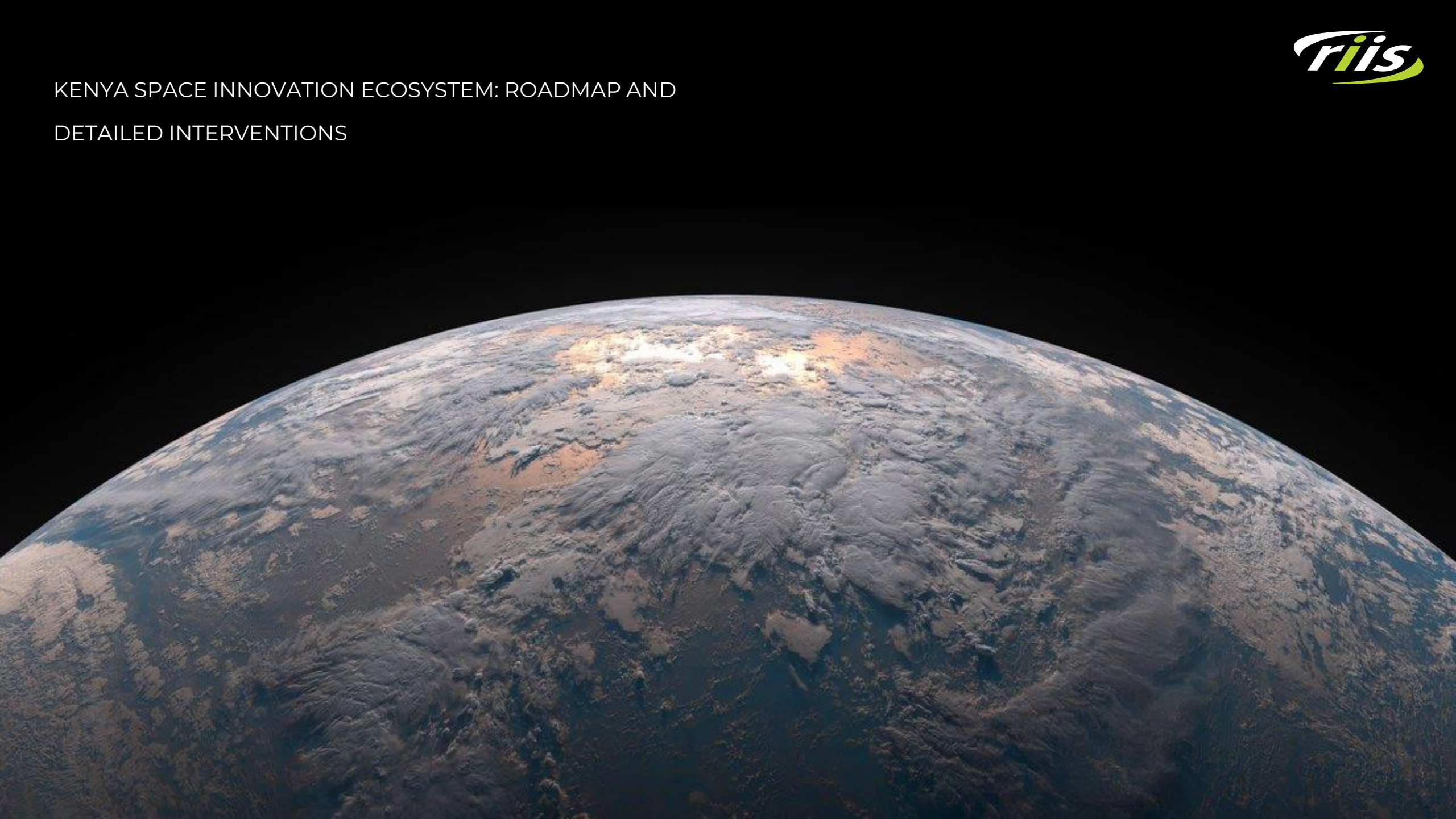
KENYA SPACE INNOVATION ECOSYSTEM: ROADMAP AND DETAILED INTERVENTIONS



Following an ecosystem maturity assessment, a systematic process was followed to design the interventions

The ecosystem maturity assessment established the foundation for subsequent work by rating the maturity of various nodes within the space innovation ecosystem. Following this assessment, insights gathered during the stakeholder mapping and analysis and the co-design workshop were organised into interventions aligned with the IDIA goals and intended to progress their maturity. Each intervention included a brief description, a high-level overview of key activities, and a preliminary timeline detailing the time required for implementation of each activity.

INTERVENTION

Interventions are the sets of input activities that combine to deliver specific outputs, outcomes, and impacts for an IDIA goal.

DESCRIPTION

Description provides high-level details of the proposed intervention.

HIGH-LEVEL ACTIVITIES

Activities are the tasks that various intervention implementors will fulfil to produce the outputs needed to achieve the intended roadmap impact.

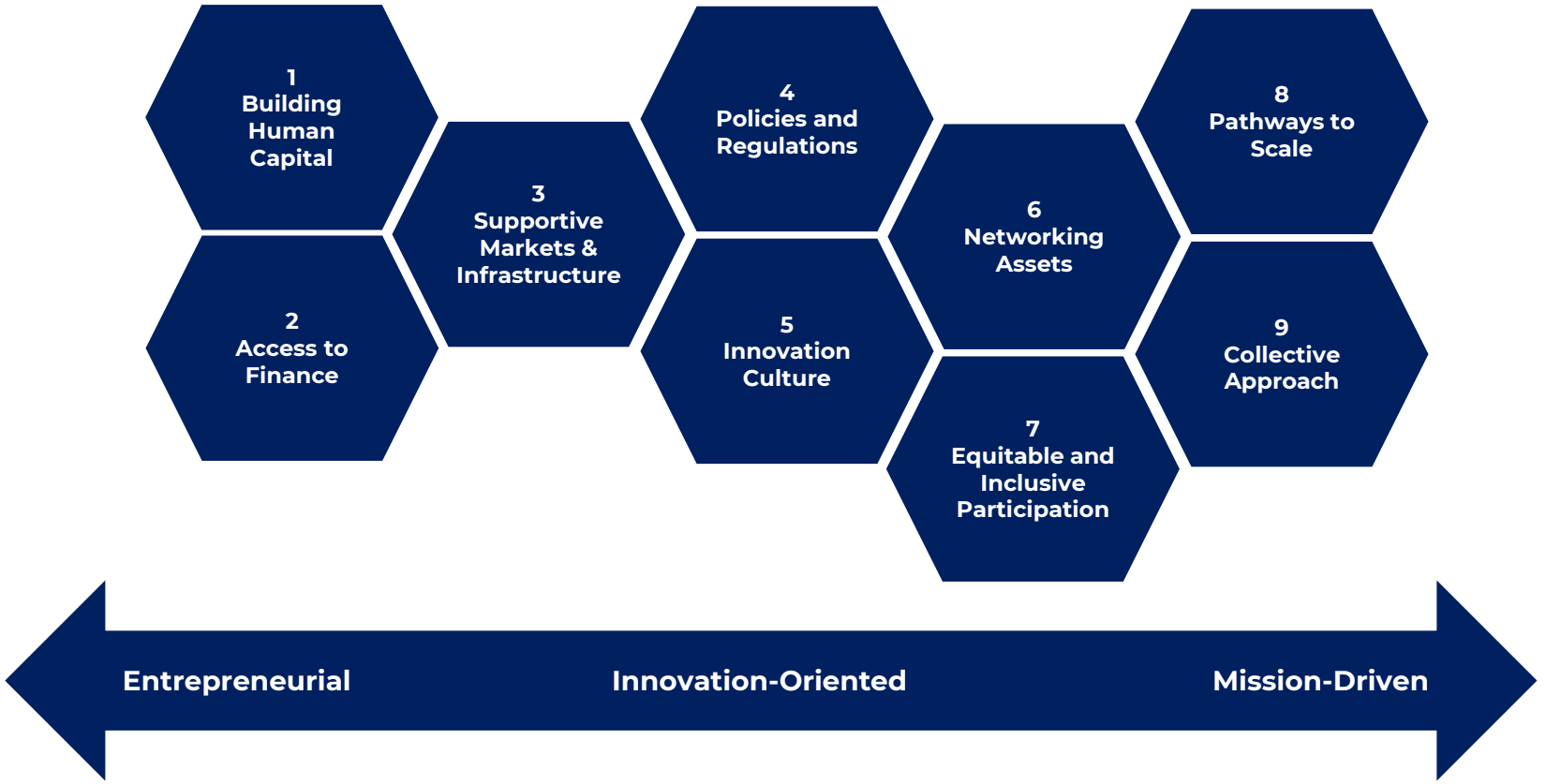
IDIA GOALS COVERED

IDIA Goals are the foundational parameters that inform the characterisation of an ecosystem's challenges and opportunities.

PRELIMINARY TIMELINE

Preliminary timeline refers to the estimated implementation time for each of the key activities within the interventions. These have been categorised according to; immediate short term (0-6 months); short term (7 months to 3 years); medium term (3 years to 6 years); and long term (6 years +).

This project underpinned all its research on IDIA Framework and developed interventions that cut across all nine goals



The Influence of IDIA Goals on Intervention Design

- *The Ecosystem Maturity Assessment, which kicked off the project, rated the maturity of the IDIA goals.*
- *The Ecosystem Maturity Assessment also provided high level maturity ratings for the remaining 4 IDIA goals*
- *Subsequently, the stakeholder engagement and co-design workshop served as a validation point for the ratings in the maturity assessment.*
- *During the intervention and roadmap design stage, the proposed interventions were designed to address multiple IDIA goals and to progress the maturity of each based on a maturity framework created (**Appendix 1)***

Based off the IDIA Goals, interventions aim to bridge gaps, propelling the Kenyan ecosystem towards its envisioned future state (1/3)

	Current State	Key Ecosystem Gaps Identified	Interventions that Address Identified Gaps	Potential Future State
BUILDING HUMAN CAPITAL	 **FORMING**	• **Misalignment between tertiary education and industry needs**, causing a mismatch between graduates' qualifications and employers' requirements. • There is a need to **encourage local universities to offer space sector-relevant skills and qualifications**, including space engineering, data analysis, project management, and risk management, that would increase technical capacity. • There is a need to **build stronger partnerships between industry and academia** to better align educational programmes with industry needs. • There is a need for **more scholarships** to support local students pursuing space-related qualifications at relevant institutions.	• Enhance collaboration between educational institutions and industry to ensure that curricula are aligned with current skill requirements and job market demands ***[Space Tech Technical Assistance Facility]*.*** • Create industry-funded scholarships for students pursuing space sector qualifications and/or implement joint industry-university training programmes and internships ***[Scholarships and Fellowships and/or Educational Initiatives Development Programme]*.*** • Create industry advisory boards within educational institutions to guide curriculum development ***[Space Tech Technical Assistance Facility]*.*** • Increase establishment of scholarships for space-related fields ***[Scholarships and Fellowships]*.***	 **ESTABLISHING**
ACCESS TO FINANCE	 **FORMING**	• **Lack of availability of diverse financing mechanisms** for R&D projects and start-up ventures. • Lack of funding for space projects due **to low investor risk appetite**. • **Limited strategic partnerships** with other regional and international space actors limits the amount of potential foreign investment that could flow into the ecosystem.	• Incorporate innovative funding mechanisms and dedicated funds for space tech projects to support early-stage ventures ***[Establish a Dedicated Space Technology Fund]**** • Encourage a de-risked funding model based on a public-private partnership (PPP), e.g. Governments can provide guarantees or subsidies to PPP projects, mitigating risks and encouraging private sector investment. ***[Space Sector Industry/Professional Body]*, [Financial Incentives]**** • Building strategic partnerships can enhance bargaining power and credibility allowing for more favourable financing conditions. ***[Develop Strategic Partnerships with Space Agencies]****	 **ESTABLISHING**
INNOVATION CULTURE	 **FORMING**	• Existing Space Advocacy organisations (e.g. the Space Generation Advisory Council Kenyan Chapter) are **not been utilised to their full extent** to drive space awareness in Kenya. • **Unfavorable start-up compliance policies, stringent due diligence requirements and bureaucratic barriers** hinder entrepreneurship and innovation in the Kenyan space industry.	• KSA should work with organisations like the SGAC, and support outreach programmes aimed at promoting space science and technology (e.g. co-hosting webinars, workshops etc.) ***[PR, Comms and Awareness Programme]**** • Provide mentorship and training to early-stage entrepreneurs within the sector on how to navigate the complex regulatory environment and raise awareness on potential incentives (e.g. tax, R&D incentives) available to them. ***[Entrepreneur Support Programme]*, [Financial Incentives]****	 **ESTABLISHING**

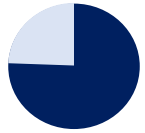
*** = Intervention proposed in this roadmap**

Based off the IDIA Goals, interventions aim to bridge gaps, propelling the Kenyan ecosystem towards its envisioned future state (2/3)

	Current State	Key Ecosystem Gaps Identified	Interventions that Address Identified Gaps	Potential Future State
NETWORKING ASSETS	 FORMING	• **Minimal/ lack of coordination of frequent, high-quality, networking events**, including webinars, workshops, conferences and other events that would attract diverse participants in the space ecosystem. • There is a **need for more local partnerships with technology and innovation hubs** – to support innovators, entrepreneurs and start-ups. • **Lack of regional and international partnerships**, especially with other space agencies and key actors in the sector.	• The establishment of an industry body that will be responsible for hosting and coordinating networking events in the sector. ***[Industry/Professional Industry Body]**** • The development of sophisticated platforms for connecting innovators, entrepreneurs, and investors, with very high engagement**.** ***Space Sector Industry/Professional Body]**** • Good relations with regional and international space organisations and agencies can lead to the establishment of partnerships and collaborations. ***[Develop Strategic Partnerships with Space Agencies]****	 ESTABLISHING
EQUITABLE & INCLUSIVE PARTICIPATION	 NASCENT	• There is a need to **include more participation and empowerment of marginalised groups** in the space ecosystem. • **Limited access to resources and infrastructure** for marginalised groups to engage in space-related activities.	• Establish targeted outreach and mentorship programs in collaboration with community organisations to encourage and support marginalised groups in pursuing careers in the space sector. ***[PR, Comms and Awareness programmes]* , [Industry/Professional Industry Body]**** • Invest in community-based facilities and resources that provide access to space-related technologies and learning materials for marginalised communities. ***[Financial incentives; Physical and Digital Infrastructure]****	 FORMING
SUPPORTIVE MARKETS & INFRASTRUCTURE	 FORMING	• There is a **need for better dissemination and accessibility of satellite data**, along with **better data quality and security**. • There is a **need to expand internet coverage and broadband services** as well as **facilitate access to digital devices** (like laptops) particularly in rural areas to prevent a digital divide from occurring within Kenya.	• Accessibility of satellite data can be improved through the development of an open access data portal and can be managed through a dedicated space data working group. ***[Physical and Digital Infrastructure Accessibility Programme]**** • Investing in the requisite internet and broadband infrastructure to grow coverage in Kenya and implementing subsidy programmes to make mobile devices more accessible to the financially needy can prevent a digital divide from occuring. ***[Physical and Digital Infrastructure Accessibility Programme]****	 ESTABLISHING

* = **Intervention proposed in this roadmap**

Based off the IDIA Goals, interventions aim to bridge gaps, propelling the Kenyan ecosystem towards its envisioned future state (3/3)

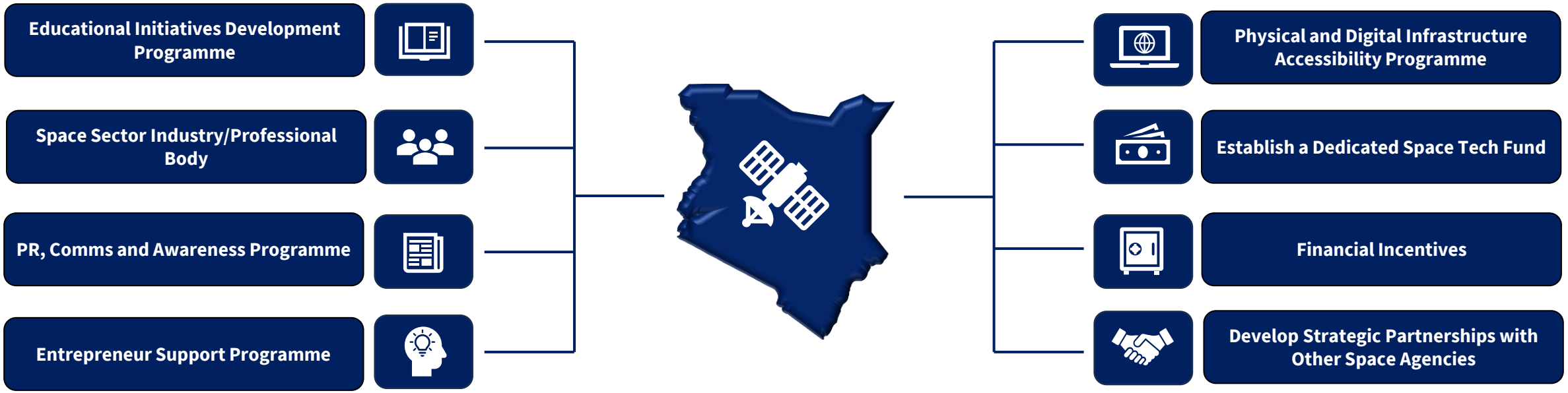
	Current State	Key Ecosystem Gaps Identified	Interventions that Address Identified Gaps	Potential Future State
POLICIES & REGULATIONS	 FORMING	• **Policy uncertainty** due to frequent updates to Kenya's policies which make it difficult for industries to stay compliant with evolving regulatory requirements. • **Insufficient policies** to support and protect the rights of space-based data and communication. • **Lack of mechanisms for public engagement and transparency** in space policy development and decision-making.	• Create a centralised platform for real-time policy updates and regulatory guidance ***[Space Sector Industry/Professional Body]****. • Establish regulations that safeguard the rights and security of data transmitted and collected from space, including data privacy and protection measures ***[No intervention that directly addresses this gap].*** • Implement public consultation and transparency in space policy development to ensure inclusive decision-making ***[Space Sector Industry/Professional Body]****.	 ESTABLISHING
PATHWAYS TO SCALE	 FORMING	• **Lack of government funding** and budget allocation for space activities, and there is need to attract venture capital and private investment in space start-ups and projects is crucial for scaling up the sector. • **Minimal development of space technology** (e.g., satellite manufacturing) – the sector is in its nascent stages, with a few initiatives like the Taifa-1 satellite.	• Establishing a fund that is dedicated to space activities and technology would enable start-ups and innovators in the space sector to access funding and making scaling possible. ***[Space Technology Fund]**** • Technological capabilities are essential for scaling and can be enhanced through access to entrepreneurial and technology development support**.** ***[Entrepreneur Support Programme]* [Physical and Digital Infrastructure Accessibility Programme]****	 ESTABLISHING
COLLECTIVE APPROACH	 FORMING	• **Limited integration and cooperation** among stakeholders creates challenges as redundant initiatives still persist, underscoring the need for stronger in the to fully harness the potential of Kenya's space ecosystem. • **Limited public-private partnerships (PPPs) in the space sector** to stimulate investment and technological advancement - there is therefore a need for further development of PPPs.	• The presence of an industry body to coordinate events and stakeholders in the ecosystem , would allow for a collective approach and alignment , reducing redundant activities and initiatives. ***[Space Sector Industry/Professional Body]**** • Through the establishment of an industry body to facilitate collaboration and partnerships between private and public sector actors. ***[Space Sector Industry/Professional Body]****	 ESTABLISHING

*** = Intervention proposed in this roadmap**

DETAILED ROADMAP INTERVENTIONS

To assist in the development of the entire ecosystem, interventions have been designed

The following, non-exhaustive, interventions have been tailored to address all IDIA goals and are spread across a ten-year timeline starting in Q3 2024. **As the custodian of the roadmap, the Kenya Space Agency (KSA) oversees the interventions and potential partners. However, the roadmap is designed to be implemented collaboratively by the entire ecosystem, allowing interventions to be led by other industry actors as well.**



FAST EMERGING ECOSYSTEM

START

Physical and Digital Infrastructure Accessibility Programme

- Expand Internet and Broadband Coverage
- Implement subsidies for laptop and mobile device
- Build High Performance Computing (HPC)

Educational Initiatives Development Programme

- Industry Needs Assessment
- Launch Pilot Programmes
- Exchange Programme
- Establish advisory board
- Facilitate Faculty Internships etc
- Developed Tailored Scholarship Partnerships
- Building MOOCs
- Build supporting equipment and infrastructure

Space Sector Industry/Professional Body

- Develop Proposal and Framework
- Launch Space Sector Industry/ Professional Body
- Create COPs
- Convene Events
- Build Multi-functional Platform
- Space Tech Technical Facility

PR, Comms and Awareness Programme

- Monthly Newsletter
- Kenya Space Week
- Create guide for grants and government grants
- Develop Outreach Programme
- Highlight success stories for dissemination

Financial Incentives

- Research report to benchmark current tax incentives
- Stakeholder engagement
- Publish official document
- Conduct training sessions
- Establish fundraising campaigns to support R&D
- Improve accessibility of government grants
- **Financial Incentives**

Entrepreneur Support Programme

- Develop an Incubator/Accelerator Programme
- Launch Pilot Programme
- Host Seminar and Events
- Host Bi-Annual Networking Event
- Investor Readiness Programme

Space Tech Fund

- Funnel innovators to challenges and incubation programme
- Develop Proposal and Framework
- Investor Readiness Programme
- Select Fund Manager and refine proposal
- **Space Tech Fund Launch**

Develop Strategic Partnerships with Other Space Agencies

- Conduct industry international exchange programme
- Intergovernmental programmes for collaborative research
- Develop incentives for cross-continental trade

IMMEDIATE SHORT TERM (0-6 MONTHS)	SHORT TERM (7 MONTHS – 3 YEARS)	MEDIUM TERM (3 YEARS - 6 YEARS)	LONG TERM (6 YEARS+)

Educational Initiatives Development Programme (1/6)

OVERVIEW

This intervention creates space-focused postgraduate bridging programmes and aligns all education levels with industry requirements, fostering collaboration and obtaining funding for research and development.

POTENTIAL PARTNER(S)

- **Public Sector** (i.e., KSA, Ministry of Education, Ministry of Science, Technology, and Innovation)
- **Academic Institutions** (i.e., JKUAT, Kenyatta University, University of Nairobi)
- **Business Schools** (i.e., Strathmore Business School)
- **Private Sector/Industry** (i.e., Safaricom, Viwanda, Planet Labs)
- **NGO's** (i.e., Kenya Education Fund, Space for Africa, etc.)
- **Funders** (i.e., NRF)

FOCUS AND RATIONALE

This intervention is intended to build a strong talent pipeline, drive innovation, and bolster the growth and sustainability of the space sector, especially in regions with substantial potential, such as Africa through, **(i) Building bridging courses and Massive Online Open Courses (MOOCS), (ii) Conducting coordinated curriculum development and restructuring and (iii) increasing scholarships and fellowships.**

IDIA GOALS ADDRESSED

WORKSTREAMS & ACTIVITIES	OUTPUTS	MEL INDICATORS	TIMING/PERIOD	CONNECTION TO OTHER INTERVENTIONS
1.1. Conduct an industry needs assessment, to identify specific challenges and opportunities to develop educational initiatives for Postgraduate Bridging Programmes, in the Kenyan space sector, by Q2 2025.	• Industry needs assessment document	• Number of stakeholders consulted, and inputs on industry needs provided. • Total count of unique challenges reported by stakeholders. • Total count of potential opportunities for educational initiatives highlighted. • Total count of specific gaps in existing educational programmes. • Average score indicating how well the proposed programmes align with industry needs (e.g., on a scale from 1 to 5). • Average rating of the effectiveness of the monitoring framework.	Short Term Q3 2024 – Q2 2025	• Develop a proposal for a Space Tech Fund • Coordinate Curriculum Development and Restructuring Programme • Build a Multifunctional Space Sector Platform
1.2. Launching a pilot programme to assess feasibility and uptake of the Postgraduate Bridging Programmes by Q3 2027.	• Pilot programme	• Percentage of pilot activities initiated as per the planned schedule. • Percentage of pilot activities completed within the designated timeframe. • Percentage of allocated resources (financial, human, material) utilised as planned. • Number of stakeholders that participated in pilot programme.	Medium Tern Q1 2026 – Q3 2027	• Coordinate Curriculum Development and Restructuring Programme

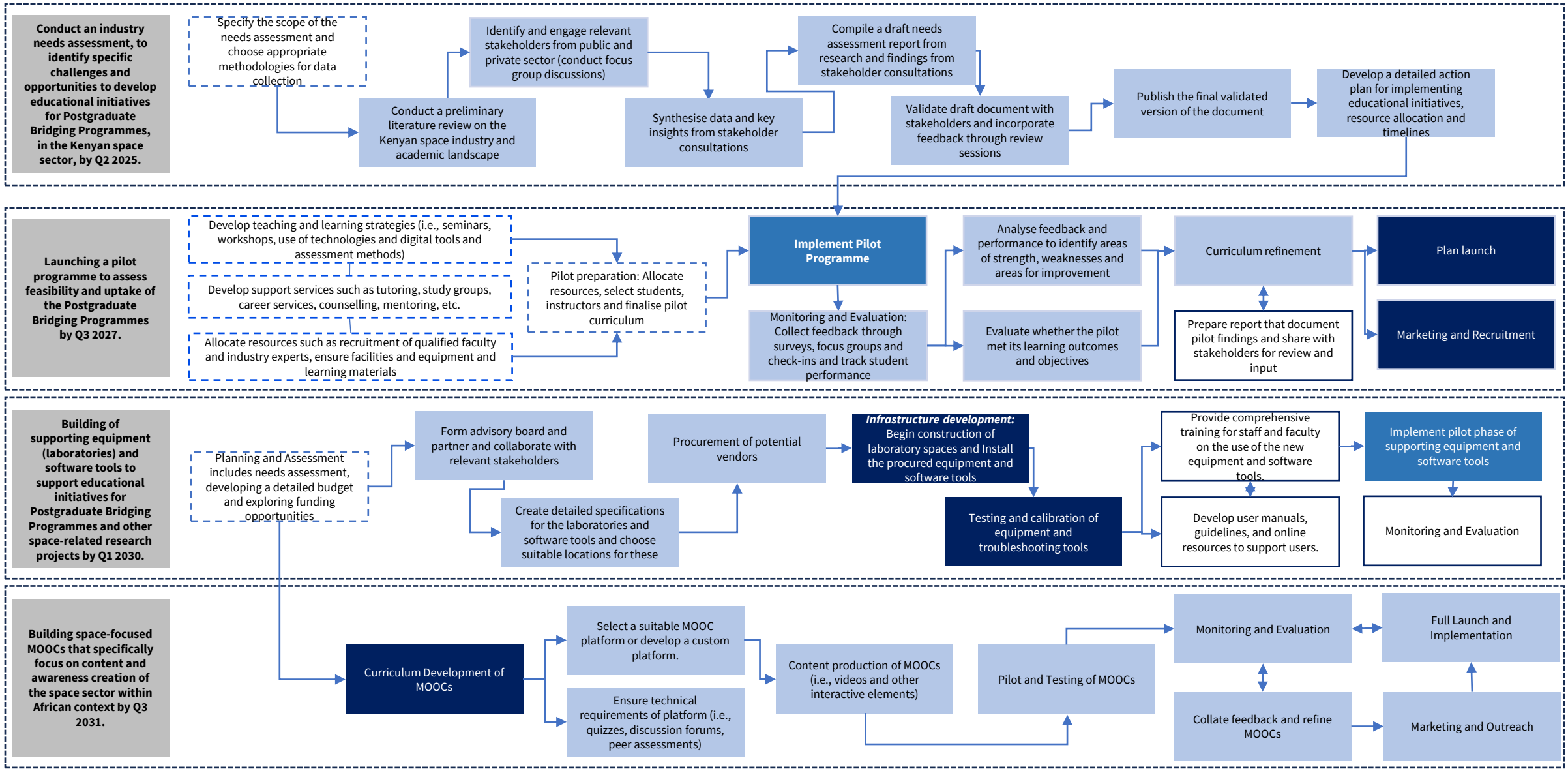
Educational Initiatives Development Programme (2/6)

WORKSTREAMS & ACTIVITIES	OUTPUTS	MEL INDICATORS	TIMING/PERIOD	CONNECTION TO OTHER INTERVENTIONS
1.3. Building of supporting equipment (laboratories) and software tools to support educational initiatives for postgraduate bridging programmes and other space-related research projects by Q1 2030.	• Facilities and equipment to support research projects or experiments	• Percentage of equipment meeting specified standards and requirements. • Qualitative feedback from users on equipment and software performance. • Percentage of laboratory space and equipment being used effectively. • Number of research projects or experiments conducted using the new laboratories and tools.	Long Term Q1 2030 - Ongoing	• Improve access to physical and digital infrastructure • Coordinate Curriculum Development and Restructuring Programme • Build a Multifunctional Space Sector Platform
1.4. Building space-focused MOOCs that specifically focus on content and awareness creation of the space sector within African context by Q1 2031.	• A catalogue of Massive Open Online Courses (MOOCs) focused on the African space context	• Percentage of curriculum content specifically tailored to the African context and space industry needs. • Number of African space industry experts and academics involved in the course development. • Total number of participants enrolled in the MOOCs. • Percentage of participants who complete the course. • Percentage of participants satisfied with the course content and delivery.	Long Term Q1 2030 – Q1 2031	• Coordinate Curriculum Development and Restructuring Programme • Build a Multifunctional Space Sector Platform
2.1. Gather feedback through surveys, interviews, and focus groups with employers and industry leaders to identify skill gaps and emerging trends by Q3 2025.	• Surveys, interviews and focus groups conducted. • Feedback on skills gaps and trends collated and analysed.	• Percentage of employers and industry leaders who respond to the surveys. • Total number of interviews and focus groups held. • Ranking of skill gaps by their perceived importance and urgency. • Percentage of emerging trends that are considered critical for the future of the industry. • Diversity of stakeholders engaging in surveys, interviews and focus groups, grouped in terms of industry sectors, company sizes, and geographic locations.	Short Term Q3 2024 – Q2 2025	• Establish Educational Initiatives Development Programme • Build a Multifunctional Space Sector Platform
2.2. Establish advisory boards composed of industry experts, educators, and alumni to provide guidance on curriculum development by Q1 2028.	• Advisory boards established.	• Diversity of members in terms of industry sectors, educational backgrounds, and professional experiences. • Percentage of board members attending meetings and participating in activities. • Percentage of recommendations adopted and integrated into curriculum development processes.	Medium Term Q2 2027 – Q1 2028	• Establish Educational Initiatives Development Programme • Establishing a Community of Practice

Educational Initiatives Development Programme (2/6)

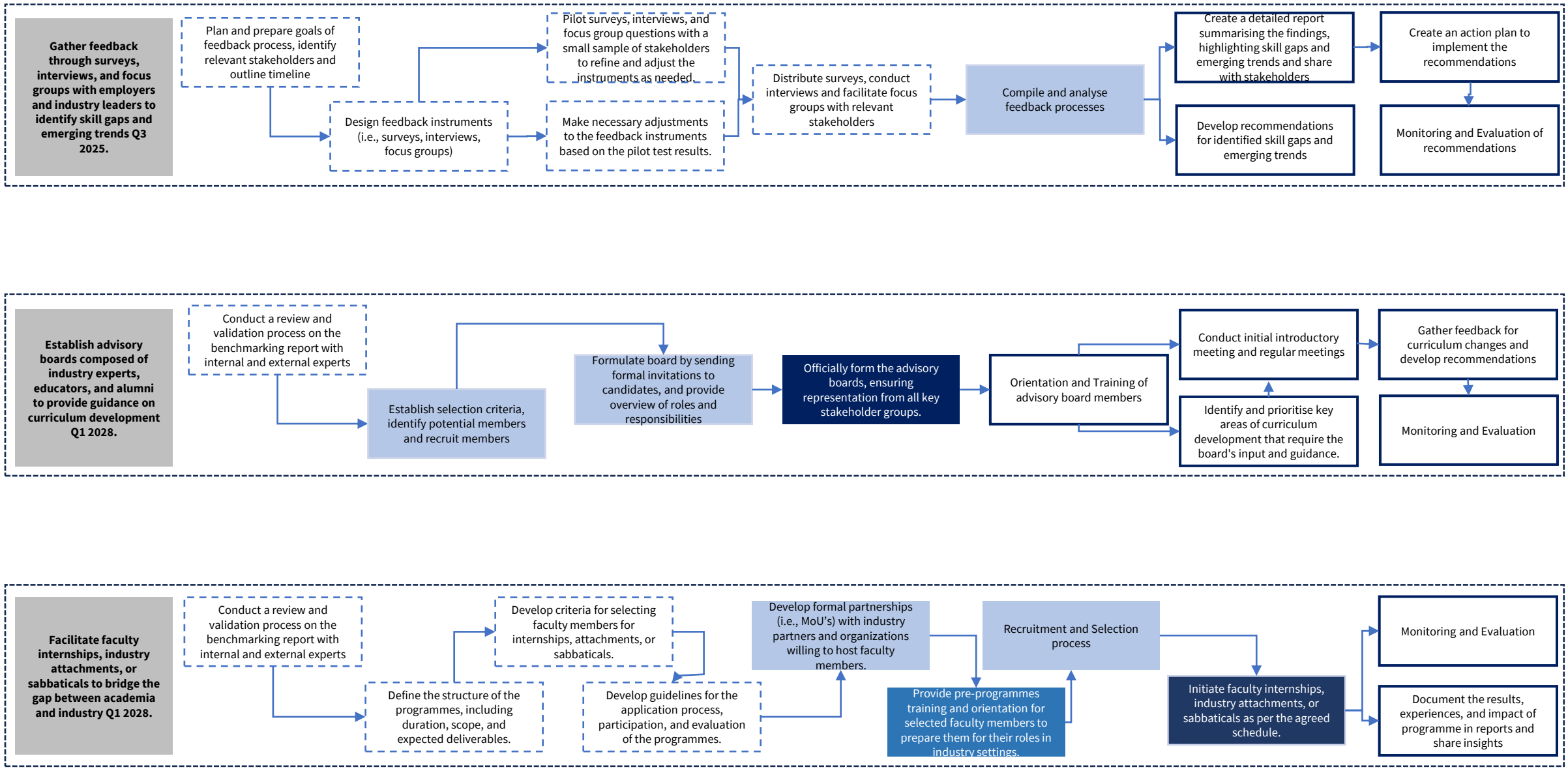
WORKSTREAMS & ACTIVITIES	OUTPUTS	MEL INDICATORS	TIMING/PERIOD	CONNECTION TO OTHER INTERVENTIONS
2.3. Facilitate faculty internships, industry attachments, or sabbaticals to bridge the gap between academia and industry by Q1 2028.	• Development of internships, industry attachments, or sabbaticals.	• Total count of faculty members participating in internships, industry attachments, or sabbaticals. • Percentage of participants who successfully complete their internships or attachments. • Number and types of new skills or knowledge gained by faculty members during their industry experience. • Qualitative and quantitative feedback from faculty members about their experiences and the support provided.	Medium/Long Term Q2 2027 – Q1 2028	• Establish Educational Initiatives Development Programme • PR, Comms and Awareness Programme
3.1. Develop tailored scholarship partnerships in niche space sector areas (e.g., space weather) with academia and industry by Q3 of 2026	• Partnership agreements • Scholarship	• Number of partnership agreements • Number of scholarships awarded	Medium Term Q4 2027 – Q3 2028	• Space Tech Fund Proposal • Increase accessibility of tailor-made government grants
3.2. Establish exchange programmes for the purpose of R&D between Kenyan universities and international universities by Q4 of 2025	• Signed MoUs • Exchange programme	• Number of MoUs signed • Number of exchange programmes funded	Medium Term Q4 2024 – Q4 2025	• Develop strategic partnerships between space agencies • Establishing COPs

1. Establish Educational Initiatives Development Programme (4/6)



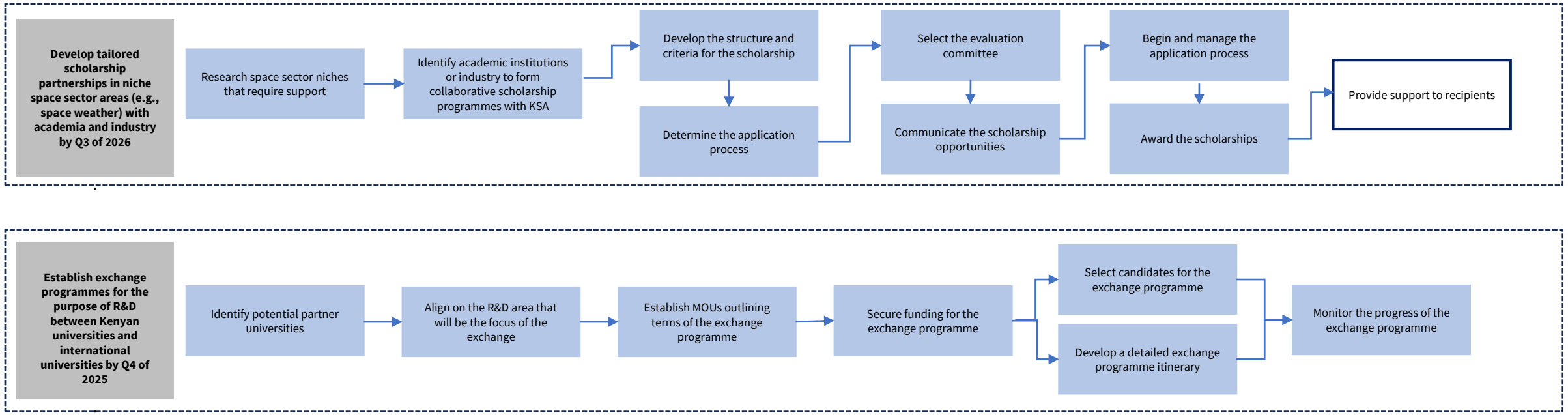
Preliminary activity | Short-term | Medium-term | Long-term | Post-implementation

2. Coordinate Curriculum Development And Restructuring Programme (5/6)



Preliminary activity | Short-term | Medium-term | Long-term | Post-implementation

3: Increase Accessibility To Scholarships And Fellowships (6/6)



Preliminary activity | Short-term | Medium-term | Long-term | Post-implementation

Space Sector Industry/Professional Body (1/7)

OVERVIEW

The intervention aims to establish a space sector body for tracking participants, fostering collaboration, and standardising practices, alongside a Community of Practice platform for networking and data accessibility.

POTENTIAL PARTNER(S)

- **Public Sector** (i.e., KSA, Ministry of Education, Ministry of Information Communication and the Digital Economy,)
- **Academic Institutions** (i.e., JKUAT, Kenyatta University, University of Nairobi)
- **Industry** (i.e ESRI, Digital Earth Africa, Planet Labs, Leo Sky Africa, etc.)
- **Convenors** (i.e. African Union, UNOOSA, Kenya Space Society etc.)

FOCUS AND RATIONALE

It provides a platform to address challenges, create industry-specific standards, and drive innovation. Additionally, **(i) through the professional body, members can leverage collective expertise to advocate for the sector's growth, promote best practices, and enhance the overall capabilities and competitiveness of the space industry, (ii) Establish relevant Communities of Practice and (iii) Build Multifunctional Space Sector Platform (iv) Space Tech Technical Assistance Facility**

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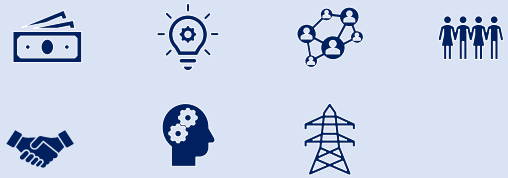
IDIA GOALS ADDRESSED



WORKSTREAMS & ACTIVITIES	OUTPUTS	MEL INDICATORS	TIMING/PERIOD	CONNECTION TO OTHER INTERVENTIONS
1.1 Develop proposal and framework for the professional body, including the mission statement, governance structure and membership criteria by Q4 2024.	• Detailed constitution outlining the professional body's objectives, vision, code of ethics and governance structure	• Number of stakeholders involved in the development process. • Number of policies and procedures established as part of the governance structure. • Degree to which the governance structure and membership benefits align with industry best practices and standards.	Immediate Short Term Q3 2024 – Q4 2024	• Establishing a Community of Practice
1.2 Build out the online membership platform and create a member benefits package by Q1 2025.	• Registered space sector professional body with an online membership platform	• Number of key features implemented on the membership platform (e.g., user registration, profile management, payment processing). • Increase in the number of members within the first six months following the platform launch • Number of technical issues or errors on the membership platform reported by users.	Short Term Q1 2025 – Q1 2026	• Establishing a Community of Practice • PR, Comms and Awareness Programme • Build a Multifunctional Space Sector Platform
1.3 Establish key performance indicators (KPIs) and a monitoring framework to measure the success and impact of the professional body's activities from Q1 2025	• A robust monitoring and evaluation plan with feedback mechanisms for input from members for continuous improvement.	• Number of KPIs documented, covering all relevant areas of the professional body's activities (e.g., membership growth, financial performance, professional development). • Diversity of tools and methods utilised for data collection (e.g. surveys etc,) • Number of stakeholders involved in the process of identifying KPIs and developing the monitoring framework.	Short Term Q1 2025 – Ongoing	• PR, Comms and Awareness Programme • Establishing a Community of Practice

Space Sector Industry/Professional Body (2/7)

WORKSTREAMS & ACTIVITIES	OUTPUTS	MEL INDICATORS	TIMING/PERIOD	CONNECTION TO OTHER INTERVENTIONS
2.1. Create a CoP charter, outlining the community's objectives, funding sources, and planned activities, by the end of Q4 2025.	• Finalised CoP charter • Comprehensive list of CoP core activities • Brainstorming workshop	• Number of organisations involved in drafting the CoP charter • Number of organisations officially adopting CoP charter (joining CoP) • Number of brainstorming workshops hosted	Short Term Q1 2025 – Q4 2025	• Building a Multifunctional Space Sector Platform
2.2. Formalise CoP and begin extending memberships to potential entrants, by Q2 of 2027.	• Inaugural event • CoP online platform • Feedback survey • Convening events	• Number of participants • Number of registered/official CoP members • Percentage of event attendees completing survey	Short Term Q1 2026 – Q2 2026	• Building a Multifunctional Space Sector Platform • PR, Comms and Awareness Programme
2.3. Facilitate a minimum of four convening events (e.g., workshops, seminars, space interest groups) by Q2 2029, to engage the community and foster collaboration, staring with an inaugural event.	• Convening event • Posters for convening event • List of invitees	• Number of convening events hosted • Number of attendees at each convening event • Percentage of invitees in attendance	Short to Medium-Term Q2 2026 – Q4 2029	• Building a Multifunctional Space Sector Platform • PR, Comms and Awareness Programme
2.4. Enhance public-private partnerships through knowledge sharing by publishing joint research publications, and case studies. Develop and share at least five collaborative case studies and joint research publications by Q4 2030.	• Research publications • Formalised partnerships	• Number of joint research papers published • Number of formalised research partnerships • Number of Memoranda of Agreement	Long term Q1 2031 +	• Building a Multifunctional Space Sector Platform • PR, Comms and Awareness Programme
3.1 Conduct surveys, interviews, and workshops to understand the specific needs and challenges of stakeholders to inform content on the Multifunctional Space Sector Platform in Q1 2027.	• Surveys, interviews and workshops conducted • Feedback on skills gaps and trends collated and analysed.	• Percentage of stakeholders who respond to surveys or participate in interviews and workshops. • Percentage of completed surveys and interviews versus started ones. • Number and types of specific needs identified through surveys, interviews, and workshops. • Average rating given by stakeholders on the clarity of communicating the results of surveys, interviews, and workshops to stakeholders and the actions taken (e.g., on a scale from 1 to 5).	Medium Term Q1 2027 – Q1 2027	• Establish Educational Initiatives Development Programme • Coordinate Curriculum Development and Restructuring Programme
3.2. Establish a searchable knowledge base or repository where users can access documents, reports, and technical specifications and contact information of desired stakeholders from Q4 2030.	• Searchable knowledge base or repository established.	• Number of users accessing the knowledge base or repository over a defined period. • Total time taken by search features in retrieving relevant documents and information quickly. • Overall satisfaction of users with the knowledge base or repository, including usability and content quality.	Long Term Q4 2028 – Q4 2030	• PR, Comms and Awareness Programme • Establishing a Community of Practice

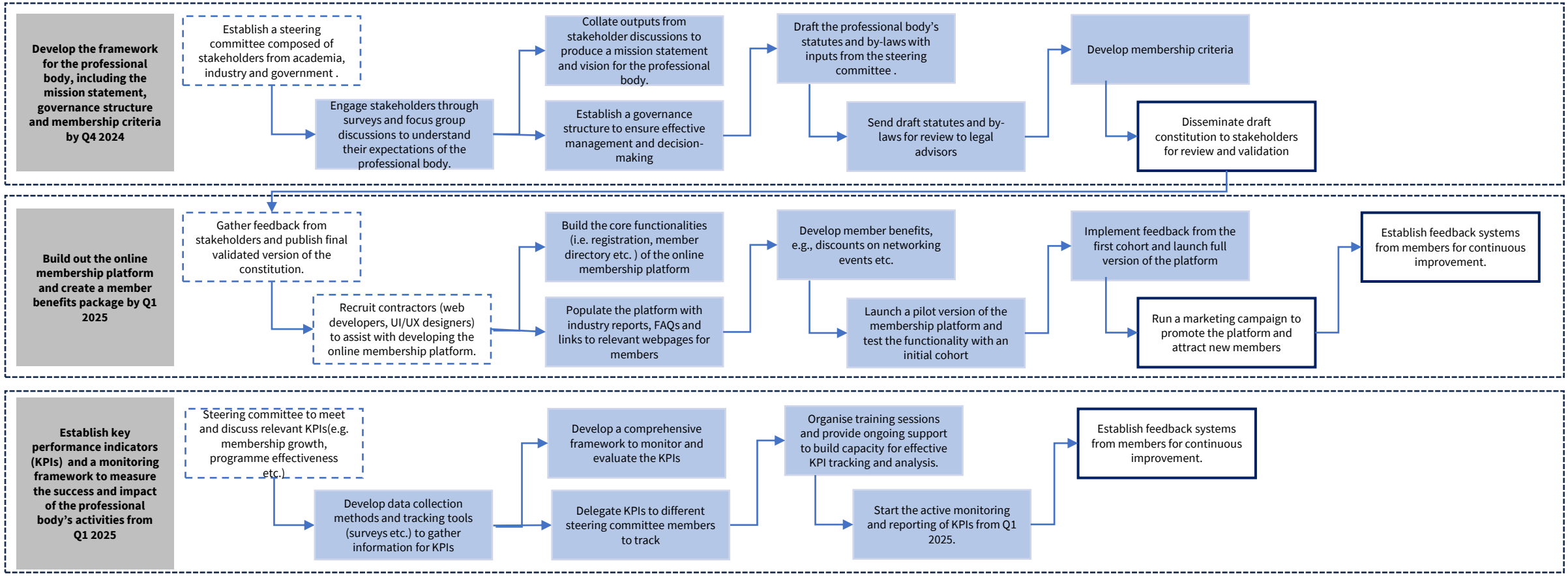
Space Sector Industry/Professional Body (3/7)

WORKSTREAMS & ACTIVITIES	OUTPUTS	MEL INDICATORS	TIMING/PERIOD	CONNECTION TO OTHER INTERVENTIONS
2.1. Create a CoP charter, outlining the community's objectives, funding sources, and planned activities, by the end of Q4 2025.	• Finalised CoP charter • Comprehensive list of CoP core activities • Brainstorming workshop	• Number of organisations involved in drafting the CoP charter • Number of organisations officially adopting CoP charter (joining CoP) • Number of brainstorming workshops hosted	Short Term Q1 2025 – Q4 2025	• Building a Multifunctional Space Sector Platform
2.2. Formalise CoP and begin extending memberships to potential entrants, by Q2 of 2027.	• Inaugural event • CoP online platform • Feedback survey • Convening events	• Number of participants • Number of registered/official CoP members • Percentage of event attendees completing survey	Short Term Q1 2026 – Q2 2026	• Building a Multifunctional Space Sector Platform • PR, Comms and Awareness Programme
2.3. Facilitate a minimum of four convening events (e.g., workshops, seminars, space interest groups) by Q2 2029, to engage the community and foster collaboration, staring with an inaugural event.	• Convening event • Posters for convening event • List of invitees	• Number of convening events hosted • Number of attendees at each convening event • Percentage of invitees in attendance	Short to Medium-Term Q2 2026 – Q4 2029	• Building a Multifunctional Space Sector Platform • PR, Comms and Awareness Programme
2.4. Enhance public-private partnerships through knowledge sharing by publishing joint research publications, and case studies. Develop and share at least five collaborative case studies and joint research publications by Q4 2030.	• Research publications • Formalised partnerships	• Number of joint research papers published • Number of formalised research partnerships • Number of Memoranda of Agreement	Long term Q1 2031 +	• Building a Multifunctional Space Sector Platform • PR, Comms and Awareness Programme
3.1 Conduct surveys, interviews, and workshops to understand the specific needs and challenges of stakeholders to inform content on the Multifunctional Space Sector Platform in Q1 2027.	• Surveys, interviews and workshops conducted • Feedback on skills gaps and trends collated and analysed.	• Percentage of stakeholders who respond to surveys or participate in interviews and workshops. • Percentage of completed surveys and interviews versus started ones. • Number and types of specific needs identified through surveys, interviews, and workshops. • Average rating given by stakeholders on the clarity of communicating the results of surveys, interviews, and workshops to stakeholders and the actions taken (e.g., on a scale from 1 to 5).	Medium Term Q1 2027 – Q1 2027	• Establish Educational Initiatives Development Programme • Coordinate Curriculum Development and Restructuring Programme
3.2. Establish a searchable knowledge base or repository where users can access documents, reports, and technical specifications and contact information of desired stakeholders from Q4 2030.	• Searchable knowledge base or repository established.	• Number of users accessing the knowledge base or repository over a defined period. • Total time taken by search features in retrieving relevant documents and information quickly. • Overall satisfaction of users with the knowledge base or repository, including usability and content quality.	Long Term Q4 2028 – Q4 2030	• PR, Comms and Awareness Programme • Establishing a Community of Practice

Space Sector Industry/Professional Body (4/7)

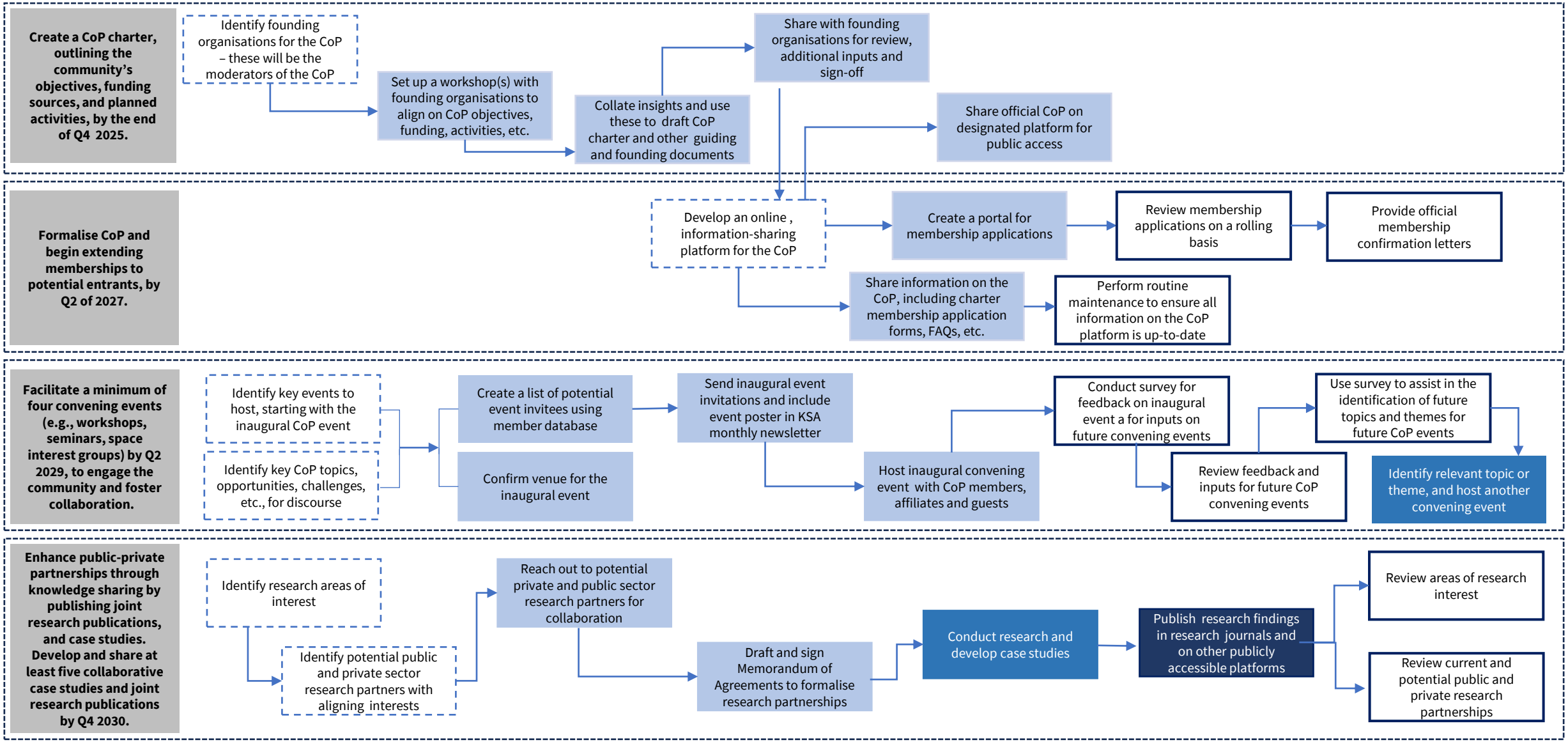
WORKSTREAMS & ACTIVITIES	OUTPUTS	MEL INDICATORS	TIMING/PERIOD	CONNECTION TO OTHER INTERVENTIONS
4.1. Develop a proposal for the Space Tech Technical Assistance Facility (STTAF) by Q4 2028.	• A detailed proposal, outlining the scope and objectives for STTAF	• Number of stakeholder consultations and feedback quality • Number of identified risks and mitigation strategies implemented	Medium Term Q1 2028 – Q3 2028	• Establish Communities Of Practice (COP) • Develop an Entrepreneur Support Programme
4.2. Select and train appropriate representatives from different stakeholder groups to form part of the STTAF advisory committee by Q3 2029.	• A STTAF advisory committee consisting of subject matter experts from various stakeholder groups across the sector.	• Number of representatives selected from each stakeholder group • Percentage of selected representatives who complete training • Participant feedback on the quality and relevance of the training • Diversity of the advisory committee in terms of expertise and stakeholder group representation • Effectiveness of the advisory committee's contributions to STTAF's goals	Medium Term Q1 2029 – Q3 2029	• Establish Communities Of Practice (COP) • Establish a Space Sector Professional Body
4.3. Develop a training programme to equip space sector professionals with skills, knowledge, and technical expertise to advance their projects by Q4 2030.	• Development of a specialised mentorship and training programme	• Number of participants in mentorship and training programmes • Participant satisfaction and effectiveness ratings • Number of projects or businesses that successfully apply skills and knowledge gained • Document impact on participants' projects or businesses (i.e., at least 20 case studies)	Medium to Long Term Q4 2029 – Q4 2030	• Develop an Entrepreneur Support Programme
4.4.Develop a quality assurance framework for STTAF to ensure high standards in mentorship, training, and technical support for the space sector starting Q4 2030.	• Development of comprehensive standards, monitoring and evaluation processes, continuous improvement efforts, and ensuring that all activities adhere to industry best practices, regulatory requirements, and organizational goals.	• Percentage of programmes meeting established quality standards • Participant feedback on the quality and effectiveness of support services • Frequency and outcomes of quality audits and reviews • Number of improvements made based on QA findings	Long Term Q4 2030 – On-going	• Develop an Entrepreneur Support Programme

1: Establish a Space Sector Industry/Professional Body (4/7)



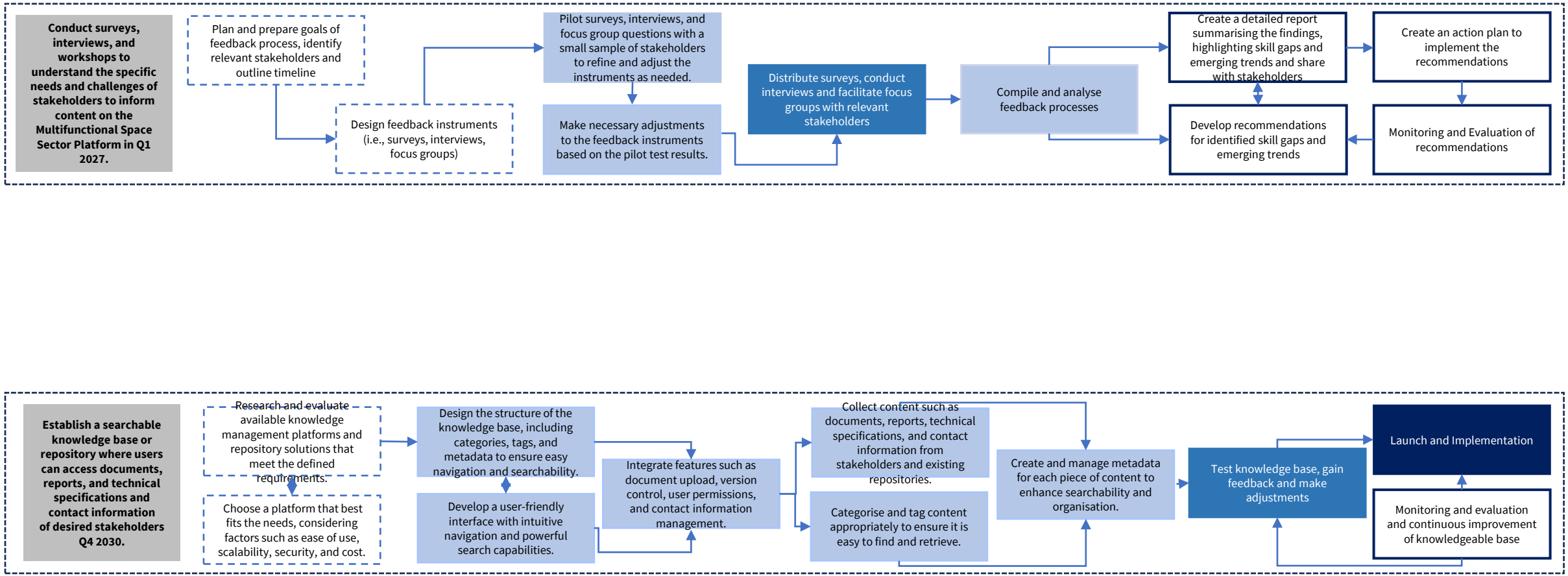
Preliminary activity | Short-term | Medium-term | Long-term | Post-implementation

2: Establishing A Community Of Practice (5/7)



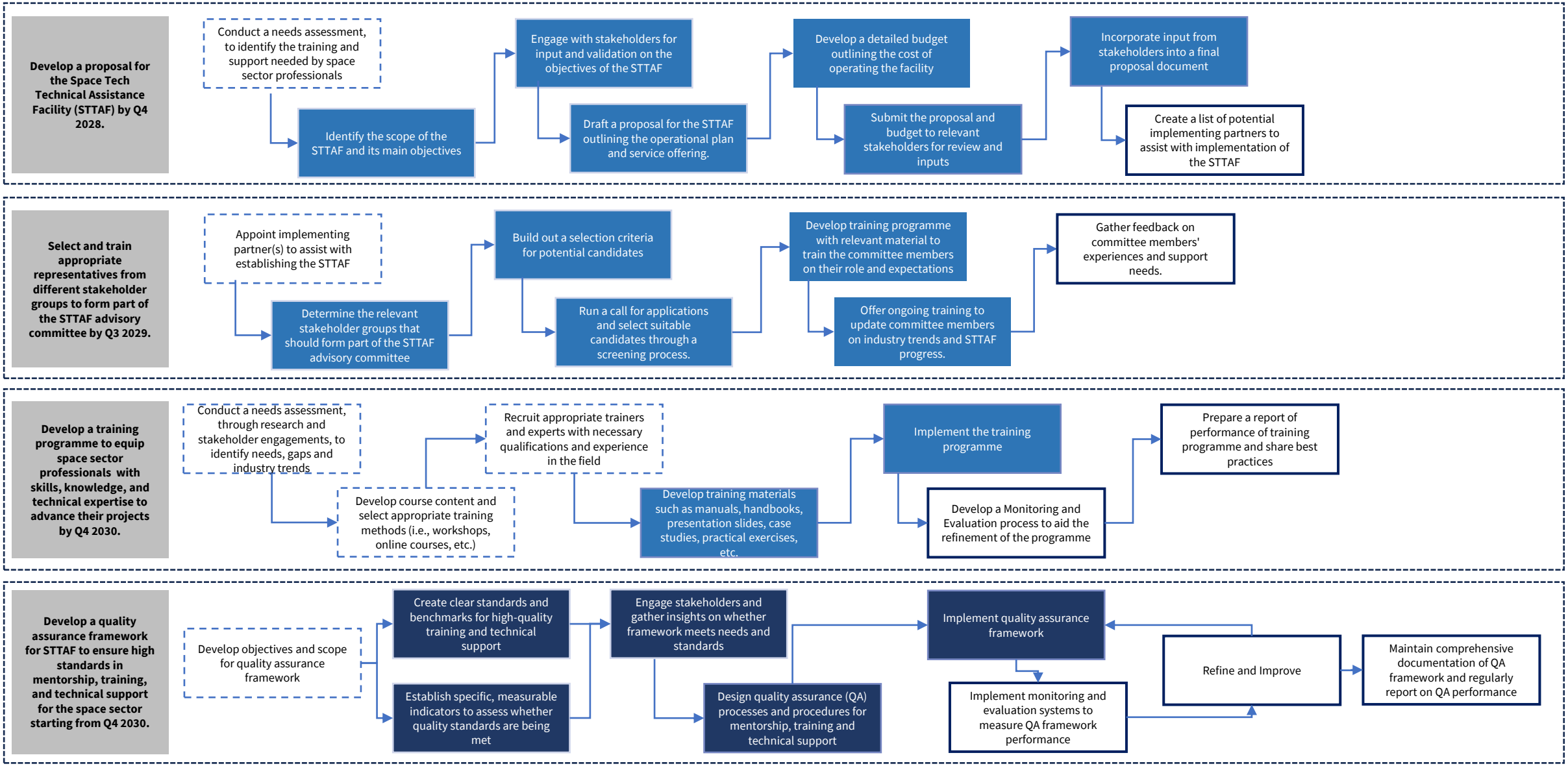
Preliminary activity | Short-term | Medium-term | Long-term | Post-implementation

3: Build A Multifunctional Space Sector Platform (6/7)



Preliminary activity | Short-term | Medium-term | Long-term | Post-implementation

4: Space Tech Technical Assistance Facility (7/7)



Preliminary activity | Short-term | Medium-term | Long-term | Post-implementation

PR, Comms And Awareness Programme (1/4)

OVERVIEW

This intervention is designed to ensure that awareness of space-related activities and technologies is enhanced, both within and beyond the Kenyan space sector.

POTENTIAL PARTNER(S)

- **Public sector** (e.g., Kenya Space Agency, Ministry of ICT and Innovation, Ministry of Education)
- **Private sector/Industry** (e.g., Leo Sky Africa, Women in Space, etc)
- **Academic institutions** (e.g., University of Nairobi, Kenyatta University)
- **Development and Civil Society Organisations** (e.g., USAID, Mercy Corps)

FOCUS AND RATIONALE

Access to digital infrastructure like satellite data and processing software is crucial for scientific and technological advancement to occur within the ecosystem. While physical infrastructure, including infrastructure supporting the delivery of reliable and high-speed internet connectivity, high performance computing centres, innovation hubs, and co-working spaces provides innovators with necessary tools and other support services to help develop their innovations and drive economic growth. This is mainly through **(i) a Monthly Newsletter, (ii) Outreach Programmes, (iii) Highlighting Success Stories and (iv) Kenya Space Week**

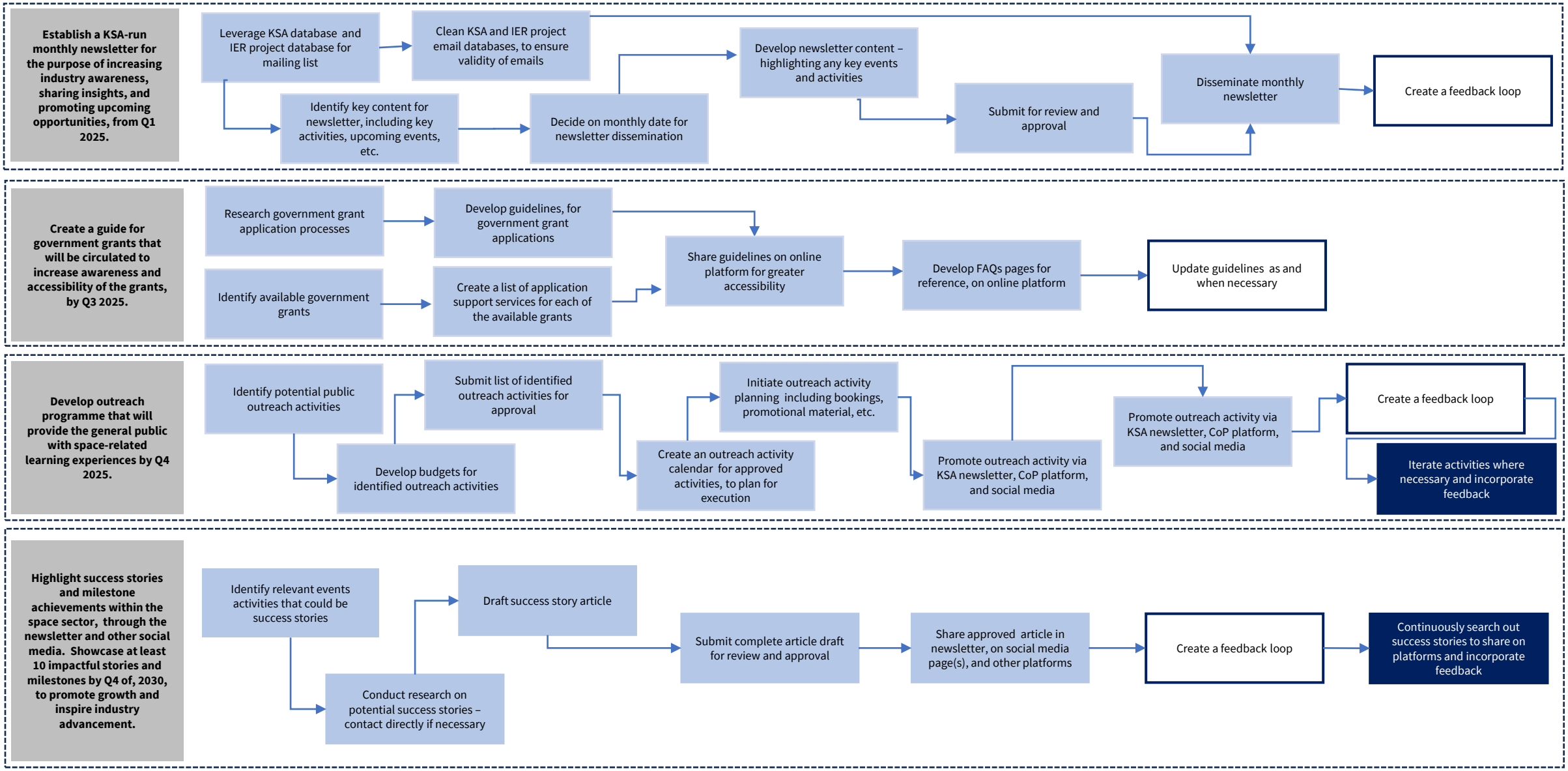
IDIA GOALS ADDRESSED

WORKSTREAMS & ACTIVITIES	OUTPUTS	MEL INDICATORS	TIMING/PERIOD	CONNECTION TO OTHER INTERVENTIONS
1.1. Establish a monthly, KSA-run, newsletter for the purpose of increasing industry awareness, sharing insights, and promoting upcoming events and opportunities, from Q1 2025.	• Newsletter • Database of subscribers • List of opportunities in space sector • List of events in the space sector • Space awareness pieces	• Number of newsletters developed • Number of newsletter subscribers • Number of opportunities shared • Number of events shared • Number of space activity awareness pieces developed	Immediate Short Term Q3 2024 - Ongoing	• Establishing a Community of Practice • Building a Multifunctional Space Sector Platform
1.2.Create a guide for government grants that will be circulated to increase awareness and accessibility of the grants, by Q3 2025.	• Grant application guidelines • List of grant application FAQs	• Number of government grants posted • Number of people who have accessed government grants from awareness of the newsletter	Short Term Q1 2025 - Ongoing	• Building a Multifunctional Space Sector Platform
2.1. Develop outreach programme that will provide the general public with space-related learning experiences by Q4 2025.	• Experiential learning opportunities • Advertisements to trainings etc	• Number of outreach activity attendees • Number of outreach opportunities/activities • Number of flyers distributed • Number of impressions on social media platform	Short Term Q4 2025 - Ongoing	• Establishing a Community of Practice • Building a Multifunctional Space Sector Platform

PR, Comms And Awareness Programme (2/4)

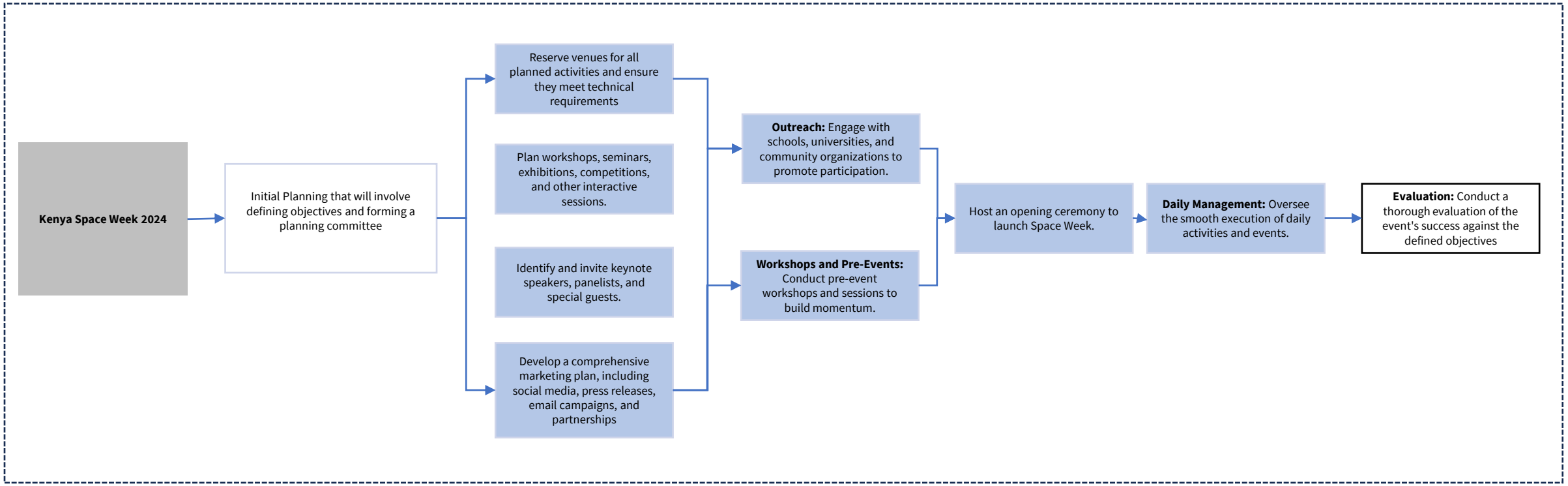
WORKSTREAMS & ACTIVITIES	OUTPUTS	MEL INDICATORS	TIMING/PERIOD	CONNECTION TO OTHER INTERVENTIONS
3.1. Highlight success stories and milestone achievements within the space sector, through the newsletter and other social media. Showcase at least 10 impactful stories and milestones by Q4 of, 2030, to promote growth and inspire industry advancement.	• Success stories of space start-ups, business and/or entrepreneurs • Documented milestone achievements of success stories • Social media page(s)	• Number of success stories shared • Number of milestones documented • Number of readers reached • Number of followers on social media pages	Medium Term Q1 2027 - Ongoing	• Establishing a Community of Practice • Building a Multifunctional Space Sector Platform
4.1. Kenya Space Week 2024	• Stargazing event • University talks and workshops • Media coverage	• Number of students engaged • Number of Universities involved • Number of the general public who attend event	Short Term Q4 2025	

PR, Comms And Awareness Programme (3/4)



Preliminary activity | Short-term | Medium-term | Long-term | Post-implementation

PR, Comms And Awareness Programme (4/4)



Preliminary activity | Short-term | Medium-term | Long-term | Post-implementation

Entrepreneur Support Programme (1/3)

OVERVIEW

An umbrella of programme for various programmes that are all intended to ensure that all the entrepreneurs and start-ups in the space sector have access to business development services and support.

POTENTIAL PARTNER(S)

- **Incubators and accelerators** (e.g. Founders Factory, Growth Africa, iLab)
- **Industry** (e.g. RIIS, Pawa IT, Ramani, Sayarilabs)
- **Research and academia** (e.g. University of Nairobi, Technical University of Kenya)
- **Convenors** (e.g. ASSEK, Innovate UK)

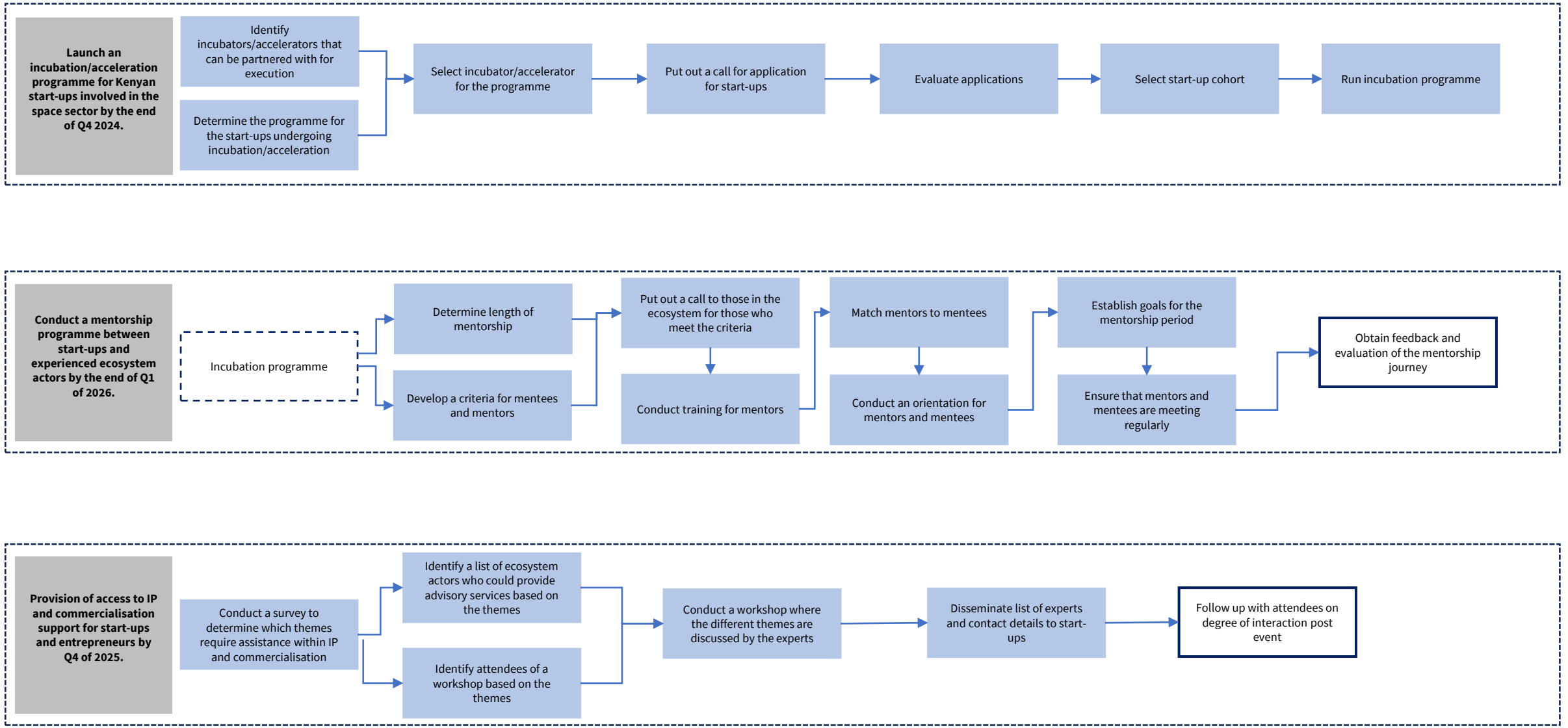
FOCUS AND RATIONALE

An Entrepreneur Support Programme for the space sector is vital to provide specialised business development services and support for entrepreneurs and start-ups. The space sector presents unique challenges, and tailored programmes can bridge the gap, enabling transformative ideas to become viable businesses. In supporting entrepreneurs and start-ups, these programmes aim to accelerate innovation and technology development as well as foster collaboration within the ecosystem. This can be done through the following **(i) An incubation/acceleration programme, (ii) Host workshops and seminars and (iii) Networking Events**

IDIA GOALS ADDRESSED

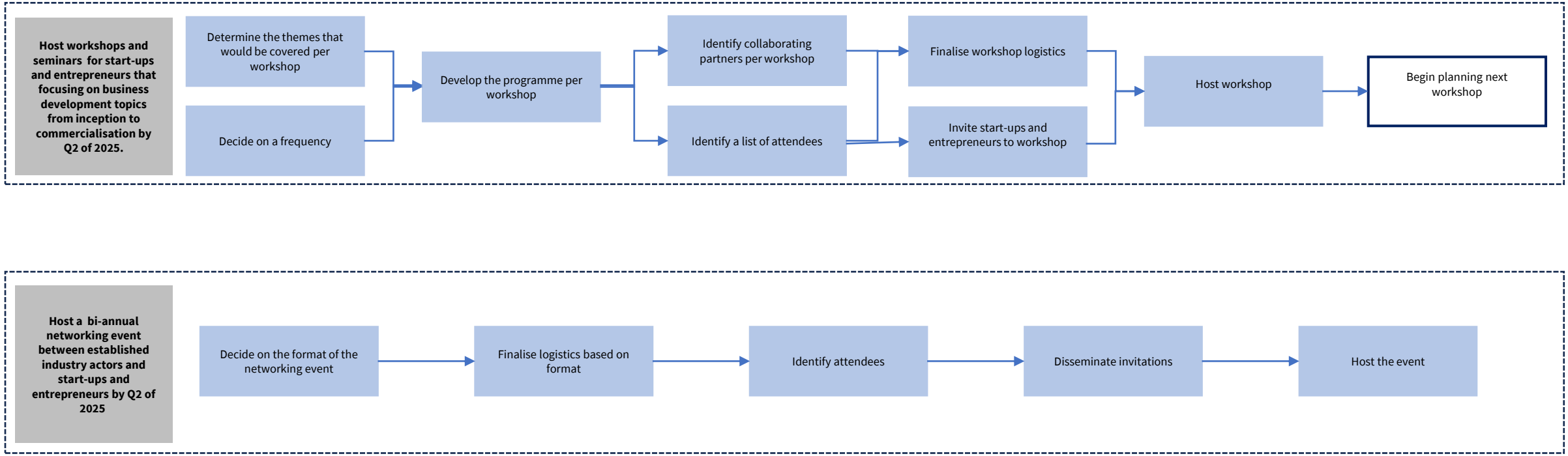
WORKSTREAMS & ACTIVITIES	OUTPUTS	MEL INDICATORS	TIMING/PERIOD	CONNECTION TO OTHER INTERVENTIONS
1.1. Launch an incubation/acceleration programme for Kenyan start-ups involved in the space sector by the end of Q4 2024.	• Incubator/accelerator partnership agreement • Cohort of start-ups for programme • Incubation/acceleration plan	• Number of start-ups to successfully complete programme	Immediate Short Term Q3 2024 – Q4 2024	
1.2. Conduct a mentorship programme between start-ups (from TRL 4-9) and experienced ecosystem actors by the end of Q1 of 2026.	• Mentorship criteria for mentees and mentors • List of matched mentors and mentees • Feedback and evaluation form of mentorship	• Number of matched mentees and mentors	Short Term Q4 2024 – Q1 2026	• Establish Communities Of Practice
1.3. Provision of access to IP and commercialisation support for start-ups and entrepreneurs by Q4 of 2025. **Links to activity below*	• List of ecosystem actors who can provide advisory services • Workshop*	• Number of ecosystem actors approached for advisory services	Short Term Q4 2024 – Q4 2025	
2.1. Host workshops and seminars for start-ups and entrepreneurs that focusing on business development topics from inception to commercialisation by Q2 of 2025.	• A series of workshops focusing on business development	• Number of workshops hosted • Number of attendees per workshop	Short Term Q4 2024 - Q2 2025	• Establish Communities Of Practice
3.1. Host a bi-annual networking event between established industry actors and start-ups and entrepreneurs by Q1 of 2025	• Bi-annual networking events	• Number of networking events • Number of attendees per networking event	Short Term Q4 2024 – Q1 2025	• Establish Communities Of Practice • PR, Comms and Awareness Programme

Develop An Entrepreneur Support Programme (2/3)



Preliminary activity | Short-term | Medium-term | Long-term | Post-implementation

Develop An Entrepreneur Support Programme (3/3)



Preliminary activity | Short-term | Medium-term | Long-term | Post-implementation

Physical and Digital Infrastructure Accessibility Programme (1/3)

OVERVIEW

This intervention is designed to ensure that participants within the space sector have access to physical and digital infrastructure (such as computing hardware and satellite data) to develop new innovations and/or grow their existing operations and services.

POTENTIAL PARTNER(S)

- **Public sector** (e.g., Kenya Space Agency, Ministry of ICT and Innovation, Ministry of Education, Kenya Chamber of Commerce)
- **Incubators and Accelerators** (e.g., Adanian Labs, Swahili Pot)
- **Private sector/Industry** (e.g., Safaricom, ESRI, Digital Earth Africa)
- **Academic institutions** (e.g., University of Nairobi, Kenyatta University)
- **Development Agencies** (e.g., USAID)

FOCUS AND RATIONALE

Access to digital infrastructure like satellite data and processing software is crucial for scientific and technological advancement to occur within the ecosystem. While physical infrastructure, including infrastructure supporting the delivery of reliable and high-speed internet connectivity, high performance computing centres, innovation hubs, and co-working spaces provides innovators with necessary tools and other support services to help develop their innovations and drive economic growth. This can be done through the following: **(i) Subsidies, (ii) User-friendly open data portal (iii) Infrastructure development**

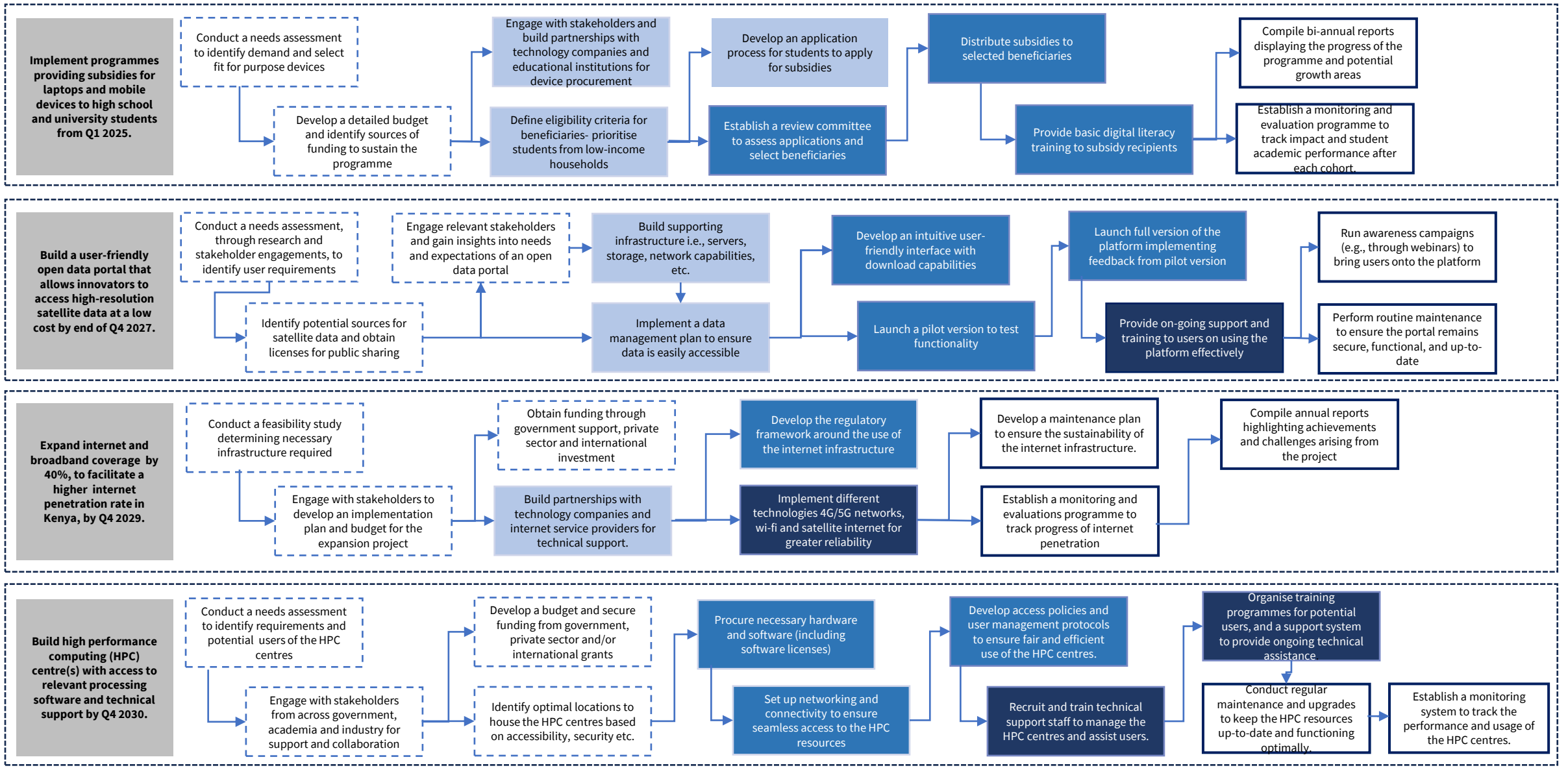
IDIA GOALS ADDRESSED

WORKSTREAMS & ACTIVITIES	OUTPUTS	MEL INDICATORS	TIMING/PERIOD	CONNECTION TO OTHER INTERVENTIONS
1.1. Implement programmes providing subsidies for laptops and mobile devices for educational use to high school and university students from Q1 2025.	• A sustainable yearly mobile device subsidy programme for high school and university students.	• Beneficiary demographics – i.e. number of students receiving devices based on gender, educational level and geographic region. • Percentage improvement in academic performance and digital literacy skills among beneficiaries between Q3 2025 and Q3 2026 (and annually), demonstrating advancements in their educational capabilities and technological proficiency.	Short to Long Term Q1 2025 - Ongoing	• Build Educational Programmes
2.1. Build a user-friendly open data portal that allows innovators to access high-resolution satellite data at low a low cost by end of Q4 2027.	• **High resolution satellite data is easily accessible**, through a **user-friendly data portal**, to innovators at low-cost and is used to build solutions for a variety of use cases.	• Number and variety of high-resolution satellite data sets available on the portal. • Number of programmes informed by satellite data. • Number of users registered on the open access data portal and frequency of visits and data downloads.	Medium to Long Term Q4 2024 – Q4 2027	• Enhancing Entrepreneurship and Entrepreneur Support • Building a Multifunctional Space Sector Platform

Physical and Digital Infrastructure Accessibility Programme (2/3)

WORKSTREAMS & ACTIVITIES	OUTPUTS	MEL INDICATORS	TIMING/PERIOD	CONNECTION TO OTHER INTERVENTIONS
3.1. Expand internet and broadband coverage by 40%, to facilitate a higher internet penetration rate, in Kenya by Q4 2029.	• Internet and broadband infrastructure expansion project.	• Number of broadband access points installed across the country. • Percentage of the country with reliable, high speed internet coverage.	Long Term Q1 2025 – Q4 2029	• Build Educational Programmes • Building a Multifunctional Space Sector Platform
3.2. Build high performance computing (HPC) centre(s) with access to relevant processing software and technical support by Q4 2030.	• Fully equipped HPC centres used for advanced data processing, along with HPC training programmes and qualified staff providing technical assistance.	• Number of relevant processing software applications installed and available for use. • Number of R&D projects and innovations emanating from the use of the HPC centres. • Number of technical support staff available.	Long Term Q1 2027 – Q4 2030	• Enhancing Entrepreneurship and Entrepreneur Support • Develop a Technical Assistance Advisory Committee

Physical and Digital Infrastructure Accessibility Programme (3/3)



Preliminary activity | Short-term | Medium-term | Long-term | Post-implementation

Space Tech Fund (1/3)

OVERVIEW

This intervention is designed to ensure that a dedicated pool of funding is available to support the development and commercialisation of innovative space technologies and solutions.

POTENTIAL PARTNER(S)

- **Public sector** (e.g., Kenya Space Agency, Ministry of ICT and Innovation, National Treasury of Kenya, Kenya Chamber of Commerce)
- **Incubators and Accelerators** (e.g., Adanian Labs, Antler, Growth Africa)
- **Funders (**e.g., ANZA Capital, Africa Tech Ventures, World Bank)
- **Development Agencies** (e.g., Mercy Corps, African Development Bank)

FOCUS AND RATIONALE

Start-ups and SMEs within the space sector often struggle to raise funding to finance their ventures. This is largely attributed to the risk averse nature of investors coupled with a lack of understanding on the ROI of investing into space projects. Establishing a dedicated space tech fund, where emerging space enterprises can access funding to grow their ventures is essential towards bridging this gap and ensuring the sustainable growth of the Kenyan commercial space landscape. Targeted funding can also support R&D that can lead to pioneering space technologies supporting socio-economic development in Kenya. This can be realised by **(i) Developing an Advanced Investor Readiness Programme, (ii) Proposal Development and (iii) Establishment of a Fund**

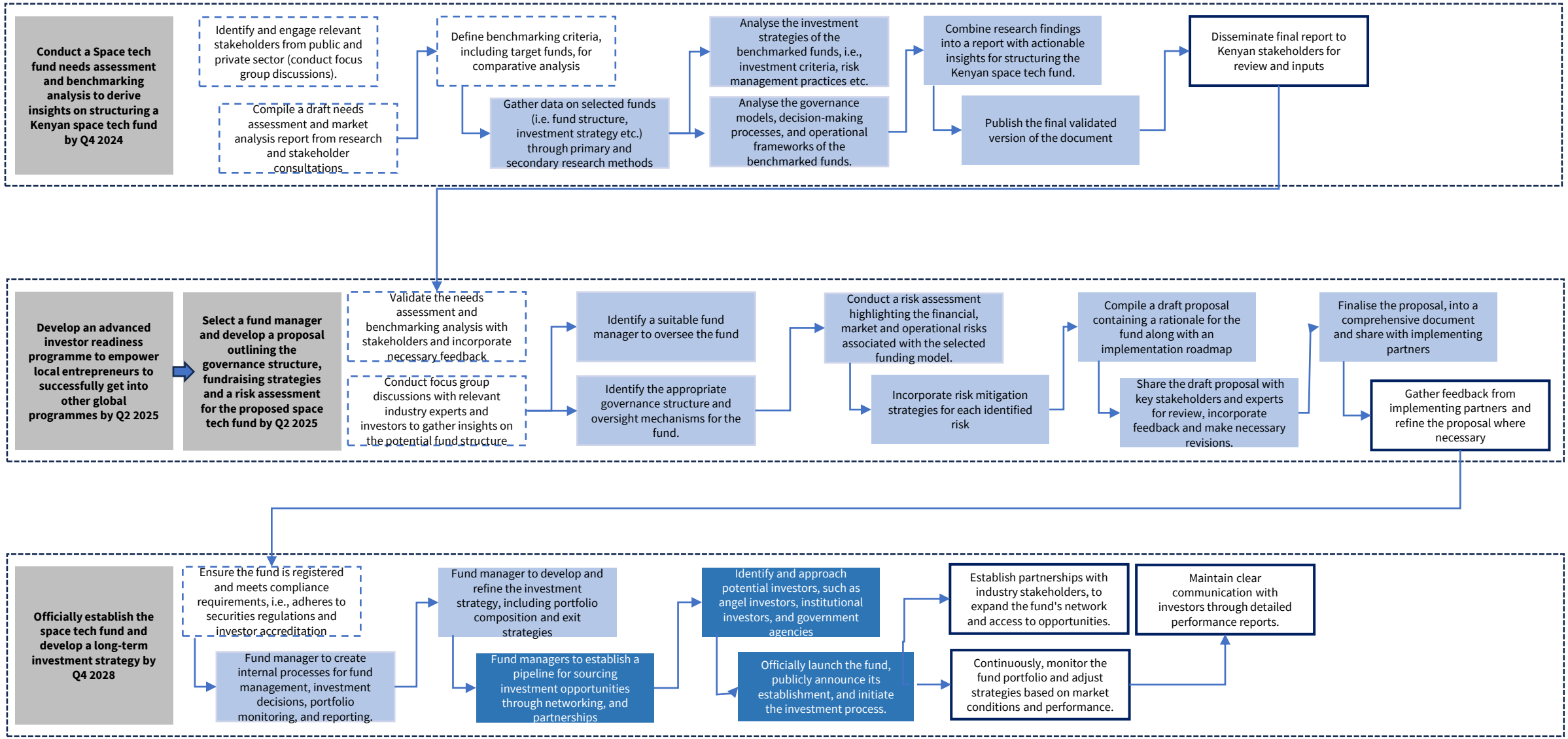
IDIA GOALS ADDRESSED

WORKSTREAMS & ACTIVITIES	OUTPUTS	MEL INDICATORS	TIMING/PERIOD	CONNECTION TO OTHER INTERVENTIONS
1.1. Develop an advanced investor readiness programme to empower local entrepreneurs to successfully get into other global programmes by Q2 2025	• An investor readiness programme • A pilot programme	• Number of participants qualified to global accelerator programmes • Diversity of cohort participating • Percentage increase of cohort per iteration	Immediate short term Q3 2025 - Ongoing	• Entrepreneur Support Programme
2.1. Conduct a space tech fund needs assessment and benchmarking analysis to derive insights on structuring a Kenyan space tech fund by Q4 2024	• A comprehensive needs assessment and market research report outlining the financial, technical, and infrastructural needs of industry players and potential areas for growth that the dedicated space tech fund can target. • A detailed comparative analysis report of established space tech funds, highlighting global best practices and successful investment strategies that may be applicable to the Kenyan context.	• Number of best practices, actionable insights and recommendations obtained through the needs assessment and benchmarking analysis. • Number of relevant space tech funds analysed during benchmarking.	Immediate Short Term Q3 2024 – Q4 2024	• Establish Tax Incentive Policies • Establish Communities Of Practice

Space Tech Fund (2/3)

WORKSTREAMS & ACTIVITIES	OUTPUTS	MEL INDICATORS	TIMING/PERIOD	CONNECTION TO OTHER INTERVENTIONS
2.2. Select a fund manager and develop a proposal outlining the governance structure, fundraising strategies and a risk assessment for the proposed space tech fund by Q2 2025	• A detailed space tech fund proposal document, leveraging insights from the needs assessment and benchmarking analysis, which provides a detailed implementation roadmap for establishing the fund.	• Number of stakeholders engaged with in proposal development. • Number and nature of potential risks identified and corresponding risk mitigation strategies.	Short Term Q4 2024 – Q2 2025	• Develop an entrepreneur support programme
3. Officially establish the space tech fund and develop a long-term investment strategy by Q4 2028	• A registered space tech fund with an appropriate legal structure, that meets all compliance regulations, and invests funds into high potential space tech startups operating within Kenya.	• Amount of capital invested year on year. • Number and type of contributing investors. • Number of deals completed vs number of deals in the pipeline. • Portfolio company metrics (i.e. revenue growth etc.)	Medium to Long Term Q3 2025 – Q4 2028	• Develop an entrepreneur support programme • Establish Tax Incentive Policies

Establish A Dedicated Space Tech Fund (3/3)



Preliminary activity | Short-term | Medium-term | Long-term | Post-implementation

Financial Incentives (1/4)

OVERVIEW

This intervention seeks to grow the number and availability of incentives (e.g., R&D tax credits, tax holidays, human capital advancement incentives, exemptions for import duties on space technologies etc.) to stimulate economic growth within the space sector

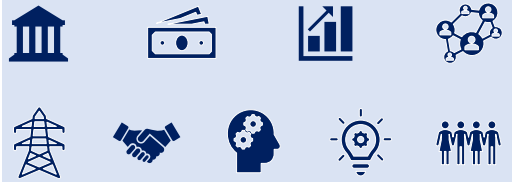
POTENTIAL PARTNER(S)

- **Public sector** (e.g., National Treasury of Kenya, Kenya Chamber of Commerce, National Research Foundation)
- **Convenors** (e.g. Kenya Private Sector Alliance)
- **Development Agencies** (e.g., Kenya Investment Authority,)
- **Research and Academia** (e.g. University of Nairobi, Technical University of Kenya, Machakos University, Kenya AIST)
- **Funders** (e.g. National Research Fund, Global Innovation Fund)
- **Industry** (e.g. ESRI, IBM, Google)

FOCUS AND RATIONALE

Financial incentives play a crucial role in easing the financial challenges faced by capital-intensive space projects and can be particularly beneficial for emerging space companies. By reducing the financial burden and stimulating economic growth, these incentives encourage investment in new innovations such as R&D. This can be done by **i) Establishing financial incentives** and **ii) Increasing R&D funding**.

IDIA GOALS ADDRESSED

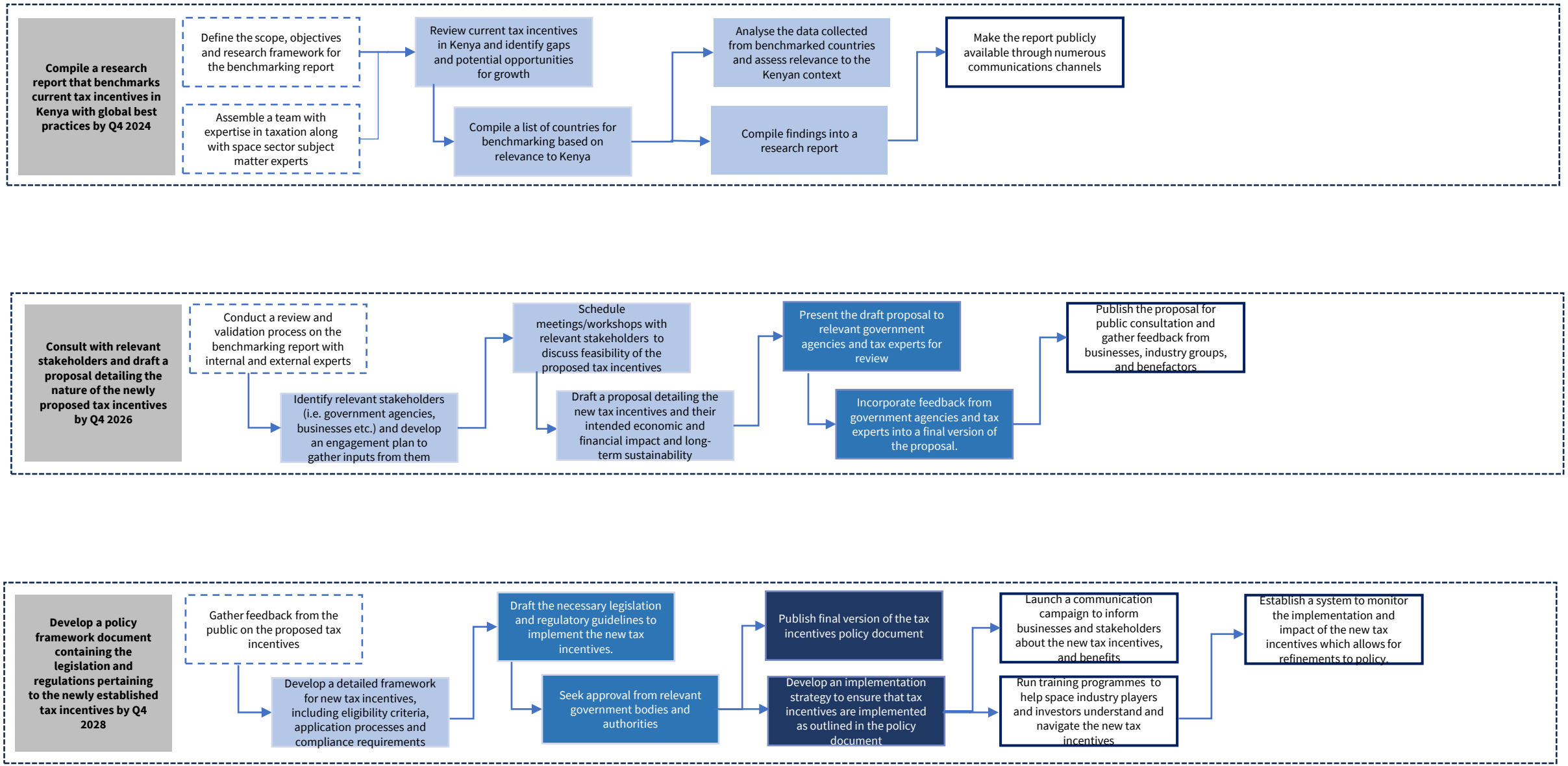


WORKSTREAMS & ACTIVITIES	OUTPUTS	MEL INDICATORS	TIMING/PERIOD	CONNECTION TO OTHER INTERVENTIONS
1.1. Compile a research report that benchmarks current tax incentives in Kenya with global best practices by Q4 2024.	• A comparative analysis report outlining successful tax incentive strategies and policies adopted by other countries, that can be adapted to the Kenyan ecosystem.	• Number of stakeholders consulted or involved in the research and validation process. • Number of actionable recommendations and insights applicable to the Kenyan context.	Immediate Short Term Q3 2024 – Q4 2024	• Establish COPs • Space Tech Fund Proposal
1.2. Consult with relevant stakeholders and draft a proposal detailing the nature of the proposed tax incentives by Q4 2026	• Stakeholder feedback report highlighting suggestions and inputs from relevant stakeholders. • A proposal document covering scope of tax incentives, intended impact and rough implementation timelines	• Number of stakeholders consulted, and inputs provided.	Short Term Q1 2025 – Q4 2026	• Establish COPs

Financial Incentives (2/4)

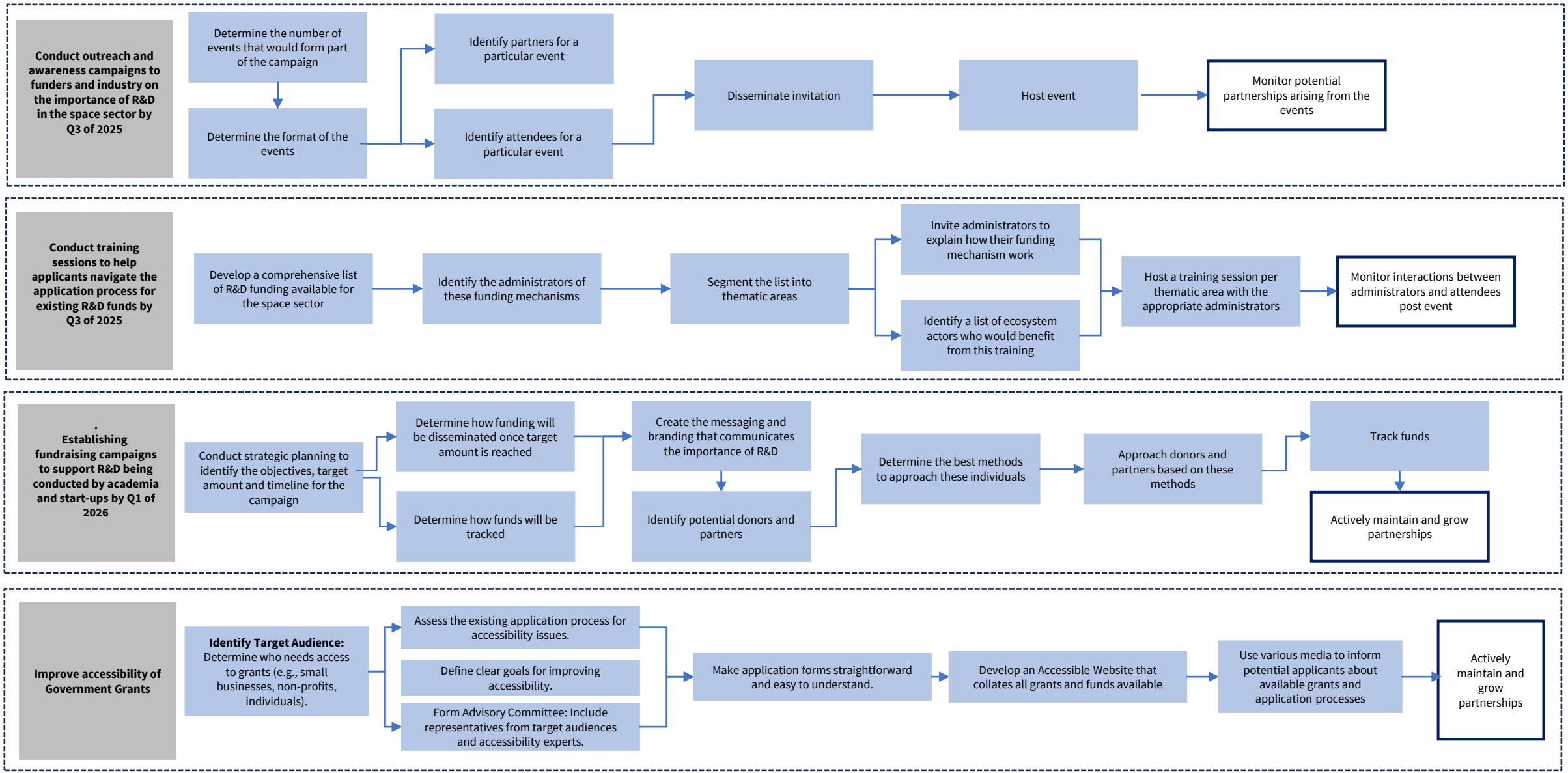
WORKSTREAMS & ACTIVITIES	OUTPUTS	MEL INDICATORS	TIMING/PERIOD	CONNECTION TO OTHER INTERVENTIONS
1.3. Publish an official document containing the legislation and regulations pertaining to the newly established tax incentives by Q2 2028.	• An official public document of the tax incentives legislation supported by a detailed implementation plan. • Supporting regulations aimed to facilitate the practical application of the tax incentives outlined in the legislation.	• Accessibility of document measured by the number of access points (i.e. websites, government offices etc.) • Number and frequency of stakeholder feedback sessions conducted, and the percentage of proposed regulations refined based on stakeholder input.	Medium to Long Term Q1 2027 – Q2 2028	• PR, Comms and Awareness Programme • Entrepreneur Support Programme • Space Tech Technical Assistance Facility
2.1. Conduct outreach and awareness campaigns to funders and industry on the importance of R&D in the space sector by Q3 of 2025	• A series of targeted events	• Number of events • Number of attendees	Short Term Q4 2024 - Q3 2025	• Establish Communities Of Practice • PR, Comms and Awareness Programme
2.2. Conduct training sessions to help applicants navigate the application process for existing R&D funds by Q3 of 2025	• A list of available funding mechanisms for R&D • A series of training sessions	• Number of funding mechanisms accessed • Number of applicant/administrator relationships furthered	Short Term Q4 2024 – Q3 2025	• Space Tech Fund Proposal • Increase accessibility of tailor-made government grants
2.3. Establishing fundraising campaigns to support R&D being conducted by academia and start-ups by Q1 of 2026	• List of potential donors and funders • Fund dissemination strategy	• Number of donors/partners that have contributed • Amount in KES disseminated	Short Term Q4 2024 – Q1 2026	• PR, Comms and Awareness Programme
2.4 Improve accessibility of Government Grants	• List of available government grants/funds relevant to the Space sector	• Number of startups applying for government grants/funds • Number of startups funded by government • Amount in KES disseminated	Short Term Q1 2025 – Q4 2026	• Space Tech Fund Proposal

1. Establish Financial Incentives (3/4)



Preliminary activity | Short-term | Medium-term | Long-term | Post-implementation

2. Increasing R&D Funding (4/4)



Preliminary activity | Short-term | Medium-term | Long-term | Post-implementation

Space Agencies Strategic Partnerships Programmes (1/2)

OVERVIEW

This intervention focusses on developing strategic industry and research partnerships between the Kenya Space Agency and other space agencies with a focus on those on the continent thus establishing the Kenyan space sector as one that is open and willing to collaborate.

POTENTIAL PARTNER(S)

- **Universities** (e.g. Machakos University, Jommo Kenyatta University of Technology)
- **Industry** (e.g. Ramani, PawaIT, Naturesurf)
- **Public sector** (e.g. Kenya Space Agency, Egyptian Space Agency, European Space Agency, Kenya National Treasury)
- **Convenors** (e.g. Kenya Institute of Planners, Institution of Engineers Kenya)

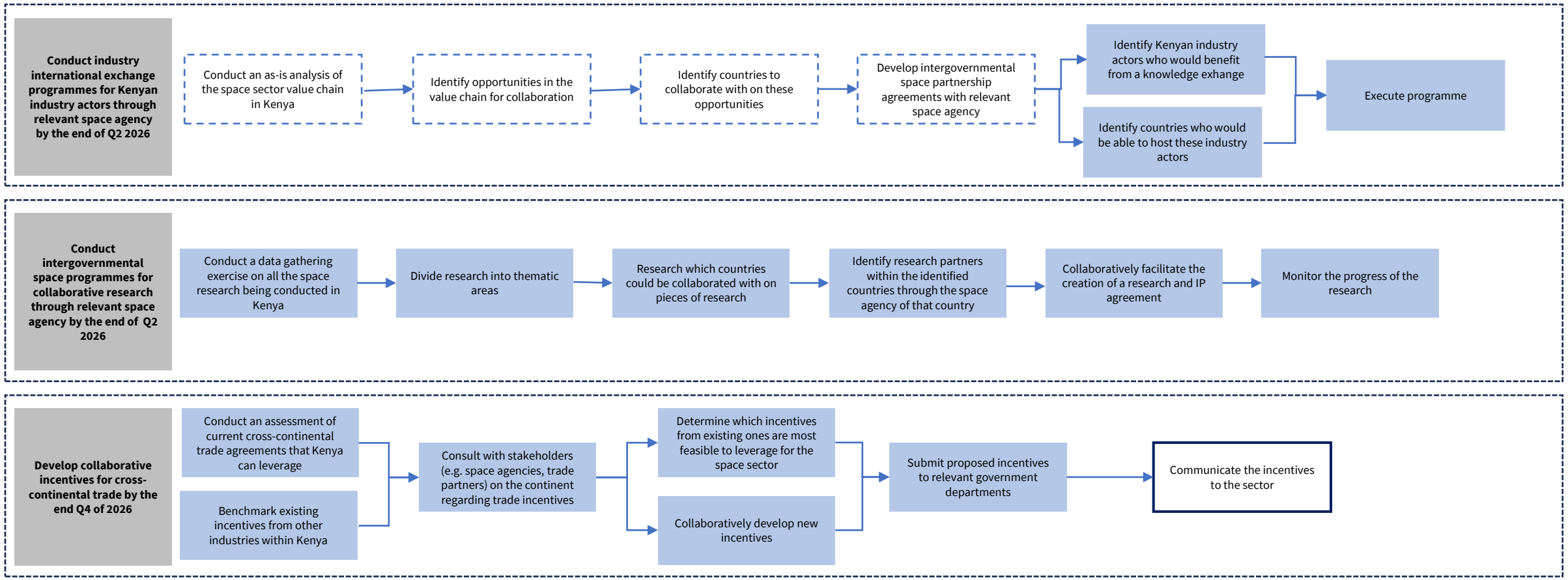
FOCUS AND RATIONALE

Developing strategic partnerships with other space agencies offers numerous advantages in the long term such as sharing of resources, expertise, and technology, leading to cost reduction and increased efficiency. **(i)** Partnerships also provide access to a broader range of capabilities and facilities, including potential launch sites and specialised equipment, enabling more ambitious space missions. **(ii)** Furthermore, collaboration allows for the exchange of knowledge, best practices, and lessons learned, enhancing the effectiveness of space programmes. **(iii)** Diplomatically, it fosters goodwill and cooperation, strengthening international relations

IDIA GOALS ADDRESSED

WORKSTREAMS & ACTIVITIES	OUTPUTS	MEL INDICATORS	TIMING/PERIOD	CONNECTION TO OTHER INTERVENTIONS
1.1. Conduct industry international exchange programmes for Kenyan industry actors through relevant space agency by the end of Q2 2026	• Intergovernmental space partnership and agreement • Exchange programme itinerary	• Number of new partnership agreements signed • Number of existing agreements leveraged • Number of industry actors that participate in the exchange programme	Short term Q1 2025– Q2 2026	• Develop entrepreneur support programme • Establish COPs
2.1. Conduct intergovernmental space programmes for collaborative research through relevant space agency by the end of Q2 2026	• Intergovernmental research agreement • Research outputs	• Number of research agreements signed • Number of research outputs	Short term Q1 2025– Q2 2026	• Increasing accessibility to scholarships and fellowships • Establish COPs
3.1. Develop collaborative incentives for cross-continental trade in the space sector by the end Q2 of 2026	• Assessment and benchmarking of current trade agreements and incentives • Proposed incentives for implementation	• Number of governments to whom proposed incentives have been submitted to	Short term Q1 2025– Q2 2026	• Establish tax incentive policies

Space Agencies Strategic Partnerships Programmes (2/2)



Preliminary activity | Short-term | Medium-term | Long-term | Post-implementation

NATIONAL PRIORITY AREAS

Direct support towards applications addressing key national priority areas is crucial for the sustainable growth of the space sector (1/3)

	CHALLENGES IDENTIFIED	KEY AREAS/APPLICATIONS IDENTIFIED	KEY METHODS IDENTIFIED/SOLUTIONS

FORESTRY	• There's a need for sustainable forest management and conservation of biodiversity
	• Key challenge is to address the challenges posed by human impact and climate change
		• Environmental Conservation and Protection:
		  • Forest monitoring and planning
		  • Reforestation & Deforestation
		  • Forest Cover, health & disease monitoring
		• Ecological Impact and Management:
		  • Degradation
		  • Biodiversity
		  • Climate Change
		  • Human Impact
		  • Forest Encroachment
		• Resource Management:
		  • Forest fires, Mapping and Tree classification
			• Expanding Constellations
			• Leveraging a combination of diverse earth observation mechanisms
			• Establishing an enabling environment integrating data, artificial intelligence, & computing tools, and developing funding mechanisms
			• Increase stakeholder engagement
			• Utilise space-based technologies to support community education

DISASTER MANAGEMENT	• Lack of high spatial and temporal resolution satellite imagery for precise disaster risk assessment and monitoring.
	• Lack of early warning systems.
	• Inadequate predictability analysis leads to delays in early warning systems reducing the time available for responding to potential disasters
		• Key applications prior to disaster occurrence
		  • Mapping and monitoring
		  • Early warning systems
		  • Prevention and mitigation
		• Key applications during and/or after a disaster occurs
		  • Rescue operations
		  • Coordination and communication
			• For these application to be successful, specific technology, infrastructure and tools are crucial.
			• Key infrastructure would include geo satellites, high resolution satellite imagery, ground stations, constellations, models, ground sensors and control rooms

SPATIAL & URBAN PLANNING	• Lack of relevant geospatial datasets
	• Lack of policy guidelines and co-ordination of geospatial sector actors
		• Land use and Development
		  • Land use and zoning & urban growth and development
		• Infrastructure and Resource Management
		  • Infrastructure development & resource management
		• Environmental Planning and Management
		  • Environmental mapping, monitoring and management & disaster management and resilience
		• Cross-cutting applications
		  • Digitising the planning process and utilise overlay and imagery to identify gaps, monitoring of structure and capturing activities
			• Access to geospatial datasets is required for application to be successful
			• Development of policy and guidelines to guide the use of geospatial data for the various applications is required

Direct support towards applications addressing key national priority areas is crucial for the sustainable growth of the space sector (2/3)

	CHALLENGES IDENTIFIED	KEY AREAS/APPLICATIONS IDENTIFIED	KEY METHODS IDENTIFIED/SOLUTIONS

AGRICULTURE & FOOD	• Lack of data analyses and agroecology mapping
	• Weak food storage policies
	• Minimal innovative funding mechanisms for agriculture
	• Lack of data infrastructure in terms of computing and storage
		• Crop monitoring
		  • Crop monitoring and modelling
		  • Maximising crop yield
		  • Disease and pest control
		  • Water management
		• Logistics
		  • Transport of agricultural products
		• Sustainability
		  • Climate change monitoring and implications on food security
			• Use satellite technology to find soil conducive areas for different plants
			• Track and provide information to farmers on recommendations based on data from farmers

NATURAL RESOURCE MANAGEMENT	• Lack of access to in-situ data
	• Data costs are high
	• Limited spectral bands to monitor phenomena
		• Monitoring:
		  • Blue economy (wetlands and marine) management
		  • Land management
		  • Wildlife monitoring and management
		  • Vegetation monitoring
		  • Mapping interventions
			• Satellite data can assist with ecosystem change prediction and enable better management of resources for conservation efforts.
			• Satellite data can provide information on ocean temperature which can aid in the management of fisheries and marine habitats.

Direct support towards applications addressing key national priority areas is crucial for the sustainable growth of the space sector (3/3)

	CHALLENGES IDENTIFIED	KEY AREAS/APPLICATIONS IDENTIFIED	KEY METHODS IDENTIFIED/SOLUTIONS

SPACE SCIENCE	• Lack of skills
	• Minimal experts in science and engineering
	• Low absorption of talent
		• Astro-tourism
		  • This has been identified as an economic activity that demonstrates the use of space science while simultaneously drawing money into the sector
		• Research
		  • There is a need for funding of space science research papers
		• Skills development
		• Awareness
		  • Increase the number of activities in the space science field to increase appreciation of space awareness amongst the common man
			• Internships
			• Specialised training for space sector professionals

SPACE ENGINEERING	• There is a need for financial and regulatory incentives • Lack of accessibility to enabling infrastructure e.g. clean rooms and ground receivers • High cost of accessing enabling infrastructure • Lack of human capital	• Food security • Space debris reduction • Component manufacturing	• Develop space engineering companies in Kenya, leveraging global and local partnerships. • Increase sector collaborations internationally for the purpose of knowledge transfer in this area • Conduct education outreach and workshop events

APPENDIX 1:

IDIA GOAL MATURITY LEVEL BREAKDOWN

Building human capital involves nurturing skilled individuals through education, training, mentorship, and fostering a culture of continuous learning and collaboration.

Building Human Capital

Latent

- Limited or no specialised space-focused training programmes and capacity-building collaboration among universities and research institutes.
- Low interest in pursuing space-related studies.
- Limited or no institutional infrastructure such as incubators, hubs, and accelerators supporting human capital development.
- Minimal or non-existent government policies and events supporting human capital development in the space sector.

Nascent

- A few specialised space-focused training programmes with limited collaboration on capacity building initiatives.
- Early-stage establishment of infrastructure like. incubators/hubs accelerators).
- Increasing number of students and professionals pursuing space-related fields like science and engineering.
- Initial government policies are emerging to support human capital development in the space sector.
- Increasing number of networking platforms and events, at a national-level, facilitating knowledge exchange.

Forming

- **Established, specialised space programmes and courses supporting skills development** with **local collaboration on capacity building initiatives.**
- **A few innovation centres or hubs with active industry-academia engagement.**
- **Significant number of students and young professionals pursuing space-related fields**.
- **Strong government policies supporting human capital development in the space sector.**
- **Regular events and conferences facilitating knowledge exchange and robust networking.**
- **Numerous internships, apprenticeships, and collaborative projects involving industry and educational institutions.**

Establishing

- Regionally reputable, comprehensive space programmes at universities supporting skills development with some international exposure.
- Multiple developed innovation centres and hubs with strong industry-academia engagement.
- High interest in space-related fields among students and young professionals, attracting international talent into the ecosystem.
- Proactive government policies providing funding and grants for human capital development.
- Continuous events and conferences facilitating knowledge exchange and regional networking.
- Extensive internships, apprenticeships, with deeply sustained partnerships and collaborative projects between industry and academia.

Established

- Globally recognised and comprehensive space programmes at universities, supporting skills development with international exposure and cutting-edge R&D collaborations.
- Over 10 world-class innovation centres or hubs with strong industry-academia engagement.
- Continuous inflow of students and professionals attracting international talent, investment, and partnerships.
- Pioneering government policies providing substantial, continuous funding and incentives for human capital development.
- Continuous events and conferences facilitating knowledge exchange with internationally integrated networks.
- Symbiotic industry-academia engagement through internships, apprenticeships, and collaborative projects driving innovation, which positively impacts economic growth, job creation, and quality of life.

Improving access to finance involves diversifying funding sources, enacting supportive policies, and enabling equitable capital access for all participants in the ecosystem.

Access to Finance

Latent

- Limited, or no, access to funding sources like venture capital, angel investors, and government grants.
- Absence of innovative funding mechanisms for marginalised groups and women.
- Low investor risk appetite for early-stage start-ups or capital-intensive projects.
- Low investment attractiveness due to unfavourable policies, political instability, or geographical disadvantages.

Nascent

- A few venture capital firms, angel investors, government grants, and corporate venture arms.
- A few financial institutions offering innovation-focused loans and advisory services with minimal discrimination.
- Active crowdfunding platforms and seed funding opportunities in existence.
- Presence of incubators and accelerators providing funding and mentorship, backed by government and private sector initiatives.
- Increasing investor willingness to fund early-stage start-ups, with the country ranking in the top 10 in foreign development investment (FDI) regionally.

Forming

- **Numerous venture capital firms, angel investors, government grants, and corporate venture arms.**
- **Specialised services for start-ups and innovation-driven enterprises, including dedicated funding programmes and a seamless financial ecosystem supporting innovation.**
- **Well-developed crowdfunding platforms and ample seed, early-stage, and growth-stage funding opportunities.**
- **Numerous incubators, accelerators, and innovation hubs offering funding, mentorship, and resources with active government and private sector collaboration.**
- **High investor risk appetite and strong investment culture, with the region ranking in the top 5 for FDI regionally.**

Establishing

- Numerous venture capital firms, angel investors, government grants, and corporate venture arms, backed by financial institutions with dedicated innovation funding programmes.
- A strong network of seed, early-stage, and growth-stage funding opportunities is available.
- Numerous incubators, accelerators, and innovation hubs offering funding, mentorship, and resources, backed by strong government and private sector collaboration.
- A broad base of investors with a strong investment culture supporting early-stage start-ups and cutting-edge technologies.
- The nation ranks in the top 3 regionally for FDI, with a well-integrated financial ecosystem and continuous capital flow supporting innovation from ideation to commercialisation.

Established

- Diverse funding across all stages of innovation from domestic and international investors and a highly competitive landscape.
- Fully integrated and seamless financial ecosystem with strong collaboration among all stakeholders.
- Tailored advanced services and innovative financial instruments supporting start-ups.
- Globally recognised incubators, accelerators, and innovation hubs offering substantial funding.
- Effective government policies and private sector initiatives enhancing access to finance.
- A culture of embracing innovation-related risks, supported by robust risk mitigation mechanisms and diversified investment portfolios, is prevalent.
- High investment attractiveness, ranking 1st in the region for FDI and top 20 globally, contributing significantly to economic growth and societal well-being.

Nurturing a culture supportive of innovation requires fostering creativity, risk-taking, continuous learning, and valuing diversity and collaboration.

Innovation Culture

Latent

- Minimal awareness of innovation's importance and limited initiatives to promote it.
- Limited or no educational programmes focused on technology, innovation, and entrepreneurship.
- Limited or no awards, grants, or competitions to encourage innovative efforts.
- Lack of dedicated institutions and minimal government policies promoting innovation.
- Limited or no networking and idea exchange opportunities among innovators.

Nascent

- Emerging recognition of innovation's importance, with initial national campaigns and promotional activities in place.
- Introduction of courses focusing on technology, innovation, and entrepreneurship.
- Initiation of awards, grants, and competitions to stimulate innovative endeavours.
- Establishment of early-stage institutions and government initiatives to bolster innovation.
- Emerging opportunities for collaboration and networking among innovators, facilitated by frequent events, workshops, and idea exchange platforms.

Forming

- **Increasing awareness of the importance of innovation through ongoing national campaigns and promotional activities.**
- **Established courses and programmes tailored to technology, innovation, and entrepreneurship.**
- **Substantial awards, grants, and competitions to incentivise innovation with multiple initiatives established to support and enhance innovation.**
- **Regular opportunities for collaboration and networking among innovators with numerous events, workshops, and platforms.**
- **Growing integration of innovation into the national culture with increasing acceptance and celebration of innovative thinking.**

Establishing

- Wide-ranging recognition innovation's importance, supported by ongoing national campaigns.
- Well-established educational programmes offering comprehensive training in innovative skills.
- Significant recognition and incentives for innovative efforts, including awards, grants, and competitions with multiple institutions dedicated to supporting innovation, backed by robust government initiatives and policies.
- Regular collaboration and networking opportunities for innovators through events, workshops, and platforms for idea exchange.
- Deep integration of innovation into the national culture, with strong societal acceptance and celebration of innovative thinking, along with effective partnerships to support innovation.

Established

- Wide-ranging awareness of innovation's importance, supported by highly effective national campaigns.
- Top-tier educational programmes emphasising innovation.
- Universal recognition and incentives for innovative endeavours, including prestigious awards and grants.
- Presence of numerous leading institutions dedicated to innovation, backed by exemplary government initiatives.
- Seamless collaboration among innovators facilitated by global events and platforms.
- Integration of innovation into national culture, celebrated across societal sectors.
- Effective public-private partnerships recognised as exemplary practices in fostering innovation.

Developing networking assets requires diverse connections, collaboration, and platforms for ongoing knowledge exchange and resource sharing.

Networking Assets

Latent

- Minimal or no formal infrastructure and dedicated spaces for innovators to network and collaborate.
- Infrequent or non-existent networking events, meetups, and conferences.
- Limited platforms for connecting innovators, entrepreneurs, and investors, with low engagement among key stakeholders.
- Poorly established communication channels hindering information dissemination about networking opportunities.

Nascent

- Initial development of infrastructure and establishment of dedicated spaces for innovators.
- Increasing number of networking events, meetups, and conferences.
- Emerging platforms facilitating connections between innovators, entrepreneurs, and investors, with increasing engagement.
- Development of basic communication channels for disseminating information about networking opportunities.
- Introduction of early-stage support programmes like incubators, accelerators, mentorship, and advisory programs to facilitate connections among innovators.

Forming

- **Well-developed infrastructure and multiple dedicated spaces for innovators to collaborate.**
- **Well-established platforms for connecting innovators, entrepreneurs, and investors, with high engagement. Regular and diverse networking events, meetups, and conferences.**
- **Robust communication channels for disseminating information and widely promoting networking opportunities.**
- **Numerous support programmes with strong networking components, including established mentorship and advisory services.**
- **Active collaboration and joint projects between academia, industry, government, and entrepreneurs promoting innovation and networking.**

Establishing

- Highly advanced infrastructure and numerous well-equipped spaces for innovators to collaborate.
- Frequent, high-quality networking events, meetups, and conferences attracting diverse participants.
- Sophisticated platforms for connecting innovators, entrepreneurs, and investors, with very high engagement.
- Highly effective communication channels and broad promotion of networking opportunities through multiple media.
- Extensive support programs with integral networking components, mentorship and advisory services.
- Deep and sustained collaboration between academia, industry, government, and entrepreneurs, with regular joint projects an active participation in international networks and frequent engagement with global innovation hubs.

Established

- World-class infrastructure and numerous state-of-the-art spaces for global collaboration among innovators.
- Continuous, top-tier networking events, meetups, and conferences attracting global participants.
- Highly sophisticated and integrated platforms for global connections among innovators, entrepreneurs, and investors.
- Universal and deeply embedded engagement and seamless interaction across all sectors.
- Exemplary communication channels with comprehensive media strategies.
- World-leading support programmes with highly effective networking components and impactful global mentorship.
- Leadership in international networks, high-impact engagement with global innovation hubs, and significant contributions to sustainable development and societal well-being.

An established space ecosystem requires equitable governance, diverse engagement, and ongoing evaluation of systemic barriers.

Equitable & Inclusive Participation

Latent

- Lack of formal Diversity, Equity and Inclusion (DEI) policies and minimal representation of diverse groups in governance.
- Low awareness of DEI importance and few advocacy initiatives promoting equity and inclusion.
- Limited access to resources and opportunities for underrepresented groups, with few targeted support programmes.
- Low engagement and participation from diverse groups in innovation activities, with minimal involvement in decision-making processes.

Nascent

- **Initial development of DEI policies and some representation of diverse groups in governance bodies.**
- **Growing awareness of DEI importance and emerging advocacy groups promoting equity and inclusion.**
- **Increasing access to resources and opportunities for underrepresented groups, with new targeted support programmes.**
- **Moderate engagement from diverse groups in innovation activities and initial efforts to involve them in decision-making processes.**

Forming

- Well-established policies and frameworks promoting DEI with significant representation of diverse groups in governance bodies.
- High awareness of DEI importance and active advocacy groups promoting equity and inclusion.
- Broad access to resources and multiple targeted programmes for underrepresented groups, supporting diverse innovators and entrepreneurs.
- High engagement and participation from diverse groups in innovation activities, with active involvement in decision-making processes.
- Regular monitoring and evaluation of DEI policies using data and metrics to assess and improve efforts.

Establishing

- Comprehensive policies promoting DEI with strong representation in governance.
- Universal awareness of DEI importance and highly effective advocacy initiatives.
- Widespread access to resources and extensive targeted programmes for underrepresented groups.
- Very high engagement from diverse groups in innovation activities with deep involvement in decision-making.
- Advanced monitoring systems for data-driven improvement of DEI efforts.
- Strong institutional support with dedicated offices focusing on promoting DEI.

Established

- Exemplary policies and frameworks for DEI, setting global benchmarks.
- Full and equitable representation of diverse groups in governance.
- Deep awareness of DEI importance, with influential advocacy initiatives.
- Universal access to resources and impactful programmes for underrepresented groups.
- Maximum engagement from diverse groups, with integration in decision-making.
- State-of-the-art monitoring for data-driven improvement of DEI efforts.
- Unwavering institutional support with dedicated departments for DEI promotion.
- Global leadership in DEI, influencing global standards and contributing to sustainable development.