iCt-as
SURINAME

SURINAME ICT VISION 2030

Digital Development & Growth

Introduction

Suriname is a huge amalgamation of various religions, ethnic groups, languages, cultures, creeds, terrain and temperatures. Suriname is officially known as the Republic of Suriname. Suriname is geographically situated in northeastern Atlantic coast of South America. It is bordered by the Atlantic Ocean to the north, French Guiana to the east, Guyana to the west and Brazil to the south. At just under 165,000 square kilometers (64,000 square miles), it is the smallest sovereign state in South America. Suriname has a population of approximately six hundred thousand, most of whom live on the country's north coast, in and around the capital and largest city, Paramaribo.

The Surinamese government has underscored universal access to Information Communication and Technologies as a major objective of their ICT Vision 2030 – Suriname's economic blueprint that is aimed at propelling Suriname from a developed to a middle-income country in the next eleven years.

Strategy involves the whole of the mission, vision, goals, plans and image of an entity on the long term, continuously in contact with the external environment. Business strategy specifies a set of goals where the business intends to go and its plan to reach there. The Business strategy is complemented by Organizational and Information System (IS) strategies, which are together called the Information Systems Strategy Triangle.
Organizational strategy consists of the organization's design correlated with the creation, coordination and control of its work processes facilitating the implementation of its business strategy. Strategy in context of Information System outlines the plan which is used by an organization in order to make information systems and services available. Information System strategy makes it possible for an entity to carry out its business strategy into practice. Perpetuation of balance between these three strategies is a necessity so that successful operation is ensured. Changes in the Information System strategy should be associated with changes in the organizational strategy, henceforth facilitating the overall business strategy. Whenever business strategy is not the driver this will result in detrimental unintended consequences for the business as a whole, causing the business to struggle until balance is restored.

It is expected that access to the digitally developed ICT ecosystem will contribute to the country's economic growth by reducing transaction costs, increasing business efficiency, improving educational standards and ensuring accountability on the part of government officials. The Surinamese government also acknowledges in their National Development Plan 2022-2026 (Stg.Planbureau Suriname, 2021) that ICT will increase the country's productivity and raise the competitiveness of local businesses in a knowledge-based economy. Hereby digitalization will be the reality of a new economy.

Foreword by Chair of ICT Association Suriname

Anuskha Varsha Sonai
Chair ICT Associatie Suriname

In 2030 Suriname has a well-developed digital economy and is considered one of the key players for the regional ICT services pipeline. As a result of good governance and strategic partnerships Suriname has positioned itself as a center for high-quality services. The ICT services sector is relatively small but growing as an important area of diversification of our economy.
This landscape I have just described isn't just a dream. It's the collaborative ambition of the members of the ICT Association Suriname which was previously described as becoming a billion-dollar industry.

However, there is still much to be done if the ICT industry is to play a more significant role in the development and economy of Suriname. Investment and public policies aimed at transforming talent into the cornerstone of the ICT sector go hand in hand with what the ICT Association Suriname, public policy experts, development banks, economists and creators across the region have insisted upon for years – opting for the positioning of the ICT sector as a top sector in the country's vision and development plans.

Suriname's future depends on the ecosystem we create now to strengthen the digital skills of our people, help boost productivity, increase access to secure infrastructure, support emerging industries and technologies, and ensure that regulatory frameworks are in place.

The digital economy is key to securing our economic future and recovery from COVID-19.
Over the last 20 months we have seen a rapid uptake of digital technologies across our society. It has helped businesses to stay afloat, grow and create new jobs, and it has helped people continue to live their daily lives in somewhat new and different ways. There were also businesses and people that couldn't transition into the digital space, and we want to make sure that everyone is included in our development and growth – hence our commitment to work on Digital Inclusion in our communities – guided by the United Nations sustainable development goals (SDGs).

The ICT Vision 2030 outlines a cohesive roadmap – encompassing initiatives already underway, actions and investments we need to take us forward, and areas to be considered to help us identify opportunities into the future. The vision also answers the question about the development of local content regarding the ICT sector and gives insights on how to invest our Oil & Gas income for sustainable development investments that will underpin improvements in job creation, productivity and innovation in all other sectors.

The focus is on getting the foundations right, building capability in emerging technologies and lifting our ambition through digital growth priorities.

This is a living strategy. I am convinced that the journey ahead will be a successful one as we collaborate with our members, the government, and strategic partners. We will continue to track progress towards our 2030 vision and adjust course as we need to, to ensure we are successful in reaching our ambition.

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Revision History

DOCUMENT VERSION HISTORY				
Version	**Date**	**Author(s)**	**Reference**	**Change Log**
V1.0	19/05/2020	Ramlakhan Anvit (Ph.D., M.Sc.)	Telesur	First Draft
V1.1	24/05/2019	Kenswil Vincentius	Spang Makandra	Review & Feedback
V1.2	27/05/2019	Ramlakhan Anvit (Ph.D., M.Sc.)	Telesur	Updates section 2
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V1.4	01/05/2020	Reviewed by ICT-As Board	ICT-As Board	Updates in different sections
V1.5	15/11/2021	Reviewed by Ramlakhan Anvit	Datasur	Input Gerrard den Dekker & Krieshen Ramkhelawan

Statement of Purpose

This Suriname ICT 2030 Vision document is an initiative from the ICT-Association Suriname and a result based on collaboration of different stakeholders, see revision history of the contributors.

Stakeholders Agreement

AGREEMENT Through the following, the parties involved accept what has been agreed and written in this document			
Name	**Responsibility**	**Signature**	**Date**
Ministry of Transport, Communication and Tourism (TCT)			
Mr. Albert Jubithana	Minister of TCT		
Telecommunication Company Suriname			
Mr. Mike Antonius, M.B.A.	CEO Telesur		
Telecommunication Authority Suriname			
Mrs. Wendy A. Klass - Jap-A-Joe	Acting Director of TAS		
ICT Association Suriname			
Ms. Anuskha Sonai	ICT AS Chairperson		
E-Gov Suriname			
Mr. Prewien Ramadhin	E-Gov Suriname Chairperson		

1. Suriname ICT Strategic Framework

The table below gives an overview of the ICT 2030 strategic framework, with definition of the principles used.

#	Terminology	Description
1	Vision & Mission	Vision is the better Suriname we all want to see in context of ICT. Mission refers to the main overall purposes of ICT development, as per the Basic Instruments of TCT, Telesur, TAS, e-Gov and ICT AS.
2	Values	Shared and common beliefs that drive its priorities and guide all decision-making processes for ICT Vision 2030.
3	Strategic Goals & Targets	Strategic goals refer to the ICT Vision 2030 high-level targets to which the objectives contribute, directly or indirectly. They relate to the whole of the Surinamese government. Targets are the expected results during the period of the strategic plan; they provide an indication as to whether the goal is being achieved. Targets may not always be achieved, for reasons that may be beyond the control of the direct stakeholders.
4	Objectives & Outcomes	Objectives refer to the specific aims of the Sectoral and intersectoral activities in a given period. Outcomes provide an indication as to whether the objective is being achieved. Outcomes are usually partly, but not entirely, within the organization's control.
5	Outputs	Outputs are the final tangible results, deliverables, products and services achieved by the Ministry in the implementation of the operational plans in collaboration with all stakeholders.
6	Activities	Activities are various actions/services for transforming resources (inputs) into outputs. Activities may be grouped into processes.

1.1 Vision

The Suriname ICT Vision 2030 Statement is as follows:

> *A digitally enabled information society, empowered by the interconnected world, where innovative information and communication technologies enable and accelerate social, political, environmental, economic sustainable growth and inclusive development for and by every Surinamese.*

1.2 Mission

The Suriname ICT Mission 2030 Statement is as follows:

> *To develop, facilitate and foster affordable and universal access to innovative information and communication technology networks, services and applications and their use for social, political, environmental, economic sustainable growth and inclusive development.*

1.3 Values

In order to achieve the aforementioned vision and mission statements the ICT AS recognizes that an environment is built and maintained based on trust among its membership and inspire the confidence of the public at-large. This applies to both what the Ministry does and how it is done (code of ethics and conducts) in collaboration with Telesur, TAS, e-Gov, ICT Association (ICT AS) and any other stakeholder. These four main stakeholders are further to be mentioned as ICT Vision Task Force.

The Ministry of TCT, Telesur, TAS, e-Gov and ICT AS, i.e. the ICT Vision Task Force, are committed to continuously building and safeguarding trust by ensuring that its actions are guided by the following values:

1. **Efficiency**: Focusing on the main purposes of the ICT Vision Task Force, whereby decision making is done based on appropriate studies, evidence and experience, taking effective action and monitoring outputs, avoiding duplication.
2. **Transparency and accountability**: By enhancing transparency and accountability processes for better decisions, actions, results and management of resources, ICT Vision Task Force communicates and demonstrates progress towards the achievement of its goals.
3. **Openness**: Being aware of and responsive to the needs of all its stakeholders, as well as the activities and expectations of intergovernmental organizations, the private sector, civil society, the technical community and academia.

4. **Neutrality:** The ICT Vision Task Force also recognizes the overarching pre-eminence of human rights, including the right to freedom of opinion and expression, which includes the freedom to seek, receive and impart information and ideas through any media and regardless of frontiers, and the right to not be subjected to arbitrary interference in privacy.
5. **People-centered**: Being people-centered, the ICT Vision Task Force is focused on the Surinamese people in order to deliver results that matter to each and every individual.
6. **Service-oriented**: Being service-oriented, the ICT Vision Task Force is committed to further delivering high-quality services and maximizing satisfaction of beneficiaries and stakeholders.
7. **Results-based**: Being results-based, the ICT Vision Task Force aims for tangible results and to maximize the impact of its work.

The ICT Vision Task Force expects all of its respective staff, members and stakeholders to adhere faithfully to the Standards of Conduct for the International Civil Service and the TCT (Surinamese Government) Code of Ethics. It also expects that any partner within the ICT Vision Task Force will uphold the highest standards of ethical behavior.

1.4 Strategic Goals

The strategic goals of the ICT Vision 2030 are listed hereafter and supports the ICT Vision Task Force's role in facilitating progress towards the implementation of this vision for the Digital Development and Growth of Suriname. These goals are not listed based on priority. These goals have been derived from the existent targets for 2025 from Broadband commission of the ITU and UNESCO.

Goal 1 – Innovation: Enabling digital innovation in telecommunications sector in support of the digital transformation and development of the Surinamese society

The ICT Vision Task Force recognizes the crucial role of telecommunications in the digital transformation and development of the Surinamese government and society. The ICT Vision Task Force seeks to contribute to the development of an ecosystem that is conducive to innovation, where advances in new technologies become a key driver for the implementation of new innovative ICT solutions, applications and services.

Goal 2 – Inclusiveness: Bridging the digital divide gap and providing broadband access for all Surinamese people

Being committed to ensuring that everyone without exception benefits from the Information, Communication and Technologies ecosystem, the ICT Vision Task Force will work to bridge the digital divide gap for an inclusive information society and enable the provision of broadband access for all Surinamese people, leaving no one offline. Bridging the digital divide gap focuses on ICT inclusiveness, fostering telecommunication access, accessibility, affordability and use in all districts, regions and for all people, including women and girls,

youth and marginal and vulnerable populations, people from lower socio-economic groups, indigenous peoples, older persons and persons with disabilities.

Goal 3 – Growth: Develop, enable and foster access to and increased use of innovative information and communication technologies and services in support of the digital economy and society

Innovative information and communication technologies and services are a key enabler for social, political, economic and environmentally sustainable development. The ICT Vision Task Force will work to develop, enable and foster access to, and increase the use of these technologies and services in order to support the countrywide development and growth strategies. Growth in the use of telecommunication has a positive impact on short- and long-term socio-economic development as well as on the growth of the digital economy towards building an inclusive information society. The ICT Vision Task Force is committed to working together and collaborating with all stakeholders in the Information, Communication and Technology environment in order to achieve this goal.

Goal 4 – Continuity & Sustainability: Managing emerging unknown risks, challenges and opportunities resulting from the rapid growth of ICT

To promote the beneficial use of telecommunications, the ICT Vision Task Force recognizes the need to manage emerging risks, challenges and opportunities from the rapid growth of telecommunications. The ICT Vision Task Force focuses on enhancing the quality, reliability, sustainability and resilience of networks and systems as well as building confidence and security in the use of telecommunications. Accordingly, the ICT Vision Task Force will work to make it possible to seize of opportunities presented by telecommunications while working towards minimizing the negative impact of undesired collaterals.

Goal 5 – Collaboration: Strengthen cooperation and collaboration among the Suriname ICT stakeholders in support of the Suriname ICT Vision 2030

In order to facilitate the achievement of the above strategic goals, the ICT Vision Task Force recognizes the need to foster engagement and cooperation among governments, the private sector, civil society, intergovernmental and international organizations, and the academic and technical communities. The ICT Vision Task Force also recognizes the need to contribute to the global partnership to strengthen the role of telecommunication and placing Suriname on the world map.

1.5 Key Activities and Roadmap

The key activities represent the effect and long-term impact of ICT Vision Task Force works and provide an indication of progress towards achievement of the strategic goals. The ICT Vision Task Force will work collaboratively with the full range of other organizations and

entities in Suriname, whom are committed to advancing the use of ICT. The purpose of such a roadmap with key activities is to provide the direction where the ICT Vision Task Force should focus its attention and to materialize the ICT Vision 2030.

The following targets for each of the ICT Vision 2030 strategic goals reflect criteria that are specific, measurable, action-oriented, realistic, relevant, time-bound and traceable.

Goal 1: Innovation

- Target 1.1: By 2021, Implementation of Safe City Services for at least 50 strategical areas in Paramaribo.
- Target 1.2: By 2021, Implementation of Cloud Services: e-Gov Cloud for at least 80% of all governing ministries.
- Target 1.3: By 2021, Implementation of quadruple play services (voice, internet, video, multimedia) with engagement for at least 30% of Suriname's population.
- Target 1.4: By 2022, Implementation of e-Payment Services with at least 30% of the Surinamese population having access to these services, with prospects for retail and wholesale.
- Target 1.5: By 2022, Implementation of e-Health Services with at least 60% of all hospitals having access to these e-Health Services.
- Target 1.6: By 2023, Implementation of e-Education Services with at least 80% of all universities connected and making use of the e-Education platform, locally and abroad
- Target 1.7: By 2024, Implementation of e-Transport Services for at least 60% of licensed public and private transport services.
- Target 1.8: By 2025, Implementation of e-Tax Services for at least 80% of all large-and mid-size companies/ entities/ organizations in Suriname.
- Target 1.9: By 2027, Implementation of IoE Services, and where needed improvement of the e-Services in the following sectors: safety, government, financial, health, education and transport services.
- Target 1.10: By 2030, Implementation of Artificial Intelligence (Machine Learning) in the respective fields mentioned above.

Goal 2: Inclusiveness

- Target 2.1: By 2022, the telecommunication services affordability gap should be minimized, whereby broadband internet services should cost no more than 15% of average monthly income.
- Target 2.2: By 2022, gender equality in Internet usage and mobile phone ownership should be achieved by pro-active campaigning and direct marketing.
- Target 2.3: By 2024, enabling environments ensuring accessible ICT for persons with disabilities should be established in all areas in Suriname.
- Target 2.4: By 2025, at least 80% of the households in the populated districts (Paramaribo, Wanica & Nickerie) should have access to internet broadband services

and at least 60% of the households in the rural area districts (Coronie, Saramacca, Commewijne, Marowijne, Para, Brokopondo, Sipaliwini) should have access to internet broadband services.

- Target 2.5: By 2030, at least 95% of the households in the populated districts (Paramaribo, Wanica & Nickerie) should have access to internet broadband services and at least 75% of the households in the rural area districts (Coronie, Saramacca, Commewijne, Marowijne, Para, Brokopondo, Sipaliwini) should have access to internet broadband services.

Goal 3: Growth

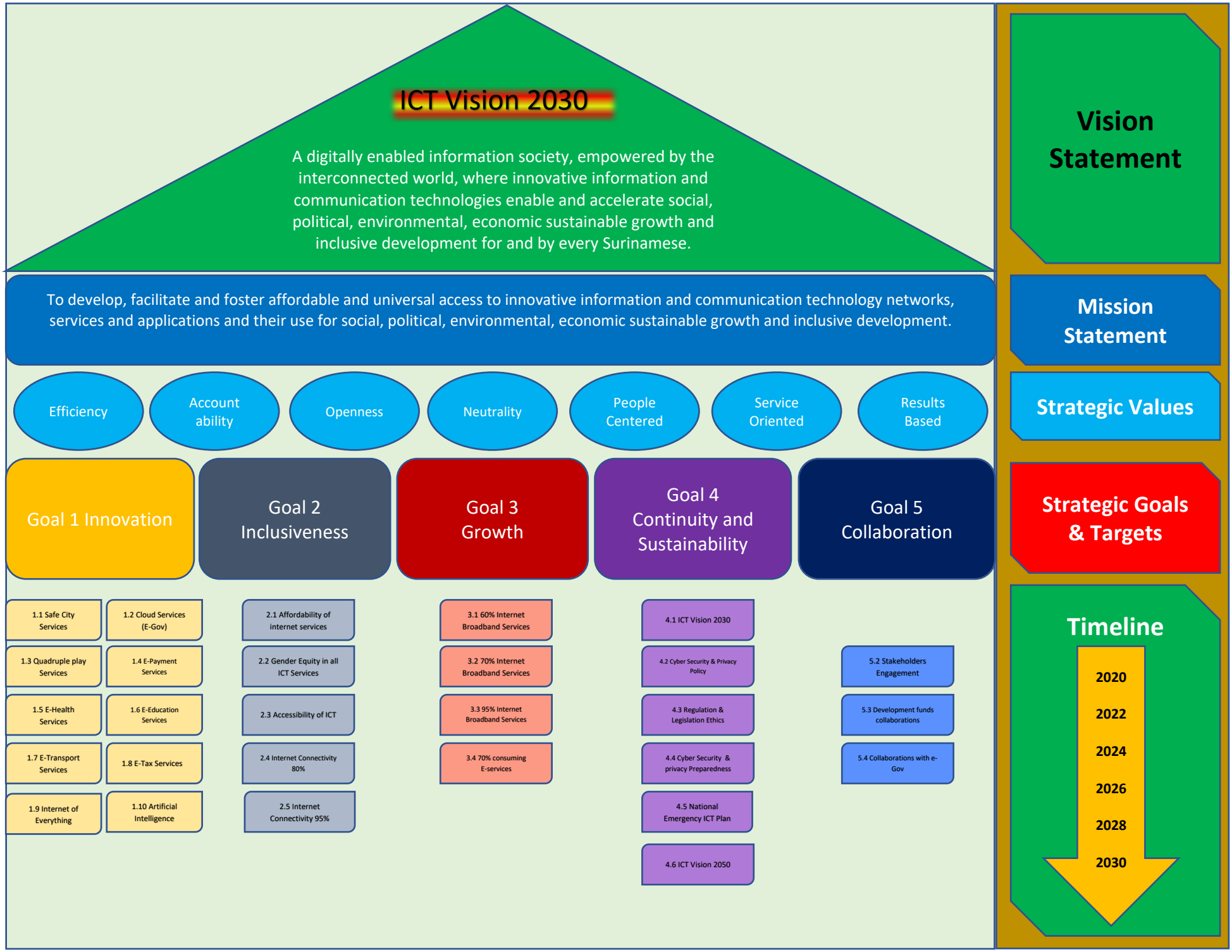
- Target 3.1: By 2022, at least 60% of the total population in Suriname should have access to internet broadband services with a minimal bandwidth of 10 Mbps download, where 50% of the population uses the internet on a daily basis.
- Target 3.2: By 2025, at least 70% of the total population in Suriname should have access to internet broadband services with a minimal bandwidth of 100 Mbps download, where 60% of the population uses the internet on a daily basis.
- Target 3.3: By 2030, at least 85% of the total population in Suriname should have access to internet broadband services with a minimal bandwidth of 1000 Mbps, where 70% of the population uses the internet on a daily basis.
- Target 3.4: By 2030, 70% of the population should be actively interacting and consuming the innovative e-Services (see Goal 1) in the following sectors: safety, government, financial, health, education and transport services.

Goal 4: Continuity & Sustainability

- Target 4.1: By 2021, Compilation of the ICT Vision 2030 Strategy with identification, adoption, commitment and collaboration perspectives.
- Target 4.2: By 2022, Compilation of cyber security & privacy policy for Suriname, focusing on digital development and growth, taking into consideration international policy and governance frameworks.
- Target 4.3: By 2022, Compilation of regulation and legislation ethics and policies of the ICT Law, Strategy, Processes, Service Levels, etc.
- Target 4.4: By 2023, Improve the cybersecurity & privacy preparedness of Suriname, with key capabilities such as: presence of strategy, national computer incident/emergency response teams.
- Target 4.5: By 2025, Compilation of a National emergency Telecommunication Plan as part of the national and local disaster risk reduction strategies.
- Target 4.6: By 2030, Evaluation of the ICT Vision 2030 Strategic framework and consolidation for ICT Vision 2050.

Goal 5: Collaboration

- Target 5.1: Increased effective partnerships with stakeholders and cooperation with other organization and entities in/ affiliated with the ICT environment (locally and abroad), by workshops, seminars, associations, national campaigns, etc.
- Target 5.2: Stakeholders engagement & implementation plan for all the targets given per goal above.
- Target 5.3: Provide overview, raise awareness and secure available development funds for ICT Vision 2030 implementation, process of secured loans (non-banks) and crowd funding.
- Target 5.4: Focused collaboration with government ministries for implementation of the e-Services given in goal 1.


ICT Vision 2030
A digitally enabled information society, empowered by the interconnected world, where innovative information and communication technologies enable and accelerate social, political, environmental, economic sustainable growth and inclusive development for and by every Surinamese.
Vision Statement
To develop, facilitate and foster affordable and universal access to innovative information and communication technology networks, services and applications and their use for social, political, environmental, economic sustainable growth and inclusive development.
Mission Statement
Efficiency
Account ability
Openness
Neutrality
People Centered
Service Oriented
Results Based
Strategic Values
Goal 1 Innovation
Goal 2 Inclusiveness
Goal 3 Growth
Goal 4 Continuity and Sustainability
Goal 5 Collaboration
Strategic Goals & Targets
1.1 Safe City Services
1.2 Cloud Services (E-Gov)
1.3 Quadruple play Services
1.4 E-Payment Services
1.5 E-Health Services
1.6 E-Education Services
1.7 E-Transport Services
1.8 E-Tax Services
1.9 Internet of Everything
1.10 Artificial Intelligence
2.1 Affordability of internet services
2.2 Gender Equity in all ICT Services
2.3 Accessibility of ICT
2.4 Internet Connectivity 80%
2.5 Internet Connectivity 95%
3.1 60% Internet Broadband Services
3.2 70% Internet Broadband Services
3.3 95% Internet Broadband Services
3.4 70% consuming E-services
4.1 ICT Vision 2030
4.2 Cyber Security & Privacy Policy
4.3 Regulation & Legislation Ethics
4.4 Cyber Security & privacy Preparedness
4.5 National Emergency ICT Plan
4.6 ICT Vision 2050
5.2 Stakeholders Engagement
5.3 Development funds collaborations
5.4 Collaborations with e-Gov
Timeline
2020
2022
2024
2026
2028
2030

2. The ICT Vision 2030 Strategy Risk Management

2.1 ICT Vision 2030 Risk Assessment Scope Definition

From a strategic management point of view the risk assessment has been conducted in order to safeguard adequate implementation of the Suriname ICT Vision 2030. Further detailed information about the results is elaborated in the next sections.

The Risk Assessment has been undertaken bearing in mind the prevailing challenges, evolutions and transformations that could potentially have the most impact and the highest vulnerability on an adequate implementation of the Suriname ICT Vision 2030.

These risks have been cautiously considered when planning the strategy for 2030, with identification of the corresponding mitigation measures. It should be emphasized that the strategic risks are not meant to infringe any deficiencies of any stakeholder i.e. TCT, Telesur, TAS and ICT-AS. The assessment merely represents the forward-looking uncertainties which may affect the timeline, costs and outcomes.

The strategic risks have been identified, analyzed and assessed taking into account generic strategic planning and implementation processes. The overall framework on how to mitigate these risks from tactical and operational risk mitigation-, avoidance- and allowance standpoints, with definition of responsibilities and accountabilities, has not been consolidated in this phase of strategy conciliation, however it is strongly recommended to include this before implementation of the ICT Vision related activities. Furthermore, a correlation analysis and collaboration with the National Risk Assessment Taskforce is highly recommended.

2.2 ICT Vision 2030 Risk Assessment Results

Risk is an uncertain event or condition that, if it occurs, has a positive or negative effect on any ongoing or planned operational activity or project. The risk occurrence may influence the corporate objectives taking account of the scope, schedule, cost and quality. A risk may have one or more causes and, if it occurs, it may have one or more impacts. All risks are evaluated based on impact and probability of occurrence(s). Response plans are required to reduce threats in order to safeguard continuity and adequate realization of corporate objectives.

The following factors are defined for the undertaken strategic risk management assessment framework.

Risk Classification:

1. External Risks: Risks from third party vendors, service providers, alliances, external market, political, social, cultural and environmental factors.
2. Technological Risks: Risks arising from instable or outdated technology.

3. Stakeholder Risks: lack of support, management failure, organizational structure.
4. Regulatory Risks: Noncompliance of rules and regulations, policies.
5. Strategy Execution Risks: Risks arising due to lack of resources, poorly managed strategy scope, non-commitment of management.
6. Legal Risks: Noncompliance of current or future applicable laws and ethical standards.
7. Release Risks: Risks arising due to failure in delivery of products and services.
8. Reputation Risks: Risks from negative customer experience, feedback, perception to the organization reputation in the market.

Risk Description: Provides risk elements associated with specific risk classification.

Impact Severity: Provides the impact severity from 1 – 5, with 5 being the highest impact and 1 the smallest impact:

1. Little or no impact
2. Minor impact
3. Moderate impact
4. Significantly impacted
5. Highest impact

Risk Probability: Determines the probability the risk will occur. Provide the probability 1 – 5 with 5 being the highest and 1 the smallest probability:

1. <= 10%
2. >= 10%
3. > 25%
4. > 50%
5. > 75%

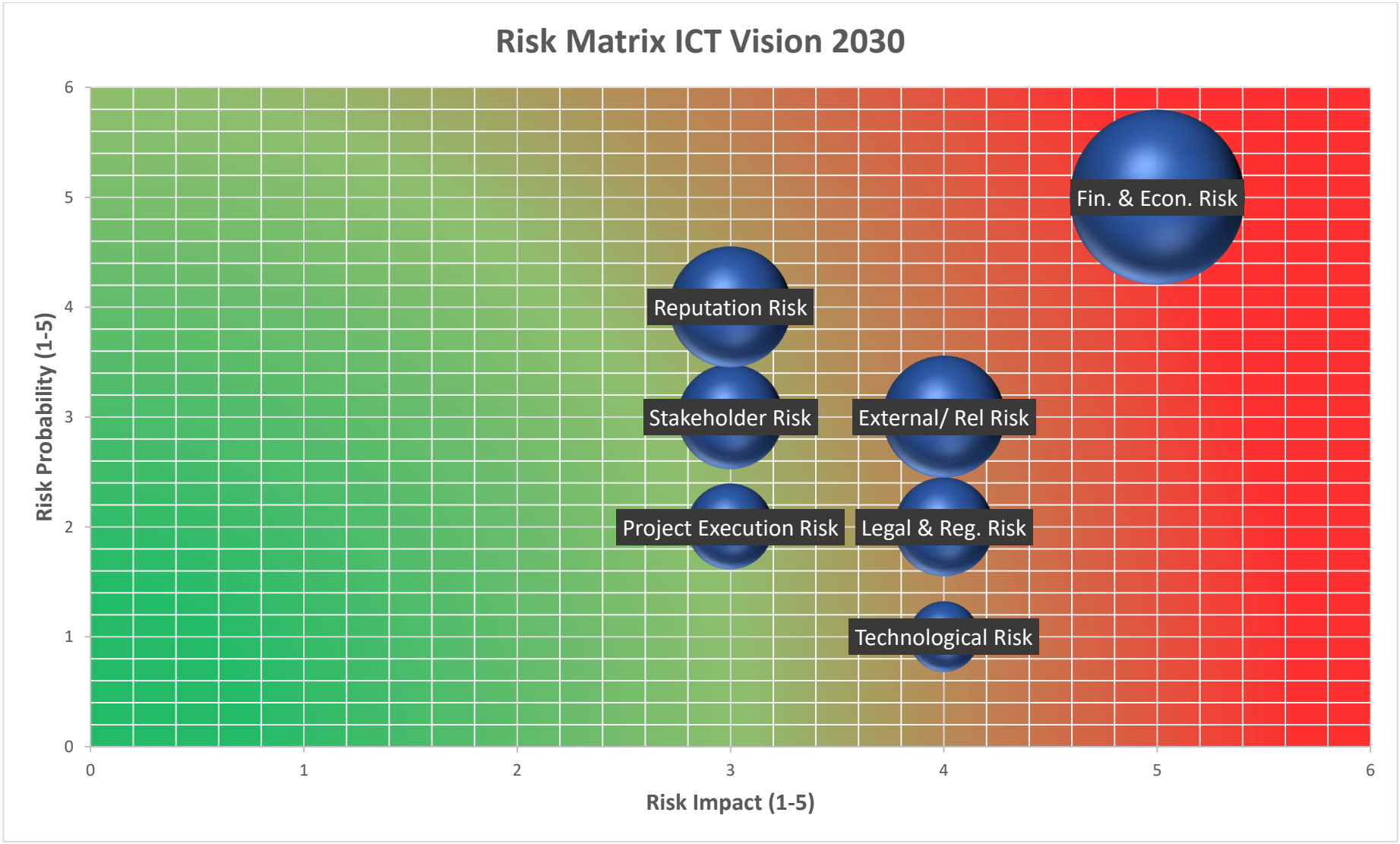
Risk Score: Impact x Probability.

Response Plan: Plan risk response based on the risk score. Base plan as Correction Plans, Prevention Plans and Warning Plans.

Responsible: Entity responsible for implementing the response plan.

Timeline: Timeline for implementation of the response plan.
The responsible and timeline columns are left out, since these are part of the operational risk readiness assessment.

#	Risk Classification	Risk Description	Impact Severity (1-5)	Risk Probability (1-5)	Risk Score (Impact x Probability)	Response Plan	
1	External Risks	Risks from third party vendors, service providers, strategical alliances, local and international markets, risks arising from political, social, cultural, demographic and environmental factors	4	3	12	Adequate and timely contractual procurement of all identified partnering bodies or organizations.	
2	Technological Risks	Risks arising from instable-non compliant-non proven and/ or outdated technology	4	1	4	Focus on innovation, research and development action plans. Define detailed compliancy requirements for all products and services.	
3	Stakeholder Risks	Lack of commitment henceforth support, management failure	3	3	9	Stakeholder definition, identification, engagement and constant optimization.	
4	Financial & Economical Risks	Risks which arise from uncertainties in financial and economical levels	5	5	25	Scenario based business plan focusing on economies of scales. Funding management plan.	
5	Project Execution Risks	Risks arising due to lack of resources, poorly managed vision scope, non-commitment of stakeholders, etc.	3	2	6	Resource plan with RACI. WBS Plan, Execution, Monitoring & Control mechanisms.	
6	Legal & Regulatory Risks	Noncompliance of applicable laws, ethical standards, Regulatory: noncompliance of rules and regulations, policies	4	2	8	Constant local/ international compliancy review and validation. Policy/ regulators as stakeholders.	
7	Release Risks	Risks arising due to failure in delivery of products and services	4	3	12	Vision targets monitoring and control process.	
8	Reputation Risks	Risks from negative customer experience, feedback, perception to the organization reputation in the market	3	4	12	Communication Management Plan.	


Risk Matrix ICT Vision 2030
Risk Probability (1-5)
Risk Impact (1-5)
0
1
2
3
4
5
6
Fin. & Econ. Risk
Reputation Risk
Stakeholder Risk
External/ Rel Risk
Project Execution Risk
Legal & Reg. Risk
Technological Risk

3. Implementation Criteria & Action plan

The implementation criteria outlines the framework that enables proper identification of appropriate activities set out in time, costs and responsibilities for the Suriname ICT Vision 2030 so that the vision, mission, goals and key activities are achieved in a most effective and efficient manner.

Vision Goals	Target	Deadline	Costs	Project Sponsor	Senior Supplier
Goal 1 Innovation	1.1 Safe City Service implementation in Paramaribo for 50 locations	2021		e-Gov/ TCT	Telesur
	1.2 e-Gov cloud implementation for 80% of government bodies	2021		e-Gov/ TCT	Telesur Datasur
	1.3 Implementation of quadruple play services with 30% market penetration	2021		Telesur	Telesur
	1.4 Implementation of e-Payment services with 30% market penetration	2022		Telesur e-Gov/ TCT CBvS	Telesur BNETS Commercial banks
	1.5 Implementation of e-Health services with 60% of hospitals connected	2022		e-Gov/ TCT	Government Health organizations
	1.6 Implementation of e-Education services with 80% of universities connected	2023		e-Gov/ TCT	Government Educational Institutions
	1.7 Implementation of e-Transport services with 60% market penetration	2024		e-Gov/ TCT	Government Transport organizations
	1.8 Implementation of e-Tax services with 80% market penetration	2025		e-Gov/ TCT	Government Tax organization
	1.9 Implementation of IoE services in relevant sectors	2027		Telesur	Telesur
	1.10 Implementation of Artificial Intelligence	2030		Telesur	Telesur
Goal 2 Inclusiveness	2.1 Minimization of the telecommunication affordability gap: not more than 15% of average monthly income	2021		TAS	TAS
	2.2 Gender equity in Internet and mobile phone accessibility and usage	2022		TAS	TAS
	2.3 Ensuring accessible ICT for persons with disabilities	2024		TAS Telesur	Government
	2.4 Access to internet broadband services with market penetration of 80% populated areas and 60% rural areas	2025		Telesur	Telesur
	2.5 Access to internet broadband services with market penetration of 95% populated areas and 75% rural areas	2030		Telesur	Telesur
Goal 3 Growth	3.1 National access to internet broadband services with market penetration of 60% and minimal bandwidth of 10 Mbps download	2021		Telesur	Telesur

Vision Goals	Target	Deadline	Costs	Project Sponsor	Senior Supplier
	3.2 National access to internet broadband services with market penetration of 70% and minimal bandwidth of 100 Mbps download	2025		Telesur	Telesur
	3.3 National access to internet broadband services with market penetration of 85% and minimal bandwidth of 1000 Mbps download	2030		Telesur	Telesur
	3.4 National access and use of e-Services with market penetration of 70%	2030		Telesur	Telesur
Goal 4 Continuity and Sustainability	4.1 ICT Vision 2030 alignment and approval	2021		TCT	ICT-As
	4.2 Compilation of cyber security & privacy policy for Suriname	2022		TAS	TAS e-Gov ICT-As
	4.3 Compilation of ICT related regulation and legislation ethics and policies	2022		TAS	TAS e-Gov ICT-As
	4.4 Improvement of cyber security & privacy preparedness	2022		TAS	TAS e-Gov ICT-As
	4.5 Compilation and implementation of National emergence Telecommunication plan	2025		TAS	TAS e-Gov ICT-As
	4.6 Evaluation of ICT Vision 2030 and ICT Vision 2050 alignment and approval	2030		TCT	ICT-As
Goal 5 Collaboration	5.1 Increased effectiveness of partnerships	2021		ICT-As	ICT-As
	5.2 Stakeholders engagement & implementation plan for ICT Vision 2030	2021		ICT-As TCT	ICT-As
	5.3 Provide overview, raise awareness and secure available development funds for implementation of ICT Vision 2030	2022		TCT	ICT-As
	5.4 Focused collaboration with government ministries for implementation of e-Services	2022		e-Gov TCT	ICT-As

The information for costs estimations will be added after the scope definition is completed.

4. Suriname ICT Vision 2030 and the SDGs

The Sustainable Development Goals (SDGs) are seventeen global goals set by the United Nations in 2015 to transform and develop our world and its total existence. Its a blueprint for a better and more sustainable future for all of us. The goals put forward the global challenges we face, including challenges related to poverty, inequality, climate, environmental degradation, prosperity, peace and justice. These goals are associated with each other to prevent anyone from falling out, and we have to achieve every goal by 2030, which leaves us less than nine years from now.

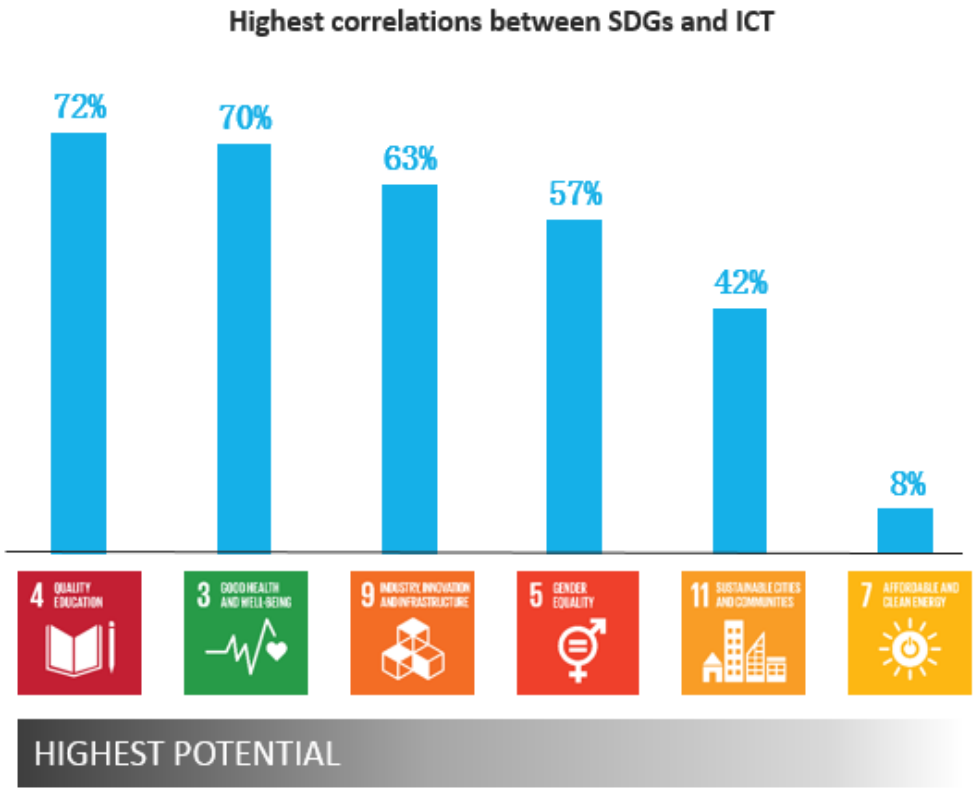
Why is it important to accelerate progress?
The United Nations information shows:

- Over 265 million children are currently out of school and 22% of them are of primary school age.
- 16% of the global population does not have access to mobile broadband networks.
- At the current time, however, manufacturing value added per capita is only US$100 in the least developed countries compared to over US$4,500 in Europe and Northern America.

These figures express the arduousness of the challenges of changing these situations. Although there has been a positive trend, the transition to the development path required to

achieve the goal by 2030 has not yet reached the required speed, which requires us to work together to develop more favorable policies to accelerate the achievement of SDGs through more innovative solutions.

The figure below illustrates which of the seventeen SDGs have the highest correlation with ICT, henceforth Suriname ICT Vision 2030.



Sustainable development goals with high relevance to ICT

SDG 4: Quality Education

In the future, all development is inseparable from talents and culture. However, there are currently more than 265 million children out of school worldwide, which greatly hinders social and economic development. The high correlation between SDG 4 and ICT skills indicates that a country's overall education level is closely related to its ICT education and training level. Only when the need for the required skills is satisfied can we promote the fair development

of the whole society i.e. Suriname, henceforth the target of implementation of e-Education under Goal 1 of the Suriname ICT Vision 2030.

SDG 3: Good Health & Well-Being

Worldwide up to 6 million children still die each year before their fifth birthday: from childbirth, lack of vaccinations or proper food. ICT infrastructure can improve health coverage and provide access to affordable medicines and vaccines for all. Digital access can help make healthcare access a lifelong right for every person, henceforth the target of implementation of e-Health under Goal 1 of the Suriname ICT Vision 2030.

SDG 9: Industry, Innovation and Infrastructure

16% of the global population does not have access to mobile broadband networks. Research has found that people and organizations' ability to access and use ICT services is more likely to drive economic development than ICT education and skills. Therefore, countries should focus on improving the access and use of ICTs, increase investment in industry, innovation and infrastructure, promote industrial development, and enable people to enjoy the social and economic dividends brought about by ICT development and promote social equity development. Henceforth the specific focus on growth in accessibility and inclusion to broadband access services in Goal 2 and 3 of the Suriname ICT Vision 2030.

SDG 5: Gender equality

The United Nations Sustainable Development Agenda shows that the number of girls enrolled in schools has increased significantly compared to 2000, indicating that investing in ICT

construction in this area can also bring huge benefits. The relevance of SDG 5 to ICT use and skills is 57%, which is higher than the relevance of ICT access, which may indicate that we can promote the progress of SDG 5 – gender equality – by increasing women's ICT education, training and ICT use opportunities. Henceforth the focus of inclusion and collaboration for Goals 2 and 4 in the Suriname ICT Vision 2030.

Three critical pathways for ICT to drive sustainable development in Suriname:

Increase access to information and services
ICT infrastructure, the connectivity it provides, and availability of devices such as mobile phones, tablets, and computers play a major role in enabling access to information and services for individuals and organizations in both developed and developing nations, which can form a basis for progress on almost all SDGs in some way. Inequitable access to resources, information, education, and services of all kinds exacerbates disparities worldwide.

Increase connectivity between people and organizations
Increased access leads to better connectivity and communication between people, homes, intelligent devices, IoT nodes, and the companies and organizations people interface with at an instantaneous or near-instantaneous speed. This can increase productivity and innovation for a broad range of sectors and communities, and provide the real-time communications needed for rapid scaling of critical human-oriented services.

Increase productivity and resource efficiency
The access to information and communication ICT provides holds immense potential to raise the productivity and efficiency of many human activities. Digital technologies provide solutions for more efficient ways to collect and analyze large sets of data with the help of big data analytical tools, which has wide-ranging implications for SDG progress.

In general, we can say that ICT is the enabler of all SDGs, for example: for financials inclusion we need to have digital inclusion, the health-, education- and all other sectors cannot exist without ICT.

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