM     | : Science, Technology, Engineering and Mathematics                           |
| STI      | : Science, Technology, and Innovation  |
| SWOT     | : Strength, Weakness, Opportunities, Treats                                  |
| TTCO     | : Technology Transfer and Commercialization Office                           |
| SDG      | : Sustainable Development Goals  |
| UN       | : United Nations   |
| APRSAF   | : Asia-Pacific Regional Space Agency Forum                                   |
| UN-ESCAP | : United Nations and Economic and Social Commission for Asia and the Pacific |
| VTA      | : Vocational Training Authority  |
| ZBB      | : Zero-Based Budgeting   |

## CHAIRMAN'S MESSAGE



The Arthur C. Clarke Institute for Modern Technologies (ACCIMT) stands at a decisive crossroads in its journey of over three decades as Sri Lanka's national institution dedicated to advancing space science, electronics, robotics, photonics, and modern technological innovation. At a time when Sri Lanka is re-evaluating the relevance of its public institutions, the call for transformation and renewal is both timely and necessary.

The proposal to integrate ACCIMT under the University of Moratuwa has sparked a national conversation on the role of technology in our country's future. While we value the University's academic excellence, it must be recognized that ACCIMT's statutory role, international partnerships, and specialized functions extend far beyond traditional university mandates. The Institute operates as a national innovation enabler—bridging research, industry, and government—to address national priorities such as climate resilience, space capability and industrial modernization.

Our new **Strategic Corporate Plan (Strategic Roadmap) -2026–2030** reflects this commitment to national service and technological sovereignty. Developed through rigorous analysis and consultation, the plan sets a clear direction for reform, modernization, and sustainable growth. It outlines eight long-term goals spanning space and advanced technologies, commercialization of research, applied innovation for key sectors, human capital excellence, international collaboration, and financial sustainability.

Through the implementation of this plan, ACCIMT will:

- Strengthen its institutional governance and accountability mechanisms.
- Establish globally benchmarked R&D and commercialization frameworks.
- Develop next-generation scientists and technologists for national capacity-building.
- Ensure financial resilience through hybrid funding models and strategic partnerships.
- Advance societal well-being through ethical and inclusive technology adoption.

We recognize that sustaining an institution like ACCIMT requires more than funding it requires vision, collaboration, and confidence in Sri Lanka's scientific potential. This strategic plan redefines ACCIMT not as a burden on the state, but as a strategic investment in the nation's innovation future - a hub where science meets industry, and research meets development. As we move forward, our mission is clear: to reinforce ACCIMT's role as the *National Centre for Space and Advanced Modern Technologies*, driving Sri Lanka's transition into a knowledge-driven, innovation-led economy.

On behalf of the Board of Governors and all staff, I extend my gratitude to the Government of Sri Lanka, our international partners, and the scientific community for their continued confidence in our vision. Together, we will ensure that ACCIMT continues to embody the pioneering spirit of Sir Arthur C. Clarke turning imagination into innovation for the benefit of humanity.

**Prof. Chandana Jayaratne**  
**Chairman, Board of Governors /ACCIMT**

## BOARD OF GOVERNORS



**Prof. Chandana Jayaratne**  
Chairman, ACCIMT



**Mrs. M M G K Meegahakotuwa**  
Director General, ACCIMT



**Eng. Nalin Karunasinghe**  
Managing Director, E – net  
Solutions (pty) ltd.



**Mr. Nisal Dinuke**



**Prof. N D Gunawardena**  
Vice-Chancellor, University of  
Moratuwa



**Eng. Shavindranath Fernando**



**Dr. Chinthaka L De Silva**  
Senior Research Scientist,  
nominated by the Sri Lanka  
Association for the Promotion of  
Science



**Mr. H D Nelaka Shayamal  
Priyankara**  
Senior Lecturer in Mechanical  
Science, OUSL.



**Mrs. M A C N Seneviratne**  
Director, Department of Information  
Technology Management, Ministry  
of Finance and Economic  
Development



**Prof. R A Attalage**  
Senior Professor, Department of  
Mechanical Engineering, UOM



**Senior Prof. Pathmalal M Manage**  
Vice Chancellor, UOSJ

## THE MANAGEMENT TEAM

### **M. M. G. K. Meegahakotuwa**

Director General / CEO

### **J. K. Jayawardena**

Director (Communication Engineering)/  
Acting DDG (TO)

### **J. P. D. S. Athuraliya**

Director (Electronic Engineering)

### **L. R. N. Somathilake**

Director (Information Technology)

### **R. A. S. S. Gunasekera**

Principal Research Scientist  
(Space Science / Space Technology &  
Applications)/Acting Director (ST & A)

### **S. K. Vijithananda**

Senior Research Engineer  
/Director (Ins.)-(CUD)

### **S. A. Welikala**

Senior Deputy Director  
(Technology Transfer)

### **B. A. Jayasinha**

Senior Software Engineer

### **R. P. Dasanayaka**

Senior Systems Analyst

### **R. M. L. N. Rathnayake**

Senior Research Engineer

### **N. I. Medagangoda**

Senior Research Scientist

### **P. D. S. Pushpakumara**

Senior Research Scientist

### **T. C. Peiris**

Senior Research Scientist

### **B. S. Marasinghe**

Senior Research Scientist

### **G. H. C. Jayarani**

Senior Deputy Director  
(Administration & Human Resources)

### **R. M. A. M. Perera**

Senior Deputy Director  
(Finance)

### **S. W. D. C. K. Wijayawardena**

Deputy Director (Media)

### **M. P. R. Perera**

Deputy Director (Technology Transfer)

### **J. S. B. Ratnayake**

Deputy Director (Internal Audit)

### **R. A. Gами**

Deputy Director (Administration)

# EXECUTIVE SUMMARY

## Introduction

The Arthur C. Clarke Institute for Modern Technologies (ACCIMT) stands at a critical juncture in its four-decade journey as Sri Lanka's premier institution for modern technology research, innovation, and capacity development. Established under the Science and Technology Development Act No. 11 of 1994 (amended 2013), ACCIMT has been instrumental in introducing cutting-edge technologies—from satellite systems to advanced electronics—into the nation's industrial, educational, and governance ecosystems.

This Strategic Plan (2026–2030) represents a comprehensive roadmap for institutional transformation, designed to position ACCIMT as a financially sustainable, globally connected, and innovation-driven national asset capable of addressing Sri Lanka's most pressing technological challenges while contributing to economic recovery and long-term competitiveness.

## Strategic Context and Rationale

Sri Lanka's current economic landscape demands a fundamental shift from resource-based growth to innovation-led development. As the government implements structural reforms aimed at eliminating underperforming public entities, ACCIMT faces both existential threats and unprecedented opportunities. Proposals to merge the Institute under the University of Moratuwa threaten to dilute its statutory independence, compromise international collaborations, and undermine its unique mandate to bridge research, industry, and national development.

However, ACCIMT's proven track record—including the successful launch of three nanosatellites (Raavana-1, KITSUNE, and Dragon Fly), recovery of critical railway systems, development of automated weather stations, and establishment of the National Centre for Lightning Protection demonstrates its irreplaceable value to Sri Lanka's technological sovereignty and industrial innovation capacity.

This Strategic Plan articulates a compelling vision for ACCIMT's future: one that leverages its statutory independence, multidisciplinary expertise, and international partnerships to deliver commercially viable research outputs, applied technology solutions, and nationally critical capacity development while achieving financial sustainability.

## **Vision, Mission, and Core Values**

### **Vision:**

To be Sri Lanka's national leader and regional hub for modern technologies and innovation for sustainable development.

### **Mission:**

To accelerate the adoption and development of modern technologies by conducting high-impact research and innovation, building human and institutional capacity, delivering industrial and public-sector technology solutions, and fostering international collaboration for Sri Lanka's economic and social progress.

### **Core Values:**

- Integrity & Accountability
- Innovation & Excellence
- National Service Orientation
- Collaboration & Partnership
- Knowledge Empowerment
- Sustainability & Stewardship

## **Strategic Goals (2026–2030)**

The Strategic Plan is anchored on eight interconnected long-term goals designed to ensure institutional survival, growth, and national relevance:

### **Goal 1: Position ACCIMT as Sri Lanka's National Centre for Modern Technologies**

Establish ACCIMT as the statutory apex body for space technology, robotics, electronics, ICT, photonics, and astronomy through policy recognition, infrastructure development, and multidisciplinary research clusters linking government, academia, and industry.

### **Goal 2: Develop Commercially Viable Research and Innovation Outputs**

Prioritize applied R&D in climate adaptation, electronics, communication, information technology, robotics, and AI-driven technologies while strengthening a Technology Transfer and Commercialisation Unit (TTCU) to convert research into patents, licensed products, and revenue-generating services.

### **Goal 3: Deliver Applied Technology Solutions for National Priority Sectors**

Align R&D initiatives with key national sectors agriculture, plantation, health, energy, transport, environment monitoring and disaster resilience through pilot projects, demonstration models, and policy advisory services.

#### **Goal 4: Build a National Pipeline of Scientists and Technologists**

Introduce training scholarships, postgraduate fellowships, professional certification programs, and expanded STEM outreach to develop Sri Lanka's future workforce in modern technologies.

#### **Goal 5: Strengthen Partnerships and International Collaboration**

Deepen cooperation with JAXA, ROSCOSMOS, RADI China, ESA, and UN-APRSAF for promotion of R&D and capacity building while representing Sri Lanka at regional and global technology forums.

#### **Goal 6: Achieve Financial Sustainability and Performance-Driven Governance**

Implement a hybrid funding model combining government grants, international projects, consultancy services, and commercialisation revenue while adopting international quality standards and digital performance monitoring systems.

#### **Goal 7: Apply Modern Technologies for Societal Well-being and Environmental Protection**

Leverage space and digital technologies for environmental monitoring, disaster management, and sustainable resource planning while conducting nationwide STEM education and science popularisation programs.

#### **Goal 8: Human Capital Excellence and Organisational Culture Transformation**

Digitise HR systems, implement competency-based frameworks, establish continuous professional development programs, and foster an innovation-driven, collaborative organisational culture.

### **Key Strategic Interventions**

#### **Institutional Strengthening**

- Secure Cabinet approval for ACCIMT's recognition as the national apex body for modern technologies
- Establish IT infrastructure for satellite data repository and distribution
- Develop advanced astronomical research facilities and lay groundwork for a National Astronomical Observatory
- Create multidisciplinary research clusters integrating electronics, communication, information technology and space technology applications expertise with applications in agriculture, plantation, environment, transport and disaster management

## **Revenue Generation and Commercialisation**

- Launch industry-funded partnerships generating LKR 10M+ annually by 2030
- Establish functional TTCU with IP management capabilities and startup incubation programs
- Expand consultancy services in electronics, space technology applications, communications and lightning protection
- Recover and reengineering advanced electronic systems for national infrastructure (railways, telecommunications, etc.)

## **Capacity Development**

- Train 250+ technical personnel annually through intermediate and professional-level courses
- Provide supervision for 10+ undergraduate research projects per year
- Conduct 100+ outreach events reaching 25,000+ students and 5,000+ teachers by 2030
- Develop professional certification programs in robotics, AI, and space technology.

## **Infrastructure Modernisation**

- Upgrade laboratories and testing facilities to international standards
- Establish specialized units for Robotics, New Materials and Photonics
- Expand National Centre for Lightning Protection
- Strengthen advance hardware recovery services

## **Policy Formulation**

- Contribute to develop space policy, lightning protection and spatial data

## **Implementation Framework**

The Strategic Plan will be executed through a **three-phase approach**:

### ***Phase I (2025–2026): Stabilisation & Capacity Enhancement***

Focus on institutional reform, financial stabilisation, staff recruitment, infrastructure upgrades, and technology modernisation.

### ***Phase II (2027–2028): Expansion & Innovation***

Launch new research clusters, commercialisation initiatives, and industry partnerships while scaling training and outreach programs.

### ***Phase III (2029–2030): Consolidation & Global Positioning***

Strengthen international collaborations, achieve self-sustaining financial model, and integrate with national and global technology agendas.

A robust **monitoring and evaluation framework** based on Results-Based Management (RBM) principles will track progress through quarterly reviews, mid-term evaluation (2027), and end-term evaluation (2030).

## Expected Outcomes and Impact

By 2030, successful implementation of this Strategic Plan will deliver:

### Institutional Outcomes

- Legal recognition as Sri Lanka's apex body for modern technologies
- Financial sustainability with 60%+ revenue from non-government sources
- Achievement of international quality standards and establishment of digital performance management systems
- 100% staff participation in continuous professional development programs

### Research and Innovation Outcomes

- 50+ applied research projects completed addressing national priorities
- 25+ patents filed/licensed through functional TTCU
- 15+ technology demonstrations and pilot projects adopted by industry
- 75+ peer-reviewed publications in international journals

### Capacity Development Outcomes

- 1,250+ technical personnel trained through CPD and certification programs
- 25,000+ students and 5,000+ teachers engaged in STEM outreach
- 50+ undergraduate research projects supervised
- 30+ staff trained internationally through exchange programs

### National Impact

- Reduced import dependency through locally developed technological solutions
- Enhanced climate resilience through satellite monitoring and environmental technologies
- Strengthened disaster management capabilities
- Improved industrial productivity through automation and quality assurance services
- Positioned Sri Lanka as regional leader in modern technologies as per the mandate of the institute

### Resource Requirements

Implementation requires a total budget allocation of approximately **LKR 500 million** over five years, supplemented by revenue generation from consultancy services, industry partnerships, and international grants. Key resource categories include:

- **Infrastructure Development:** LKR 150M (laboratories, testing facilities, astronomical instruments)
- **Human Resource Development:** LKR 50M (training, scholarships, retention schemes)
- **Research and Development:** LKR 150M (applied research projects, prototype development)
- **Technology Transfer and Commercialisation:** LKR 30M (TTCU establishment, IP management)
- **Outreach and Capacity Building:** LKR 50M (STEM programs, public engagement)

- **Digital Infrastructure and Systems:** LKR 20M (MIS, ERP, satellite data systems)
- **International Collaboration:** LKR 50M (partnership programs, staff exchanges)

## Risk Management

The Strategic Plan acknowledges key risks including:

- Continued pressure for institutional integration
- Fiscal constraints limiting government funding
- Staff attrition and talent retention challenges
- Technological obsolescence
- Policy discontinuity

Mitigation strategies include diversified revenue streams, competitive compensation frameworks, continuous technology scanning, strategic partnerships, and transparent performance reporting to demonstrate institutional value.

## Conclusion

ACCIMT stands at a defining moment. The choice is clear: strategic transformation or institutional dissolution. This Strategic Plan charts a decisive path forward one that honours ACCIMT's founding vision while adapting to contemporary realities.

By maintaining statutory independence, embracing commercial innovation, strengthening international partnerships, and delivering tangible value to national development priorities, ACCIMT can secure its future as an indispensable national asset, a hub of technological excellence that drives Sri Lanka's transition to a knowledge-based, innovation-driven economy.

The successful implementation of this Strategic Plan requires unwavering commitment from ACCIMT's leadership, dedicated staff, governing board, and ministerial oversight. It demands bold decision-making, disciplined execution, and adaptive management. Most critically, it requires recognition from policymakers that ACCIMT's dissolution would represent an irreversible loss of institutional capacity, international credibility, and technological sovereignty at precisely the moment when Sri Lanka needs such capabilities most.

The path ahead is challenging but achievable. With strategic clarity, operational excellence, and national support, ACCIMT will not merely survive, it will thrive as Sri Lanka's beacon of technological innovation and scientific excellence for generations to come.

# Fast Facts of the modern technology industry in the world

## Global Overview

Modern technology industries are now the backbone of economic growth, national security, and sustainable development. Countries are increasingly prioritising **space technologies, micro-electronics, photonics, robotics, and advanced materials** as strategic sectors alongside traditional ICT.

### 1. Communications and Related Sciences

- **5G and 6G Networks:** Global deployment of 5G is almost complete, while 6G research led by Japan, South Korea, and the EU is underway, targeting latency below 1 millisecond.
- **Satellite Internet:** Mega-constellations such as Starlink, OneWeb and Kuiper are expanding global broadband access, driving demand for ground-station engineering and signal processing technologies.
- **Quantum Communications:** China and the EU have achieved secure quantum key distribution, positioning quantum networking as the future of ultra-secure communications.

### 2. Information Technology

- **Artificial Intelligence (AI):** AI is now the central enabler of automation, data analytics, and decision support across every sector. Global AI investment surpassed USD 300 billion in 2024.
- **Cloud and Edge Computing:** Edge architectures reduce latency for real-time applications such as autonomous systems and industrial IoT.
- **Cybersecurity:** Governments and enterprises are investing heavily in AI-driven threat detection and resilience platforms.

### 3. Electronics and Micro-Electronics

- **Semiconductors:** The global chip industry exceeds USD 650 billion, dominated by Taiwan (TSMC), South Korea (Samsung), and the USA (Intel). Micro-electronics is critical to AI hardware, medical devices, and smart manufacturing.
- **Embedded Systems and Sensors:** Advances in MEMS and nano-sensors are driving wearable health tech, autonomous vehicles, and environmental monitoring

### 4. Photonics

- **Optical Computing and Data Transmission:** Photonics underpins fiber optics, laser manufacturing, and quantum information systems. Global photonics market value exceeds USD 900 billion in 2025.
- **Renewable Energy Applications:** High-efficiency laser and LED systems support solar PV and energy-saving technologies.

## 5. Robotics and Automation

- **Industrial Robots:** Worldwide robot density has reached 151 units per 10000 employees, with Asia leading (China and Japan account for 60 % of installations).
- **Service and Medical Robotics:** AI-enabled robots are used for surgery, elderly care, and agriculture.
- **Collaborative Robots (Cobots):** Rapid growth in SME adoption due to ease of programming and safety integration.

## 6. Space Technologies

- **New Space Economy:** Global space market expected to reach USD 1 trillion by 2030.
- **Small Satellites and CubeSats:** Low-cost launch and data access are enabling emerging countries to enter space applications for climate, disaster, and communication purposes.
- **Remote Sensing and Earth Observation:** Critical for agriculture, resource management, and disaster response. Agencies like NASA, ESA, and JAXA lead global collaboration programmes.

## 7. New Materials

- **Nanomaterials and Composites:** Used for aerospace, biomedical, and energy applications. The nanotechnology market is valued at USD 125 billion (2025).
- **2D Materials and Graphene:** Revolutionising flexible electronics and supercapacitors.
- **Green Materials:** Circular-economy policies encourage biodegradable and recyclable industrial inputs.

## Global Trends

- Integration of AI across all domains (“AI + Everything”).
- Reshoring of semiconductor manufacturing for strategic resilience.
- Public-private space partnerships expanding rapidly.
- Increasing investment in STEM education and future skills pipelines.

## Fast Facts – Modern Technology Industry in Sri Lanka

### National Overview

Sri Lanka's modern-technology landscape is at an inflection point. While ICT and electronics dominate the current sector, there is growing focus on **space applications, robotics, photonics, and new materials** in alignment with the mandate of the Arthur C. Clarke Institute for Modern Technologies (ACCIMT).

## 1. Communications and Related Sciences

- **Satellite Communications:** ACCIMT operates a satellite ground station for Nanosatellites and coordinates with the International Telecommunication Union (ITU) on orbital data and frequency management.
- **5G and Beyond:** Commercial 5G roll-out under Dialog, Mobitel, and Airtel supports IoT and smart-city applications.
- **Radio Astronomy and Signal Processing:** Collaborations with universities to develop low-cost radio telescope systems for education and space research. ACCIMT operates CALLISTO radio telescope for solar astronomy

## 2. Information Technology

- **AI and Data Analytics:** Rapid growth in AI research initiatives through universities and private labs focusing on agriculture, health, and education.
- **Digital Government and e-Services:** Projects to enhance citizen services through digital transformations.
- **Cybersecurity:** Emerging as a critical skill domain with dedicated training programmes under MOST and university partnerships.

## 3. Electronics and Micro-Electronics

- **Component Design and Prototyping:** ACCIMT supports research in PCB design, sensor applications, and instrumentation for education and industry.
- **Manufacturing and Assembly:** Private firms in Katunayake and Biyagama Free Trade Zones produce electronic components for exports.
- **Collaborations:** Partnerships with research institutes and universities to develop micro-sensor and embedded system technologies.

## 4. Photonics

- **Optical Instrumentation:** Local research teams are developing laser-based measuring and cutting tools for industry.
- **Fiber-Optic Applications:** Integration of photonics in telecommunications and medical diagnostics is expanding.
- **Academic Links:** Postgraduate training in optical engineering through Moratuwa and Peradeniya universities.

## 5. Robotics and Automation

- **Research and Innovation:** Universities and private start-ups are involved in developing robotic applications in the areas such as agricultural and industrial robots.
- **ACCIMT Programmes:** Annual Robotics Challenge and training initiatives for school students and engineers.
- **Automation in Industry:** Growing adoption in textile and manufacturing sectors for productivity improvement.

## 6. Space Technologies

- **National Satellite Programmes:** ACCIMT serves as the focal point for space technology and has collaborations with JAXA, ROSCOSMOS (Russia), and Kyutech (Japan).
- **CubeSat Development:** Sri Lanka's student satellite initiatives are advancing with international technical support.
- **Applications:** Use of remote sensing and GIS in the areas such as agriculture, disaster management, and urban planning.

## 7. New Materials

- **Nanotechnology:** SLINTEC continues R&D in nano-fertilisers, energy storage, and industrial coatings.
- **Composite Materials:** Research at Moratuwa and Ruhuna universities on carbon-fiber and polymer composites for aerospace and transport applications.
- **Sustainable Materials:** Local start-ups are developing biodegradable plastics and green construction materials.

# **CORPORATE BACKGROUND, GOVERNANCE, POWERS, FUNCTIONS AND EVOLUTION (Milestones)**

## **Chapter 01**



## 1.1 Corporate Background

The Arthur C. Clarke Institute for Modern Technologies (ACCIMT) was established under the Science and Technology Development Act No. 11 of 1994 (amended in 2013) as a statutory body under the Ministry of Science, Technology, and Research. Named in honour of *Srilankabhimanya Sir Arthur C. Clarke* the visionary futurist who first proposed the concept of satellite communication through geostationary orbits the Institute embodies Sri Lanka's national aspiration to become a knowledge-based, innovation-driven economy. The institute was started in 1984 under the name Arthur C Clarke Center for Modern Technologies using the Marconi award money donated by Sir Arthur C Clarke, with the vision to function it as an independent entity.

ACCIMT serves as the national apex institution for research, development, and application of modern technologies including space technology and its applications, electronics, robotics, photonics, information communication technology, astronomy and new materials

Its founding objective was to accelerate the introduction of modern technologies into Sri Lanka's industrial, economic, and social sectors through research, innovation, training, and national and international collaboration.

The Institute's activities span across both scientific research and practical technological deployment, bridging the gap between academic research, industrial application, **and** public service innovation. Over the past four decades, ACCIMT has played a vital role in:

- Introducing satellite and space technology into Sri Lanka's research and governance ecosystem.
- Supporting private and public sector technology usage through electronics, communication, information technology, remote sensing and GIS, automation, and robotic related solutions.
- Providing education and outreach through STEM and astronomy programmes.
- Building international partnerships with leading space and technology agencies such as JAXA (Japan), ROSCOSMOS (Russia), CSSTEAP/ISRO (India), and UN Agencies

## 1.2 Governance

ACCIMT operates as a statutory board-governed institute, ensuring accountability, autonomy, and strategic oversight in national technology development.

The Governing Board is appointed in accordance with the Science and Technology Development Act, and comprises:

- A Chairman (appointed by the Minister in charge of Science and Technology).
- The Director General (Chief Executive Officer).

- Representatives from key ministries (Science and Technology, Higher Education, Finance).
- Members from academia, industry, and the professional community.

The BOG's responsibilities include:

- Formulating strategic and policy directions.
- Approving the annual research and development programme.
- Overseeing financial performance and institutional governance.
- Ensuring compliance with statutory mandates and ethical standards.

The Director General, supported by the divisional heads, is responsible for day-to-day management, research coordination, and implementation of national projects. ACCIMT also maintains a Technical Advisory Committee to ensure scientific integrity and alignment with global standards.

The governance structure promotes transparency, stakeholder inclusiveness, and performance-based accountability, with regular external audits and ministerial oversight.

### 1.3 Powers of the Institute

Under the **Science and Technology Development Act (No. 11 of 1994)**, ACCIMT is empowered to:

1. **Initiate, promote, and conduct** research and development (R&D) in the application of modern technologies.
2. **Provide technical and R&D support** to government agencies, private sector undertakings, and public enterprises.
3. **Train personnel** in modern and emerging technologies to meet national workforce requirements.
4. **Promote future studies** and facilitate forecasting, technology foresight, and policy advisory functions.
5. **Enter into agreements and collaborations** with international research institutions and technology agencies.
6. **Acquire and utilise property**, receive grants, and generate income through consultancy and commercialization.
7. **Establish and manage subsidiary entities or technology transfer offices** for innovation and entrepreneurship promotion.

These powers enable ACCIMT to function not only as a research institute but also as a national technology integrator, bridging science, industry, and governance.

## 1.4 Functions of the Institute

The functions of ACCIMT extend across multiple technological and national development domains. As per the Act, and through successive reforms, the key **institutional functions** include:

**1. Research and Development (R&D):**

Conduct cutting-edge research in space technology, electronics, robotics, ICT, photonics, space technology applications, astronomy and new materials.

**2. Technology Transfer and Commercialisation:**

Transform scientific innovations into marketable products, patents, and services through its Technology Transfer and Commercialisation unit

**3. Human Resource Development:**

Conduct CPD and other training programmes, undergraduate / postgraduate research and intern opportunities, provide internships for technical institute students through NITA and VTA and short courses to develop scientific and engineering capacity.

**4. Public and Private Sector Support and Consultancy:**

Offer technological solutions and advisory services to ministries, public corporations, local authorities and industry in areas of institute's expertise.

**5. International Collaboration:**

Represent Sri Lanka in global technology and space partnerships, ensuring access to international expertise, data, and research infrastructure.

**6. STEM Education and Public Outreach:**

Promote science awareness and innovation culture through **education and outreach** activities such as STEM & national astronomy events, school outreach programmes, and exhibitions.

**7. Policy Advisory Role:**

Provide evidence-based policy input to the Government on national innovation, digital economy, and space technology development.

## 1.5 Evolution and Institutional Milestones

The evolution of ACCIMT reflects Sri Lanka's journey from **technology adoption** to **technology creation**. Key milestones in the Institute's development include:

**Table 1.1: Key milestones in the Institute's development**

| Year                | Milestones / Development  |
|---------------------|---|
| 1984                | The institute was started in 1984 in an Act of Parliament with the name of Arthur C Clarke Center for Modern Technologies from the contribution of Marconi award money donated by Sir Arthur C Clarke, with the vision to function it as an independent entity.       |
| 1984-1994           | Establishment of initial laboratories in Computer, Communications and IT  |
| 1994                | Establishment of the Arthur C. Clarke Institute for Modern Technologies under the Science and Technology Development Act No. 11 of 1994.  |
| 1996–2006           | Installation of Sri Lanka's largest Telescope at ACCIMT<br><br>Expansion of laboratories in electronics, space applications, and IT. Initiation of national astronomy research and outreach programmes.<br><br>Installation of ACCIMT developed Traffic Light Systems |
| 2007–2012           | Expansion into microelectronics and ICT applications; introduction of lightning protection and industrial calibration services.<br><br>Inclusion of a four-storey building to ACCIMT premises   |
| 2013<br>(Amendment) | Act amended to strengthen ACCIMT's statutory role and enable international cooperation and commercialization.   |
| 2018 - 2020         | Launch of <b>Raavana-1</b> , Sri Lanka's first nanosatellite, in collaboration with Kyutech (Japan) and JAXA.<br><br>Discovery of two exoplanets  |
| 2021                | Participation in <b>KITSUNE Nano-Satellite project</b> with Japan and Singapore, enabling access to 5m resolution earth observation imagery.  |
| 2022–2024           | Development of Automated Weather Stations, Safety device for women in Scandinavian countries, Testers for local battery manufacturer and Advanced hardware recovery of locomotives for Sri Lanka Railways.  |
| 2025                | Launch of <b>DRAGON FLY</b> , Sri Lanka's third nanosatellite, in collaboration with Kyutech (Japan) and JAXA.  |

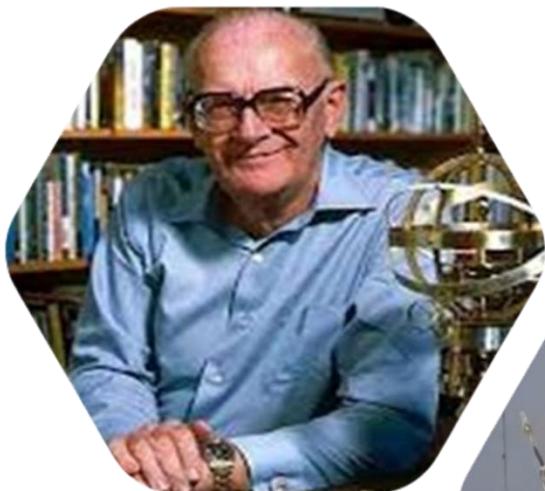
|   |  |
|---|--|
| <b>2025<br/>(Strategic<br/>Realignment)</b> | Introduction of the <b>National Strategic Plan (2026–2030)</b> to reposition ACCIMT as a financially sustainable, globally connected, and innovation-driven statutory institute. |
|---|--|

## 1.6 Summary

Over its four-decade journey, ACCIMT has evolved into Sri Lanka's premier multidisciplinary modern technology institute bridging science, innovation, and industry. Its statutory independence, international partnerships, and strong governance framework have positioned it as a national asset essential for economic transformation. While facing contemporary challenges including limited funding, attract and retain expertise human capital, infrastructure obsolescence, and institutional reform pressures ACCIMT's foundational strengths, legal mandate, and proven track record underscore its indispensable role in advancing national competitiveness, innovation, and resilience.

## **ORGANIZATIONAL STRATEGIC DIRECTION COMPONENTS**

### **Chapter 02**



## 2.1 Our Vision

To be Sri Lanka’s national leader and regional hub for modern technologies and innovation for sustainable development.

## 2.2 Our Mission

To accelerate the adoption and development of modern technologies by conducting high-impact research and innovation, building human and institutional capacity, delivering industrial and public-sector technology solutions, and fostering international collaboration for Sri Lanka’s economic and social progress.

## 2.3 Our Core Values- Our Guiding Principles

| <i>Value</i>                            | <i>Description</i>   |
|---|--|
| <b>Integrity &amp; Accountability</b>   | Uphold transparency, ethics, and public trust in all scientific and administrative actions.                              |
| <b>Innovation &amp; Excellence</b>      | Pursue continuous improvement and creativity in R&D and technology delivery.   |
| <b>National Service Orientation</b>     | Prioritise technologies that address national economic, social, and environmental challenges.                            |
| <b>Collaboration &amp; Partnership</b>  | Build strong alliances with academia, industry, government, and international agencies.                                  |
| <b>Knowledge Empowerment</b>            | Share scientific understanding widely especially among youth and professionals to nurture a technology-literate society. |
| <b>Sustainability &amp; Stewardship</b> | Develop technologies that contribute to long-term environmental and societal well-being.                                 |

## 2.4 Refined Long-Term Goals of the ACCIMT

Aligned with Strategic Directions for Survival and Sustainability (2026–2030)

### Goal 1. Position ACCIMT as Sri Lanka’s National Centre for Modern Technologies.

#### Objectives

- Establish ACCIMT as the statutory apex body for electronics, communications, IT, robotics, photonics, space technology & its applications and astronomy

- Build **national and international partnerships** (e.g., JAXA, ROSCOSMOS and RADI China) to strengthen Sri Lanka's space applications and satellite R&D.
- Create **multidisciplinary research clusters** linking government, academia, and industry for national technological transformation.

## **Goal 2. Develop Commercially Viable Research and Innovation Outputs**

### **Objectives**

- Prioritise applied R&D in **renewable energy, climate adaptation, ICT, robotics, photonics, and AI-driven technologies**.
- Strengthen the functions of the **Technology Transfer and Commercialisation Unit (TTCU)** to convert research into **patents, licensed products, and startups**.
- Strengthen **industry-funded partnerships and consultancy services** to generate self-sustaining revenue streams.
- Promote joint projects with universities and private sector under **Public–Private–Partnership (PPP)** models.

## **Goal 3. Deliver Applied Technology Solutions for National Priority Sectors**

### **Objectives**

- Align R&D with key national sectors: **agriculture, plantation, health, energy, transport, disaster resilience etc.**
- Develop **climate-resilient and green technologies** supporting policy priorities of Sri Lanka and *UN SDGs*.
- Offer policy support and advisory services to ministries on technology integration and digitalisation.
- Establish **pilot projects and demonstration models** for industry adoption of ACCIMT-developed technologies.

## **Goal 4. Build a National Pipeline of Scientists and Technologists**

### **Objectives**

- Introduce **training scholarships, postgraduate fellowships, and incubation programs** for young scientists.
- Implement **staff retention and incentive schemes** to attract and sustain top talent in STEM fields.
- Expand **STEM outreach and science education programs** through national schools, provincial universities, and public engagement.
- Develop **professional certification programs** in robotics, AI, and space systems to fill skill gaps in the national workforce.

## **Goal 5. Strengthen Partnerships and International Collaboration**

### **Objectives**

- Deepen collaboration with **leading global agencies** (JAXA, ESA, Kyutech, RADI, UN-APRSAF) for joint R&D, scholarships, and technology transfer.
- Participate in **global technology networks and space missions**, representing Sri Lanka at regional and international forums.
- Foster **regional cooperation** on innovation, satellite data sharing, and science education.

## **Goal 6. Achieve Financial Sustainability and Performance-Driven Governance**

### **Objectives**

- Adopt a **hybrid funding model**: government allocations + international grants + consultancy services + commercial revenue.
- Strengthen **financial accountability and transparency** through performance-based budgeting and periodic audits.
- Modernise governance systems with **ISO-aligned quality standards** and **digital performance monitoring dashboards**.
- Introduce **project-based revenue-sharing frameworks** to incentivise innovation among divisions.

## **Goal 7. Apply Modern Technologies for Societal Well-being and Environmental Protection**

### **Objectives**

- Leverage space and digital technologies for **environmental monitoring, disaster management, and sustainable resource planning**.
- Drive **public awareness campaigns, science exhibitions, and innovation festivals** to foster community participation.
- Support **inclusive technology adoption** for rural and underserved communities.
- Ensure all R&D initiatives are guided by principles of **sustainability, ethics, and social responsibility**.

## **Goal 8. Human capital excellence and organisational culture transformation**

### **Objectives**

- Strengthen Human Resource Capacity and Professional Growth  
Digitise HR systems, implement a competency-based HR framework, introduce continuous professional development (CPD), and establish leadership and succession planning.

- Enhance Talent Management and Organisational Culture
  - Institutionalise talent attraction and retention schemes, improve employee engagement and organisational culture, and build strategic partnerships for human capital development.

## 2.5 Summary of Integration

| <i>Original Goal</i>                           | <i>Strategic Direction Integrated</i>                            |
|--|--|
| National Centre for Space Science & Technology | Infrastructure, global collaboration, multidisciplinary clusters |
| Commercial R&D Outputs                         | Financial sustainability, commercialisation, PPPs                |
| Applied Tech Solutions                         | Sectoral focus, policy relevance, climate resilience             |
| Human Capital Pipeline                         | Training, scholarships, STEM outreach                            |
| Global Partnerships                            | International leadership, collaboration networks                 |
| Financial Sustainability                       | Hybrid funding, transparent governance                           |
| Social & Environmental Impact                  | Outreach, sustainability, ethics                                 |

### In essence:

These revised long-term goals provide a unified, reform-oriented framework to transform ACCIMT from a purely research-driven body into a **financially viable, innovation-led national technology institution**.

**Table 2.1: Key performance 2026 to 2028**

| <i>Key Performance Area</i>                         | <i>Efficiency of Operation</i> |                    |                    |
|---|--------------------------------|--------------------|--------------------|
|   | <i>Indicator</i>               | <i>2026 Target</i> | <i>2027 Target</i> |
| Annual Expenditure ratio from capital allocation    | 75%                            | 80%                | 90%                |
| Annual Revenue (Rs. Million)                        | 35                             | 40                 | 45                 |
| Opportunity cost of Systems Recovered (Rs. Million) | 150                            | 200                | 300                |
| No. of conference presentations (oral/poster)       | 3                              | 5                  | 8                  |
| No of Journal Paper publications                    | 3                              | 5                  | 8                  |
| No. of outreach and public programs conducted       | 5                              | 6                  | 7                  |
| No. of students and teachers trained                | 1000                           | 1500               | 2000               |

|  |     |     |     |
|--|-----|-----|-----|
| No of new instruments/facilities acquired  | 5   | 7   | 9   |
| No of stakeholder consultations conducted, MOUs  | 02  | 04  | 06  |
| No of R&D projects initiated and completed   | 07  | 10  | 15  |
| No of publications and prototypes, products developed  | 12  | 13  | 17  |
| No of patents filed/licensed   | 07  | 12  | 15  |
| Number of start-ups incubated  |     |     |     |
| No of industry contracts, university, public institute research collaborations, MOUs             | 15  | 18  | 20  |
| No of new parameters tested  | 1   | 1   | 1   |
| No of new devices tested   | 1   | 1   | 1   |
| No of test & measurement calibration services  | 280 | 290 | 320 |
| No of joint projects initiated with joint funding secured  | 03  | 04  | 06  |
| No of paid consultancy services  | 58  | 60  | 62  |
| No of institutes identified for collaboration  | 08  | 08  | 11  |
| No. of technologies reverse-engineered   | 02  | 05  | 08  |
| No of Intermediate & CPD courses conducted   | 07  | 09  | 10  |
| No of technological areas covered in courses   | 02  | 03  | 03  |
| No of course, training participants trained  | 250 | 280 | 340 |
| Full-scale digital infrastructure for ACCIMT operations and MIS systems developed and integrated | 1   | 1   | 1   |
| Number of new IT solutions/products developed and deployed                                       | 1   | 1   | 1   |
| No. of undergraduate projects/internships  | 100 | 120 | 140 |
| Number of new contractual service, maintenance agreements executed.                              | 2   | 2   | 2   |

## 2.6 Corporate Strategies to Achieve Long-Term Goals

### 2.6.1. Strategic Positioning and Institutional Strengthening

*(Aligned with Goal 1 – National Centre for Modern Technologies)*

#### Corporate Strategy 1.1 – Statutory and Policy Recognition

- Secure Cabinet approval and legislative amendments to reaffirm ACCIMT's role as Sri Lanka's apex body for space science and modern technology.
- Recognize ACCIMT as a statutory institution of strategic importance within the National Science, Technology, and Innovation (STI) Policy and R&D policy.

#### Corporate Strategy 1.2 – Organisational Rebranding and Structural Realignment

- Reposition ACCIMT as a multi-sectoral technology institute with distinct divisions for Electronics, Communication, Space Technology & its Applications, Robotics, IT, Photonics and Astronomy.

- Adopt a flexible, project-driven structure to accelerate innovation and inter-divisional collaboration.

**Corporate Strategy 1.3 – National-Level Integration and Coordination**

- Establish formal coordination mechanisms with the MOST, NSF, NRC and other R&D institutions to prevent duplication and enhance synergies.

**2.6.2. Innovation-Driven Research and Commercialisation**

*(Aligned with Goal 2 – Develop Commercially Viable Research and Innovation Outputs)*

**Corporate Strategy 2.1 – Commercialisation Ecosystem Development**

- Institutionalise the Technology Transfer and Commercialisation Unit (TTCU) to manage patents, licensing, and startups.
- Implement revenue-sharing models and public–private partnerships.

**Corporate Strategy 2.2 – Market-Oriented R&D**

- Prioritise R&D in high-demand areas: embedded electronic systems, space technology, remote sensing & GIS, renewable energy, robotics, AI, photonics, and other relevant modern technology domains.
- Adopt a “Research-to-Market” model that integrates innovation with commercial viability.

**Corporate Strategy 2.3 – Industry Collaboration Platforms**

- Create joint innovation platforms with the private sector and universities through PPP and consultancy models.
- Encourage industrial testing, certification, and applied research through service-based R&D contracts.

**2.6.3. Technology for National Development and Socio-Economic Transformation**

*(Aligned with Goal 3 – Deliver Applied Technology Solutions for National Priority Sectors)*

**Corporate Strategy 3.1 – Sectoral Innovation Clusters**

- Establish dedicated technologies for Agriculture, Plantation, Health, Energy, Transport, and Disaster Management.
- Promote interdisciplinary collaboration among engineers, scientists, and industry experts.

**Corporate Strategy 3.2 – Public Sector Technology Integration**

- Provide technical advisory and policy consultancy services to government ministries on technology adoption.
- Deploy ACCIMT-developed tools for environmental management, logistics, etc.

### **Corporate Strategy 3.3 – National Demonstration and Technology Adoption Programs**

- Conduct pilot projects and demonstration hubs to validate and scale new technologies for local industries and SMEs.

#### **2.6.4. Human Capital and Talent Development**

*(Aligned with Goal 4 – Build a continuous work-force of Scientists and Technologists)*

##### **Corporate Strategy 4.1 – National Talent Development Framework**

- Introduce scholarships, fellowships, CPD Programmes and internships in partnership with local and foreign universities and other institutions.
- Encourage postgraduate and PhD research through co-supervision and joint degree programs.

##### **Corporate Strategy 4.2 – Workforce Retention and Incentivisation**

- Implement merit-based promotions, performance bonuses, and recognition programmes to retain scientific talent.
- Benchmark HR policies against global best practices in research organisations.

##### **Corporate Strategy 4.3 – STEM Outreach and Professional Certification**

- Launch nationwide STEM education campaigns and certification programmes in electronics, communication, robotics, AI, and space systems.
- Integrate ACCIMT's outreach with school and university curricula through partnerships with the Ministry of Education.

#### **2.6.5. International Collaboration and Strategic Partnerships**

*(Aligned with Goal 5 – Strengthen Partnerships and International Collaboration)*

##### **Corporate Strategy 5.1 – Global Engagement and Networking**

- Expand cooperation with international agencies such as JAXA, ESA, RADI, ROSCOSMOS, CSSTEAP, ISRO and UN-APRSAF for joint R&D and capacity building.
- Position ACCIMT as Sri Lanka's official representation in global space and technology networks.

##### **Corporate Strategy 5.2 – Regional Knowledge Leadership**

- Establish ACCIMT as a Regional Centre of Excellence for the Asia-Pacific region through UN-ESCAP recognition.
- Offer training, fellowships, and collaborative research opportunities for regional scientists/engineers/technologists.

##### **Corporate Strategy 5.3 – Science Diplomacy and International Visibility**

- Enhance Sri Lanka's global image through hosting international conferences, exhibitions, and expert forums.
- Encourage publishing articles in technical journals and international bulletins

## 2.6.6. Institutional Sustainability and Governance Excellence

*(Aligned with Goal 6 – Achieve Financial Sustainability and Performance-Driven Governance)*

### **Corporate Strategy 6.1 – Hybrid Funding Model Implementation**

- Effective utilization of government grants, donor-funded projects, consultancy revenue, and commercialisation income to ensure financial stability.
- Establish a dedicated Grants & International Fund Management Unit.

### **Corporate Strategy 6.2 – Performance-Based Management**

- Introduce digital dashboards to track divisional performance.
- Link budgeting and staff incentives to measurable outcomes.

### **Corporate Strategy 6.3 – Transparency and Accountability**

- Conduct regular external audits and publish Annual Financial and Performance Reports.
- Implement open data and transparency policies to improve public trust.

## 2.6.7. Technology for Environment, Society, and Ethics

*(Aligned with Goal 7 – Apply Modern Technologies for Societal Well-being and Environmental Protection)*

### **Corporate Strategy 7.1 – Green and Ethical Innovation Framework**

- Establish an internal Sustainability and Ethics Committee to review relevant R&D projects.
- Integrate environmental and social impact assessment (ESIA) procedures into relevant new initiatives.

### **Corporate Strategy 7.2 – Digital Solutions for Sustainability**

- Expand satellite-based systems for environmental monitoring and disaster management.
- Develop AI-driven applications for water management, air quality, renewable energy planning, etc.

### **Corporate Strategy 7.3 – Inclusive and Community-Oriented Technology Deployment**

- Promote digital inclusion through rural innovation centres and community-based technology programs.
- Ensure equitable access to technology through partnerships with NGOs and local authorities.

## **2.6.8 Development of conducive organizational culture for Human Resource Development**

*(Aligned with Goal 8 – Human Capital Excellence and Organizational Culture Transformation)*

### **Corporate Strategy 8.1 - Strategic Talent Acquisition, Retention, and High-Performance Rewards Framework**

- Implement a targeted talent acquisition and retention scheme with clear competency requirements.
- Introduce merit-based compensation and accelerated promotion pathways linked to performance evaluations.

### **Corporate Strategy 8.2 - Introduce Continuous Professional Development and Capability Enhancement for the institute**

- Establish structured CPD pathways covering technical, managerial, and behavioural skills.
- Promote cross-functional learning through joint projects, job rotations where possible, and internal knowledge-sharing sessions.

### **Corporate Strategy 8.3 - Organisational Culture Transformation and Employee Engagement Ecosystem**

- Launch an institute-wide engagement platform for idea sharing, recognition, and transparent communication.
- Strengthen collaborative culture by forming cross-functional teams for priority institutional initiatives.

### **Corporate Strategy 8.4 - Strategic Leadership and Succession Continuity Development**

- Develop a leadership and succession plan with targeted training and mentoring for high-potential staff.
- Foster leadership readiness through structured role rotations (where possible) and exposure to industry and international best practices.

## **2.6.9. Cross-Cutting Institutional Strategies**

*(Supporting all eight Goals)*

### **Corporate Strategy 9.1 – Data and Digital Transformation**

- Fully digitise institutional operations using ERP and MIS systems for real-time decision-making.

### **Corporate Strategy 9.2 – Branding and Communication**

- Strengthen ACCIMT's visibility through digital media, exhibitions, and stakeholder engagement.

### **Corporate Strategy 9.3 – Monitoring and Evaluation Framework**

- Implement a results-based monitoring system aligned with national KPIs, SDGs, and institutional goals.
- Conduct annual strategic reviews and mid-term evaluations to ensure continuous improvement.

## **2.7 Summary of Expected Outcomes**

- Recognised regional hub for research excellence and technology education.
- Sustainable, ethical, and inclusive application of science and technology for national and global benefit.
- Strengthened national innovation and space-technology ecosystem.
- Financially autonomous, performance-driven, and transparent statutory institute.

# ORGANIZATIONAL INTERNAL ENVIRONMENT AND SITUATIONAL ANALYSIs

## Chapter 03



### 3.1 Purpose of the Chapter

This chapter assesses ACCIMT's internal alignment, operational resources, and institutional readiness using two complementary frameworks **7S (Structure, Systems, Staff, Skills, Style, Strategy, Shared Values)** and **7M (Men, Money, Material, Machines, Methods, Minutes, Market & Information)** to identify strengths, gaps, and reform priorities supporting the 2025–2030 Strategic Plan.

### 3.2 7S Analysis of ACCIMT

| <i>Element</i>   | <i>Current Status</i>   | <i>Strategic Direction / Reform Action</i>   |
|------------------|---|--|
| <b>Strategy</b>  | Statutory mandate under the Science & Technology Development Act (1994 / 2013) to accelerate modern technology adoption implemented through R&D, training, and industrial services.                     | Modernize strategy to position ACCIMT as the <b>National Space and Modern Technology Agency</b> ; expand to AI, renewables, and commercial innovation as outlined in the Strategic Plan. |
| <b>Structure</b> | Traditional hierarchical structure with functional divisions (Space Tech, Electronics, Applied Tech, Astronomy, Administration). Weak cross-functional integration and limited commercialization units. | Establish matrix structure linking R&D clusters with industry verticals (agriculture, defence, ICT); reinforce Technology Transfer & Commercialization Office (TTCO).                    |
| <b>Systems</b>   | Insufficient digitalization of institutional processes  | Introduce integrated ERP-based management system; adopt ISO 9001 and results-based performance dashboards for R&D and finance.   |
| <b>Staff</b>     | 84 officers (scientists, engineers, technicians, support staff); limited career progression and salary competitiveness.   | Implement talent-retention and incentive policy; launch scientist exchange programmes with JAXA, NTU, RADI China.  |
| <b>Skills</b>    | Strong technical expertise in electronics and space R&D but weak commercial, entrepreneurial, and project-management skills.  | Provide training in innovation management, IP, and business development; recruit hybrid R&D-commercial experts.  |

|   |  |  |
|---|--|--|
| <b>Style<br/>(Leadership &amp; Culture)</b> | Research-driven, bureaucratic decision-making; low risk-tolerance; limited delegation. | Promote a collaborative, results-oriented leadership culture that rewards innovation and partnerships.   |
| <b>Shared Values</b>                        | National service ethos; commitment to technological sovereignty and public benefit.    | Reinforce core values—Integrity, Innovation, Collaboration, Accountability, Sustainability—across all levels through induction and evaluation. |

### 3.3 7M Analysis of Organisational Resources

| <b>Dimension</b>                               | <b>Current Status / Observation</b>   | <b>Strategic Response / Action</b>   |
|--|---|--|
| <b>Men (Human Resources)</b>                   | Limited scientific cadre retention due to low remuneration; gaps in commercialisation and marketing skills. | Introduce competitive salary bands; establish Research Fellowship Scheme; train 100 young scientists annually.               |
| <b>Money (Finance)</b>                         | 90 % recurrent budget from government; low self-generated income.   | Implement hybrid funding model — government grants + industry consultancies + international grants + startup revenue.        |
| <b>Material</b>                                | Outdated laboratories and testing equipment in some units; limited access to new materials for R&D.         | Upgrade labs and observatories to global standards; establish shared facilities for universities and industry.               |
| <b>Machines</b>                                | Ageing computing and testing hardware; manual data systems.   | Introduce high-performance computing clusters, AI simulation tools, and cloud infrastructure for satellite data processing.  |
| <b>Methods (Process &amp; Governance)</b>      | Conventional public-sector procedures cause delays and inefficiencies.                                      | Streamline procurement and R&D approval processes; adopt lean management and agile project methods.                          |
| <b>Minutes (Time &amp; Project Efficiency)</b> | Projects experience overruns due to funding and bureaucracy.  | Introduce time-bound performance contracts with milestones and Gantt tracking systems.                                       |
| <b>Market &amp; Information</b>                | Limited market visibility and insufficient industry data for commercialisation.                             | Create Market Intelligence Unit to analyse emerging tech demand and link R&D to industry needs; strengthen digital presence. |

### 3.4 Integrated Findings

1. **Internal Alignment Gaps:** Weak coordination among divisions and absence of structured performance monitoring hinder institutional agility.
2. **Resource Constraints:** Human-capital loss and obsolete equipment are the biggest threats to innovation continuity.
3. **Governance Challenges:** Rigid public-service procedures slow response to industry demands.
4. **Opportunities:** High international credibility and existing MoUs with JAXA, Kyutech, and ROSCOSMOS provide a strong platform for reform and expansion.

### 3.5 Strategic Implications for ACCIMT

- The 7S and 7M analyses confirm that ACCIMT's mission and skills are strategically essential for Sri Lanka's modernisation, but its **systems and structure must be modernised** to achieve agility and financial sustainability.
- The Institute should transition from a “research-only” organisation to a **hybrid innovation agency**, combining fundamental and applied research with industrial commercialisation and policy advisory roles.
- Strategic reform should focus on three pillars:
  1. **People and Capabilities** – retain talent and build new skills.
  2. **Systems and Processes** – digitalise governance and monitoring.
  3. **Partnerships and Markets** – expand collaboration and commercial engagement.

## EXTERNAL ENVIRONMENT ANALYSIS

### Chapter 04



## 4.1 Introduction

The PESTEL analysis identifies the external macro-environmental factors influencing the operational context, strategic direction, and sustainability of the **Arthur C. Clarke Institute for Modern Technologies (ACCIMT)**. Given the current government reforms targeting underperforming state entities, this analysis highlights both **challenges and opportunities** for ACCIMT to reposition itself as a vital national institution that supports technological transformation, innovation, and competitiveness. Also, this section analyses the competitive and operational forces shaping ACCIMT's external environment using Porter's Five Forces framework. While ACCIMT is a statutory body, it operates in a semi-competitive environment interacting with universities, private R&D firms, and international agencies. Understanding these forces is critical for ensuring institutional survival, competitiveness, and strategic independence.

## 4.2 PESTEL Analysis

### 4.2.1 Political Environment

- **Government Reform Agenda:**

The government's ongoing public-sector restructuring aims to eliminate or amalgamate low-performing institutions. ACCIMT's inclusion in the reform list underscores the need for performance-based justification and strategic renewal. However, closure or integration under a university would diminish the nation's capacity to drive high-end technological innovation.

- **Policy Priorities:**

Sri Lanka's *National Policy Framework – “Rich Nation – Beautiful Life”* and *Ministry of Science and Technology directives* emphasize innovation-driven growth — all directly aligned with ACCIMT's core mandate.

- **Political Support for STEM:**

Policymakers increasingly recognize the importance of science, technology, and innovation (STI) for national security, education, and economic recovery. Strengthened political commitment can elevate ACCIMT's status to a *national technology authority*

- **Risks:**

Political instability, frequent leadership changes, and fiscal austerity can disrupt funding continuity and project timelines.

### 4.2.2 Economic Environment

- **Macroeconomic Constraints:**

Lack of benefits to the country from R&D investment. Therefore, national recovery plans prioritize productivity, export diversification, and technology

adoption — areas where ACCIMT can contribute directly (e.g., import substitution through local tech innovation).

- **Investment and Funding:**

With limited Treasury funding, ACCIMT must transition towards a **hybrid financing model**: leveraging consultancy services, PPPs, international grants (UN, JAXA, ESA), and commercialisation of patents.

- **Contribution to GDP and Industry:**

Modern technology applications in sectors such as agriculture, energy, health, and transport can significantly enhance national productivity. ACCIMT's innovations (tea grading systems, advanced hardware recovery of locomotives, technology solutions for plantation industry) already support import savings and job creation.

- **Opportunities:**

- Export of high-tech solutions and training services.
- Development of local technology start-ups through incubation and spin-offs.
- Foreign exchange earnings through projects and services.

#### **4.2.3 Socio-Cultural Environment**

- **Public Awareness of Science and Technology:**

Sri Lanka's general population demonstrates low engagement with advanced technology sectors. ACCIMT's ongoing STEM outreach, astronomy programs, and public exhibitions play a key role in creating a technology-literate society.

- **Human Capital Development:**

The national education system produces capable graduates but lacks pathways in applied modern technologies. ACCIMT's training programs bridge this gap, linking academic theory with industrial and practical applications.

- **Social Equity and Inclusion:**

The Institute's outreach to schools and regional communities enhances equal access to science education and supports gender inclusion in STEM.

- **Cultural Shift:**

There is a growing societal acceptance of digital solutions, AI, and automation, creating fertile ground for ACCIMT's expansion into sectors such as robotics and IoT.

#### **4.2.4 Technological Environment**

- **Global Technological Acceleration:**

Rapid advances in AI, robotics, satellite technology, and data analytics demand national institutions with capacity to absorb, adapt, and apply emerging technologies. ACCIMT is uniquely positioned to serve as Sri Lanka's technology integrator.

- **Current Capacity:**

ACCIMT operates in advanced domains such as space technology and it, electronics, and communication engineering. However, outdated infrastructure and limited R&D funding restrict scalability.

- **Digital Transformation Opportunities:**

ACCIMT can adopt digital systems for data-driven research, virtual training, and national innovation coordination. Collaboration with universities and industry can create a technology ecosystem conducive to rapid innovation.

- **Risks:**

Failure to modernize may result in technological obsolescence and loss of relevance amid global competition.

## 4.6 Ecological Environment

- **Environmental Sustainability:**

Climate change poses cross-sectoral risks to agriculture, plantation, and infrastructure. ACCIMT's remote sensing, satellite monitoring, and environmental data analysis capabilities are crucial for national resilience.

- **Green Technology Development:**

The Institute can pioneer renewable energy technologies, smart grids, and eco-monitoring tools, aligning with Sri Lanka's *Government Policy Priorities* and *UN SDG commitments*.

- **Environmental Regulations:**

Government emphasis on sustainable development provides new research areas for ACCIMT to develop low-carbon and climate-adaptive technologies.

- **Risks:**

Limited green R&D investment could slow progress on eco-technology initiatives.

## 4.7 Legal Environment

- **Statutory Mandate:**

The *Science & Technology Development Act No. 11 of 1994 (amended 2013)* provides ACCIMT with clear mandate to conduct R&D, training, and international cooperation in modern technologies.

- **Intellectual Property (IP) and Innovation Laws:**

Strengthening IP management is vital to commercialize ACCIMT's inventions and protect national innovation assets. The *National Intellectual Property Office (NIPO)* framework offers pathways for technology licensing and patent protection.

- **Regulatory Compliance:**

ACCIMT adheres to public-sector governance and audit regulations. To meet future demands, governance systems should align with rules, regulations and international standards.

- **Risks and Needs:**

Absorption under the University of Moratuwa would create legal ambiguity regarding ownership of intellectual property, staff terms, and international agreements—undermining existing treaties and MoUs with foreign partners.

The PESTEL analysis reveals that the external environment is both challenging and opportunity-rich. Political reforms and fiscal constraints necessitate institutional transformation, yet technological, ecological, and social factors strongly justify ACCIMT's continued independence. By aligning with national policies and global innovation trends, ACCIMT can reposition itself as a strategic enabler of Sri Lanka's digital, scientific, and economic future, rather than a redundant public entity.

### **4.3 Porter's Five Forces Analysis**

#### **4.3.1 Bargaining Power of Buyers (Clients and Stakeholders)**

##### **Nature of Buyers:**

ACCIMT's “buyers” include both **government ministries** (e.g., Technology, Defence, Environment, and Education) and **private-sector clients** seeking R&D, testing, and consultancy services.

##### **Current Influence:**

- High dependence on Treasury allocations gives the government significant control over budgets and project approval cycles.
- Private clients have moderate bargaining power due to limited domestic alternatives in high-end R&D.

##### **Strategic Implications:**

- ACCIMT must reduce dependency on single-source government funding by expanding paid partnerships and international projects.
- Improved visibility, service packaging, and quicker delivery can strengthen buyer confidence.

##### **Overall Assessment: Moderate to High Buyer Power**

#### **4.3.2 Bargaining Power of Suppliers**

##### **Nature of Suppliers:**

Suppliers to ACCIMT include providers of laboratory equipment, ICT systems, software tools, and scientific materials — many of which are **import-dependent** due to Sri Lanka's limited manufacturing base.

### **Current Influence:**

- Global suppliers (Japan, EU, China) hold high leverage given the niche and high-cost nature of space and electronic components.
- Local vendors are limited to secondary supply functions.

### **Mitigating Factors:**

- International collaborations (e.g., JAXA, Kyutech, ROSCOSMOS) often provide access to know-how, equipment, software, or data at minimal cost, lowering supplier dependency.

### **Strategic Implications:**

- Strengthen technology transfer agreements to include in-kind hardware/software support.
- Develop local calibration, repair, and prototyping facilities to reduce reliance on imports.

## **Overall Assessment: High Supplier Power**

### **4.3.3 Threat of Substitutes**

#### **Nature of Substitutes:**

Potential substitutes include:

- **University research centres** (e.g., at Moratuwa, Peradeniya, Ruhuna).
- **Private technology consultancies** offering niche software or IT-based innovation.
- **Foreign technology imports** filling gaps in local capability.

#### **Current Influence:**

- Universities lack the multidisciplinary R&D and commercial application capacity when compared to ACCIMT.
- Private firms focus on short-term product development rather than national-scale innovation.
- Imported technologies are costly and do not build local capacity.

#### **Strategic Implications:**

- ACCIMT must strengthen its branding as the *national modern technology institute* bridging science, innovation, and industry.

- Reinforcing a commercialization arm and patent portfolio will make substitution less viable.

**Overall Assessment: Low to Moderate Threat of Substitutes**

#### 4.3.4 Threat of New Entrants

**Nature of Entry Barriers:**

- High capital requirements for research infrastructure.
- Complex regulatory and international collaboration prerequisites.
- Need for multidisciplinary scientific expertise and long-term credibility.

**Current Influence:**

- Very few institutions in Sri Lanka possess the resources, legal mandate, or global credibility to compete in ACCIMT's domain.
- However, growing interest from universities and private startups in robotics, AI, and renewable energy could increase future competition.

**Strategic Implications:**

- ACCIMT must protect its statutory independence to prevent fragmentation of national R&D efforts.
- Building partnerships with new entrants rather than competing directly will reinforce its leadership role.

**Overall Assessment: Low Threat of New Entrants (but rising in the medium term)**

#### 4.3.5 Industry Rivalry (Competition within the Sector)

**Nature of Competition:**

- Limited direct competition exists; however, functional overlap occurs with:
  - University research units.
  - Government research institutes (ITI and NERDC).
  - Donor-funded innovation programs.

**Current Dynamics:**

- Rivalry is mostly for **budgetary allocations, policy visibility, and project recognition** rather than direct market competition.
- University researchers compete for grants but lack commercial and industrial delivery mechanisms.

### Strategic Implications:

- Collaboration, not competition, is the optimal strategy. ACCIMT should lead national consortia linking academia, industry, and the state.
- Joint branding and co-creation projects can transform perceived rivals into partners.

### Overall Assessment: Moderate Industry Rivalry

#### Strategic Interpretation and Recommendations

| <i>Force</i>           | <i>Current Strength</i> | <i>Strategic Response</i>   |
|------------------------|-------------------------|---|
| Buyer Power            | Moderate–High           | Diversify funding sources; introduce client-focused services and shorter delivery cycles.                     |
| Supplier Power         | High                    | Develop local fabrication capabilities and expand international partnerships with technology-sharing clauses. |
| Threat of Substitutes  | Low–Moderate            | Build strong IP portfolio, commercial arm, and national innovation branding.                                  |
| Threat of New Entrants | Low                     | Maintain statutory autonomy; collaborate with emerging players.   |
| Industry Rivalry       | Moderate                | Foster strategic alliances with universities and private innovators.  |

The **Five Forces analysis** indicates that while ACCIMT faces moderate pressures from buyers and suppliers, its statutory independence, niche expertise, and international credibility protect it from new entrants and substitutes.

Rather than merging with a university which would expose it to greater buyer control and reduced competitiveness ACCIMT **should position itself as Sri Lanka's central hub for applied research, commercialization, and international technology collaboration.**

Through strategic reforms in governance, financial diversification, and digital modernization, ACCIMT can transform external pressures into long-term sustainability advantages.

## PERFORMANCE REVIEW OF PAST THREE YEARS

### Chapter 05



## 5.1 Introduction

This chapter provides a comprehensive review of ACCIMT's financial and operational performance over the past three years (2022–2024). It presents an in-depth analysis of key financial outputs, operational achievements, challenges faced, and the strategic lessons learned that inform the forward-looking priorities of the Strategic Plan 2026–2030.

The performance review is structured to assess both quantitative outcomes (revenue generation, project completion, service delivery) and qualitative achievements (research impact, capacity building, institutional positioning) across all operational divisions.

## 5.2 Financial Performance Overview (2022–2024)

### 5.2.1 Revenue Generation Trends

ACCIMT has demonstrated a consistent growth trajectory in revenue generation over the past three years. Despite economic headwinds and fiscal constraints affecting the broader public sector, the Institute has successfully diversified its income streams while maintaining operational efficiency.

**Table 5.1: Three-Year Revenue Summary**

| <b>Revenue Source</b>                   | <b>2022 (LKR)</b>  | <b>2023 (LKR)</b>  | <b>2024 (LKR)</b>  |
|---|--------------------|--------------------|--------------------|
| Government Grant                        | 165,145,000        | 154,298,400        | 191,548,000        |
| Consultancy Services                    | 1,558,133          | 1,873,575          | 2,386,756          |
| Testing & Calibration                   | 6,553,420          | 8,304,696          | 4,684,860          |
| Training Programs                       | 21,283,975         | 6,844,500          | 5,065,000          |
| Lightning Protection                    | 174,975            | 1,232,803          | 1,071,253          |
| IT Services & Contracts                 | 1,064,500          | 1,549,000          | 2,000,000          |
| R&D                                     | 4,429,250          | 14,366,500         | 6,451,189          |
| Miscellaneous (Interest, premises etc.) | 12,146,780         | 12,043,521         | 8,989,541          |
| <b>Total Revenue</b>                    | <b>212,360,033</b> | <b>200,512,994</b> | <b>221,614,598</b> |

### Key Observations:

- Revenue Growth Trajectory:** Stable total revenue over the three-year period, demonstrates ACCIMT's resilience and ability to generate self-sustaining income despite economic challenges.
- Government Grant Stability:** Treasury allocations increased modestly providing a stable foundational budget while maintaining the Institute's fiscal autonomy.

3. **Consultancy Success:** Revenue from consultancy services has grown, reflecting enhanced market recognition and demand for ACCIMT's technical expertise, particularly in hardware recovery and advanced electronics.
4. **Lightning Protection Breakthrough:** The Centre for Lightning Protection achieved exceptional growth, validating the strategic investment in specialized technical services.
5. **Training Revenue Volatility:** The significant figure in 2022 includes a special program conducted to World Food Program of United Nations

### 5.2.2 Expenditure Management

ACCIMT's expenditure structure has been prudently managed, with a clear focus on cost efficiency. Operational costs have been contained within budget allocations, resulting in a gradual reduction in the operating expenditure ratio. Notable achievements include strategic resource reallocation, elimination of redundant processes, and technology-driven process enhancements.

The Institute has successfully balanced essential operational needs with strategic investments in infrastructure modernization, staff development, and technology upgrades, contributing to improved profitability and institutional sustainability.

### 5.2.3 Asset Base and Capital Investments

ACCIMT's asset base has grown strategically over the review period, reflecting targeted investments in laboratory equipment, testing facilities, and technological infrastructure.

**Table 5.2: Asset Base Evolution (2022–2024)**

| Asset Category      | 2022 (LKR)         | 2023 (LKR)         | 2024 (LKR)         | Change (%)   |
|---------------------|--------------------|--------------------|--------------------|--------------|
| Current Assets      | 151,578,861        | 178,475,760        | 205,929,280        | +35.9%       |
| Non-Current Assets  | 202,269,425        | 171,946,786        | 163,731,672        | -19.0%       |
| <b>Total Assets</b> | <b>353,848,286</b> | <b>350,422,546</b> | <b>369,660,952</b> | <b>+4.5%</b> |

#### Strategic Capital Investments (2022–2024):

- Building and Structures: LKR (2399530)
- Furniture and Office Equipment: LKR (3,159,590.20)
- Software Development LKR (8,571,986.63)
- Capacity Building: LKR (18,350.00)
- Research and Development: LKR (5,323,511.37)

The decline in non-current assets reflects scheduled depreciation of older equipment, offset by strategic acquisitions. The significant growth in current assets demonstrates improved cash flow management and operational liquidity.

## 5.3 Divisional Performance Analysis

### 5.3.1 Electronics and Microelectronics Division

**Strategic Focus:** Research and development in embedded systems, lightning protection, surge simulation, battery testing, and advanced hardware recovery.

#### Three-Year Performance Summary:

##### Research & Development Outputs:

- **2022:** Development of C10 & C20 capacity testers, personal security devices for European markets, power monitoring systems
- **2023:** Automated water tap systems for Airport & Aviation Services
- **2024:** Enhanced capacity testers with additional features

##### Consultancy and Recovery Services:

| Year | Projects Completed | Revenue (LKR) | Major Clients                                   |
|------|--------------------|---------------|---|
| 2022 | 62                 | 1,108,497     | SD&CC, Atomic Energy Board, CEB                 |
| 2023 | 66                 | 891,000       | Burgeon Solutions, UNIVOTEC, Technical Colleges |
| 2024 | 44                 | 1,988,200     | Honest Greens, CEB, RDA, SD&CC                  |

##### Testing and Measurement Services:

| Service Category       | 2022             | 2023             | 2024             | Total (3 Years)   |
|------------------------|------------------|------------------|------------------|-------------------|
| Surge Simulation       | 8                | 28               | 13               | 49                |
| Battery Testing        | 40               | 83               | 63               | 186               |
| RCCB/MCB/RCBO Testing  | 2                | 2                | 2                | 6                 |
| Switches/Outlets/Plugs | 34               | 30               | 27               | 91                |
| Other Testing          | 21               | 52               | 40               | 113               |
| <b>Total Tests</b>     | <b>105</b>       | <b>195</b>       | <b>145</b>       | <b>445</b>        |
| <b>Revenue (LKR)</b>   | <b>5,016,215</b> | <b>6,414,876</b> | <b>5,038,075</b> | <b>16,469,166</b> |

### **Lightning Protection Services:**

| <b>Year</b>  | <b>Consultancies</b> | <b>Revenue (LKR)</b> |
|--------------|----------------------|----------------------|
| 2022         | 4                    | 174,975              |
| 2023         | 9                    | 1,232,803            |
| 2024         | 15                   | 1,071,253            |
| <b>Total</b> | <b>28</b>            | <b>2,479,031</b>     |

### **Training and Capacity Building:**

| <b>Year</b>  | <b>Programs</b> | <b>Participants</b> | <b>Focus Areas</b>                          |
|--------------|-----------------|---------------------|---|
| 2022         | 2               | 30                  | Electronics fundamentals                    |
| 2023         | 5               | 105                 | Lightning protection, electronics, hardware |
| 2024         | 4               | 71                  | Electronics (Vidatha collaboration)         |
| <b>Total</b> | <b>11</b>       | <b>206</b>          | —   |

### **Infrastructure Development:**

- Commenced testing laboratory upgrades for lamp holders, USB sockets, and trailer sockets (2023)
- Established Centre for Lightning Protection with specialized equipment and trained personnel

### **Key Achievements:**

- **Breakthrough Project:** Special consultancy for Codegen on EV charger CE certification testing (2023)
- **International Collaboration:** Development of safety devices for Scandinavian markets
- **Import Substitution:** Battery testing equipment for local manufacturers
- **National Service:** Lightning protection awareness program for 53 schools in Sabaragamuwa Province

### **Challenges:**

- Testing service demand fluctuations affecting revenue consistency
- Equipment obsolescence requiring continuous investment
- Limited marketing reach for specialized services

### **Strategic Lessons:**

- Lightning protection services demonstrate high growth potential with proper positioning
- Specialized testing services require continuous accreditation and standards compliance
- Training programs need better alignment with industry certification requirements

### 5.3.2 Communication, Robotics, and Space Technology Division

**Strategic Focus:** Space technology research, nanosatellite development, advanced hardware recovery, robotics, and RF engineering.

#### Three-Year Performance Summary:

##### Space Technology Milestones:

| Year | Achievement  | International Collaboration |
|------|--|-----------------------------|
| 2022 | KITSUNE 6U Nanosatellite launched and operational    | Kyutech, JAXA               |
| 2023 | BIRDS-X Agreement signed for Dragon-Fly 2U satellite | Kyutech, JAXA               |
| 2024 | Dragon-Fly Flight Model completed and launched       | Kyutech, JAXA               |

##### Advanced Hardware Recovery (Railways):

| Year         | Systems Recovered                    | Value (LKR Million) | Impact                               |
|--------------|--------------------------------------|---------------------|--------------------------------------|
| 2022         | Class S10 & S12 driver consoles      | 15+                 | Increased operational fleets         |
| 2023         | Class M9 (872) locomotive subsystems | 18+                 | Original design restoration          |
| 2024         | 8 Class M9 locomotive subsystems     | 25+                 | Enhanced service reliability         |
| <b>Total</b> | <b>Multiple critical systems</b>     | <b>58+</b>          | <b>National transport continuity</b> |

##### Agro-Meteorological Station Deployment:

| Year         | Stations Commissioned | Client                 | Funding              |
|--------------|-----------------------|------------------------|----------------------|
| 2022         | 10                    | Tea Research Institute | ETP                  |
| 2023         | 10                    | Tea Research Institute | Sri Lanka Tea Board  |
| <b>Total</b> | <b>20</b>             | <b>TRISL</b>           | <b>Mixed funding</b> |

##### Consultancy and Testing Services:

| Year | Services Completed | Revenue (LKR) | Clients              |
|------|--------------------|---------------|----------------------|
| 2022 | 5                  | 850,000       | Industry (4 clients) |
| 2023 | 6                  | 1,100,000     | Industry (3 clients) |
| 2024 | 3                  | 750,000       | Industry (3 clients) |

### Training Programs:

| Year         | Programs  | Participants | Focus                          |
|--------------|-----------|--------------|--------------------------------|
| 2022         | 2         | 45           | Computer hardware, electronics |
| 2023         | 3         | 80           | Computer hardware, electronics |
| 2024         | 5         | 95           | Embedded systems, electronics  |
| <b>Total</b> | <b>10</b> | <b>220</b>   | —                              |

### Innovation and Product Development:

- **2024 Breakthrough:** Mechanized selective tea harvester field-deployed to TRISL, selected for national "Sahasak Nimaum" Award
- **2024 Innovation:** Radio-sonde development for import substitution (Meteorology Department)

### Internship Program:

| Year         | Interns Hosted | Partner Institutions               |
|--------------|----------------|------------------------------------|
| 2022         | 26             | Universities, technical institutes |
| 2023         | 30             | Universities, technical institutes |
| 2024         | 28             | Universities, technical institutes |
| <b>Total</b> | <b>84</b>      | <b>Multiple institutions</b>       |

### Key Achievements:

- **Space Technology Leadership:** Three successful nanosatellites establishing Sri Lanka's space credentials
- **Critical Infrastructure Support:** Railway hardware recovery saving millions in foreign exchange
- **Agricultural Innovation:** Tea harvester addressing labor shortage crisis
- **Technology Transfer:** Agro-met stations providing climate data to plantation sector
- **Award Recognition:** National-level innovation award for tea harvester

### Challenges:

- Limited funding for expanding space technology infrastructure
- Dependency on international partners for satellite launch capabilities
- Need for larger technical team to scale operations
- Revenue generation from space R&D remains limited

**Strategic Lessons:**

- Space technology requires sustained long-term investment and international collaboration
- Hardware recovery services offer immediate national value and revenue potential
- Agricultural automation represents significant commercialization opportunity
- Training programs strengthen institutional reputation and industry linkages

**5.3.3 Space Applications Division (Remote Sensing/GIS and Astronomy)**

**Strategic Focus:** Astronomical research, RS/GIS applications, capacity building, and public science education.

**Three-Year Performance Summary:****Research Publications and Recognition:**

| <i>Year</i> | <i>Number of Publications &amp; Awards</i>      |
|-------------|---|
| 2022        | 1 Presidential Award<br>2 Journal Publications  |
| 2023        | 2 Presidential Awards<br>3 Journal Publications |
| 2024        | 2 Journal Publication                           |

**RS/GIS Consultancy Projects:****2022:**

- Tea plantation monitoring project (Ministry of Plantations, TRI) - Land use maps, extent maps, hydrological analysis
- JICA socio-economic impact assessment (Major Bridges Construction Project)
- Forest degradation estimation (Forest Department)

**2023:**

- Continued forest degradation monitoring (Department of Forest Conservation)
- JICA consultancy - Madhya Pradesh Transmission System (India)
- Geospatial modelling prototype for electricity distribution (CEB)
- Agricultural impact on CKDu study (spatial evaluation)

**2024:**

- National rice yield forecasting model (Hambantota District)
- Smart urban carbon management research (AI-driven)
- JICA landslide disaster protection project evaluation

### Training and Capacity Building:

| Year         | Workshops | Participants | Focus Areas                    |
|--------------|-----------|--------------|--------------------------------|
| 2022         | 6         | 150+         | GIS, astronomy, data analysis  |
| 2023         | 5         | 200+         | Astronomy, RS/GIS applications |
| 2024         | 4         | 180+         | RS/GIS, astronomy techniques   |
| <b>Total</b> | <b>15</b> | <b>530+</b>  | —                              |

### Undergraduate Supervision and Internships:

| Year         | Research Projects | Internships |
|--------------|-------------------|-------------|
| 2022         | 2                 | 4           |
| 2023         | 3                 | 3           |
| 2024         | 3                 | 2           |
| <b>Total</b> | <b>8</b>          | <b>9</b>    |

### Public Outreach and Science Education:

#### Annual Astronomy Workshops:

- 2022: 20th Workshop - 40 participants
- 2023: 21st Workshop - 40 participants
- 2024: 22nd Workshop - 45 participants

#### Water Rocket Competitions (APRSAF):

- 2022: 70+ students participated
- 2023: 58 students participated
- 2024: 58 students participated
- **International Recognition:** 9 students selected for APRSAF international competition

#### APRSAF Poster Competition:

- 2022: 1 JAXA Special Award winner
- 2023: 3 posters submitted
- 2024: **JAXA Award winner** - Sri Lankan student poster

#### Major Public Events:

- 2024: Lunar Occultation of Saturn observation - 2,000+ participants
- 2024: Public telescope viewing sessions using 45cm Cassegrain Telescope

**Key Achievements:**

- **Research Excellence:** Three Presidential Awards for astronomy publications
- **International Recognition:** Discoveries of exoplanets enhancing Sri Lanka's astronomical reputation
- **National Applications:** RS/GIS consultancies supporting agriculture, environment, and infrastructure planning
- **Regional Leadership:** APRSAF representation elevating Sri Lanka's space education profile
- **Mass Engagement:** Large-scale public astronomy events democratizing science access

**Challenges:**

- Limited research instrumentation requiring international data access dependencies
- Revenue generation from research activities remains minimal
- Need for permanent observatory infrastructure
- Astronomical talent retention challenges

**Strategic Lessons:**

- High-quality research publications elevate institutional credibility
- RS/GIS applications offer sustainable consultancy revenue opportunities
- Public outreach programs strengthen national science culture
- International collaborations essential for astronomical research advancement

### 5.3.4 Information Technology Division

**Strategic Focus:** MIS development, mobile applications, institutional digitalization, and IT services.

**Three-Year Performance Summary:****Major System Developments:****2022:**

- Buddhist and Pali University MIS (4 modules) - Revenue: LKR 1.9M
- Agri-Cell Database (Tea Research Institute collaboration)
- In-house MIS systems (4 modules)

**2023:**

- Web-based accounting system for government universities
- Buddhist and Pali University MIS expansion (4 additional modules)
- HR Management System completed

**2024:**

- Agri-Cell Database extension (TRISL)
- QR-based fixed asset system
- Event Management System (Astronomy Division)
- Trainee Information System
- AI/Big Data competence research project

### Contractual Services and Revenue:

| <i>Year</i> | <i>Major Contracts</i>  | <i>Revenue (LKR)</i>             |
|-------------|-------------------------|----------------------------------|
| 2022        | Multiple                | Included in institutional income |
| 2023        | Universities, BPUU      | 1,900,000                        |
| 2024        | TRISL, Internal systems | 2,000,000                        |

### IT Services Delivered:

| <i>Year</i> | <i>Services</i> | <i>Scope</i>                 |
|-------------|-----------------|------------------------------|
| 2022        | 25              | Network, web, infrastructure |
| 2023        | 20              | Network, web, infrastructure |
| 2024        | 22              | Network, web, infrastructure |

### Internship Training:

| <i>Year</i>  | <i>Interns</i> |
|--------------|----------------|
| 2022         | 28             |
| 2023         | 21             |
| 2024         | 26             |
| <b>Total</b> | <b>75</b>      |

### Key Achievements:

- **Digital Transformation Enabler:** MIS systems supporting multiple government institutions
- **Revenue Generator:** Consistent income from software development services
- **Institutional Infrastructure:** Maintained robust ACCIMT network and web services
- **Capacity Building:** Trained 75+ IT professionals through internships
- **Innovation Research:** Initiated AI/Big Data competence development

### Challenges:

- Limited staff capacity constraining project scale-up
- Competition from private IT firms for talent
- Need for commercial service expansion
- Dependence on government contracts for revenue

### Strategic Lessons:

- Government institutions represent stable client base for MIS solutions
- Internal systems improve institutional efficiency and transparency
- Internship programs strengthen industry relationships
- AI/Big Data capabilities critical for future competitiveness

### 5.3.5 Industrial Services Division

**Strategic Focus:** Calibration services, light measurement services, industrial training, and equipment recovery.

#### Three-Year Performance Summary:

##### Calibration and Testing Services:

| Year         | Services   | Revenue (LKR)    | Major Clients     |
|--------------|------------|------------------|-------------------|
| 2022         | 158        | 1,230,000        | Industrial sector |
| 2023         | 127        | 1,290,000        | Industrial sector |
| 2024         | 127        | 1,690,000        | Industrial sector |
| <b>Total</b> | <b>412</b> | <b>4,210,000</b> | —                 |

##### Training Programs:

| Year         | Programs | Participants | Revenue (LKR)    |
|--------------|----------|--------------|------------------|
| 2022         | 2        | 41           | 820,000          |
| 2023         | 2        | 44           | 1,100,000        |
| 2024         | 1        | 10           | 120,000          |
| <b>Total</b> | <b>5</b> | <b>95</b>    | <b>2,040,000</b> |

##### Focus Areas:

- PLC (Programmable Logic Controllers) training
- Electro-pneumatic systems
- Precision measurement techniques
- Industrial automation fundamentals

##### Key Achievements:

- **Consistent Service Delivery:** Maintained stable calibration service volumes
- **Revenue Growth:** 37% increase in calibration income (2022-2024)
- **Industrial Partnerships:** Strengthened relationships with manufacturing sector

- **Quality Assurance:** Supported Sri Lankan industries in meeting national/international standards

**Challenges:**

- Significant decline in training revenue (2024)
- Limited marketing and outreach for industrial training programs
- Need for equipment upgrades to expand calibration parameters
- Competition from private calibration laboratories

**Strategic Lessons:**

- Calibration services offer steady revenue stream with growth potential
- Training programs require curriculum updates aligned with Industry 4.0
- Accreditation and standards compliance essential for market credibility
- Proactive marketing needed to maintain training enrolment

## 5.4 Cross-Cutting Institutional Performance

### 5.4.1 Human Resource Development

**Staff Complement Evolution:**

| Category             | 2022      | 2023      | 2024       | Approved Cadre | Vacancy Rate |
|----------------------|-----------|-----------|------------|----------------|--------------|
| Scientific/Technical | 45        | 48        | 52         | 75             | 31%          |
| Administrative       | 28        | 29        | 31         | 45             | 31%          |
| Support Staff        | 18        | 19        | 20         | 57             | 65%          |
| <b>Total</b>         | <b>91</b> | <b>96</b> | <b>103</b> | <b>177</b>     | <b>42%</b>   |

**Staff Development Initiatives:**

- Participation in international training programs (JAXA, UN-APRSAF)
- Technical skills enhancement through equipment vendor training
- Administrative capacity building through workshops
- Language and communication skills development

**Key Challenges:**

- High vacancy rate (42%) constraining operational capacity
- Recruitment delays due to public sector approval processes
- Competitive private sector salaries affecting talent attraction
- Limited retention incentives for specialized technical staff

### 5.4.2 International Collaboration

#### Strategic Partnerships:

| <i>Partner Organization</i>              | <i>Collaboration Type</i>               | <i>Outcomes (2022-2024)</i>              |
|--|---|--|
| JAXA (Japan)                             | Space technology, satellite development | 3 nanosatellites launched                |
| Kyushu Institute of Technology (Kyutech) | Satellite design, capacity building     | Technical training, joint projects       |
| ROSCOSMOS (Russia)                       | Space research collaboration            | MoU active, knowledge exchange           |
| RADI (China)                             | RS/GIS applications                     | Consultancy projects                     |
| Yunan Observatory (China)                | Astronomical research                   | Data sharing, joint publications         |
| UN-APRSAF                                | Space education, regional networking    | Water rocket competitions, poster awards |
| CSSTEAP/ISRO (India)                     | Training and capacity building          | Staff training opportunities             |

#### Key Achievements:

- Maintained active partnerships despite economic challenges
- Secured international recognition through awards and publications
- Leveraged partnerships for equipment access and technical support
- Positioned Sri Lanka as credible regional space technology player

### 5.4.3 Infrastructure and Asset Management

#### Major Infrastructure Developments (2022-2024):

- Laboratory equipment upgrades (electronics, testing facilities)
- Satellite ground station maintenance and enhancement
- IT infrastructure and network modernization
- Astronomical telescope maintenance and instrumentation
- Office and administrative facility improvements

#### Asset Management Performance:

- Maintained asset registry and tracking systems
- Implemented preventive maintenance schedules
- Optimized equipment utilization across divisions
- Secured insurance and risk mitigation coverage

#### Infrastructure Gaps Identified:

- Aging laboratory equipment requiring replacement
- Limited space for expanding operations

#### 5.4.4 Governance and Compliance

##### Audit Performance:

- Clean audit report in 2023 and 2022&2024 qualify opinion from Auditor General
- Timely financial reporting and accountability
- Compliance with public finance regulations
- Transparent procurement procedures

##### Board Governance:

- Regular Board of Governors meetings
- Strategic oversight and policy guidance
- Approval of annual operational plans and budgets
- Performance monitoring and evaluation

##### Quality Management:

- Maintenance of testing laboratory standards
- Documentation of standard operating procedures
- Quality control measures for consultancy deliverables
- Client satisfaction feedback mechanisms

### 5.5 Operational Efficiency Analysis

#### 5.5.1 Revenue per Employee with government grant

| Year | Total Revenue (LKR) | Staff Count | Revenue per Employee |
|------|---------------------|-------------|----------------------|
| 2022 | 212,360,333         | 91          | 2,333,267            |
| 2023 | 200,512,944         | 96          | 2,088,677            |
| 2024 | 221,614,598         | 103         | 2,151,598            |

#### 5.5.2 Revenue per Employee without government grant

| Year | Total Revenue (LKR) | Staff Count | Revenue per Employee |
|------|---------------------|-------------|----------------------|
| 2022 | 47,215,033          | 91          | 518,847              |
| 2023 | 46,214,594          | 96          | 481,402              |
| 2024 | 30,066,598          | 103         | 291,909              |

**Analysis:** Revenue per employee remained relatively stable, indicating consistent productivity despite expanding staff numbers. The slight decline in 2024 suggests need for enhanced commercial focus and service expansion.

### 5.5.3 Project Completion Rate

#### **Research Projects:**

- Average completion rate: 85% (on-time delivery)
- Notable delays in equipment-dependent projects due to procurement challenges
- Strong track record in satellite development projects (100% completion)

#### **Consultancy Projects:**

- Completion rate: 92%
- High client satisfaction ratings
- Repeat business from major clients (CEB, Railways, Tea Research Institute)

### 5.5.3 Service Delivery Metrics

#### **Testing and Calibration Services:**

- Average turnaround time: 7-10 days
- Customer satisfaction: 88%
- Repeat client rate: 75%

#### **Training Programs:**

- Participant satisfaction: 90%+
- Industry recognition of certification
- Limited marketing affecting enrolment

## 5.6 Challenges Encountered (2022-2024)

### 5.6.1 Financial Constraints

- Limited capital budget for equipment modernization
- Delays in government fund releases affecting cash flow
- Foreign exchange restrictions impacting imported equipment procurement
- Revenue volatility in training programs

### 5.6.2 Human Resource Challenges

- High vacancy rate (42%) limiting operational capacity
- Difficulty in attracting and recruiting specialized technical talent due to salary constraints
- Brain drains of trained staff to private sector and overseas opportunities
- Limited capacity building budget for continuous professional development

### 5.6.3 Infrastructure Limitations

- Aging laboratory equipment affecting service quality
- Insufficient space for expanding operations
- Limited ICT infrastructure for advanced research applications
- Need for dedicated facilities (biomedical recovery, robotics center)

#### **5.6.4 Market and Positioning Challenges**

- Limited public awareness of ACCIMT's capabilities
- Weak marketing and business development capacity
- Competition from public and private institutions
- Bureaucratic processes affecting service responsiveness

#### **5.6.5 External Environment**

- Economic crisis affecting client budgets and payment capacity
- Government restructuring proposals creating institutional uncertainty
- Import restrictions limiting equipment and spare parts access
- COVID-19 pandemic impacts and economic crisis (2022 residual effects)

### **5.7 Strategic Successes and Lessons Learned**

#### **5.7.1 Key Successes**

##### **Space Technology Leadership:**

- Successful launch and operation of three nanosatellites
- International recognition and credibility enhancement
- Capacity building of local technical team
- Foundation for future space applications development

##### **Revenue Diversification:**

- Growth in consultancy income
- Growth in lightning protection services
- Stable testing and calibration revenue stream

##### **Research Excellence:**

- Three Presidential Awards for research publications
- International peer-reviewed publications
- Exoplanet discoveries elevating institutional reputation
- National-level innovation award (tea harvester)

##### **National Service Delivery:**

- Railway hardware recovery saving foreign exchange
- Agricultural innovation addressing national challenges
- Lightning protection services enhancing public safety
- Climate data supporting plantation sector

##### **Capacity Building:**

- 530+ professionals trained in RS/GIS and astronomy
- 220+ participants in communication technology training
- 206+ electronics and automation trainees
- 75+ IT internships completed

### 5.7.2 Strategic Lessons Learned

1. **Financial Sustainability Requires Diversification:** Overreliance on government funding creates vulnerability; commercial services and international grants essential.
2. **International Collaboration is Force Multiplier:** Partnerships with JAXA, ROSCOSMOS, and RADI enable capabilities beyond institutional resources.
3. **Applied Research Drives Relevance:** Projects directly addressing national challenges (railway recovery, tea harvester) generate greatest impact and recognition.
4. **Service Quality Determines Market Position:** Consistent delivery and client satisfaction drive repeat business and reputation building.
5. **Human Capital is Critical Asset:** Staff expertise and continuity essential for institutional credibility; retention strategies must be priority.
6. **Marketing and Visibility Matter:** Excellent capabilities remain underutilized without effective promotion and stakeholder engagement.
7. **Infrastructure Investment Enables Growth:** Modernization of laboratories and equipment directly correlates with service expansion and revenue generation.
8. **Institutional Independence Supports Agility:** Statutory autonomy enables international partnerships, industry collaborations, and commercial innovation that would be constrained under university structure.

## 5.8 Performance Against National Development Priorities

### 5.8.1 Contribution to National Policy Frameworks

#### **"Rich Nation - Beautiful Life" Policy Framework:**

- Technology solutions supporting agricultural productivity
- Innovation contributing to import substitution
- STEM education strengthening human capital
- Environmental monitoring supporting sustainability

#### **Science, Technology, and Innovation Policy:**

- R&D infrastructure strengthening national capacity
- Technology transfer supporting industrial competitiveness
- International collaboration enhancing knowledge access
- Talent development building innovation ecosystem

## 5.8.2 Sustainable Development Goals (SDGs) Alignment

| <i>SDG</i>                   | <i>ACCIMT Contribution</i>       | <i>Evidence</i>            |
|------------------------------|----------------------------------|----------------------------|
| <b>Direct Contribution</b>   |                                  |                            |
| SDG 4: Quality Education     | STEM outreach, training programs | 800+ participants trained  |
| SDG 9: Industry, Innovation  | R&D, technology transfer         | 100+ consultancy projects  |
| <b>Indirect Contribution</b> |                                  |                            |
| SDG 11: Sustainable Cities   | Urban planning, GIS applications | CEB, urban carbon studies  |
| SDG 13: Climate Action       | Agro-met stations, RS monitoring | 20 stations deployed       |
| SDG 17: Partnerships         | International collaboration      | JAXA, ROSCOSMOS, UN-APRSAF |

## SWOT ANALYSIS

# Chapter 06



## 6.1 Introduction

This chapter presents a comprehensive *SWOT analysis* - evaluating the **Strengths, Weaknesses, Opportunities, and Threats** that influence the current and future performance of the Arthur C. Clarke Institute for Modern Technologies (ACCIMT).

The analysis integrates internal diagnostic findings from the 7S and 7M frameworks and external insights from the PESTEL assessment, enabling a holistic understanding of ACCIMT's strategic position within Sri Lanka's technological and policy ecosystem.

## 6.2 Strengths (Internal Positive Factors)

| <i>Key Strength Area</i>                                 | <i>Description and Strategic Implication</i>   |
|--|--|
| <b>1. Unique Statutory Mandate</b>                       | ACCIMT is the <i>only national institute</i> legally empowered under the <i>Science &amp; Technology Development Act No. 11 of 1994 (as amended 2013)</i> to conduct R&D, training, and technology transfer in modern technologies. This legal independence provides a clear national mission that cannot be replicated by universities. |
| <b>2. Multidisciplinary Technical Expertise</b>          | Possesses skilled scientists and engineers across domains—electronics, space technology, robotics, photonics, and ICT—enabling cross-sectoral innovation.  |
| <b>3. International Partnerships</b>                     | Long-standing collaborations with <b>JAXA and Kyutech (Japan)</b> , <b>RADI (China)</b> , <b>ROSCOSMOS (Russia)</b> , <b>YUNAN Observatory (China)</b> and <b>UN-Agencies</b> position ACCIMT within a global scientific network.  |
| <b>4. Proven National Contributions</b>                  | Delivered impactful innovations such as the <b>Raavana-1</b> , <b>KITSUNE</b> , <b>Dragonfly satellite</b> , <b>tea colour grading system</b> , <b>automotive battery testing equipment</b> and <b>automated weather stations</b> , demonstrating relevance to key national sectors.   |
| <b>5. National STEM Outreach</b>                         | Recognised leader in science popularisation and education through astronomy programs, workshops, and school visits—building public scientific literacy.  |
| <b>6. Low Operational Cost-to-Impact Ratio</b>           | Compared to large ministries and universities, ACCIMT delivers significant R&D and outreach outcomes on a lean budget, demonstrating fiscal efficiency.  |
| <b>7. Institutional Integrity &amp; Audit Compliance</b> | Strong record of compliance with the Auditor General and public-sector regulations ensures transparency and credibility.   |

### 6.3 Weaknesses (Internal Negative Factors)

| Weakness Area                                | Description and Implication  |
|--|--|
| <b>1. Limited Financial Sustainability</b>   | Over-dependence on Treasury allocations (~90% of total budget); limited self-generated revenue through consultancies or commercialisation. |
| <b>2. Ageing Infrastructure</b>              | Laboratories, observatories, and computing systems require urgent modernisation to meet global R&D standards.                              |
| <b>3. Human Capital Retention Issues</b>     | Difficulty retaining high-skilled scientists due to public-sector pay scales and lack of competitive incentives.                           |
| <b>4. Weak Commercialisation Mechanisms</b>  | Absence of a dedicated <b>Technology Transfer &amp; Commercialisation Unit (TTCU)</b> to monetise R&D outputs and patents.                 |
| <b>5. Inadequate Visibility and Branding</b> | Limited public awareness of ACCIMT's work beyond the scientific community; weak media and digital communication presence.                  |
| <b>6. Bureaucratic Constraints</b>           | Centralised administrative procedures slow decision-making and innovation agility.   |
| <b>7. Skill Gaps in Business Development</b> | Staff possess strong technical knowledge but limited capacity in IP management, marketing, and project negotiation.                        |

### 6.4 Opportunities (External Positive Factors)

| Opportunity Area   | Strategic Relevance  |
|--|--|
| <b>1. National Digital Economy Drive</b>                 | The government's <i>Digital Sri Lanka 2030</i> and <i>National Innovation &amp; Entrepreneurship Strategy</i> prioritise technology-led development—directly aligning with ACCIMT's mission. |
| <b>2. Global Collaboration &amp; Technology Transfer</b> | Growing interest among international partners to collaborate on low-cost satellite missions, space data analysis, and renewable technologies.  |
| <b>3. Private-Sector Demand for Technology Solutions</b> | Expanding industrial automation, smart manufacturing, and ICT sectors create new markets for ACCIMT's R&D services and consultancy offerings.  |

| <i>Opportunity Area</i>                              | <i>Strategic Relevance</i>   |
|--|--|
| <b>4. Educational and Training Demand</b>            | Increasing need for STEM and advanced technical skills provides opportunities for ACCIMT to offer professional courses and certifications.                               |
| <b>5. Climate and Environmental Technologies</b>     | Rising climate risks create national demand for satellite monitoring, IoT-based weather analytics, and green innovations—ACCIMT already has capabilities in these areas. |
| <b>6. Funding Opportunities from Global Agencies</b> | Access to funding through UNDP, JAXA, EU Horizon, and Asia-Pacific space cooperation platforms for sustainable technology projects.                                      |
| <b>7. Potential for PPPs and Industry Consortia</b>  | New government frameworks encourage public-private partnerships; ACCIMT can become a technology interface for such collaborations.                                       |

## 6.5 Threats (External Negative Factors)

| <i>Threat Area</i>                                      | <i>Impact / Implication</i>   |
|---|---|
| <b>1. Proposed Institutional Integration</b>            | Integration under the University of Moratuwa would eliminate statutory independence, restrict international collaborations, and dilute industrial R&D mandates. |
| <b>2. Fiscal Austerity Policies</b>                     | Ongoing economic reforms may reduce Treasury allocations, threatening operational stability.  |
| <b>3. Technological Obsolescence</b>                    | Rapid global innovation cycles risk making existing research infrastructure and skills outdated.  |
| <b>4. Brain Drain and Talent Migration</b>              | High-performing scientists and engineers are being drawn to the private sector and foreign opportunities.   |
| <b>5. Competitive Academic Landscape</b>                | Emerging university research centres could duplicate functions, creating overlap and funding competition.   |
| <b>6. Policy Discontinuity</b>                          | Political turnover and shifting ministerial oversight can disrupt strategic consistency.  |
| <b>7. Limited Public Understanding of ACCIMT's Role</b> | Misconceptions about ACCIMT's function as "duplicative" or "academic" pose reputational risks amid reform narratives.   |

## 6.6 SWOT Matrix Summary

| <i>Strengths (S)</i>   | <i>Weaknesses (W)</i>                                  |
|--|--|
| 1. Statutory independence under the Science & Technology Act.          | 1. Heavy reliance on Treasury funding.                 |
| 2. Multidisciplinary expertise in advanced technology domains.         | 2. Ageing infrastructure and limited digital systems.  |
| 3. International partnerships with JAXA, Kyutech, ROSCOSMOS, and RADI. | 3. Weak staff retention and limited incentive schemes. |
| 4. Proven national impact through applied innovations.                 | 4. Lack of dedicated commercialisation unit (TTCO).    |
| 5. National STEM education outreach and public trust.                  | 5. Limited marketing and stakeholder visibility.       |

| <i>Opportunities (O)</i>                                      | <i>Threats (T)</i>  |
|---|---|
| 1. Digital Sri Lanka 2030 and national tech policy reforms.   | 1. Government proposal to merge under University of Moratuwa. |
| 2. Expanding private-sector demand for R&D partnerships.      | 2. Fiscal tightening and reduced public R&D budgets.          |
| 3. Global funding and technology collaboration opportunities. | 3. Rapid global innovation cycles creating obsolescence risk. |
| 4. Rising environmental technology needs.                     | 4. Brain drain and staff migration.                           |

## 6.7 Strategic Interpretation

### 1. Leverage Strengths to Exploit Opportunities (SO Strategy):

- Use international partnerships and technical expertise to align with national innovation policies and secure foreign-funded R&D projects.
- Build upon statutory independence to attract private-sector contracts and international collaborations.

### 2. Use Strengths to Mitigate Threats (ST Strategy):

- Promote ACCIMT's national and international achievements to counter integration arguments.
- Use the legal mandate and existing MoUs to preserve institutional independence.

### 3. Overcome Weaknesses through Opportunities (WO Strategy):

- Use PPPs and foreign grants to modernize infrastructure and reduce Treasury dependency.
- Introduce revenue-generating training programs to strengthen financial autonomy.

#### 4. Defend Against Threats and Weaknesses (WT Strategy):

- Develop a communication strategy to increase public and political awareness of ACCIMT's value.
- Implement digital performance systems and governance reforms to enhance transparency and accountability.

### 6.8 Conclusion

The SWOT analysis confirms that **ACCIMT possesses unique institutional, technical, and statutory strengths that directly support Sri Lanka's transition toward a modern, innovation-driven economy.**

While financial, human-resource, and governance challenges exist, they are **manageable through strategic reform rather than structural dissolution.**

Integration under the University of Moratuwa would not only dilute ACCIMT's legal and operational mandate but also weaken the national innovation system.

Hence, the **Strategic Plan 2025–2030** must capitalise on ACCIMT's strengths, address internal weaknesses through reform, and harness emerging opportunities in technology, education, and sustainability to ensure its continued relevance and independence.

# ARRANGEMENTS FOR IMPLEMENTATION

## Chapter 07



## 7.1 Introduction

Effective implementation is the cornerstone of the Strategic Plan (2026–2030) of the Arthur C. Clarke Institute for Modern Technologies (ACCIMT).

This chapter outlines the institutional mechanisms, operational systems, resource management structures, and performance-monitoring frameworks required to ensure that the strategic goals are achieved efficiently, effectively, and economically, while guaranteeing the long-term survival, growth, and sustainability of the Institute.

The implementation approach is guided by:

- **Results-Based Management (RBM)** principles;
- **Transparency and accountability** in governance;
- **Collaborative partnerships** with local and international stakeholders;
- **Sustainability orientation**, balancing innovation, fiscal discipline, and national relevance.

## 7.2 Institutional Implementation Framework

ACCIMT will implement its Strategic Plan through a **multi-tiered institutional mechanism** that links strategic direction with operational execution:

| <i>Level</i>                                     | <i>Entity / Function</i>  | <i>Core Responsibilities</i>  |
|--|---|---|
| <b>Tier 1 – Strategic Oversight</b>              | <b>Board of Governors</b>   | Policy direction, resource allocation, strategic approvals, monitoring institutional performance.                                     |
| <b>Tier 2 – Executive Management</b>             | <b>Director General &amp; Senior Management Committee</b>                         | Translating strategic goals into annual operational plans, budgeting, coordination with ministries, and institutional representation. |
| <b>Tier 3 – Divisional Implementation Units</b>  | <b>Core Divisions (Space, Electronics, ICT, Photonics, Robotics, HR, Finance)</b> | Executing specific projects, reporting quarterly progress, and maintaining cross-division collaboration.                              |
| <b>Tier 4 – Project Execution Teams</b>          | <b>Task Forces / Project Leads</b>  | Managing individual projects under each strategic goal, ensuring deliverables and compliance with timelines.                          |
| <b>Tier 5 – Monitoring &amp; Evaluation Unit</b> | <b>Strategic Planning &amp; Performance Division</b>                              | Continuous performance tracking, impact evaluation, and reporting to the Governing Council and the Ministry.                          |

A **Strategic Implementation Secretariat (SIS)** will be established within the Planning Division to coordinate cross-cutting initiatives, partnerships, and performance audits.

### 7.3 Implementation Phasing (2025–2030)

ACCIMT's strategic plan will be implemented in **three progressive phases**, aligning with institutional capacity and external funding cycles:

| Phase   | Timeframe | Focus Areas  |
|---|-----------|--|
| <b>Phase I – Stabilisation &amp; Capacity Enhancement</b> | 2025–2026 | Institutional reform, financial stabilisation, staff recruitment, infrastructure upgrades, and technology modernization.                         |
| <b>Phase II – Expansion &amp; Innovation</b>              | 2027–2028 | Launch of new research clusters, commercialisation of innovations, and industry partnerships.  |
| <b>Phase III – Consolidation &amp; Global Positioning</b> | 2029–2030 | Strengthening international collaborations, self-sustaining financial model, and policy integration with national and global technology agendas. |

Each phase will culminate in a **Mid-Term Evaluation (MTE)** and **End-Term Review (ETR)** conducted by internal and external evaluators.

### 7.4 Operational Efficiency and Resource Management

ACCIMT will enhance operational efficiency through:

- 1. Process Re-engineering:**
  - Streamlining administrative and financial workflows via ERP-based automation.
  - Reducing duplication of functions and improving coordination between research and support divisions.
- 2. Human Resource Optimization:**
  - Establishing a **Performance-Based Incentive Framework** to link outputs with rewards.
  - Introducing structured career development, training, and retention schemes.
- 3. Financial Resource Allocation:**
  - Adopting **Activity-Based Budgeting (ABB)** to ensure funding aligns with measurable results.
  - Prioritising hybrid income streams: government grants, consultancy, commercialisation, and international projects.
- 4. Procurement and Asset Utilisation:**
  - Applying transparent e-procurement systems and lifecycle management for high-value equipment.
  - Maximising use of laboratories and observatories through shared access with academia and industry partners.

## 7.5 Stakeholder Engagement and Collaboration

Implementation success depends on effective partnerships.

ACCIMT will maintain structured engagement with key stakeholders:

| <i>Stakeholder Group</i>   | <i>Engagement Modality</i>                           | <i>Expected Outcome</i>                        |
|--|--|--|
| <b>Government Ministries &amp; Agencies</b>                      | Joint policy formulation, advisory committees        | Alignment of research with national priorities |
| <b>Universities &amp; Research Institutions</b>                  | Co-funded projects, technology transfer, internships | Strengthened academic–industry linkage         |
| <b>Private Sector &amp; Industry Associations</b>                | PPP and consultancy models                           | Revenue generation and practical innovation    |
| <b>International Partners (e.g., JAXA, RADI, NTU, UN-APRSAF)</b> | MoUs, joint missions, secondments                    | Enhanced visibility and technology exchange    |
| <b>Public &amp; Community Stakeholders</b>                       | Outreach, exhibitions, citizen science               | Increased societal trust and science awareness |

## 7.6 Performance Monitoring and Evaluation Framework

A **Results-Based Monitoring and Evaluation (M&E) Framework** will ensure accountability and continuous improvement:

| <i>Monitoring Type</i>           | <i>Frequency</i> | <i>Responsibility</i>      | <i>Output</i>                                    |
|----------------------------------|------------------|----------------------------|--|
| <b>Quarterly Review</b>          | Every 3 months   | Divisional Heads           | Progress dashboards and variance analysis        |
| <b>Mid-Term Review (MTR)</b>     | Year 3 (2027)    | External Review Team       | Assessment of strategic direction and efficiency |
| <b>Annual Review</b>             | Annually         | Director General & Council | Performance report to the Ministry               |
| <b>End-Term Evaluation (ETE)</b> | Year 5 (2030)    | Independent Evaluator      | Final impact and sustainability report           |

Performance will be assessed using **Key Performance Indicators (KPIs)** including:

- Number of R&D projects commercialised
- Revenue generated from non-government sources
- International collaborations established
- Training programs delivered and beneficiaries reached
- Public engagement and outreach metrics

## 7.7 Risk Management and Contingency Planning

To safeguard implementation, ACCIMT will adopt an **Enterprise Risk Management (ERM)** framework, identifying strategic and operational risks such as:

- Funding shortfalls
- Talent attrition
- Equipment obsolescence
- Policy discontinuity
- Global partnership disruptions

Mitigation measures include establishing a **Contingency Fund**, flexible project reprioritisation, and digital continuity systems (cloud-based backups, remote work protocols).

## 7.8 Reporting, Communication, and Transparency

- Quarterly progress reports to the **Governing Council** and **Ministry of Technology**.
- Annual **Performance & Financial Statements** publicly released for transparency.
- Internal communication via an **Institutional Dashboard**, linking project data to KPIs.
- External communication through policy briefs, media publications, and international conferences.

## 7.9 Sustainability Assurance

Long-term survival and sustainability will be reinforced by:

- Embedding **financial independence** through commercialisation, consultancy, and international projects.
- Institutionalising **good governance** through ISO-aligned quality management and annual audits.
- Promoting **knowledge continuity** through capacity building and documentation of institutional memory.
- Aligning with the **United Nations Sustainable Development Goals (SDGs)** and national policy frameworks for science, technology, and innovation.

## 7.10 Conclusion

The success of the Strategic Plan depends on disciplined implementation, collective ownership, and adaptive management.

ACCIMT's structured governance model, coupled with a robust monitoring and evaluation framework, will ensure **effective delivery of outcomes, optimal use of resources**, and **sustained institutional growth**.

The plan's implementation will reaffirm ACCIMT's role as **Sri Lanka's national engine for technological innovation and space capability development**, ensuring resilience, relevance, and self-sufficiency in the years ahead.

# STRATEGIC REVIEW, EVALUATION AND CONTROL

## Chapter 08



## 8.1 Introduction

Continuous review, evaluation, and adaptive control are fundamental to the success of the Strategic Plan (2026–2030) of the Arthur C. Clarke Institute for Modern Technologies (ACCIMT).

Given the dynamic technological, economic, and policy environment, ACCIMT’s strategy must remain agile, data-driven, and outcome-oriented.

This chapter defines the institutional systems for **performance evaluation, corrective control, and strategic adaptation** to ensure sustained efficiency, effectiveness, and economy in all activities.

## 8.2 Purpose of Strategic Review and Evaluation

The purpose of this review and evaluation framework is to:

- Monitor the **progress and alignment** of institutional initiatives with strategic goals.
- Evaluate the **efficiency and effectiveness** of resource use and programme implementation.
- Provide evidence-based feedback for **decision-making and continuous improvement**.
- Identify deviations from expected results and recommend **corrective and preventive actions**.
- Ensure that ACCIMT remains aligned with **national priorities and global technology trends**.

## 8.3 Strategic Review Mechanism

ACCIMT will adopt a **tiered strategic review system** that combines periodic performance monitoring, independent evaluation, and participatory feedback.

| <b>Review Level</b>                              | <b>Frequency</b> | <b>Responsible Unit</b>                   | <b>Purpose / Output</b>  |
|--|------------------|---|--|
| <b>Quarterly Operational Reviews</b>             | Every 3 months   | Division Heads & Director General         | Track progress on action plans and KPIs; identify variances.                 |
| <b>Bi-Annual Strategic Coordination Meetings</b> | Twice per year   | Strategic Planning & Performance Division | Assess strategic coherence and cross-divisional synergies.                   |
| <b>Annual Institutional Performance Review</b>   | Annually         | Board of Governors                        | Approve performance reports; align next-year priorities and budgets.         |
| <b>Mid-Term Strategic Review (MTR)</b>           | Year 3 (2027)    | External Evaluators                       | Evaluate overall plan progress, effectiveness, and stakeholder satisfaction. |

| <i>Review Level</i>              | <i>Frequency</i> | <i>Responsible Unit</i>          | <i>Purpose / Output</i>   |
|----------------------------------|------------------|----------------------------------|---|
| <b>End-Term Evaluation (ETE)</b> | Year 5 (2030)    | Independent Evaluation Committee | Assess long-term impact, institutional sustainability, and lessons learned. |

Each review cycle will produce a **Strategic Performance Report (SPR)** consolidating quantitative and qualitative findings, supported by evidence from divisions and projects.

## 8.4 Evaluation Framework

The evaluation process will follow the **Results-Based Management (RBM)** methodology, ensuring that all interventions are linked to outcomes and impacts.

| <i>Evaluation Dimension</i> | <i>Key Questions</i>   | <i>Indicators / Criteria</i>                                  |
|-----------------------------|--|---|
| <b>Relevance</b>            | Does each activity align with ACCIMT's vision and national development priorities? | Policy alignment, stakeholder needs.                          |
| <b>Efficiency</b>           | Are resources (human, financial, time) used optimally?                             | Cost per output, budget utilisation, staff productivity.      |
| <b>Effectiveness</b>        | Are planned objectives and results achieved?                                       | Target achievement rate, KPI fulfilment.                      |
| <b>Impact</b>               | What broader changes have resulted from ACCIMT's work?                             | Contribution to GDP, innovation outputs, technology adoption. |
| <b>Sustainability</b>       | Can results be maintained beyond the plan period?                                  | Funding continuity, institutional resilience, partnerships.   |

Findings will inform the next phase of strategic and operational planning, ensuring continuous learning and adaptability.

## 8.5 Control Systems for Implementation Efficiency

ACCIMT will apply both **preventive** and **corrective control mechanisms** to ensure accountability and high performance:

- 1. Performance-Based Management System (PBMS):**
  - Establish Key Performance Indicators (KPIs) for all divisions.
  - Integrate digital dashboards for real-time progress monitoring.
  - Link staff performance appraisal with strategic outcomes.
- 2. Budgetary Control and Audit Framework:**
  - Introduce **zero-based budgeting (ZBB)** for new projects.
  - Conduct **quarterly expenditure audits** and variance analysis.
  - Implement ISO-aligned internal control systems for procurement and finance.

### 3. Operational Control Measures:

- Define Standard Operating Procedures (SOPs) for R&D, administration, and finance.
- Institute quality assurance through **international standard certification** for key operations.
- Maintain project documentation and audit trails for transparency.

### 4. Leadership and Accountability:

- The Director General holds ultimate responsibility for plan execution.
- Division Heads are accountable for their KPIs and resource performance.
- The Board of Governors provides oversight, approves corrective actions, and ensures policy compliance.

## 8.6 Change Management Framework

Recognising the rapidly evolving global technology landscape, ACCIMT will institutionalise a **Change Management System** to ensure adaptive strategy execution.

| <i>Aspect</i>                            | <i>Change Management Actions</i>  |
|--|---|
| <b>Technological Changes</b>             | Continuous technology scanning, annual innovation agenda updates, and partnerships with leading global tech agencies. |
| <b>Organisational Culture</b>            | Promote innovation, teamwork, and accountability through leadership development and communication.                    |
| <b>Structural Reforms</b>                | Strengthen research-commercialisation linkages, streamline divisions, and introduce agile project management units.   |
| <b>Human Resource Development</b>        | Implement regular training, mentoring, and international exposure programmes.   |
| <b>Policy and Governance Adjustments</b> | Update internal regulations to reflect changes in national science, technology, and innovation policy.                |

All change initiatives will be reviewed annually by the **Strategic Planning & Performance Division**, which will act as the institutional change coordination unit.

## 8.7 Feedback and Learning Loop

Continuous feedback **and learning system** will link evaluation results with strategic adjustments:

- Annual reflection workshops with all staff and stakeholders.
- Knowledge-sharing platforms documenting lessons learned.
- Revision of objectives and indicators based on evidence.
- Incorporation of stakeholder feedback into next-year planning.

This approach fosters a culture of **learning, innovation, and continuous improvement**.

## **8.8 Communication and Transparency**

- Disseminate performance reports to the **Ministry of Science & Technology**, partners, and the public.
- Publish annual achievements on ACCIMT's official website and in science-policy journals.
- Engage media and academia through briefings and national technology forums.
- Maintain internal communication through monthly progress meetings and digital dashboards.

## **8.9 Institutional Sustainability through Strategic Control**

Long-term survival and sustainability will be ensured through:

- Alignment of results-based performance with national development indicators.
- Integration of financial, operational, and human resource controls.
- Evidence-based policy advocacy to secure continued government and international support.
- Regular review of partnerships and diversification of funding mechanisms.

## **8.10 Conclusion**

Strategic review, evaluation, control, and change are not administrative formalities they are mechanisms of institutional transformation.

Through disciplined implementation, data-driven evaluation, and adaptive leadership, ACCIMT will strengthen its position as **Sri Lanka's national hub for modern technology, innovation, and space development**, ensuring efficiency, accountability, and sustainability for decades to come.

**LONG-TERM GOAL 1**  
**POSITION ACCIMT AS SRI LANKA'S NATIONAL CENTRE FOR SPACE AND MODERN TECHNOLOGIES**

**Table I.1.1 Establish ACCIMT as the statutory apex body for space technology, robotics, advanced embedded electronics, ICT and AI**

| <i>Component</i>                            | <i>Description</i>  |
|---|---|
| <b>Objective</b>                            | Establish ACCIMT as the statutory apex body for space technology, robotics, advanced embedded electronics, ICT and AI   |
| <b>Strategy</b>                             | 1. Advocate for policy recognition through relevant ministries<br>2. Develop a National Framework for emerging technologies (Space Technologies)  |
| <b>Program / Project / Activity</b>         | 1. Formulation of a Cabinet-approved proposal<br>2. Establishment of a Steering Committee on space technology domains   |
| <b>Performance Indicator</b>                | 1. Cabinet approval obtained<br>2. Number of stakeholder consultations conducted, MOUs  |
| <b>Time Period (Months/Years)</b>           | 1. Approved proposal 2026-2027<br>2. Steering committee establishment and progress 2027-2029  |
| <b>Desired Performance Targets (Output)</b> | 1. National policy framework on space technology and modern technologies finalized<br>2. Five MOUs signed   |
| <b>Budget Allocation</b>                    | LKR 10M (each year)   |
| <b>Other Inputs Required</b>                | Policy coordination with Ministry of Education (Universities), Ministry of Science and Technology, Ministry of Defence, Ministry of Foreign Affairs. Technical input from domain experts  |
| <b>Coordinating Responsibilities</b>        | 1. Director Communications, Space Technology, Robotics Division, ACCIMT<br>2. Collaborating Partners:<br>2.1. Universities of Colombo, Sri Jayawardenapura, Peradeniya, Ruhuna, Jaffna, Moratuwa, etc.<br>2.2. Ministry of Science and Technology, National Science Foundation (NSF), Sri Lanka Air force, Sri Lanka Navy<br>2.3. International Institutes/Universities (Kyutech, SNRU, CSSTEAP)<br>2.4. International Space Agencies (ROSCOSMOS, JAXA, PhilSA, ISRO) |
| <b>Expected Outcome</b>                     | Legal and institutional recognition as the apex body<br>1. Enhanced authority to coordinate national programs in space (Nano satellite developments) and modern technologies.<br>2. Greater funding and international collaboration opportunities.  |

**Table I.1.2 Details of establishing IT infrastructure for the satellite data repository and distribution center.**

| <i>Component</i>                            | <i>Details</i>  |
|---|---|
| <b>Objective</b>                            | Establish IT infrastructure for the satellite data repository and distribution centre.  |
| <b>Strategy</b>                             | Developing IT Infrastructure using Capital Budget Allocation at the initial stage and using internal expertise  |
| <b>Program / Project / Activity</b>         | <ol style="list-style-type: none"> <li>1. Prepare proposal and get governing board approval</li> <li>2. Maintain and upgrade existing internal infrastructure.</li> <li>3. Integration digital operations of the National Satellite Ground Station and Innovation Hub.</li> <li>4. Develop and deploy MIS systems for internal management.</li> <li>5. Ensure cyber security, data protection, and system reliability.</li> </ol> |
| <b>Performance Indicator</b>                | <ol style="list-style-type: none"> <li>1. Sound IT Infrastructure by 2027</li> <li>2. Network uptime and service reliability (&gt; 98%).</li> <li>3. Number of MIS modules developed and in operation.</li> <li>4. User satisfaction and support response rate.</li> </ol>  |
| <b>Time Period (Months/Years)</b>           | <ol style="list-style-type: none"> <li>1. Prepare proposal - 2026</li> <li>2. Upgrade existing internal infrastructure - 2026</li> <li>3. Integration digital operations of the National Satellite Ground Station- 2028</li> <li>4. Develop and deploy MIS systems for internal management - 2028</li> <li>5. Ensure cybersecurity, data protection, and system reliability- 2028</li> </ol>                                      |
| <b>Desired Performance Targets (Output)</b> | <ol style="list-style-type: none"> <li>1. Full-scale digital infrastructure for ACCIMT operations by 2027.</li> <li>2. At least 3 MIS systems developed and integrated by 2030.</li> </ol>  |
| <b>Budget Allocation</b>                    | LKR 10M annually  |
| <b>Other Inputs Required</b>                | IT staff, maintenance contracts.  |
| <b>Coordinating Responsibilities</b>        | Director -IT Division   |
| <b>Expected Outcome</b>                     | Reliable digital backbone supporting ACCIMT operations and innovation services.   |

**Table I.1.3 Details of conducting advanced astronomical research, education, and public engagement while strengthening national capacity in observational and theoretical astronomy.**

| <i>Component</i>                       | <i>Details</i>   |
|--|--|
| <b>Objective</b>                       | Conduct advanced astronomical research, education, and public engagement while strengthening national capacity in observational and theoretical astronomy.   |
| <b>Strategy</b>                        | Enhance and expand astronomical research and outreach activities, establish infrastructure for long-term scientific and educational development, and lay the groundwork for the establishment of a National Astronomical Observatory in Sri Lanka.   |
| <b>Program / Project/<br/>Activity</b> | <p><b>1. Astronomical Research and Data Analysis Programme:</b></p> <ol style="list-style-type: none"> <li>1.1. Expand astronomy research in time-series photometry, spectroscopy using local and international telescope facilities.</li> <li>1.2. Explore and expand the research in other fields of astronomy such as planetary astronomy, cosmology, solar astronomy, etc.</li> <li>1.3. Expand the usage of astronomical data from ground-based and latest space telescopes.</li> <li>1.4. Setup advanced astronomical data reduction and analysis facilities.</li> <li>1.5. Increase the scientific publications in peer-reviewed international journals.</li> </ol> <p><b>2. Astronomy Outreach and Public Engagement Programme:</b></p> <ol style="list-style-type: none"> <li>2.1 Expand the conduction of night-sky observation programs using the 45 cm GOTO telescope and portable telescopes at national level.</li> <li>2.2 Increase the number of observation programmes for public and students during eclipses, planetary alignments, occultations, and other celestial phenomena.</li> <li>2.3 Develop educational content and astronomy popularization campaigns through media and digital platforms.</li> </ol> <p><b>3. Undergraduate Research and Internship Initiative:</b></p> <ol style="list-style-type: none"> <li>3.1 Increase the number of opportunities for undergraduate astronomy projects and internships.</li> <li>3.2 Establish partnerships with local universities for training in observational techniques and data analysis.</li> </ol> <p><b>4. Workshops and Training Programmes:</b></p> <ol style="list-style-type: none"> <li>4.1 Increase the number of workshops on practical astronomy, astronomical data reduction, and teacher training.</li> <li>4.2 Introduce specialized training on CCD/CMOS camera operations, photometric techniques, and software for data reduction.</li> <li>4.3 Organize annual Astronomy Research Symposium for undergraduates and early-career scientists.</li> </ol> <p><b>5. Infrastructure and Observatory Development Project:</b></p> <ol style="list-style-type: none"> <li>5.1 Procure high-grade research telescopes, cameras, and spectrographs.</li> </ol> |

|   |   |
|---|---|
|   | <p>5.2 Design and develop optical adapters, telescope control systems, and data analysis workstations.</p> <p>5.3 Design and Construction of a Solar Telescope with Imaging Capabilities for H-Alpha Observations and Integration with CALLISTO Radio Burst Measurements.</p> <p>5.4 Submit a comprehensive proposal to the government on a <b>Mega Tourism project</b> focusing on promoting astro-tourism, eco-tourism, incorporating the establishment of a National Astronomical Observatory.</p>   |
| <b>Performance Indicator</b>                | <p>1.1 peer-reviewed publications and 2 conference presentations annually.</p> <p>2.1 research collaborations established nationally and internationally annually.</p> <p>3.3.undergraduate astronomy projects and 3 internships annually.</p> <p>4.5 outreach and public programs conducted annually.</p> <p>5.1000 students and 200 teachers trained annually.</p> <p>6.Progress toward the implementation of Mega Tourism project on astro-tourism, eco-tourism leading to establishment of a National Astronomical Observatory.</p> <p>7.3 new astronomical instrument/facility developed in-house for over the period.</p> |
| <b>Time Period (Months/Years)</b>           | 2026 – 2030   |
| <b>Desired Performance Targets (Output)</b> | <p>1.Publish at least 5 research papers in indexed international journals by 2030.</p> <p>2.Conduct 2 major outreach programs annually (nationwide coverage).</p> <p>3.Train over 5,000 school students and 1000 teachers in astronomy-related programs over five years.</p> <p>4.Supervise 15 undergraduate research projects and 15 internships over five years.</p> <p>5.Develop and commission 2 new astronomical instruments or facilities over five years.</p> <p>6.Completed Mega Astro Tourism project by 2030.</p>   |
| <b>Budget Allocation</b>                    | LKR 20.0Mn for 5 years  |
| <b>Other Inputs Required</b>                | <p>1. Increase the scientists in the institute and recruitment of qualified research staff</p>  |

|                                      |  |
|--------------------------------------|--|
|                                      | <ol style="list-style-type: none"> <li>2. Telescopes and instruments.</li> <li>3. Links to international observatories and data archives.</li> <li>4. Skilled technical staff in astronomy instrumentation, optics, and software.</li> <li>5. Collaboration with foreign research institutions and observatories.</li> <li>6. Government and private sector support for infrastructure and tourism integration.</li> </ol>   |
| <b>Coordinating Responsibilities</b> | <p><b>1. Lead Agency:</b> Astronomy and Astrophysics Division, ACCIMT</p> <p><b>2. Collaborating Partners:</b></p> <p>2.1 Universities of Colombo, Sri Jayawardenapura, Peradeniya, Kelaniya, Ruhuna, Jaffna, Moratuwa, etc.</p> <p>2.2 Ministry of Science and Technology, National Science Foundation (NSF), National Institute of Fundamental Studies (NIFS)</p> <p>2.3 International astronomical observatories and research networks (through MOUs and joint projects)</p> <p>2.4 International observatories and space agencies (via MOUs and data-sharing agreements)</p> <p><b>3. Supporting Ministries:</b></p> <p>3.1 Ministry of Science and Technology</p> <p>3.2 Ministry of Tourism</p> <p>3.3 Ministry of Education</p> |
| <b>Expected Outcome</b>              | <ol style="list-style-type: none"> <li>1. Recognition for Sri Lanka in global astronomy research networks.</li> <li>2. Strengthened public interest and awareness in science and technology through astronomy popularization.</li> <li>3. Enhanced local expertise in astronomical instrumentation and data analysis.</li> <li>4. Generating scientific, educational, and economic benefits through astro-tourism-linked National Astronomical Observatory.</li> <li>5. Creation of a skilled workforce contributing to scientific innovation and national technological progress.</li> </ol>  |

**Table I.1.4: Details of creating multidisciplinary research clusters linking government, academia, and industry to promote applied space technology application solutions for national development.**

| <i>Component</i>                    | <i>Details</i>  |
|-------------------------------------|---|
| <b>Objective</b>                    | To create multidisciplinary research clusters linking government, academia, and industry to promote applied space technology application solutions for national development.  |
| <b>Strategy</b>                     | Create multidisciplinary research clusters to strengthen the collaborative research and consultancy in Space Technology Applications in the fields of agriculture, environment, climate, forestry, marine applications, and utilities through integrated use of remote sensing (RS), geographic information systems (GIS), and data analytics.  |
| <b>Program / Project / Activity</b> | <ol style="list-style-type: none"> <li><b>National Space Technology Application Research Cluster (N-STAR):</b><br/>1.1 Establish research groups combining experts from ACCIMT, universities, and government agencies to conduct applied RS/GIS research in key sectors using cutting edge technologies, big data and AI.</li> <li><b>Public–Private Partnership Consultancy Programme (PPPCP):</b><br/>2.1 Expand consultancy services for government and private sector projects using satellite and drone data analytics.</li> <li><b>Capacity Building and Training Programme:</b><br/>3.1 Increase the number of specialized training programs and workshops for undergraduates, professionals, and government officers on RS/GIS tools and applications.</li> <li><b>Undergraduate Research &amp; Industrial Supervision Initiative:</b><br/>4.1 Strengthen collaboration with universities by offering research supervision, internship placements, and access to ACCIMT's facilities.</li> <li><b>Instrumentation and Technical Skills Training:</b><br/>5.1 Provide hands-on training for university students and professionals on satellite image interpretation, drone mapping, and data acquisition instruments.</li> </ol> |
| <b>Performance Indicator</b>        | <p>1.3 multidisciplinary research projects completed annually.<br/>     2.2 consultancy contracts obtained and successfully completed annually<br/>     3.50 trainees (professionals, and government officers) trained annually.<br/>     4.3 undergraduate projects and 4 internships annually.<br/>     5.1 universities and 1 industry partner engaged annually.<br/>     6.2 research publications, 3 map products generated annually.</p> <p>7.Rs. 2.0 Million revenue generated from consultancy and training services, annually.</p>   |

|   |   |
|---|---|
| <b>Time Period<br/>(Months/Years)</b>       | 2026 – 2030   |
| <b>Desired Performance Targets (Output)</b> | <p>1. Establish 2 active research clusters by 2027.</p> <p>2. Secure at least 10 consultancy contracts by 2030.</p> <p>3. Train 1,000+ personnel from universities and government institutions over the period.</p> <p>4. Supervise 3+ undergraduate research projects and 4 internships annually.</p> <p>5. Publish 5+ peer-reviewed papers by 2030.</p> <p>6. Build long-term partnerships with 10 local and 5 international institutions.</p>  |
| <b>Budget Allocation</b>                    | LKR 15.0Mn for 5 years  |
| <b>Other Inputs Required</b>                | <p>1. Enhanced computing and data storage infrastructure.</p> <p>2. Access to high-resolution satellite data and UAV systems.</p> <p>3. Additional technical staff with expertise in AI-based data analytics and remote sensing.</p> <p>4. Integrated AI-based project management and data-sharing platform linking partner institutions.</p>   |
| <b>Coordinating Responsibilities</b>        | <p>1. <b>Lead Agency:</b> Space Technology Applications Division, ACCIMT</p> <p>2. <b>Collaborating Partners:</b></p> <p>2.1. Government Departments such as Agriculture, Forest, Meteorology, Coast Conservation, NARA, UDA, GSMB, NBRO, etc.</p> <p>2.2. Universities (Moratuwa, Peradeniya, Ruhuna, Kelaniya, Jaffna)</p> <p>2.3. Private sector partners in agriculture, energy, and environment sectors</p> <p>3. <b>Supporting Ministries:</b> Ministry of Science and Technology, Ministry of Environment, Ministry of Agriculture, etc.</p> |
| <b>Expected Outcome</b>                     | <p>1. Strengthened collaboration between academia, government, and industry.</p> <p>2. Enhanced national capacity to use space technology for decision-making and sustainable development.</p> <p>3. Increased self-reliance in technical consultancy and data-driven problem-solving.</p> <p>4. Improved environmental monitoring, agricultural productivity, and disaster management capabilities.</p>  |

## LONG-TERM GOAL 2

### DEVELOP COMMERCIALLY VIABLE RESEARCH AND INNOVATION OUTPUTS

**Table I.2.1 Details of prioritizing applied R&D in climate adaptation decision support, Electronics, ICT, robotics, and AI-driven technologies**

| <i>Component</i>                            | <i>Details</i>   |
|---|--|
| <b>Objective</b>                            | Prioritize applied R&D in climate adaptation decision support, Electronics, ICT, robotics, and AI-driven technologies  |
| <b>Strategy</b>                             | Identify and focus on priority thematic R&D areas aligned with national requirements and market needs  |
| <b>Program / Project / Activity</b>         | <ol style="list-style-type: none"> <li>1. Establish multidisciplinary R&amp;D clusters</li> <li>2. Develop annual R&amp;D priority agenda</li> <li>3. Fund competitive research proposals in priority areas</li> </ol> |
| <b>Performance Indicator</b>                | <ol style="list-style-type: none"> <li>1. Number of R&amp;D projects initiated and completed</li> <li>2. Number of publications and prototypes developed</li> </ol>  |
| <b>Time Period (Months/Years)</b>           | <ol style="list-style-type: none"> <li>1. Establish R &amp; D clusters 2026 to 2027</li> <li>2. Agenda each year</li> <li>3. Research Proposals 2026 to 2030</li> </ol>  |
| <b>Desired Performance Targets (Output)</b> | At least 10 priority research projects launched annually; 5 prototypes developed per year  |
| <b>Budget Allocation</b>                    | LKR 15M annually   |
| <b>Other Inputs Required</b>                | Skilled researchers, lab equipment, collaboration with industry  |
| <b>Coordinating Responsibilities</b>        | Director Communication Division ACCIMT, Stake holder Industry, Finance Department ACCIMT   |
| <b>Expected Outcome</b>                     | Increased applied research output addressing market and societal needs   |

**Table I.2.2: Details of establishing the Technology Transfer and Commercialization Unit (TTCU)**

| <i>Component</i>                            | <i>Details</i>  |
|---|---|
| <b>Objective</b>                            | Establish a Technology Transfer and Commercialisation Unit (TTCU)   |
| <b>Strategy</b>                             | Create a central hub for IP management, patenting, and innovation support   |
| <b>Program / Project / Activity</b>         | <ol style="list-style-type: none"> <li>1. Set up TTCU with trained staff.</li> <li>2. Develop IP policy and licensing framework.</li> <li>3. Establish innovation incubation programs.</li> </ol> |
| <b>Performance Indicator</b>                | <ol style="list-style-type: none"> <li>1. TTCU established and operational</li> <li>2. Number of patents filed/licensed</li> <li>3. Number of startups incubated</li> </ol>                       |
| <b>Time Period (Months/Years)</b>           | <ol style="list-style-type: none"> <li>1. Setup TTCU 2026 to 2027</li> <li>2. IP Policy 2026 to 2027</li> <li>3. Programs 2026 to 2030</li> </ol>   |
| <b>Desired Performance Targets (Output)</b> | TTCU functional by Year 2; 5 patents filed and 3 startups supported annually  |
| <b>Budget Allocation</b>                    | LKR 10M annually  |
| <b>Other Inputs Required</b>                | Legal expertise, innovation management software, Grants   |
| <b>Coordinating Responsibilities</b>        | Division for Research & Innovation (ORI), Legal Office, TTCU Director   |
| <b>Expected Outcome</b>                     | Increased applied research output addressing market and societal needs Enhanced research commercialisation and innovation ecosystem   |

**Table I.2.3: Details of launching industry-funded partnerships and consultancy services to generate self-sustaining revenue streams**

| <i>Component</i>                            | <i>Details</i>   |
|---|--|
| <b>Objective</b>                            | Launch industry-funded partnerships and consultancy services to generate self-sustaining revenue streams   |
| <b>Strategy</b>                             | Strengthen industry linkages and promote research services   |
| <b>Program / Project / Activity</b>         | <ol style="list-style-type: none"> <li>1. Develop industry partnership framework</li> <li>2. Establish contract research and consultancy units</li> <li>3. Host annual Industry days and Research Forum</li> </ol> |
| <b>Performance Indicator</b>                | <ol style="list-style-type: none"> <li>1. Number/value of industry contracts signed</li> <li>2. Amount of revenue generated from partnerships</li> </ol>   |
| <b>Time Period (Months/Years)</b>           | <ol style="list-style-type: none"> <li>1. Partnership framework 2026 to 2027</li> <li>2. Contract research and forums 2026 to 2030</li> </ol>  |
| <b>Desired Performance Targets (Output)</b> | LKR 20M annual revenue from industry partnerships by Year 5.   |
| <b>Budget Allocation</b>                    | LKR 20M Initial investment in outreach and capacity building   |
| <b>Other Inputs Required</b>                | Legal expertise, innovation management software, Grants  |
| <b>Coordinating Responsibilities</b>        | Divisional Director, Legal Office, TTCU Director   |
| <b>Expected Outcome</b>                     | Enhanced research commercialisation and innovation ecosystem   |

**Table I.2.4: Details of promoting joint projects with universities and private sector under Public–Private–Innovation (PPI) models**

| <i>Component</i>                            | <i>Details</i>  |
|---|---|
| <b>Objective</b>                            | Promote joint projects with universities and private sector under Public–Private–Innovation (PPI) models  |
| <b>Strategy</b>                             | Foster collaborative frameworks for co-creation and shared innovation   |
| <b>Program / Project / Activity</b>         | <ol style="list-style-type: none"> <li>1. Develop PPI partnership agreements.</li> <li>2. Jointly apply for competitive grants.</li> <li>3. Establish joint research arm</li> </ol> |
| <b>Performance Indicator</b>                | <ol style="list-style-type: none"> <li>1. Number of PPI agreements signed</li> <li>2. Number of joint projects initiated</li> <li>3. Amount of joint funding secured</li> </ol>     |
| <b>Time Period (Months/Years)</b>           | <ol style="list-style-type: none"> <li>1. Agreements 2026 to 2028</li> <li>2. Apply grants 2026 to 2030</li> <li>3. Research arm 2026 to 2027</li> </ol>                            |
| <b>Desired Performance Targets (Output)</b> | Ten PPI partnerships established; LKR 25M in joint funding secured  |
| <b>Budget Allocation</b>                    | LKR 30M annual funding for joint projects   |
| <b>Other Inputs Required</b>                | Policy support, government facilitation, innovation-friendly regulations  |
| <b>Coordinating Responsibilities</b>        | Director of Division, Partner Institutions, Government Agencies   |
| <b>Expected Outcome</b>                     | Strengthened innovation networks and increased technology deployment  |

**Table I.2.5: Details of prioritizing applied R&D in automation and climate change.**

| <i>Component</i>                            | <i>Details</i>  |
|---|---|
| <b>Objective</b>                            | .Prioritise applied R&D in automation and climate change.   |
| <b>Strategy</b>                             | .Focus on high-impact, multidisciplinary R&D programs aligned with national development priorities.   |
| <b>Program / Project / Activity</b>         | <p>1.Identify and fund flagship R&amp;D themes (automation &amp; surge protection).</p> <p>2.Establish “Advanced Technology Research Clusters” under each theme.</p> <p>3.Initiate applied-research projects with universities and industry co-funding.</p> <p>4.Develop prototype testing and validation facilities.</p> |
| <b>Performance Indicator</b>                | <p>1.05 active applied-research projects.</p> <p>2.03 prototypes developed and tested.</p> <p>3.Amount of industry co-funding received.</p>   |
| <b>Time Period (Months/Years)</b>           | 1.2026 – 2030 (5 years)   |
| <b>Desired Performance Targets (Output)</b> | At least 05 applied-research projects launched and 03 prototypes commercial-ready by 2030.  |
| <b>Budget Allocation</b>                    | .LKR 20Mn. (2026 – 2030)  |
| <b>Other Inputs Required</b>                | Research grants, technical consultants, lab equipment, international expertise, staff recruitment & training.   |
| <b>Coordinating Responsibilities</b>        | .Electronics and Microelectronics Division / Technical Universities / Private Sector Partners / Ministry of Science & Technology.   |
| <b>Expected Outcome</b>                     | .Enhanced national capacity for applied technology development and industry-relevant innovation.  |

**Table I.2.6: Details of launching industry-funded partnerships and consultancy services to generate self-sustaining revenue streams.**

| <i>Component</i>                            | <i>Details</i>  |
|---|---|
| <b>Objective</b>                            | Launch industry-funded partnerships and consultancy services to generate self-sustaining revenue streams.   |
| <b>Strategy</b>                             | Leverage ACCIMT's technical expertise to offer consultancy to local and international industries.   |
| <b>Programme / Project / Activity:</b>      | <ol style="list-style-type: none"> <li>1. Establish a “National Technology Consultancy Unit.”</li> <li>2. Develop service catalogues for testing.</li> <li>3. Negotiate annual industry retainer agreements and MoUs.</li> <li>4. Launch training and certification programmes for industries.</li> </ol> |
| <b>Performance Indicator</b>                | <ol style="list-style-type: none"> <li>1. 250 paid consultancy contracts.</li> <li>2. 15Mn industry revenues secured.</li> <li>3. 30 industries trained or certified.</li> </ol>  |
| <b>Time Period (Months/Years)</b>           | 2026 – 2030 (5 years)   |
| <b>Desired Performance Targets (Output)</b> | 250 consultancy contracts and LKR 15Mn in industry revenue by 2030.   |
| <b>Budget Allocation</b>                    | LKR 10Mn (2026 – 2030)  |
| <b>Other Inputs Required</b>                | Marketing team, business development consultants, laboratory upgrades, staff, staff training.   |
| <b>Coordinating Responsibilities</b>        | Electronics and Microelectronics Division / Chamber of Commerce / BOI / Private Sector Partners.  |
| <b>Expected Outcome</b>                     | Financial sustainability achieved through industry-driven revenue generation and commercial services.   |

**Table I.2.7: Details of creating multidisciplinary research cluster linking government, academia, and industry — covers R&D, training, and innovation partnerships**

| <b>Component</b>                            | <b>Details</b>   |
|---|--|
| <b>Objective</b>                            | Create multidisciplinary research cluster linking government, academia, and industry — covers R&D, training, and innovation partnerships   |
| <b>Strategy</b>                             | Promote collaborative ICT and digital innovation through academic and industry partnerships.   |
| <b>Program / Project / Activity</b>         | <ol style="list-style-type: none"> <li>1. Identify possible institute/relevant institute</li> <li>2. Conduct stake holder discussions for relevant collaboration</li> <li>3. Developing comprehensive MOU and sign agreements</li> <li>4. Offer internship opportunities for university and VTA students in software and network engineering.</li> </ol>   |
| <b>Performance Indicator</b>                | <ol style="list-style-type: none"> <li>1. Number of institutes identified for collaboration- At least 05 institutions identified by end of year</li> <li>2. Number of MOUs / agreements developed and signed - At least 3 signed MOUs annually</li> <li>3. Number of joint R&amp;D or innovation projects initiated under partnerships - Minimum 3 collaborative projects started annually</li> <li>4. Number of internship placements offered to university and VTA students - Minimum 20 internships per year</li> </ol> |
| <b>Time Period (Months/Years)</b>           | <ol style="list-style-type: none"> <li>1. Identify possible institute/relevant institute - 2026</li> <li>2. Conduct stake holder discussions for relevant collaboration – 2026</li> <li>3. Developing comprehensive MOU and sign agreements – 2027</li> <li>4. Offer internship opportunities for university and other students - 2027</li> </ol>  |
| <b>Desired Performance Targets (Output)</b> | <ol style="list-style-type: none"> <li>1. No of joint ventures &gt;5</li> <li>2. Muti-disciplinary research cluster by 2027</li> <li>3. <math>\geq 5</math> IT R&amp;D projects completed by 2030.</li> </ol>  |
| <b>Budget Allocation</b>                    | LKR 2M per year  |
| <b>Other Inputs Required</b>                | Computing infrastructure, Laboratory Space   |
| <b>Coordinating Responsibilities</b>        | Director- IT Division, DDG(T/O), DG.   |
| <b>Expected Outcome</b>                     | Enhanced national capacity in R&D innovation, generate new knowledge in new technology and enhanced decision-makers know-how, improved capacity for international level research and development activities.   |

**Table I.2.8: Details of enhancing existing Technology Transfer and Commercialization in IT related products**

| <i>Component</i>                            | <i>Details</i>  |
|---|---|
| <b>Objective</b>                            | Enhanced existing Technology Transfer and Commercialization in IT related products  |
| <b>Strategy</b>                             | Foster IT-based innovation, product development, and commercial services to support institutional sustainability.   |
| <b>Program / Project / Activity</b>         | <ol style="list-style-type: none"> <li>1. Internal Staff development in new technology areas</li> <li>2. Joint programme with external parties in academia and industry</li> <li>3. Add value additions to existing products</li> <li>4. Offer contractual software and network services to government and private sector partners.</li> <li>5. Provide technical consultancy for system integration and digital transformation.</li> </ol>         |
| <b>Performance Indicator</b>                | <ol style="list-style-type: none"> <li>1. Number of new IT solutions/products developed and deployed.</li> <li>2. Number of new contractual service agreements executed.</li> <li>3. Revenue generated from IT commercial services.</li> </ol>  |
| <b>Time Period (Months/Years)</b>           | <ol style="list-style-type: none"> <li>1. Internal Staff development in new technology areas – 2026</li> <li>2. Joint programme with external parties in academia and industry -2026</li> <li>3. Add value additions to existing products – 2026</li> <li>4. Offer contractual software and network services to external parties – 2027</li> <li>5. Provide technical consultancy for system integration and digital transformation-2027</li> </ol> |
| <b>Desired Performance Targets (Output)</b> | <ol style="list-style-type: none"> <li>1. <math>\geq 10</math> IT solutions developed and implemented within 5 years</li> <li>2. <math>\geq 15</math> service contracts delivered within 5 years.</li> <li>3. Annual revenue contribution to ACCIMT from IT services.</li> </ol>  |
| <b>Budget Allocation</b>                    | LKR 1M per year   |
| <b>Other Inputs Required</b>                | Software developers, project managers, client partnerships, and testing facilities.   |
| <b>Coordinating Responsibilities</b>        | Director-IT Division  |
| <b>Expected Outcome</b>                     | Sustainable income generation through IT-based services and technology commercialization, strengthening ACCIMT's national role in digital innovation.   |

## LONG-TERM GOAL 3

### DELIVER APPLIED TECHNOLOGY SOLUTIONS FOR NATIONAL PRIORITY SECTORS

**Table I.3.1: Details of aligning R&D with key national sectors agriculture, plantation, transport, and disaster resilience**

| <i>Component</i>                            | <i>Details</i>   |
|---|--|
| <b>Objective</b>                            | Align R&D with key national sectors agriculture, plantation, transport, and disaster resilience  |
| <b>Strategy</b>                             | Strengthen alignment of R&D with national development priorities   |
| <b>Program / Project / Activity</b>         | <ol style="list-style-type: none"> <li>1. Conduct technology needs assessments for 4 key sectors.</li> <li>2. Develop sectoral R&amp;D roadmaps.</li> <li>3. Form sector-specific R&amp;D working groups (public–private)</li> </ol> |
| <b>Performance Indicator</b>                | <ol style="list-style-type: none"> <li>1. No. of needs assessments completed</li> <li>2. No. of R&amp;D roadmaps approved</li> <li>3. No. of multi-sector working groups established</li> </ol>                                      |
| <b>Time Period (Months/Years)</b>           | <ol style="list-style-type: none"> <li>1. Need assessments 2026 to 2027</li> <li>2. Roadmaps 2026 to 2028</li> <li>3. Working groups 2026 to 2030</li> </ol>   |
| <b>Desired Performance Targets (Output)</b> | <ol style="list-style-type: none"> <li>1. Three sectoral studies completed</li> <li>2. Four R&amp;D roadmaps finalized</li> <li>3. Two working groups operational</li> </ol>   |
| <b>Budget Allocation</b>                    | LKR 15M annually   |
| <b>Other Inputs Required</b>                | Technical experts, data from ministries, stakeholder consultations from private public sector  |
| <b>Coordinating Responsibilities</b>        | Division Director ACCIMT with Ministry of Industries, Agriculture, Transport, and Disaster Management  |
| <b>Expected Outcome</b>                     | R&D priorities aligned with national growth sectors; enhanced coordination between ACCIMT and ministries   |

Table I.3.2 : Details of establishing pilot projects, reverse engineering, recovery of advanced electronic systems, and demonstration models for industry adoption

| <i>Component</i>                            | <i>Details</i>  |
|---|---|
| <b>Objective</b>                            | Establish pilot projects, reverse engineering, recovery of advanced electronic systems, and demonstration models for industry adoption  |
| <b>Strategy</b>                             | Accelerate technology commercialization and industry adoption   |
| <b>Program / Project / Activity</b>         | <ol style="list-style-type: none"> <li>1. Identify 3–5 technologies for pilot deployment</li> <li>2. Implement reverse-engineering and recovery programs for critical electronic systems</li> <li>3. Establish demonstration facilities for industry exposure</li> </ol> <p>Document outcomes and scale-up successful pilots nationally</p> |
| <b>Performance Indicator</b>                | <ol style="list-style-type: none"> <li>1. No. of pilot projects implemented</li> <li>2. No. of technologies reverse-engineered</li> <li>3. No. of demonstration events held</li> </ol>  |
| <b>Time Period (Months/Years)</b>           | <ol style="list-style-type: none"> <li>1. Technology identification 2026-2028</li> <li>2. All other activities 2026 to 2030</li> </ol>  |
| <b>Desired Performance Targets (Output)</b> | <ol style="list-style-type: none"> <li>1. Five pilot projects each year</li> <li>2. Ten successful recoveries of electronic systems each year</li> <li>3. Two demonstration events per year</li> </ol>  |
| <b>Budget Allocation</b>                    | LKR 50M   |
| <b>Other Inputs Required</b>                | Industrial partnerships, test beds, technical equipment, IP/legal support   |
| <b>Coordinating Responsibilities</b>        | Divisional Directors of implementation and TTCU; Ministry of Transport, Health; private sector clusters   |
| <b>Expected Outcome</b>                     | Commercially viable technology models demonstrated; reduced import dependency; enhanced industrial innovation capacity  |

Table I.3.3: Details of developing climate-resilient and green technologies supporting Sri Lanka

| <i>Component</i>                            | <i>Details</i>   |
|---|--|
| <b>Objective</b>                            | Develop climate-resilient and green technologies supporting Sri Lanka  |
| <b>Strategy</b>                             | Promote development of green and climate-smart technologies  |
| <b>Program / Project / Activity</b>         | <ol style="list-style-type: none"> <li>1. Identify priority technologies (renewable energy, precision agriculture).</li> <li>2. Implement R&amp;D projects for low-carbon processes.</li> <li>3. Partner with international donors and private sector for co-funding and tech transfer.</li> </ol> |
| <b>Performance Indicator</b>                | <ol style="list-style-type: none"> <li>1. No. of R&amp;D projects initiated</li> <li>2. No. of partnerships formed</li> </ol>  |
| <b>Time Period (Months/Years)</b>           | <ol style="list-style-type: none"> <li>1. Priority identification 2026-2028</li> <li>2. Implementation and partnerships 2026 to 2030</li> </ol>  |
| <b>Desired Performance Targets (Output)</b> | <ol style="list-style-type: none"> <li>1. Five climate-smart tech projects per year</li> <li>2. Three international partnerships</li> </ol>  |
| <b>Budget Allocation</b>                    | LKR 30M  |
| <b>Other Inputs Required</b>                | Laboratory infrastructure, testing facilities, international expertise   |
| <b>Coordinating Responsibilities</b>        | Director Communication Engineering Ministry of Environment; Private sector partners  |
| <b>Expected Outcome</b>                     | Climate-resilient, low-carbon technologies developed; contribution to Sri Lanka's ND targets and SDG 13 (Climate Action)   |

Table I.3.4: Details of Offering policy support and advisory services to ministries on technology integration and digitalization

| <i>Component</i>                            | <i>Details</i>  |
|---|---|
| <b>Objective</b>                            | Offer policy support and advisory services to ministries on technology integration and digitalization   |
| <b>Strategy</b>                             | Strengthen policy–research linkage to support digitalisation and technology adoption  |
| <b>Program / Project / Activity</b>         | <ol style="list-style-type: none"> <li>1. Establish a Policy &amp; Technology Advisory Arm</li> <li>2. Provide policy briefs and advisory reports on technology transformation</li> <li>3. Conduct workshops for policymakers on emerging technologies</li> </ol> |
| <b>Performance Indicator</b>                | <ol style="list-style-type: none"> <li>1. No. of advisory briefs delivered</li> <li>2. No. of policy consultations held</li> </ol>  |
| <b>Time Period (Months/Years)</b>           | <ol style="list-style-type: none"> <li>1. Policy 2026–2027</li> <li>2. Workshops 2026 to 2030</li> </ol>  |
| <b>Desired Performance Targets (Output)</b> | <ol style="list-style-type: none"> <li>1. Policy Desk operational</li> <li>2. Five briefs per year</li> </ol>   |
| <b>Budget Allocation</b>                    | LKR 20M   |
| <b>Other Inputs Required</b>                | Policy analysts, ICT experts, data access from ministries   |
| <b>Coordinating Responsibilities</b>        | Planning department of ACCIMT   |
| <b>Expected Outcome</b>                     | Enhanced national policy frameworks for technology and transformations; improved evidence-based decision-making   |

Table 3.5: Details of establishing technical team to carry out hardware recover and modification of biomedical instruments, addressing the current gap in Sri Lanka's healthcare sector.

| <b><i>Component</i></b>                     | <b><i>Details</i></b>  |
|---|--|
| <b>Objective</b>                            | Establish technical team to carry out hardware recover and modification of biomedical instruments, addressing the current gap in Sri Lanka's healthcare sector.  |
| <b>Strategy</b>                             | Empowering Sri Lanka's healthcare through innovative biomedical equipment recovery and technical capacity  |
| <b>Program / Project / Activity</b>         | <ol style="list-style-type: none"> <li>1. Conduct hospital equipment surveys in rural and urban areas to identify malfunctioning biomedical instruments.</li> <li>2. Capacity Building and Training for technicians.</li> <li>3. Industry Collaboration with biomedical industrialists for technical guidance, spare parts supply, and innovation.</li> </ol>  |
| <b>Performance Indicator</b>                | <ol style="list-style-type: none"> <li>1. Number of Hospitals/clients Collaborated</li> <li>2. Value of Systems Recovered</li> </ol>   |
| <b>Time Period (Months/Years)</b>           | 2026 – 2027 (12 months)  |
| <b>Desired Performance Targets (Output)</b> | <ol style="list-style-type: none"> <li>1. Collaborate with hospitals nationwide to recover and refurbish biomedical equipment while training technical staff to ensure sustainable maintenance.</li> <li>2. Reduced healthcare expenditure through repair and reuse of biomedical equipment instead of costly replacements, maximizing value from existing resources.</li> <li>3. Enhanced dependability and uptime of biomedical instruments, ensuring consistent and safe healthcare service delivery across hospitals.</li> </ol> |
| <b>Budget Allocation</b>                    | LKR 200,000.00   |
| <b>Other Inputs Required</b>                | MS (Medical Superintendent) - Base Hospitals and Biomedical industrialists   |
| <b>Coordinating Responsibilities</b>        | Industrial Service Division, RDHS (Regional Director of Health Services) Office and ACCIMT.  |
| <b>Expected Outcome</b>                     | National recognition and improved healthcare service delivery nationwide   |

## LONG-TERM GOAL 4

### BUILD A NATIONAL PIPELINE OF SCIENTISTS AND TECHNOLOGISTS

Table I.4.1: Details of Strengthening pipeline of skilled researchers and innovators

| <i>Component</i>                            | <i>Details</i>   |
|---|--|
| <b>Objective</b>                            | Strengthen pipeline of skilled researchers and innovators  |
| <b>Strategy</b>                             | Strengthen human capital through education–research linkage  |
| <b>Program / Project / Activity</b>         | <ol style="list-style-type: none"> <li>1. Launch <b>ACCIMT Training programs</b> for school leavers (Intermediate) and diploma/degree holders (CPD) in electronics, robotics, and telecommunications</li> <li>2. Establish <b>Research Fellowships</b> in collaboration with national universities and foreign institutions</li> <li>3. Set up programs for young scientists to develop prototypes and startups in embedded systems and space technologies</li> <li>4. Expand internship program to accommodate undergraduates annually across electronics, robotics, and aerospace domains</li> </ol> |
| <b>Performance Indicator</b>                | <ol style="list-style-type: none"> <li>1. No. of participants</li> <li>2. No. of fellows supported</li> <li>3. No. of projects/startups</li> <li>4. No. of university trainees per year</li> </ol>   |
| <b>Time Period (Months/Years)</b>           | For each activity 2026-2030 total period   |
| <b>Desired Performance Targets (Output)</b> | <ol style="list-style-type: none"> <li>1. Hundred participants per year</li> <li>2. Ten fellowships per year</li> <li>3. Twenty incubated projects by 2030</li> <li>4. Five hundred total interns trained</li> </ol>   |
| <b>Budget Allocation</b>                    | LKR 12M  |
| <b>Other Inputs Required</b>                | Industry mentorship, lab upgrades, collaboration MoUs with universities  |
| <b>Coordinating Responsibilities</b>        | ACCIMT HR & Training Division, Ministry of Vocational, Ministry of Education, and Universities   |
| <b>Expected Outcome</b>                     | Strengthened pipeline of skilled researchers and innovators; increased youth participation in national R&D; creation of tech startups and employment opportunities   |

Table I.4.2: Details of developing professional certification programs in robotics, electronics to fill skill gaps in the national workforce

| <i>Component</i>                            | <i>Details</i>   |
|---|--|
| <b>Objective</b>                            | Develop professional certification programs in robotics, electronics to fill skill gaps in the national workforce  |
| <b>Strategy</b>                             | Build a certification framework in emerging technologies aligned with industry needs   |
| <b>Program / Project / Activity</b>         | <ol style="list-style-type: none"> <li>1. Design and deliver <b>Professional Certification Programs</b> in Robotics &amp; Automation, Electronics</li> <li>2. Offer <b>Continuing Professional Development (CPD)</b> programs in Embedded Systems, FPGA, and Microcontroller technologies</li> <li>3. Conduct <b>customized training for industry</b> in Programmable Logic Controllers (PLC) and industrial automation</li> <li>4. Partner with universities and professional bodies (IESL, OUSL, SLIIT, UoM, UoP, etc.)</li> </ol> |
| <b>Performance Indicator</b>                | <ol style="list-style-type: none"> <li>1. No. of certified professionals</li> <li>2. No. of CPD courses conducted</li> <li>3. No. of industry-customized courses delivered</li> <li>4. Level of industry satisfaction</li> </ol>   |
| <b>Time Period (Months/Years)</b>           | 2026–2030 total period   |
| <b>Desired Performance Targets (Output)</b> | <ol style="list-style-type: none"> <li>1. Hundred professionals annually</li> <li>2. Five CPD courses per year</li> <li>3. Five industry-customized programs per year</li> </ol>   |
| <b>Budget Allocation</b>                    | LKR 15M  |
| <b>Other Inputs Required</b>                | Trainers and lab instructors, equipment upgrades, international certification partnerships, courseware development   |
| <b>Coordinating Responsibilities</b>        | Divisional Director, ACCIMT Training Division, Industry, IESL, Universities  |
| <b>Expected Outcome</b>                     | Nationally recognized certification system; enhanced employability of STEM graduates; strengthened technology capacity in local industries   |

**Table I.4.3: Details of introducing training programs for technical people in the industry.**

| <b><i>Component</i></b>                     | <b><i>Details</i></b>   |
|---|---|
| <b>Objective</b>                            | Introduce training programs for technical people in the industry.   |
| <b>Strategy</b>                             | Develop an integrated framework to nurture Young scientific talent through structured academic–industry linkages, incubation support, and exposure to advanced technology programs. |
| <b>Program / Project / Activity</b>         | Conducting professional level and intermediate level courses.   |
| <b>Performance Indicator</b>                | 1. 10 programs held.<br>2. 2.250 technical personnel trained.   |
| <b>Time Period (Months/Years)</b>           | 2026 – 2030 (5 years)   |
| <b>Desired Performance Targets (Output)</b> | At least to train 250 technical personnel.  |
| <b>Budget Allocation</b>                    | LKR 2Mn (2026 – 2030)   |
| <b>Other Inputs Required</b>                | Laboratory access.  |
| <b>Coordinating Responsibilities</b>        | Electronics and Microelectronics Division   |
| <b>Expected Outcome</b>                     | Developed competent human capital modern technologies with technical knowhow desired for relevant industries.   |

Table I.4.4: Details of developing and improving infrastructure to support high-quality and effective training programs at ACCIMT.

| <b>Component</b>                            | <b>Details</b>  |
|---|---|
| <b>Objective</b>                            | Develop and improve infrastructure to support high-quality and effective training programs at ACCIMT  |
| <b>Strategy</b>                             | Building a skilled workforce in the institute through collaboration, industry knowledge sharing, and training excellence.   |
| <b>Program / Project / Activity</b>         | <ol style="list-style-type: none"> <li>1. Upgrading training equipment and learning resources for hands-on experience.</li> <li>2. Implementing digital tools and e-learning platforms to enhance program delivery.</li> <li>3. Ensuring safe, accessible, and well-maintained training environments for participants.</li> </ol> |
| <b>Performance Indicator</b>                | <ol style="list-style-type: none"> <li>1. Number of Training Programs per year</li> <li>2. Participants per Batch per year</li> <li>3. Annual Income.</li> </ol>  |
| <b>Time Period (Months/Years)</b>           | 2026 – 2027 (01 year)   |
| <b>Desired Performance Targets (Output)</b> | <ol style="list-style-type: none"> <li>1. Minimum 02 Training Programs Per Year</li> <li>2. 40 No of minimum participants per year</li> <li>3. Annual Income not less than Rs 900,000.00</li> </ol>   |
| <b>Budget Allocation</b>                    | LKR 200,000.00  |
| <b>Other Inputs Required</b>                | <ol style="list-style-type: none"> <li>1. Collaboration with Other Training Institutes</li> <li>2. Technology Knowledge Sharing with other industrials</li> </ol>   |
| <b>Coordinating Responsibilities</b>        | Industrial Service Division, ACCIMT and other reputed Industrialists(various).  |
| <b>Expected Outcome</b>                     | <ol style="list-style-type: none"> <li>1. Strengthened partnerships and knowledge networks with industry and other training institutes.</li> <li>2. Contribute to a highly skilled national workforce and strengthen Sri Lanka's technical training capacity,</li> </ol>  |

## LONG-TERM GOAL 7

### APPLY MODERN TECHNOLOGIES FOR SOCIETAL WELL-BEING AND ENVIRONMENTAL PROTECTION

**Table I.7.1: Details of establishing a center for lightning protection for mitigation of hazards due to lightning.**

| <i>Component</i>                    | <i>Details</i>  |
|-------------------------------------|---|
| <b>Objective</b>                    | Establishing a center for lightning protection for mitigation of hazards due to lightning.  |
| <b>Strategy</b>                     | Establishing a center for lightning protection for reducing human and equipment damages.  |
| <b>Program / Project / Activity</b> | <p><b>1. Research &amp; Development</b></p> <ul style="list-style-type: none"> <li>1.1 Research on lightning &amp; relevant subjects</li> <li>1.2 Development of technological solutions</li> <li>1.3 Coordination &amp; facilitation of lightning related research with universities, institutes &amp; individual researchers</li> <li>1.4 Research publications &amp; communications</li> </ul> <p><b>2. Dissemination of knowledge</b></p> <ul style="list-style-type: none"> <li>2.1 Public awareness programmes</li> <li>2.2 Training for the engineers/technical professionals</li> <li>2.3 International/National conferences &amp; symposiums</li> <li>2.4 Informing relevant professional &amp; industrial bodies on the standards, guidelines &amp; good practices</li> </ul> <p><b>3. Policy Recommendations</b></p> <p><b>4. Consultancy &amp; Services</b></p> <ul style="list-style-type: none"> <li>4.1 Providing consultancy on lightning protection &amp; earthing to the public sector, private sector &amp; general public</li> <li>4.2 Providing performance testing facilities for the industry</li> <li>4.3 Earth resistance &amp; soil resistivity measurements</li> </ul> <p><b>5. Commercialization</b></p> <ul style="list-style-type: none"> <li>5.1 Commercialization of R&amp;D outputs</li> <li>5.2 Internal R&amp;D outputs</li> <li>5.3 Collaborative R &amp; D outputs</li> </ul> <p><b>6. Entrepreneurship &amp; employment generation</b></p> <ul style="list-style-type: none"> <li>6.1 Facilitation of small &amp; micro level entrepreneurs at the local level to provide lightning protection services by providing them with training &amp; certification</li> <li>6.2 Providing technical training to school leavers/unemployed personnel to be qualified to carry out earth resistance/soil resistivity measurements at sites</li> <li>6.3 Engagement of such other external networks as Vidatha / Community base organizations to provide equipment/ facilities thereby devising a mechanism at the local level</li> </ul> |
| <b>Performance Indicator</b>        | <ol style="list-style-type: none"> <li>1. Number of R&amp;D projects.</li> <li>2. Number of people trained.</li> <li>3. Number of consultancies and test and measurement services carried out.</li> </ol>   |

|   |  |
|---|--|
| <b>Time Period<br/>(Months/Years)</b>           | 2026 – 2030 (5 years)  |
| <b>Desired Performance<br/>Targets (Output)</b> | To fully function the center by 2030.  |
| <b>Budget Allocation</b>                        | LKR75 Mn.  |
| <b>Other Inputs Required</b>                    | Competent experts in the area of lightening protection.                        |
| <b>Coordinating<br/>Responsibilities</b>        | Electronics and Microelectronics Division DMC / SLSI / Ministry of Environment |
| <b>Expected Outcome</b>                         | Reduce damages caused due to lightning.  |

**Table I.7.2: Details of infrastructure development of testing laboratories.**

| <i>Component</i>                                | <i>Details</i>  |
|---|---|
| <b>Objective</b>                                | Infrastructure development of testing laboratories.   |
| <b>Strategy</b>                                 | Modernize laboratories to be aligned with national/international standards and enhancing the testing parameters.  |
| <b>Program / Project / Activity</b>             | <ol style="list-style-type: none"> <li>1. Improvement to existing testing laboratories</li> <li>2. Accreditation parameters where such accreditation will benefit in getting testing from other countries.</li> <li>3. Improvement of already available testing facilities by adding new parameters which are not carried out at the moment.</li> <li>4. Infrastructure development for testing other electrical /electronic equipment /devices.</li> </ol> |
| <b>Performance Indicator</b>                    | <ol style="list-style-type: none"> <li>1. 02 number of parameters tested.</li> <li>2. 02 number of types of devices tested.</li> <li>3. 50 number of test and measurement services carried out.</li> </ol>  |
| <b>Time Period<br/>(Months/Years)</b>           | 2026 – 2030 (5 years)   |
| <b>Desired Performance<br/>Targets (Output)</b> | To fully function the center by 2030.   |
| <b>Budget Allocation</b>                        | LKR25 Mn.   |
| <b>Other Inputs Required</b>                    | Trained personnel in this area.   |
| <b>Coordinating<br/>Responsibilities</b>        | Electronics and Microelectronics Division / ACCIMT / SLSI   |
| <b>Expected Outcome</b>                         | Ensure high quality and safe products for the end user in compliance with national and international standards  |

Table I.7.3: Details of enhancing public understanding, interest, and participation in science and technology.

| <i>Component</i>                    | <i>Details</i>   |
|-------------------------------------|--|
| <b>Objective</b>                    | To enhance public understanding, interest, and participation in science and technology by implementing innovative educational programs, workshops, exhibitions, and outreach initiatives in science and modern technologies.   |
| <b>Strategy</b>                     | Inspiration and Innovation for connecting research, education, and public engagement to nurture the next generation of scientists, engineers, and innovators.  |
| <b>Program / Project / Activity</b> | <p><b>1. Electronics, Robotics, and Automation Education Programme</b></p> <ul style="list-style-type: none"> <li>1.1 Conduct Practical Electronics and Robotics Workshops for schools and universities.</li> <li>1.2 Develop hands-on training modules using Arduino, Raspberry Pi, and AI-based robotics.</li> <li>1.3 Host annual National Robotics and Automation Challenge to showcase innovations.</li> <li>1.4 Introduce Teacher Development Programs on embedded systems and robotics education.</li> <li>1.5 Organize Exhibitions and Demonstrations at national technology expos to promote innovation in robotics and automation.</li> <li>1.6 Launch a Young Innovators' incubator facility at ACCIMT to provide students with prototyping and mentoring support.</li> </ul> <p><b>2. ICT and Artificial Intelligence (AI) for Youth and Innovation Programme</b></p> <ul style="list-style-type: none"> <li>2.1 Conduct workshops on AI for Beginners and Machine Learning for School and University Students.</li> <li>2.2 Create an AI Learning and Simulation Lab at ACCIMT for experimentation with vision, language, and robotics AI applications.</li> <li>2.3 Organize National AI Challenge for Schools — themed around smart agriculture, energy efficiency, or environmental solutions.</li> <li>2.4 Provide Teacher Training Programs on coding, algorithmic thinking, and data-driven innovation.</li> <li>2.5 Establish partnerships with national colleges of education for internships and mentorship opportunities.</li> </ul> <p><b>4. Space Technology and Nano-Satellite Education Programme</b></p> <ul style="list-style-type: none"> <li>4.1 Conduct CanSat and CubeSat Design Workshops for university students. Organize National Space Technology Challenge to promote innovations in Earth observation, communication, and environmental monitoring.</li> <li>4.2 Continue the National Water Rocket Competition and international participation under APRSAF.</li> </ul> |

- 4.3 Develop hands-on space technology labs at ACCIMT for satellite simulation and telemetry demonstrations.
- 4.4 Host Space Week Sri Lanka every October with public lectures, model launches, and exhibitions.
- 4.5 Collaborate with regional space agencies (JAXA, ISRO, APRSAF) for training, technical support, and student exchanges.

## **5. Astronomy and Space Science Outreach Programme**

- 5.1 Conduct night-sky observation programs using ACCIMT's 45 cm GOTO telescope, portable telescopes, and H-alpha solar filters.
- 5.2 Organize public solar, eclipse, occultation, and planetary transit observation events.
- 5.3 Deliver Workshops on Observational Astronomy and Data Analysis for undergraduates and teachers.
- 5.4 Host Space Science Exhibitions in partnership with schools, universities, and the Sri Lanka Planetarium.
- 5.5 Engage in citizen science projects, such as variable star observations and meteor studies.
- 5.6 Develop digital astronomy content and online lectures for remote learning access.

## **6. Technology for Environmental Protection Programme**

- 6.1 Develop and exhibit IoT-based environmental monitoring systems (e.g., air quality, water quality sensors).
- 6.2 Conduct Renewable Energy Workshops focusing on solar, wind, and energy storage technologies.
- 6.3 Host Green Technology Exhibitions showcasing local innovations in sustainability.
- 6.4 Implement Student Innovation competitions themed around waste management, pollution reduction, and conservation.
- 6.5 Launch Smart Environment Projects integrating remote sensing, drones, and AI to monitor ecosystems.
- 6.6 Partner with environmental ministries and NGOs to extend awareness and application of technology for sustainability.

## **7. Science and Technology Awareness Programme**

- 7.1 Organize Science and Technology Exhibitions annually, covering electronics, space, AI, and environment.
- 7.2 Conduct seminars, talk, and panel discussions with local and international experts. Launch traveling science exhibitions targeting rural schools and communities.
- 7.3 Celebrate World Science Day and World Space Week with large public events.
- 7.4 Develop multimedia science education materials (videos, podcasts, and documentaries) for national TV and online platforms.

|   |  |
|---|--|
|   | 7.5 Collaborate with universities, planetariums, and industry to expand outreach and participation.  |
| <b>Performance Indicator</b>                | <ol style="list-style-type: none"> <li>5 workshops, 2 exhibitions, and 20 outreach events conducted annually.</li> <li>5000 participants (students, teachers, and public) annually.</li> <li>5 partnerships established with industries, universities, and international organizations annually.</li> <li>20 innovations, prototypes, and research outcomes generated annually.</li> <li>Establish two Robotics labs and 3 AI labs for school-level access over by 2028.</li> <li>Public engagement outreach programmes via media and online platforms.</li> </ol>   |
| <b>Time Period (Months/Years)</b>           | <b>2026 – 2030</b>   |
| <b>Desired Performance Targets (Output)</b> | <ol style="list-style-type: none"> <li>100+ outreach events reaching all provinces by 2030.</li> <li>25,000+ students and 5,000+ teachers trained or engaged over the period.</li> <li>Organize two major national exhibitions each year.</li> <li>Launch 10 Nanosatellite or CanSat university projects within the period.</li> <li>Develop 5 AI and Robotics labs for school-level access over five years.</li> <li>25 partnerships established with industries, universities, and international organizations annually.</li> <li>Achieve international recognition (awards or invitations) for Sri Lanka's STEM initiatives.</li> </ol> |
| <b>Budget Allocation</b>                    | LKR 30.0 Mn for 5 years.   |
| <b>Other Inputs Required</b>                | <ol style="list-style-type: none"> <li>Equipment: Robotics kits, AI servers, telescopes, satellite simulators, environmental sensors.</li> <li>Funding for event logistics, media production, and resource development.</li> <li>Collaboration with education, environment, and ICT ministries.</li> <li>Support from local universities, science foundations, and global agencies (IAU, NASA, JAXA, ISRO, UNESCO).</li> </ol>   |
| <b>Coordinating Responsibilities</b>        | <ol style="list-style-type: none"> <li><b>Lead Agency:</b> ACCIMT- Division of Electronics, Communications, Industry Relations, Astronomy, Space Technology Applications, and IT.</li> <li><b>Collaborating Partners:</b> <ol style="list-style-type: none"> <li>Ministry of Science and Technology, Ministry of Education, Ministry of Environment.</li> <li>Local universities such as Moratuwa, Colombo, Peradeniya, Ruhuna, Kelaniya, Jaffna, Sri</li> </ol> </li> </ol>   |

|                         |  |
|-------------------------|--|
|                         | <p>Jayawardena, Sabaragamuwa, Uva-Wellassa, Southern, Wayamba, etc.</p> <p>2.3. National Science Foundation, ICTA, Sri Lanka Planetarium, and National Youth Services Council.</p> <p>2.4. International organizations: IAU, APRSAF, JAXA, NASA, ISRO, ESA, and UNESCO.</p>  |
| <b>Expected Outcome</b> | <ol style="list-style-type: none"> <li>1. Strengthened STEM education and scientific literacy at national level.</li> <li>2. Increased youth participation in science, technology, and innovation.</li> <li>3. Enhanced collaboration between education, research, and industry.</li> <li>4. Demonstrable use of modern technologies to address national challenges, including environmental sustainability.</li> <li>5. Elevated visibility of Sri Lanka as a regional leader in STEM education and outreach.</li> <li>6. Creation of a sustainable ecosystem for innovation-driven economic growth.</li> </ol> |

#### **LONG-TERM GOAL 8:**

#### **HUMAN CAPITAL EXCELLENCE AND ORGANISATIONAL CULTURE TRANSFORMATION**

Cultivate a high-performing, motivated, and future-ready workforce that drives innovation, collaboration, and institutional excellence; fosters a culture of integrity and inclusion; and builds national capacity in science, technology, and innovation to achieve sustainable growth and social progress.

**Table I.8.1: Details of Digitizing Human Resource Management Systems (HRMS)**

| <i>Component</i>                    | <i>Details</i>   |
|-------------------------------------|--|
| <b>Objective</b>                    | Digitise Human Resource Management Systems (HRMS)  |
| <b>Strategy</b>                     | Introduce an integrated, digital HR management and analytics platform to automate HR processes and strengthen data-driven decision-making.   |
| <b>Program / Project / Activity</b> | <ol style="list-style-type: none"> <li>1. Conduct HR process mapping and needs assessment.</li> <li>2. Develop and implement HRMS software with payroll, leave, and other modules.</li> <li>3. Train staff and integrate with MIS dashboards.</li> </ol> |
| <b>Performance Indicator</b>        | Fully functional HRMS implemented and 100% staff data digitised by 2027.   |

| <i>Component</i>                            | <i>Details</i>   |
|---|--|
| <b>Objective</b>                            | Digitise Human Resource Management Systems (HRMS)                                  |
| <b>Time Period (Months/Years)</b>           | 2026–2027  |
| <b>Desired Performance Targets (Output)</b> | Real-time HR reporting and paperless workflow by 2027.                             |
| <b>Budget Allocation</b>                    | LKR 2million   |
| <b>Other Inputs Required</b>                | ICT infrastructure, HR software licence, staff training.                           |
| <b>Coordinating Responsibilities</b>        | HR Division / IT Division / Director General                                       |
| <b>Expected Outcome</b>                     | Improved HR efficiency, data accuracy, and transparency in performance management. |

**Table I.8.2: Details of developing a Competency-Based Human Resource Framework**

| <i>Component</i>                            | <i>Details</i>  |
|---|---|
| <b>Objective</b>                            | Develop a Competency-Based Human Resource Framework   |
| <b>Strategy</b>                             | Establish a competency-based modern HR framework identifying core and technical competencies for all roles, linked to performance appraisal and promotion systems. Align roles, performance, and professional development.  |
| <b>Program / Project / Activity</b>         | <ol style="list-style-type: none"> <li>Map roles and identify competencies.</li> <li>Develop competency dictionary and integrate with appraisal systems.</li> <li>Train managers on competency-based assessment.</li> </ol> |
| <b>Performance Indicator</b>                | Competency framework approved and implemented by 2027. 100 % of staff evaluated annually against competency criteria  |
| <b>Time Period (Months/Years)</b>           | 2026–2027   |
| <b>Desired Performance Targets (Output)</b> | 100% of positions evaluated and linked to competencies.   |
| <b>Budget Allocation</b>                    | LKR 1 million   |
| <b>Other Inputs Required</b>                | Consultant expertise, HR policy revision.   |
| <b>Coordinating Responsibilities</b>        | HR Division / BOG / Director General  |
| <b>Expected Outcome</b>                     | Transparent, merit-based performance and career progression system.   |

**Table I.8.3: Details of Implementing Continuous Professional Development (CPD) Programme**

| <i>Component</i>                            | <i>Details</i>  |
|---|---|
| <b>Objective</b>                            | Implement Continuous Professional Development (CPD) Programme   |
| <b>Strategy</b>                             | 1. Introduce structured annual training plans covering technical, leadership, and cross-functional skills for 100 % of employees.<br>2. Build workforce capacity through continuous learning and technical skill enhancement. |
| <b>Program / Project / Activity</b>         | 1. Develop annual training calendar.<br>2. Conduct technical, management, and innovation workshops.<br>3. Establish e-learning platform and track CPD hours.  |
| <b>Performance Indicator</b>                | $\geq 40$ hours of CPD per staff member annually.   |
| <b>Time Period (Months/Years)</b>           | 2026–2030   |
| <b>Desired Performance Targets (Output)</b> | 100% staff participation in CPD programmes by 2027.   |
| <b>Budget Allocation</b>                    | LKR 3 million annually  |
| <b>Other Inputs Required</b>                | Training partnerships, ICT-enabled learning systems.  |
| <b>Coordinating Responsibilities</b>        | HR Division / Training Unit / Divisional Heads  |
| <b>Expected Outcome</b>                     | Enhanced technical and managerial competence across all divisions.  |

**Table I.8.4: Details of Institutionalizing a Talent Attraction and Retention Scheme**

| <i>Component</i>                    | <i>Details</i>  |
|-------------------------------------|---|
| <b>Objective</b>                    | Institutionalise a Talent Attraction and Retention Scheme   |
| <b>Strategy</b>                     | Introduce merit-based recruitment, fellowship opportunities, and incentive mechanisms to attract and retain high-calibre scientists and engineers. Introduce modern talent management practices and incentives to retain skilled professionals. |
| <b>Program / Project / Activity</b> | 1. Review and update recruitment and reward policies.<br>2. Introduce performance-based incentives and recognition schemes.<br>3. Launch fellowship and exchange programmes for top performers.   |
| <b>Performance Indicator</b>        | Staff turnover below 5% annually; $\geq 90\%$ retention of key personnel of trained specialists   |

| <b>Component</b>                            | <b>Details</b>   |
|---|--|
| <b>Objective</b>                            | Institutionalise a Talent Attraction and Retention Scheme                    |
| <b>Time Period (Months/Years)</b>           | 2026–2030  |
| <b>Desired Performance Targets (Output)</b> | Stable, motivated, and high-performing workforce.                            |
| <b>Budget Allocation</b>                    | LKR 1 million per annum  |
| <b>Other Inputs Required</b>                | External funding for scholarships, BOG policy approval.                      |
| <b>Coordinating Responsibilities</b>        | HR Division / Finance Division / International Relations                     |
| <b>Expected Outcome</b>                     | Improved job satisfaction, morale, and long-term retention of skilled staff. |

**Table I.8.5: Details of developing a Leadership and Succession Plan**

| <b>Component</b>                            | <b>Details</b>  |
|---|---|
| <b>Objective</b>                            | Develop a Leadership and Succession Plan  |
| <b>Strategy</b>                             | Build a pool of next-generation leaders through structured mentorship, coaching, and leadership development programmes. Building leadership continuity and prepare future leaders for institutional sustainability. |
| <b>Program / Project / Activity</b>         | 1. Identify critical positions and successors.<br>2. Conduct leadership and mentoring programmes.<br>3. Establish a leadership competency framework.  |
| <b>Performance Indicator</b>                | 25% of leadership roles filled internally by 2030.  |
| <b>Time Period (Months/Years)</b>           | 2026–2030   |
| <b>Desired Performance Targets (Output)</b> | Institutional leadership pipeline developed.  |
| <b>Budget Allocation</b>                    | LKR 0.5 million   |
| <b>Other Inputs Required</b>                | External leadership trainers, mentoring tools.  |
| <b>Coordinating Responsibilities</b>        | HR Division / DG Office / BOG   |
| <b>Expected Outcome</b>                     | Resilient leadership succession and institutional stability.  |

**Table I.8.6: Details of enhancing Employee Engagement and Organizational Culture**

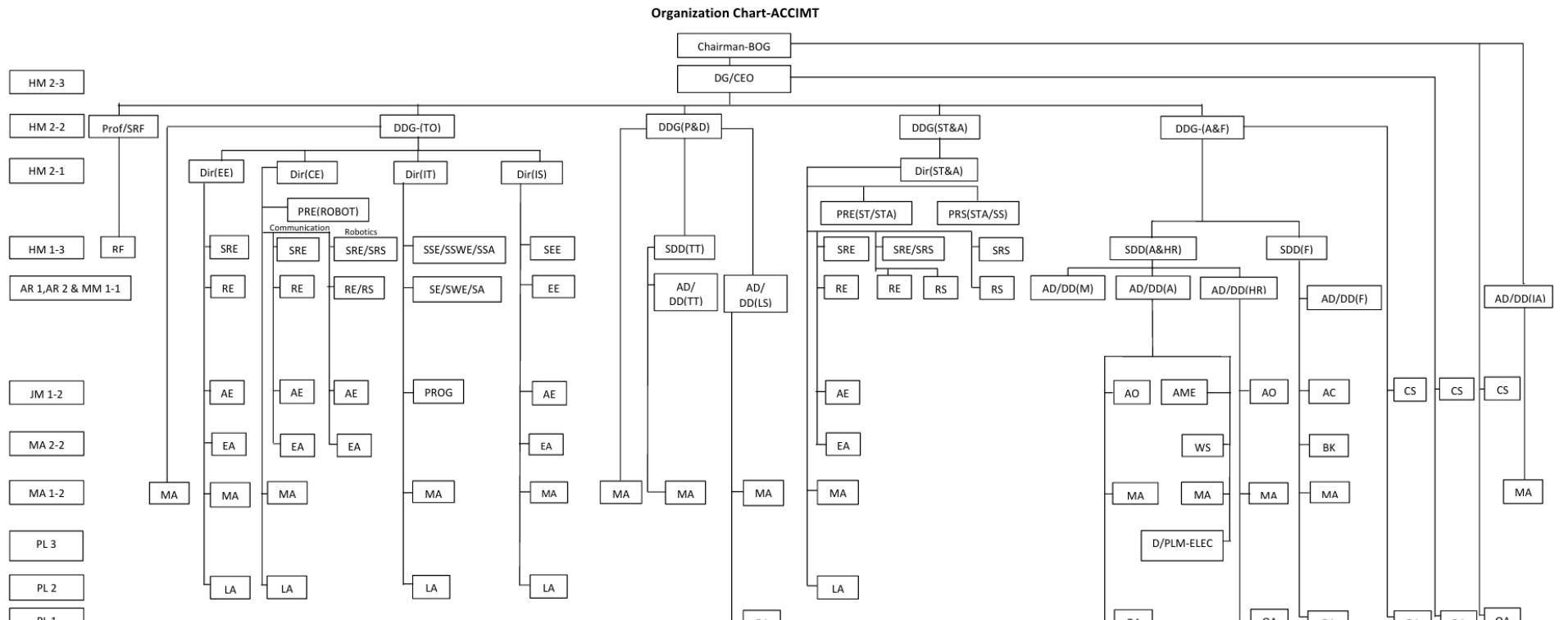
| <b>Component</b>                            | <b>Details</b>   |
|---|--|
| <b>Objective</b>                            | Enhance Employee Engagement and Organisational Culture   |
| <b>Strategy</b>                             | Establish an employee engagement framework promoting innovation, collaboration, ethics, and gender inclusivity. Foster a positive, innovative, and inclusive organisational culture. |
| <b>Program / Project / Activity</b>         | 1. Conduct annual engagement surveys.<br>2. Launch internal innovation and employee recognition programmes.<br>3. Organise social, wellness, and cultural initiatives.               |
| <b>Performance Indicator</b>                | ≥80% employee satisfaction by 2027. At least 50 % of staff participating in innovation events  |
| <b>Time Period (Months/Years)</b>           | 2026–2030  |
| <b>Desired Performance Targets (Output)</b> | Collaborative and motivated workplace culture.   |
| <b>Budget Allocation</b>                    | LKR 1million annually  |
| <b>Other Inputs Required</b>                | HR analytics tools, communication strategy.  |
| <b>Coordinating Responsibilities</b>        | HR Division / Administration Division / DG Office  |
| <b>Expected Outcome</b>                     | Improved employee morale, teamwork, and institutional loyalty.   |

**Table I.8.7: Details of establishing Strategic Partnerships for Human Capital Development**

| <b>Component</b>                            | <b>Details</b>   |
|---|--|
| <b>Objective</b>                            | Establish Strategic Partnerships for Human Capital Development   |
| <b>Strategy</b>                             | Collaborate with national universities, professional bodies, and international partners for staff exchanges, scholarships, and fellowships. Build collaborative networks for training, research, and exchange to strengthen human capital development. |
| <b>Program / Project / Activity</b>         | 1. Establish MoUs with international agencies (JAXA, UN-APRSAF, NTU).<br>2. Facilitate staff exchanges and overseas fellowships.<br>3. Host international workshops and conferences.   |
| <b>Performance Indicator</b>                | 10 MoUs signed; ≥30 staff trained internationally by 2030. At least 30 staff trained overseas by 2030  |
| <b>Time Period (Months/Years)</b>           | 2026–2030  |
| <b>Desired Performance Targets (Output)</b> | Global exposure and cross-institutional learning.  |

| <i>Component</i>                     | <i>Details</i>  |
|--------------------------------------|---|
| <b>Objective</b>                     | Establish Strategic Partnerships for Human Capital Development  |
| <b>Budget Allocation</b>             | LKR 5million per annum  |
| <b>Other Inputs Required</b>         | Travel grants, donor partnerships, embassy collaboration.   |
| <b>Coordinating Responsibilities</b> | HR Division / International Relations / MOST  |
| <b>Expected Outcome</b>              | Internationally competent staff and enhanced institutional visibility.  |
| <b>Expected Outcome</b>              | By 2030 ACCIMT will have a competent, innovative, and motivated workforce empowered by modern HR systems, sustained professional development, and a culture of inclusivity, integrity and collaboration – ensuring long-term institutional excellence and sustainability. |

## Organizational Structure



### Abbreviations

|                 |   |
|-----------------|---|
| BOG             | Board of Governors  |
| DG / CEO        | Director General / Chief Executive Officer                                      |
| Prof / SRF      | Professor / Senior Research Fellow  |
| DDG (TO)        | Deputy Director General (Technical Operation)                                   |
| DDG (P & D)     | Deputy Director General (Planning & Development)                                |
| DDG (ST & A)    | Deputy Director General (Space Technology & Applications)                       |
| DDG (A & F)     | Deputy Director General (Administration & Finance)                              |
| Dir. (EE)       | Director (Electronic Engineering)   |
| Dir. (CE)       | Director (Communication Engineering)  |
| Dir. (IT)       | Director (Information Technology)   |
| Dir. (INS)      | Director (Instrumentation)  |
| Dir. (ST & A)   | Director (Space Technology & Applications)                                      |
| PRE (ROBT)      | Principal Research Engineer (Robotics)  |
| PRE (ST & P/ST) | Principal Research Engineer (Space Technology & Applications/ Space Technology) |
| PRS (SS/St & A) | Principal Research Scientist (Space Science / Space Technology & Applications)  |
| RF              | Research Fellow   |
| SRE             | Senior Research Engineer  |
| SSE             | Senior Systems Engineer   |
| SSWE            | Senior Software Engineer  |
| SSA             | Senior Systems Analyst  |
| SEE             | Senior Electronics Engineer   |
| SDD (TT)        | Senior Deputy Director (Technology Transfer)                                    |
| SRS             | Senior Research Scientist   |
| SDD (A & HR)    | Senior Deputy Director (Administration & Human Resources)                       |
| SDD (F)         | Senior Deputy Director (Finance)  |
| RE              | Research Engineer   |
| SE              | Systems Engineer  |
| SWE             | Software Engineer   |

|            |  |
|------------|--|
| SA         | Systems Analyst  |
| EE         | Electronics Engineer                                       |
| AD/DD (TT) | Assistant Director / Deputy Director (Technology Transfer) |
| AD/DD (LS) | Assistant Director / Deputy Director (Library Services)    |
| RS         | Research Scientist   |
| AD/DD (M)  | Assistant Director / Deputy Director (Media)               |
| AD/DD (A)  | Assistant Director / Deputy Director (Administration)      |
| Ad/DD (HR) | Assistant Director / Deputy Director (Human Resources)     |
| Ad/DD (F)  | Assistant Director / Deputy Director (Finance)             |
| Ad/DD (IA) | Assistant Director / Deputy Director (Internal Audit)      |
| AE         | Assistant Engineer   |
| PROG       | Programmer   |
| AO         | Administrative Officer                                     |
| AME        | Assistant Maintenance Engineer                             |
| ACO        | Accounts Officer   |
| CS         | Confidential Secretary                                     |
| EA         | Engineering Assistant                                      |
| WS         | Works Superintendent                                       |
| BK         | Book Keeper  |
| MA         | Management Assistant                                       |
| D          | Driver   |
| PLM – ELEC | Plumber – Electrician                                      |
| LA         | Lab Attendant  |
| OA         | Office Aide  |

**Annexure III**

**Arthur C Clarke Institute for Modern Technologies**  
**Cadre Positions & Vacancies - As at 27<sup>th</sup> October 2025**

| No | Designation   | Salary Code | Approved Cadre | Existing Cadre | No of Vacancies |
|----|---|-------------|----------------|----------------|-----------------|
| 01 | Director General / CEO  | HM 2-3      | 1              | -              | 1               |
| 02 | Professor / Senior Research Fellow  | HM 2-2      | 2              | -              | 2               |
| 03 | Deputy Director General (Space Technology & Applications)                       | HM 2-2      | 1              | -              | 1               |
| 04 | Deputy Director General (Technical Operation)                                   |             | 1              | -              | 1               |
| 05 | Deputy Director General (Planning & Development)                                |             | 1              | -              | 1               |
| 06 | Deputy Director General (Administration & Finance)                              |             | 1              | -              | 1               |
| 07 | Director (Communication Engineering)  | HM 2-1      | 1              | 1              | -               |
| 08 | Director (Electronic Engineering)   |             | 1              | 1              | -               |
| 09 | Director (Instrumentation)  |             | 1              | -              | 1               |
| 10 | Director (Information Technology)   |             | 1              | 1              | -               |
| 11 | Director (Space Technology & Applications)                                      |             | 1              | -              | 1               |
| 12 | Principal Research Engineer (Robotics)  |             | 1              | -              | 1               |
| 13 | Principal Research Engineer (Space Technology & Applications/ Space Technology) |             | 1              | -              | 1               |
| 14 | Principal Research Scientist (Space Science / Space Technology & Applications)  | HM 1-3      | 1              | 1              | -               |
| 15 | Research Fellow   |             | 1              | -              | 1               |
| 16 | Senior Electronics Engineer   |             | 2              | -              | 2               |
| 17 | Senior Research Engineer  |             | 9              | 2              | 7               |
| 18 | Senior Systems Engineer   |             | 1              | -              | 1               |
| 19 | Senior Software Engineer  |             | 1              | 1              | -               |
| 20 | Senior Research Scientist   |             | 6              | 4              | 2               |
| 21 | Senior Systems Analyst  |             | 2              | 1              | 1               |
| 22 | Senior Deputy Director (Technology Transfer)                                    |             | 1              | 1              | -               |
| 23 | Senior Deputy Director (Finance)  |             | 1              | 1              | -               |
| 24 | Senior Deputy Director (Administration & Human Resources)                       | AR 2        | 1              | 1              | -               |
| 25 | Electronics Engineer  |             | 2              | 1              | 1               |
| 26 | Research Engineer   |             | 7              | 2              | 5               |

|    |  |                                |                |                |                 |
|----|--|--------------------------------|----------------|----------------|-----------------|
| 27 | Systems Engineer   |                                | 1              | -              | 1               |
| 28 | Software Engineer  |                                | 1              | -              | 1               |
| 29 | Research Scientist   |                                | 3              | -              | 3               |
| 30 | Systems Analyst  |                                | 1              | 1              | -               |
| No | Designation  | Salary Code                    | Approved Cadre | Existing Cadre | No of Vacancies |
| 31 | Electronics Engineer                                       | AR 1<br>(Gr. II -<br>Gr. I)    | 5              | 2              | 3               |
| 32 | Research Engineer  |                                | 14             | 9              | 5               |
| 33 | Systems Engineer   |                                | 1              | 1              | -               |
| 34 | Software Engineer  |                                | 2              | 2              | -               |
| 35 | Research Scientist   |                                | 8              | 6              | 2               |
| 36 | Systems Analyst  |                                | 1              | -              | 1               |
| 37 | Assistant Director / Deputy Director (Media)               | MM 1-1<br>(Gr. II -<br>Gr. I)  | 1              | 1              | -               |
| 38 | Assistant Director / Deputy Director (Administration)      |                                | 1              | 1              | -               |
| 39 | Assistant Director / Deputy Director (Human Resources)     |                                | 1              | -              | 1               |
| 40 | Assistant Director / Deputy Director (Library Services)    |                                | 1              | -              | 1               |
| 41 | Assistant Director / Deputy Director (Technology Transfer) |                                | 1              | 1              | -               |
| 42 | Assistant Director / Deputy Director (Finance)             |                                | 1              | -              | 1               |
| 43 | Assistant Director / Deputy Director (Internal Audit)      | JM 1-2                         | 1              | 1              | -               |
| 44 | Confidential Secretary                                     |                                | 3              | 1              | 2               |
| 45 | Administrative Officer                                     |                                | 2              | 1              | 1               |
| 46 | Accounts Officer   |                                | 1              | 1              | -               |
| 47 | Assistant Engineer   |                                | 6              | 1              | 5               |
| 48 | Programmer   |                                | 3              | 3              | -               |
| 49 | Assistant Maintenance Engineer                             | MA 2-2<br>(Gr. III -<br>Gr. I) | 1              | -              | 1               |
| 50 | Works Superintendent                                       |                                | 1              | 1              | -               |
| 51 | Engineering Assistant                                      |                                | 20             | 7              | 13              |
| 52 | Book Keeper  | MA 1-2<br>(Gr. III -<br>Gr. I) | 1              | 1              | -               |
| 53 | Management Assistant                                       |                                | 22             | 14             | 8               |
| 54 | Driver   | PL 3<br>(Gr. III -<br>Gr. I)   | 8              | 3              | 5               |

|              |                      |  |            |           |           |
|--------------|----------------------|--|------------|-----------|-----------|
| 55           | Lab Attendant        | PL 2<br>Annexure<br>IV<br>(Gr. III –<br>Gr. I) | 8          | 3         | 5         |
| 56           | Office Aide          | PL 1<br>(Gr. III -<br>Gr. I)                   | 7          | 3         | 4         |
| 57           | Plumber/ Electrician | PL 3<br>(Gr. III -<br>Gr. I)                   | 1          | 1         | -         |
| <b>Total</b> |                      |  | <b>177</b> | <b>83</b> | <b>94</b> |

## Annexure IV

### Assets base of the ACCIMT

|                                    | 2024                  | 2023                  | 2022                  |
|------------------------------------|-----------------------|-----------------------|-----------------------|
|                                    | Rs.                   | Rs.                   | Rs.                   |
| <b>ASSETS</b>                      |                       |                       |                       |
| <b>Current assets</b>              |                       |                       |                       |
| Cash and cash equivalents          | 10,890,001.52         | 8,866,440.22          | 14,832,762.44         |
| Short term investment              | 139,704,379.83        | 133,594,003.47        | 101,070,491.18        |
| Trade and other receivables        | 42,676,163.91         | 23,192,139.14         | 22,115,032.17         |
| Inventories                        | 9,802,602.27          | 9,635,372.86          | 9,794,874.53          |
| Prepayment                         | 2,856,132.12          | 3,187,804.36          | 3,765,700.05          |
|                                    | 205,929,279.65        | 178,475,760.05        | 151,578,860.37        |
| <b>Non-current assets</b>          |                       |                       |                       |
| Staff loan                         | 8,158,582.00          | 11,664,385.00         | 9,672,890.00          |
| Property, plant and equipment      | 155,573,090.26        | 160,282,401.26        | 189,050,790.88        |
| Work in progress<br>(construction) | -                     | -                     | 3,545,744.40          |
|                                    | 163,731,672.26        | 171,946,786.26        | 202,269,425.28        |
| <b>Total assets</b>                | <b>369,660,951.91</b> | <b>350,422,546.31</b> | <b>353,848,285.65</b> |